

# Appendix A

## Traffic Data

## Turning Movement Count - Study Results

### BANK ST @ HERON RD

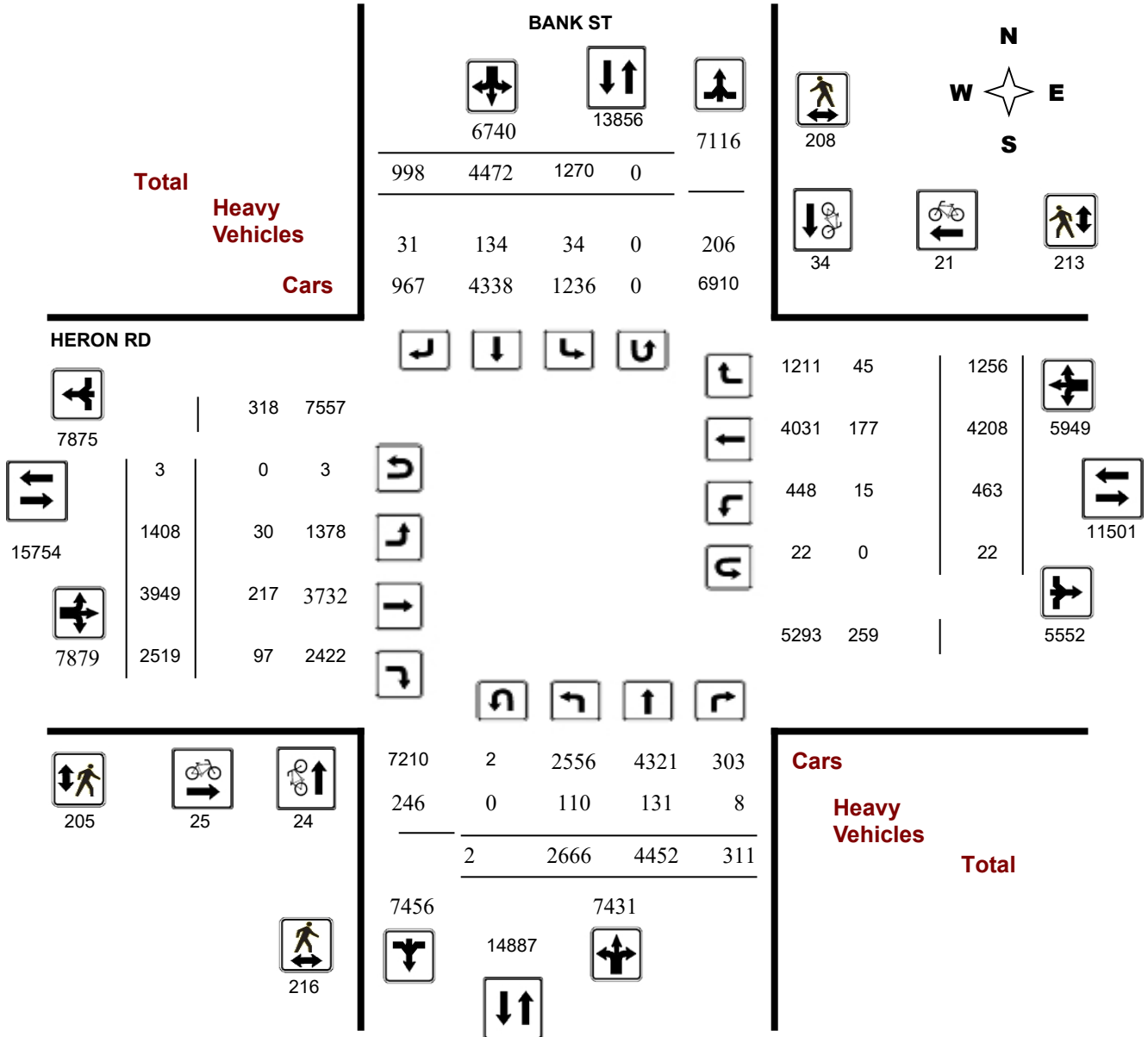
**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study Diagram



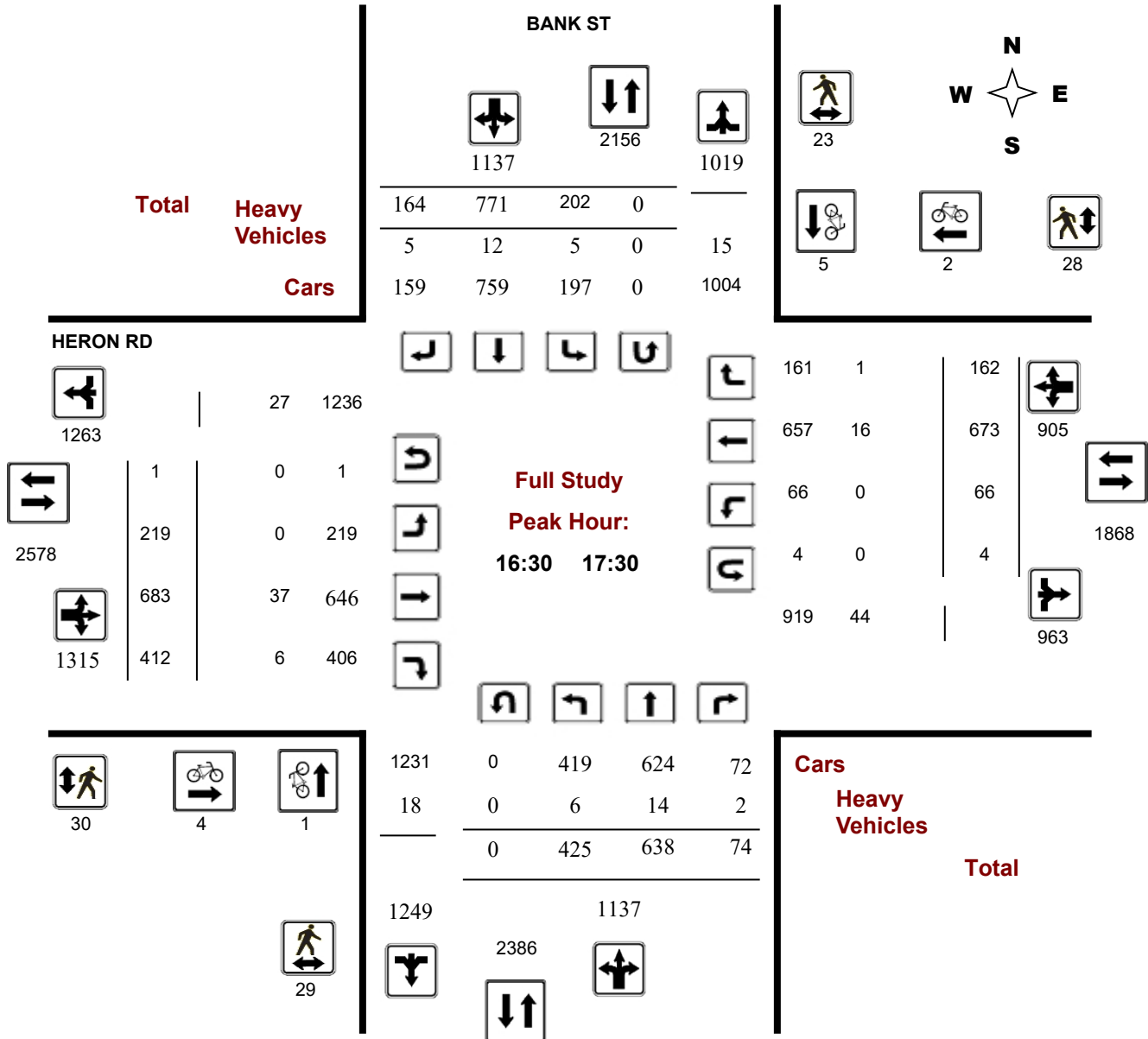
**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study Peak Hour Diagram



## Turning Movement Count - Peak Hour Diagram

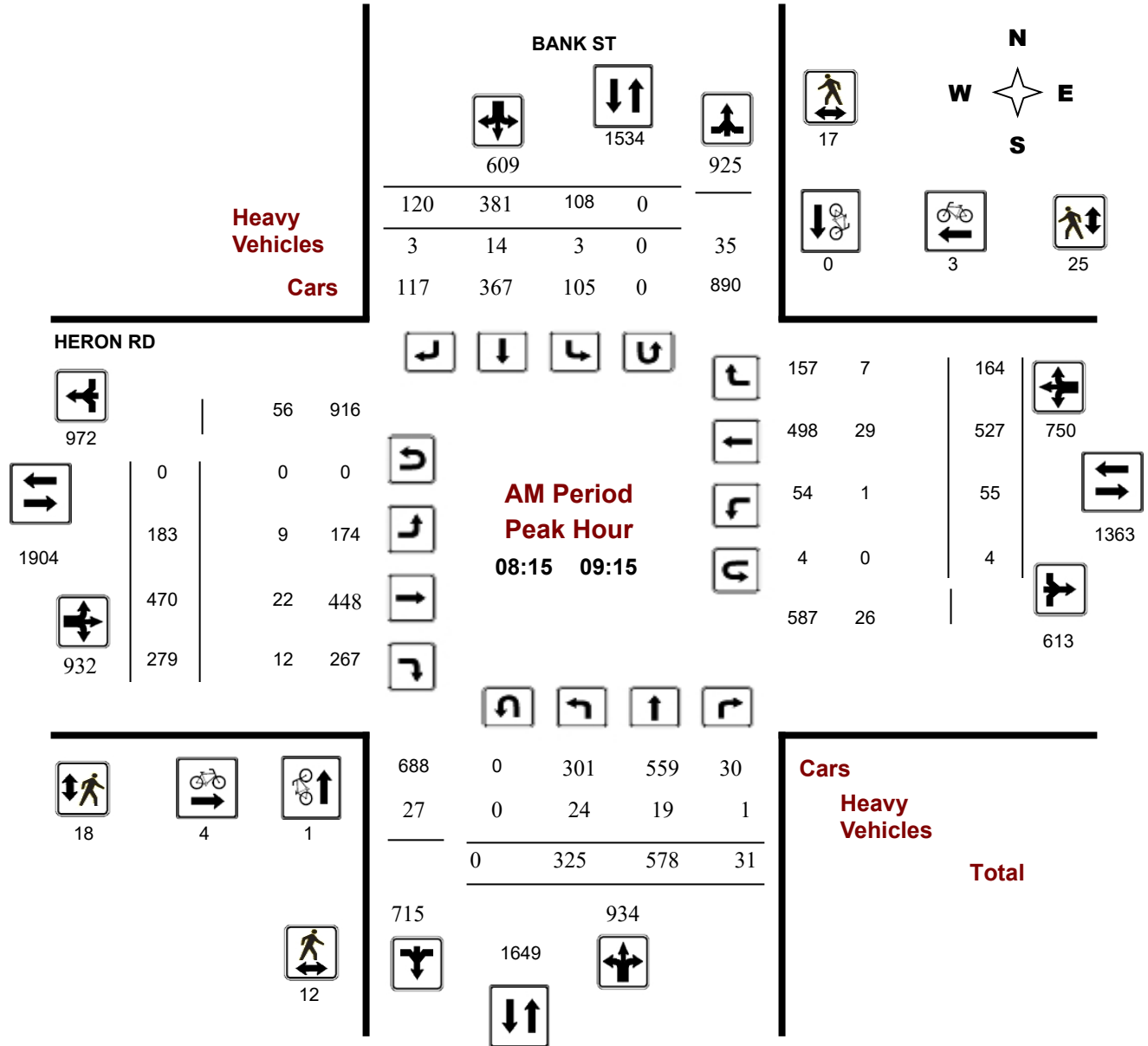
### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**Start Time:** 07:00

**WO No:** 40563

**Device:** Miovision



## Turning Movement Count - Peak Hour Diagram

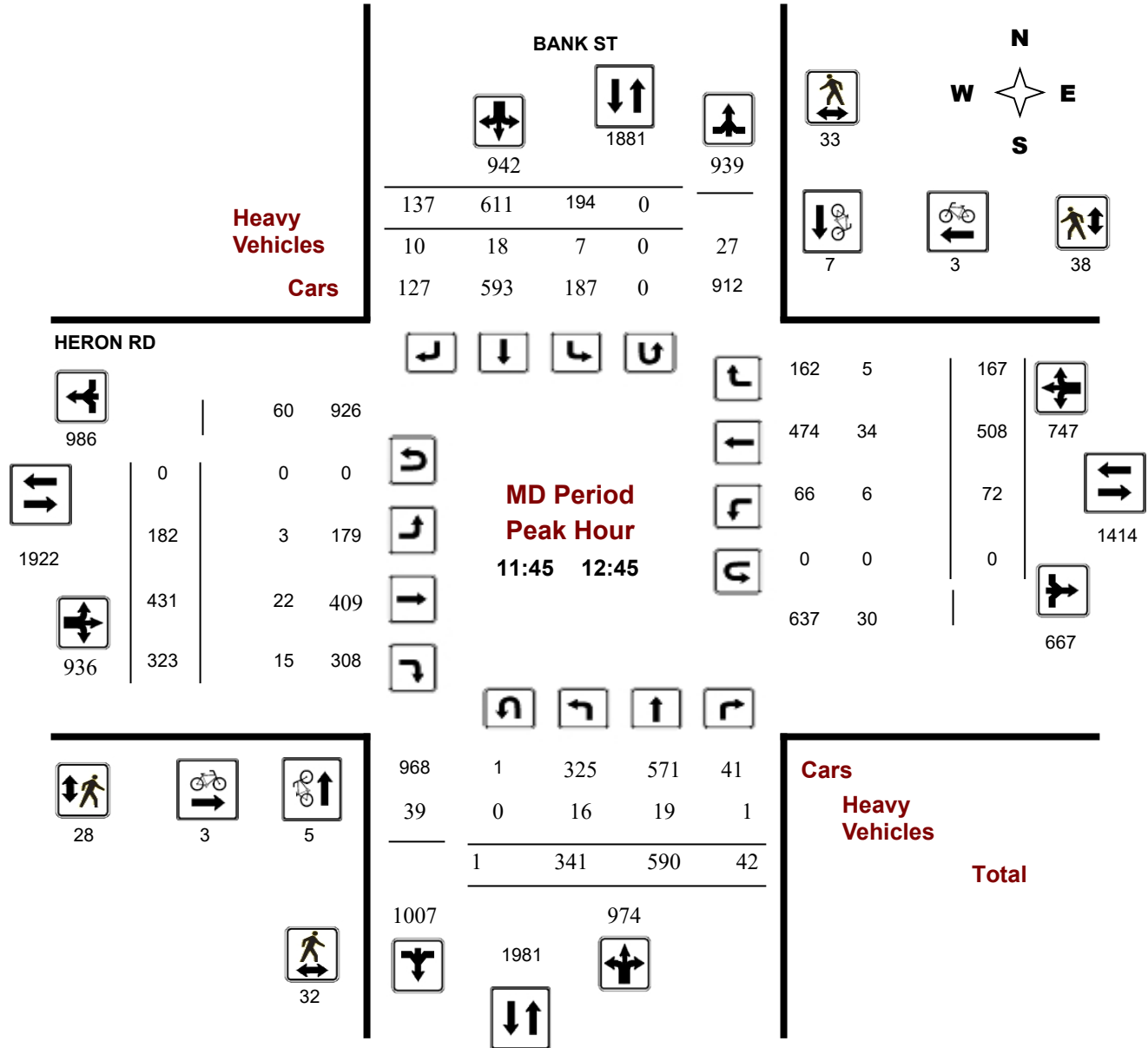
### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**Start Time:** 07:00

**WO No:** 40563

**Device:** Miovision



**Comments**

## Turning Movement Count - Peak Hour Diagram

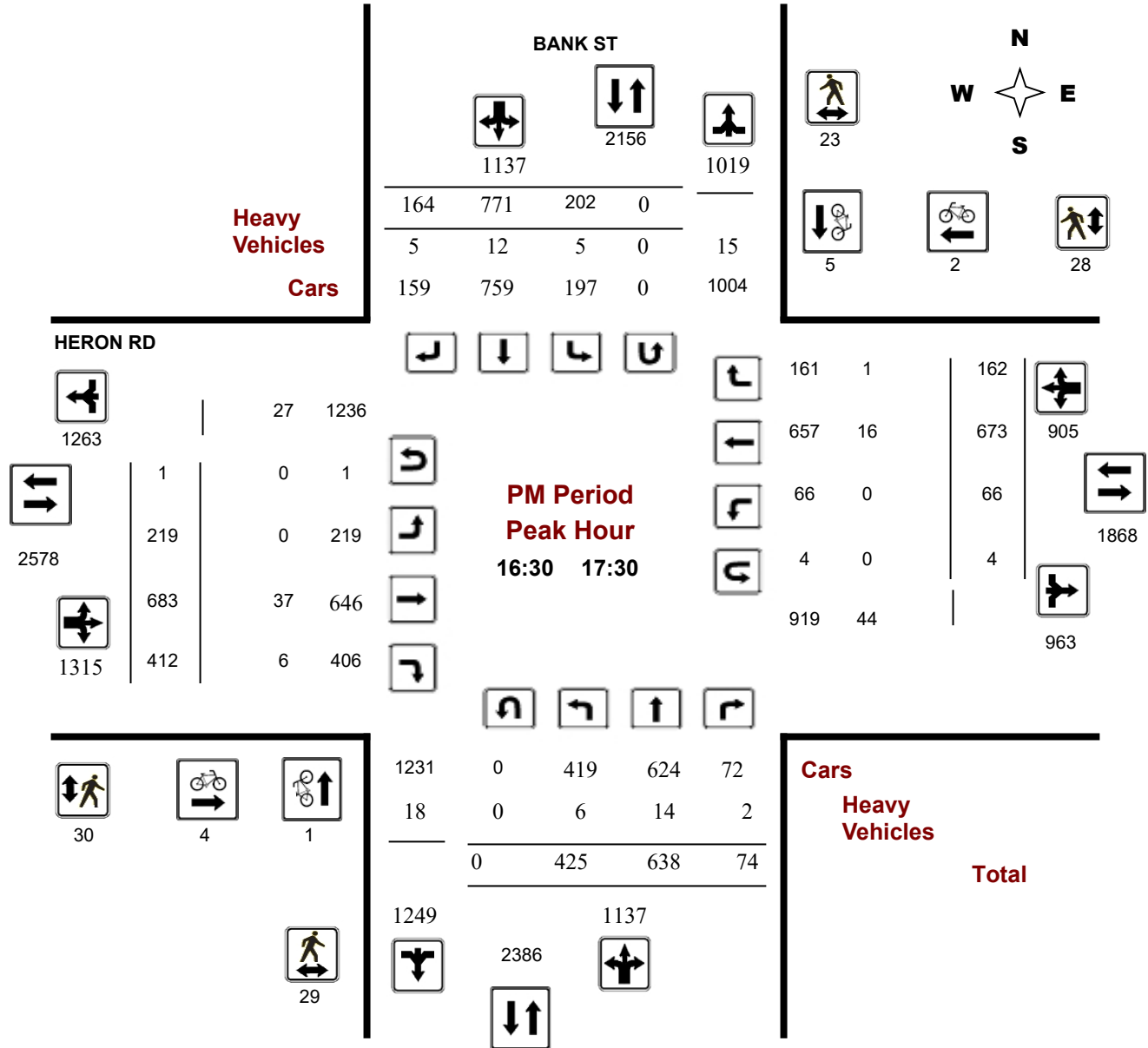
### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**Start Time:** 07:00

**WO No:** 40563

**Device:** Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study Summary (8 HR Standard)

**Survey Date:** Wednesday, August 31, 2022

**Total Observed U-Turns**

**AADT Factor**

Northbound: 2      Southbound: 0  
 Eastbound: 3      Westbound: 22

.90

BANK ST										HERON RD										Grand Total
Northbound					Southbound					Eastbound					Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT		
07:00 08:00	260	374	15	649	87	281	60	428	1077	94	400	201	695	42	414	106	562	1257	2334	
08:00 09:00	324	568	25	917	104	347	97	548	1465	163	490	238	891	54	537	157	748	1639	3104	
09:00 10:00	274	519	28	821	122	461	129	712	1533	177	357	283	817	54	431	145	630	1447	2980	
11:30 12:30	337	586	40	963	185	578	133	896	1859	206	395	320	921	73	530	161	764	1685	3544	
12:30 13:30	312	597	46	955	191	641	136	968	1923	157	441	278	876	68	392	187	647	1523	3446	
15:00 16:00	348	602	45	995	185	683	146	1014	2009	192	579	371	1142	58	559	173	790	1932	3941	
16:00 17:00	401	578	55	1034	206	750	150	1106	2140	225	657	414	1296	63	735	171	969	2265	4405	
17:00 18:00	410	628	57	1095	190	731	147	1068	2163	194	630	414	1238	51	610	156	817	2055	4218	
<b>Sub Total</b>	2666	4452	311	7429	1270	4472	998	6740	14169	1408	3949	2519	7876	463	4208	1256	5927	13803	27972	
<b>U Turns</b>				2				0	2				3				22	25	27	
<b>Total</b>	2666	4452	311	7431	1270	4472	998	6740	14171	1408	3949	2519	7879	463	4208	1256	5949	13828	27999	
<b>EQ 12Hr</b>	3706	6188	432	10329	1765	6216	1387	9369	19698	1957	5489	3501	10952	644	5849	1746	8269	19221	38919	
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													<b>1.39</b>							
<b>AVG 12Hr</b>	3335	5569	389	9296	1588	7329	1636	8432	17728	1761	4940	3151	9857	580	5264	1571	7442	17299	35027	
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													<b>.90</b>							
<b>AVG 24Hr</b>	4369	7295	510	12178	2080	9601	2143	11046	23224	2307	6471	4128	12913	760	6896	2058	9749	22662	45885	
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.													<b>1.31</b>							
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.																				



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute Increments

#### BANK ST

#### HERON RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00-07:15	48	79	2	129	21	73	12	106	235	13	75	42	130	14	77	19	111	241	476
07:15-07:30	65	81	1	147	19	54	12	85	232	18	75	54	147	8	91	25	124	271	503
07:30-07:45	68	96	7	171	20	76	14	110	281	25	98	49	172	10	128	26	164	336	617
07:45-08:00	79	118	5	202	27	78	22	127	329	38	152	56	246	10	118	36	165	411	740
08:00-08:15	70	131	2	203	23	83	13	119	322	33	129	60	222	11	127	33	171	393	715
08:15-08:30	75	165	6	246	25	69	17	111	357	45	131	47	223	12	133	33	178	401	758
08:30-08:45	83	109	7	199	29	108	39	176	375	39	103	63	205	17	128	40	186	391	766
08:45-09:00	96	163	10	269	27	87	28	142	411	46	127	68	241	14	149	51	215	456	867
09:00-09:15	71	141	8	220	27	117	36	180	400	53	109	101	263	12	117	40	171	434	834
09:15-09:30	76	118	7	201	30	108	21	159	360	43	64	54	161	8	96	40	145	306	666
09:30-09:45	67	121	5	193	30	121	44	195	388	33	106	58	197	17	108	32	160	357	745
09:45-10:00	60	139	8	207	35	115	28	178	385	48	78	70	196	17	110	33	160	356	741
11:30-11:45	75	146	9	230	45	131	35	211	441	60	95	63	218	19	131	42	194	412	853
11:45-12:00	87	144	9	241	46	151	34	231	472	54	106	83	243	16	150	39	205	448	920
12:00-12:15	71	135	11	217	46	150	31	227	444	57	100	106	263	14	131	44	189	452	896
12:15-12:30	104	161	11	276	48	146	33	227	503	35	94	68	197	24	118	36	178	375	878
12:30-12:45	79	150	11	240	54	164	39	257	497	36	131	66	233	18	109	48	175	408	905
12:45-13:00	86	167	9	262	37	160	25	222	484	43	126	64	233	15	112	60	187	420	904
13:00-13:15	66	149	12	227	47	160	32	239	466	29	87	76	192	22	88	36	146	338	804
13:15-13:30	81	131	14	226	53	157	40	250	476	49	97	72	218	13	83	43	139	357	833
15:00-15:15	72	158	10	240	35	173	44	252	492	39	129	83	251	21	134	48	204	455	947
15:15-15:30	84	162	12	258	48	170	32	250	508	62	130	95	287	13	138	39	190	477	985
15:30-15:45	101	142	8	251	52	162	39	253	504	44	133	89	267	10	151	36	197	464	968
15:45-16:00	91	140	15	246	50	178	31	259	505	47	187	104	338	14	136	50	202	540	1045
16:00-16:15	92	142	14	249	40	173	29	242	491	55	154	107	317	12	185	35	233	550	1041
16:15-16:30	109	141	10	260	53	193	30	276	536	48	163	94	305	16	209	52	277	582	1118
16:30-16:45	98	147	17	262	59	195	43	297	559	59	167	118	344	23	177	48	249	593	1152
16:45-17:00	102	148	14	264	54	189	48	291	555	63	173	95	332	12	164	36	213	545	1100
17:00-17:15	118	173	14	305	38	172	43	253	558	43	201	85	329	18	167	44	230	559	1117
17:15-17:30	107	170	29	306	51	215	30	296	602	54	142	114	310	13	165	34	213	523	1125
17:30-17:45	89	135	9	233	52	183	35	270	503	47	160	124	331	10	154	47	211	542	1045
17:45-18:00	96	150	5	251	49	161	39	249	500	50	127	91	268	10	124	31	167	435	935
<b>Total:</b>	<b>2666</b>	<b>4452</b>	<b>311</b>	<b>7431</b>	<b>1270</b>	<b>4472</b>	<b>998</b>	<b>6740</b>	<b>14171</b>	<b>1408</b>	<b>3949</b>	<b>2519</b>	<b>7879</b>	<b>463</b>	<b>4208</b>	<b>1256</b>	<b>5949</b>	<b>13828</b>	<b>27,999</b>

Note: U-Turns are included in Totals.





# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study Cyclist Volume

Time Period	BANK ST			HERON RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	1	1	0	0	0	1
07:15 07:30	0	0	0	1	0	1	1
07:30 07:45	1	0	1	0	0	0	1
07:45 08:00	1	0	1	0	0	0	1
08:00 08:15	1	0	1	0	1	1	2
08:15 08:30	0	0	0	1	0	1	1
08:30 08:45	1	0	1	2	1	3	4
08:45 09:00	0	0	0	1	2	3	3
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	1	0	1	0	0	0	1
09:30 09:45	2	5	7	1	0	1	8
09:45 10:00	2	3	5	1	1	2	7
11:30 11:45	1	3	4	1	1	2	6
11:45 12:00	2	1	3	2	0	2	5
12:00 12:15	1	1	2	1	1	2	4
12:15 12:30	1	2	3	0	1	1	4
12:30 12:45	1	3	4	0	1	1	5
12:45 13:00	1	1	2	1	1	2	4
13:00 13:15	0	2	2	1	2	3	5
13:15 13:30	1	0	1	0	0	0	1
15:00 15:15	1	1	2	1	1	2	4
15:15 15:30	1	1	2	0	1	1	3
15:30 15:45	0	0	0	1	0	1	1
15:45 16:00	0	1	1	2	1	3	4
16:00 16:15	3	1	4	1	1	2	6
16:15 16:30	0	0	0	1	1	2	2
16:30 16:45	0	1	1	0	1	1	2
16:45 17:00	1	1	2	1	0	1	3
17:00 17:15	0	1	1	2	1	3	4
17:15 17:30	0	2	2	1	0	1	3
17:30 17:45	0	3	3	1	1	2	5
17:45 18:00	1	0	1	1	1	2	3
<b>Total</b>	<b>24</b>	<b>34</b>	<b>58</b>	<b>25</b>	<b>21</b>	<b>46</b>	<b>104</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study Pedestrian Volume

#### BANK ST

#### HERON RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	1	1	0	0	0	1
07:15 07:30	1	2	3	1	3	4	7
07:30 07:45	2	2	4	4	2	6	10
07:45 08:00	5	10	15	4	9	13	28
08:00 08:15	1	0	1	5	4	9	10
08:15 08:30	2	3	5	3	5	8	13
08:30 08:45	3	4	7	3	3	6	13
08:45 09:00	2	4	6	6	7	13	19
09:00 09:15	5	6	11	6	10	16	27
09:15 09:30	11	4	15	6	1	7	22
09:30 09:45	4	6	10	7	3	10	20
09:45 10:00	1	1	2	5	5	10	12
11:30 11:45	9	7	16	7	10	17	33
11:45 12:00	7	8	15	10	4	14	29
12:00 12:15	7	9	16	5	13	18	34
12:15 12:30	6	7	13	7	11	18	31
12:30 12:45	12	9	21	6	10	16	37
12:45 13:00	9	13	22	8	7	15	37
13:00 13:15	18	15	33	8	8	16	49
13:15 13:30	11	11	22	6	10	16	38
15:00 15:15	11	1	12	7	9	16	28
15:15 15:30	6	3	9	4	2	6	15
15:30 15:45	7	14	21	16	14	30	51
15:45 16:00	8	19	27	14	9	23	50
16:00 16:15	14	5	19	10	7	17	36
16:15 16:30	14	9	23	5	11	16	39
16:30 16:45	6	6	12	10	10	20	32
16:45 17:00	7	3	10	5	3	8	18
17:00 17:15	5	6	11	6	6	12	23
17:15 17:30	11	8	19	9	9	18	37
17:30 17:45	4	5	9	5	3	8	17
17:45 18:00	7	7	14	7	5	12	26
<b>Total .....</b>	<b>216</b>	<b>208</b>	<b>424</b>	<b>205</b>	<b>213</b>	<b>418</b>	<b>842</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study Heavy Vehicles

#### BANK ST

#### HERON RD

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
	LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00 07:15	4	2	0	14	0	5	0	9	23	0	3	3	19	0	9	2	14	33	28
07:15 07:30	5	2	0	9	1	1	2	10	19	2	2	0	15	1	4	2	10	25	22
07:30 07:45	6	7	0	16	1	2	0	13	29	0	4	1	17	0	6	3	14	31	30
07:45 08:00	2	6	0	11	0	2	1	10	21	0	7	1	14	0	3	1	11	25	23
08:00 08:15	3	7	0	23	0	9	1	23	46	0	11	4	33	0	14	6	31	64	55
08:15 08:30	6	7	0	18	0	1	0	10	28	1	4	4	18	0	3	1	8	26	27
08:30 08:45	6	4	1	17	1	4	2	13	30	1	4	1	21	1	7	1	15	36	33
08:45 09:00	7	4	0	20	1	5	1	14	34	0	5	4	28	0	11	3	20	48	41
09:00 09:15	5	4	0	16	1	4	0	18	34	7	9	3	32	0	8	2	20	52	43
09:15 09:30	2	4	1	12	1	2	0	11	23	3	2	2	14	1	5	1	11	25	24
09:30 09:45	8	10	0	26	1	7	0	21	47	1	4	1	16	0	2	2	9	25	36
09:45 10:00	4	7	0	27	2	6	2	20	47	2	13	9	37	1	7	1	24	61	54
11:30 11:45	4	3	0	14	1	6	0	13	27	2	1	0	14	1	7	1	11	25	26
11:45 12:00	4	5	0	20	4	6	2	17	37	0	4	5	22	0	7	0	15	37	37
12:00 12:15	2	4	0	15	0	4	2	11	26	0	5	2	21	3	10	1	19	40	33
12:15 12:30	6	5	0	16	0	3	5	17	33	1	7	1	31	1	11	3	22	53	43
12:30 12:45	4	5	1	24	3	5	1	17	41	2	6	7	26	2	6	1	19	45	43
12:45 13:00	7	6	0	20	2	6	0	17	37	1	11	0	22	1	3	2	19	41	39
13:00 13:15	2	6	1	15	0	3	1	13	28	1	6	2	17	1	5	2	15	32	30
13:15 13:30	3	2	0	14	2	5	0	9	23	0	3	4	14	0	4	0	9	23	23
15:00 15:15	2	3	0	21	1	9	2	15	36	0	10	6	26	1	6	0	18	44	40
15:15 15:30	3	3	0	12	0	2	2	12	24	1	10	4	25	0	5	4	19	44	34
15:30 15:45	3	2	1	12	1	4	1	10	22	1	10	2	22	0	5	1	18	40	31
15:45 16:00	3	1	0	17	1	2	1	7	24	1	13	11	32	0	3	1	18	50	37
16:00 16:15	2	2	1	16	1	8	0	11	27	0	7	2	14	1	3	0	13	27	27
16:15 16:30	0	4	0	9	3	3	0	11	20	1	10	2	18	0	5	0	18	36	28
16:30 16:45	3	5	0	12	1	2	1	10	22	0	8	2	19	0	5	1	15	34	28
16:45 17:00	2	3	0	7	1	2	1	7	14	0	11	0	17	0	3	0	15	32	23
17:00 17:15	0	2	1	7	1	3	2	8	15	0	15	1	25	0	7	0	24	49	32
17:15 17:30	1	4	1	14	2	5	1	12	26	0	3	3	9	0	1	0	7	16	21
17:30 17:45	0	0	0	10	0	4	0	7	17	1	6	6	15	0	2	2	10	25	21
17:45 18:00	1	2	0	11	1	4	0	9	20	1	3	4	9	0	0	1	5	14	17
Total: None	110	131	8	495	34	134	31	405	900	30	217	97	662	15	177	45	496	1158	1,029



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ HERON RD

**Survey Date:** Wednesday, August 31, 2022

**WO No:** 40563

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute U-Turn Total

BANK ST

HERON RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	1	1
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	1	1
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	1	1
08:45	09:00	0	0	0	1	1
09:00	09:15	0	0	0	2	2
09:15	09:30	0	0	0	1	1
09:30	09:45	0	0	0	3	3
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	2	2
11:45	12:00	1	0	0	0	1
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	1	1
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	1	0	1
15:45	16:00	0	0	0	2	2
16:00	16:15	1	0	1	1	3
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	1	1
16:45	17:00	0	0	1	1	2
17:00	17:15	0	0	0	1	1
17:15	17:30	0	0	0	1	1
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	2	2
Total		2	0	3	22	27

## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

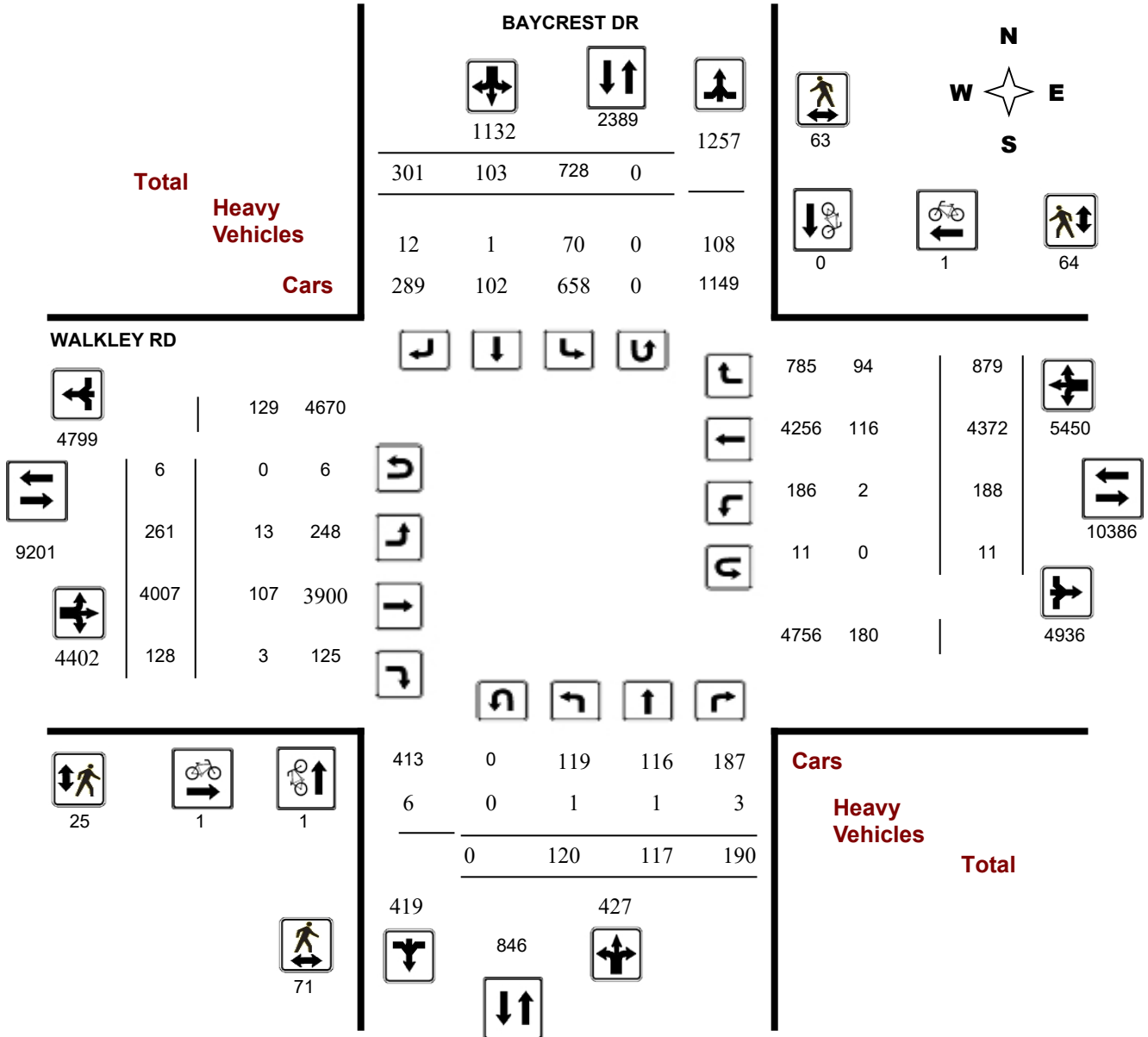
**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study Diagram



## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

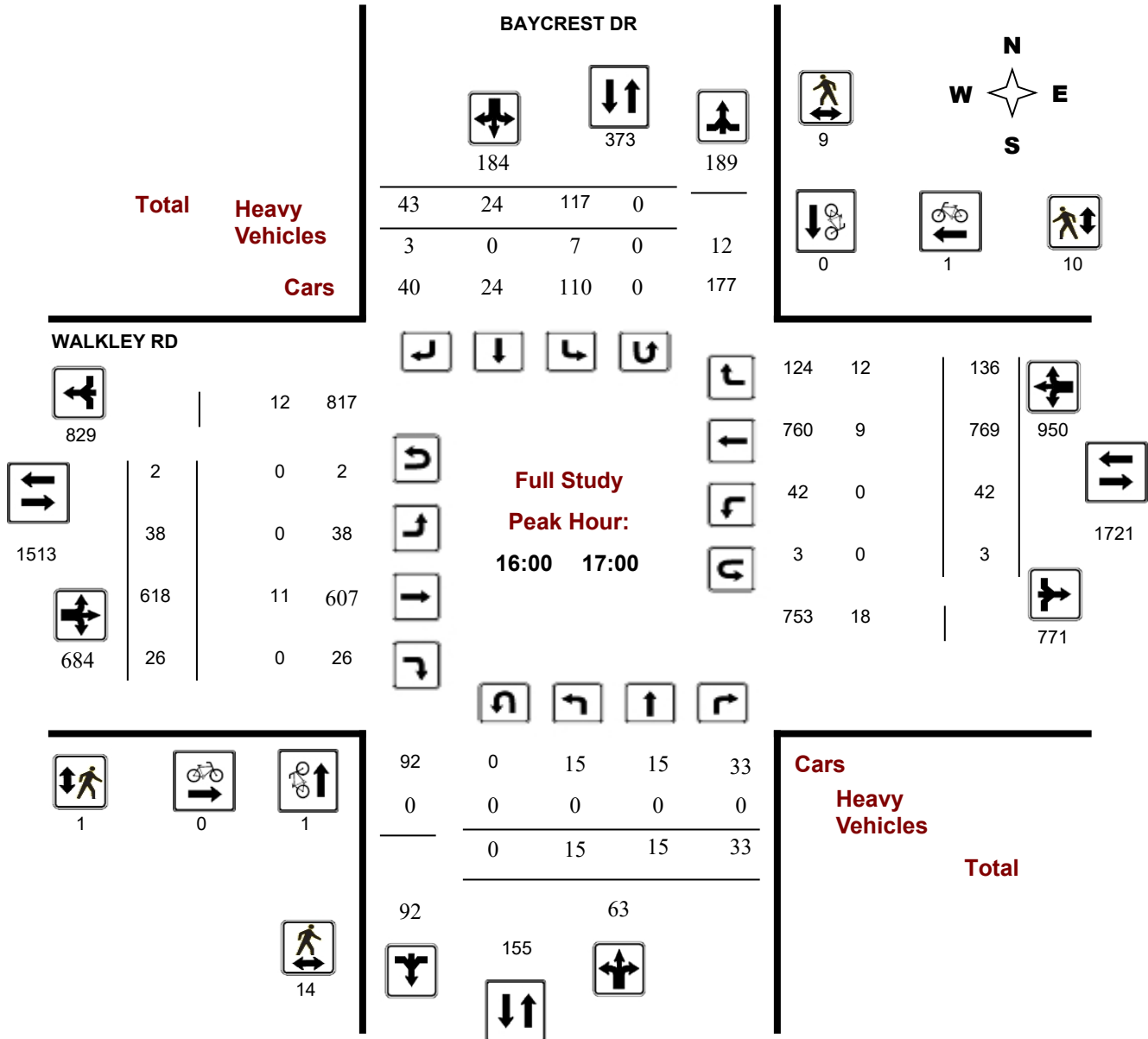
**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study Peak Hour Diagram





# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

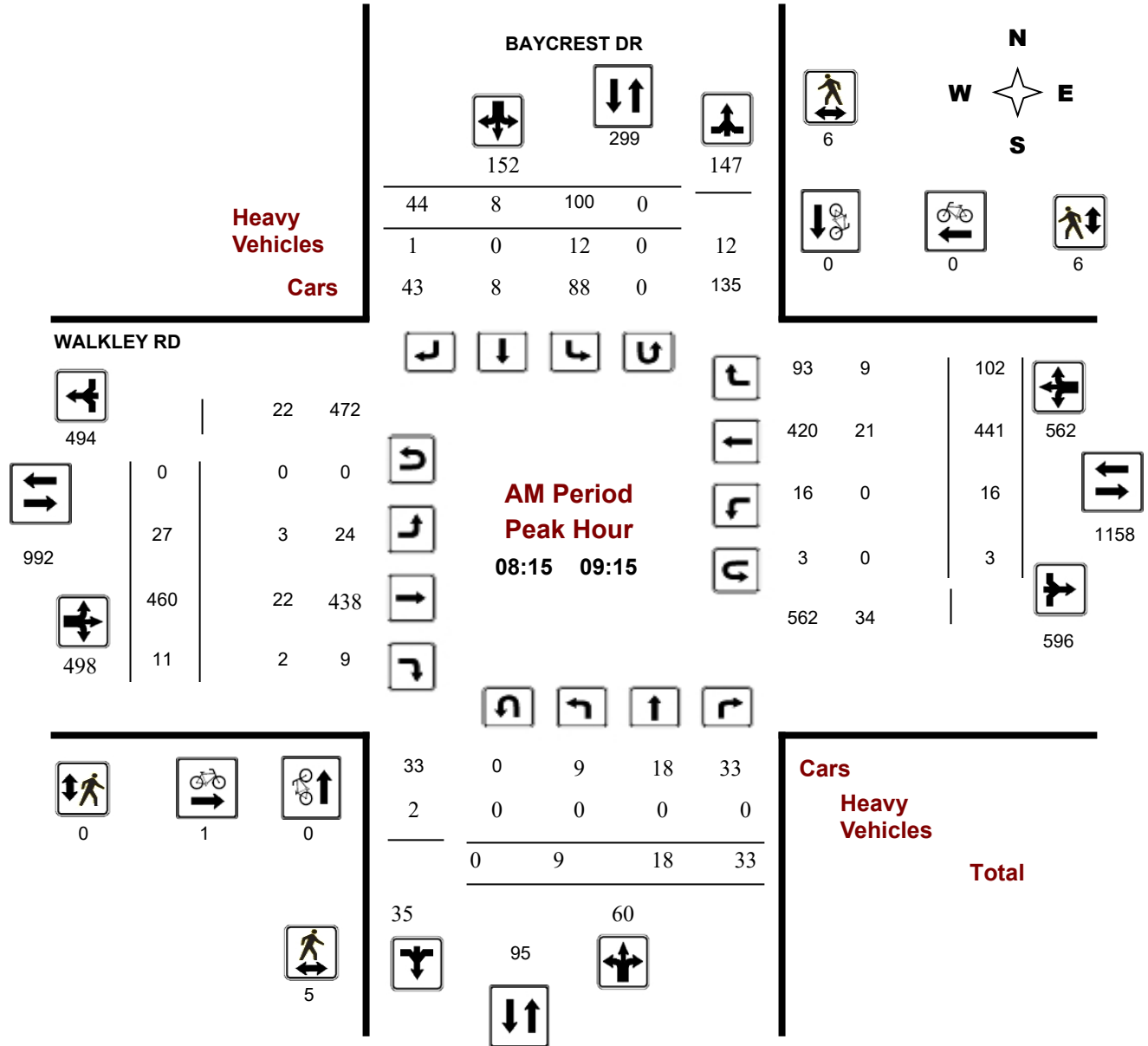
### BAYCREST DR @ WALKLEY RD

Survey Date: Thursday, February 24, 2022

Start Time: 07:00

WO No: 40177

Device: Miovision



Comments

## Turning Movement Count - Peak Hour Diagram

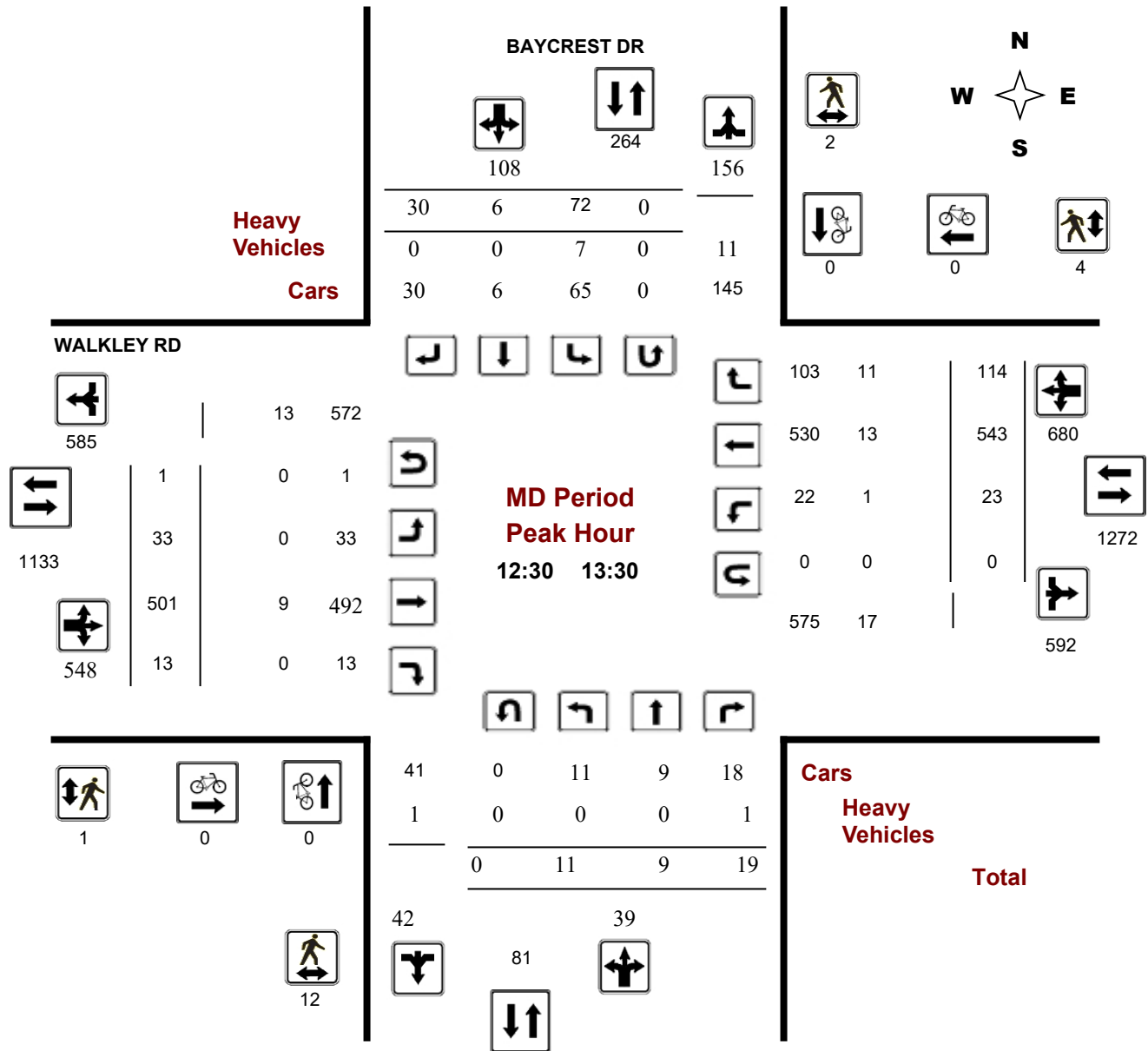
### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**Start Time:** 07:00

**WO No:** 40177

**Device:** Miovision





## Turning Movement Count - Peak Hour Diagram

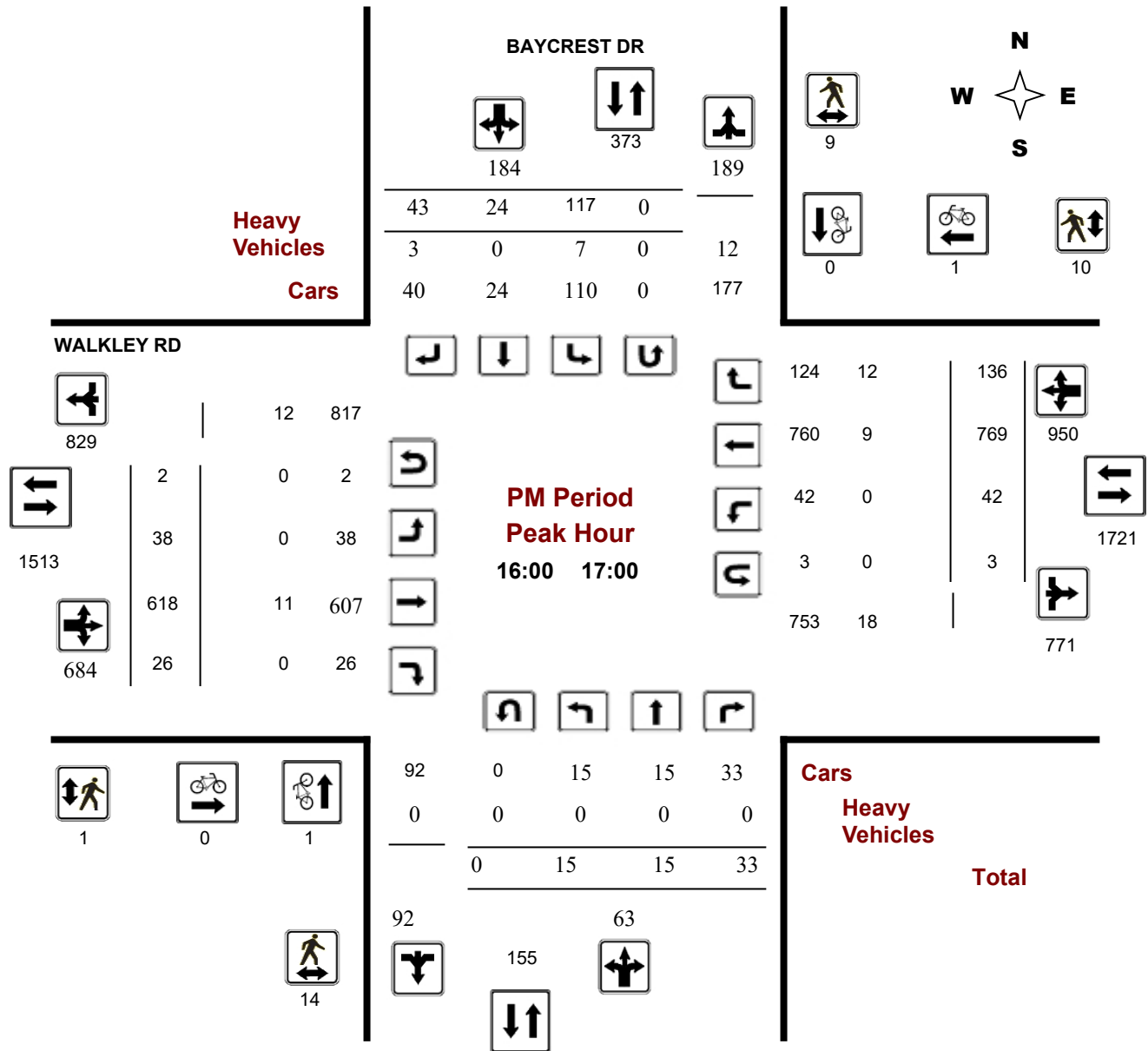
### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**Start Time:** 07:00

**WO No:** 40177

**Device:** Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study Summary (8 HR Standard)

**Survey Date:** Thursday, February 24, 2022

**Total Observed U-Turns**

**AADT Factor**

Northbound: 0      Southbound: 0  
 Eastbound: 6      Westbound: 11

.90

#### BAYCREST DR

#### WALKLEY RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total	
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT		
07:00 08:00	21	27	22	70	179	73	5	31	109	179	17	341	6	364	823	8	374	77	459	823	1002	
08:00 09:00	15	16	31	62	206	91	9	44	144	206	29	463	10	502	1044	16	415	111	542	1044	1250	
09:00 10:00	9	11	20	40	187	91	12	44	147	187	25	397	8	430	993	15	462	86	563	993	1180	
11:30 12:30	9	9	13	31	135	68	8	28	104	135	24	480	14	518	1149	12	541	78	631	1149	1284	
12:30 13:30	11	9	19	39	147	72	6	30	108	147	33	501	13	547	1227	23	543	114	680	1227	1374	
15:00 16:00	22	14	25	61	252	131	15	45	191	252	43	631	22	696	1477	35	624	122	781	1477	1729	
16:00 17:00	15	15	33	63	247	117	24	43	184	247	38	618	26	682	1629	42	769	136	947	1629	1876	
17:00 18:00	18	16	27	61	206	85	24	36	145	206	52	576	29	657	1493	37	644	155	836	1493	1699	
<b>Sub Total</b>	120	117	190	427	1559	728	103	301	1132	1559	261	4007	128	4396	9835	188	4372	879	5439	9835	11394	
<b>U Turns</b>	0				0		0		0		6					11		17		17		
<b>Total</b>	120	117	190	427	1559	728	103	301	1132	1559	261	4007	128	4402	9852	188	4372	879	5450	9852	11411	

**EQ 12Hr** 167 163 264 594 1012 143 418 1573 2167 363 5570 178 6119 261 6077 1222 7575 13694 15861

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

**AVG 12Hr** 150 147 238 535 911 169 493 1416 1950 327 5013 160 5507 235 5469 1100 6818 12325 14275

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

**AVG 24Hr** 196 193 312 701 1193 221 646 1855 2554 428 6567 210 7214 308 7164 1441 8932 16146 18700

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute Increments

#### BAYCREST DR

#### WALKLEY RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	5	2	2	9	20	2	3	25	34	4	70	1	75	2	80	20	102	177	211
07:15 07:30	4	8	1	13	14	1	5	20	33	1	72	1	74	3	89	18	110	184	217
07:30 07:45	4	12	13	29	18	2	10	30	59	4	99	1	104	0	96	19	115	219	278
07:45 08:00	8	5	6	19	21	0	13	34	53	8	100	3	111	3	109	20	133	244	297
08:00 08:15	9	3	6	18	15	3	11	29	47	9	111	3	123	2	98	28	128	251	298
08:15 08:30	0	4	11	15	26	2	21	49	64	7	113	5	125	5	113	32	150	275	339
08:30 08:45	1	5	8	14	23	3	4	30	44	3	120	1	124	3	95	24	122	246	290
08:45 09:00	5	4	6	15	27	1	8	36	51	10	119	1	130	6	109	27	144	274	325
09:00 09:15	3	5	8	16	24	2	11	37	53	7	108	4	119	2	124	19	146	265	318
09:15 09:30	2	2	8	12	24	4	15	43	55	11	104	3	118	6	98	26	130	248	303
09:30 09:45	1	2	2	5	24	3	7	34	39	5	83	1	89	4	101	22	127	216	255
09:45 10:00	3	2	2	7	19	3	11	33	40	2	102	0	104	3	139	19	163	267	307
11:30 11:45	4	3	0	7	11	3	7	21	28	6	122	1	129	1	108	21	130	259	287
11:45 12:00	2	0	4	6	16	2	11	29	35	5	117	4	126	2	144	15	161	287	322
12:00 12:15	2	4	4	10	19	1	6	26	36	7	126	4	137	5	142	24	171	308	344
12:15 12:30	1	2	5	8	22	2	4	28	36	6	115	5	127	4	147	18	170	297	333
12:30 12:45	2	3	4	9	17	0	5	22	31	6	124	4	135	5	135	28	168	303	334
12:45 13:00	4	1	7	12	19	3	6	28	40	8	119	3	130	8	122	28	158	288	328
13:00 13:15	0	0	5	5	18	1	7	26	31	13	118	5	136	6	146	31	183	319	350
13:15 13:30	5	5	3	13	18	2	12	32	45	6	140	1	147	4	140	27	171	318	363
15:00 15:15	7	1	7	15	35	2	8	45	60	10	138	5	153	9	146	34	189	342	402
15:15 15:30	6	3	7	16	34	8	6	48	64	11	170	9	190	9	126	27	162	352	416
15:30 15:45	4	6	6	16	32	4	19	55	71	13	154	1	168	11	168	31	210	378	449
15:45 16:00	5	4	5	14	30	1	12	43	57	9	169	7	185	6	184	30	221	406	463
16:00 16:15	5	5	7	17	15	4	11	30	47	12	153	6	172	15	208	44	267	439	486
16:15 16:30	4	3	8	15	31	8	15	54	69	14	156	7	177	10	190	36	237	414	483
16:30 16:45	4	4	10	18	39	6	7	52	70	5	150	8	163	7	176	26	211	374	444
16:45 17:00	2	3	8	13	32	6	10	48	61	7	159	5	172	10	195	30	235	407	468
17:00 17:15	5	6	9	20	26	7	8	41	61	19	154	7	181	9	178	46	233	414	475
17:15 17:30	7	4	7	18	17	7	11	35	53	14	132	6	152	9	154	49	212	364	417
17:30 17:45	4	3	6	13	19	5	10	34	47	8	158	8	174	11	168	33	212	386	433
17:45 18:00	2	3	5	10	23	5	7	35	45	11	132	8	152	8	144	27	179	331	376
<b>Total:</b>	<b>120</b>	<b>117</b>	<b>190</b>	<b>427</b>	<b>728</b>	<b>103</b>	<b>301</b>	<b>1132</b>	<b>1559</b>	<b>261</b>	<b>4007</b>	<b>128</b>	<b>4402</b>	<b>188</b>	<b>4372</b>	<b>879</b>	<b>5450</b>	<b>9852</b>	<b>11,411</b>

Note: U-Turns are included in Totals.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study Cyclist Volume

Time Period	BAYCREST DR			WALKLEY RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00-07:15	0	0	0	0	0	0	0
07:15-07:30	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0
08:30-08:45	0	0	0	1	0	1	1
08:45-09:00	0	0	0	0	0	0	0
09:00-09:15	0	0	0	0	0	0	0
09:15-09:30	0	0	0	0	0	0	0
09:30-09:45	0	0	0	0	0	0	0
09:45-10:00	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0
15:45-16:00	0	0	0	0	0	0	0
16:00-16:15	1	0	1	0	1	1	2
16:15-16:30	0	0	0	0	0	0	0
16:30-16:45	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study Pedestrian Volume

#### BAYCREST DR

#### WALKLEY RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	1	1	1
07:15 07:30	0	1	1	0	1	1	2
07:30 07:45	0	4	4	1	2	3	7
07:45 08:00	0	1	1	2	4	6	7
08:00 08:15	4	1	5	1	5	6	11
08:15 08:30	1	2	3	0	2	2	5
08:30 08:45	1	0	1	0	2	2	3
08:45 09:00	2	3	5	0	2	2	7
09:00 09:15	1	1	2	0	0	0	2
09:15 09:30	3	0	3	0	0	0	3
09:30 09:45	0	3	3	0	1	1	4
09:45 10:00	4	3	7	1	3	4	11
11:30 11:45	1	5	6	2	2	4	10
11:45 12:00	2	0	2	1	3	4	6
12:00 12:15	1	1	2	0	1	1	3
12:15 12:30	1	1	2	0	2	2	4
12:30 12:45	3	0	3	0	1	1	4
12:45 13:00	5	1	6	0	1	1	7
13:00 13:15	1	1	2	1	2	3	5
13:15 13:30	3	0	3	0	0	0	3
15:00 15:15	4	1	5	2	1	3	8
15:15 15:30	2	6	8	5	6	11	19
15:30 15:45	7	3	10	2	2	4	14
15:45 16:00	4	3	7	1	0	1	8
16:00 16:15	3	4	7	0	1	1	8
16:15 16:30	2	1	3	0	5	5	8
16:30 16:45	6	3	9	0	3	3	12
16:45 17:00	3	1	4	1	1	2	6
17:00 17:15	0	4	4	3	3	6	10
17:15 17:30	1	1	2	1	3	4	6
17:30 17:45	2	4	6	1	0	1	7
17:45 18:00	4	4	8	0	4	4	12
<b>Total .....</b>	<b>71</b>	<b>63</b>	<b>134</b>	<b>25</b>	<b>64</b>	<b>89</b>	<b>223</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study Heavy Vehicles

#### BAYCREST DR

#### WALKLEY RD

Northbound                      Southbound                      Eastbound                      Westbound

Time Period	Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
	LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00 07:15	0	0	0	0	3	0	0	6	6	0	2	0	7	0	5	3	13	20	13
07:15 07:30	0	0	0	0	5	0	1	8	8	0	3	0	11	0	7	2	17	28	18
07:30 07:45	0	0	0	0	1	0	1	7	7	1	2	0	10	0	6	4	13	23	15
07:45 08:00	0	0	0	0	4	0	0	7	7	1	3	0	7	0	3	2	12	19	13
08:00 08:15	0	0	0	0	3	0	0	9	9	2	2	0	13	0	9	4	18	31	20
08:15 08:30	0	0	0	0	4	0	1	7	7	0	3	0	7	0	3	2	12	19	13
08:30 08:45	0	0	0	0	3	0	0	6	6	0	10	0	17	0	7	3	23	40	23
08:45 09:00	0	0	0	0	3	0	0	8	8	2	2	0	9	0	5	3	13	22	15
09:00 09:15	0	0	0	2	2	0	0	4	6	1	7	2	16	0	6	1	16	32	19
09:15 09:30	0	0	1	1	2	0	0	6	7	1	8	0	15	0	6	3	20	35	21
09:30 09:45	0	0	0	0	2	0	0	4	4	1	3	0	5	0	1	1	7	12	8
09:45 10:00	0	0	0	0	3	0	0	6	6	0	2	0	7	0	5	3	13	20	13
11:30 11:45	0	0	0	0	1	0	0	4	4	0	5	0	7	0	2	3	11	18	11
11:45 12:00	0	0	1	2	2	1	0	5	7	0	4	0	7	0	3	2	12	19	13
12:00 12:15	0	0	0	0	1	0	1	5	5	0	1	0	8	0	6	3	11	19	12
12:15 12:30	0	0	0	0	2	0	0	6	6	0	7	0	14	0	7	4	20	34	20
12:30 12:45	0	0	0	0	2	0	0	5	5	0	2	0	7	0	5	3	12	19	12
12:45 13:00	0	0	1	1	1	0	0	4	5	0	2	0	5	0	3	3	10	15	10
13:00 13:15	0	0	0	0	2	0	0	5	5	0	4	0	6	0	2	3	11	17	11
13:15 13:30	0	0	0	1	2	0	0	4	5	0	1	0	4	1	3	2	9	13	9
15:00 15:15	0	0	0	0	2	0	0	7	7	0	3	0	4	0	1	5	11	15	11
15:15 15:30	0	0	0	0	2	0	1	7	7	1	9	0	14	0	3	3	17	31	19
15:30 15:45	0	0	0	0	1	0	2	8	8	1	6	0	13	0	4	4	15	28	18
15:45 16:00	1	1	0	4	4	0	2	12	16	2	1	1	9	1	2	3	11	20	18
16:00 16:15	0	0	0	0	2	0	2	7	7	0	5	0	9	0	2	3	12	21	14
16:15 16:30	0	0	0	0	1	0	1	6	6	0	4	0	7	0	2	4	11	18	12
16:30 16:45	0	0	0	0	2	0	0	5	5	0	1	0	3	0	2	3	8	11	8
16:45 17:00	0	0	0	0	2	0	0	4	4	0	1	0	4	0	3	2	8	12	8
17:00 17:15	0	0	0	0	2	0	0	5	5	0	0	0	0	0	0	3	5	5	5
17:15 17:30	0	0	0	0	1	0	0	5	5	0	2	0	2	0	0	4	7	9	7
17:30 17:45	0	0	0	0	2	0	0	5	5	0	1	0	4	0	3	3	9	13	9
17:45 18:00	0	0	0	0	1	0	0	4	4	0	1	0	1	0	0	3	5	6	5
Total: None	1	1	3	11	70	1	12	191	202	13	107	3	252	2	116	94	392	644	423



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BAYCREST DR @ WALKLEY RD

**Survey Date:** Thursday, February 24, 2022

**WO No:** 40177

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute U-Turn Total

BAYCREST DR

WALKLEY RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	1	1
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	2	2
09:00	09:15	0	0	0	1	1
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	2	2
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	1	1	2
12:30	12:45	0	0	1	0	1
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	1	1
16:00	16:15	0	0	1	0	1
16:15	16:30	0	0	0	1	1
16:30	16:45	0	0	0	2	2
16:45	17:00	0	0	1	0	1
17:00	17:15	0	0	1	0	1
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	1	0	1
Total		0	0	6	11	17

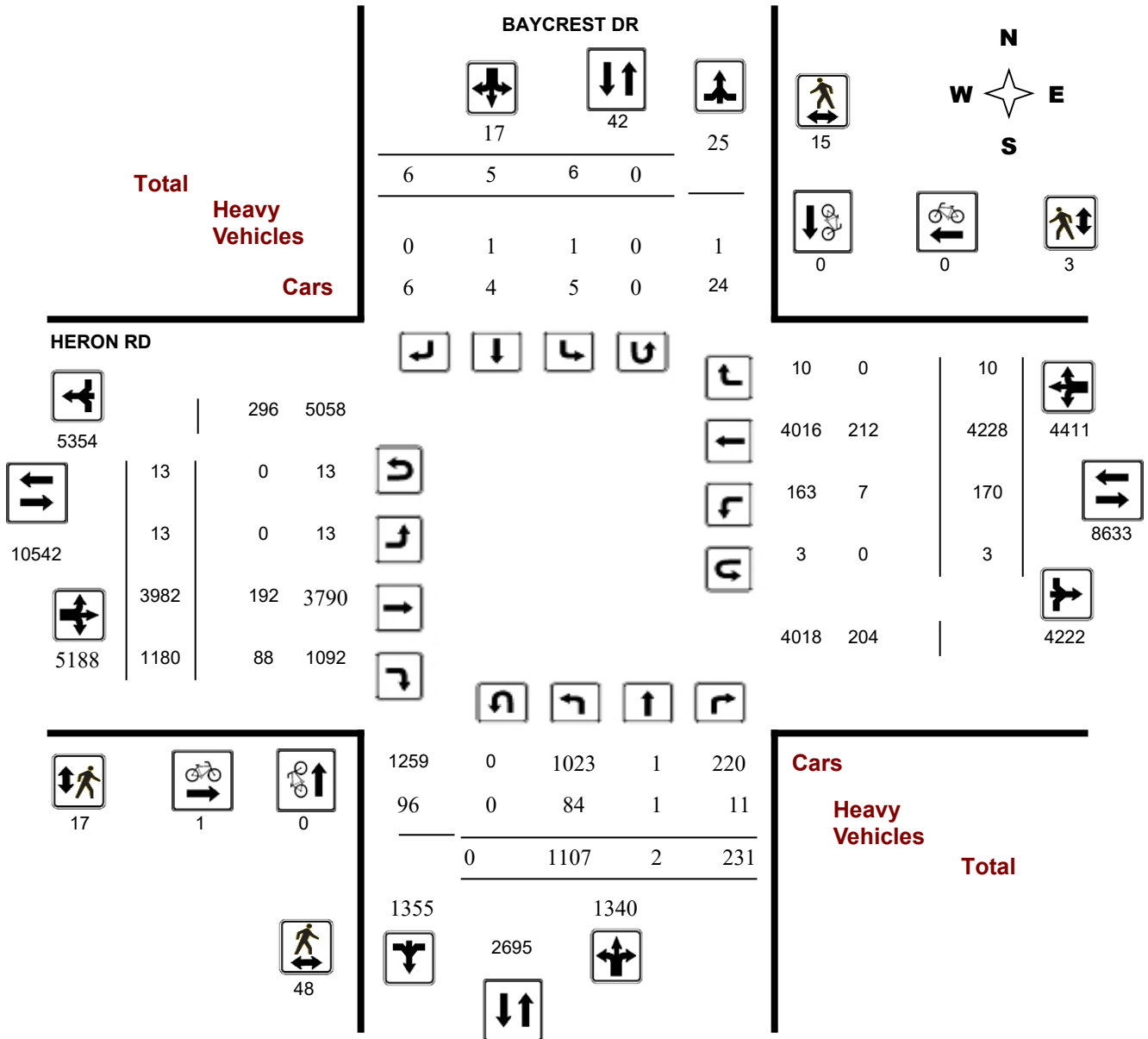
**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study Diagram





## Turning Movement Count - Study Results

### HERON RD @ BAYCREST DR

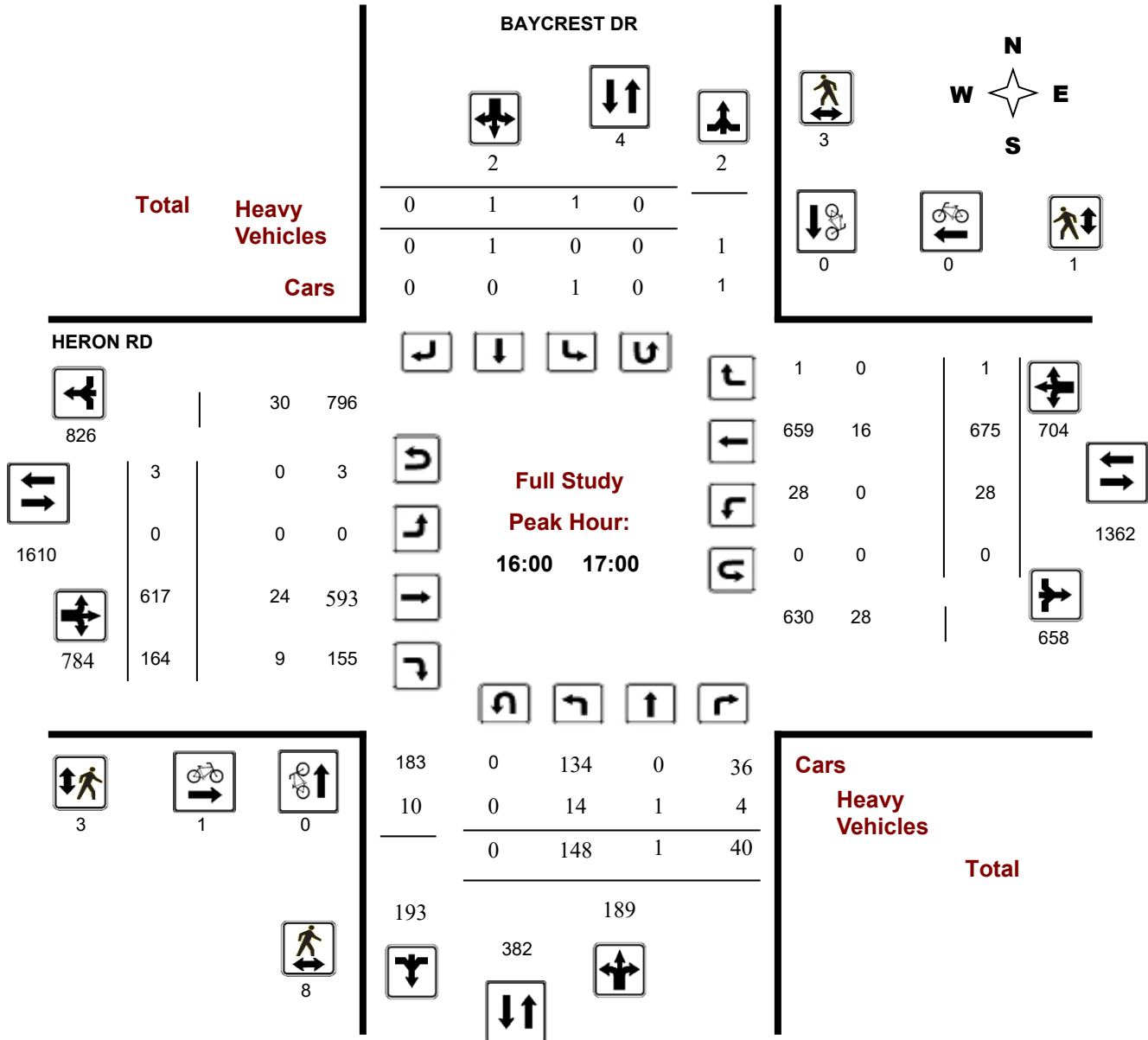
**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study Peak Hour Diagram



## Turning Movement Count - Peak Hour Diagram

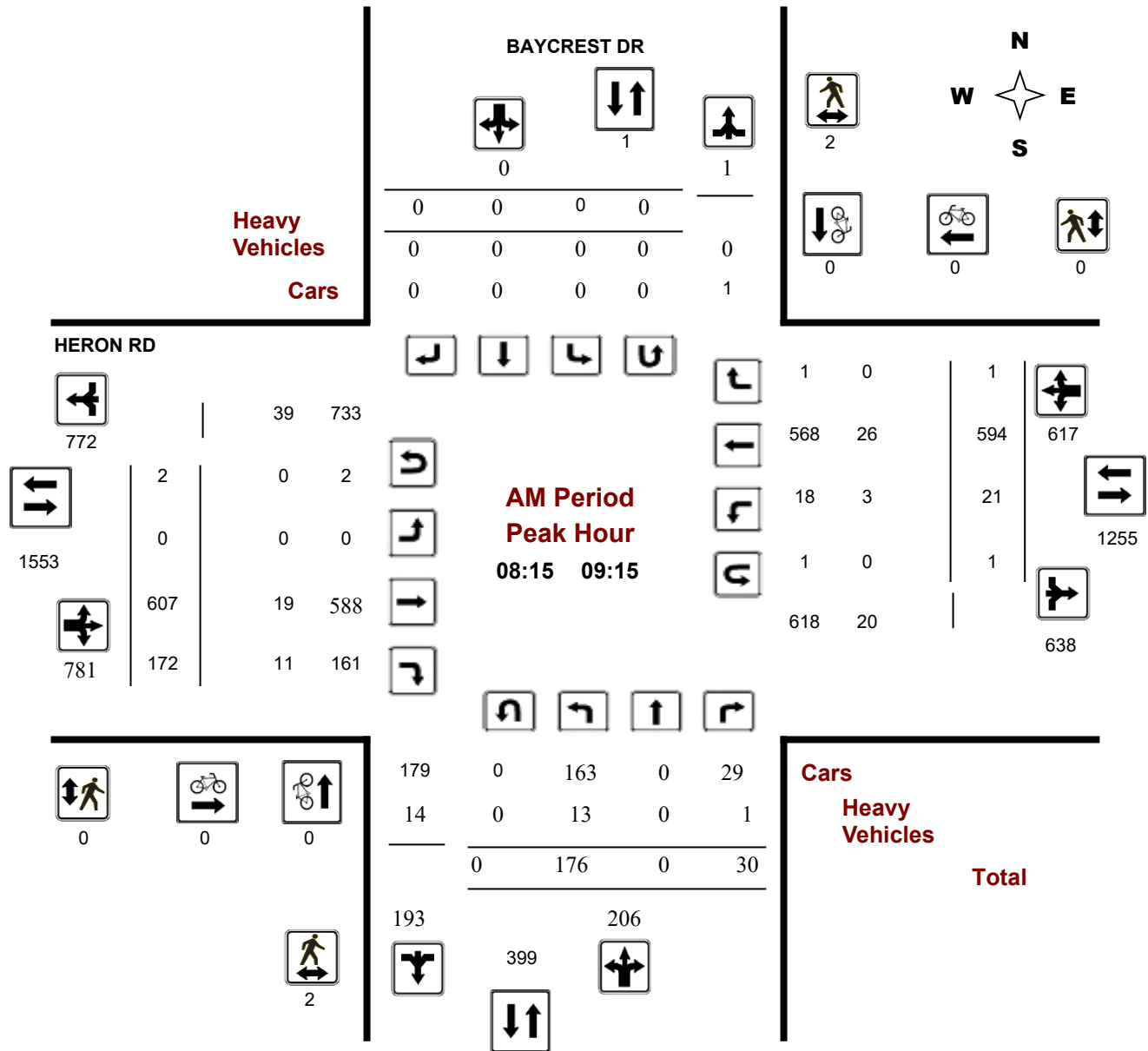
### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40066

**Device:** Miovision



**Comments**

## Turning Movement Count - Peak Hour Diagram

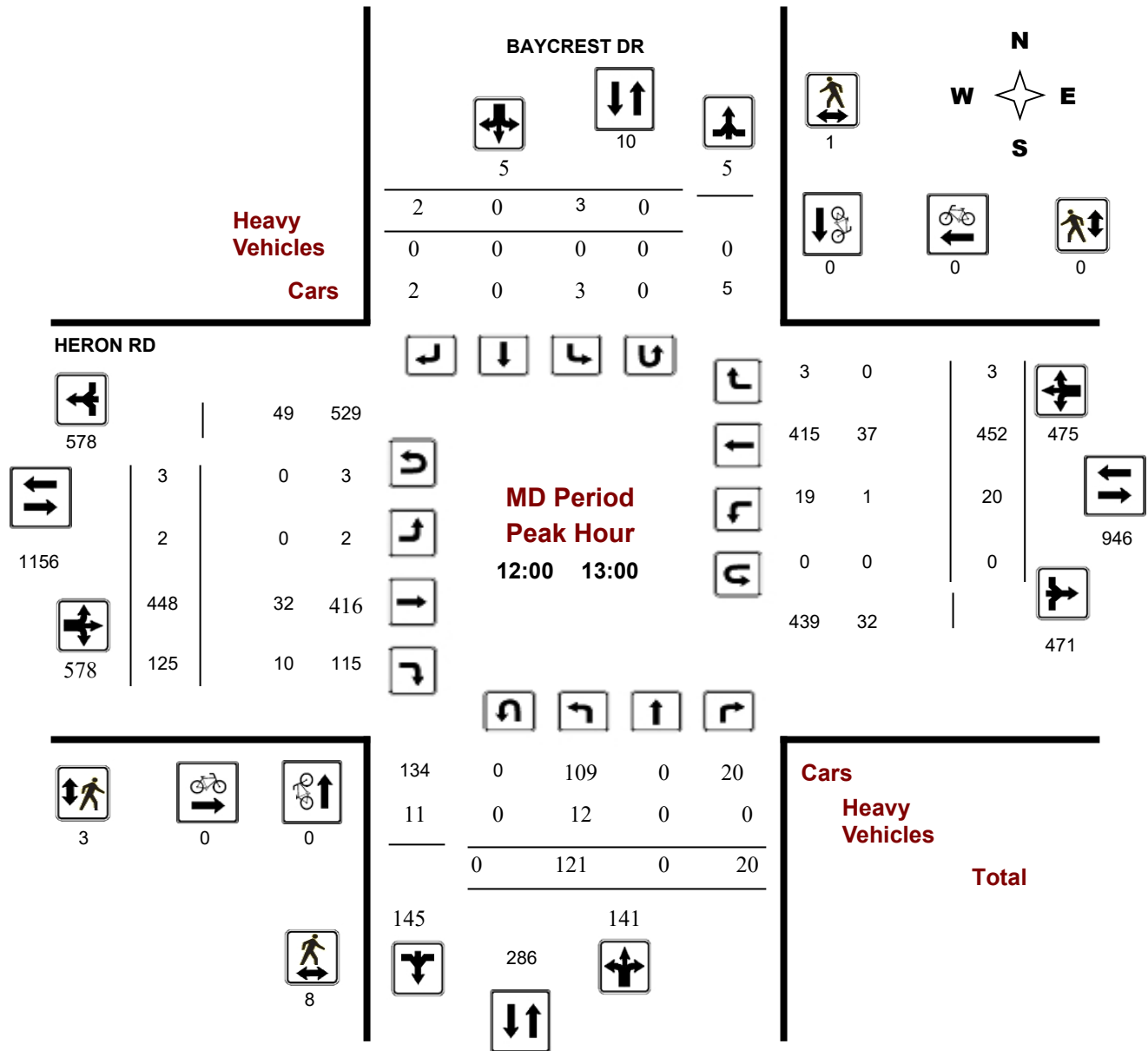
### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40066

**Device:** Miovision



## Turning Movement Count - Peak Hour Diagram

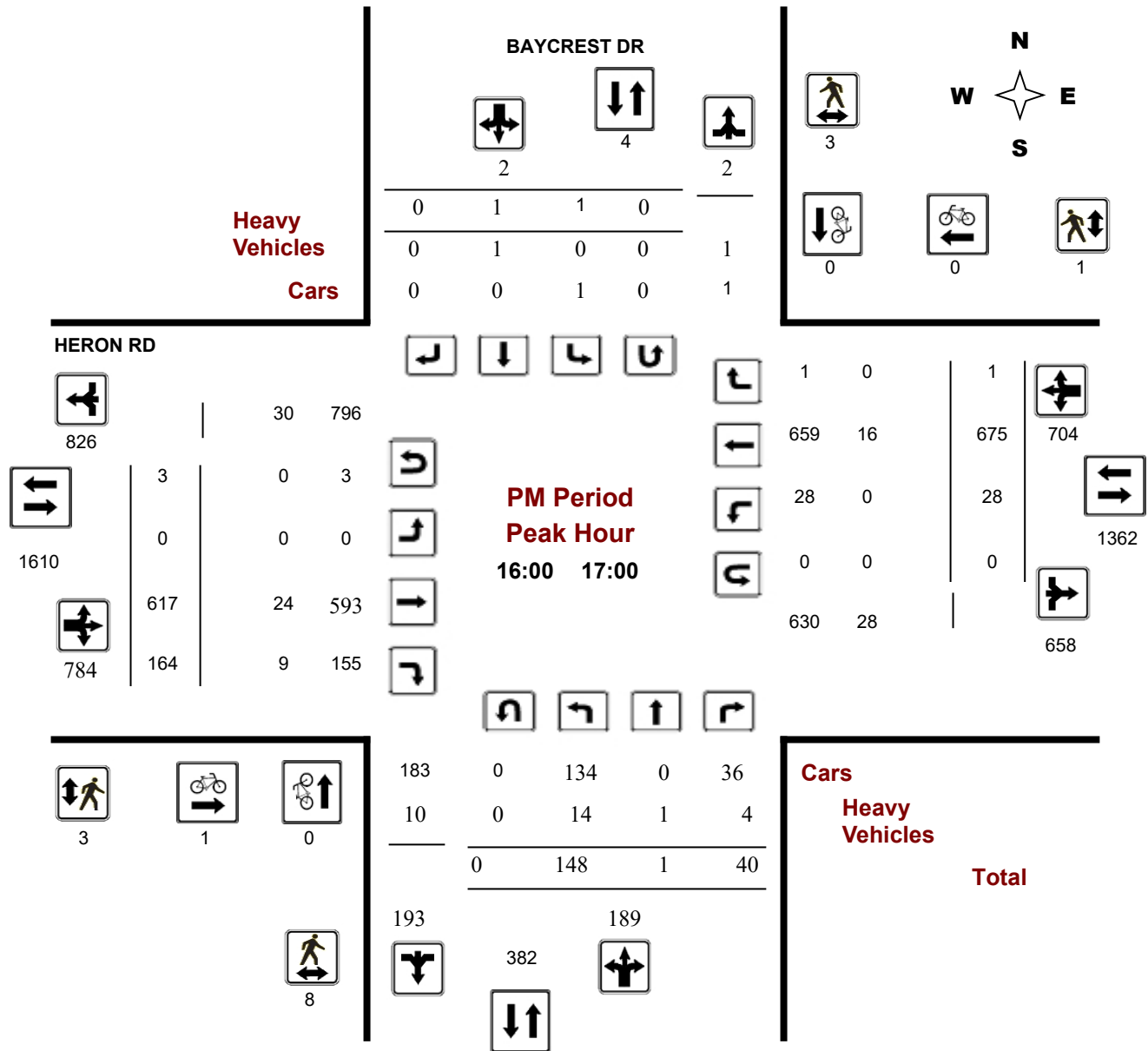
### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40066

**Device:** Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study Summary (8 HR Standard)

**Survey Date:** Thursday, January 20, 2022

**Total Observed U-Turns**  
 Northbound: 0      Southbound: 0  
 Eastbound: 13      Westbound: 3

**AADT Factor**  
 1.00

#### BAYCREST DR

#### HERON RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	110	0	31	141	142	1	0	0	1	142	1	337	81	419	419	20	420	0	440	859	1001
08:00 09:00	182	0	26	208	209	0	0	1	1	209	1	562	155	718	718	23	593	1	617	1335	1544
09:00 10:00	128	0	29	157	157	0	0	0	0	157	2	455	120	577	577	22	466	0	488	1065	1222
11:30 12:30	122	0	18	140	147	4	1	2	7	147	3	450	123	576	576	16	407	5	428	1004	1151
12:30 13:30	127	0	23	150	152	0	1	1	2	152	3	426	124	553	553	12	462	1	475	1028	1180
15:00 16:00	140	1	32	173	177	0	2	2	4	177	3	588	247	838	838	30	619	2	651	1489	1666
16:00 17:00	148	1	40	189	191	1	1	0	2	191	0	617	164	781	781	28	675	1	704	1485	1676
17:00 18:00	150	0	32	182	182	0	0	0	0	182	0	547	166	713	713	19	586	0	605	1318	1500
<b>Sub Total</b>	1107	2	231	1340	1357	6	5	6	17	1357	13	3982	1180	5175	5175	170	4228	10	4408	9583	10940
<b>U Turns</b>				0	0				0	0				13	13				3	16	16
<b>Total</b>	1107	2	231	1340	1357	6	5	6	17	1357	13	3982	1180	5188	5188	170	4228	10	4411	9599	10956

**EQ 12Hr** 1539 3 321 1863 8 7 8 24 1886 18 5535 1640 7211 236 5877 14 6131 13343 15229  
 Note: These values are calculated by multiplying the totals by the appropriate expansion factor. **1.39**

**AVG 12Hr** 1539 3 321 1863 8 9 11 24 1886 18 5535 1640 7211 236 5877 14 6131 13343 15229  
 Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. **1.00**

**AVG 24Hr** 2016 4 421 2441 10 12 14 31 2471 24 7251 2148 9446 309 7699 18 8032 17479 19950  
 Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. **1.31**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute Increments

#### BAYCREST DR

#### HERON RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	20	0	5	25	0	0	0	0	25	0	86	27	113	4	77	0	81	194	219
07:15 07:30	28	0	10	38	0	0	0	0	38	0	64	15	79	4	96	0	100	179	217
07:30 07:45	27	0	9	36	1	0	0	1	37	1	75	17	93	8	117	0	125	218	255
07:45 08:00	35	0	7	42	0	0	0	0	42	0	112	22	134	4	130	0	134	268	310
08:00 08:15	41	0	5	46	0	0	1	1	47	1	110	24	136	8	140	0	148	284	331
08:15 08:30	55	0	8	63	0	0	0	0	63	0	172	34	207	6	169	0	175	382	445
08:30 08:45	51	0	5	56	0	0	0	0	56	0	139	55	194	6	156	1	163	357	413
08:45 09:00	35	0	8	43	0	0	0	0	43	0	141	42	184	3	128	0	132	316	359
09:00 09:15	35	0	9	44	0	0	0	0	44	0	155	41	196	6	141	0	147	343	387
09:15 09:30	34	0	5	39	0	0	0	0	39	0	128	29	157	6	124	0	131	288	327
09:30 09:45	31	0	10	41	0	0	0	0	41	2	90	23	115	6	104	0	110	225	266
09:45 10:00	28	0	5	33	0	0	0	0	33	0	82	27	110	4	97	0	101	211	244
11:30 11:45	37	0	3	40	0	1	0	1	41	2	117	29	148	2	101	0	103	251	292
11:45 12:00	25	0	5	30	1	0	1	2	32	1	105	27	133	3	86	2	91	224	256
12:00 12:15	29	0	5	34	0	0	1	1	35	0	117	22	139	7	110	1	118	257	292
12:15 12:30	31	0	5	36	3	0	0	3	39	0	111	45	158	4	110	2	116	274	313
12:30 12:45	30	0	8	38	0	0	0	0	38	0	110	33	144	4	104	0	108	252	290
12:45 13:00	31	0	2	33	0	0	1	1	34	2	110	25	137	5	128	0	133	270	304
13:00 13:15	30	0	6	36	0	0	0	0	36	1	101	35	137	3	111	0	114	251	287
13:15 13:30	36	0	7	43	0	1	0	1	44	0	105	31	137	0	119	1	120	257	301
15:00 15:15	49	0	6	55	0	0	0	0	55	1	164	77	242	5	134	0	139	381	436
15:15 15:30	34	1	5	40	0	0	0	0	40	0	140	76	216	6	155	0	161	377	417
15:30 15:45	26	0	12	38	0	2	1	3	41	1	141	53	197	6	172	0	178	375	416
15:45 16:00	31	0	9	40	0	0	1	1	41	1	143	41	185	13	158	2	173	358	399
16:00 16:15	40	1	6	47	0	1	0	1	48	0	148	42	192	9	181	0	190	382	430
16:15 16:30	35	0	10	45	1	0	0	1	46	0	167	42	209	6	172	0	178	387	433
16:30 16:45	35	0	10	45	0	0	0	0	45	0	161	44	205	5	154	1	160	365	410
16:45 17:00	38	0	14	52	0	0	0	0	52	0	141	36	178	8	168	0	176	354	406
17:00 17:15	38	0	7	45	0	0	0	0	45	0	155	49	204	3	166	0	169	373	418
17:15 17:30	41	0	9	50	0	0	0	0	50	0	147	33	180	5	179	0	185	365	415
17:30 17:45	43	0	10	53	0	0	0	0	53	0	133	42	175	6	133	0	139	314	367
17:45 18:00	28	0	6	34	0	0	0	0	34	0	112	42	154	5	108	0	113	267	301
<b>Total:</b>	<b>1107</b>	<b>2</b>	<b>231</b>	<b>1340</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>17</b>	<b>1357</b>	<b>13</b>	<b>3982</b>	<b>1180</b>	<b>5188</b>	<b>170</b>	<b>4228</b>	<b>10</b>	<b>4411</b>	<b>9599</b>	<b>10,956</b>

Note: U-Turns are included in Totals.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study Cyclist Volume

Time Period	BAYCREST DR			HERON RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	0	0	0	0	0	0	0
13:00 13:15	0	0	0	0	0	0	0
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	0	0	0	0
15:15 15:30	0	0	0	0	0	0	0
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	0	0	0	0	0	0
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	0	0	0	1	0	1	1
16:45 17:00	0	0	0	0	0	0	0
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	1



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study Pedestrian Volume

#### BAYCREST DR

#### HERON RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	0	1	1	0	1	2
07:15 07:30	1	0	1	0	0	0	1
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	1	1	2	2	0	2	4
08:00 08:15	2	0	2	0	0	0	2
08:15 08:30	1	0	1	0	0	0	1
08:30 08:45	0	1	1	0	0	0	1
08:45 09:00	0	1	1	0	0	0	1
09:00 09:15	1	0	1	0	0	0	1
09:15 09:30	0	1	1	0	0	0	1
09:30 09:45	1	0	1	3	0	3	4
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	1	0	1	0	0	0	1
11:45 12:00	1	2	3	1	0	1	4
12:00 12:15	3	0	3	0	0	0	3
12:15 12:30	4	1	5	1	0	1	6
12:30 12:45	1	0	1	1	0	1	2
12:45 13:00	0	0	0	1	0	1	1
13:00 13:15	5	0	5	2	0	2	7
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	1	0	1	1
15:15 15:30	0	0	0	0	2	2	2
15:30 15:45	3	2	5	1	0	1	6
15:45 16:00	2	2	4	0	0	0	4
16:00 16:15	3	1	4	1	0	1	5
16:15 16:30	0	1	1	2	0	2	3
16:30 16:45	1	1	2	0	1	1	3
16:45 17:00	4	0	4	0	0	0	4
17:00 17:15	1	1	2	0	0	0	2
17:15 17:30	4	0	4	0	0	0	4
17:30 17:45	6	0	6	0	0	0	6
17:45 18:00	1	0	1	0	0	0	1
<b>Total .....</b>	<b>48</b>	<b>15</b>	<b>63</b>	<b>17</b>	<b>3</b>	<b>20</b>	<b>83</b>





# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study Heavy Vehicles

#### BAYCREST DR

#### HERON RD

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound				Southbound				Eastbound				Westbound				Grand Total		
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT		W TOT	STR TOT
07:00 07:15	2	0	0	6	0	0	0	0	6	0	2	3	16	1	9	0	12	28	17
07:15 07:30	2	0	0	4	0	0	0	0	4	0	4	2	22	0	14	0	18	40	22
07:30 07:45	0	0	0	4	1	0	0	1	5	0	7	3	17	1	7	0	16	33	19
07:45 08:00	4	0	0	7	0	0	0	0	7	0	4	2	22	1	12	0	17	39	23
08:00 08:15	1	0	1	7	0	0	0	0	7	0	4	5	25	0	15	0	20	45	26
08:15 08:30	2	0	0	6	0	0	0	0	6	0	3	2	14	2	7	0	12	26	16
08:30 08:45	3	0	0	7	0	0	0	0	7	0	3	3	13	1	4	0	8	21	14
08:45 09:00	4	0	1	6	0	0	0	0	6	0	4	1	15	0	6	0	11	26	16
09:00 09:15	4	0	0	9	0	0	0	0	9	0	9	5	27	0	9	0	18	45	27
09:15 09:30	2	0	0	3	0	0	0	0	3	0	6	1	13	0	4	0	10	23	13
09:30 09:45	4	0	0	6	0	0	0	0	6	0	10	2	23	0	7	0	17	40	23
09:45 10:00	3	0	0	3	0	0	0	0	3	0	8	0	22	0	11	0	19	41	22
11:30 11:45	5	0	0	6	0	0	0	0	6	0	8	1	22	0	8	0	16	38	22
11:45 12:00	2	0	0	5	0	0	0	0	5	0	6	3	13	0	2	0	8	21	13
12:00 12:15	1	0	0	2	0	0	0	0	2	0	14	1	19	0	3	0	17	36	19
12:15 12:30	4	0	0	8	0	0	0	0	8	0	4	3	26	1	15	0	20	46	27
12:30 12:45	3	0	0	6	0	0	0	0	6	0	4	3	19	0	9	0	13	32	19
12:45 13:00	4	0	0	7	0	0	0	0	7	0	10	3	27	0	10	0	20	47	27
13:00 13:15	2	0	1	7	0	0	0	0	7	0	9	4	21	0	6	0	16	37	22
13:15 13:30	1	0	0	6	0	0	0	0	6	0	6	5	19	0	7	0	13	32	19
15:00 15:15	1	0	0	6	0	0	0	0	6	0	8	5	17	0	3	0	11	28	17
15:15 15:30	3	0	0	7	0	0	0	0	7	0	9	4	21	0	5	0	14	35	21
15:30 15:45	1	0	0	4	0	0	0	0	4	0	5	3	13	0	4	0	9	22	13
15:45 16:00	3	0	2	11	0	0	0	0	11	0	6	6	21	0	6	0	14	35	23
16:00 16:15	3	1	1	9	0	1	0	2	11	0	2	3	11	0	3	0	6	17	14
16:15 16:30	6	0	1	9	0	0	0	0	9	0	4	2	17	0	5	0	10	27	18
16:30 16:45	3	0	1	6	0	0	0	0	6	0	12	2	19	0	2	0	15	34	20
16:45 17:00	2	0	1	5	0	0	0	0	5	0	6	2	16	0	6	0	13	29	17
17:00 17:15	0	0	0	5	0	0	0	0	5	0	3	5	10	0	2	0	5	15	10
17:15 17:30	2	0	1	3	0	0	0	0	3	0	5	0	10	0	3	0	9	19	11
17:30 17:45	3	0	0	5	0	0	0	0	5	0	2	2	12	0	5	0	7	19	12
17:45 18:00	4	0	1	7	0	0	0	0	7	0	5	2	14	0	3	0	9	23	15
Total: None	84	1	11	192	1	1	0	3	195	0	192	88	576	7	212	0	423	999	597



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BAYCREST DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40066

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute U-Turn Total

BAYCREST DR

HERON RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	1	0	1
08:15	08:30	0	0	1	0	1
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	1	1	2
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	1	1
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	1	0	1
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	2	0	2
12:30	12:45	0	0	1	0	1
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	1	0	1
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	2	0	2
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	2	0	2
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	1	0	1
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	1	1
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	13	3	16

## Turning Movement Count - Study Results

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

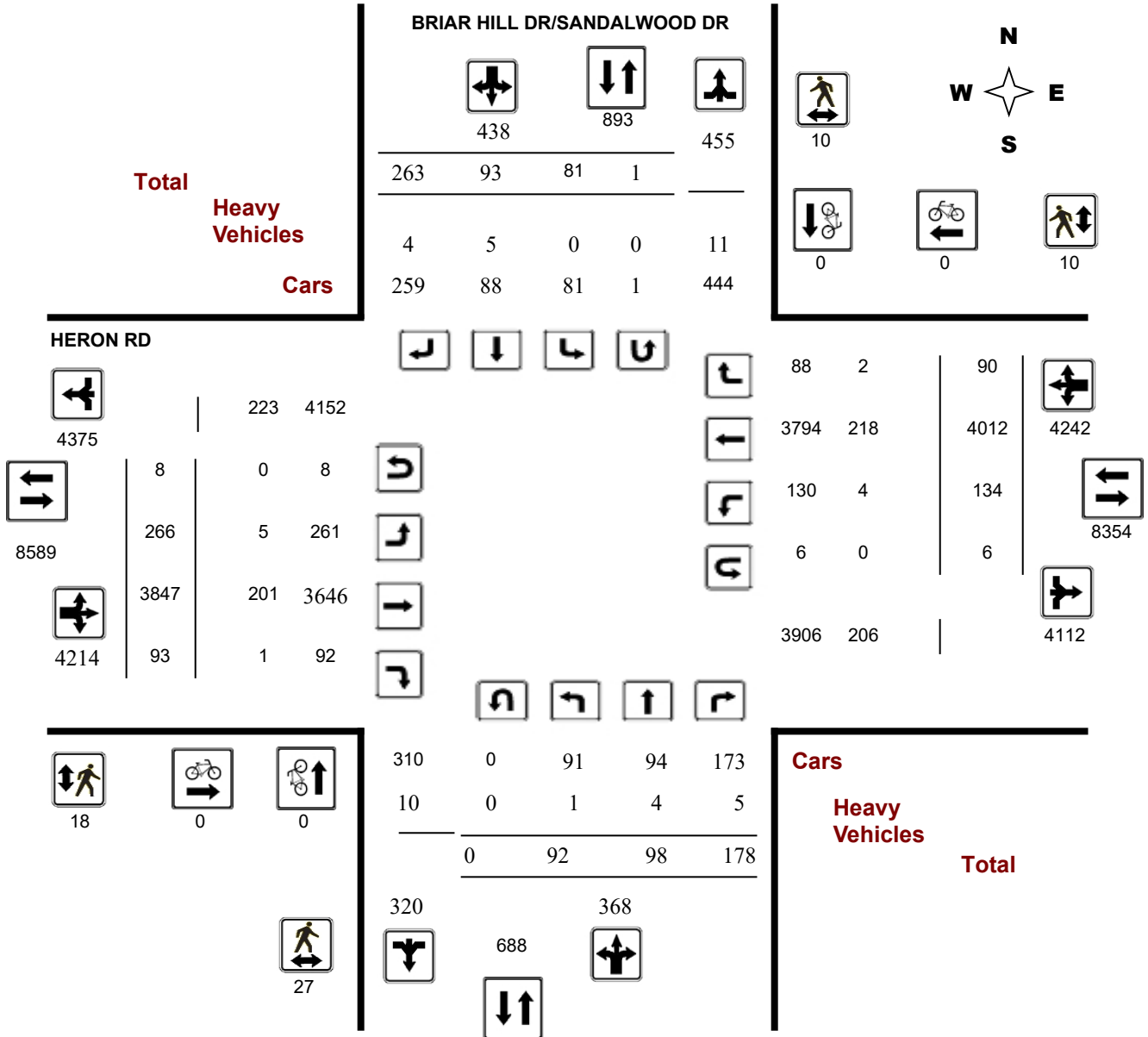
**Survey Date:** Thursday, January 20, 2022

**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study Diagram



## Turning Movement Count - Study Results

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

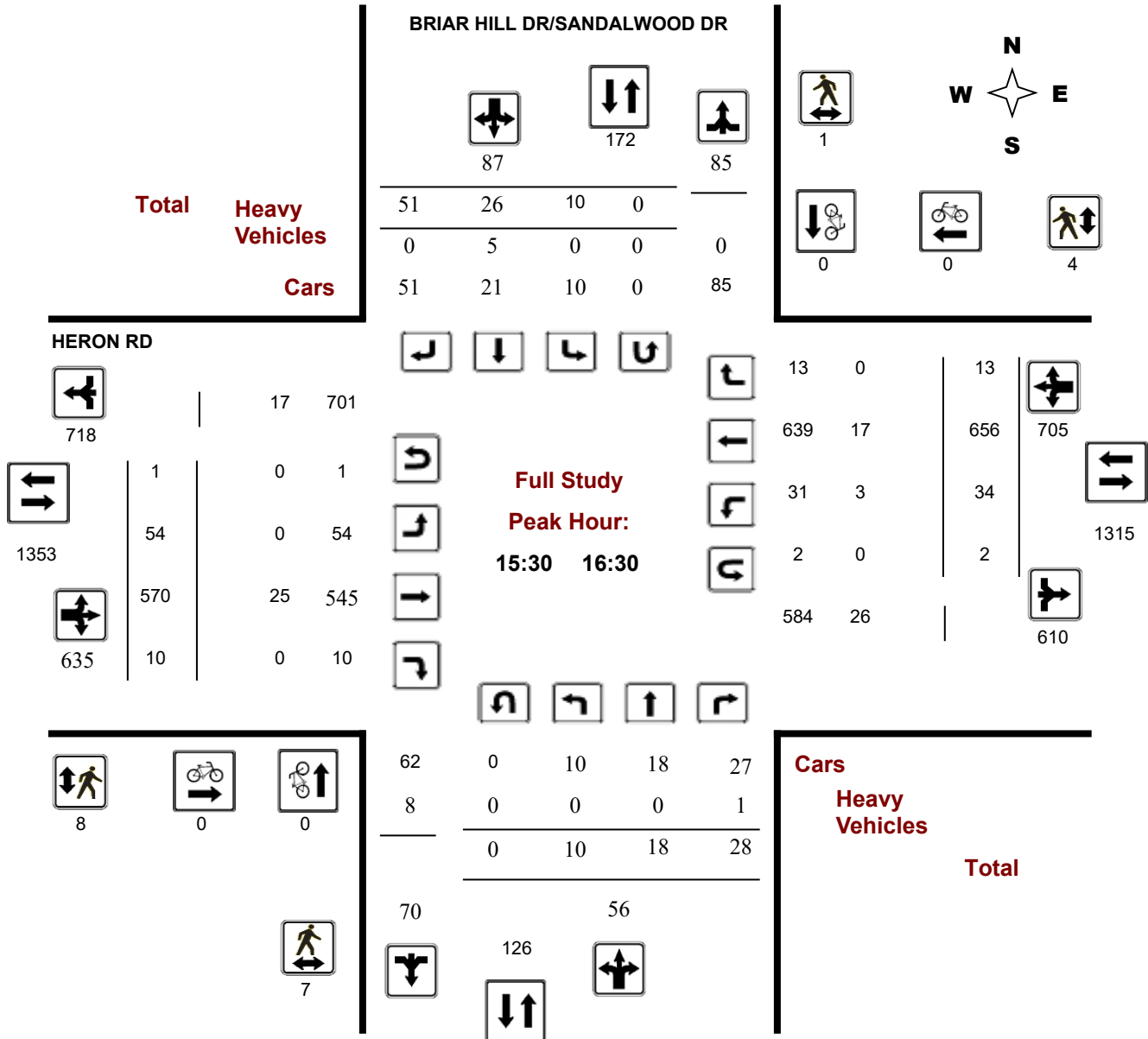
**Survey Date:** Thursday, January 20, 2022

**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study Peak Hour Diagram



## Turning Movement Count - Peak Hour Diagram

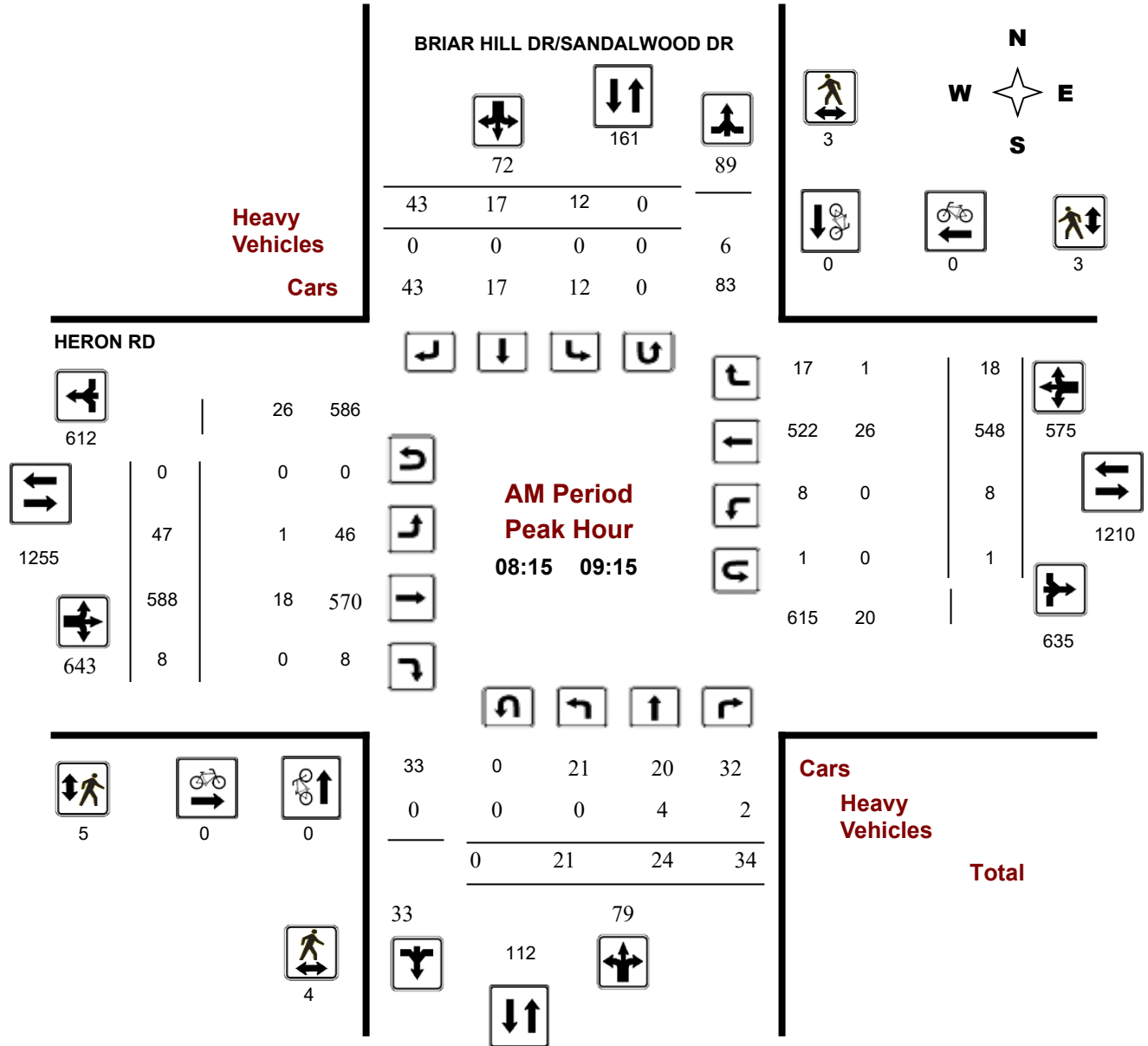
### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40070

**Device:** Miovision



**Comments**

## Turning Movement Count - Peak Hour Diagram

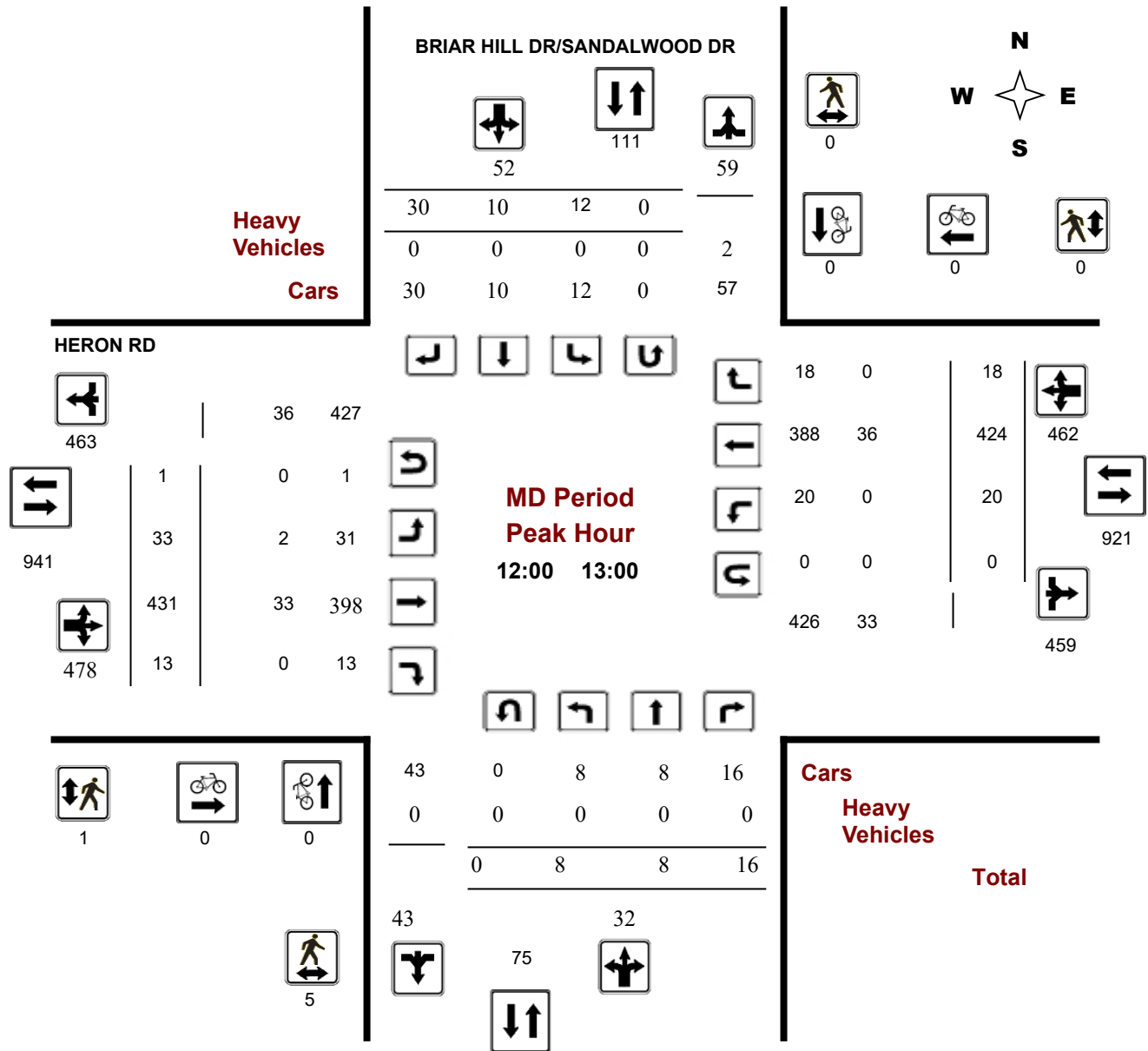
### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40070

**Device:** Miovision



## Turning Movement Count - Peak Hour Diagram

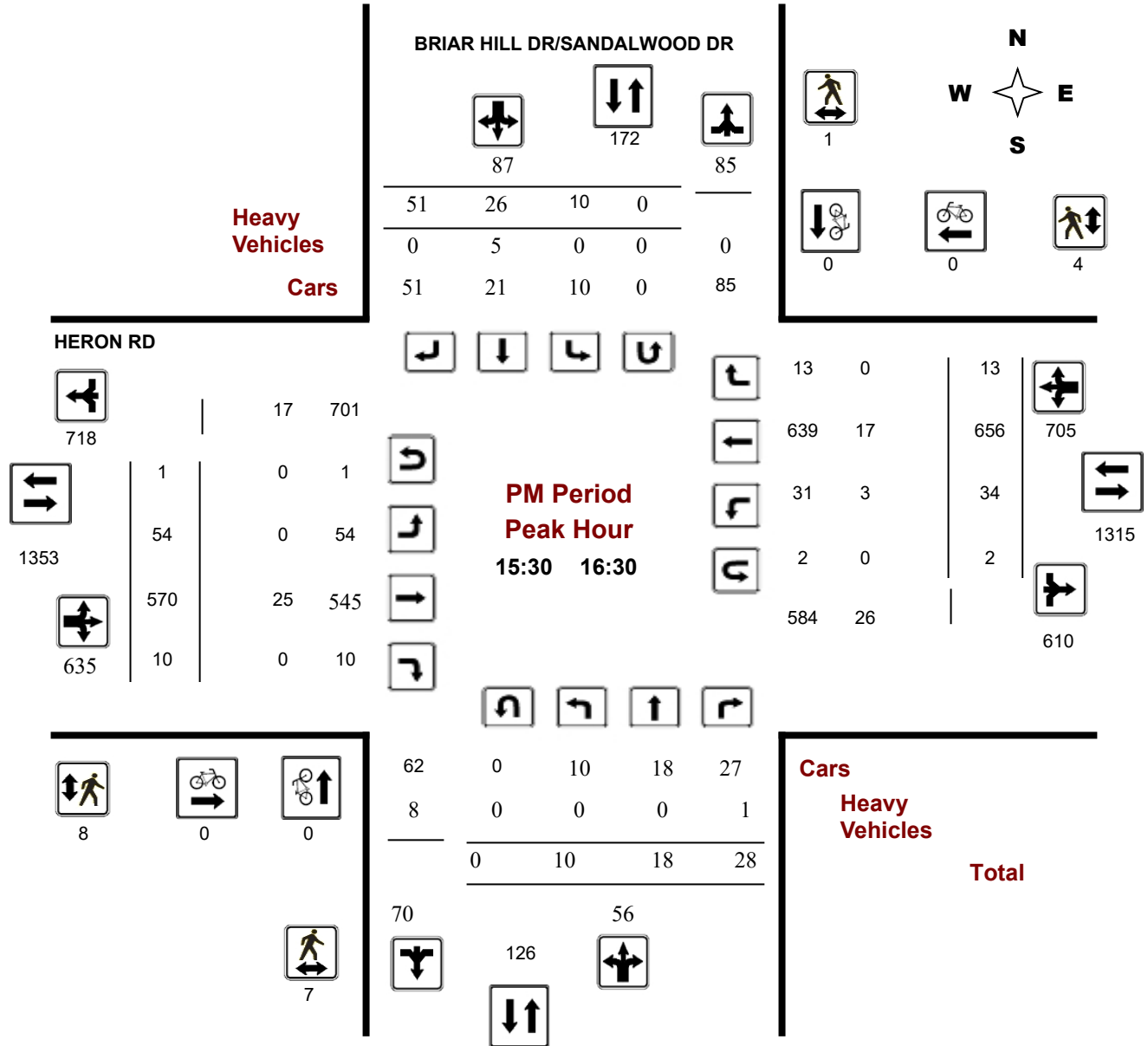
### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40070

**Device:** Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study Summary (8 HR Standard)

**Survey Date:** Thursday, January 20, 2022

**Total Observed U-Turns**

**AADT Factor**

Northbound: 0      Southbound: 1  
 Eastbound: 8      Westbound: 6

1.00

**BRIAR HILL DR/SANDALWOOD DR**

**HERON RD**

Period	Northbound					Southbound					Eastbound				Westbound			STR TOT	Grand Total	
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT			
07:00 08:00	7	4	13	24	4	3	26	33	57	19	351	7	377	10	420	3	433	810	867	
08:00 09:00	19	17	27	63	9	8	42	59	122	37	534	8	579	6	557	14	577	1156	1278	
09:00 10:00	15	16	28	59	14	19	38	71	130	32	439	8	479	10	423	10	443	922	1052	
11:30 12:30	9	8	16	33	14	7	24	45	78	22	439	14	475	14	399	16	429	904	982	
12:30 13:30	9	15	16	40	9	12	31	52	92	34	401	13	448	19	444	9	472	920	1012	
15:00 16:00	10	13	27	50	12	25	46	83	133	43	564	13	620	32	593	9	634	1254	1387	
16:00 17:00	7	11	26	44	12	12	33	57	101	48	598	12	658	25	665	10	700	1358	1459	
17:00 18:00	16	14	25	55	7	7	23	37	92	31	521	18	570	18	511	19	548	1118	1210	
<b>Sub Total</b>	92	98	178	368	81	93	263	437	805	266	3847	93	4206	134	4012	90	4236	8442	9247	
<b>U Turns</b>				0				1	1				8				6	14	15	
<b>Total</b>	92	98	178	368	81	93	263	438	806	266	3847	93	4214	134	4012	90	4242	8456	9262	

**EQ 12Hr** 128 136 247 512 113 129 366 609 1120 370 5347 129 5857 186 5577 125 5896 11754 12874

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

**AVG 12Hr** 128 136 247 512 113 169 479 609 1120 370 5347 129 5857 186 5577 125 5896 11754 12874

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

1.00

**AVG 24Hr** 168 178 324 671 148 221 627 798 1467 485 7005 169 7673 244 7306 164 7724 15398 16865

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.





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**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute Increments

#### BRIAR HILL DR/SANDALWOOD DR

#### HERON RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	2	1	0	3	0	0	5	5	8	2	80	1	83	1	80	0	81	164	172
07:15 07:30	1	1	4	6	1	1	1	3	9	2	69	3	74	3	94	0	97	171	180
07:30 07:45	2	1	2	5	2	0	16	18	23	5	81	3	89	2	124	2	128	217	240
07:45 08:00	2	1	7	10	1	2	4	7	17	10	121	0	131	4	122	1	127	258	275
08:00 08:15	3	3	5	11	1	1	10	12	23	6	98	1	105	2	129	1	132	237	260
08:15 08:30	6	6	7	19	2	0	13	15	34	10	178	1	189	1	163	4	168	357	391
08:30 08:45	5	3	6	14	4	3	10	17	31	9	130	3	142	2	142	6	150	292	323
08:45 09:00	5	5	9	19	2	4	9	15	34	12	128	3	143	1	123	3	127	270	304
09:00 09:15	5	10	12	27	4	10	11	25	52	16	152	1	169	4	120	5	130	299	351
09:15 09:30	2	5	7	14	6	5	12	23	37	6	117	3	126	3	111	1	115	241	278
09:30 09:45	6	0	4	10	3	3	10	16	26	7	88	4	99	1	97	3	101	200	226
09:45 10:00	2	1	5	8	1	1	5	7	15	3	82	0	85	2	95	1	98	183	198
11:30 11:45	3	1	5	9	3	2	4	9	18	5	114	4	123	3	95	2	100	223	241
11:45 12:00	2	4	2	8	3	3	6	12	20	7	93	3	103	2	98	1	101	204	224
12:00 12:15	4	2	4	10	2	0	5	7	17	5	117	6	128	4	105	7	116	244	261
12:15 12:30	0	1	5	6	6	2	9	17	23	5	115	1	121	5	101	6	112	233	256
12:30 12:45	1	0	5	6	1	4	8	13	19	16	98	2	116	3	107	3	113	229	248
12:45 13:00	3	5	2	10	3	4	8	15	25	7	101	4	113	8	111	2	121	234	259
13:00 13:15	2	4	8	14	5	2	9	16	30	6	92	3	102	5	108	2	116	218	248
13:15 13:30	3	6	1	10	0	2	6	9	19	5	110	4	119	3	118	2	123	242	261
15:00 15:15	4	2	3	9	4	1	5	10	19	9	153	5	168	5	111	2	118	286	305
15:15 15:30	1	2	9	12	4	4	9	17	29	8	134	4	146	4	164	3	171	317	346
15:30 15:45	1	4	12	17	2	1	8	11	28	14	135	2	151	9	160	2	172	323	351
15:45 16:00	4	5	3	12	2	19	24	45	57	12	142	2	156	14	158	2	175	331	388
16:00 16:15	2	6	5	13	3	5	14	22	35	15	146	1	163	2	178	7	187	350	385
16:15 16:30	3	3	8	14	3	1	5	9	23	13	147	5	165	9	160	2	171	336	359
16:30 16:45	0	1	8	9	3	4	9	16	25	11	152	3	167	10	145	0	155	322	347
16:45 17:00	2	1	5	8	3	2	5	10	18	9	153	3	166	4	182	1	188	354	372
17:00 17:15	3	7	7	17	2	3	2	7	24	5	152	2	159	5	148	5	158	317	341
17:15 17:30	3	1	8	12	2	0	9	11	23	14	139	9	164	5	145	4	154	318	341
17:30 17:45	6	3	8	17	2	3	6	11	28	4	125	1	130	7	122	8	138	268	296
17:45 18:00	4	3	2	9	1	1	6	8	17	8	105	6	119	1	96	2	99	218	235
<b>Total:</b>	<b>92</b>	<b>98</b>	<b>178</b>	<b>368</b>	<b>81</b>	<b>93</b>	<b>263</b>	<b>438</b>	<b>806</b>	<b>266</b>	<b>3847</b>	<b>93</b>	<b>4214</b>	<b>134</b>	<b>4012</b>	<b>90</b>	<b>4242</b>	<b>8456</b>	<b>9,262</b>

Note: U-Turns are included in Totals.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study Cyclist Volume

#### BRIAR HILL DR/SANDALWOOD DR

#### HERON RD

Time Period	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	0	0	0	0	0	0	0
13:00 13:15	0	0	0	0	0	0	0
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	0	0	0	0
15:15 15:30	0	0	0	0	0	0	0
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	0	0	0	0	0	0
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	0	0	0	0	0	0	0
16:45 17:00	0	0	0	0	0	0	0
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study Pedestrian Volume

#### BRIAR HILL DR/SANDALWOOD DR

#### HERON RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	1	1	1
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	2	2	0	0	0	2
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	1	1	0	0	0	1
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	1	1	0	0	0	1
08:45 09:00	0	1	1	2	0	2	3
09:00 09:15	4	1	5	3	3	6	11
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	1	0	1	1
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	1	1	0	0	0	1
12:00 12:15	2	0	2	1	0	1	3
12:15 12:30	1	0	1	0	0	0	1
12:30 12:45	1	0	1	0	0	0	1
12:45 13:00	1	0	1	0	0	0	1
13:00 13:15	4	0	4	1	0	1	5
13:15 13:30	1	1	2	0	1	1	3
15:00 15:15	0	0	0	0	0	0	0
15:15 15:30	0	1	1	1	0	1	2
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	1	0	1	4	3	7	8
16:00 16:15	4	0	4	1	1	2	6
16:15 16:30	2	1	3	3	0	3	6
16:30 16:45	1	0	1	0	1	1	2
16:45 17:00	4	0	4	0	0	0	4
17:00 17:15	1	0	1	1	0	1	2
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
<b>Total .....</b>	<b>27</b>	<b>10</b>	<b>37</b>	<b>18</b>	<b>10</b>	<b>28</b>	<b>65</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study Heavy Vehicles

#### BRIAR HILL DR/SANDALWOOD DR

#### HERON RD

Time Period	Northbound				Southbound				Eastbound				Westbound				Grand Total		
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT		W TOT	STR TOT
07:00 07:15	0	0	0	0	0	0	0	0	0	0	2	0	13	0	11	0	13	26	13
07:15 07:30	0	0	0	1	0	0	0	0	1	0	4	1	17	0	12	0	16	33	17
07:30 07:45	0	0	0	0	0	0	0	0	0	0	7	0	18	0	11	0	18	36	18
07:45 08:00	0	0	0	0	0	0	0	0	0	0	3	0	15	0	12	0	15	30	15
08:00 08:15	0	0	1	1	0	0	0	2	3	1	4	0	20	0	15	1	21	41	22
08:15 08:30	0	0	1	1	0	0	0	0	1	0	3	0	11	0	8	0	12	23	12
08:30 08:45	0	0	0	0	0	0	0	1	1	0	4	0	9	0	5	1	10	19	10
08:45 09:00	0	3	1	4	0	0	0	4	8	1	3	0	12	0	8	0	12	24	16
09:00 09:15	0	1	0	1	0	0	0	1	2	0	8	0	13	0	5	0	13	26	14
09:15 09:30	0	0	0	0	0	0	0	0	0	0	7	0	11	0	4	0	11	22	11
09:30 09:45	0	0	1	1	0	0	2	3	4	1	11	0	20	0	6	0	18	38	21
09:45 10:00	0	0	0	0	0	0	0	0	0	0	6	0	19	0	13	0	19	38	19
11:30 11:45	0	0	0	0	0	0	0	0	0	0	8	0	15	0	7	0	15	30	15
11:45 12:00	0	0	0	0	0	0	0	0	0	0	7	0	11	0	4	0	11	22	11
12:00 12:15	0	0	0	0	0	0	0	1	1	1	14	0	19	0	4	0	18	37	19
12:15 12:30	0	0	0	0	0	0	0	0	0	0	4	0	18	0	14	0	18	36	18
12:30 12:45	0	0	0	0	0	0	0	1	1	1	5	0	14	0	8	0	13	27	14
12:45 13:00	0	0	0	0	0	0	0	0	0	0	10	0	20	0	10	0	20	40	20
13:00 13:15	0	0	0	0	0	0	1	1	1	0	8	0	15	0	6	0	14	29	15
13:15 13:30	1	0	0	1	0	0	0	0	1	0	6	0	12	0	5	0	11	23	12
15:00 15:15	0	0	0	0	0	0	0	0	0	0	7	0	11	0	4	0	11	22	11
15:15 15:30	0	0	0	0	0	0	0	0	0	0	10	0	17	0	7	0	17	34	17
15:30 15:45	0	0	0	1	0	1	0	1	2	0	6	0	9	0	3	0	9	18	10
15:45 16:00	0	0	0	6	0	4	0	4	10	0	8	0	13	2	5	0	15	28	19
16:00 16:15	0	0	1	1	0	0	0	0	1	0	4	0	8	0	4	0	9	17	9
16:15 16:30	0	0	0	1	0	0	0	0	1	0	7	0	12	1	5	0	13	25	13
16:30 16:45	0	0	0	0	0	0	0	0	0	0	13	0	16	0	3	0	16	32	16
16:45 17:00	0	0	0	0	0	0	0	0	0	0	6	0	10	0	4	0	10	20	10
17:00 17:15	0	0	0	0	0	0	0	0	0	0	6	0	9	0	3	0	9	18	9
17:15 17:30	0	0	0	1	0	0	0	0	1	0	2	0	6	1	4	0	7	13	7
17:30 17:45	0	0	0	0	0	0	1	1	1	0	3	0	9	0	5	0	8	17	9
17:45 18:00	0	0	0	0	0	0	0	0	0	0	5	0	8	0	3	0	8	16	8
Total: None	1	4	5	20	0	5	4	20	40	5	201	1	430	4	218	2	430	860	450



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40070

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute U-Turn Total

BRIAR HILL DR/SANDALWOOD DR

HERON RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	1	1
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	1	0	1
13:00	13:15	0	0	1	1	2
13:15	13:30	0	1	0	0	1
15:00	15:15	0	0	1	0	1
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	1	1
15:45	16:00	0	0	0	1	1
16:00	16:15	0	0	1	0	1
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	1	0	1
16:45	17:00	0	0	1	1	2
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	2	0	2
17:30	17:45	0	0	0	1	1
17:45	18:00	0	0	0	0	0
Total		0	1	8	6	15

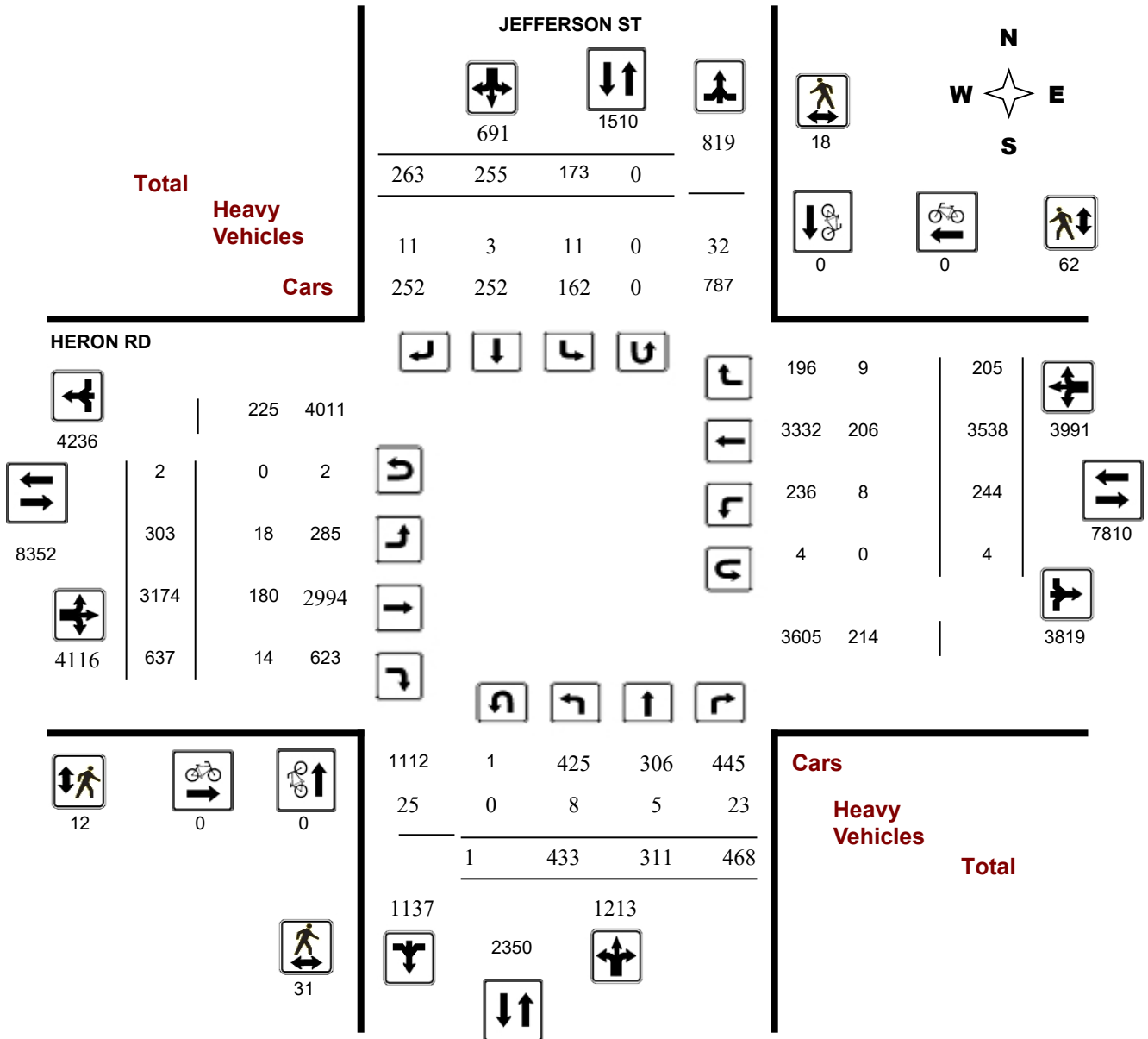
**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study Diagram



## Turning Movement Count - Study Results

### HERON RD @ JEFFERSON ST

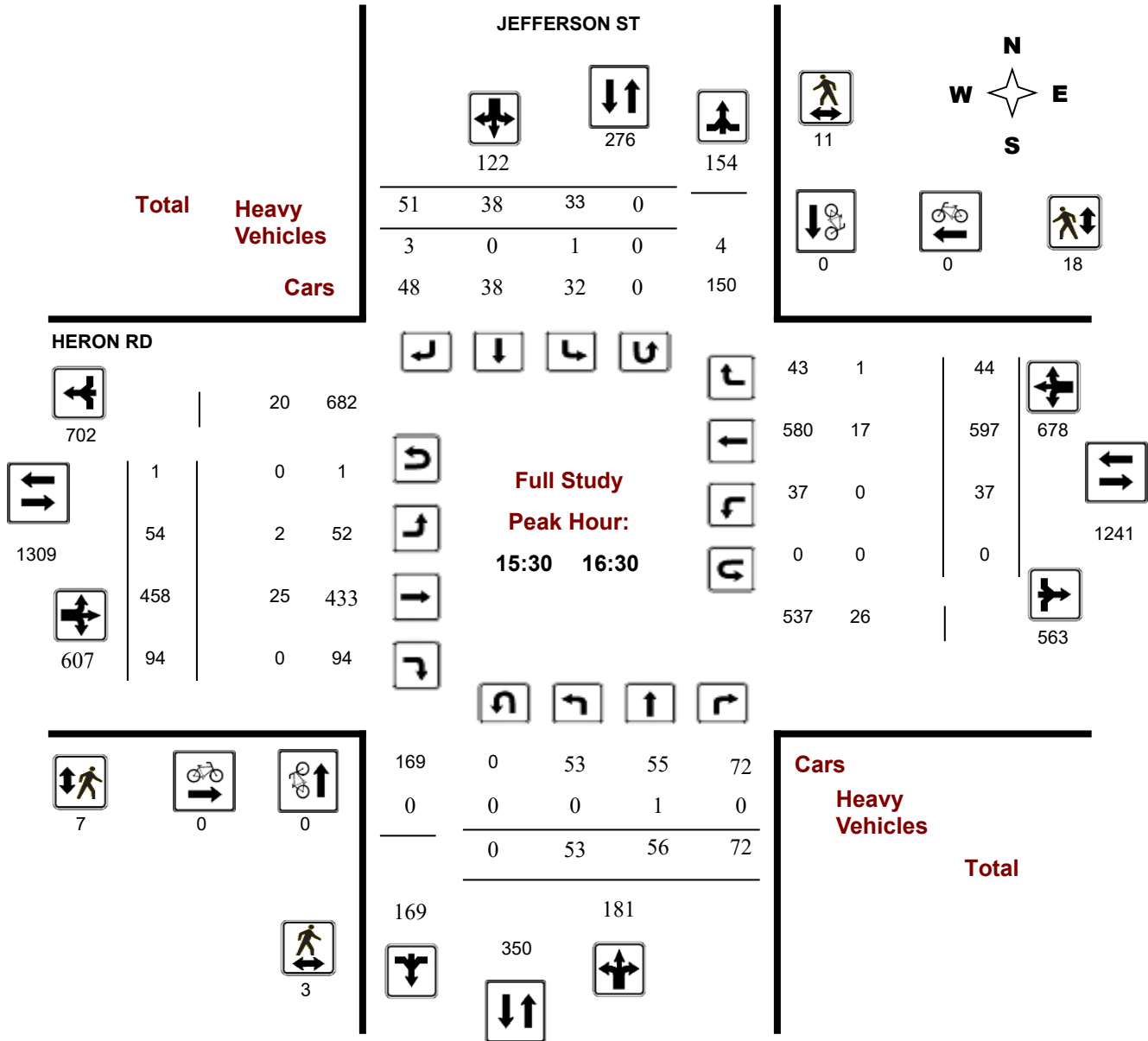
**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study Peak Hour Diagram



## Turning Movement Count - Peak Hour Diagram

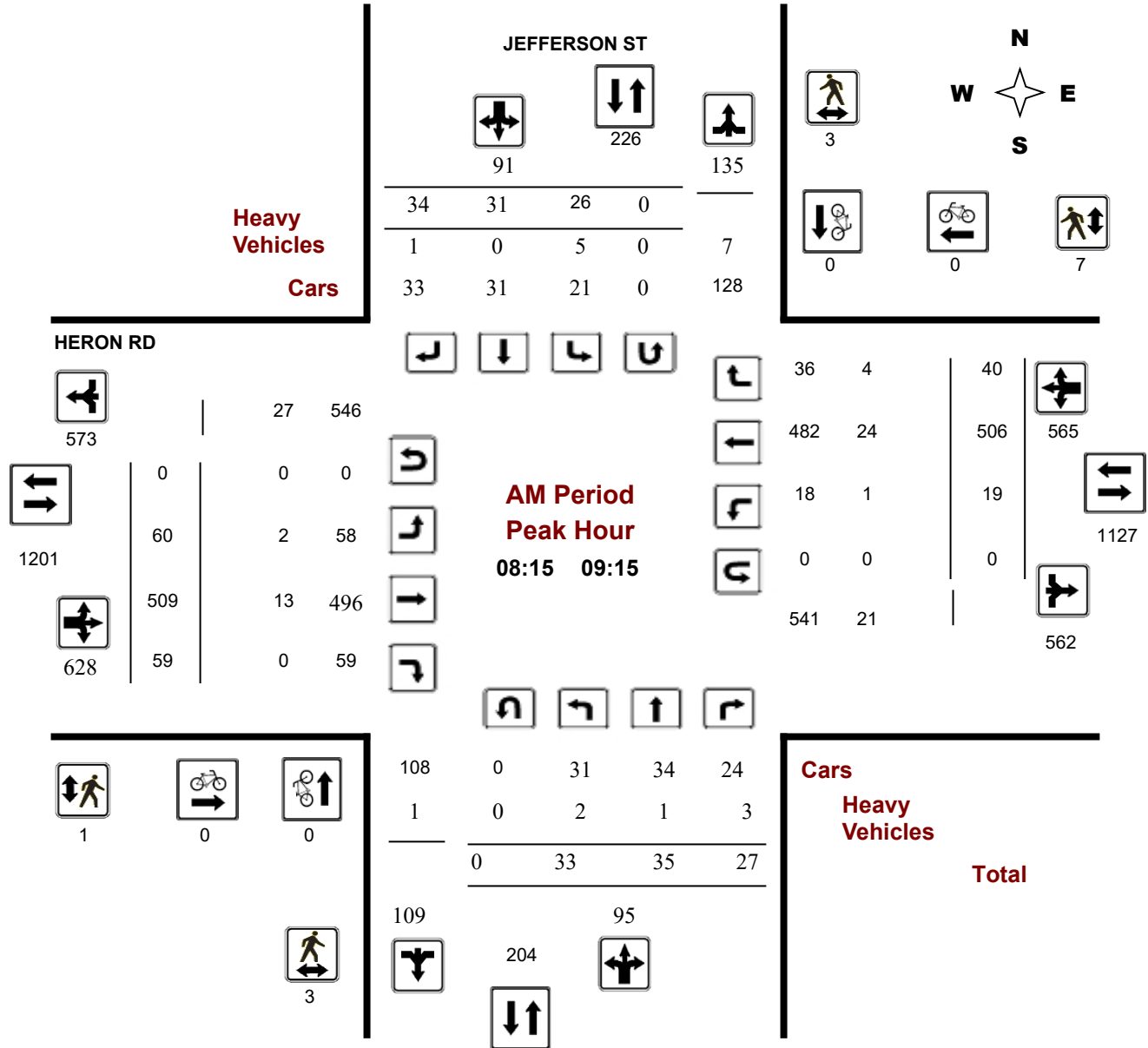
### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40071

**Device:** Miovision





## Turning Movement Count - Peak Hour Diagram

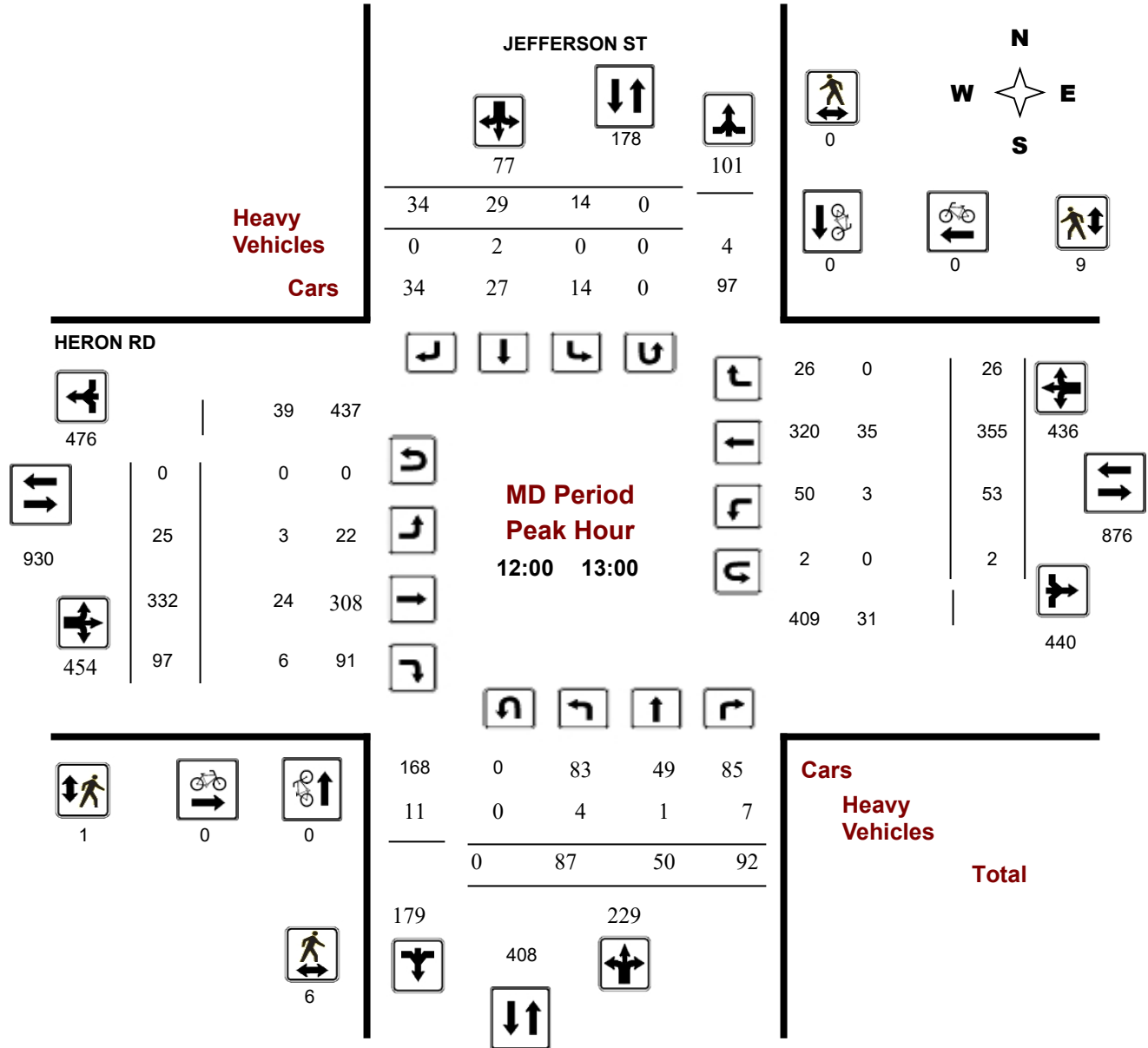
### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40071

**Device:** Miovision



## Turning Movement Count - Peak Hour Diagram

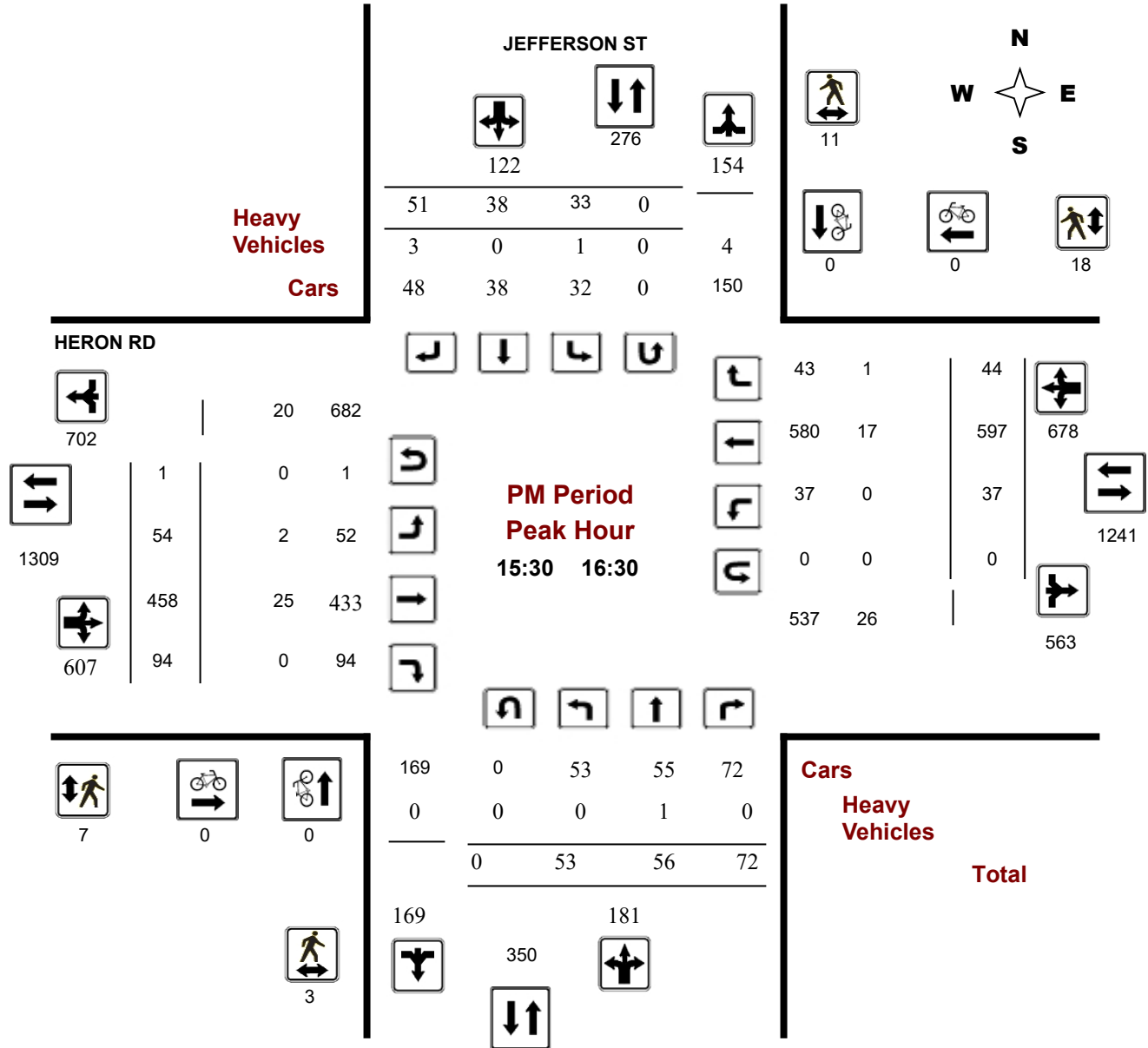
### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**Start Time:** 07:00

**WO No:** 40071

**Device:** Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study Summary (8 HR Standard)

**Survey Date:** Thursday, January 20, 2022

**Total Observed U-Turns**

**AADT Factor**

Northbound: 1      Southbound: 0  
 Eastbound: 2      Westbound: 4

1.00

**JEFFERSON ST**

**HERON RD**

Period	JEFFERSON ST Northbound					JEFFERSON ST Southbound					HERON RD Eastbound					HERON RD Westbound			STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT			
07:00 08:00	13	9	12	34	21	9	22	52	86	15	324	21	360	7	378	11	396	756	842	
08:00 09:00	33	26	23	82	22	28	35	85	167	42	484	46	572	17	509	31	557	1129	1296	
09:00 10:00	39	46	33	118	33	38	34	105	223	47	390	53	490	29	380	24	433	923	1146	
11:30 12:30	71	48	87	206	14	25	23	62	268	26	331	104	461	46	323	26	395	856	1124	
12:30 13:30	88	35	87	210	14	34	31	79	289	21	328	86	435	42	364	22	428	863	1152	
15:00 16:00	60	72	73	205	23	44	47	114	319	52	432	112	596	36	530	31	597	1193	1512	
16:00 17:00	54	33	78	165	35	31	47	113	278	52	482	104	638	37	584	37	658	1296	1574	
17:00 18:00	75	42	75	192	11	46	24	81	273	48	403	111	562	30	470	23	523	1085	1358	
<b>Sub Total</b>	433	311	468	1212	173	255	263	691	1903	303	3174	637	4114	244	3538	205	3987	8101	10004	
<b>U Turns</b>				1				0	1				2				4	6	7	
<b>Total</b>	433	311	468	1213	173	255	263	691	1904	303	3174	637	4116	244	3538	205	3991	8107	10011	

**EQ 12Hr** 602 432 651 **1686** 240 354 366 **960** **2647** 421 4412 885 **5721** 339 4918 285 **5547** **11269** **13915**  
 Note: These values are calculated by multiplying the totals by the appropriate expansion factor. **1.39**

**AVG 12Hr** 602 432 651 **1686** 240 464 479 **960** **2647** 421 4412 885 **5721** 339 4918 285 **5547** **11269** **13915**  
 Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. **1.00**

**AVG 24Hr** 789 566 853 **2209** 314 608 627 **1258** **3468** 552 5780 1159 **7495** 444 6443 373 **7267** **14762** **18229**  
 Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. **1.31**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute Increments

#### JEFFERSON ST

#### HERON RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	4	2	1	7	6	1	5	12	19	0	82	5	87	2	68	2	72	159	178
07:15 07:30	4	1	3	8	3	1	3	7	15	5	63	5	73	3	92	1	96	169	184
07:30 07:45	3	5	3	11	5	5	6	16	27	1	76	4	81	0	108	1	109	190	217
07:45 08:00	2	1	5	8	7	2	8	17	25	9	103	7	119	2	110	7	119	238	263
08:00 08:15	7	5	2	14	4	9	9	22	36	5	99	3	107	2	128	2	132	239	275
08:15 08:30	8	5	5	18	4	8	7	19	37	10	153	17	180	6	146	6	158	338	375
08:30 08:45	8	11	12	31	5	5	15	25	56	13	117	15	145	6	128	10	144	289	345
08:45 09:00	10	5	4	19	9	6	4	19	38	14	115	11	140	3	107	13	123	263	301
09:00 09:15	7	14	6	27	8	12	8	28	55	23	124	16	163	4	125	11	140	303	358
09:15 09:30	11	13	10	34	13	14	10	37	71	14	117	15	146	14	94	5	114	260	331
09:30 09:45	8	9	5	22	8	4	8	20	42	7	83	10	100	8	91	4	103	203	245
09:45 10:00	13	10	12	35	4	8	8	20	55	3	66	12	81	3	70	4	77	158	213
11:30 11:45	16	7	16	39	4	6	3	13	52	5	85	28	118	11	87	8	106	224	276
11:45 12:00	19	12	23	54	2	5	5	12	66	5	78	21	105	9	60	1	70	175	241
12:00 12:15	17	18	24	59	4	7	8	19	78	12	78	24	114	14	97	8	121	235	313
12:15 12:30	19	11	24	54	4	7	7	18	72	4	90	31	125	12	79	9	100	225	297
12:30 12:45	23	13	29	65	5	8	7	20	85	7	76	28	111	14	81	4	99	210	295
12:45 13:00	28	8	15	51	1	7	12	20	71	2	88	14	104	13	98	5	116	220	291
13:00 13:15	17	9	19	45	6	9	5	20	65	7	83	25	115	7	93	10	110	225	290
13:15 13:30	20	5	24	50	2	10	7	19	69	5	81	19	105	8	92	3	103	208	277
15:00 15:15	18	10	12	40	2	11	7	20	60	9	125	34	168	8	99	2	109	277	337
15:15 15:30	17	22	22	61	6	10	12	28	89	12	95	26	133	13	136	9	158	291	380
15:30 15:45	12	24	14	50	6	4	11	21	71	20	105	30	155	9	157	13	179	334	405
15:45 16:00	13	16	25	54	9	19	17	45	99	11	107	22	140	6	138	7	151	291	390
16:00 16:15	9	10	16	35	10	12	14	36	71	10	113	16	139	8	152	6	166	305	376
16:15 16:30	19	6	17	42	8	3	9	20	62	13	133	26	173	14	150	18	182	355	417
16:30 16:45	15	8	20	43	10	10	9	29	72	12	114	37	163	9	133	8	150	313	385
16:45 17:00	11	9	25	45	7	6	15	28	73	17	122	25	164	6	149	5	160	324	397
17:00 17:15	17	14	19	50	4	11	6	21	71	11	124	30	165	5	139	3	147	312	383
17:15 17:30	26	10	20	56	3	11	9	23	79	12	106	25	143	10	127	10	148	291	370
17:30 17:45	18	8	20	46	1	11	5	17	63	11	102	31	144	7	111	4	122	266	329
17:45 18:00	14	10	16	40	3	13	4	20	60	14	71	25	110	8	93	6	107	217	277
<b>Total:</b>	<b>433</b>	<b>311</b>	<b>468</b>	<b>1213</b>	<b>173</b>	<b>255</b>	<b>263</b>	<b>691</b>	<b>1904</b>	<b>303</b>	<b>3174</b>	<b>637</b>	<b>4116</b>	<b>244</b>	<b>3538</b>	<b>205</b>	<b>3991</b>	<b>8107</b>	<b>10,011</b>

Note: U-Turns are included in Totals.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study Cyclist Volume

Time Period	JEFFERSON ST			HERON RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	0	0	0	0	0	0	0
13:00 13:15	0	0	0	0	0	0	0
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	0	0	0	0
15:15 15:30	0	0	0	0	0	0	0
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	0	0	0	0	0	0
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	0	0	0	0	0	0	0
16:45 17:00	0	0	0	0	0	0	0
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study Pedestrian Volume

#### JEFFERSON ST

#### HERON RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	1	1	1
07:15 07:30	0	0	0	0	1	1	1
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	1	0	1	0	1	1	2
08:00 08:15	1	0	1	1	0	1	2
08:15 08:30	0	2	2	0	0	0	2
08:30 08:45	0	0	0	1	0	1	1
08:45 09:00	1	0	1	0	3	3	4
09:00 09:15	2	1	3	0	4	4	7
09:15 09:30	2	0	2	0	2	2	4
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	4	0	4	0	7	7	11
11:30 11:45	3	0	3	0	3	3	6
11:45 12:00	0	1	1	0	2	2	3
12:00 12:15	4	0	4	0	2	2	6
12:15 12:30	2	0	2	0	3	3	5
12:30 12:45	0	0	0	1	1	2	2
12:45 13:00	0	0	0	0	3	3	3
13:00 13:15	2	0	2	0	2	2	4
13:15 13:30	1	0	1	0	1	1	2
15:00 15:15	1	0	1	0	0	0	1
15:15 15:30	0	1	1	0	2	2	3
15:30 15:45	1	3	4	1	2	3	7
15:45 16:00	1	7	8	6	12	18	26
16:00 16:15	1	1	2	0	3	3	5
16:15 16:30	0	0	0	0	1	1	1
16:30 16:45	0	0	0	0	0	0	0
16:45 17:00	1	0	1	0	1	1	2
17:00 17:15	0	0	0	0	1	1	1
17:15 17:30	2	2	4	2	2	4	8
17:30 17:45	1	0	1	0	2	2	3
17:45 18:00	0	0	0	0	0	0	0
<b>Total .....</b>	<b>31</b>	<b>18</b>	<b>49</b>	<b>12</b>	<b>62</b>	<b>74</b>	<b>123</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study Heavy Vehicles

#### JEFFERSON ST

#### HERON RD

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
	LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00 07:15	0	1	0	2	0	0	1	2	4	0	2	0	11	1	8	0	11	22	13
07:15 07:30	0	0	1	1	0	0	0	0	1	0	3	0	16	0	13	0	17	33	17
07:30 07:45	1	0	1	2	2	0	1	4	6	1	6	0	16	0	7	0	16	32	19
07:45 08:00	0	0	0	0	0	0	1	1	1	0	5	0	18	0	12	0	17	35	18
08:00 08:15	0	0	0	0	1	0	1	4	4	1	5	0	23	0	16	1	23	46	25
08:15 08:30	2	0	0	3	0	0	1	2	5	1	3	0	13	1	6	0	10	23	14
08:30 08:45	0	0	3	3	1	0	0	3	6	0	2	0	6	0	4	2	12	18	12
08:45 09:00	0	1	0	1	0	0	0	2	3	1	4	0	13	0	8	0	12	25	14
09:00 09:15	0	0	0	0	4	0	0	6	6	0	4	0	10	0	6	2	16	26	16
09:15 09:30	0	0	0	0	0	0	0	1	1	1	8	0	13	0	4	0	12	25	13
09:30 09:45	0	0	0	0	1	0	0	2	2	0	10	0	18	0	8	1	20	38	20
09:45 10:00	0	0	0	1	0	0	0	0	1	0	6	0	18	1	12	0	19	37	19
11:30 11:45	0	0	3	6	0	0	0	1	7	1	7	2	18	1	8	0	19	37	22
11:45 12:00	0	0	2	6	0	0	0	0	6	0	8	3	13	1	2	0	13	26	16
12:00 12:15	0	1	1	6	0	2	0	5	11	2	9	2	17	0	4	0	14	31	21
12:15 12:30	2	0	3	8	0	0	0	0	8	0	6	2	23	1	13	0	23	46	27
12:30 12:45	0	0	0	2	0	0	0	1	3	1	2	1	13	1	9	0	12	25	14
12:45 13:00	2	0	3	7	0	0	0	0	7	0	7	1	19	1	9	0	20	39	23
13:00 13:15	1	1	1	3	0	0	1	4	7	1	10	0	19	0	6	1	18	37	22
13:15 13:30	0	0	0	0	0	0	0	1	1	1	5	0	10	0	4	0	9	19	10
15:00 15:15	0	0	0	1	0	0	1	2	3	1	6	1	12	0	3	0	9	21	12
15:15 15:30	0	0	3	3	1	0	0	1	4	0	7	0	14	0	7	0	18	32	18
15:30 15:45	0	1	0	1	0	0	0	2	3	0	8	0	10	0	2	1	11	21	12
15:45 16:00	0	0	0	0	1	0	1	2	2	0	6	0	14	0	7	0	14	28	15
16:00 16:15	0	0	0	0	0	0	0	1	1	1	5	0	10	0	4	0	9	19	10
16:15 16:30	0	0	0	0	0	0	2	3	3	1	6	0	13	0	4	0	10	23	13
16:30 16:45	0	0	1	2	0	0	0	1	3	1	10	1	13	0	1	0	12	25	14
16:45 17:00	0	0	0	1	0	1	0	3	4	1	7	0	13	0	5	1	13	26	15
17:00 17:15	0	0	1	1	0	0	0	0	1	0	3	0	6	0	3	0	7	13	7
17:15 17:30	0	0	0	0	0	0	1	2	2	1	4	0	8	0	2	0	6	14	8
17:30 17:45	0	0	0	0	0	0	0	0	0	0	2	0	8	0	6	0	8	16	8
17:45 18:00	0	0	0	1	0	0	0	1	2	1	4	1	9	0	3	0	7	16	9
Total: None	8	5	23	61	11	3	11	57	118	18	180	14	437	8	206	9	437	874	496



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### HERON RD @ JEFFERSON ST

**Survey Date:** Thursday, January 20, 2022

**WO No:** 40071

**Start Time:** 07:00

**Device:** Miovision

### Full Study 15 Minute U-Turn Total

JEFFERSON ST

HERON RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	1	1
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	1	0	1
12:00	12:15	0	0	0	2	2
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	1	0	0	0	1
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	1	0	1
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	1	1
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		1	0	2	4	7





# Transportation Services - Traffic Services

Work Order  
36600

## Turning Movement Count - 15 Min U-Turn Total Report ALBION RD/COLLISTON CRES E @ WALKLEY RD

Survey Date: Wednesday, December 07, 2016

Time Period	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00 - 07:15	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0
07:45 - 08:00	0	0	0	0	0
08:00 - 08:15	0	0	1	0	1
08:15 - 08:30	0	0	0	0	0
08:30 - 08:45	0	0	0	0	0
08:45 - 09:00	0	0	0	0	0
09:00 - 09:15	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0
09:30 - 09:45	0	0	0	1	1
09:45 - 10:00	0	0	1	0	1
11:30 - 11:45	0	0	0	0	0
11:45 - 12:00	0	0	1	0	1
12:00 - 12:15	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0
13:15 - 13:30	0	0	0	1	1
15:00 - 15:15	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0
15:45 - 16:00	0	0	2	0	2
16:00 - 16:15	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0
16:30 - 16:45	0	0	1	0	1
16:45 - 17:00	0	0	0	1	1
17:00 - 17:15	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0
17:45 - 18:00	0	0	0	1	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>4</b>	<b>10</b>



# Transportation Services - Traffic Services

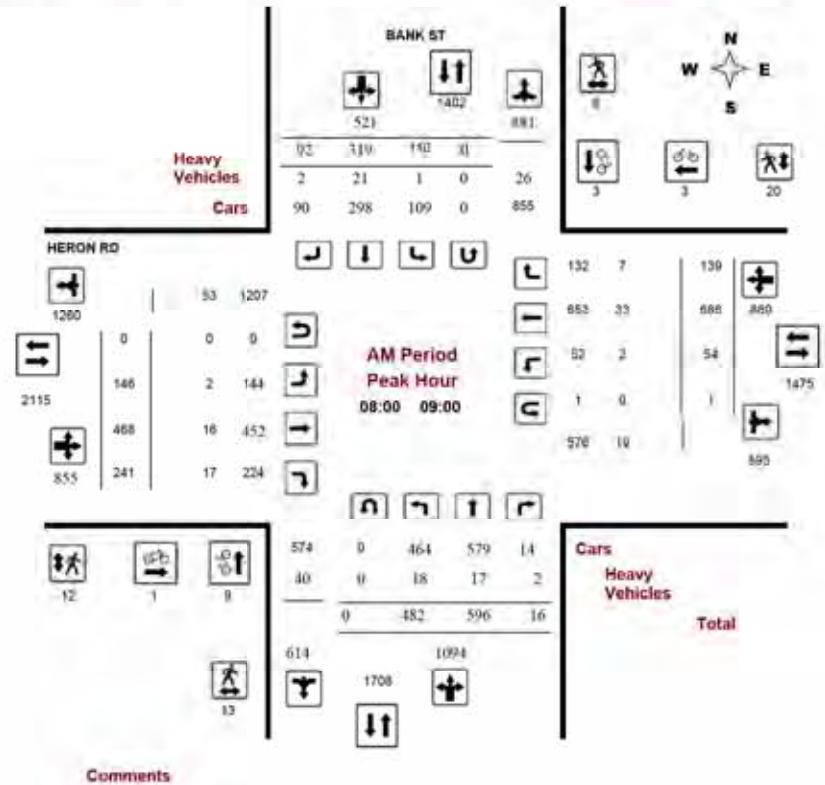
## Turning Movement Count - Peak Hour Diagram BANK ST @ HERON RD

Survey Date: Wednesday, August 03, 2016

Start Time: 07:00

WO No: 36117

Device: Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

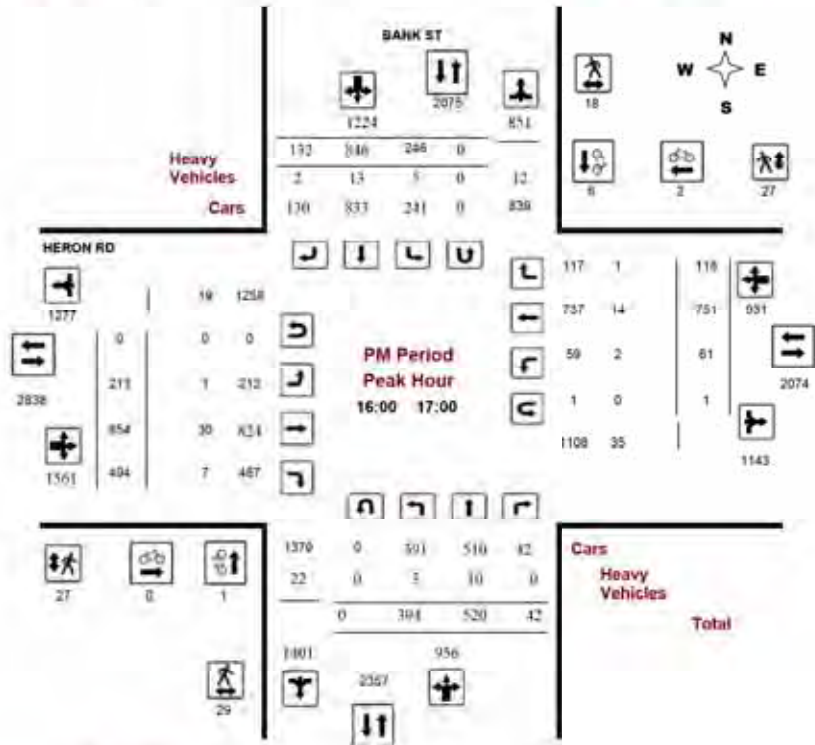
### BANK ST @ HERON RD

Survey Date: Wednesday, August 03, 2016

Start Time: 07:00

WO No: 36117

Device: Miovision



Comments



# Transportation Services - Traffic Services

Work Order

36117

## Turning Movement Count - Full Study Summary Report

### BANK ST @ HERON RD

Survey Date: Wednesday, August 03, 2016

Total Observed U-Turns

AADT Factor

Northbound: 1 Southbound: 2  
 Eastbound: 3 Westbound: 0

(0)

### Full Study

Period	BANK ST Northbound				BANK ST Southbound				HERON RD Eastbound				HERON RD Westbound				WB TOT	STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT			
07:00-08:00	424	457	9	890	75	225	67	367	1257	134	496	204	834	34	635	113	782	1616	2673
08:00-09:00	482	596	16	1094	110	319	92	521	1615	148	488	241	855	54	686	139	879	1734	3349
09:00-10:00	318	523	21	862	114	413	115	642	1504	170	413	252	835	42	502	136	680	1515	3019
11:30-12:30	364	624	51	1039	149	632	148	929	1968	200	451	337	994	59	407	138	604	1598	3566
12:30-13:30	332	609	51	992	175	685	169	1029	2012	212	436	342	990	46	407	185	618	1686	3620
15:00-16:00	366	537	45	948	203	745	171	1119	2097	200	635	422	1257	50	643	141	834	2091	4168
16:00-17:00	384	520	43	947	246	846	132	1224	2180	213	854	494	1561	61	751	118	930	2491	4671
17:00-18:00	381	502	46	929	202	768	155	1125	2053	206	642	448	1296	53	580	135	768	2064	4117
<b>Sub Total</b>	<b>3091</b>	<b>4359</b>	<b>280</b>	<b>7730</b>	<b>1274</b>	<b>4633</b>	<b>1049</b>	<b>6956</b>	<b>14686</b>	<b>1487</b>	<b>4395</b>	<b>2740</b>	<b>8622</b>	<b>399</b>	<b>4611</b>	<b>1085</b>	<b>6995</b>	<b>14717</b>	<b>29403</b>
U Turns				1				2	3				3				9	12	15
<b>Total</b>	<b>3091</b>	<b>4359</b>	<b>280</b>	<b>7731</b>	<b>1274</b>	<b>4633</b>	<b>1049</b>	<b>6958</b>	<b>14689</b>	<b>1487</b>	<b>4395</b>	<b>2740</b>	<b>8625</b>	<b>399</b>	<b>4611</b>	<b>1085</b>	<b>7104</b>	<b>14729</b>	<b>29418</b>
EQ 12hr	4296	6059	389	10744	1771	6440	1458	9672	20418	2067	6109	3809	11989	555	6408	1508	8485	20474	40892
Note: These values are calculated by multiplying the totals by the appropriate expansion factor. <b>1.39</b>																			
AVG 12hr	3667	5453	350	9671	1564	5796	1312	8704	18375	1860	5498	3428	10790	499	5768	1357	7636	18426	36801
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. <b>.90</b>																			
AVG 24hr	3086	7144	459	12679	2088	7593	1719	11403	24073	2437	7203	4490	14135	654	7557	1778	10903	24138	48211
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. <b>1.31</b>																			

### Comments:

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ WALKLEY RD

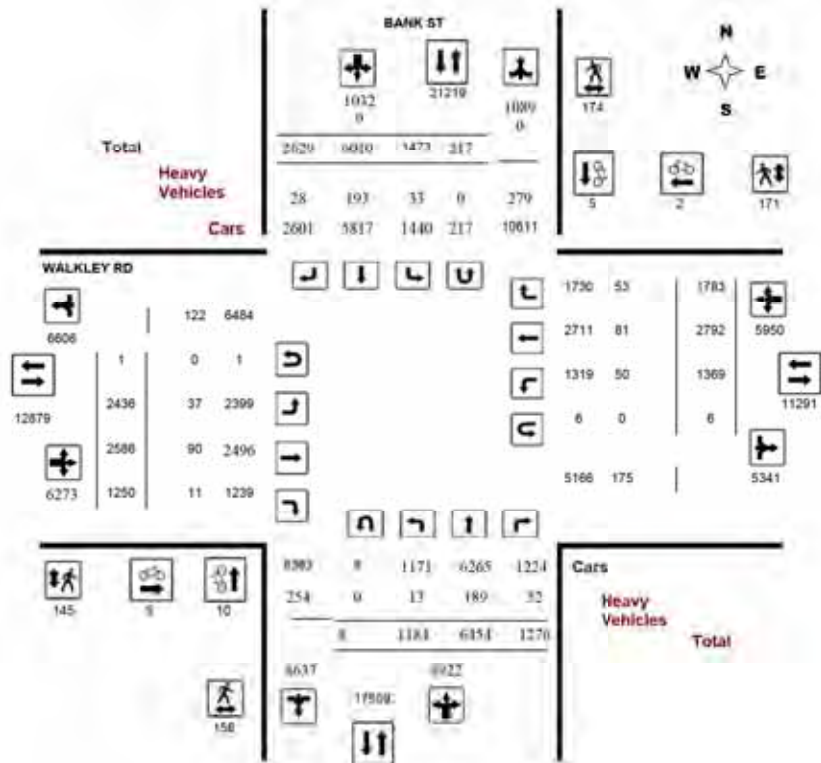
Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Miovision

#### Full Study Diagram



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

### BANK ST @ WALKLEY RD

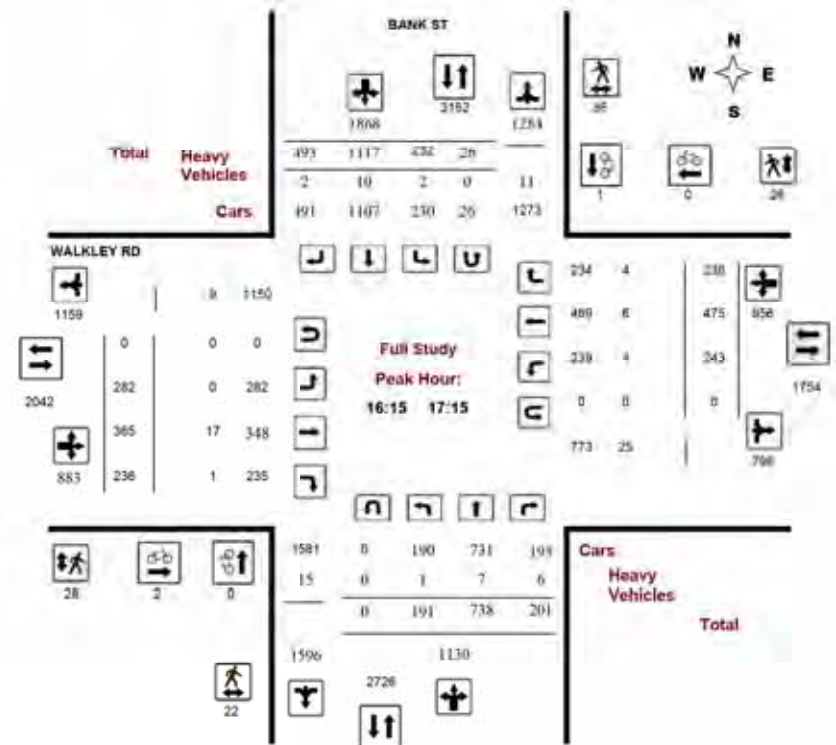
Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Miovision

#### Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

BANK ST @ WALKLEY RD

Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, February 22, 2018

Total Observed U-Turns AADT Factor
Northbound: 11, Southbound: 11, Eastbound: 1, Westbound: 1, 1.29

Table with columns for BANK ST (Northbound, Southbound) and WALKLEY RD (Eastbound, Westbound). Rows show time periods from 07:00 to 17:00 and summary rows for U-Turns and Total.

Summary row for U-Turns: 8, 217, 225, 1, 6, 7, 232

Total row: 1184, 6454, 1276, 8922, 1473, 6010, 2629, 10329, 18251, 2436, 2586, 1250, 6273, 1369, 2792, 1783, 5950, 12223, 31474

EQ 12hr: 1648, 8971, 1774, 12402, 2047, 8354, 3654, 14357, 26759, 3388, 3595, 1737, 8719, 1903, 3881, 2478, 8270, 16990, 43749

Note: These values are calculated by multiplying the totals by the appropriate expansion factor: 1.39

AVG 12hr: 1481, 8074, 1596, 11161, 1843, 7519, 3289, 12922, 24083, 3047, 3235, 1564, 7948, 1713, 3493, 2231, 7443, 15291, 39374

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor: 0.9

AVG 24hr: 1940, 10577, 2091, 14621, 2414, 9849, 4308, 10927, 31548, 3692, 4238, 2049, 10280, 2244, 4578, 2022, 9751, 20031, 51579

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor: 1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BANK ST @ WALKLEY RD

Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

Large table with columns for BANK ST (Northbound, Southbound) and WALKLEY RD (Eastbound, Westbound). Rows show 15-minute time periods from 07:00 to 17:45 and a Total row.

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BANK ST @ WALKLEY RD

Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	BANK ST			WALKLEY RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00-07:15	0	0	0	0	0	0	0
07:15-07:30	1	0	1	0	0	0	1
07:30-07:45	1	0	1	0	0	0	1
07:45-08:00	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0
08:15-08:30	2	0	2	0	1	1	3
08:30-08:45	0	0	0	0	0	0	0
08:45-09:00	0	0	0	0	0	0	0
09:00-09:15	0	0	0	0	0	0	0
09:15-09:30	0	0	0	0	0	0	0
09:30-09:45	1	0	1	0	0	0	1
09:45-10:00	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0
12:00-12:15	0	1	1	0	0	0	1
12:15-12:30	1	0	1	0	0	0	1
12:30-12:45	0	0	0	1	0	1	1
12:45-13:00	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0
13:15-13:30	0	1	1	0	0	0	1
15:00-15:15	1	0	1	0	0	0	1
15:15-15:30	0	2	2	1	0	1	3
15:30-15:45	3	0	3	0	1	1	4
15:45-16:00	0	0	0	1	0	1	1
16:00-16:15	0	0	0	0	0	0	0
16:15-16:30	0	1	1	0	0	0	1
16:30-16:45	0	0	0	0	0	0	0
16:45-17:00	0	0	0	2	0	2	2
17:00-17:15	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0
Total	10	5	15	5	2	7	22



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BANK ST @ WALKLEY RD

Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

Time Period	BANK ST			WALKLEY RD			Grand Total
	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	
07:00-07:15	0	4	4	0	3	3	7
07:15-07:30	2	3	5	0	3	3	8
07:30-07:45	2	5	7	1	2	3	10
07:45-08:00	3	4	7	2	2	4	11
08:00-08:15	5	4	9	2	5	7	16
08:15-08:30	3	5	8	2	1	3	11
08:30-08:45	1	12	13	4	4	8	21
08:45-09:00	2	5	7	0	7	7	14
09:00-09:15	5	8	13	2	3	5	18
09:15-09:30	7	3	10	1	2	3	13
09:30-09:45	3	2	5	2	4	6	11
09:45-10:00	3	4	7	1	3	4	11
11:30-11:45	6	3	9	3	10	13	22
11:45-12:00	4	3	7	7	3	10	17
12:00-12:15	4	2	6	5	4	9	15
12:15-12:30	4	1	5	1	6	7	12
12:30-12:45	3	0	3	3	8	11	14
12:45-13:00	2	5	7	4	1	5	12
13:00-13:15	6	3	9	6	7	13	22
13:15-13:30	5	4	9	11	3	14	23
15:00-15:15	9	6	15	9	10	19	34
15:15-15:30	7	6	13	12	7	19	32
15:30-15:45	8	8	16	9	6	15	31
15:45-16:00	12	7	19	10	11	21	40
16:00-16:15	7	9	16	3	13	16	32
16:15-16:30	10	11	21	5	7	12	33
16:30-16:45	5	14	19	7	6	13	32
16:45-17:00	6	2	8	6	6	12	20
17:00-17:15	1	9	10	10	7	17	27
17:15-17:30	10	8	18	7	4	11	29
17:30-17:45	4	7	11	5	3	8	19
17:45-18:00	9	1	10	5	10	15	31
Total	158	114	322	145	171	216	648



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BANK ST @ WALKLEY RD

Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Microvision

Full Study Heavy Vehicles

Time Period	BANK ST									WALKLEY RD									Grand Total						
	Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound				Eastbound			Westbound		
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT		LT	ST	RT			
07:00	07:15	0	5	2	15	3	6	0	16	31	0	2	0	8	2	6	2	17	25	28					
07:15	07:30	0	8	0	20	0	9	0	22	42	1	1	0	5	3	3	4	11	16	29					
07:30	07:45	1	8	2	20	1	7	1	18	38	0	4	1	10	1	3	1	12	22	30					
07:45	08:00	0	11	4	23	0	5	1	21	44	3	5	0	11	3	2	1	15	26	35					
08:00	08:15	1	10	1	21	0	7	1	26	47	3	5	0	15	2	5	5	18	33	40					
08:15	08:30	0	10	4	23	2	3	1	20	43	1	2	1	9	5	4	3	20	29	36					
08:30	08:45	0	8	0	15	1	7	1	22	37	4	5	0	12	2	2	3	13	25	31					
08:45	09:00	2	12	3	25	1	5	1	24	49	2	1	2	11	1	3	3	12	23	36					
09:00	09:15	0	5	0	24	0	17	0	27	51	2	4	0	8	2	2	3	11	19	35					
09:15	09:30	1	7	0	15	0	5	2	17	32	2	4	0	11	2	2	1	9	20	28					
09:30	09:45	0	4	0	18	1	13	1	21	39	1	2	0	5	1	1	1	6	11	25					
09:45	10:00	0	6	1	13	2	5	2	18	31	3	2	1	11	0	3	0	8	19	25					
11:30	11:45	0	4	1	12	1	5	1	15	27	1	3	0	8	2	3	3	13	21	24					
11:45	12:00	0	7	5	24	3	8	0	20	44	0	1	1	5	3	3	2	17	22	33					
12:00	12:15	0	4	1	16	0	10	1	19	35	1	1	0	6	1	3	3	9	15	25					
12:15	12:30	1	8	2	17	3	2	0	14	31	0	2	1	5	3	1	1	12	17	24					
12:30	12:45	0	8	2	20	2	8	0	20	40	0	4	0	6	2	2	2	14	20	30					
12:45	13:00	0	8	1	17	0	7	2	20	37	1	2	0	7	1	2	2	8	15	26					
13:00	13:15	0	7	2	19	2	7	0	17	36	1	1	2	7	1	3	0	9	16	26					
13:15	13:30	0	5	3	19	0	7	2	17	36	1	3	1	11	3	4	2	15	26	31					
15:00	15:15	0	10	3	20	2	7	0	26	46	5	3	0	9	0	1	2	11	20	33					
15:15	15:30	2	6	2	16	3	6	5	21	37	1	3	0	11	0	0	0	8	19	29					
15:30	15:45	3	6	0	16	1	6	1	15	31	1	3	0	12	1	4	0	9	21	28					
15:45	16:00	0	3	3	16	3	7	1	17	33	2	6	0	12	3	3	1	19	31	32					
16:00	16:15	0	8	2	14	0	4	2	16	30	1	1	0	9	0	5	1	9	18	24					
16:15	16:30	1	3	2	11	2	4	1	10	21	0	4	1	7	0	0	0	8	15	18					
16:30	16:45	0	1	1	5	0	3	1	6	11	0	5	0	9	0	3	1	10	19	15					
16:45	17:00	0	2	0	3	0	0	0	4	7	0	5	0	6	1	1	2	9	15	11					
17:00	17:15	0	1	3	10	0	3	0	5	15	0	3	0	5	3	2	1	12	17	16					
17:15	17:30	0	3	1	6	0	2	0	6	12	0	0	0	1	0	1	1	3	4	8					
17:30	17:45	1	1	1	8	0	4	0	7	15	0	2	0	6	1	3	2	9	15	15					
17:45	18:00	0	2	0	7	0	4	0	6	13	0	1	0	2	1	1	0	3	5	9					
Total:	None	13	189	52	508	33	193	28	533	1041	37	90	11	260	50	81	53	359	619	830					



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BANK ST @ WALKLEY RD

Survey Date: Thursday, February 22, 2018

WO No: 37563

Start Time: 07:00

Device: Microvision

Full Study 15 Minute U-Turn Total

Time Period	BANK ST				Total
	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	
07:00	07:15	0	0	0	0
07:15	07:30	0	2	0	2
07:30	07:45	0	1	0	1
07:45	08:00	0	3	0	3
08:00	08:15	0	4	0	4
08:15	08:30	1	1	0	2
08:30	08:45	0	6	0	6
08:45	09:00	0	6	0	6
09:00	09:15	0	8	0	8
09:15	09:30	0	7	0	7
09:30	09:45	0	6	0	6
09:45	10:00	0	4	0	4
11:30	11:45	1	6	0	7
11:45	12:00	1	5	0	6
12:00	12:15	0	16	0	16
12:15	12:30	1	12	0	13
12:30	12:45	0	9	0	9
12:45	13:00	1	11	0	12
13:00	13:15	1	10	0	11
13:15	13:30	0	5	0	5
15:00	15:15	0	7	0	7
15:15	15:30	0	10	0	10
15:30	15:45	1	9	0	10
15:45	16:00	0	9	0	9
16:00	16:15	0	7	0	7
16:15	16:30	0	6	0	6
16:30	16:45	0	3	0	3
16:45	17:00	0	6	0	6
17:00	17:15	0	11	0	11
17:15	17:30	0	8	0	8
17:30	17:45	0	11	1	12
17:45	18:00	1	8	0	9
Total		8	217	1	226



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

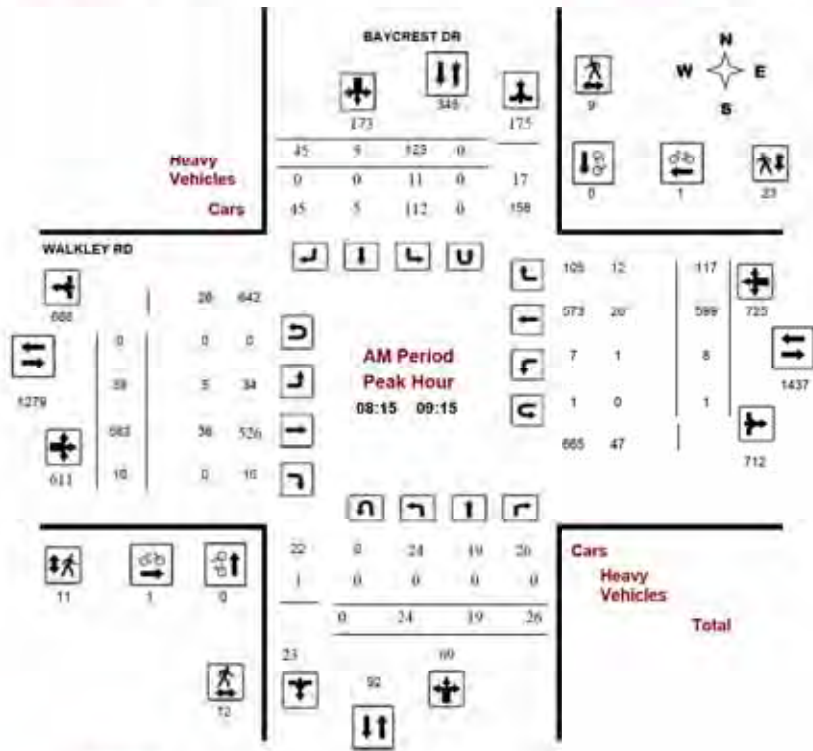
### BAYCREST DR @ WALKLEY RD

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36488

Device: Miovision



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

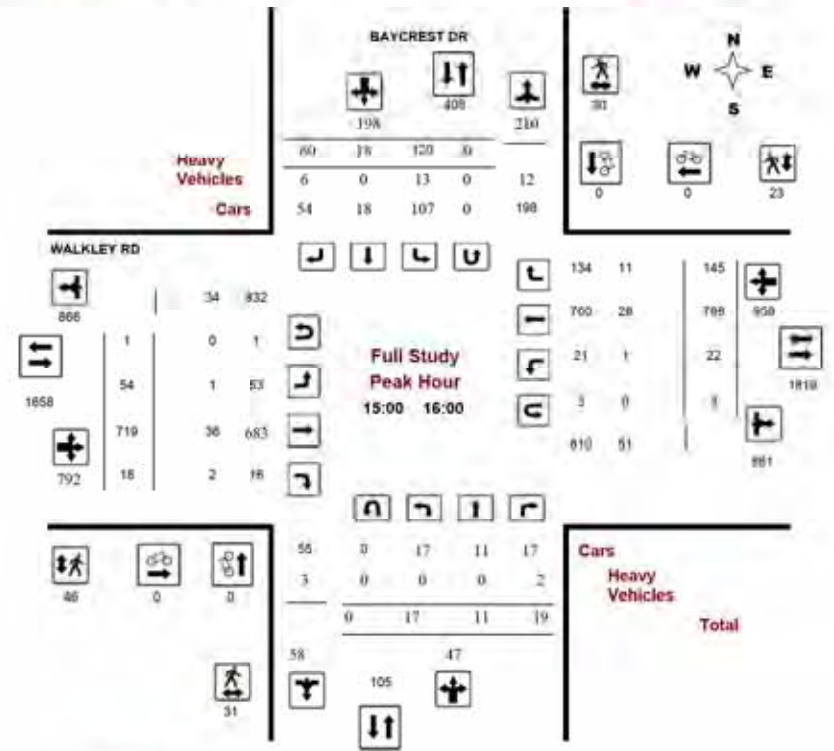
### BAYCREST DR @ WALKLEY RD

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36488

Device: Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

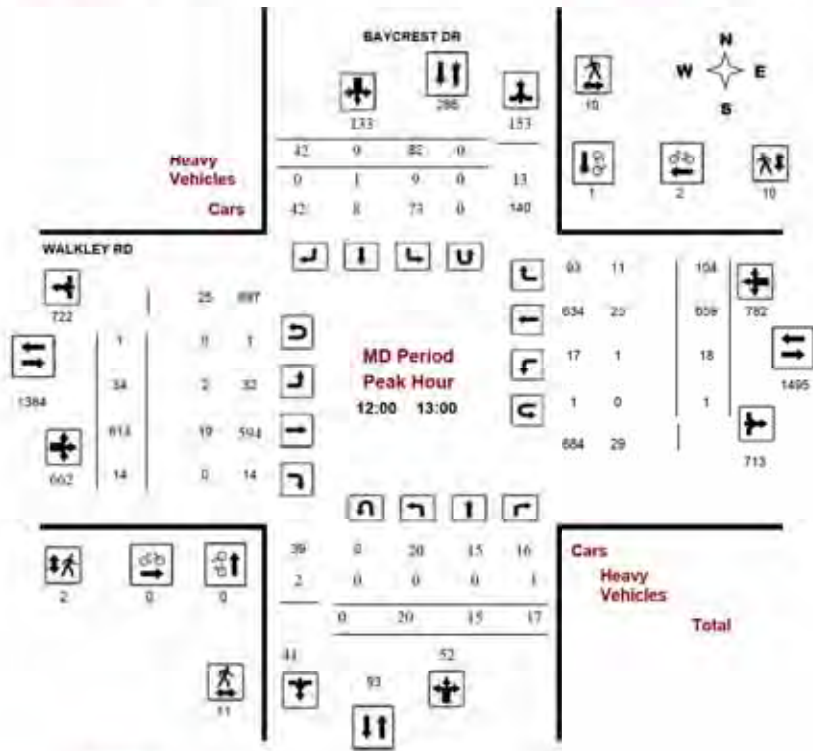
### BAYCREST DR @ WALKLEY RD

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36488

Device: Miovision



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

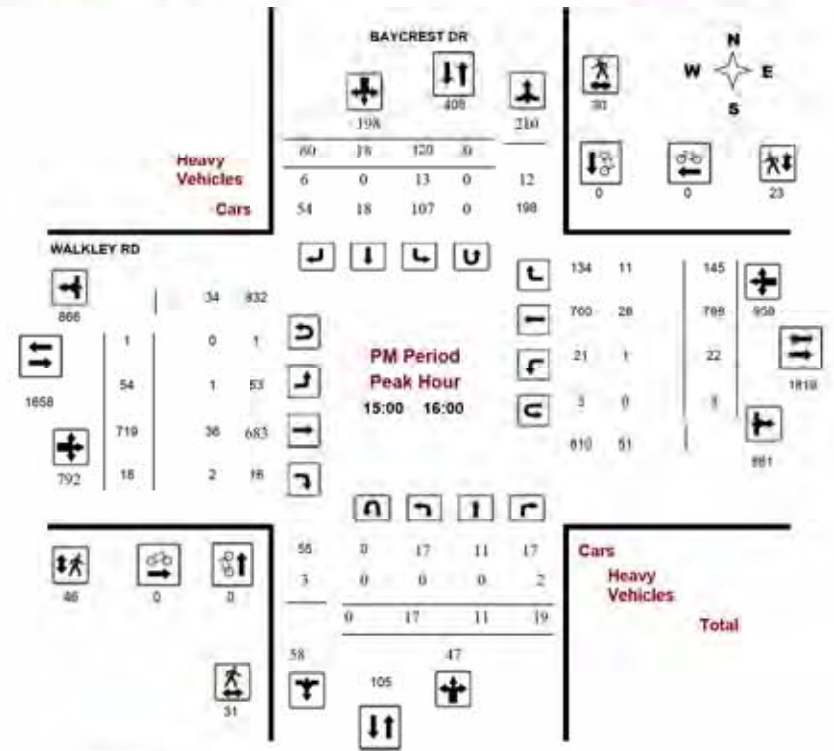
### BAYCREST DR @ WALKLEY RD

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36488

Device: Miovision





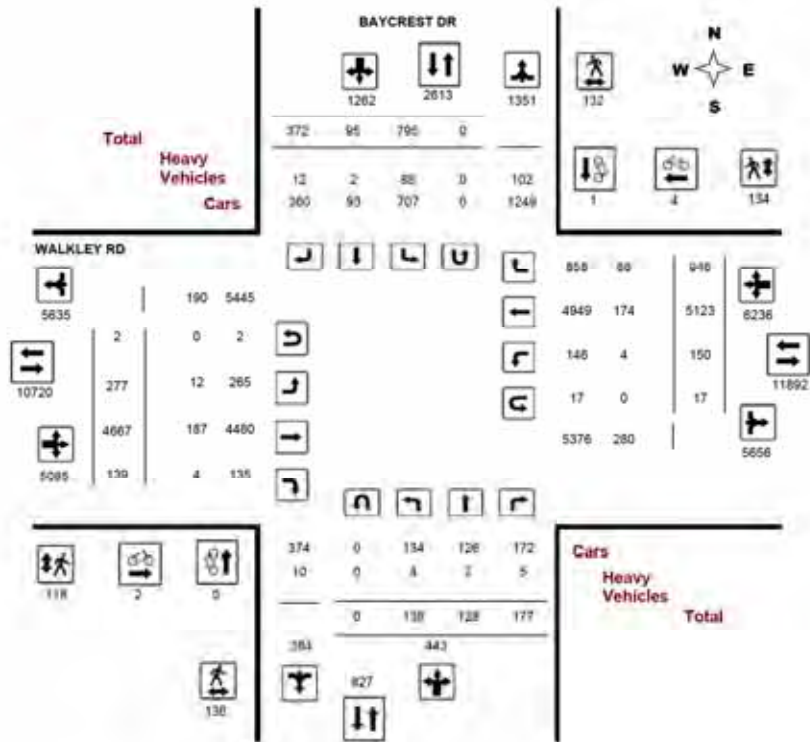


**Transportation Services - Traffic Services**  
**Turning Movement Count - Full Study Diagram**

**BAYCREST DR @ WALKLEY RD**

Survey Date: Wednesday, November 16, 2016

WO#: 36488  
 Device: Movision



Comments:



**Transportation Services - Traffic Services**

Work Order  
36488

**Turning Movement Count - Full Study Summary Report**

**BAYCREST DR @ WALKLEY RD**

Survey Date: Wednesday, November 15, 2016

Total Observed U-Turns:

AA DT Factor:

Northbound: 0 Southbound: 0  
 Eastbound: 2 Westbound: 12

**Full Study**

Period	BAYCREST DR					WALKLEY RD					Grand Total								
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT									
07:00-08:00	19	24	31	74	93	5	38	136	219	14	454	5	473	9	513	107	629	1982	1312
08:00-09:00	25	22	29	72	116	8	51	167	239	34	578	9	619	7	587	119	713	1332	1571
09:00-10:00	13	17	20	50	82	2	38	120	179	28	518	11	555	11	529	129	669	1224	1284
11:00-12:00	10	11	16	37	81	4	48	133	179	32	594	11	637	22	645	119	786	1423	1593
12:30-13:30	16	14	14	44	100	13	40	153	197	34	587	15	616	14	604	92	710	1326	1523
15:00-16:00	17	11	19	47	120	18	60	198	245	54	719	18	791	22	788	145	955	1746	1991
16:00-17:00	22	10	26	58	103	22	55	180	238	34	642	31	787	35	795	115	945	1652	1890
17:00-18:00	16	18	28	61	106	25	44	175	236	49	597	30	685	30	662	120	812	1497	1733
<b>Sub Total</b>	<b>138</b>	<b>128</b>	<b>177</b>	<b>443</b>	<b>795</b>	<b>95</b>	<b>372</b>	<b>1262</b>	<b>1785</b>	<b>277</b>	<b>4957</b>	<b>139</b>	<b>5083</b>	<b>150</b>	<b>5123</b>	<b>946</b>	<b>6219</b>	<b>11302</b>	<b>13007</b>
<b>U-Turns</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>19</b>	<b>19</b>
<b>Total</b>	<b>138</b>	<b>128</b>	<b>177</b>	<b>443</b>	<b>795</b>	<b>95</b>	<b>372</b>	<b>1262</b>	<b>1785</b>	<b>277</b>	<b>4957</b>	<b>139</b>	<b>5085</b>	<b>150</b>	<b>5123</b>	<b>946</b>	<b>6236</b>	<b>11321</b>	<b>13026</b>
<b>EQ 12hr</b>	<b>192</b>	<b>178</b>	<b>246</b>	<b>616</b>	<b>1105</b>	<b>132</b>	<b>517</b>	<b>1754</b>	<b>2379</b>	<b>385</b>	<b>6487</b>	<b>193</b>	<b>7968</b>	<b>208</b>	<b>7121</b>	<b>1315</b>	<b>8668</b>	<b>15736</b>	<b>18106</b>
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.											<b>1.39</b>								
<b>AVG 12hr</b>	<b>173</b>	<b>160</b>	<b>221</b>	<b>554</b>	<b>995</b>	<b>119</b>	<b>485</b>	<b>1579</b>	<b>2133</b>	<b>347</b>	<b>5838</b>	<b>174</b>	<b>6361</b>	<b>188</b>	<b>6409</b>	<b>1183</b>	<b>7801</b>	<b>14562</b>	<b>16295</b>
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.											<b>.90</b>								
<b>AVG 24hr</b>	<b>220</b>	<b>210</b>	<b>290</b>	<b>726</b>	<b>1303</b>	<b>156</b>	<b>610</b>	<b>2068</b>	<b>2794</b>	<b>454</b>	<b>7948</b>	<b>228</b>	<b>8333</b>	<b>246</b>	<b>8298</b>	<b>1560</b>	<b>10220</b>	<b>18953</b>	<b>21347</b>
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.											<b>1.31</b>								

**Comments:**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Turning Movement Count - 15 Minute Summary Report

BAYCREST DR @ WALKLEY RD

Survey Date: Wednesday, November 16, 2016

Total Observed U-Turns

Northbound: 0 Southbound: 0  
Eastbound: 2 Westbound: 17

Time Period	BAYCREST DR										WALKLEY RD										Grand Total
	Northbound					Southbound					Eastbound					Westbound					
	LT	ST	RT	TOT	U-TURN	LT	ST	RT	TOT	U-TURN	LT	ST	RT	TOT	U-TURN	LT	ST	RT	TOT	U-TURN	
07:00 07:15	2	3	4	9	0	20	2	8	30	39	0	84	2	86	2	96	20	118	204	243	
07:15 07:30	5	9	6	20	0	26	1	5	32	52	5	116	0	121	0	130	27	157	278	330	
07:30 07:45	5	7	10	22	0	24	0	15	39	61	2	110	3	115	5	132	27	164	279	340	
07:45 08:00	7	5	11	23	0	23	2	10	35	58	7	144	0	151	2	155	33	190	341	399	
08:00 08:15	4	5	8	17	0	23	1	17	41	58	5	141	4	150	1	133	37	172	322	380	
08:15 08:30	9	5	8	20	0	24	3	16	43	63	5	130	2	137	2	139	26	167	304	367	
08:30 08:45	6	8	3	17	0	29	1	8	38	55	15	127	2	144	1	170	27	198	342	397	
08:45 09:00	6	4	8	18	0	34	1	10	45	63	9	178	1	188	5	145	29	178	366	429	
09:00 09:15	3	2	9	14	0	36	0	11	47	61	10	127	5	142	2	145	55	162	324	385	
09:15 09:30	3	5	2	10	0	22	0	11	33	43	2	150	3	155	5	113	33	149	304	347	
09:30 09:45	1	8	5	14	0	6	1	7	14	28	6	118	2	126	5	144	34	184	310	338	
09:45 10:00	6	2	4	12	0	18	1	7	26	38	8	123	1	132	1	127	27	157	289	327	
11:30 11:45	1	1	5	7	0	24	1	16	41	48	9	135	2	146	3	149	30	184	330	378	
11:45 12:00	0	4	3	7	0	20	3	8	31	38	7	148	2	157	5	146	32	185	342	380	
12:00 12:15	4	2	4	10	0	22	0	14	36	46	10	134	4	148	7	175	24	206	354	400	
12:15 12:30	5	4	4	13	0	15	0	10	25	38	6	177	3	186	7	175	33	216	402	440	
12:30 12:45	4	8	4	16	0	25	5	7	37	53	9	143	4	157	2	155	24	181	338	391	
12:45 13:00	7	1	5	13	0	20	4	11	35	48	9	159	3	171	2	154	23	179	350	398	
13:00 13:15	0	3	2	5	0	23	1	11	35	40	7	126	7	142	5	142	19	166	308	348	
13:15 13:30	5	2	3	10	0	32	3	11	46	56	9	137	1	147	5	153	26	184	331	387	
15:00 15:15	2	2	4	8	0	29	5	12	46	54	14	175	3	192	5	190	39	244	436	490	
15:15 15:30	2	3	7	12	0	31	4	20	55	67	11	187	2	200	4	185	34	225	425	492	
15:30 15:45	6	1	4	11	0	34	4	10	48	59	11	175	6	193	4	207	33	244	437	496	
15:45 16:00	7	5	4	16	0	26	5	18	49	65	18	162	7	207	9	197	39	245	452	517	
16:00 16:15	5	2	6	13	0	25	5	14	44	57	7	168	3	178	5	201	40	246	424	481	
16:15 16:30	8	4	8	20	0	25	5	13	43	63	4	154	12	170	11	203	27	241	411	474	
16:30 16:45	2	3	8	13	0	20	4	15	39	52	11	167	7	185	11	208	20	239	424	476	
16:45 17:00	7	1	4	12	0	33	8	13	54	66	12	153	9	174	8	183	28	221	395	461	
17:00 17:15	4	5	6	15	0	34	10	15	59	74	10	167	7	184	10	191	26	228	412	486	
17:15 17:30	7	3	3	13	0	23	6	8	37	50	7	138	10	155	5	192	42	239	394	444	
17:30 17:45	4	6	5	15	0	28	5	14	47	62	11	147	15	173	8	170	26	204	377	439	
17:45 18:00	1	5	12	18	0	21	4	7	32	50	21	145	7	173	7	109	26	143	316	366	
<b>TOTAL</b>	<b>138</b>	<b>128</b>	<b>177</b>	<b>443</b>	<b>0</b>	<b>796</b>	<b>85</b>	<b>372</b>	<b>1262</b>	<b>1705</b>	<b>277</b>	<b>4987</b>	<b>139</b>	<b>5085</b>	<b>150</b>	<b>5123</b>	<b>946</b>	<b>6236</b>	<b>11321</b>	<b>13026</b>	

Note: U-Turns are included in Totals.

Comment:



BAYCREST DR @ WALKLEY RD

Count Date: Wednesday, November 16, 2016

Start Time: 07:00

Time Period	BAYCREST DR			WALKLEY RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 08:00	0	0	0	0	0	0	0
08:00 09:00	0	0	0	1	1	2	2
09:00 10:00	0	0	0	0	0	0	0
11:30 12:30	0	0	0	0	2	2	2
12:30 13:30	0	1	1	0	1	1	2
15:00 16:00	0	0	0	0	0	0	0
16:00 17:00	0	0	0	0	0	0	0
17:00 18:00	0	0	0	1	0	1	1
<b>Total</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>7</b>

Comment:

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

W.O.  
36488

## Turning Movement Count - Heavy Vehicle Report

### BAYCREST DR @ WALKLEY RD

Survey Date: Wednesday, November 16, 2016

BAYCREST DR										WALKLEY RD										Grand Total
Northbound					Southbound					Eastbound					Westbound					
Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT		
07:00 08:00	0	0	0	0	13	0	1	14	14	0	31	0	31	0	36	12	48	79	93	
08:00 09:00	0	0	0	0	13	0	1	14	14	6	30	0	36	1	30	11	42	78	82	
09:00 10:00	1	0	0	1	9	1	0	10	11	3	33	0	36	0	18	11	29	65	76	
11:30 12:30	0	0	0	0	9	0	1	10	10	1	19	0	20	0	20	8	35	55	65	
12:30 13:30	1	1	1	3	9	1	1	11	14	1	16	0	17	2	25	10	37	54	68	
15:00 16:00	0	0	2	2	13	0	6	19	21	1	36	2	39	1	28	11	40	79	100	
16:00 17:00	2	0	2	4	11	0	2	13	17	0	15	2	17	0	7	12	19	36	53	
17:00 18:00	0	1	0	1	11	0	0	11	12	0	7	0	7	0	4	12	16	23	35	
<b>Sub Total</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>11</b>	<b>88</b>	<b>2</b>	<b>12</b>	<b>102</b>	<b>113</b>	<b>12</b>	<b>187</b>	<b>4</b>	<b>203</b>	<b>4</b>	<b>174</b>	<b>88</b>	<b>266</b>	<b>469</b>	<b>582</b>	
<b>U-Turns (Heavy Vehicles)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>11</b>	<b>88</b>	<b>2</b>	<b>12</b>	<b>102</b>	<b>113</b>	<b>12</b>	<b>187</b>	<b>4</b>	<b>203</b>	<b>4</b>	<b>174</b>	<b>88</b>	<b>266</b>	<b>469</b>	<b>582</b>	

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

Work Order  
36488

## Turning Movement Count - Pedestrian Volume Report

### BAYCREST DR @ WALKLEY RD

Count Date: Wednesday, November 16, 2016

Start Time: 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	2	3	1	2	3	6
07:15 07:30	2	0	2	0	2	2	4
07:30 07:45	0	3	3	1	6	9	12
07:45 08:00	1	8	9	20	0	20	29
07:00 08:00	4	13	17	22	12	34	51
08:00 08:15	10	10	20	10	9	19	39
08:15 08:30	2	4	6	1	5	6	12
08:30 08:45	5	1	6	5	6	11	17
08:45 09:00	0	3	3	4	6	10	13
08:00 09:00	17	18	35	20	26	46	81
09:00 09:15	5	1	6	1	6	7	13
09:15 09:30	3	3	6	0	3	3	9
09:30 09:45	4	2	6	4	2	6	12
09:45 10:00	4	0	4	2	1	3	7
09:00 10:00	18	6	22	7	12	19	41
11:30 11:45	4	3	7	1	1	2	9
11:45 12:00	4	2	6	1	7	8	14
12:00 12:15	1	5	6	0	4	4	10
12:15 12:30	3	1	4	0	0	0	4
11:30 12:30	12	11	23	2	12	14	37
12:30 12:45	2	2	4	1	4	5	9
12:45 13:00	5	2	7	1	2	3	10
13:00 13:15	4	2	6	0	2	2	8
13:15 13:30	6	2	8	2	3	5	13
12:30 13:30	17	6	25	4	11	15	40
13:00 13:15	6	15	21	30	4	34	55
13:15 13:30	8	1	9	7	7	14	23
13:30 13:45	8	5	13	9	3	12	25
13:45 16:00	9	9	18	0	9	9	27
15:00 16:00	31	30	61	46	23	69	130
16:00 16:15	5	9	14	4	9	13	27
16:15 16:30	6	6	12	0	3	3	15
16:30 16:45	2	3	5	2	5	7	12
16:45 17:00	8	5	13	6	4	10	23
16:00 17:00	21	23	44	12	21	33	77
17:00 17:15	3	5	8	3	6	8	16
17:15 17:30	7	11	18	1	3	4	22
17:30 17:45	3	3	6	1	3	4	10
17:45 18:00	5	4	9	1	5	6	15
17:00 18:00	18	23	41	5	17	22	63
<b>Total</b>	<b>136</b>	<b>132</b>	<b>268</b>	<b>118</b>	<b>134</b>	<b>252</b>	<b>520</b>

Comment:



# Transportation Services - Traffic Services

Work Order  
36488

## Turning Movement Count - 15 Min U-Turn Total Report

### BAYCREST DR @ WALKLEY RD

Survey Date: Wednesday, November 16, 2016

Time Period	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00 - 07:15	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0
07:45 - 08:00	0	0	0	0	0
08:00 - 08:15	0	0	0	1	1
08:15 - 08:30	0	0	0	0	0
08:30 - 08:45	0	0	0	0	0
08:45 - 09:00	0	0	0	1	1
09:00 - 09:15	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0
09:30 - 09:45	0	0	0	1	1
09:45 - 10:00	0	0	0	2	2
11:30 - 11:45	0	0	0	2	2
11:45 - 12:00	0	0	0	2	2
12:00 - 12:15	0	0	0	0	0
12:15 - 12:30	0	0	0	1	1
12:30 - 12:45	0	0	1	0	1
12:45 - 13:00	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0
15:00 - 15:15	0	0	0	1	1
15:15 - 15:30	0	0	0	2	2
15:30 - 15:45	0	0	1	0	1
15:45 - 16:00	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0
16:45 - 17:00	0	0	0	2	2
17:00 - 17:15	0	0	0	1	1
17:15 - 17:30	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0
17:45 - 18:00	0	0	0	1	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>17</b>	<b>19</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

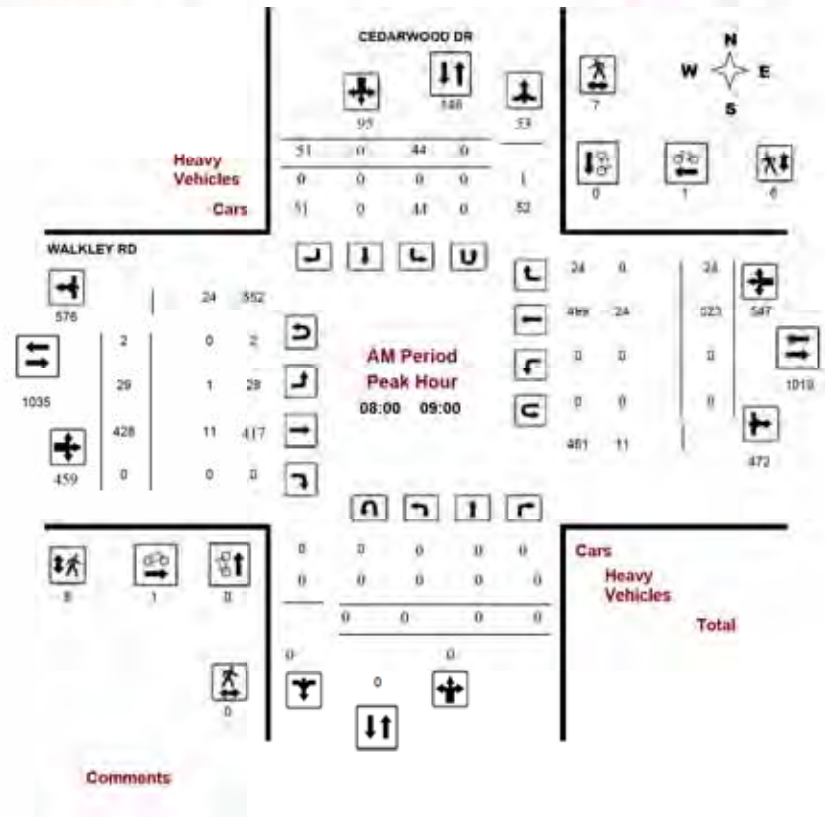
### CEDARWOOD DR @ WALKLEY RD

Survey Date: Wednesday, August 03, 2016

Start Time: 07:00

WO No: 36123

Device: Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

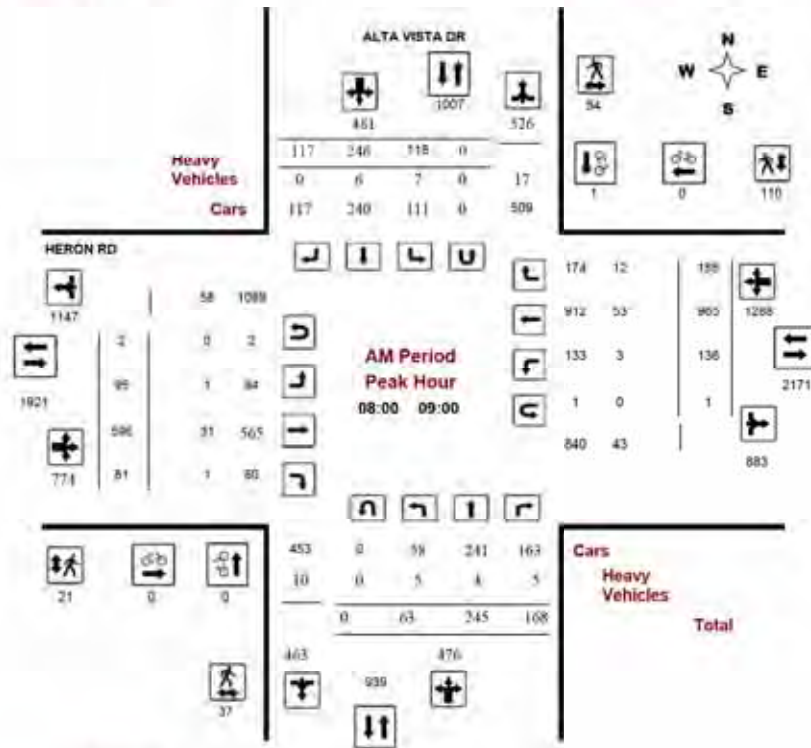
### HERON RD @ ALTA VISTA DR

Survey Date: Tuesday, December 04, 2018

Start Time: 07:00

WO No: 38190

Device: Miovision



Comments



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

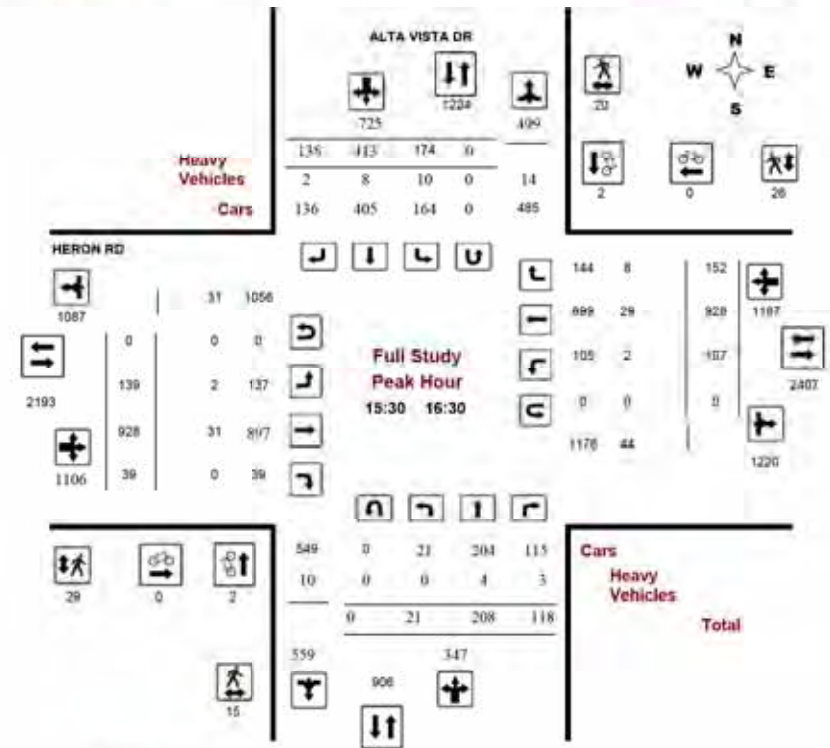
### HERON RD @ ALTA VISTA DR

Survey Date: Tuesday, December 04, 2018

Start Time: 07:00

WO No: 38190

Device: Miovision



Comments



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

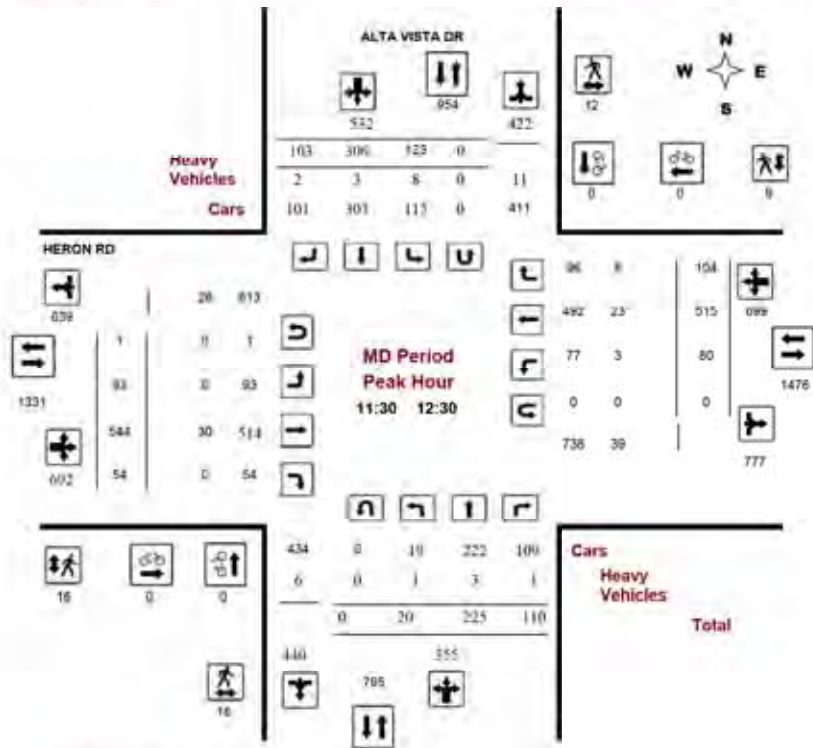
### HERON RD @ ALTA VISTA DR

Survey Date: Tuesday, December 04, 2018

Start Time: 07:00

WO No: 38190

Device: Miovision



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

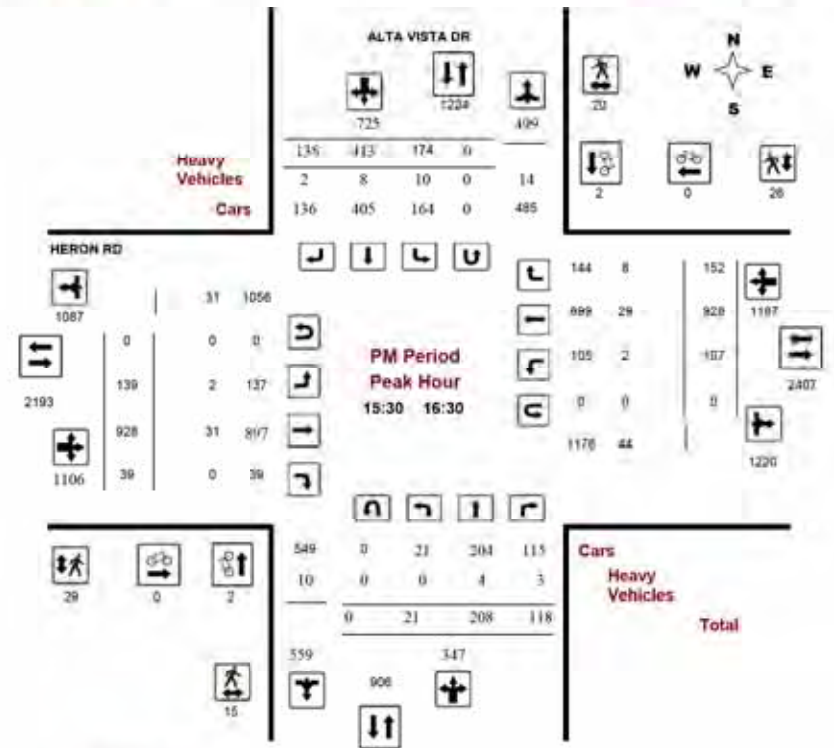
### HERON RD @ ALTA VISTA DR

Survey Date: Tuesday, December 04, 2018

Start Time: 07:00

WO No: 38190

Device: Miovision



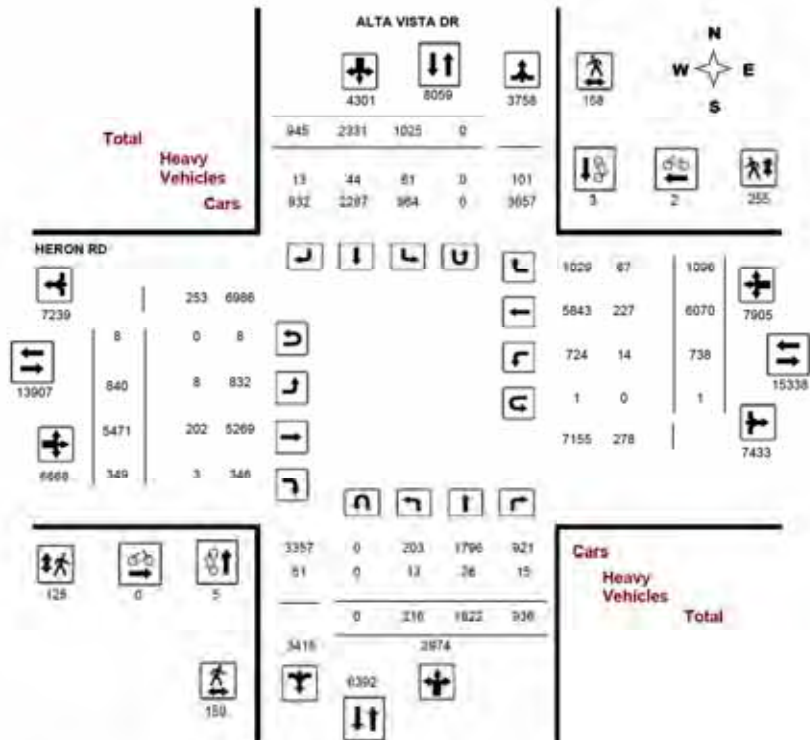


**Transportation Services - Traffic Services**  
**Turning Movement Count - Full Study Diagram**

**HERON RD @ ALTA VISTA DR**

Survey Date: Tuesday, December 04, 2018

WO#: 38190  
 Device: Movision



Comments:



**Transportation Services - Traffic Services**

Work Order  
38190

**Turning Movement Count - Full Study Summary Report**

**HERON RD @ ALTA VISTA DR**

Survey Date: Tuesday, December 04, 2018

**Total Observed U-Turns:**  
 Northbound: 0 Southbound: 0  
 Eastbound: 8 Westbound: 1

**AADT Factor**  
1.30

**Full Study**

Period	ALTA VISTA DR Northbound				ALTA VISTA DR Southbound				HERON RD Eastbound				HERON RD Westbound				WB TOT	STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT			
07:00-08:00	15	245	40	306	89	128	116	333	643	107	545	36	688	58	934	151	1143	1831	2474
08:00-09:00	83	245	186	475	118	246	117	481	957	95	596	81	772	136	965	186	1287	2059	3016
09:00-10:00	11	183	77	271	111	229	138	476	747	101	496	32	629	84	668	128	880	1509	2256
11:30-12:30	20	225	110	356	123	306	103	532	887	83	544	54	691	80	515	104	699	1390	2277
12:30-13:30	19	194	120	333	111	263	89	463	796	107	532	25	664	71	517	121	709	1373	2169
15:00-16:00	48	270	157	475	185	408	138	711	1186	141	789	35	965	107	853	161	1121	2086	3272
16:00-17:00	21	230	154	385	157	413	139	709	1094	108	976	47	1131	104	860	135	1069	2230	3324
17:00-18:00	16	230	124	371	147	338	107	592	965	88	993	39	1120	98	758	110	966	2086	3051
<b>Sub Total</b>	<b>216</b>	<b>1822</b>	<b>936</b>	<b>2974</b>	<b>1025</b>	<b>2331</b>	<b>945</b>	<b>4301</b>	<b>7275</b>	<b>840</b>	<b>5471</b>	<b>349</b>	<b>6660</b>	<b>738</b>	<b>6070</b>	<b>1096</b>	<b>7904</b>	<b>14564</b>	<b>21639</b>
<b>U Turns</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>9</b>
<b>Total</b>	<b>216</b>	<b>1822</b>	<b>936</b>	<b>2974</b>	<b>1025</b>	<b>2331</b>	<b>945</b>	<b>4301</b>	<b>7275</b>	<b>840</b>	<b>5471</b>	<b>349</b>	<b>6668</b>	<b>738</b>	<b>6070</b>	<b>1096</b>	<b>7905</b>	<b>14573</b>	<b>21848</b>
<b>EQ 12hr</b>	<b>300</b>	<b>2533</b>	<b>1301</b>	<b>4134</b>	<b>1425</b>	<b>3240</b>	<b>1314</b>	<b>5978</b>	<b>10112</b>	<b>1168</b>	<b>7805</b>	<b>485</b>	<b>9269</b>	<b>1026</b>	<b>8437</b>	<b>1523</b>	<b>10988</b>	<b>20257</b>	<b>30369</b>
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																	<b>1.39</b>		
<b>AVG 12hr</b>	<b>390</b>	<b>3292</b>	<b>1691</b>	<b>5374</b>	<b>1852</b>	<b>4212</b>	<b>1708</b>	<b>7772</b>	<b>13146</b>	<b>1518</b>	<b>9886</b>	<b>631</b>	<b>12049</b>	<b>1334</b>	<b>10968</b>	<b>1980</b>	<b>14284</b>	<b>26333</b>	<b>39479</b>
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																	<b>1.30</b>		
<b>AVG 24hr</b>	<b>511</b>	<b>4313</b>	<b>2216</b>	<b>7040</b>	<b>2426</b>	<b>5518</b>	<b>2237</b>	<b>10181</b>	<b>17221</b>	<b>1988</b>	<b>12951</b>	<b>828</b>	<b>15784</b>	<b>1747</b>	<b>14369</b>	<b>2594</b>	<b>18712</b>	<b>34496</b>	<b>51717</b>
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.																	<b>1.31</b>		

**Comments:**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Turning Movement Count - 15 Minute Summary Report

HERON RD @ ALTA VISTA DR

Survey Date: Tuesday, December 04, 2018

Total Observed U-Turns

Northbound: 0 Southbound: 0  
Eastbound: 8 Westbound: 1

ALTA VISTA DR

HERON RD

Time Period	Northbound			Southbound			Eastbound			Westbound			Grand Total						
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT		E TOT	LT	ST	RT	W TOT	STR TOT
07:00 07:15	1	46	12	59	27	22	23	72	131	26	120	2	148	8	168	23	199	347	478
07:15 07:30	3	64	5	72	24	25	31	80	152	25	129	8	162	15	234	36	285	447	599
07:30 07:45	5	53	12	70	20	35	30	85	155	27	139	7	174	9	282	42	333	507	662
07:45 08:00	6	82	17	105	22	46	32	100	205	29	157	19	205	26	250	50	326	531	736
08:00 08:15	16	60	32	108	26	52	35	113	221	18	136	26	178	30	242	47	319	497	718
08:15 08:30	17	63	49	129	33	60	36	119	248	24	150	22	196	40	268	54	393	589	837
08:30 08:45	23	52	40	115	22	62	26	110	225	27	145	19	192	35	210	40	285	477	702
08:45 09:00	7	70	47	124	37	72	30	139	263	28	165	14	208	31	215	45	291	499	762
09:00 09:15	3	53	25	81	34	60	35	129	210	23	137	8	160	19	152	30	201	369	579
09:15 09:30	2	37	22	61	36	46	34	116	177	26	113	3	142	22	167	33	222	364	541
09:30 09:45	2	45	17	64	23	57	38	118	182	26	132	10	168	23	159	36	218	386	568
09:45 10:00	4	48	13	65	18	66	29	113	178	26	114	11	151	20	190	29	239	390	568
11:30 11:45	5	56	29	90	27	79	28	134	224	24	143	12	179	15	139	23	177	356	580
11:45 12:00	9	55	24	88	37	69	23	129	217	25	125	13	163	25	126	25	176	339	556
12:00 12:15	3	57	27	87	24	77	29	130	217	20	136	14	171	18	126	30	174	345	562
12:15 12:30	3	57	30	90	35	81	23	139	229	24	140	15	179	22	124	26	172	351	580
12:30 12:45	5	55	34	94	30	73	28	131	225	27	123	4	156	22	120	37	179	335	560
12:45 13:00	5	52	27	84	26	68	21	115	199	29	139	7	175	14	149	34	197	372	571
13:00 13:15	8	35	30	73	22	62	20	104	177	27	127	10	164	19	138	21	178	342	519
13:15 13:30	1	52	29	82	33	60	20	113	195	24	143	4	171	16	110	29	155	326	521
15:00 15:15	16	99	49	164	34	92	46	172	336	24	168	10	200	29	190	37	265	465	801
15:15 15:30	21	67	57	145	37	102	38	177	322	39	181	8	228	31	178	48	257	485	807
15:30 15:45	5	55	23	83	41	92	32	165	248	37	219	9	265	25	252	32	309	574	822
15:45 16:00	6	49	28	83	53	122	22	197	280	41	223	8	272	22	224	44	290	562	842
16:00 16:15	5	49	29	83	37	106	41	184	267	28	229	15	272	39	233	38	310	582	849
16:15 16:30	5	55	38	98	43	93	43	179	277	33	257	7	297	21	219	38	278	575	852
16:30 16:45	6	67	34	97	34	117	25	176	273	17	246	11	276	17	209	24	250	526	799
16:45 17:00	5	59	43	107	43	97	30	170	277	30	244	14	288	27	199	35	261	549	826
17:00 17:15	7	60	33	100	46	83	17	146	246	32	262	11	325	26	192	28	246	571	817
17:15 17:30	6	58	40	104	29	97	33	159	263	24	267	11	302	25	222	27	274	576	839
17:30 17:45	4	51	22	77	38	77	29	144	221	16	253	10	279	28	188	23	239	518	739
17:45 18:00	2	61	25	82	34	81	28	143	235	16	161	7	214	19	156	32	207	421	656
<b>TOTAL</b>	<b>218</b>	<b>1622</b>	<b>936</b>	<b>2974</b>	<b>1025</b>	<b>2331</b>	<b>945</b>	<b>4301</b>	<b>7275</b>	<b>840</b>	<b>5471</b>	<b>348</b>	<b>6668</b>	<b>738</b>	<b>6070</b>	<b>1096</b>	<b>7905</b>	<b>14573</b>	<b>21848</b>

Note: U-Turns are included in Totals.

Comment:



HERON RD @ ALTA VISTA DR

Count Date: Tuesday, December 04, 2018

Start Time: 07:00

Time Period	ALTA VISTA DR			HERON RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 08:00	1	0	1	0	2	2	3
08:00 09:00	0	1	1	0	0	0	1
09:00 10:00	0	0	0	0	0	0	0
11:30 12:30	0	0	0	0	0	0	0
12:30 13:30	0	0	0	0	0	0	0
15:00 16:00	3	0	3	0	0	0	3
16:00 17:00	1	2	3	0	0	0	3
17:00 18:00	0	0	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>10</b>

Comment:

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.





# Transportation Services - Traffic Services

W.O.  
38190

## Turning Movement Count - Heavy Vehicle Report

### HERON RD @ ALTA VISTA DR

Survey Date: Tuesday, December 04, 2018

Time Period	ALTA VISTA DR								HERON RD								Grand Total		
	Northbound				Southbound				Eastbound				Westbound						
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT		W TOT	STR TOT
07:00 08:00	0	1	2	3	4	1	0	5	8	1	14	0	15	2	35	16	53	68	76
08:00 09:00	5	4	5	14	7	6	0	13	27	1	31	1	33	3	53	12	66	101	128
09:00 10:00	1	4	0	5	6	12	3	21	26	2	22	0	24	1	34	6	41	65	81
11:30 12:30	1	3	1	5	8	3	2	13	18	0	30	0	30	3	23	8	34	64	82
12:30 13:30	1	3	1	5	4	7	3	14	19	0	22	0	22	2	23	5	30	52	71
15:00 16:00	4	7	3	14	11	7	0	18	32	3	29	0	32	2	27	11	40	72	104
16:00 17:00	1	2	2	5	9	6	2	17	22	1	36	1	38	1	21	4	26	64	86
17:00 18:00	0	2	1	3	12	2	3	17	20	0	18	1	19	0	11	5	16	35	55
<b>Sub Total</b>	<b>13</b>	<b>26</b>	<b>15</b>	<b>54</b>	<b>61</b>	<b>44</b>	<b>13</b>	<b>118</b>	<b>172</b>	<b>5</b>	<b>202</b>	<b>3</b>	<b>213</b>	<b>14</b>	<b>227</b>	<b>67</b>	<b>308</b>	<b>521</b>	<b>693</b>
<b>U-Turns (Heavy Vehicles)</b>	<b>0</b>								<b>0</b>								<b>0</b>		
<b>Total</b>	<b>13</b>	<b>26</b>	<b>15</b>	<b>54</b>	<b>61</b>	<b>44</b>	<b>13</b>	<b>118</b>	<b>172</b>	<b>5</b>	<b>202</b>	<b>3</b>	<b>213</b>	<b>14</b>	<b>227</b>	<b>67</b>	<b>308</b>	<b>521</b>	<b>693</b>

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

Work Order  
38190

## Turning Movement Count - Pedestrian Volume Report

### HERON RD @ ALTA VISTA DR

Count Date: Tuesday, December 04, 2018

Start Time: 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	2	2	1	0	1	3
07:15 07:30	2	4	11	2	3	5	16
07:30 07:45	4	7	11	1	4	5	16
07:45 08:00	18	7	25	3	16	19	44
07:00 08:00	29	20	49	7	23	30	79
08:00 08:15	6	22	28	4	38	42	70
08:15 08:30	20	14	34	4	24	28	62
08:30 08:45	8	12	20	9	16	25	45
08:45 09:00	2	6	8	4	32	36	45
08:00 09:00	37	54	91	21	110	131	222
09:00 09:15	0	2	2	3	7	10	12
09:15 09:30	3	1	4	6	3	9	13
09:30 09:45	3	1	4	0	0	4	8
09:45 10:00	4	1	5	7	3	10	15
09:00 10:00	10	5	15	16	13	29	44
11:30 11:45	4	4	8	7	3	10	18
11:45 12:00	4	1	5	3	1	4	9
12:00 12:15	2	5	7	0	1	1	8
12:15 12:30	8	2	8	6	4	10	18
11:30 12:30	16	12	28	16	6	25	53
12:30 12:45	2	1	3	0	0	3	6
12:45 13:00	5	0	5	0	0	5	10
13:00 13:15	7	4	11	3	3	6	17
13:15 13:30	3	1	4	3	4	7	11
12:30 13:30	17	6	23	6	7	13	36
13:00 13:15	7	12	20	4	16	20	40
13:15 13:30	10	8	18	15	24	39	55
13:30 13:45	4	3	7	11	5	16	23
13:45 14:00	5	8	13	8	13	21	34
13:00 14:00	29	30	59	38	38	76	135
14:00 14:15	2	4	6	4	5	9	15
14:15 14:30	4	5	9	6	3	9	18
14:30 14:45	5	8	13	1	7	8	21
14:45 15:00	1	4	5	2	4	6	11
14:00 15:00	12	21	33	13	19	32	65
15:00 15:15	7	3	10	3	7	10	20
15:15 15:30	1	4	5	1	3	4	9
15:30 15:45	3	2	5	3	4	7	12
15:45 16:00	1	1	2	1	2	3	5
15:00 16:00	12	10	22	8	16	24	46
<b>Total</b>	<b>159</b>	<b>158</b>	<b>317</b>	<b>125</b>	<b>255</b>	<b>380</b>	<b>697</b>

Comment:



# Transportation Services - Traffic Services

Work Order  
38190

## Turning Movement Count - 15 Min U-Turn Total Report

### HERON RD @ ALTA VISTA DR

Survey Date: Tuesday, December 04, 2018

Time Period	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00 - 07:15	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0
07:30 - 07:45	0	0	1	0	1
07:45 - 08:00	0	0	0	0	0
08:00 - 08:15	0	0	0	0	0
08:15 - 08:30	0	0	0	1	1
08:30 - 08:45	0	0	1	0	1
08:45 - 09:00	0	0	1	0	1
09:00 - 09:15	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0
09:30 - 09:45	0	0	0	0	0
09:45 - 10:00	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0
12:00 - 12:15	0	0	1	0	1
12:15 - 12:30	0	0	0	0	0
12:30 - 12:45	0	0	2	0	2
12:45 - 13:00	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0
16:30 - 16:45	0	0	2	0	2
16:45 - 17:00	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>9</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

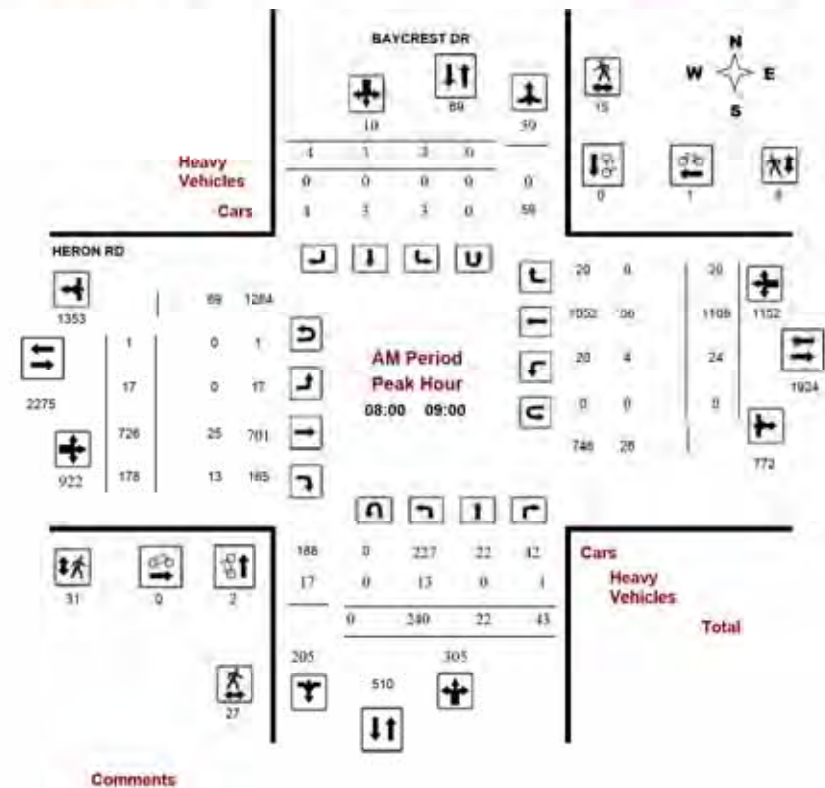
### HERON RD @ BAYCREST DR

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36544

Devices: Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

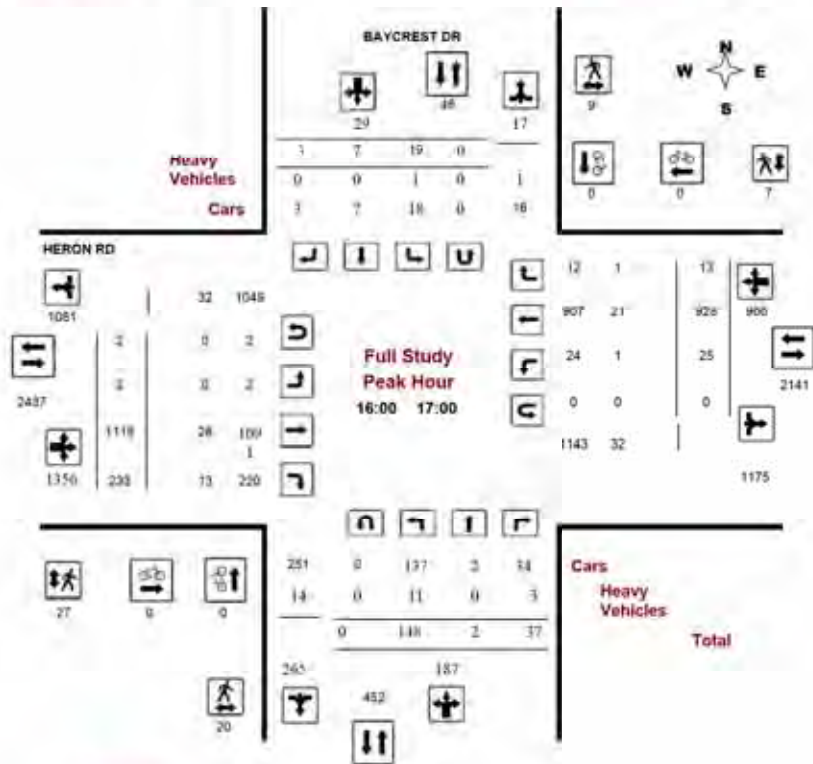
### HERON RD @ BAYCREST DR

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36544

Device: Miovision



Comments



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

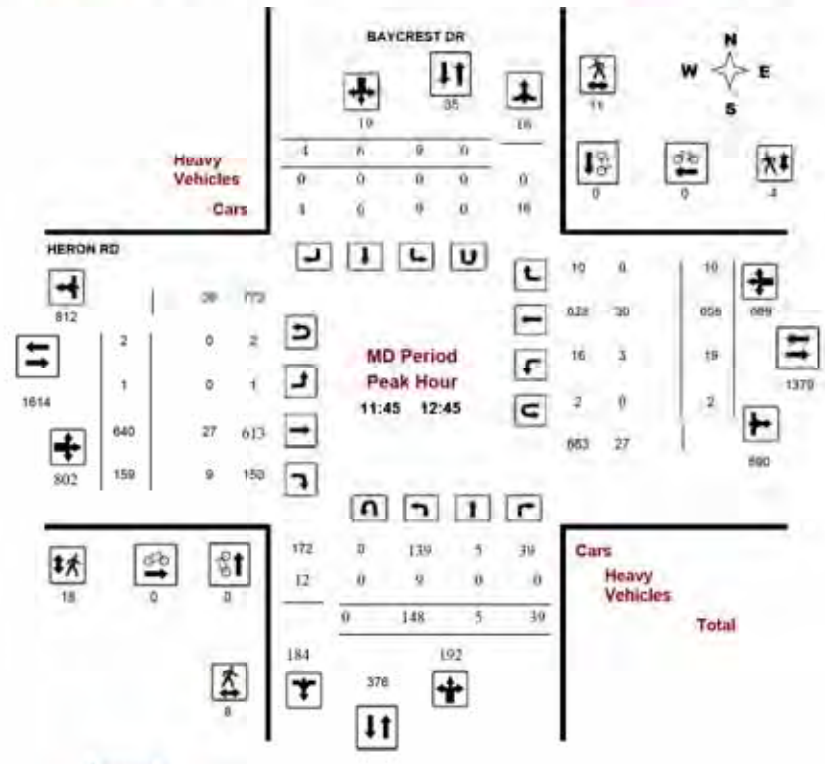
### HERON RD @ BAYCREST DR

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36544

Device: Miovision



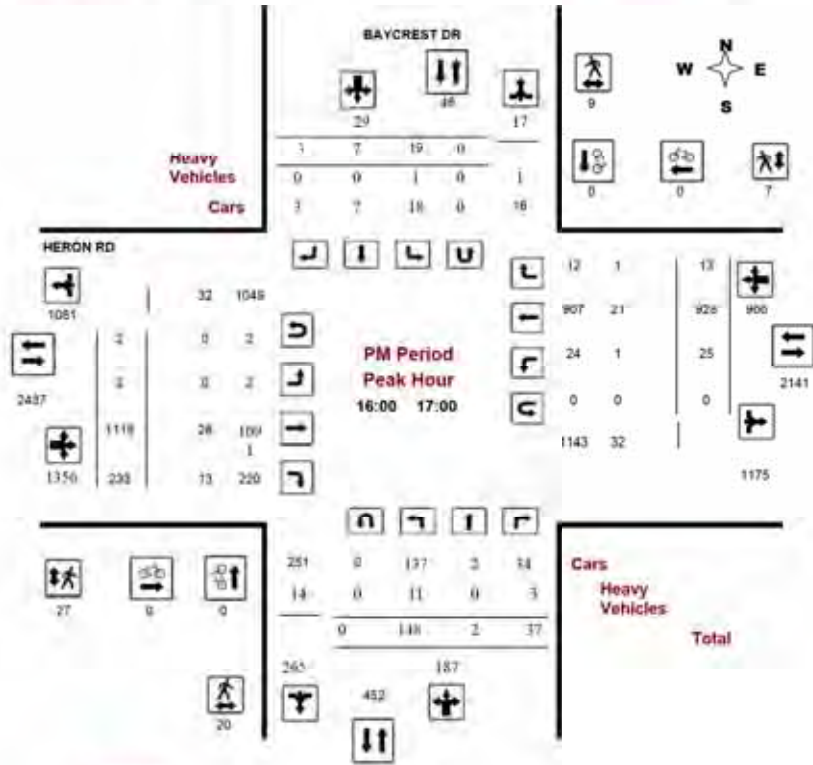
Comments



**Transportation Services - Traffic Services**  
**Turning Movement Count - Peak Hour Diagram**  
**HERON RD @ BAYCREST DR**

Survey Date: Wednesday, November 16, 2016  
 Start Time: 07:00

WO No: 36544  
 Device: Miovision



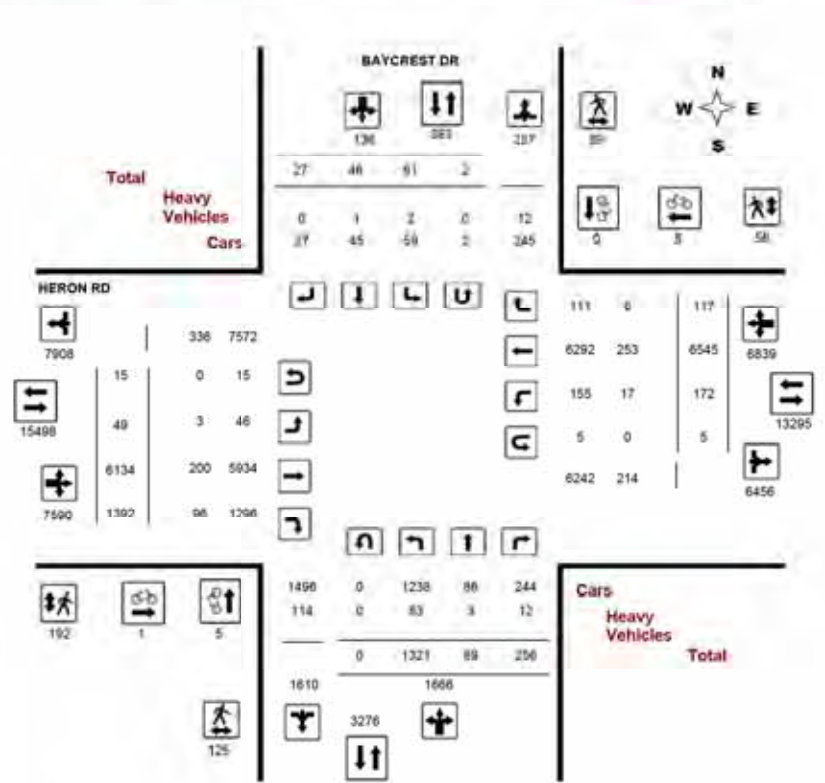
Comments



**Transportation Services - Traffic Services**  
**Turning Movement Count - Full Study Diagram**  
**HERON RD @ BAYCREST DR**

Survey Date: Wednesday, November 16, 2016

WO#: 36544  
 Device: Miovision



Comments



Transportation Services - Traffic Services

Work Order 36544

Turning Movement Count - Full Study Summary Report

HERON RD @ BAYCREST DR

Survey Date: Wednesday, November 16, 2016

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 1 Eastbound: 15 Westbound: 3 (0)

Full Study

Table with columns for Period, BAYCREST DR (Northbound, Southbound), HERON RD (Eastbound, Westbound), and Grand Total. Rows include time periods from 07:00 to 17:00 and summary rows for U-Turns and Total.

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

AVG 12hr 1638 124 356 2316 85 64 38 189 2505 66 8526 1935 16556 239 9098 163 9566 20056 22561

AVG 24hr 2185 148 420 2739 100 75 44 223 2953 80 10952 2281 12439 282 10728 192 11208 23647 26660

Comments:

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

W.O. 36544

Turning Movement Count - 15 Minute Summary Report

HERON RD @ BAYCREST DR

Survey Date: Wednesday, November 16, 2016

Total Observed U-Turns

Northbound: 0 Southbound: 2 Eastbound: 15 Westbound: 5

Large table with columns for Time Period, BAYCREST DR (Northbound, Southbound), HERON RD (Eastbound, Westbound), and Grand Total. Rows include 15-minute time intervals from 07:00 to 17:45 and a final TOTAL row.

Note: U-Turns are included in Totals.

Comment:



**Transportation Services - Traffic Services**  
**Turning Movement Count - Cyclist Volume Report**

Work Order  
36544

**HERON RD @ BAYCREST DR**

Count Date: Wednesday, November 16, 2016

Start Time: 07:00

Time Period	BAYCREST DR			HERON RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 08:00	1	0	1	1	2	3	4
08:00 09:00	2	0	2	0	1	1	3
09:00 10:00	2	0	2	0	0	0	2
11:30 12:30	0	0	0	0	1	1	1
12:30 13:30	0	0	0	0	0	0	0
15:00 16:00	0	0	0	0	1	1	1
16:00 17:00	0	0	0	0	0	0	0
18:00 18:00	0	0	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>11</b>

Comment:



**Transportation Services - Traffic Services**  
**Turning Movement Count - Heavy Vehicle Report**

W.O.  
36544

**HERON RD @ BAYCREST DR**

Survey Date: Wednesday, November 16, 2016

Time Period	BAYCREST DR							HERON RD							W TOT	STR TOT	Grand Total		
	Northbound			N TOT	Southbound			S TOT	Eastbound			E TOT	Westbound						
	LT	ST	RT		LT	ST	RT		LT	ST	RT		LT	ST				RT	
07:00 08:00	8	3	0	11	1	1	0	2	13	1	8	11	20	5	51	4	60	80	93
08:00 09:00	13	0	1	14	0	0	0	0	14	0	25	13	38	4	56	0	60	98	112
09:00 10:00	13	0	1	14	0	0	0	0	14	1	25	11	37	1	32	1	34	71	85
11:30 12:30	5	0	0	5	0	0	0	0	5	0	25	7	32	2	28	0	30	62	67
12:30 13:30	14	0	0	14	0	0	0	0	14	0	30	14	44	1	24	0	25	69	83
15:00 16:00	9	0	4	13	0	0	0	0	13	1	30	15	46	3	30	0	33	79	92
16:00 17:00	11	0	3	14	1	0	0	1	15	0	28	13	41	1	21	1	23	64	79
17:00 18:00	10	0	3	13	0	0	0	0	13	0	29	12	41	0	11	0	11	52	65
<b>Sub Total</b>	<b>83</b>	<b>3</b>	<b>12</b>	<b>88</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>101</b>	<b>3</b>	<b>200</b>	<b>96</b>	<b>299</b>	<b>17</b>	<b>253</b>	<b>6</b>	<b>276</b>	<b>575</b>	<b>676</b>
<b>U-Turns (Heavy Vehicles)</b>				<b>0</b>				<b>0</b>				<b>0</b>				<b>0</b>			
<b>Total</b>	<b>83</b>	<b>3</b>	<b>12</b>	<b>88</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>101</b>	<b>3</b>	<b>200</b>	<b>96</b>	<b>299</b>	<b>17</b>	<b>253</b>	<b>6</b>	<b>276</b>	<b>575</b>	<b>676</b>

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

Work Order  
36544

## Turning Movement Count - Pedestrian Volume Report

### HERON RD @ BAYCREST DR

Count Date: Wednesday, November 16, 2016

Start Time: 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	2	0	2	1	0	1	3
07:15 07:30	2	2	4	3	2	5	9
07:30 07:45	2	4	6	6	3	9	15
07:45 08:00	3	0	3	15	1	16	19
07:00 08:00	9	6	15	25	6	31	46
08:00 08:15	2	3	5	2	0	2	7
08:15 08:30	7	3	10	3	0	3	13
08:30 08:45	4	4	8	14	4	18	26
08:45 09:00	14	5	19	12	4	16	35
08:00 09:00	27	15	42	31	8	39	81
09:00 09:15	14	3	17	15	0	15	32
09:15 09:30	3	3	6	4	3	7	13
09:30 09:45	1	2	3	4	2	6	9
09:45 10:00	0	3	3	2	1	3	6
09:00 10:00	18	11	29	25	6	31	60
11:30 11:45	2	5	7	19	3	22	29
11:45 12:00	1	3	4	9	1	10	14
12:00 12:15	1	3	4	1	1	2	6
12:15 12:30	3	3	6	5	0	5	11
11:30 12:30	7	14	21	34	5	39	60
12:30 12:45	3	2	5	3	2	5	10
12:45 13:00	7	2	9	2	2	4	13
13:00 13:15	1	2	3	5	1	6	9
13:15 13:30	1	2	3	2	2	4	7
12:30 13:30	12	6	18	12	7	19	37
13:00 13:15	0	3	3	9	5	14	17
13:15 13:30	4	7	11	6	2	8	19
13:30 13:45	1	7	8	9	4	13	21
13:45 14:00	2	4	6	9	0	9	15
13:00 14:00	7	21	28	33	11	44	72
14:00 14:15	3	1	4	13	0	13	17
14:15 14:30	9	2	11	2	4	6	17
14:30 14:45	3	1	4	1	1	2	7
14:45 15:00	5	5	10	10	2	12	22
14:00 15:00	30	9	39	27	7	34	73
17:00 17:15	6	3	9	4	1	5	14
17:15 17:30	6	2	10	1	3	4	14
17:30 17:45	6	0	6	0	1	1	7
17:45 18:00	5	0	5	0	1	1	6
17:00 18:00	25	5	30	5	6	11	41
<b>Total</b>	<b>125</b>	<b>88</b>	<b>214</b>	<b>182</b>	<b>56</b>	<b>248</b>	<b>462</b>

Comment:



# Transportation Services - Traffic Services

Work Order  
36544

## Turning Movement Count - 15 Min U-Turn Total Report

### HERON RD @ BAYCREST DR

Survey Date: Wednesday, November 16, 2016

Time Period	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00 07:15	0	0	0	0	0
07:15 07:30	0	0	0	0	0
07:30 07:45	0	0	0	0	0
07:45 08:00	0	0	0	0	0
08:00 08:15	0	0	0	0	0
08:15 08:30	0	0	1	0	1
08:30 08:45	0	0	0	0	0
08:45 09:00	0	0	0	0	0
09:00 09:15	0	0	0	0	0
09:15 09:30	0	0	0	0	0
09:30 09:45	0	0	1	0	1
09:45 10:00	0	0	0	1	1
11:30 11:45	0	0	1	0	1
11:45 12:00	0	0	1	0	1
12:00 12:15	0	0	0	0	0
12:15 12:30	0	0	1	1	2
12:30 12:45	0	0	0	1	1
12:45 13:00	0	0	1	0	1
13:00 13:15	0	0	0	0	0
13:15 13:30	0	0	3	0	3
15:00 15:15	0	0	0	0	0
15:15 15:30	0	0	0	0	0
15:30 15:45	0	0	1	0	1
15:45 16:00	0	0	0	1	1
16:00 16:15	0	0	0	0	0
16:15 16:30	0	0	0	0	0
16:30 16:45	0	0	2	0	2
16:45 17:00	0	0	0	0	0
17:00 17:15	0	1	1	0	2
17:15 17:30	0	1	0	0	1
17:30 17:45	0	0	1	1	2
17:45 18:00	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>5</b>	<b>22</b>



### Transportation Services - Traffic Services

#### Turning Movement Count - Peak Hour Diagram

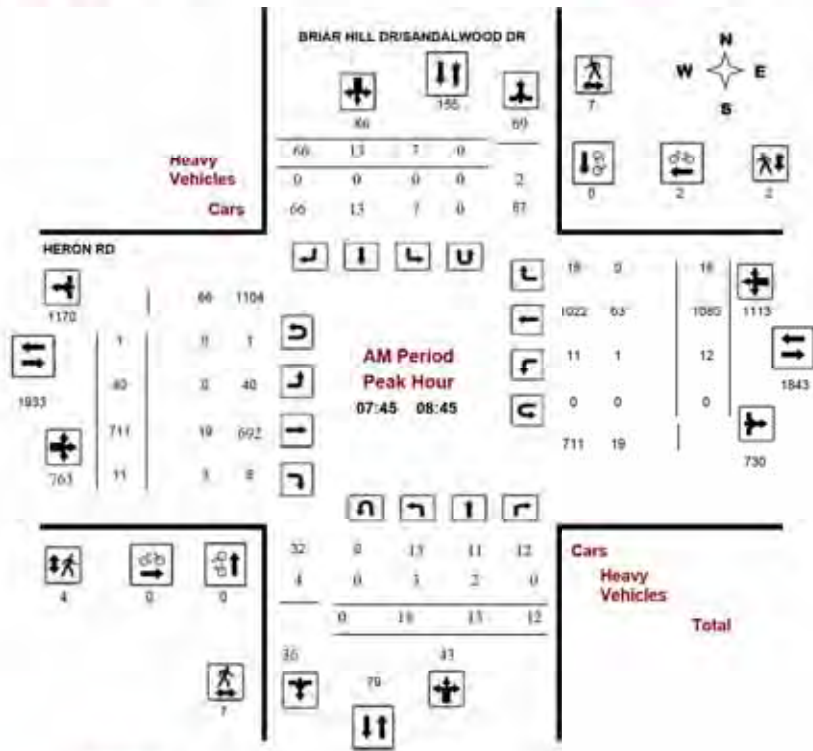
#### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36492

Device: Miovision



Comments



### Transportation Services - Traffic Services

#### Turning Movement Count - Peak Hour Diagram

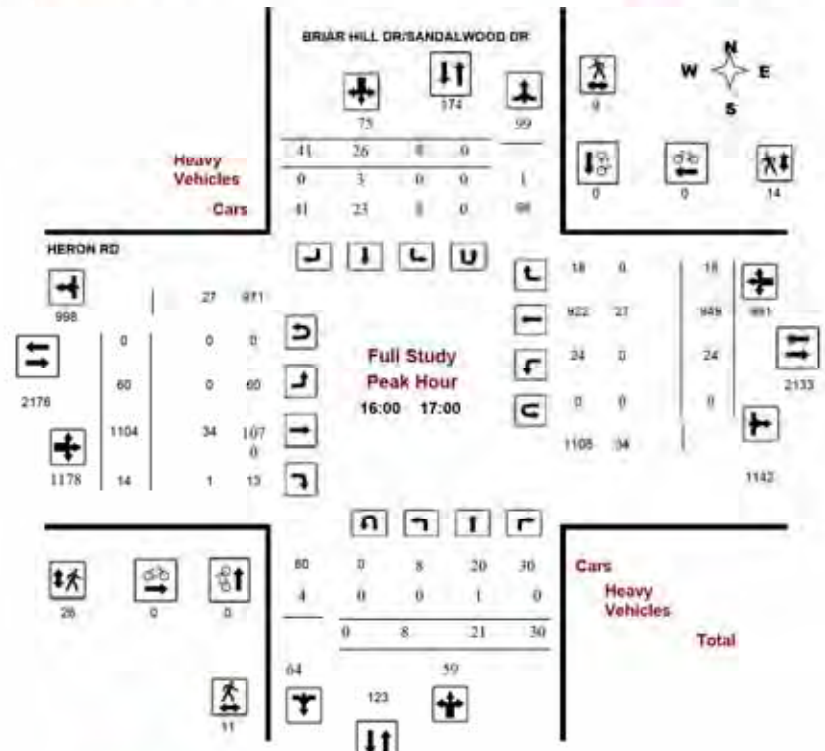
#### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36492

Device: Miovision



Comments





### Transportation Services - Traffic Services

#### Turning Movement Count - Peak Hour Diagram

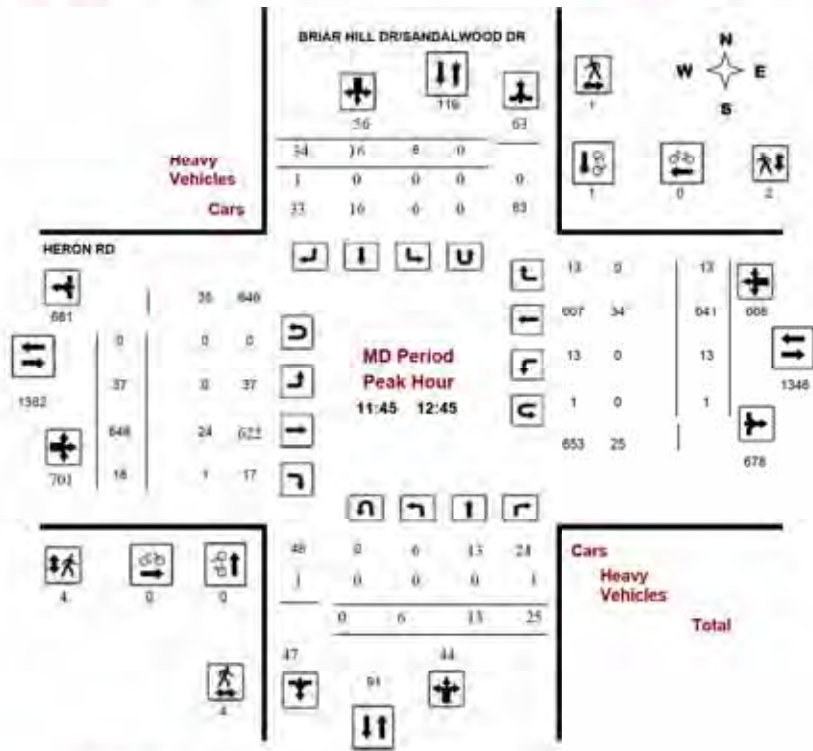
#### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36492

Device: Miovision



Comments



### Transportation Services - Traffic Services

#### Turning Movement Count - Peak Hour Diagram

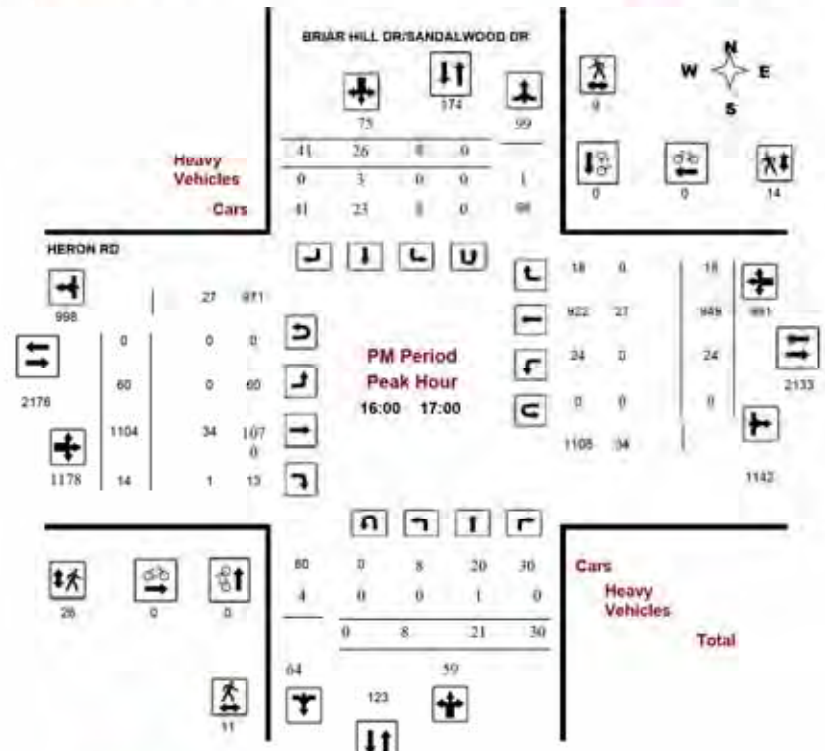
#### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Survey Date: Wednesday, November 16, 2016

Start Time: 07:00

WO No: 36492

Device: Miovision



Comments

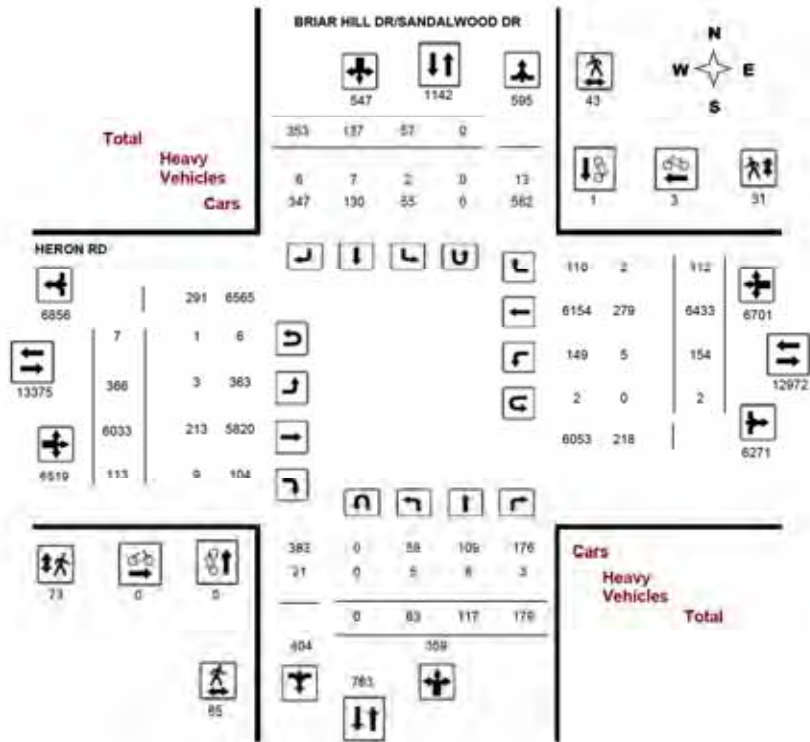


**Transportation Services - Traffic Services**  
**Turning Movement Count - Full Study Diagram**

**HERON RD @ BRIAR HILL DR/SANDALWOOD DR**

Survey Date: Wednesday, November 16, 2016

WO#: 36492  
 Device: Movision



Comments:



**Transportation Services - Traffic Services**

Work Order  
36492

**Turning Movement Count - Full Study Summary Report**

**HERON RD @ BRIAR HILL DR/SANDALWOOD DR**

Survey Date: Wednesday, November 15, 2016

Total Observed U-Turns:

AAFT Factor:

Northbound: (0) Southbound: (1)  
 Eastbound: (7) Westbound: (2)

**Full Study**

Period	BRIAR HILL DR/SANDALWOOD DR					HERON RD					Grand Total		
	Northbound		Southbound		SB TOT	Eastbound		Westbound		WB TOT			
	LT	ST	RT	NB TOT	LT	ST	RT	STR TOT	LT	ST	RT	WB TOT	STR TOT
07:00-09:00	8	1	13	25	8	5	51	64	93	19	592	7	618
09:00-10:00	15	19	18	52	5	17	53	65	136	43	891	12	746
10:00-11:00	9	14	26	49	8	21	47	76	121	39	613	12	594
11:00-12:00	9	12	18	39	8	15	27	40	87	38	841	15	692
12:00-13:00	9	12	21	42	8	11	40	57	99	42	562	12	616
13:00-14:00	4	17	34	55	8	25	50	83	138	50	925	24	999
14:00-15:00	8	21	30	59	8	26	41	75	134	60	1104	14	1178
15:00-16:00	4	15	31	50	2	17	34	53	98	77	975	17	1069
16:00-17:00	8	15	31	54	2	17	34	53	98	77	975	17	1069
17:00-18:00	4	15	31	50	2	17	34	53	98	77	975	17	1069
<b>Sub Total</b>	<b>63</b>	<b>117</b>	<b>179</b>	<b>359</b>	<b>57</b>	<b>137</b>	<b>353</b>	<b>547</b>	<b>996</b>	<b>366</b>	<b>6033</b>	<b>113</b>	<b>6512</b>
<b>U-Turns</b>				<b>0</b>				<b>0</b>				<b>7</b>	<b>2</b>
<b>Total</b>	<b>63</b>	<b>117</b>	<b>179</b>	<b>359</b>	<b>57</b>	<b>137</b>	<b>353</b>	<b>547</b>	<b>996</b>	<b>366</b>	<b>6033</b>	<b>113</b>	<b>6512</b>
<b>EQ 12hr</b>	<b>88</b>	<b>163</b>	<b>249</b>	<b>499</b>	<b>79</b>	<b>190</b>	<b>491</b>	<b>760</b>	<b>1259</b>	<b>509</b>	<b>8388</b>	<b>157</b>	<b>9061</b>
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													<b>1.39</b>
<b>AVG 12hr</b>	<b>79</b>	<b>148</b>	<b>224</b>	<b>449</b>	<b>71</b>	<b>171</b>	<b>442</b>	<b>684</b>	<b>1133</b>	<b>458</b>	<b>7547</b>	<b>141</b>	<b>8155</b>
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													<b>.90</b>
<b>AVG 24hr</b>	<b>103</b>	<b>192</b>	<b>293</b>	<b>589</b>	<b>93</b>	<b>225</b>	<b>578</b>	<b>896</b>	<b>1484</b>	<b>600</b>	<b>9897</b>	<b>185</b>	<b>10683</b>
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.													<b>1.31</b>

**Comments:**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services W.O. 36492

Turning Movement Count - 15 Minute Summary Report

HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Survey Date: Wednesday, November 16, 2016

Total Observed U-Turns

Northbound: 0 Southbound: 0  
Eastbound: 7 Westbound: 1

BRIAR HILL DR/SANDALWOOD DR

HERON RD

Time Period	Northbound			Southbound			Eastbound			Westbound			Grand Total						
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT		E TOT	LT	ST	RT	W TOT	STR TOT
07:00 07:15	1	0	4	5	0	0	7	7	12	2	108	1	111	3	191	1	195	306	318
07:15 07:30	1	0	3	4	4	0	10	14	18	2	130	2	134	1	216	3	220	354	372
07:30 07:45	2	2	4	8	1	1	13	15	23	6	163	1	170	3	275	0	278	448	471
07:45 08:00	5	5	2	12	3	4	21	28	40	9	191	3	203	1	264	5	270	473	513
08:00 08:15	3	3	5	11	0	4	24	28	39	4	177	5	186	3	281	4	288	474	513
08:15 08:30	5	1	3	9	2	1	11	14	23	10	162	1	174	5	284	4	293	467	490
08:30 08:45	5	4	2	11	2	4	10	16	27	17	181	2	200	3	256	3	262	462	489
08:45 09:00	2	11	6	19	2	8	18	28	47	12	171	4	188	5	248	2	255	443	490
09:00 09:15	1	8	15	24	0	10	16	26	50	15	181	4	200	5	220	4	229	429	479
09:15 09:30	0	3	5	8	4	7	14	25	33	15	130	5	151	7	160	0	167	318	351
09:30 09:45	2	1	5	8	1	2	11	14	22	4	129	1	135	2	188	3	193	308	330
09:45 10:00	3	2	0	5	3	2	8	11	16	5	103	2	110	4	138	2	144	254	270
11:30 11:45	2	1	3	6	1	0	7	8	14	10	158	3	173	5	156	1	162	335	349
11:45 12:00	2	2	6	10	3	6	4	13	23	8	154	4	166	1	154	4	159	325	348
12:00 12:15	4	6	5	15	1	5	7	13	28	9	159	6	174	4	176	5	186	360	388
12:15 12:30	0	3	5	8	1	4	9	14	22	9	170	2	181	4	164	2	170	351	373
12:30 12:45	0	2	9	11	1	1	14	16	27	11	163	6	180	4	147	2	153	333	360
12:45 13:00	2	1	3	6	1	3	10	14	20	10	142	4	157	6	148	5	159	316	336
13:00 13:15	4	7	4	15	0	4	5	9	24	13	114	0	127	5	133	2	140	267	291
13:15 13:30	3	2	5	10	4	3	11	18	28	8	143	2	153	5	118	4	127	280	308
15:00 15:15	0	7	9	16	2	0	7	9	25	8	218	4	228	2	191	7	200	428	453
15:15 15:30	1	4	6	11	1	3	10	14	25	10	236	8	254	4	187	2	193	447	472
15:30 15:45	1	3	9	13	1	5	15	21	34	17	212	5	234	11	203	8	222	456	490
15:45 16:00	2	3	10	15	4	17	18	39	54	15	261	7	283	6	225	2	233	516	570
16:00 16:15	0	6	7	13	2	11	16	29	42	9	286	4	299	7	264	0	271	570	612
16:15 16:30	2	5	6	13	1	5	10	16	29	14	266	1	281	6	213	6	225	506	535
16:30 16:45	4	2	7	13	4	3	6	13	26	9	281	6	296	6	223	7	236	532	558
16:45 17:00	2	8	10	20	1	7	9	17	37	28	271	3	302	5	249	5	259	561	598
17:00 17:15	1	6	5	12	2	5	5	12	24	22	274	6	302	10	245	5	260	562	586
17:15 17:30	2	1	3	6	0	3	9	12	18	20	264	6	290	11	202	4	217	507	525
17:30 17:45	1	3	6	10	4	8	12	24	34	21	220	3	244	6	172	7	186	430	464
17:45 18:00	0	5	7	12	1	1	8	10	22	14	217	2	233	4	162	3	169	402	424
TOTAL	63	117	178	358	57	137	350	547	906	86	8033	113	8519	154	6433	112	6701	13220	14126

Note: U-Turns are included in Totals.

Comment:



Transportation Services - Traffic Services  
Turning Movement Count - Cyclist Volume Report

Work Order  
36492

HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Count Date: Wednesday, November 16, 2016

Start Time: 07:00

Time Period	BRIAR HILL DR/SANDALWOOD DR			HERON RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 08:00	0	0	0	0	1	1	1
08:00 09:00	0	0	0	0	2	2	2
09:00 10:00	0	0	0	0	0	0	0
11:30 12:30	0	1	1	0	0	0	1
12:30 13:30	0	0	0	0	0	0	0
15:00 16:00	0	0	0	0	0	0	0
16:00 17:00	0	0	0	0	0	0	0
17:00 18:00	0	0	0	0	0	0	0
Total	0	1	1	0	3	3	4

Comment:

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

W.O.  
36492

## Turning Movement Count - Heavy Vehicle Report

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Survey Date: Wednesday, November 16, 2016

BRIAR HILL DR/SANDALWOOD DR										HERON RD										Grand Total
Northbound					Southbound					Eastbound					Westbound					
Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT		
07:00 08:00	0	0	0	0	0	0	1	1	1	0	9	1	10	1	64	0	65	75	76	
08:00 09:00	3	5	1	9	0	0	1	1	10	0	19	3	22	1	55	1	60	62	62	
09:00 10:00	0	1	0	1	0	0	0	0	1	0	28	1	29	0	33	0	33	62	63	
11:30 12:30	0	0	1	1	0	0	1	1	2	0	26	1	28	0	26	0	28	58	58	
12:30 13:30	1	0	0	1	1	0	1	2	3	0	33	0	33	1	29	1	31	64	67	
15:00 16:00	1	1	0	2	1	4	2	7	9	3	35	2	40	2	28	0	30	70	79	
16:00 17:00	0	1	0	1	0	3	0	3	4	0	34	1	35	0	27	0	27	62	66	
17:00 18:00	0	0	1	1	0	0	0	0	1	0	29	0	29	0	12	0	12	41	42	
<b>Sub Total</b>	<b>5</b>	<b>8</b>	<b>3</b>	<b>16</b>	<b>2</b>	<b>7</b>	<b>6</b>	<b>15</b>	<b>31</b>	<b>3</b>	<b>213</b>	<b>0</b>	<b>226</b>	<b>5</b>	<b>279</b>	<b>2</b>	<b>286</b>	<b>512</b>	<b>543</b>	
<b>U-Turns (Heavy Vehicles)</b>	<b>0</b>									<b>0</b>									<b>1</b>	
<b>Total</b>	<b>5</b>	<b>8</b>	<b>3</b>	<b>16</b>	<b>2</b>	<b>7</b>	<b>6</b>	<b>15</b>	<b>31</b>	<b>3</b>	<b>213</b>	<b>0</b>	<b>227</b>	<b>5</b>	<b>279</b>	<b>2</b>	<b>286</b>	<b>513</b>	<b>544</b>	

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

Work Order  
36492

## Turning Movement Count - Pedestrian Volume Report

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Count Date: Wednesday, November 16, 2016

Start Time: 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	2	2	0	0	0	2
07:15 07:30	0	2	2	0	0	0	2
07:30 07:45	0	2	2	1	0	1	3
07:45 08:00	2	1	3	0	0	0	3
07:00 08:00	2	7	9	1	0	1	10
08:00 08:15	1	1	2	0	1	1	3
08:15 08:30	0	3	3	1	0	1	4
08:30 08:45	4	2	6	3	1	4	10
08:45 09:00	1	0	1	10	3	13	14
08:00 09:00	5	5	12	14	5	19	31
09:00 09:15	0	1	1	3	3	6	13
09:15 09:30	1	5	6	1	0	1	7
09:30 09:45	1	1	2	0	0	0	2
09:45 10:00	5	0	5	4	0	4	9
09:00 10:00	13	7	20	8	3	11	31
11:30 11:45	6	0	6	0	0	0	6
11:45 12:00	1	0	1	3	1	4	5
12:00 12:15	0	1	1	1	1	2	3
12:15 12:30	2	0	2	0	0	0	2
11:30 12:30	9	1	10	4	2	6	16
12:30 12:45	1	0	1	0	0	0	1
12:45 13:00	3	2	5	0	1	1	6
13:00 13:15	0	0	0	1	0	1	1
13:15 13:30	0	1	1	0	0	0	1
12:30 13:30	4	3	7	1	1	2	9
13:00 13:15	0	3	3	0	2	2	5
13:15 13:30	3	2	5	1	0	1	6
13:30 13:45	2	2	4	1	2	3	7
13:45 16:00	1	2	3	8	0	8	11
15:00 16:00	5	9	15	10	4	14	29
16:00 16:15	5	2	7	21	12	33	40
16:15 16:30	4	2	6	5	2	7	13
16:30 16:45	0	1	1	0	0	0	1
16:45 17:00	2	4	6	0	0	0	6
16:00 17:00	11	9	20	26	14	40	60
17:00 17:15	3	1	4	3	1	4	8
17:15 17:30	3	0	3	1	0	1	4
17:30 17:45	7	0	7	4	1	5	12
17:45 18:00	1	0	1	1	0	1	2
17:00 18:00	14	1	15	8	2	11	26
<b>Total</b>	<b>65</b>	<b>43</b>	<b>108</b>	<b>73</b>	<b>31</b>	<b>104</b>	<b>212</b>

Comment:



# Transportation Services - Traffic Services

Work Order  
36492

## Turning Movement Count - 15 Min U-Turn Total Report

### HERON RD @ BRIAR HILL DR/SANDALWOOD DR

Survey Date: Wednesday, November 16, 2016

Time Period	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00 - 07:15	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0
07:45 - 08:00	0	0	0	0	0
08:00 - 08:15	0	0	0	0	0
08:15 - 08:30	0	0	1	0	1
08:30 - 08:45	0	0	0	0	0
08:45 - 09:00	0	0	1	0	1
09:00 - 09:15	0	0	0	0	0
09:15 - 09:30	0	0	1	0	1
09:30 - 09:45	0	0	1	0	1
09:45 - 10:00	0	0	0	0	0
11:30 - 11:45	0	0	2	0	2
11:45 - 12:00	0	0	0	0	0
12:00 - 12:15	0	0	0	1	1
12:15 - 12:30	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0
12:45 - 13:00	0	0	1	0	1
13:00 - 13:15	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0
17:30 - 17:45	0	0	0	1	1
17:45 - 18:00	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>2</b>	<b>9</b>



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

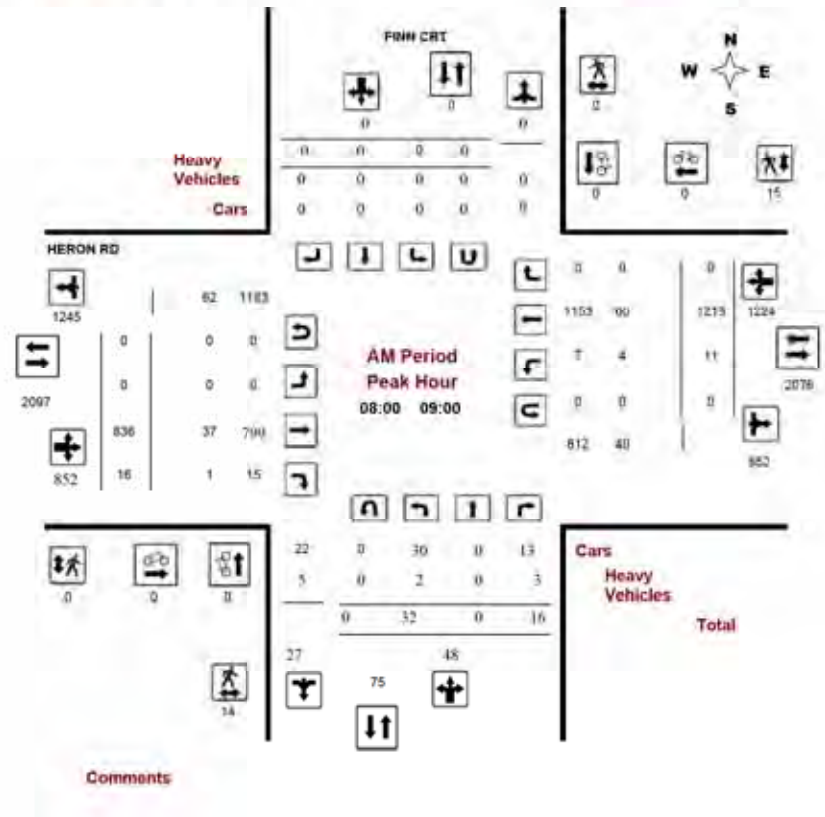
### HERON RD @ FINN CRT

Survey Date: Thursday, February 07, 2019

Start Time: 07:00

WO No: 38309

Device: Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

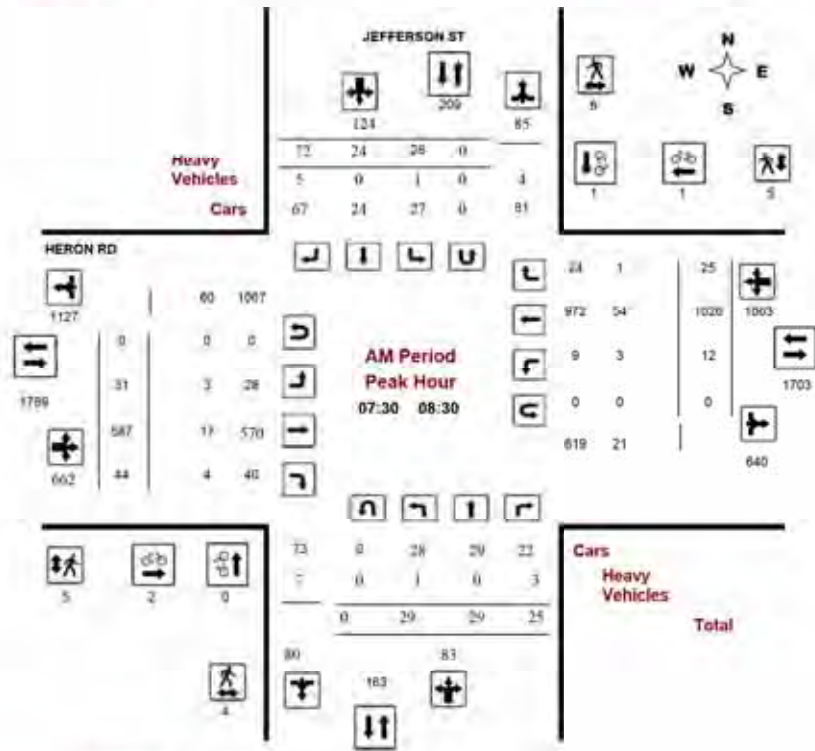
### HERON RD @ JEFFERSON ST

Survey Date: Thursday, November 17, 2016

Start Time: 07:00

WO No: 36494

Device: Miovision



Comments



# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

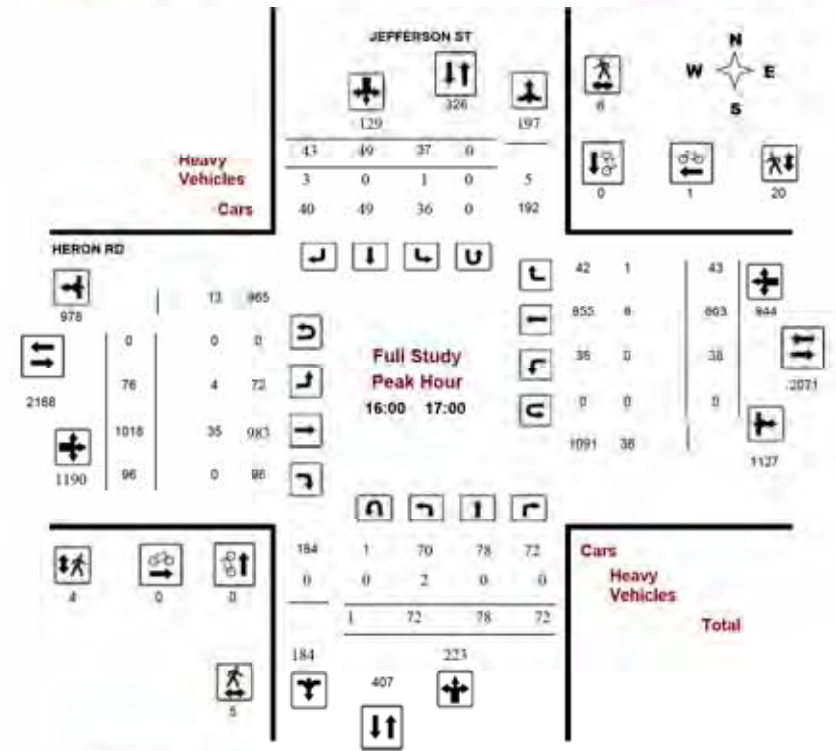
### HERON RD @ JEFFERSON ST

Survey Date: Thursday, November 17, 2016

Start Time: 07:00

WO No: 36494

Device: Miovision



Comments



### Transportation Services - Traffic Services

#### Turning Movement Count - Peak Hour Diagram

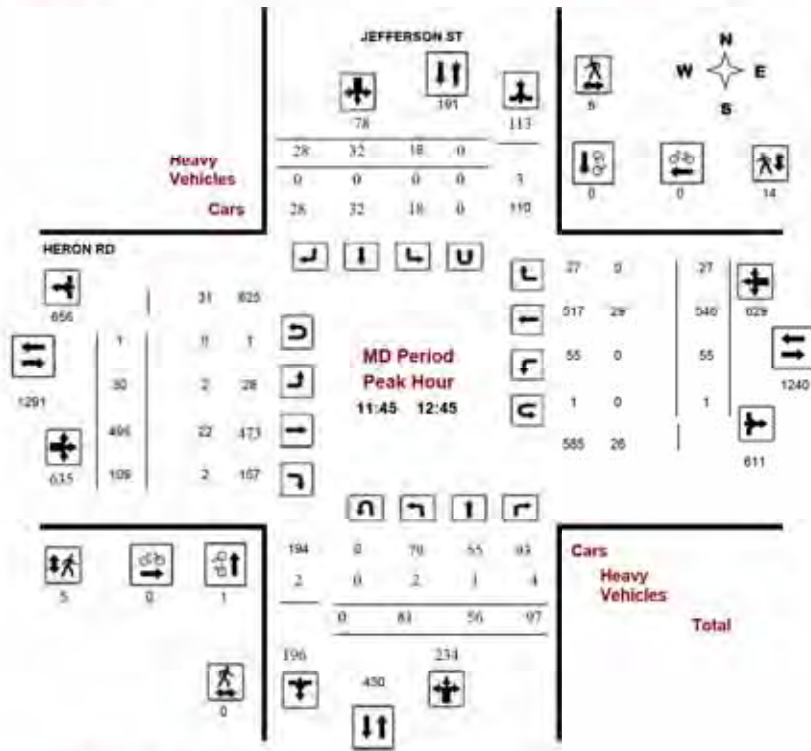
##### HERON RD @ JEFFERSON ST

Survey Date: Thursday, November 17, 2016

Start Time: 07:00

WO No: 36494

Device: Miovision



### Transportation Services - Traffic Services

#### Turning Movement Count - Peak Hour Diagram

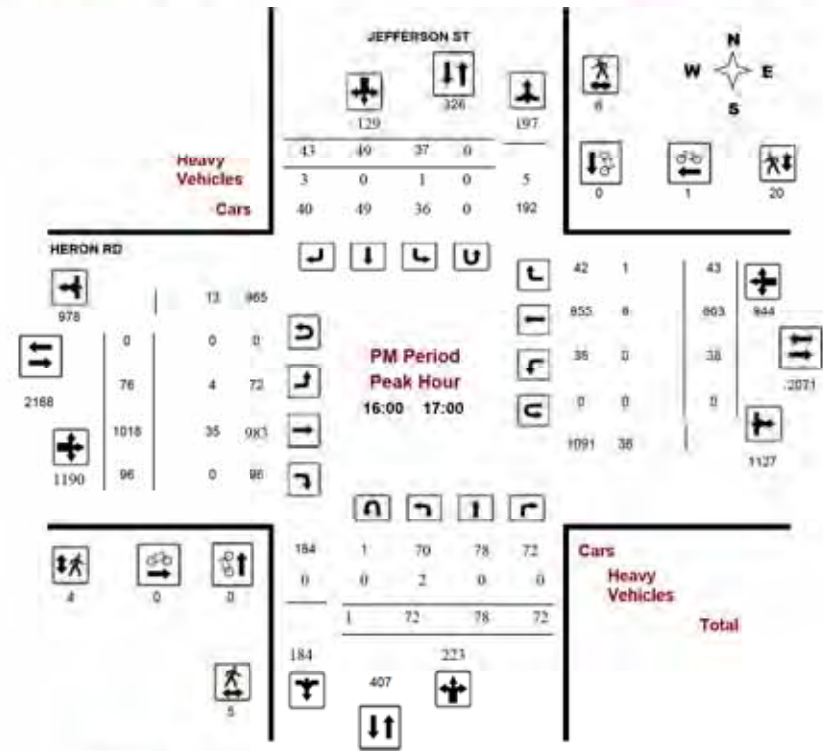
##### HERON RD @ JEFFERSON ST

Survey Date: Thursday, November 17, 2016

Start Time: 07:00

WO No: 36494

Device: Miovision



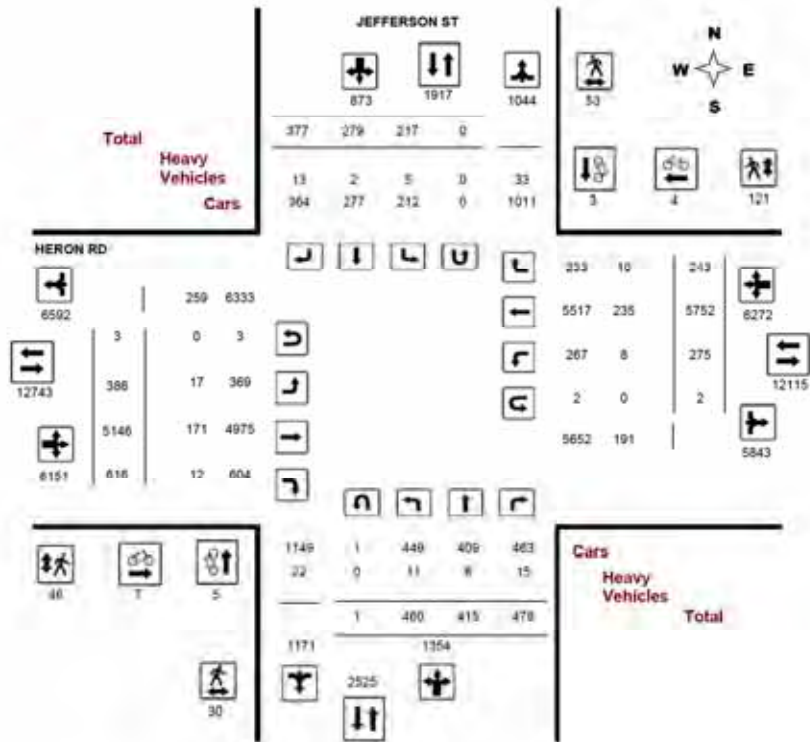


**Transportation Services - Traffic Services**  
**Turning Movement Count - Full Study Diagram**

**HERON RD @ JEFFERSON ST**

Survey Date: Thursday, November 17, 2016

WO#: 36494  
 Device: Miovision



Comments:



**Transportation Services - Traffic Services**

Work Order  
36494

**Turning Movement Count - Full Study Summary Report**

**HERON RD @ JEFFERSON ST**

Survey Date: Thursday, November 17, 2016

Total Observed U-Turns

AADT Factor

Northbound: 1 Southbound: 0  
 Eastbound: 3 Westbound: 2  
 00

**Full Study**

Period	JEFFERSON ST				HERON RD				Grand Total									
	Northbound		Southbound		Eastbound		Westbound											
	LT	ST	RT	NR TOT	LT	ST	RT	SR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	
01:00-03:00	15	25	15	55	20	17	58	95	150	17	500	24	601	16	938	26	980	1581
03:00-05:00	38	41	26	106	16	26	64	126	232	39	610	53	702	19	935	34	988	1698
05:00-07:00	45	48	43	134	25	38	57	121	255	36	479	70	585	34	538	32	685	1190
07:00-09:00	78	45	46	219	18	31	35	79	289	28	502	116	646	49	547	23	619	1265
09:00-11:00	82	54	81	217	34	40	33	107	324	39	393	63	495	45	477	27	549	1044
11:00-13:00	75	88	74	235	31	44	37	112	347	77	785	95	957	50	755	28	833	1790
13:00-15:00	72	78	72	222	37	48	43	129	351	76	1018	96	1190	38	863	43	944	2134
15:00-17:00	58	40	78	178	21	33	50	104	278	74	799	99	972	24	686	30	752	1724
17:00-19:00	58	40	78	178	21	33	50	104	278	74	799	99	972	24	686	30	752	1724
Sub Total	480	415	478	1354	217	279	377	873	2227	386	5146	616	6148	275	5752	243	6272	12418
U Turns				1				0	1				3				2	5
Total	480	415	478	1354	217	279	377	873	2227	386	5146	616	6151	275	5752	243	6272	12423
EQ 12hr	639	577	664	1882	302	388	524	1213	3095	537	7153	856	8556	382	7965	338	8718	17268
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													1.39					
AVG 12hr	575	519	568	1694	271	349	472	1092	2786	483	6438	771	7895	344	7196	304	7846	15541
Note: These values are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													.90					
AVG 24hr	754	680	783	2219	358	457	618	1431	3650	633	8433	1010	10080	451	9426	398	10279	20359
Note: These values are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.													1.31					

**Comments:**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.





Turning Movement Count - 15 Minute Summary Report

HERON RD @ JEFFERSON ST

Survey Date: Thursday, November 17, 2016

Total Observed U-Turns

Northbound: 1 Southbound: 0  
Eastbound: 3 Westbound: 1

Time Period	JEFFERSON ST										HERON RD										Grand Total
	Northbound					Southbound					Eastbound					Westbound					
	LT	ST	RT	N TOT	U-TURN	LT	ST	RT	S TOT	U-TURN	LT	ST	RT	E TOT	U-TURN	LT	ST	RT	W TOT	U-TURN	
07:00 07:15	1	4	1	6		4	1	11	16	22	1	118	1	120	6	188	3	195	315	337	
07:15 07:30	4	6	4	14		3	5	14	22	36	2	149	8	159	7	230	10	247	406	442	
07:30 07:45	7	6	6	19		8	2	14	24	43	5	154	4	163	3	263	7	273	436	479	
07:45 08:00	3	9	4	16		5	9	19	33	49	9	139	11	159	0	259	6	265	424	473	
08:00 08:15	10	6	4	20		8	6	22	36	56	8	155	16	179	3	240	7	250	429	485	
08:15 08:30	9	8	11	28		7	7	17	31	59	9	139	13	161	6	264	5	275	436	495	
08:30 08:45	9	13	5	27		8	4	13	25	52	10	157	10	177	4	231	13	248	425	477	
08:45 09:00	11	14	6	31		13	9	12	34	65	12	159	14	185	8	200	9	215	400	465	
09:00 09:15	12	16	9	37		8	12	20	40	77	14	131	14	159	9	150	10	169	328	405	
09:15 09:30	10	11	9	30		9	13	11	33	63	11	111	13	135	10	141	7	158	293	356	
09:30 09:45	12	9	8	29		2	4	14	20	49	6	114	16	138	10	129	10	150	288	335	
09:45 10:00	11	10	17	38		8	10	12	28	66	5	123	27	155	5	119	5	129	284	350	
11:30 11:45	18	8	17	43		3	10	12	25	68	4	110	30	144	11	125	5	141	285	353	
11:45 12:00	19	15	21	55		3	4	5	12	67	7	131	26	164	14	136	4	155	319	386	
12:00 12:15	17	8	21	46		2	6	6	14	60	6	135	34	175	15	134	5	154	329	389	
12:15 12:30	22	14	30	66		5	11	12	28	94	11	126	26	164	9	152	9	170	334	428	
12:30 12:45	23	19	25	67		8	11	5	24	91	8	103	23	132	17	124	9	150	282	373	
12:45 13:00	20	13	21	54		10	7	6	23	77	12	123	23	158	7	109	3	119	277	354	
13:00 13:15	15	13	23	51		10	13	14	37	88	6	106	14	126	6	143	5	154	280	368	
13:15 13:30	24	9	12	45		6	9	8	23	68	15	81	3	79	15	101	10	126	205	273	
15:00 15:15	17	13	20	50		8	11	8	27	77	16	162	22	200	14	176	8	198	398	475	
15:15 15:30	21	26	20	67		3	10	3	16	83	19	212	20	251	17	200	4	221	472	555	
15:30 15:45	18	28	11	57		11	8	11	30	87	22	196	26	246	9	209	8	226	472	559	
15:45 16:00	19	19	23	61		9	15	15	39	100	20	215	27	262	10	170	8	188	450	550	
16:00 16:15	13	26	15	54		10	12	13	35	89	20	271	26	317	11	247	12	270	587	676	
16:15 16:30	20	20	28	68		10	14	14	38	106	19	237	25	281	14	184	9	207	488	594	
16:30 16:45	20	23	13	57		5	9	10	24	81	18	255	26	297	8	234	10	252	549	630	
16:45 17:00	19	9	16	44		12	14	6	32	76	21	255	19	295	5	198	12	215	510	586	
17:00 17:15	13	13	16	42		6	6	11	23	65	24	237	22	283	6	227	16	249	532	597	
17:15 17:30	13	14	20	47		3	8	17	28	75	17	208	36	261	10	187	6	203	464	539	
17:30 17:45	14	8	25	47		5	10	10	25	72	15	207	25	241	5	152	7	164	405	477	
17:45 18:00	16	5	17	38		7	9	12	28	66	18	153	16	187	3	132	1	136	323	389	
<b>TOTAL</b>	<b>460</b>	<b>415</b>	<b>478</b>	<b>1354</b>		<b>217</b>	<b>279</b>	<b>377</b>	<b>873</b>	<b>2227</b>	<b>386</b>	<b>5148</b>	<b>816</b>	<b>8151</b>	<b>275</b>	<b>5752</b>	<b>243</b>	<b>6272</b>	<b>12423</b>	<b>14650</b>	

Note: U-Turns are included in Totals.

Comment:



HERON RD @ JEFFERSON ST

Count Date: Thursday, November 17, 2016

Start Time: 07:00

Time Period	JEFFERSON ST			HERON RD			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 08:00	0	1	1	1	1	2	3
08:00 09:00	0	1	1	1	0	1	2
09:00 10:00	0	1	1	0	0	0	1
11:30 12:30	1	0	1	0	0	0	1
12:30 13:30	2	0	2	4	1	5	7
15:00 16:00	2	0	2	1	1	2	4
16:00 17:00	0	0	0	0	1	1	1
17:00 18:00	0	0	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>7</b>	<b>4</b>	<b>11</b>	<b>19</b>

Comment:

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

W.O.  
36494

## Turning Movement Count - Heavy Vehicle Report

### HERON RD @ JEFFERSON ST

Survey Date: Thursday, November 17, 2016

		JEFFERSON ST						HERON RD												
		Northbound			Southbound			Eastbound			Westbound									
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 08:00		1	0	2	3	0	0	4	4	7	0	11	2	13	5	47	1	53	66	73
08:00 09:00		1	1	1	3	1	0	3	4	7	5	14	3	22	5	52	3	58	78	85
09:00 10:00		1	2	3	6	1	0	0	1	7	2	23	3	28	1	31	3	34	62	69
11:30 12:30		2	0	4	6	0	0	0	0	6	2	21	2	25	0	25	0	25	50	58
12:30 13:30		2	1	2	5	1	0	0	1	6	2	18	1	21	0	34	1	35	56	62
15:00 16:00		1	1	3	5	1	1	3	5	10	0	32	1	33	0	24	3	27	60	70
16:00 17:00		2	0	0	2	1	0	3	4	6	4	35	0	39	0	8	1	9	48	54
17:00 18:00		1	1	0	2	0	1	0	1	3	2	17	0	19	0	14	0	14	33	36
<b>Sub Total</b>		<b>11</b>	<b>6</b>	<b>15</b>	<b>32</b>	<b>5</b>	<b>2</b>	<b>13</b>	<b>20</b>	<b>52</b>	<b>17</b>	<b>171</b>	<b>12</b>	<b>200</b>	<b>8</b>	<b>235</b>	<b>10</b>	<b>253</b>	<b>453</b>	<b>595</b>
<b>U-Turns (Heavy Vehicles)</b>					<b>0</b>				<b>0</b>	<b>0</b>				<b>0</b>				<b>0</b>	<b>0</b>	<b>0</b>
<b>Total</b>		<b>11</b>	<b>6</b>	<b>15</b>	<b>32</b>	<b>5</b>	<b>2</b>	<b>13</b>	<b>20</b>	<b>52</b>	<b>17</b>	<b>171</b>	<b>12</b>	<b>200</b>	<b>8</b>	<b>235</b>	<b>10</b>	<b>253</b>	<b>453</b>	<b>595</b>

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.



# Transportation Services - Traffic Services

Work Order  
36494

## Turning Movement Count - Pedestrian Volume Report

### HERON RD @ JEFFERSON ST

Count Date: Thursday, November 17, 2016

Start Time: 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	1	1	0	5	3	4
07:15 07:30	2	3	5	1	1	2	7
07:30 07:45	2	2	4	0	0	0	4
07:45 08:00	0	0	0	0	3	3	3
07:00 08:00	4	6	10	1	7	8	18
08:00 08:15	0	3	3	3	0	3	6
08:15 08:30	2	1	3	2	2	4	7
08:30 08:45	1	3	3	1	1	2	5
08:45 09:00	2	1	4	1	8	9	13
08:00 09:00	5	7	13	7	11	18	31
09:00 09:15	0	1	1	0	7	7	8
09:15 09:30	2	1	3	1	2	3	6
09:30 09:45	0	3	3	3	6	9	12
09:45 10:00	1	1	2	1	8	9	11
09:00 10:00	3	6	9	5	23	28	37
11:30 11:45	0	4	4	0	4	4	8
11:45 12:00	0	4	4	2	9	11	15
12:00 12:15	0	2	2	1	1	2	4
12:15 12:30	0	0	0	1	4	5	5
11:30 12:30	0	10	10	4	18	22	32
12:30 12:45	0	0	0	1	0	1	1
12:45 13:00	0	2	2	2	2	4	6
13:00 13:15	1	1	2	2	1	3	5
13:15 13:30	0	6	6	3	0	3	9
12:30 13:30	1	8	10	0	3	11	21
13:00 13:15	2	0	2	1	2	3	5
13:15 13:30	0	3	3	1	8	9	11
13:30 13:45	6	1	7	3	2	5	12
13:45 16:00	3	2	5	6	18	24	29
15:00 16:00	11	5	16	11	30	41	57
16:00 16:15	3	3	6	1	6	7	13
16:15 16:30	0	3	3	2	1	3	6
16:30 16:45	0	0	0	0	6	6	6
16:45 17:00	2	0	2	1	7	8	10
16:00 17:00	5	6	11	4	20	24	35
17:00 17:15	0	0	0	3	1	3	3
17:15 17:30	0	2	2	0	1	1	3
17:30 17:45	0	0	0	2	3	5	5
17:45 18:00	0	2	2	2	4	6	8
17:00 18:00	0	4	4	6	9	15	19
<b>Total</b>	<b>30</b>	<b>53</b>	<b>83</b>	<b>40</b>	<b>121</b>	<b>167</b>	<b>250</b>

Comment:



# Transportation Services - Traffic Services

Work Order  
36494

## Turning Movement Count - 15 Min U-Turn Total Report

### HERON RD @ JEFFERSON ST

Survey Date: Thursday, November 17, 2016

Time Period	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00 - 07:15	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0
07:45 - 08:00	0	0	0	0	0
08:00 - 08:15	0	0	0	0	0
08:15 - 08:30	0	0	0	0	0
08:30 - 08:45	0	0	0	0	0
08:45 - 09:00	0	0	0	0	0
09:00 - 09:15	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0
09:30 - 09:45	0	0	0	1	1
09:45 - 10:00	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0
11:45 - 12:00	0	0	0	1	1
12:00 - 12:15	0	0	0	0	0
12:15 - 12:30	0	0	1	0	1
12:30 - 12:45	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0
15:30 - 15:45	0	0	2	0	2
15:45 - 16:00	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0
16:30 - 16:45	1	0	0	0	1
16:45 - 17:00	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>6</b>

Commercial Development  
1850 Walkley Road, Ottawa  
Transportation Impact Assessment

## EXHIBIT 2 2018 PEAK AM HOUR TRAFFIC COUNTS – Heron/Walkley



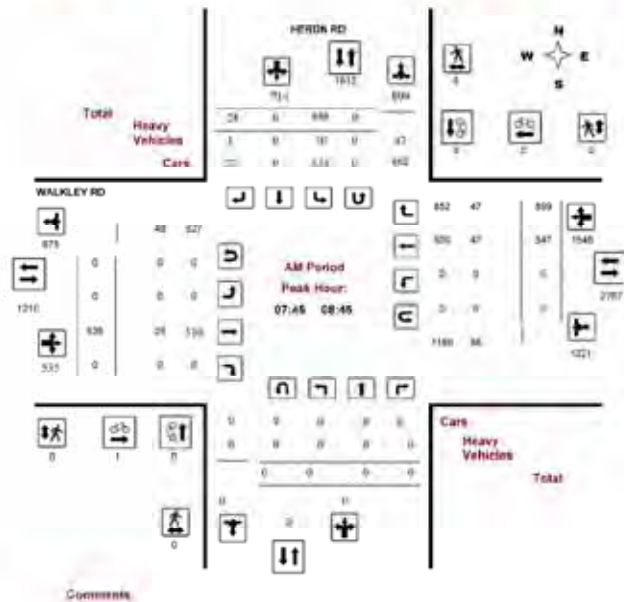
# Transportation Services - Traffic Services

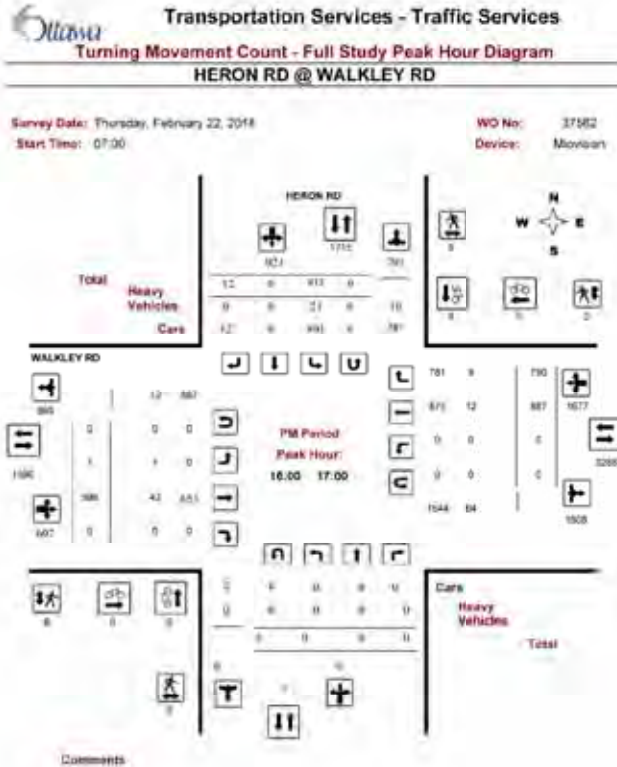
## Turning Movement Count - Full Study Peak Hour Diagram

### HERON RD @ WALKLEY RD

Survey Date: Thursday, February 22, 2018  
Start Time: 07:30

WO No: 37562  
Device: Motion

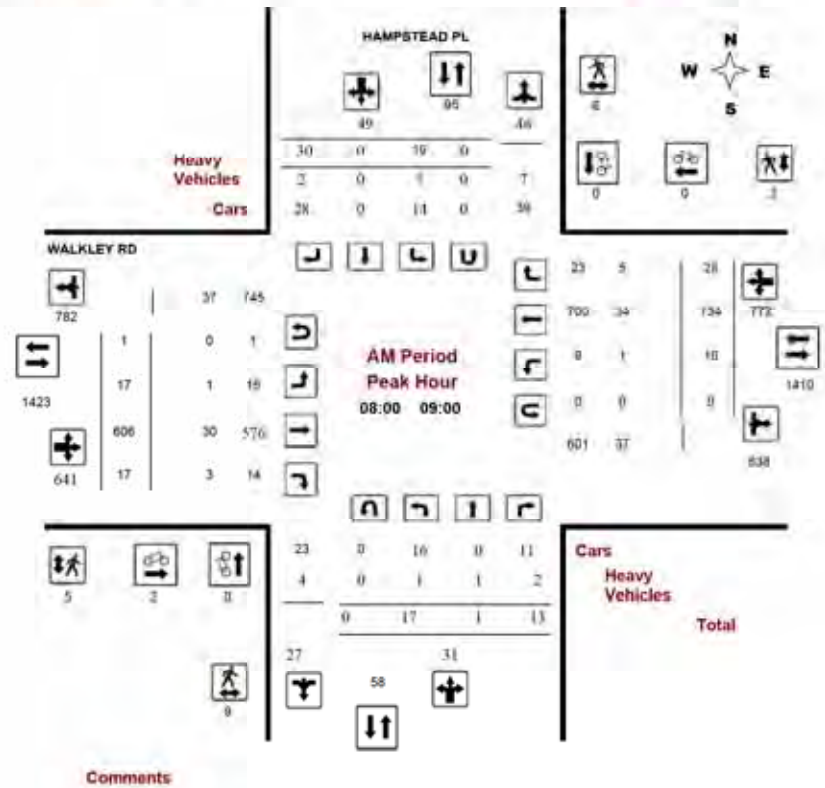




**Transportation Services - Traffic Services**  
**Turning Movement Count - Peak Hour Diagram**  
**HAMPSTEAD PL @ WALKLEY RD**

Survey Date: Wednesday, November 16, 2016  
 Start Time: 07:00

WO No: 36485  
 Device: Miovision



# Appendix B

## Collision Data



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016    **To:** December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-08, Fri,13:37	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Feb-17, Wed,11:40	Clear	Turning movement	P.D. only	Wet	South	Turning right	Passenger van	Other motor vehicle	0
					South	Going ahead	Municipal transit bus	Other motor vehicle	
2016-Feb-25, Thu,07:35	Freezing Rain	Rear end	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Feb-25, Thu,17:44	Rain	Rear end	P.D. only	Slush	West	Slowing or stopping	Pick-up truck	Skidding/sliding	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Mar-05, Sat,11:49	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Apr-04, Mon,08:52	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Apr-23, Sat,14:38	Clear	Turning movement	P.D. only	Dry	West	Turning left	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-May-03, Tue,07:57	Fog, mist, smoke, dust	Rear end	P.D. only	Dry	North	Slowing or stopping	Passenger van	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-May-04, Wed,11:03	Clear	Rear end	P.D. only	Dry	North	Turning left	Truck - closed	Other motor vehicle	0
					North	Turning left	Passenger van	Other motor vehicle	
2016-May-05, Thu,12:10	Clear	Turning movement	P.D. only	Dry	West	Turning left	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-May-30, Mon,09:07	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Municipal transit bus	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-May-30, Mon,11:23	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jun-22, Wed,12:30	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	0
					North	Turning left	Pick-up truck	Other motor vehicle	
2016-Jul-09, Sat,21:11	Rain	Rear end	Non-fatal injury	Wet	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
2016-Aug-06, Sat,14:49	Clear	Rear end	P.D. only	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Turning right	Pick-up truck	Other motor vehicle	
2016-Aug-19, Fri,15:40	Clear	Turning movement	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Pick-up truck	Other motor vehicle	
2016-Aug-22, Mon,14:59	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Aug-23, Tue,14:47	Clear	Rear end	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Aug-28, Sun,16:59	Rain	Rear end	P.D. only	Wet	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Sep-13, Tue,12:46	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2016-Nov-20, Sun,21:31	Snow	SMV other	P.D. only	Slush	South	Going ahead	Automobile, station wagon	Ran off road	0
2016-Dec-01, Thu,13:11	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Dec-06, Tue,14:54	Clear	Rear end	P.D. only	Wet	North	Slowing or stopping	Truck - tractor	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Dec-22, Thu,14:26	Snow	Rear end	P.D. only	Loose snow	South	Stopped	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Dec-23, Fri,19:46	Clear	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Passenger van	Other motor vehicle	
2017-Jan-27, Fri,17:05	Clear	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Feb-02, Thu,16:57	Clear	Rear end	P.D. only	Wet	East	Unknown	Automobile, station wagon	Other motor vehicle	0
					East	Unknown	Pick-up truck	Other motor vehicle	
2017-Feb-09, Thu,16:55	Clear	Turning movement	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	
2017-Feb-22, Wed,03:05	Clear	SMV other	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Pole (sign, parking meter)	0
2017-Apr-07, Fri,23:13	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-May-02, Tue,23:17	Clear	Angle	Non-fatal injury	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-May-05, Fri,12:31	Rain	Sideswipe	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Truck and trailer	Other motor vehicle	
2017-May-12, Fri,07:58	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2017-May-20, Sat,16:10	Clear	Rear end	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Pick-up truck	Other motor vehicle	





# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016    **To:** December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-May-31, Wed,17:19	Clear	Sideswipe	P.D. only	Dry	South	Going ahead	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jul-04, Tue,12:34	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jul-23, Sun,19:05	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Tow truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Sep-07, Thu,20:34	Rain	Angle	Non-fatal injury	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Police vehicle	Other motor vehicle	
2017-Oct-13, Fri,14:35	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Nov-17, Fri,21:45	Clear	Rear end	Non-fatal injury	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Turning right	Passenger van	Other motor vehicle	
2017-Dec-01, Fri,18:33	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Dec-11, Mon,09:25	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Dec-11, Mon,11:50	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Dec-15, Fri,08:18	Clear	Angle	P.D. only	Wet	North	Turning right	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2017-Dec-26, Tue,13:15	Clear	Sideswipe	P.D. only	Wet	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Jan-12, Fri,17:13	Freezing Rain	Other	P.D. only	Slush	North	Turning left	Automobile, station wagon	Skidding/sliding	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Jan-16, Tue,00:47	Snow	Rear end	P.D. only	Loose snow	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Feb-07, Wed,14:58	Snow	Turning movement	P.D. only	Packed snow	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Feb-21, Wed,22:41	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Feb-24, Sat,10:35	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Pick-up truck	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Mar-03, Sat,10:44	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Unknown	Other motor vehicle	
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Mar-05, Mon,01:05	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Mar-10, Sat,12:45	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Mar-12, Mon,06:07	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Apr-14, Sat,16:45	Clear	Rear end	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Apr-24, Tue,15:07	Clear	Rear end	P.D. only	Dry	East	Turning right	Delivery van	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2018-May-11, Fri,22:28	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-May-17, Thu,18:46	Clear	Turning movement	P.D. only	Dry	West	Turning left	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-May-24, Thu,14:27	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Jun-01, Fri,14:27	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-05, Thu,12:49	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Jul-12, Thu,16:33	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Aug-02, Thu,09:16	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Passenger van	Other motor vehicle	
2018-Aug-04, Sat,13:13	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Slowing or stopping	Passenger van	Other motor vehicle	
2018-Aug-05, Sun,09:30	Clear	Sideswipe	P.D. only	Dry	North	Going ahead	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Aug-20, Mon,14:40	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Bicycle	Other motor vehicle	0
					North	Turning left	Pick-up truck	Cyclist	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Aug-20, Mon,14:53	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Sep-13, Thu,21:38	Clear	Turning movement	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Sep-19, Wed,07:40	Clear	SMV other	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Pedestrian	1
2018-Sep-30, Sun,19:30	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Oct-05, Fri,18:14	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-13, Sat,18:30	Clear	Other	P.D. only	Dry	North	Reversing	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-15, Mon,09:45	Rain	Rear end	P.D. only	Wet	North	Going ahead	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-15, Mon,16:01	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Delivery van	Other motor vehicle	
2018-Oct-18, Thu,16:42	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Construction equipment	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Oct-31, Wed,13:15	Clear	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Nov-12, Mon,07:05	Snow	SMV other	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Pole (utility, power)	0
2018-Nov-19, Mon,15:49	Snow	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Nov-26, Mon,18:39	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Dec-02, Sun,13:40	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Jan-08, Tue,09:38	Clear	Angle	Non-fatal injury	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Passenger van	Other motor vehicle	
2019-Jan-18, Fri,06:20	Snow	Rear end	P.D. only	Slush	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-24, Thu,06:44	Freezing Rain	Rear end	P.D. only	Packed snow	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-27, Sun,17:19	Clear	Turning movement	P.D. only	Slush	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Feb-15, Fri,13:08	Clear	Rear end	P.D. only	Slush	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Unknown	Other motor vehicle	
2019-Mar-04, Mon,14:00	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Changing lanes	Automobile, station wagon	Other motor vehicle	
2019-Mar-19, Tue,13:40	Clear	Rear end	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Mar-20, Wed,18:43	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Mar-31, Sun,14:12	Rain	Rear end	Non-fatal injury	Ice	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Apr-09, Tue,10:30	Snow	Angle	P.D. only	Wet	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Apr-14, Sun,21:03	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-May-08, Wed,13:30	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Jun-17, Mon,11:38	Clear	Rear end	Non-fatal injury	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-26, Wed,14:42	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jul-12, Fri,08:54	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Aug-08, Thu,16:27	Rain	Rear end	Non-fatal injury	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Aug-14, Wed,12:00	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Aug-22, Thu,15:20	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Sep-09, Mon,15:30	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2019-Sep-19, Thu,17:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Delivery van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Sep-22, Sun,11:35	Clear	Turning movement	P.D. only	Dry	West	Turning left	Passenger van	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-24, Tue,16:40	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-10, Thu,16:27	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Oct-16, Wed,19:58	Rain	SMV other	Non-fatal injury	Wet	East	Going ahead	Automobile, station wagon	Pedestrian	1
2019-Nov-02, Sat,08:52	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Nov-02, Sat,19:45	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Unknown	Other motor vehicle	
2019-Nov-02, Sat,19:45	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Skidding/sliding	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Nov-03, Sun,17:40	Rain	Rear end	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Nov-24, Sun,21:12	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-06, Fri,17:30	Clear	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-14, Tue,11:35	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Jan-19, Sun,02:39	Snow	Other	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Reversing	Truck - open	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ HERON RD

**Traffic Control:** Traffic signal

**Total Collisions:** 129

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2020-Jan-22, Wed,07:43	Clear	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Municipal transit bus	Other motor vehicle	
2020-Jan-23, Thu,22:00	Clear	Turning movement	P.D. only	Wet	West	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Feb-07, Fri,14:47	Snow	Rear end	P.D. only	Loose snow	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Mar-08, Sun,00:04	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2020-May-14, Thu,14:25	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jun-17, Wed,15:42	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Jul-31, Fri,11:16	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2020-Aug-02, Sun,02:30	Rain	Angle	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2020-Aug-13, Thu,07:20	Clear	Rear end	P.D. only	Dry	North	Changing lanes	Passenger van	Other motor vehicle	0
					North	Turning left	Delivery van	Other motor vehicle	
2020-Sep-23, Wed,19:40	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Unknown	Other motor vehicle	
2020-Sep-23, Wed,20:40	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	





# Transportation Services - Traffic Services

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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2020-Oct-02, Fri,17:52	Clear	SMV other	Non-fatal injury	Wet	West	Turning right	Automobile, station wagon	Pedestrian	1
2020-Oct-10, Sat,18:03	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Oct-21, Wed,14:45	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Passenger van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Oct-29, Thu,11:06	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2020-Dec-04, Fri,13:55	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Dec-23, Wed,10:51	Snow	Sideswipe	P.D. only	Loose snow	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Passenger van	Other motor vehicle	
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	

**Location:** BANK ST @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 130

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Jan-20, Wed,10:54	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Slowing or stopping	Passenger van	Other motor vehicle	
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Jan-29, Fri,17:18	Clear	Rear end	P.D. only	Wet	North	Turning right	Passenger van	Other motor vehicle	0
					North	Turning right	Passenger van	Other motor vehicle	
2016-Feb-16, Tue,16:28	Snow	Sideswipe	P.D. only	Loose snow	North	Changing lanes	Unknown	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	



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**Location:** BANK ST @ WALKLEY RD

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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-22, Mon,17:05	Clear	Rear end	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Pick-up truck	Other motor vehicle	
2016-Mar-25, Fri,18:28	Clear	Angle	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Apr-16, Sat,10:20	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Apr-16, Sat,19:10	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Apr-19, Tue,15:00	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Passenger van	Other motor vehicle	
2016-Jun-14, Tue,13:48	Clear	Angle	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jun-19, Sun,23:23	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jul-16, Sat,08:54	Clear	Sideswipe	Non-fatal injury	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Sep-13, Tue,08:24	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Sep-19, Mon,13:23	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Sep-26, Mon,16:03	Clear	Rear end	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	



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2016-Sep-27, Tue,08:59	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Slowing or stopping	Other school vehicle/bus	Other motor vehicle	
2016-Oct-06, Thu,21:34	Clear	Angle	Non-fatal injury	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Oct-12, Wed,16:22	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Nov-02, Wed,08:01	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Nov-02, Wed,18:40	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Nov-04, Fri,22:41	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Nov-18, Fri,18:00	Clear	Rear end	P.D. only	Dry	West	Turning left	Pick-up truck	Other motor vehicle	0
					West	Turning left	Pick-up truck	Other motor vehicle	
2016-Nov-28, Mon,10:52	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Dec-08, Thu,20:22	Snow	Rear end	P.D. only	Ice	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Dec-08, Thu,21:13	Snow	Angle	Non-fatal injury	Ice	West	Slowing or stopping	Truck - closed	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2017-Jan-02, Mon,16:50	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Passenger van	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

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**Total Collisions:** 130

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2017-Jan-04, Wed,10:48	Snow	Rear end	P.D. only	Loose snow	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Jan-05, Thu,16:50	Clear	Angle	P.D. only	Ice	East	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Jan-14, Sat,14:17	Clear	Rear end	Non-fatal injury	Dry	North	Turning right	Passenger van	Other motor vehicle	0
					North	Turning right	Pick-up truck	Other motor vehicle	
2017-Jan-15, Sun,14:30	Clear	Rear end	P.D. only	Dry	West	Going ahead	Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jan-17, Tue,16:15	Clear	Rear end	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Mar-03, Fri,19:14	Clear	Rear end	P.D. only	Dry	North	Turning right	Pick-up truck	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Mar-21, Tue,15:22	Clear	Rear end	Non-fatal injury	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Mar-24, Fri,14:55	Rain	Angle	P.D. only	Wet	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Apr-01, Sat,00:18	Snow	Angle	P.D. only	Loose snow	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Apr-07, Fri,01:46	Rain	SMV other	Non-fatal injury	Wet	West	Turning left	Automobile, station wagon	Pole (utility, power)	0
2017-Apr-07, Fri,13:35	Rain	Rear end	Non-fatal injury	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-May-24, Wed,13:21	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Passenger van	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016    **To:** December 31, 2020

**Location:** BANK ST @ WALKLEY RD

**Traffic Control:** Traffic signal

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2017-May-25, Thu,13:29	Clear	Rear end	P.D. only	Dry	South	Going ahead	Passenger van	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
					South	Stopped	Pick-up truck	Other motor vehicle	
2017-Jun-08, Thu,15:22	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Aug-28, Mon,21:40	Clear	Rear end	P.D. only	Dry	East	Going ahead	Unknown	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Aug-30, Wed,12:28	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Aug-31, Thu,21:03	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-05, Tue,21:43	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Sep-14, Thu,17:30	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Sep-26, Tue,08:20	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Oct-21, Sat,19:39	Clear	Other	Non-fatal injury	Dry	West	Reversing	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Motorcycle	Other motor vehicle	
2017-Oct-24, Tue,08:23	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Nov-17, Fri,14:12	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Unknown	Other motor vehicle	0
					North	Going ahead	Truck - dump	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Dec-04, Mon,16:47	Clear	SMV other	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Pedestrian	1
2017-Dec-10, Sun,12:21	Clear	Angle	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Dec-24, Sun,11:11	Clear	Rear end	P.D. only	Dry	West	Turning right	Unknown	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Dec-30, Sat,17:03	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jan-10, Wed,13:28	Clear	Rear end	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Feb-03, Sat,18:44	Snow	Rear end	Non-fatal injury	Wet	North	Merging	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Feb-22, Thu,08:49	Clear	Rear end	P.D. only	Dry	South	Going ahead	Unknown	Other motor vehicle	0
					South	Stopped	Truck - closed	Other motor vehicle	
2018-Jun-06, Wed,21:49	Clear	Rear end	P.D. only	Dry	East	Merging	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jun-16, Sat,12:06	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jun-20, Wed,20:23	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-18, Wed,16:29	Clear	Rear end	Non-fatal injury	Dry	West	Merging	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Jul-25, Wed,14:40	Rain	Sideswipe	P.D. only	Wet	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jul-30, Mon,15:40	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-31, Tue,13:19	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Aug-04, Sat,13:47	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Aug-08, Wed,11:19	Clear	SMV unattended vehicle	P.D. only	Dry	West	Stopped	Automobile, station wagon	Unattended vehicle	0
2018-Aug-26, Sun,22:37	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Sep-13, Thu,19:08	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Oct-14, Sun,13:38	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Oct-17, Wed,17:05	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Oct-31, Wed,17:06	Rain	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-16, Fri,15:13	Snow	Rear end	Non-fatal injury	Loose snow	South	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	



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2018-Nov-20, Tue,13:45	Snow	Rear end	P.D. only	Loose snow	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-21, Wed,13:45	Snow	Angle	P.D. only	Wet	East	Unknown	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Dec-05, Wed,13:01	Snow	Turning movement	Non-fatal injury	Wet	North	Going ahead	Truck - closed	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Pick-up truck	Other motor vehicle	
2018-Dec-05, Wed,17:30	Snow	Rear end	P.D. only	Loose snow	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Dec-20, Thu,16:29	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Dec-27, Thu,15:15	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Delivery van	Other motor vehicle	
2018-Dec-29, Sat,10:59	Clear	Rear end	P.D. only	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jan-02, Wed,08:30	Clear	Approaching	P.D. only	Ice	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-03, Thu,20:00	Rain	Rear end	P.D. only	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jan-06, Sun,02:52	Clear	SMV other	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Pole (utility, power)	0
2019-Jan-19, Sat,17:30	Snow	Sideswipe	P.D. only	Loose snow	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	





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**Total Collisions:** 130

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Jan-24, Thu,17:30	Clear	Sideswipe	P.D. only	Slush	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-28, Mon,15:25	Clear	Rear end	P.D. only	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Feb-05, Tue,15:30	Clear	Rear end	P.D. only	Dry	West	Unknown	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-14, Thu,16:00	Clear	Rear end	P.D. only	Wet	South	Turning left	Passenger van	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Feb-22, Fri,10:36	Snow	Rear end	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Apr-02, Tue,08:45	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Apr-08, Mon,16:20	Clear	Rear end	P.D. only	Dry	South	Turning right	Unknown	Other motor vehicle	0
					South	Turning right	Pick-up truck	Other motor vehicle	
2019-May-06, Mon,21:59	Clear	Other	P.D. only	Dry	West	Reversing	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-06, Thu,11:35	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Unknown	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Jun-20, Thu,18:10	Clear	Rear end	P.D. only	Dry	South	Turning right	Passenger van	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jun-23, Sun,21:06	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-30, Sun,23:20	Clear	Rear end	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 130

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Jul-22, Mon,16:10	Clear	Rear end	P.D. only	Dry	South	Changing lanes	Passenger van	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Jul-25, Thu,20:05	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Unknown	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Aug-08, Thu,13:59	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Pick-up truck	Other motor vehicle	
2019-Sep-21, Sat,17:16	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Sep-25, Wed,15:00	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-29, Sun,12:13	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Nov-28, Thu,11:28	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Nov-30, Sat,20:30	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-12, Thu,17:52	Clear	Turning movement	P.D. only	Dry	South	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-13, Fri,21:30	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-27, Fri,10:05	Freezing Rain	Rear end	P.D. only	Ice	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Slowing or stopping	Passenger van	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 130

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Dec-27, Fri,10:54	Freezing Rain	Rear end	P.D. only	Ice	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Dec-29, Sun,19:30	Freezing Rain	Sideswipe	P.D. only	Ice	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-16, Thu,11:22	Clear	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-27, Mon,11:20	Clear	SMV unattended vehicle	P.D. only	Wet	West	Turning left	Automobile, station wagon	Unattended vehicle	0
2020-Feb-24, Mon,20:00	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Feb-27, Thu,13:15	Snow	SMV other	P.D. only	Packed snow	South	Turning right	Automobile, station wagon	Pole (sign, parking meter)	0
2020-Feb-27, Thu,15:10	Snow	Rear end	P.D. only	Loose snow	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Feb-29, Sat,22:12	Clear	Angle	P.D. only	Loose snow	East	Turning right	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Mar-11, Wed,08:30	Clear	Angle	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-May-25, Mon,17:40	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Bicycle	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Cyclist	
2020-Jul-02, Thu,17:03	Rain	Sideswipe	P.D. only	Wet	South	Changing lanes	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jul-13, Mon,10:54	Clear	Rear end	P.D. only	Dry	North	Unknown	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 130

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2020-Jul-17, Fri,19:40	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Bicycle	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Cyclist	
2020-Aug-05, Wed,16:50	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	Pick-up truck	Other motor vehicle	
2020-Aug-08, Sat,11:30	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Aug-20, Thu,19:22	Clear	Turning movement	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2020-Oct-15, Thu,17:08	Rain	Rear end	P.D. only	Wet	North	Turning left	Truck - closed	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2020-Oct-23, Fri,11:38	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Pick-up truck	Other motor vehicle	
2020-Oct-29, Thu,12:29	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Oct-31, Sat,12:17	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
2020-Nov-06, Fri,08:43	Clear	Other	P.D. only	Dry	South	Stopped	Pick-up truck	Debris falling off vehicle	0
					South	Stopped	Pick-up truck	Debris falling off vehicle	
					West	Going ahead	Truck and trailer	Other	
2020-Nov-28, Sat,05:25	Rain	Sideswipe	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Nov-29, Sun,00:18	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BANK ST @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 130

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2020-Dec-07, Mon,09:40	Clear	Rear end	Non-fatal injury	Dry	East	Unknown	Pick-up truck	Other motor vehicle	0
					East	Unknown	Automobile, station wagon	Other motor vehicle	
2020-Dec-09, Wed,07:45	Snow	Sideswipe	P.D. only	Loose snow	South	Changing lanes	Truck - closed	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Dec-22, Tue,17:30	Clear	Rear end	P.D. only	Dry	North	Turning right	Unknown	Other motor vehicle	0
					North	Turning right	Pick-up truck	Other motor vehicle	

**Location:** BAYCREST DR @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 30

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Mar-22, Tue,08:49	Clear	Rear end	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	0
					North	Turning left	Pick-up truck	Other motor vehicle	
2016-May-13, Fri,20:24	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-May-17, Tue,11:19	Clear	Angle	Non-fatal injury	Dry	West	Turning right	Automobile, station wagon	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
2016-Jun-09, Thu,13:07	Clear	Turning movement	Non-fatal injury	Dry	West	Turning right	Automobile, station wagon	Cyclist	0
					West	Going ahead	Bicycle	Other motor vehicle	
2016-Jun-15, Wed,07:30	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Sep-01, Thu,21:27	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Unknown	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Sep-23, Fri,16:46	Clear	Angle	P.D. only	Dry	East	Going ahead	Passenger van	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BAYCREST DR @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 30

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Oct-27, Thu,10:40	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2016-Nov-04, Fri,12:42	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Truck - tractor	Other motor vehicle	
2017-Mar-19, Sun,17:41	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jul-01, Sat,23:17	Rain	Rear end	Non-fatal injury	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Jul-05, Wed,07:39	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Truck - dump	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Dec-13, Wed,07:30	Snow	Rear end	P.D. only	Ice	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-27, Wed,14:25	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-28, Thu,18:57	Clear	Rear end	P.D. only	Packed snow	East	Going ahead	Automobile, station wagon	Skidding/sliding	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jan-26, Fri,08:51	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Feb-09, Fri,14:46	Clear	Sideswipe	P.D. only	Packed snow	East	Overtaking	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Feb-12, Mon,15:55	Clear	Turning movement	P.D. only	Slush	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** BAYCREST DR @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 30

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Apr-07, Sat,16:20	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Sep-07, Fri,08:03	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-27, Sun,01:15	Snow	SMV other	P.D. only	Loose snow	South	Turning left	Automobile, station wagon	Pole (utility, power)	0
2019-Apr-03, Wed,17:55	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jul-18, Thu,08:53	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-08, Tue,15:24	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Oct-08, Tue,17:24	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-10, Thu,14:20	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stopping	Delivery van	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Nov-14, Thu,08:10	Rain	Rear end	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Nov-17, Sun,20:12	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Municipal transit bus	Other motor vehicle	
2019-Nov-23, Sat,17:23	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Aug-08, Sat,14:32	Clear	SMV other	P.D. only	Dry	South	Turning right	Automobile, station wagon	Building or wall	0



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ ALTA VISTA DR

**Traffic Control:** Traffic signal

**Total Collisions:** 46

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Jan-15, Fri,14:49	Clear	Sideswipe	P.D. only	Packed snow	North	Overtaking	Pick-up truck	Other motor vehicle	0
					North	Stopped	Municipal transit bus	Other motor vehicle	
2016-Feb-02, Tue,15:15	Clear	Rear end	P.D. only	Dry	East	Turning right	Passenger van	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Feb-28, Sun,12:08	Snow	Angle	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2016-May-03, Tue,23:14	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-May-31, Tue,12:38	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2016-Jul-02, Sat,16:37	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Aug-24, Wed,18:21	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Passenger van	Other motor vehicle	
2016-Sep-01, Thu,13:56	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Passenger van	Other motor vehicle	
2016-Sep-24, Sat,23:09	Clear	Rear end	P.D. only	Dry	South	Unknown	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Dec-05, Mon,14:00	Clear	Turning movement	P.D. only	Packed snow	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
2017-Jan-05, Thu,17:23	Snow	Rear end	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2017-Mar-08, Wed,04:00	Rain	SMV other	Non-fatal injury	Wet	West	Going ahead	Automobile, station wagon	Pole (sign, parking meter) 0	





# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016    **To:** December 31, 2020

**Location:** HERON RD @ ALTA VISTA DR

**Traffic Control:** Traffic signal

**Total Collisions:** 46

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-May-11, Thu,09:50	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2017-May-21, Sun,15:46	Clear	SMV other	P.D. only	Dry	West	Slowing or stopping	Passenger van	Ran off road	0
2017-Jun-24, Sat,12:08	Clear	Rear end	P.D. only	Dry	East	Turning left	Pick-up truck	Other motor vehicle	0
					East	Turning left	Passenger van	Other motor vehicle	
2017-Jul-01, Sat,21:34	Clear	Turning movement	Non-fatal injury	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Aug-15, Tue,06:43	Rain	Rear end	P.D. only	Wet	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Aug-30, Wed,09:43	Clear	Sideswipe	Non-fatal injury	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Oct-04, Wed,16:16	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Dec-16, Sat,16:46	Clear	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-21, Thu,15:27	Clear	Rear end	P.D. only	Ice	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jan-19, Fri,17:21	Clear	Turning movement	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Feb-02, Fri,14:42	Clear	Sideswipe	Non-reportable	Dry	North	Overtaking	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Intercity bus	Other motor vehicle	
2018-Mar-14, Wed,09:44	Snow	Rear end	P.D. only	Loose snow	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ ALTA VISTA DR

**Traffic Control:** Traffic signal

**Total Collisions:** 46

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Apr-22, Sun,15:47	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Apr-25, Wed,12:45	Rain	Turning movement	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2018-May-14, Mon,00:30	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jul-31, Tue,17:31	Clear	Sideswipe	Non-fatal injury	Dry	West	Going ahead	Unknown	Cyclist	0
					West	Going ahead	Bicycle	Other motor vehicle	
2018-Oct-09, Tue,11:45	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-22, Tue,07:00	Clear	Sideswipe	P.D. only	Packed snow	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-26, Sat,09:50	Clear	SMV other	P.D. only	Dry	West	Turning left	Automobile, station wagon	Pole (utility, power)	0
2019-Feb-14, Thu,08:20	Clear	Rear end	P.D. only	Loose snow	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Mar-20, Wed,09:26	Clear	Rear end	P.D. only	Dry	North	Going ahead	School bus	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2019-Mar-25, Mon,15:15	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jul-16, Tue,16:50	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Aug-05, Mon,14:30	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016    **To:** December 31, 2020

**Location:** HERON RD @ ALTA VISTA DR

**Traffic Control:** Traffic signal

**Total Collisions:** 46

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Oct-16, Wed,23:04	Rain	Turning movement	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-04, Wed,09:03	Snow	Rear end	P.D. only	Wet	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Municipal transit bus	Other motor vehicle	
2019-Dec-08, Sun,17:50	Clear	Rear end	P.D. only	Dry	North	Stopped	Passenger van	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Dec-21, Sat,18:55	Clear	Turning movement	P.D. only	Dry	South	Turning left	Passenger van	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-25, Sat,18:51	Clear	Rear end	P.D. only	Loose snow	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Feb-18, Tue,15:59	Snow	Rear end	P.D. only	Loose snow	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Apr-17, Fri,19:28	Clear	SMV other	P.D. only	Dry	North	Turning left	Automobile, station wagon	Curb	0
2020-Jun-19, Fri,02:00	Clear	Rear end	Non-fatal injury	Dry	West	Unknown	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2020-Sep-03, Thu,12:34	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Truck - closed	Other motor vehicle	0
					West	Slowing or stopping	Pick-up truck	Other motor vehicle	
					West	Slowing or stopping	Pick-up truck	Other motor vehicle	
2020-Sep-30, Wed,19:10	Clear	Turning movement	P.D. only	Dry	South	Turning left	Unknown	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** HERON RD @ BAYCREST DR

**Traffic Control:** Traffic signal

**Total Collisions:** 21

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
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# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ BAYCREST DR

**Traffic Control:** Traffic signal

**Total Collisions:** 21

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Jan-06, Wed,13:34	Clear	Rear end	P.D. only	Wet	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Feb-01, Mon,10:40	Clear	Angle	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Mar-16, Wed,12:08	Clear	Rear end	P.D. only	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Stopped	Intercity bus	Other motor vehicle	
2016-Apr-25, Mon,15:14	Clear	Angle	P.D. only	Dry	East	Slowing or stopping	Construction equipment	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-May-31, Tue,16:28	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Nov-16, Wed,10:49	Clear	Rear end	P.D. only	Wet	East	Turning left	Truck - dump	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Nov-25, Fri,09:07	Snow	SMV other	Non-fatal injury	Slush	North	Turning right	School bus	Pedestrian	1
2017-Jan-05, Thu,19:10	Clear	Rear end	P.D. only	Ice	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Feb-13, Mon,15:36	Snow	Rear end	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Aug-21, Mon,16:00	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Oct-03, Tue,08:25	Clear	Turning movement	Non-fatal injury	Dry	East	Turning right	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	
2017-Nov-08, Wed,16:49	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ BAYCREST DR

**Traffic Control:** Traffic signal

**Total Collisions:** 21

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Jan-13, Sat,10:32	Clear	Rear end	P.D. only	Loose snow	West	Unknown	Unknown	Other motor vehicle	0
					West	Stopped	Intercity bus	Other motor vehicle	
2018-Jan-15, Mon,09:03	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Nov-04, Sun,17:30	Clear	Turning movement	P.D. only	Dry	East	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jun-06, Thu,12:47	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Automobile, station wagon	Other motor vehicle	0
					West	Unknown	Automobile, station wagon	Other motor vehicle	
2019-Jun-23, Sun,18:28	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Dec-11, Wed,18:30	Snow	Rear end	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Jan-23, Thu,20:53	Clear	Sideswipe	P.D. only	Loose snow	East	Overtaking	Ambulance	Other motor vehicle	0
					East	Going ahead	Truck and trailer	Other motor vehicle	
2020-Feb-02, Sun,11:35	Snow	Angle	P.D. only	Loose snow	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Pick-up truck	Other motor vehicle	
2020-Nov-20, Fri,11:58	Clear	SMV other	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Ran off road	0

**Location:** HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Traffic Control:** Traffic signal

**Total Collisions:** 14

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Jan-06, Wed,14:48	Clear	Turning movement	P.D. only	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Traffic Control:** Traffic signal

**Total Collisions:** 14

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-18, Thu,12:57	Clear	Angle	P.D. only	Wet	North	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Feb-15, Wed,18:05	Snow	Rear end	P.D. only	Slush	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Tow truck	Other motor vehicle	
2017-Dec-31, Sun,18:33	Clear	Rear end	P.D. only	Wet	East	Slowing or stopping	Passenger van	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Feb-13, Tue,21:18	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Mar-17, Sat,18:40	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Apr-14, Sat,08:30	Clear	Angle	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Aug-11, Sat,17:14	Clear	Turning movement	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Oct-11, Thu,15:29	Clear	Turning movement	Non-fatal injury	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Apr-29, Mon,14:52	Clear	Angle	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Aug-30, Fri,08:42	Clear	Rear end	Non-fatal injury	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Oct-25, Fri,09:00	Clear	Other	P.D. only	Dry	West	Reversing	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ BRIAR HILL DR/SANDALWOOD DR

**Traffic Control:** Traffic signal

**Total Collisions:** 14

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2020-Mar-28, Sat,20:49	Clear	Approaching	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jul-22, Wed,15:30	Rain	Sideswipe	P.D. only	Wet	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	

**Location:** HERON RD @ JEFFERSON ST

**Traffic Control:** Traffic signal

**Total Collisions:** 13

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Jan-28, Thu,14:55	Clear	Rear end	P.D. only	Dry	West	Going ahead	Delivery van	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2016-Mar-01, Tue,12:04	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jun-18, Sat,20:20	Clear	Angle	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jul-03, Sun,18:41	Clear	Angle	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Sep-01, Thu,19:09	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jan-08, Mon,17:22	Snow	Sideswipe	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Curb	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Fire vehicle	Other motor vehicle	
2018-May-10, Thu,17:03	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Unknown	Unknown	Other	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ JEFFERSON ST

**Traffic Control:** Traffic signal

**Total Collisions:** 13

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Jan-03, Thu,07:56	Snow	Rear end	P.D. only	Loose snow	West	Slowing or stopping	Truck - closed	Other motor vehicle	0
					West	Turning right	Passenger van	Other motor vehicle	
2019-Jan-11, Fri,13:13	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Apr-18, Thu,12:56	Rain	Angle	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jul-18, Thu,16:09	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Dec-15, Sun,11:08	Snow	Angle	P.D. only	Slush	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Feb-28, Fri,10:00	Snow	Angle	P.D. only	Slush	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	

**Location:** HERON RD @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 24

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-11, Mon,15:36	Clear	Rear end	P.D. only	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Apr-02, Sat,18:27	Clear	Rear end	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jul-04, Mon,09:34	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Passenger van	Other motor vehicle	
2016-Sep-28, Wed,18:47	Clear	Sideswipe	P.D. only	Dry	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Delivery van	Other motor vehicle	





# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 24

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Nov-05, Sat,17:07	Clear	Angle	Non-fatal injury	Dry	West	Turning left	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Nov-11, Fri,12:41	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Unknown	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2016-Dec-16, Fri,10:26	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Dec-31, Sat,14:09	Snow	Approaching	P.D. only	Loose snow	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jan-05, Thu,09:15	Clear	Rear end	Non-fatal injury	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Apr-15, Sat,04:47	Clear	SMV other	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Curb	0
2017-Jun-25, Sun,02:48	Clear	SMV other	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Curb	0
2017-Oct-08, Sun,12:33	Clear	Angle	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Mar-01, Thu,14:53	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Apr-11, Wed,08:41	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Apr-16, Mon,13:43	Rain	Rear end	P.D. only	Wet	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jun-19, Tue,23:00	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Unknown	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD @ WALKLEY RD

**Traffic Control:** Traffic signal

**Total Collisions:** 24

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Sep-11, Tue,15:20	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-12, Sat,01:43	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-21, Mon,09:10	Snow	Rear end	Non-fatal injury	Ice	East	Slowing or stopping	School bus	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-03, Sun,20:00	Clear	Angle	P.D. only	Packed snow	South	Stopped	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Nov-07, Thu,11:12	Snow	SMV other	P.D. only	Loose snow	South	Turning left	Truck - closed	Skidding/sliding	0
2019-Dec-04, Wed,12:50	Clear	Sideswipe	P.D. only	Ice	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-06, Mon,16:30	Clear	Rear end	P.D. only	Wet	South	Slowing or stopping	Snow plow	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2020-May-22, Fri,00:27	Clear	SMV other	P.D. only	Dry	West	Turning right	Passenger van	Pole (utility, power)	0

**Location:** HERON RD btwn ALTA VISTA DR & FINN CRT

**Traffic Control:** No control

**Total Collisions:** 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-May-03, Tue,07:28	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jun-21, Tue,06:57	Clear	Angle	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Aug-04, Thu,13:17	Clear	Turning movement	P.D. only	Dry	East	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD btwn ALTA VISTA DR & FINN CRT

**Traffic Control:** No control

**Total Collisions:** 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Dec-17, Sat,17:27	Snow	Sideswipe	P.D. only	Slush	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jun-27, Thu,17:39	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Jul-18, Thu,11:40	Clear	Sideswipe	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** HERON RD btwn BANK ST & EDGE HILL PL

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jan-24, Tue,08:56	Snow	SMV other	P.D. only	Ice	West	Turning right	Automobile, station wagon	Pole (utility, power)	0
2017-Aug-24, Thu,22:12	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stopping	Delivery van	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Apr-17, Tue,22:06	Clear	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-12, Fri,16:47	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Nov-11, Sun,01:48	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-16, Fri,17:08	Snow	SMV other	P.D. only	Slush	West	Going ahead	Automobile, station wagon	Skidding/sliding	0



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD btwn BANK ST & EDGE HILL PL

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Nov-30, Fri,17:30	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Unknown	Other motor vehicle	
2019-Jan-19, Sat,21:29	Clear	Rear end	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Feb-04, Mon,10:26	Clear	Rear end	P.D. only	Wet	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Delivery van	Other motor vehicle	
2019-Jun-11, Tue,11:00	Clear	Turning movement	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-07, Mon,13:56	Clear	Angle	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	School bus	Other motor vehicle	

**Location:** HERON RD btwn BAYCREST DR & SANDALWOOD DR

**Traffic Control:** No control

**Total Collisions:** 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Sep-14, Wed,21:37	Clear	Sideswipe	Non-fatal injury	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Nov-01, Wed,09:02	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jul-10, Wed,12:25	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** HERON RD btwn EVANS BLVD & ALTA VISTA DR

**Traffic Control:** No control

**Total Collisions:** 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
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# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD btwn EVANS BLVD & ALTA VISTA DR

**Traffic Control:** No control

**Total Collisions:** 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Sep-29, Fri,08:47	Clear	SMV other	Non-fatal injury	Dry	West	Merging	Pick-up truck	Pedestrian	1
2019-Feb-04, Mon,10:02	Clear	Rear end	P.D. only	Loose snow	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Feb-05, Wed,00:50	Clear	Turning movement	P.D. only	Dry	East	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** HERON RD btwn FINN CRT & BAYCREST DR

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Feb-27, Sat,10:11	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Mar-30, Wed,11:33	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2016-Apr-04, Mon,18:17	Clear	Angle	P.D. only	Dry	North	Turning left	Passenger van	Other motor vehicle	0
					East	Going ahead	Ambulance	Other motor vehicle	
2016-Apr-06, Wed,17:57	Snow	Angle	P.D. only	Loose snow	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Municipal transit bus	Other motor vehicle	
2017-May-02, Tue,18:02	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Nov-20, Tue,11:10	Clear	Approaching	Non-fatal injury	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Jul-28, Sun,06:05	Clear	Rear end	Non-fatal injury	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD btwn FINN CRT & BAYCREST DR

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Oct-21, Mon,11:52	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-31, Tue,08:43	Clear	Rear end	P.D. only	Loose snow	East	Going ahead	Municipal transit bus	Other motor vehicle	0
					East	Turning right	Snow plow	Other motor vehicle	
2020-Aug-14, Fri,11:30	Clear	Rear end	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Sep-29, Tue,18:09	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Passenger van	Other motor vehicle	0
					West	Going ahead	Passenger van	Other motor vehicle	

**Location:** HERON RD btwn JEFFERSON ST & TURN LANE

**Traffic Control:** No control

**Total Collisions:** 13

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Mar-26, Sat,12:11	Clear	Approaching	P.D. only	Dry	West	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Oct-07, Fri,08:04	Clear	Angle	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Oct-23, Sun,22:55	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Nov-04, Fri,07:45	Clear	Sideswipe	Non-fatal injury	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2018-Jan-08, Mon,17:41	Snow	Rear end	P.D. only	Loose snow	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jan-10, Wed,18:46	Clear	Angle	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD btwn JEFFERSON ST & TURN LANE

**Traffic Control:** No control

**Total Collisions:** 13

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Sep-18, Tue,11:07	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Oct-30, Tue,10:45	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-16, Fri,10:47	Clear	Rear end	P.D. only	Dry	West	Unknown	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-May-28, Tue,17:46	Clear	Angle	P.D. only	Dry	South	Reversing	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-May-21, Thu,05:46	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Truck - closed	Other motor vehicle	
2020-Jul-28, Tue,12:57	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
					East	Slowing or stopping	Pick-up truck	Other motor vehicle	
2020-Nov-26, Thu,22:25	Clear	SMV other	Non-fatal injury	Dry	West	Going ahead	Tow truck	Pole (utility, power)	1

**Location:** HERON RD btwn SANDALWOOD DR & JEFFERSON ST

**Traffic Control:** No control

**Total Collisions:** 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Dec-09, Sat,23:22	Snow	SMV other	P.D. only	Loose snow	East	Going ahead	Automobile, station wagon	Curb	0
2018-May-29, Tue,09:07	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** HERON RD btwn SANDALWOOD DR & JEFFERSON ST

**Traffic Control:** No control

**Total Collisions:** 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Jul-24, Tue,15:16	Rain	Rear end	Non-fatal injury	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Passenger van	Other motor vehicle	
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Mar-11, Mon,14:05	Clear	Sideswipe	P.D. only	Wet	West	Changing lanes	Passenger van	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-17, Fri,16:30	Clear	Other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other	
2020-Jul-30, Thu,14:57	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	

**Location:** WALKLEY RD btwn 152 E OF HEATHERINGTON RD & HOLLY LANE

**Traffic Control:** No control

**Total Collisions:** 9

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-09, Sat,17:48	Rain	Rear end	P.D. only	Ice	West	Slowing or stopping	Delivery van	Other motor vehicle	0
					West	Slowing or stopping	Pick-up truck	Other motor vehicle	
					West	Going ahead	Delivery van	Other motor vehicle	
2016-Jan-21, Thu,11:50	Clear	Rear end	Non-fatal injury	Loose snow	West	Going ahead	Passenger van	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Jun-21, Tue,20:09	Clear	Angle	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Aug-18, Thu,11:35	Clear	Angle	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Passenger van	Other motor vehicle	





# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** WALKLEY RD btwn 152 E OF HEATHERINGTON RD & HOLLY LANE

**Traffic Control:** No control

**Total Collisions:** 9

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Oct-04, Thu,17:55	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-14, Mon,15:10	Clear	Angle	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Feb-11, Mon,10:00	Clear	Rear end	P.D. only	Dry	East	Overtaking	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jun-15, Sat,15:10	Rain	Angle	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-12, Sat,14:57	Rain	Angle	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** WALKLEY RD btwn AYERS AVE & HAMPSTEAD PL

**Traffic Control:** No control

**Total Collisions:** 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Jan-31, Wed,19:16	Rain	SMV other	P.D. only	Loose snow	East	Pulling onto shoulder or toward curb	Automobile, station wagon	Ran off road	0
2019-Jun-11, Tue,21:48	Clear	Angle	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** WALKLEY RD btwn BANFF AVE & AYERS AVE

**Traffic Control:** No control

**Total Collisions:** 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Mar-01, Tue,12:09	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Snow plow	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** WALKLEY RD btwn BANFF AVE & AYERS AVE

**Traffic Control:** No control

**Total Collisions:** 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Dec-11, Tue,09:14	Snow	Rear end	P.D. only	Loose snow	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Jan-29, Tue,15:45	Clear	Rear end	P.D. only	Loose snow	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-20, Thu,10:13	Rain	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-12, Sat,11:37	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-May-31, Sun,17:00	Clear	Turning movement	P.D. only	Dry	East	Turning left	Unknown	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	

**Location:** WALKLEY RD btwn BANK ST & BANFF AVE

**Traffic Control:** No control

**Total Collisions:** 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-09, Tue,10:19	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Passenger van	Other motor vehicle	0
					East	Turning right	Pick-up truck	Other motor vehicle	
2016-Nov-14, Mon,16:56	Clear	Turning movement	P.D. only	Dry	East	Going ahead	Unknown	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Oct-08, Sun,14:20	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Passenger van	Other motor vehicle	
					West	Stopped	Unknown	Other motor vehicle	
2018-Dec-15, Sat,15:41	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016    **To:** December 31, 2020

**Location:** WALKLEY RD btwn BANK ST & BANFF AVE

**Traffic Control:** No control

**Total Collisions:** 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Mar-06, Wed,07:59	Clear	Rear end	P.D. only	Wet	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Mar-22, Fri,18:45	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Aug-08, Thu,17:00	Clear	Turning movement	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Making "U" turn	Automobile, station wagon	Other motor vehicle	
2019-Sep-09, Mon,15:00	Clear	Rear end	P.D. only	Dry	West	Going ahead	Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Unknown	Other motor vehicle	
2020-Feb-18, Tue,10:55	Snow	Angle	Non-fatal injury	Loose snow	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Mar-09, Mon,14:15	Clear	Angle	P.D. only	Dry	South	Turning right	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Mar-11, Wed,08:20	Clear	Turning movement	P.D. only	Dry	East	Making "U" turn	Pick-up truck	Other motor vehicle	0
					East	Making "U" turn	Automobile, station wagon	Other motor vehicle	
2020-Aug-08, Sat,11:05	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Unknown	Other motor vehicle	

**Location:** WALKLEY RD btwn BAYCREST DR & HEATHERINGTON RD

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-12, Fri,12:27	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** WALKLEY RD btwn BAYCREST DR & HEATHERINGTON RD

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jul-12, Tue,15:17	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Motorcycle	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Jan-05, Thu,15:17	Clear	Angle	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2017-Jul-31, Mon,09:52	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Oct-02, Mon,02:26	Clear	SMV other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Pole (utility, power)	0
2017-Oct-18, Wed,17:31	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Passenger van	Other motor vehicle	
2018-Jul-20, Fri,14:20	Clear	Angle	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Motorcycle	Other motor vehicle	
2018-Sep-04, Tue,13:07	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stopping	Passenger van	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
2018-Oct-15, Mon,07:09	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Nov-30, Fri,17:24	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Dec-01, Sat,11:12	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** WALKLEY RD btwn COLLISTON CRES & CEDARWOOD DR

**Traffic Control:** No control

**Total Collisions:** 8

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
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# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** WALKLEY RD btwn COLLISTON CRES & CEDARWOOD DR

**Traffic Control:** No control

**Total Collisions:** 8

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-May-07, Sat,00:05	Clear	SMV other	P.D. only	Dry	North	Turning left	Automobile, station wagon	Curb	0
2016-Jul-23, Sat,20:30	Clear	Sideswipe	Non-fatal injury	Dry	East	Going ahead	Pick-up truck	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	
2016-Nov-18, Fri,14:15	Clear	Other	Non-fatal injury	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Mar-20, Mon,12:15	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Pick-up truck	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jun-08, Fri,08:36	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Dec-03, Mon,10:28	Rain	SMV other	Non-fatal injury	Wet	East	Going ahead	Automobile, station wagon	Curb	0
2019-Jun-03, Mon,23:08	Clear	SMV other	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Debris on road	0
2019-Jun-25, Tue,15:53	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Bicycle	Other motor vehicle	0
					East	Going ahead	Passenger van	Cyclist	

**Location:** WALKLEY RD btwn COLLISTON CRES & COLLISTON CRES

**Traffic Control:** No control

**Total Collisions:** 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Oct-24, Tue,19:23	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	

**Location:** WALKLEY RD btwn HAMPSTEAD PL & JASPER AVE

**Traffic Control:** No control

**Total Collisions:** 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
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# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** WALKLEY RD btwn HAMPSTEAD PL & JASPER AVE

**Traffic Control:** No control

**Total Collisions:** 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-May-19, Thu,11:41	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** WALKLEY RD btwn HEATHERINGTON RD & 152 E OF HEATHERINGTON RD

**Traffic Control:** No control

**Total Collisions:** 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Jul-05, Wed,18:37	Clear	Angle	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jan-13, Sat,13:45	Clear	Sideswipe	P.D. only	Ice	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-04, Sat,20:46	Snow	SMV other	P.D. only	Ice	East	Going ahead	Automobile, station wagon	Pole (utility, power)	0

**Location:** WALKLEY RD btwn HERON RD & HOLLY LANE

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Jan-12, Tue,16:22	Clear	SMV other	Non-fatal injury	Loose snow	West	Turning right	Pick-up truck	Skidding/sliding	0
2016-Jun-07, Tue,17:23	Clear	Angle	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Oct-06, Thu,17:24	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Feb-28, Tue,15:30	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Feb-28, Tue,18:15	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Delivery van	Other motor vehicle	



# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** WALKLEY RD btwn HERON RD & HOLLY LANE

**Traffic Control:** No control

**Total Collisions:** 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Apr-28, Fri,15:25	Clear	Angle	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Motorcycle	Other motor vehicle	
2017-Jul-14, Fri,16:39	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Oct-21, Sat,13:53	Clear	Sideswipe	Non-fatal injury	Dry	East	Going ahead	Bicycle	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Cyclist	
2019-Nov-04, Mon,15:03	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Nov-18, Mon,17:02	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Dec-08, Tue,09:12	Clear	Rear end	P.D. only	Dry	West	Going ahead	Truck - closed	Other motor vehicle	0
					West	Stopped	Truck - closed	Other motor vehicle	

**Location:** WALKLEY RD btwn HERON RD & TURN LANE

**Traffic Control:** No control

**Total Collisions:** 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jul-26, Tue,14:00	Clear	Sideswipe	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Apr-17, Tue,12:15	Snow	Sideswipe	P.D. only	Wet	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	

**Location:** WALKLEY RD btwn JASPER AVE & COLLISTON CRES

**Traffic Control:** No control

**Total Collisions:** 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
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# Transportation Services - Traffic Services

## Collision Details Report - Public Version

From: January 1, 2016 To: December 31, 2020

**Location:** WALKLEY RD btwn JASPER AVE & COLLISTON CRES

**Traffic Control:** No control

**Total Collisions:** 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Apr-17, Mon,01:07	Clear	Turning movement	P.D. only	Dry	West	Making "U" turn	Passenger van	Other motor vehicle	0
					West	Going ahead	Passenger van	Other motor vehicle	
2020-Sep-28, Mon,17:38	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	



Appendix C  
MMLOS Summary

**Multi-Modal Level of Service - Intersections Form**

Consultant  
Scenario  
Comments

STANTEC
Existing

Project  
Date

1495 Heron Road
1-Feb-2023

INTERSECTIONS														
Crossing Side		Heron Rd and Bank St				Heron Rd and Alta Vista Dr				Heron Rd and BaycrestDr				
		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	
Pedestrian	Lanes	7	8	7	7	5	5	7	7	3	0-2	6	7	
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	
	Conflicting Left Turns	Protected	Protected	Permissive	Protected/ Permissive	Protected/ Permissive	Permissive	Protected	Protected	Permissive	Permissive	Permissive	Permissive	
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	
	Right Turns on Red (RTOR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	
	Ped Signal Leading Interval?	No	No	No	No	No	No	No	No	No	No	No	No	
	Right Turn Channel	No Channel	Conventional with Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	No Channel	No Channel	No Channel	No Channel	
	Corner Radius	10-15m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	5-10m	5-10m	5-10m	5-10m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	
	<b>PETSI Score</b>	<b>12</b>	<b>-5</b>	<b>3</b>	<b>6</b>	<b>42</b>	<b>42</b>	<b>14</b>	<b>14</b>	<b>71</b>	<b>86</b>	<b>21</b>	<b>5</b>	
	<b>Ped. Exposure to Traffic LoS</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>C</b>	<b>B</b>	<b>F</b>	<b>F</b>	
	Cycle Length	130	130	130	130	130	130	130	130	90	90	90	90	
	Effective Walk Time	11	11	11	11	11	11	11	11	19	19	14	14	
	<b>Average Pedestrian Delay</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>28</b>	<b>28</b>	<b>32</b>	<b>32</b>	
<b>Pedestrian Delay LoS</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>D</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>C</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Approach From</b>		<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>			> 50 m	> 50 m									
	Dedicated Right Turning Speed			>25 km/h	>25 km/h									
	<b>Cyclist Through Movement</b>			<b>F</b>	<b>F</b>							<b>Not Applicable</b>	<b>Not Applicable</b>	
	<b>Separated or Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	1 lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	
	Operating Speed	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	
<b>Left Turning Cyclist</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>		<b>F</b>				<b>F</b>				<b>F</b>				
Transit	Average Signal Delay	> 40 sec	> 40 sec	> 40 sec	≤ 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	≤ 30 sec	≤ 40 sec	≤ 20 sec	≤ 20 sec	
	<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>E</b>	<b>C</b>	<b>C</b>	
<b>Level of Service</b>		<b>F</b>				<b>F</b>				<b>E</b>				
Truck	Effective Corner Radius	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	< 10 m	< 10 m	< 10 m	< 10 m	
	Number of Receiving Lanes on Departure from Intersection	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	1	1	≥ 2	≥ 2	1	1	
<b>Level of Service</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>		<b>A</b>				<b>C</b>				<b>F</b>				
Auto	Volume to Capacity Ratio	> 1.00				0.91 - 1.00				0.61 - 0.70				
	<b>Level of Service</b>	<b>F</b>				<b>E</b>				<b>B</b>				

### Multi-Modal Level of Service - Segments Form

Consultant	STANTEC
Scenario	Existing
Comments	

Project	1495 Heron Road
Date	1-Feb-23

SEGMENTS	LOS	Heron Road	Heron Road	Heron Road	Heron Road	Heron Road	Bank St	Baycrest Dr	
		Bank St - Alta Vista Dr	Alta Vista Dr-Baycrest Dr	Baycrest Dr-Sandalwood Dr	Sandalwood Dr-Jefferson St	Jefferson St-Walkley Rd	Heron Rd-Walkley Rd	Heron Rd-Walkley Rd	
<b>Pedestrian</b>	Sidewalk Width	1.8 m	1.8 m	1.8 m	1.8 m	1.8 m	1.5 m	1.8 m	
	Boulevard Width	< 0.5 m	> 2 m	> 2 m	> 2 m	> 2 m	< 0.5 m	0.5 - 2 m	
	Avg Daily Curb Lane Traffic Volume	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	≤ 3000	
	Operating Speed	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 30 to 50 km/h	
	On-Street Parking	no	no	no	no	no	no	yes	
	<b>Exposure to Traffic PLoS</b>	<b>F</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>B</b>	
	<b>Level of Service</b>	<b>F</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>B</b>	
<b>Bicycle</b>	Type of Cycling Facility	Mixed Traffic	Mixed Traffic	Curbside Bike Lane	Curbside Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	
	Number of Travel Lanes	2-3 lanes total	2-3 lanes total	2 ea. dir. (w median)	2 ea. dir. (w median)	2-3 lanes total	4-5 lanes total	2-3 lanes total	
	Operating Speed	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>50 to 70 km/h	>50 to 70 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>40 to <50 km/h	
		<b># of Lanes &amp; Operating Speed LoS</b>	<b>E</b>	<b>E</b>	<b>C</b>	<b>C</b>	<b>E</b>	<b>E</b>	<b>D</b>
	Bike Lane (+ Parking Lane) Width			≥1.5 to <1.8 m	≥1.5 to <1.8 m				
		<b>Bike Lane Width LoS</b>	<b>-</b>	<b>-</b>	<b>B</b>	<b>B</b>	<b>-</b>	<b>-</b>	<b>-</b>
	Bike Lane Blockages			Rare	Frequent				
	<b>Blockage LoS</b>	<b>-</b>	<b>-</b>	<b>A</b>	<b>C</b>	<b>-</b>	<b>-</b>	<b>-</b>	
	<b>Level of Service</b>	<b>E</b>	<b>E</b>	<b>C</b>	<b>C</b>	<b>E</b>	<b>E</b>	<b>D</b>	
<b>Transit</b>	Facility Type	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	
	Friction or Ratio Transit:Posted Speed	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≤ 0.4	
		<b>Level of Service</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>F</b>	
<b>Truck</b>	Truck Lane Width	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.3 m	≤ 3.2 m	
	Travel Lanes per Direction	> 1	> 1	> 1	> 1	> 1	> 1	1	
		<b>Level of Service</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>C</b>	<b>E</b>

**Multi-Modal Level of Service - Intersections Form**

Consultant  
Scenario  
Comments

<b>STANTEC</b>
2032 Full Background

Project  
Date

1495 Heron Road
1-Feb-2023

INTERSECTIONS														
Crossing Side		Heron Rd and Bank St				Heron Rd and Alta Vista Dr				Heron Rd and BaycrestDr				
		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	
Pedestrian	Lanes	7	8	7	7	5	5	7	7	3	0 - 2	6	7	
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	
	Conflicting Left Turns	Protected	Protected	Protected/ Permissive	Protected/ Permissive	Protected/ Permissive	Permissive	Protected	Protected	Permissive	Permissive	Permissive	Permissive	
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	
	Right Turns on Red (RTOR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	
	Ped Signal Leading Interval?	No	No	No	No	No	No	No	No	No	No	No	No	
	Right Turn Channel	No Channel	Conventional with Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	No Channel	No Channel	No Channel	No Channel
	Corner Radius	10-15m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	5-10m	5-10m	5-10m	5-10m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
	<b>PETSI Score</b>	<b>12</b>	<b>-5</b>	<b>3</b>	<b>6</b>	<b>42</b>	<b>42</b>	<b>14</b>	<b>14</b>	<b>71</b>	<b>86</b>	<b>21</b>	<b>5</b>	
	<b>Ped. Exposure to Traffic LoS</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>C</b>	<b>B</b>	<b>F</b>	<b>F</b>	
	Cycle Length	130	130	130	130	130	130	130	130	90	90	90	90	
	Effective Walk Time	11	11	11	11	11	11	11	11	19	19	14	14	
	<b>Average Pedestrian Delay</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>28</b>	<b>28</b>	<b>32</b>	<b>32</b>	
<b>Pedestrian Delay LoS</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>D</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>C</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Approach From</b>		<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>			> 50 m	> 50 m									
	Dedicated Right Turning Speed			>25 km/h	>25 km/h									
	<b>Cyclist Through Movement</b>			<b>F</b>	<b>F</b>							<b>Not Applicable</b>	<b>Not Applicable</b>	
	<b>Separated or Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	1 lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	
	Operating Speed	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	
<b>Left Turning Cyclist</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>		<b>F</b>				<b>F</b>				<b>F</b>				
Transit	Average Signal Delay	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	≤ 30 sec	≤ 40 sec	≤ 20 sec	≤ 20 sec	
	<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>E</b>	<b>C</b>	<b>C</b>	
<b>Level of Service</b>		<b>F</b>				<b>F</b>				<b>E</b>				
Truck	Effective Corner Radius	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	< 10 m	< 10 m	< 10 m	< 10 m	
	Number of Receiving Lanes on Departure from Intersection	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	1	1	≥ 2	≥ 2	1	1	
<b>Level of Service</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>		<b>A</b>				<b>C</b>				<b>F</b>				
Auto	Volume to Capacity Ratio	> 1.00				> 1.00				0.71 - 0.80				
	<b>Level of Service</b>	<b>F</b>				<b>F</b>				<b>C</b>				

## Multi-Modal Level of Service - Segments Form

Consultant	STANTEC
Scenario	2032 Full Background
Comments	

Project	1495 Heron Road
Date	1-Feb-2023

SEGMENTS	LOS	Heron Road	Heron Road	Heron Road	Heron Road	Heron Road	Bank St	Baycrest Dr	
		Bank St - Alta Vista Dr	Alta Vista Dr-Baycrest Dr	Baycrest Dr-Sandalwood Dr	Sandalwood Dr-Jefferson St	Jefferson St-Walkley Rd	Heron Rd-Walkley Rd	Heron Rd-Walkley Rd	
Pedestrian	F	Sidewalk Width	1.8 m	1.8 m	1.8 m	1.8 m	1.8 m	1.5 m	1.8 m
		Boulevard Width	< 0.5 m	> 2 m	> 2 m	> 2 m	> 2 m	< 0.5 m	0.5 - 2 m
		Avg Daily Curb Lane Traffic Volume	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	≤ 3000
		Operating Speed	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 30 to 50 km/h
		On-Street Parking	no	no	no	no	no	no	yes
		F	D	D	D	D	F	B	
		Exposure to Traffic PLoS							
		Level of Service		F		D		B	
Bicycle	E	Type of Cycling Facility	Mixed Traffic	Mixed Traffic	Curbside Bike Lane	Curbside Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic
		Number of Travel Lanes	2-3 lanes total	2-3 lanes total	2 ea. dir. (w median)	2 ea. dir. (w median)	2-3 lanes total	4-5 lanes total	2-3 lanes total
		Operating Speed	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>50 to 70 km/h	>50 to 70 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>40 to <50 km/h
		# of Lanes & Operating Speed LoS	E	E	C	C	E	E	D
		Bike Lane (+ Parking Lane) Width			≥1.5 to <1.8 m	≥1.5 to <1.8 m			
		Bike Lane Width LoS	-	-	B	B	-	-	-
		Bike Lane Blockages			Rare	Frequent			
		-	-	A	C	-	-		
		Blockage LoS							
		Level of Service		E		E		D	
Transit	D	Facility Type	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
		Friction or Ratio Transit:Posted Speed	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8
			D	D	D	D	D	D	D
		Level of Service		D		D		D	
Truck	E	Truck Lane Width	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.3 m	≤ 3.2 m
		Travel Lanes per Direction	> 1	> 1	> 1	> 1	> 1	> 1	1
			A	A	A	A	A	C	E
		Level of Service		A		A		E	

**Multi-Modal Level of Service - Intersections Form**

Consultant  
Scenario  
Comments

<b>STANTEC</b>
<b>2032 Total Future</b>

Project  
Date

<b>1495 Heron Road</b>
<b>1-Feb-2023</b>

INTERSECTIONS														
Crossing Side		Heron Rd and Bank St				Heron Rd and Alta Vista Dr				Heron Rd and BaycrestDr				
		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	
Pedestrian	Lanes	7	8	7	7	5	5	7	7	3	0 - 2	6	7	
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	
	Conflicting Left Turns	Protected	Protected	Protected/ Permissive	Protected/ Permissive	Protected/ Permissive	Permissive	Protected	Protected	Permissive	Permissive	Permissive	Permissive	
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	
	Right Turns on Red (RTOR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	
	Ped Signal Leading Interval?	No	No	No	No	No	No	No	No	No	No	No	No	
	Right Turn Channel	No Channel	Conventional with Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	No Channel	No Channel	No Channel	No Channel
	Corner Radius	10-15m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	5-10m	5-10m	5-10m	5-10m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
	<b>PETSI Score</b>	<b>12</b>	<b>-5</b>	<b>3</b>	<b>6</b>	<b>42</b>	<b>42</b>	<b>14</b>	<b>14</b>	<b>71</b>	<b>86</b>	<b>21</b>	<b>5</b>	
	<b>Ped. Exposure to Traffic LoS</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>C</b>	<b>B</b>	<b>F</b>	<b>F</b>	
	Cycle Length	130	130	130	130	130	130	130	130	120	120	120	120	
	Effective Walk Time	11	11	11	11	11	11	11	11	19	19	14	14	
	<b>Average Pedestrian Delay</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>43</b>	<b>43</b>	<b>47</b>	<b>47</b>	
<b>Pedestrian Delay LoS</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>		
<b>Approach From</b>		<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>			> 50 m	> 50 m									
	Dedicated Right Turning Speed			>25 km/h	>25 km/h									
	<b>Cyclist Through Movement</b>			<b>F</b>	<b>F</b>							<b>Not Applicable</b>	<b>Not Applicable</b>	
	<b>Separated or Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	1 lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	
	Operating Speed	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	
<b>Left Turning Cyclist</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
		<b>F</b>				<b>F</b>				<b>F</b>				
Transit	Average Signal Delay	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	≤ 30 sec	> 40 sec	≤ 20 sec	≤ 20 sec	
	<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>C</b>	<b>C</b>	
		<b>F</b>				<b>F</b>				<b>F</b>				
Truck	Effective Corner Radius	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	< 10 m	< 10 m	< 10 m	< 10 m	
	Number of Receiving Lanes on Departure from Intersection	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	1	1	≥ 2	≥ 2	1	1	
<b>Level of Service</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>F</b>		
		<b>A</b>				<b>C</b>				<b>F</b>				
Auto	Volume to Capacity Ratio	> 1.00				> 1.00				0.71 - 0.80				
	<b>Level of Service</b>	<b>F</b>				<b>F</b>				<b>C</b>				

# Multi-Modal Level of Service - Segments Form

Consultant	STANTEC
Scenario	2032 Total Future
Comments	

Project	1495 Heron Road
Date	1-Feb-2023

SEGMENTS	LOS	Heron Road	Heron Road	Heron Road	Heron Road	Heron Road	Bank St	Baycrest Dr	
		Bank St - Alta Vista Dr	Alta Vista Dr-Baycrest Dr	Baycrest Dr-Sandalwood Dr	Sandalwood Dr-Jefferson St	Jefferson St-Walkley Rd	Heron Rd-Walkley Rd	Heron Rd-Walkley Rd	
<b>Pedestrian</b>	Sidewalk Width	1.8 m	1.8 m	1.8 m	1.8 m	1.8 m	1.5 m	1.8 m	
	Boulevard Width	< 0.5 m	> 2 m	> 2 m	> 2 m	> 2 m	< 0.5 m	0.5 - 2 m	
	Avg Daily Curb Lane Traffic Volume	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	≤ 3000	
	Operating Speed	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 30 to 50 km/h	
	On-Street Parking	no	no	no	no	no	no	yes	
	<b>Exposure to Traffic PLoS</b>	<b>F</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>B</b>	
	<b>Level of Service</b>	<b>F</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>B</b>	
<b>Bicycle</b>	Type of Cycling Facility	Mixed Traffic	Mixed Traffic	Curbside Bike Lane	Curbside Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	
	Number of Travel Lanes	2-3 lanes total	2-3 lanes total	2 ea. dir. (w median)	2 ea. dir. (w median)	2-3 lanes total	4-5 lanes total	2-3 lanes total	
	Operating Speed	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>50 to 70 km/h	>50 to 70 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>40 to <50 km/h	
		<b># of Lanes &amp; Operating Speed LoS</b>	<b>E</b>	<b>E</b>	<b>C</b>	<b>C</b>	<b>E</b>	<b>E</b>	<b>D</b>
	Bike Lane (+ Parking Lane) Width			≥1.5 to <1.8 m	≥1.5 to <1.8 m				
		<b>Bike Lane Width LoS</b>	<b>-</b>	<b>-</b>	<b>B</b>	<b>B</b>	<b>-</b>	<b>-</b>	<b>-</b>
	Bike Lane Blockages			Rare	Frequent				
	<b>Blockage LoS</b>	<b>-</b>	<b>-</b>	<b>A</b>	<b>C</b>	<b>-</b>	<b>-</b>	<b>-</b>	
	<b>Level of Service</b>	<b>E</b>	<b>E</b>	<b>C</b>	<b>C</b>	<b>E</b>	<b>E</b>	<b>D</b>	
<b>Transit</b>	Facility Type	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	
	Friction or Ratio Transit:Posted Speed	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	
		<b>Level of Service</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
<b>Truck</b>	Truck Lane Width	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.3 m	≤ 3.2 m	
	Travel Lanes per Direction	> 1	> 1	> 1	> 1	> 1	> 1	1	
		<b>Level of Service</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>C</b>	<b>E</b>

**Multi-Modal Level of Service - Intersections Form**

Consultant  
Scenario  
Comments

<b>STANTEC</b>
<b>2037 Ultimate</b>

Project  
Date

<b>1495 Heron Road</b>
<b>1-Feb-2023</b>

INTERSECTIONS														
Crossing Side		Heron Rd and Bank St				Heron Rd and Alta Vista Dr				Heron Rd and BaycrestDr				
		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	
Pedestrian	Lanes	7	8	7	7	5	5	7	7	3	0 - 2	6	7	
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	
	Conflicting Left Turns	Protected	Protected	Protected/ Permissive	Protected/ Permissive	Protected/ Permissive	Permissive	Protected	Protected	Permissive	Permissive	Permissive	Permissive	
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	
	Right Turns on Red (RTOR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	
	Ped Signal Leading Interval?	No	No	No	No	No	No	No	No	No	No	No	No	
	Right Turn Channel	No Channel	Conventional with Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	No Channel	No Channel	No Channel	No Channel
	Corner Radius	10-15m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m	5-10m	5-10m	5-10m	5-10m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
	<b>PETSI Score</b>	<b>12</b>	<b>-5</b>	<b>3</b>	<b>6</b>	<b>42</b>	<b>42</b>	<b>14</b>	<b>14</b>	<b>71</b>	<b>86</b>	<b>21</b>	<b>5</b>	
	<b>Ped. Exposure to Traffic LoS</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>C</b>	<b>B</b>	<b>F</b>	<b>F</b>	
	Cycle Length	130	130	130	130	130	130	130	130	120	120	120	120	
	Effective Walk Time	11	11	11	11	11	11	11	11	19	19	14	14	
	<b>Average Pedestrian Delay</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>43</b>	<b>43</b>	<b>47</b>	<b>47</b>	
<b>Pedestrian Delay LoS</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>		
<b>Approach From</b>		<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	<b>NORTH</b>	<b>SOUTH</b>	<b>EAST</b>	<b>WEST</b>	
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>			> 50 m	> 50 m									
	Dedicated Right Turning Speed			>25 km/h	>25 km/h									
	<b>Cyclist Through Movement</b>			<b>F</b>	<b>F</b>							<b>Not Applicable</b>	<b>Not Applicable</b>	
	<b>Separated or Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Mixed Traffic</b>	<b>Separated</b>	<b>Separated</b>	
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	1 lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	
	Operating Speed	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	
<b>Left Turning Cyclist</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>F</b>	<b>E</b>	<b>C</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>		<b>F</b>				<b>F</b>				<b>F</b>				
Transit	Average Signal Delay	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	≤ 30 sec	> 40 sec	≤ 30 sec	≤ 20 sec	
	<b>Level of Service</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>D</b>	<b>F</b>	<b>D</b>	<b>C</b>	
<b>Level of Service</b>		<b>F</b>				<b>F</b>				<b>F</b>				
Truck	Effective Corner Radius	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m	< 10 m	< 10 m	< 10 m	< 10 m	
	Number of Receiving Lanes on Departure from Intersection	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2	1	1	≥ 2	≥ 2	1	1	
<b>Level of Service</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>D</b>	<b>F</b>	<b>F</b>		
<b>Level of Service</b>		<b>A</b>				<b>C</b>				<b>F</b>				
Auto	Volume to Capacity Ratio	> 1.00				> 1.00				0.81 - 0.90				
	<b>Level of Service</b>	<b>F</b>				<b>F</b>				<b>D</b>				



### Multi-Modal Level of Service - Segments Form

Consultant	STANTEC
Scenario	2032 Total Future
Comments	

Project	1495 Heron Road
Date	1-Feb-2023































SEGMENTS	LOS	Heron Road	Heron Road	Heron Road	Heron Road	Heron Road	Bank St	Baycrest Dr	
		Bank St - Alta Vista Dr	Alta Vista Dr-Baycrest Dr	Baycrest Dr-Sandalwood Dr	Sandalwood Dr-Jefferson St	Jefferson St-Walkley Rd	Heron Rd-Walkley Rd	Heron Rd-Walkley Rd	
Pedestrian	F	Sidewalk Width	1.8 m	1.8 m	1.8 m	1.8 m	1.8 m	1.5 m	1.8 m
		Boulevard Width	< 0.5 m	> 2 m	> 2 m	> 2 m	> 2 m	< 0.5 m	0.5 - 2 m
		Avg Daily Curb Lane Traffic Volume	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	≤ 3000
		Operating Speed	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 30 to 50 km/h
		On-Street Parking	no	no	no	no	no	no	yes
		F	D	D	D	D	F	B	
		Level of Service							
		F	D	D	D	D	F	B	
Bicycle	E	Type of Cycling Facility	Mixed Traffic	Mixed Traffic	Curbside Bike Lane	Curbside Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic
		Number of Travel Lanes	2-3 lanes total	2-3 lanes total	2 ea. dir. (w median)	2 ea. dir. (w median)	2-3 lanes total	4-5 lanes total	2-3 lanes total
		Operating Speed	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>50 to 70 km/h	>50 to 70 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	>40 to <50 km/h
		# of Lanes & Operating Speed LoS	E	E	C	C	E	E	D
		Bike Lane (+ Parking Lane) Width			≥1.5 to <1.8 m	≥1.5 to <1.8 m			
		Bike Lane Width LoS	-	-	B	B	-	-	-
		Bike Lane Blockages			Rare	Frequent			
		-	-	A	C	-	-	-	
		Level of Service							
		E	E	C	C	E	E	D	
Transit	D	Facility Type	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
		Friction or Ratio Transit:Posted Speed	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8
			Level of Service						
		D	D	D	D	D	D	D	
Truck	E	Truck Lane Width	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.5 m	≤ 3.3 m	≤ 3.2 m
		Travel Lanes per Direction	> 1	> 1	> 1	> 1	> 1	> 1	1
			Level of Service						
		A	A	A	A	A	C	E	

Appendix D  
Synchro LOS Summary

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	 	 		 	
Traffic Volume (vph)	183	476	279	55	538	166	325	578	31	108	381	120
Future Volume (vph)	183	476	279	55	538	166	325	578	31	108	381	120
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00		0.97	0.99		0.98	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.992			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1647	3293	1488	1695	3262	1488	3135	3324	0	1679	3184	0
Flt Permitted	0.160			0.456			0.950			0.950		
Satd. Flow (perm)	277	3293	1444	807	3262	1452	3095	3324	0	1660	3184	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			310			208		5			32	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	8		13	13		8	12		20	20		12
Confl. Bikes (#/hr)			1			3			3			9
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%	4%	2%	6%	4%	7%	3%	3%	3%	4%	3%
Adj. Flow (vph)	203	529	310	61	598	184	361	642	34	120	423	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	529	310	61	598	184	361	676	0	120	556	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	32.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	13.0	55.0	55.0	42.0	42.0	42.0	32.0	49.0		16.0	33.0	
Total Split (%)	10.8%	45.8%	45.8%	35.0%	35.0%	35.0%	26.7%	40.8%		13.3%	27.5%	
Maximum Green (s)	6.5	48.6	48.6	37.7	37.7	37.7	25.5	42.6		9.5	26.6	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.3	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0	21.0	21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5	5	5	5		5			5	
Act Effct Green (s)	40.6	40.7	40.7	29.8	29.8	29.8	19.0	47.1		13.0	41.0	
Actuated g/C Ratio	0.34	0.34	0.34	0.25	0.25	0.25	0.16	0.39		0.11	0.34	
v/c Ratio	1.22	0.47	0.45	0.30	0.74	0.36	0.73	0.52		0.66	0.50	
Control Delay	169.1	32.1	4.8	39.0	46.9	4.7	57.7	16.4		69.8	33.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	169.1	32.1	4.8	39.0	46.9	4.7	57.7	16.4		69.8	33.4	
LOS	F	C	A	D	D	A	E	B		E	C	
Approach Delay		50.7			37.1			30.8			39.8	
Approach LOS		D			D			C			D	
90th %ile Green (s)	6.5	48.6	48.6	37.7	37.7	37.7	23.9	42.6		9.5	28.2	
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Gap	Coord		Max	Coord	
70th %ile Green (s)	6.5	43.8	43.8	32.9	32.9	32.9	21.1	42.6		14.3	35.8	
70th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Gap	Coord		Max	Coord	
50th %ile Green (s)	6.5	40.7	40.7	29.8	29.8	29.8	19.0	44.2		15.8	41.0	
50th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Gap	Coord		Gap	Coord	
30th %ile Green (s)	6.5	37.4	37.4	26.5	26.5	26.5	17.0	49.1		14.2	46.3	
30th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Gap	Coord		Gap	Coord	
10th %ile Green (s)	6.5	32.9	32.9	22.0	22.0	22.0	14.0	56.8		11.0	53.8	
10th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Gap	Coord		Gap	Coord	
Stops (vph)	110	359	23	43	479	12	263	432		91	376	
Fuel Used(l)	33	37	12	5	55	9	50	73		11	34	
CO Emissions (g/hr)	612	689	217	97	1029	161	932	1359		198	638	
NOx Emissions (g/hr)	118	133	42	19	199	31	180	262		38	123	
VOC Emissions (g/hr)	141	159	50	22	237	37	215	313		46	147	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~45.3	51.3	0.0	11.7	68.5	0.0	33.8	65.6		26.8	51.2	
Queue Length 95th (m)	#82.0	60.2	16.8	22.3	80.5	11.3	m38.8	m67.9		#64.0	80.0	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		357.8			468.5			97.2			250.8	
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	167	1333	769	253	1024	598	666	1306		181	1109	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.22	0.40	0.40	0.24	0.58	0.31	0.54	0.52		0.66	0.50	

### Intersection Summary






















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 52 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 39.7      Intersection LOS: D  
 Intersection Capacity Utilization 79.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Bank St & Heron Rd



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	481	62	59	643	81	41	253	177	127	246	75
Future Volume (vph)	72	481	62	59	643	81	41	253	177	127	246	75
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.99		0.95		0.83	0.99	0.95		0.97	0.99	
Frt		0.983				0.850		0.938			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3206	0	1695	3293	1459	1601	1575	0	1631	1716	0
Flt Permitted	0.950			0.950			0.548			0.139		
Satd. Flow (perm)	1614	3206	0	1619	3293	1213	910	1575	0	230	1716	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16				153		38			21	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		492.5			657.5			201.9			270.3	
Travel Time (s)		35.5			47.3			14.5			19.5	
Confl. Peds. (#/hr)	54		37	37		54	21		110	110		21
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 (%)	1%	5%	1%	2%	5%	6%	8%	2%	3%	6%	2%	0%
Adj. Flow (vph)	80	534	69	66	714	90	46	281	197	141	273	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	603	0	66	714	90	46	478	0	141	356	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	13.0	34.0		13.0	34.0	34.0	30.0	30.0		13.0	43.0	
Total Split (%)	14.4%	37.8%		14.4%	37.8%	37.8%	33.3%	33.3%		14.4%	47.8%	
Maximum Green (s)	7.6	28.6		7.6	28.6	28.6	24.1	24.1		8.7	37.1	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	7.5	31.2		7.5	31.2	31.2	24.4	24.4		38.7	37.1	
Actuated g/C Ratio	0.08	0.35		0.08	0.35	0.35	0.27	0.27		0.43	0.41	
v/c Ratio	0.56	0.54		0.47	0.63	0.17	0.19	1.05		0.62	0.50	
Control Delay	55.9	26.0		60.7	17.6	1.2	28.0	88.0		28.5	21.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	55.9	26.0		60.7	17.6	1.2	28.0	88.0		28.5	21.2	
LOS	E	C		E	B	A	C	F		C	C	
Approach Delay		29.5			19.2			82.7			23.3	
Approach LOS		C			B			F			C	
90th %ile Green (s)	7.6	28.6		7.6	28.6	28.6	24.1	24.1		8.7	37.1	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	7.6	28.6		7.6	28.6	28.6	24.1	24.1		8.7	37.1	
70th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
50th %ile Green (s)	7.6	28.6		7.6	28.6	28.6	24.1	24.1		8.7	37.1	
50th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
30th %ile Green (s)	7.6	28.7		7.5	28.6	28.6	24.1	24.1		8.7	37.1	
30th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
10th %ile Green (s)	0.0	41.6		0.0	41.6	41.6	25.8	25.8		7.0	37.1	
10th %ile Term Code	Skip	Coord		Skip	Coord	Coord	MaxR	MaxR		Min	MaxR	
Stops (vph)	68	418		54	537	5	32	330		78	217	
Fuel Used(l)	8	46		8	61	5	2	45		8	18	
CO Emissions (g/hr)	149	849		142	1133	98	44	832		145	340	
NOx Emissions (g/hr)	29	164		27	219	19	9	161		28	66	
VOC Emissions (g/hr)	34	196		33	261	23	10	192		33	79	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	13.5	44.3		9.7	54.9	0.1	6.1	~87.0		14.8	41.6	
Queue Length 95th (m)	#30.4	61.1		m25.1	49.6	m0.1	15.0	#145.3		#28.5	66.0	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	

Lanes, Volumes, Timings  
 2: Alta Vista Dr & Heron Rd

10/30/2023

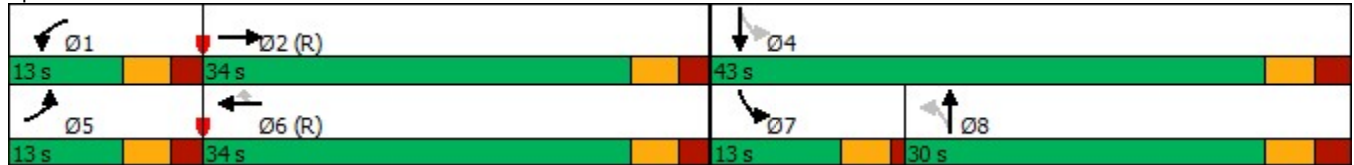


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	144	1122		143	1141	520	246	455		234	719	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.56	0.54		0.46	0.63	0.17	0.19	1.05		0.60	0.50	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.05
Intersection Signal Delay:	35.6
Intersection LOS:	D
Intersection Capacity Utilization	77.6%
ICU Level of Service	D
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.




















Splits and Phases: 2: Alta Vista Dr & Heron Rd





Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	613	172	21	607	1	176	0	30	0	0	0
Future Volume (vph)	0	613	172	21	607	1	176	0	30	0	0	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	1.00							
Frt		0.967						0.981				
Flt Protected				0.950				0.959				
Satd. Flow (prot)	1820	3209	0	1517	3325	0	0	1615	0	1820	1820	0
Flt Permitted				0.287				0.756				
Satd. Flow (perm)	1820	3209	0	458	3325	0	0	1273	0	1820	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65						21				
Link Speed (k/h)		50			50			50				50
Link Distance (m)		657.5			314.4			216.5				60.0
Travel Time (s)		47.3			22.6			15.6				4.3
Confl. Peds. (#/hr)	2		2	2		2						
Confl. Bikes (#/hr)						1						2
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 (%)	0%	3%	6%	14%	4%	0%	7%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	681	191	23	674	1	196	0	33	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	872	0	23	675	0	0	229	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	29.7	29.7		29.7	29.7		35.0	35.0		35.0	35.0	
Total Split (s)	55.0	55.0		55.0	55.0		35.0	35.0		35.0	35.0	
Total Split (%)	61.1%	61.1%		61.1%	61.1%		38.9%	38.9%		38.9%	38.9%	
Maximum Green (s)	50.3	50.3		50.3	50.3		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	1.4	1.4		1.4	1.4		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	10.0	10.0		10.0	10.0		19.0	19.0		19.0	19.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)		56.7		56.7	56.7			22.6				
Actuated g/C Ratio		0.63		0.63	0.63			0.25				
v/c Ratio		0.43		0.08	0.32			0.68				
Control Delay		6.2		12.4	11.3			38.3				
Queue Delay		0.0		0.0	0.0			0.0				
Total Delay		6.2		12.4	11.3			38.3				
LOS		A		B	B			D				
Approach Delay		6.2			11.3			38.3				
Approach LOS		A			B			D				
90th %ile Green (s)	50.3	50.3		50.3	50.3		29.0	29.0		29.0	29.0	
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped	Ped	
70th %ile Green (s)	55.5	55.5		55.5	55.5		23.8	23.8		23.8	23.8	
70th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold	Hold	
50th %ile Green (s)	59.3	59.3		59.3	59.3		20.0	20.0		20.0	20.0	
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold	Hold	
30th %ile Green (s)	59.3	59.3		59.3	59.3		20.0	20.0		20.0	20.0	
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold	Hold	
10th %ile Green (s)	59.3	59.3		59.3	59.3		20.0	20.0		20.0	20.0	
10th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold	Hold	
Stops (vph)		194		5	261			166				
Fuel Used(l)		57		1	29			19				
CO Emissions (g/hr)		1063		17	545			361				
NOx Emissions (g/hr)		205		3	105			70				
VOC Emissions (g/hr)		245		4	126			83				
Dilemma Vehicles (#)		0		0	0			0				
Queue Length 50th (m)		21.4		1.4	22.4			34.0				
Queue Length 95th (m)		m25.0		0.0	35.9			51.7				

Lanes, Volumes, Timings  
 3: Baycrest Dr & Heron Rd

10/30/2023



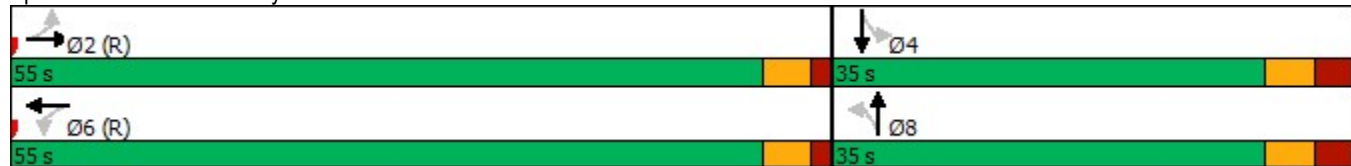
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		633.5			290.4			192.5			36.0	
Turn Bay Length (m)				55.0								
Base Capacity (vph)		2047		288	2096			424				
Starvation Cap Reductn		0		0	0			0				
Spillback Cap Reductn		0		0	0			0				
Storage Cap Reductn		0		0	0			0				
Reduced v/c Ratio		0.43		0.08	0.32			0.54				

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	51 (57%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	12.3
Intersection LOS:	B
Intersection Capacity Utilization	49.3%
ICU Level of Service	A
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Baycrest Dr & Heron Rd



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

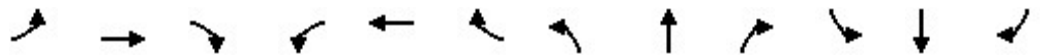
10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	588	14	10	548	18	34	24	37	12	17	43
Future Volume (vph)	47	588	14	10	548	18	34	24	37	12	17	43
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99	0.99		1.00	0.99	
Frt		0.996			0.995			0.910				0.893
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1695	3344	0	1729	3279	0	1729	1486	0	1729	1603	0
Flt Permitted	0.412			0.393			0.713			0.713		
Satd. Flow (perm)	733	3344	0	713	3279	0	1289	1486	0	1292	1603	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			6			41				48
Link Speed (k/h)		50			50			50				50
Link Distance (m)		314.4			354.9			199.1				258.5
Travel Time (s)		22.6			25.6			14.3				18.6
Confl. Peds. (#/hr)	3		4	4		3	5		3	3		5
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 (%)	2%	3%	0%	0%	5%	0%	0%	17%	6%	0%	0%	0%
Adj. Flow (vph)	52	653	16	11	609	20	38	27	41	13	19	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	669	0	11	629	0	38	68	0	13	67	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	55.0	55.0		55.0	55.0		35.0	35.0		35.0		35.0
Total Split (%)	61.1%	61.1%		61.1%	61.1%		38.9%	38.9%		38.9%		38.9%
Maximum Green (s)	49.7	49.7		49.7	49.7		28.9	28.9		28.9		28.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	67.7	67.7		67.7	67.7		16.4	16.4		16.4		16.4
Actuated g/C Ratio	0.75	0.75		0.75	0.75		0.18	0.18		0.18		0.18
v/c Ratio	0.09	0.27		0.02	0.25		0.16	0.22		0.06		0.20
Control Delay	2.6	3.0		4.3	4.4		32.7	17.7		30.8		15.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	2.6	3.0		4.3	4.4		32.7	17.7		30.8		15.2
LOS	A	A		A	A		C	B		C		B
Approach Delay		2.9			4.4			23.1				17.7
Approach LOS		A			A			C				B
90th %ile Green (s)	60.6	60.6		60.6	60.6		18.0	18.0		18.0		18.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
50th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	84.7	84.7		84.7	84.7		0.0	0.0		0.0		0.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Skip	Skip		Skip		Skip
Stops (vph)	12	174		4	151		30	26		12		22
Fuel Used(l)	2	23		0	24		2	3		1		3
CO Emissions (g/hr)	33	433		9	454		40	48		16		50
NOx Emissions (g/hr)	6	83		2	88		8	9		3		10
VOC Emissions (g/hr)	8	100		2	105		9	11		4		11
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	2.6	17.3		0.5	16.2		5.6	4.0		1.9		2.8
Queue Length 95th (m)	m1.0	7.3		m1.8	23.6		13.8	14.6		6.7		13.1
Internal Link Dist (m)		290.4			330.9			175.1				234.5

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

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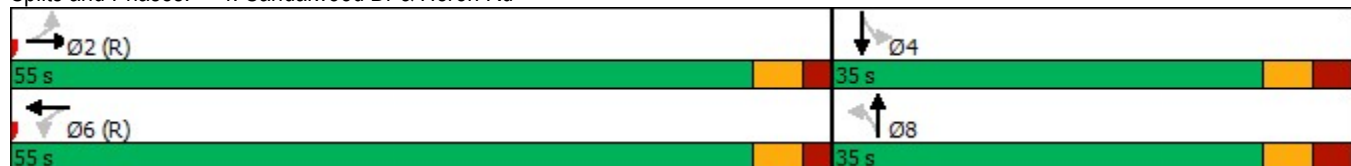


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	551	2515		536	2467		413	505		414	547	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.27		0.02	0.25		0.09	0.13		0.03	0.12	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.27
Intersection Signal Delay:	5.7
Intersection LOS:	A
Intersection Capacity Utilization	53.5%
ICU Level of Service	A
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: Sandalwood Dr & Heron Rd



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	512	59	19	508	40	33	35	27	26	31	34
Future Volume (vph)	60	512	59	19	508	40	33	35	27	26	31	34
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00	1.00		1.00		0.98		0.99	
Frt			0.850		0.989				0.850		0.949	
Flt Protected	0.950			0.950			0.950				0.986	
Satd. Flow (prot)	1679	3357	1547	1647	3240	0	1631	1767	1394	0	1590	0
Flt Permitted	0.409			0.430			0.738				0.913	
Satd. Flow (perm)	721	3357	1506	744	3240	0	1266	1767	1367	0	1470	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66		14				32			35
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		354.9			465.1			176.5			237.6	
Travel Time (s)		25.6			33.5			12.7			17.1	
Confl. Peds. (#/hr)	3		3	3		3	1		7	7		1
Confl. Bikes (#/hr)			2						1			
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 (%)	3%	3%	0%	5%	5%	10%	6%	3%	11%	19%	0%	3%
Adj. Flow (vph)	67	569	66	21	564	44	37	39	30	29	34	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	569	66	21	608	0	37	39	30	0	101	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1		2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1		30.5
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1		1.8
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0	27.0	
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2	34.2	
Total Split (s)	55.0	55.0	55.0	55.0	55.0		35.0	35.0	35.0	35.0	35.0	
Total Split (%)	61.1%	61.1%	61.1%	61.1%	61.1%		38.9%	38.9%	38.9%	38.9%	38.9%	
Maximum Green (s)	49.4	49.4	49.4	49.4	49.4		28.8	28.8	28.8	28.8	28.8	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2		6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5	5	
Act Effct Green (s)	58.8	58.8	58.8	58.8	58.8		27.2	27.2	27.2		27.2	
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65		0.30	0.30	0.30		0.30	
v/c Ratio	0.14	0.26	0.07	0.04	0.29		0.10	0.07	0.07		0.22	
Control Delay	2.8	2.2	0.2	9.3	9.4		23.4	22.8	8.1		17.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	2.8	2.2	0.2	9.3	9.4		23.4	22.8	8.1		17.1	
LOS	A	A	A	A	A		C	C	A		B	
Approach Delay		2.0			9.4			18.9			17.1	
Approach LOS		A			A			B			B	
90th %ile Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0	28.0	
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped	Ped	
70th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
50th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
30th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
10th %ile Green (s)	84.4	84.4	84.4	84.4	84.4		0.0	0.0	0.0	0.0	0.0	
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Skip	Skip	Skip	Skip	Skip	
Stops (vph)	6	42	0	9	235		24	24	7		45	
Fuel Used(l)	2	19	2	1	33		2	2	1		4	
CO Emissions (g/hr)	42	354	37	22	621		31	32	14		79	
NOx Emissions (g/hr)	8	68	7	4	120		6	6	3		15	
VOC Emissions (g/hr)	10	82	9	5	143		7	7	3		18	
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0		0	
Queue Length 50th (m)	1.2	5.5	0.3	1.5	26.5		4.6	4.8	0.0		8.3	
Queue Length 95th (m)	2.5	7.0	0.0	4.9	37.6		11.4	11.8	5.6		19.8	



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/30/2023

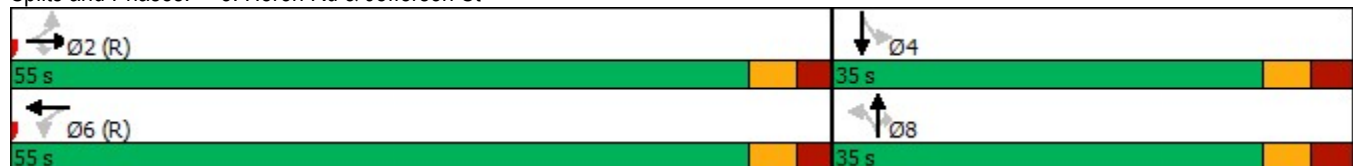


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		330.9			441.1			152.5				213.6
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	471	2191	1006	485	2120		405	565	459			494
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	0	0	0		0	0	0			0
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.14	0.26	0.07	0.04	0.29		0.09	0.07	0.07			0.20

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.29
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization	81.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/30/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	534	28	0	593	531	565
Future Volume (vph)	534	28	0	593	531	565
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.993					0.850
Flt Protected	0.955					
Satd. Flow (prot)	3283	0	0	3390	3390	2669
Flt Permitted	0.955					
Satd. Flow (perm)	3283	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	6					628
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	593	31	0	659	590	628
Shared Lane Traffic (%)						
Lane Group Flow (vph)	624	0	0	659	590	628
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/30/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	46.0			54.0	54.0	54.0
Total Split (%)	46.0%			54.0%	54.0%	54.0%
Maximum Green (s)	39.3			47.4	47.4	47.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	39.3			47.4	47.4	47.4
Actuated g/C Ratio	0.39			0.47	0.47	0.47
v/c Ratio	0.48			0.41	0.37	0.39
Control Delay	24.1			18.1	17.6	2.0
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	24.1			18.1	17.6	2.0
LOS	C			B	B	A
Approach Delay	24.1			18.1	9.6	
Approach LOS	C			B	A	
90th %ile Green (s)	39.3			47.4	47.4	47.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	39.3			47.4	47.4	47.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	39.3			47.4	47.4	47.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	39.3			47.4	47.4	47.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	39.3			47.4	47.4	47.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	403			370	322	28
Fuel Used(l)	44			39	33	21
CO Emissions (g/hr)	823			720	605	387
NOx Emissions (g/hr)	159			139	117	75
VOC Emissions (g/hr)	190			166	140	89
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	45.4			42.3	37.0	0.0
Queue Length 95th (m)	60.7			56.1	49.5	9.4
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1293			1606	1606	1595
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/30/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.48			0.41	0.37	0.39

Intersection Summary
































Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	23 (23%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	15.4
Intersection LOS:	B
Intersection Capacity Utilization	45.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  		 	 	
Traffic Volume (vph)	370	366	90	94	343	316	146	1179	152	154	463	239
Future Volume (vph)	370	366	90	94	343	316	146	1179	152	154	463	239
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	0.99	0.98		0.99		0.96	0.99		0.97
Frt			0.850		0.928				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3288	3390	1517	3288	3084	0	1695	4871	1517	3288	3390	1517
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3232	3390	1475	3251	3084	0	1686	4871	1460	3268	3390	1469
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			209		177				161			266
Link Speed (k/h)		50			50			50				50
Link Distance (m)		154.1			197.3			245.1				260.6
Travel Time (s)		11.1			14.2			17.6				18.8
Confl. Peds. (#/hr)	26		11	11		26	8		17	17		8
Confl. Bikes (#/hr)			5			2			5			10
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
Adj. Flow (vph)	411	407	100	104	381	351	162	1310	169	171	514	266
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	407	100	104	732	0	162	1310	169	171	514	266
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	29.0	29.0	7.0	29.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	39.7	39.7	13.8	39.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	19.0	40.0	40.0	19.0	40.0		26.0	46.0	46.0	15.0	35.0	35.0
Total Split (%)	15.8%	33.3%	33.3%	15.8%	33.3%		21.7%	38.3%	38.3%	12.5%	29.2%	29.2%
Maximum Green (s)	12.2	33.3	33.3	12.2	33.3		19.6	39.6	39.6	8.6	28.6	28.6
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	12.2	33.8	33.8	9.2	30.8		16.0	41.1	41.1	9.6	34.7	34.7
Actuated g/C Ratio	0.10	0.28	0.28	0.08	0.26		0.13	0.34	0.34	0.08	0.29	0.29
v/c Ratio	1.23	0.43	0.18	0.41	0.79		0.72	0.79	0.28	0.65	0.53	0.43
Control Delay	171.9	36.9	0.7	57.3	38.1		67.1	39.9	6.3	61.6	51.1	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	171.9	36.9	0.7	57.3	38.1		67.1	39.9	6.3	61.6	51.1	19.6
LOS	F	D	A	E	D		E	D	A	E	D	B
Approach Delay		93.4			40.5			39.1			44.2	
Approach LOS		F			D			D			D	
90th %ile Green (s)	12.2	33.8	33.8	11.7	33.3		19.6	39.6	39.6	8.6	28.6	28.6
90th %ile Term Code	Max	Hold	Hold	Gap	Max		Max	Coord	Coord	Max	Coord	Coord
70th %ile Green (s)	12.2	35.3	35.3	10.2	33.3		19.2	39.6	39.6	8.6	29.0	29.0
70th %ile Term Code	Max	Hold	Hold	Gap	Max		Gap	Coord	Coord	Max	Coord	Coord
50th %ile Green (s)	12.2	32.5	32.5	9.2	29.5		16.7	40.2	40.2	11.8	35.3	35.3
50th %ile Term Code	Max	Hold	Hold	Gap	Gap		Gap	Coord	Coord	Gap	Coord	Coord
30th %ile Green (s)	12.2	33.1	33.1	8.1	29.0		14.1	42.1	42.1	10.4	38.4	38.4
30th %ile Term Code	Max	Hold	Hold	Gap	Min		Gap	Coord	Coord	Gap	Coord	Coord
10th %ile Green (s)	12.2	34.2	34.2	7.0	29.0		10.5	44.0	44.0	8.5	42.0	42.0
10th %ile Term Code	Max	Hold	Hold	Min	Min		Gap	Coord	Coord	Gap	Coord	Coord
Stops (vph)	298	290	0	88	473		138	1036	20	144	396	173
Fuel Used(l)	61	22	1	8	42		14	87	5	25	70	29
CO Emissions (g/hr)	1136	414	25	147	787		261	1615	88	458	1293	546
NOx Emissions (g/hr)	219	80	5	28	152		50	312	17	88	250	105
VOC Emissions (g/hr)	262	95	6	34	181		60	372	20	106	298	126
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	~61.5	41.8	0.0	12.2	66.8		36.8	102.2	1.3	20.1	60.4	16.9
Queue Length 95th (m)	#92.9	56.0	0.0	20.7	86.3		58.2	121.3	16.2	#36.3	82.5	40.8
Internal Link Dist (m)		130.1			173.3			221.1			236.6	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/30/2023

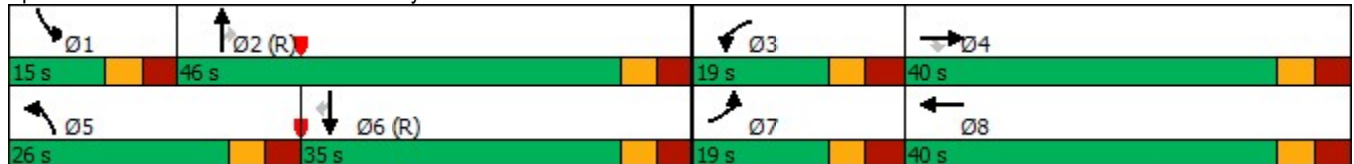


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	334	959	567	334	983		276	1668	605	262	979	613
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.42	0.18	0.31	0.74		0.59	0.79	0.28	0.65	0.53	0.43

Intersection Summary




















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 79 (66%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.23  
 Intersection Signal Delay: 52.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 90.2%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank St & Walkley Rd



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr













10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	460	11	16	441	106	9	18	33	108	8	52
Future Volume (vph)	31	460	11	16	441	106	9	18	33	108	8	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99			0.99		1.00		
Frt		0.997			0.971			0.925			0.870	
Flt Protected	0.950			0.950				0.993		0.950		
Satd. Flow (prot)	1558	3272	0	1729	3156	0	0	1657	0	1695	1434	0
Flt Permitted	0.422			0.458				0.949		0.713		
Satd. Flow (perm)	689	3272	0	830	3156	0	0	1583	0	1267	1434	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			55			37			58	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	6		5	5		6			5	5		
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 (%)	11%	5%	18%	0%	5%	9%	0%	0%	0%	2%	0%	12%
Adj. Flow (vph)	34	511	12	18	490	118	10	20	37	120	9	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	523	0	18	608	0	0	67	0	120	67	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	38.0	38.0		38.0	38.0		32.0	32.0		32.0		32.0
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%		45.7%
Maximum Green (s)	32.1	32.1		32.1	32.1		25.9	25.9		25.9		25.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	48.2	48.2		48.2	48.2			14.2		14.2		14.2
Actuated g/C Ratio	0.69	0.69		0.69	0.69			0.20		0.20		0.20
v/c Ratio	0.07	0.23		0.03	0.28			0.19		0.47		0.20
Control Delay	8.1	6.8		7.8	6.5			12.2		29.0		8.4
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	8.1	6.8		7.8	6.5			12.2		29.0		8.4
LOS	A	A		A	A			B		C		A
Approach Delay		6.8			6.5			12.2				21.6
Approach LOS		A			A			B				C
90th %ile Green (s)	33.0	33.0		33.0	33.0		25.0	25.0		25.0		25.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	43.8	43.8		43.8	43.8		14.2	14.2		14.2		14.2
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
50th %ile Green (s)	46.0	46.0		46.0	46.0		12.0	12.0		12.0		12.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	48.0	48.0		48.0	48.0		10.0	10.0		10.0		10.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Min		Min
10th %ile Green (s)	64.1	64.1		64.1	64.1		0.0	0.0		0.0		0.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Skip	Skip		Skip		Skip
Stops (vph)	16	184		8	206			26		88		16
Fuel Used(l)	2	23		1	23			2		9		4
CO Emissions (g/hr)	30	422		14	431			29		176		66
NOx Emissions (g/hr)	6	81		3	83			6		34		13
VOC Emissions (g/hr)	7	97		3	99			7		40		15
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	1.4	12.3		0.7	13.4			3.4		14.6		1.0
Queue Length 95th (m)	7.1	31.3		4.3	34.4			9.8		22.4		7.9
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	474	2252		571	2188			609		468	567	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.07	0.23		0.03	0.28			0.11		0.26	0.12	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	17 (24%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	8.9
Intersection LOS:	A
Intersection Capacity Utilization	50.2%
ICU Level of Service	A
Analysis Period (min)	15

























Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	674	412	66	679	164	425	638	54	142	771	164
Future Volume (vph)	219	674	412	66	679	164	425	638	54	142	771	164
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.95	0.99		0.96	0.98	1.00		0.99	0.99	
Fr <sub>t</sub>			0.850			0.850		0.988			0.974	
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3262	1532	1729	3390	1532	3321	3331	0	1662	3264	0
Fl <sub>t</sub> Permitted	0.106			0.367			0.950			0.950		
Satd. Flow (perm)	193	3262	1453	658	3390	1465	3262	3331	0	1639	3264	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			458			177		6			18	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	23		29	29		23	30		28	28		30
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 (%)	0%	6%	1%	0%	2%	1%	1%	2%	4%	4%	2%	3%
Adj. Flow (vph)	243	749	458	73	754	182	472	709	60	158	857	182
Shared Lane Traffic (%)												
Lane Group Flow (vph)	243	749	458	73	754	182	472	769	0	158	1039	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	32.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	20.0	59.0	59.0	39.0	39.0	39.0	32.0	39.0		32.0	39.0	
Total Split (%)	15.4%	45.4%	45.4%	30.0%	30.0%	30.0%	24.6%	30.0%		24.6%	30.0%	
Maximum Green (s)	13.5	52.6	52.6	34.7	34.7	34.7	25.5	32.6		25.5	32.6	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.3	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0	21.0	21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5	5	5	5		5			5	
Act Effct Green (s)	51.2	51.3	51.3	33.4	33.4	33.4	22.8	41.8		17.6	36.7	
Actuated g/C Ratio	0.39	0.39	0.39	0.26	0.26	0.26	0.18	0.32		0.14	0.28	
v/c Ratio	1.03	0.58	0.54	0.43	0.87	0.36	0.81	0.72		0.70	1.11	
Control Delay	102.2	32.9	4.8	56.3	64.7	25.6	63.1	44.2		69.8	108.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	102.2	32.9	4.8	56.3	64.7	25.6	63.1	44.2		69.8	108.3	
LOS	F	C	A	E	E	C	E	D		E	F	
Approach Delay		35.7			57.0			51.4			103.2	
Approach LOS		D			E			D			F	
90th %ile Green (s)	13.5	52.6	52.6	34.7	34.7	34.7	25.5	34.0		24.1	32.6	
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Gap	Coord	
70th %ile Green (s)	13.5	52.6	52.6	34.7	34.7	34.7	25.5	37.8		20.3	32.6	
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Gap	Coord	
50th %ile Green (s)	13.5	52.6	52.6	34.7	34.7	34.7	23.6	40.5		17.6	34.5	
50th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Gap	Coord		Gap	Coord	
30th %ile Green (s)	13.5	51.6	51.6	33.7	33.7	33.7	21.3	44.2		14.9	37.8	
30th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Gap	Coord		Gap	Coord	
10th %ile Green (s)	13.5	46.9	46.9	29.0	29.0	29.0	18.0	52.7		11.1	45.8	
10th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Gap	Coord		Gap	Coord	
Stops (vph)	141	514	30	61	666	98	401	582		133	742	
Fuel Used(l)	28	53	17	7	80	13	69	100		14	119	
CO Emissions (g/hr)	527	987	319	136	1497	244	1275	1860		266	2213	
NOx Emissions (g/hr)	102	190	61	26	289	47	246	359		51	427	
VOC Emissions (g/hr)	122	228	73	31	345	56	294	429		61	510	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~50.3	77.1	0.0	17.7	107.1	21.6	60.1	92.0		39.3	~166.6	
Queue Length 95th (m)	#102.7	96.7	20.7	m25.9	m125.4	m32.9	77.5	#131.2		59.2	#215.3	
Internal Link Dist (m)		357.8			468.5			97.2			250.8	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	235	1319	860	175	904	520	651	1075		326	933	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.03	0.57	0.53	0.42	0.83	0.35	0.73	0.72		0.48	1.11	

### Intersection Summary






















Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 57 (44%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.11  
 Intersection Signal Delay: 60.6  
 Intersection LOS: E  
 Intersection Capacity Utilization 95.5%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Bank St & Heron Rd



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	616	68	71	645	100	82	208	56	120	413	182
Future Volume (vph)	186	616	68	71	645	100	82	208	56	120	413	182
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							1.00	1.00		1.00	1.00	
Frt		0.985				0.850		0.968			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3317	0	1695	3357	1473	1729	1718	0	1631	1699	0
Flt Permitted	0.950			0.950			0.196			0.374		
Satd. Flow (perm)	1712	3317	0	1695	3357	1473	356	1718	0	641	1699	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				111		11			21	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		492.5			657.5			201.9			270.3	
Travel Time (s)		35.5			47.3			14.5			19.5	
Confl. Peds. (#/hr)							2		2	2		2
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 (%)	1%	3%	0%	2%	3%	5%	0%	2%	3%	6%	2%	1%
Adj. Flow (vph)	207	684	76	79	717	111	91	231	62	133	459	202
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	760	0	79	717	111	91	293	0	133	661	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	19.0	52.0		16.0	49.0	49.0	44.0	44.0		18.0	62.0	
Total Split (%)	14.6%	40.0%		12.3%	37.7%	37.7%	33.8%	33.8%		13.8%	47.7%	
Maximum Green (s)	13.6	46.6		10.6	43.6	43.6	38.1	38.1		13.7	56.1	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	13.6	50.0		9.7	43.6	43.6	40.3	40.3		57.7	56.1	
Actuated g/C Ratio	0.10	0.38		0.07	0.34	0.34	0.31	0.31		0.44	0.43	
v/c Ratio	1.16	0.59		0.63	0.64	0.20	0.83	0.54		0.36	0.89	
Control Delay	183.5	19.7		80.1	39.6	6.2	93.5	40.8		24.9	48.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	183.5	19.7		80.1	39.6	6.2	93.5	40.8		24.9	48.4	
LOS	F	B		F	D	A	F	D		C	D	
Approach Delay		54.8			39.1			53.3			44.5	
Approach LOS		D			D			D			D	
90th %ile Green (s)	13.6	46.6		10.6	43.6	43.6	38.1	38.1		13.7	56.1	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	13.6	46.6		10.6	43.6	43.6	38.2	38.2		13.6	56.1	
70th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Gap	MaxR	
50th %ile Green (s)	13.6	46.6		10.6	43.6	43.6	39.9	39.9		11.9	56.1	
50th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Gap	MaxR	
30th %ile Green (s)	13.6	47.7		9.5	43.6	43.6	41.6	41.6		10.2	56.1	
30th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Gap	MaxR	
10th %ile Green (s)	13.6	62.6		0.0	43.6	43.6	43.8	43.8		8.0	56.1	
10th %ile Term Code	Max	Coord		Skip	Coord	Coord	MaxR	MaxR		Gap	MaxR	
Stops (vph)	154	419		69	533	13	65	210		70	504	
Fuel Used(l)	38	52		10	72	7	9	18		7	49	
CO Emissions (g/hr)	715	963		193	1338	130	166	336		129	907	
NOx Emissions (g/hr)	138	186		37	258	25	32	65		25	175	
VOC Emissions (g/hr)	165	222		44	308	30	38	77		30	209	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	~64.7	26.9		19.8	81.4	0.0	21.7	60.2		20.3	149.7	
Queue Length 95th (m)	m#115.1	31.9		#37.1	102.3	12.7	#55.8	90.9		33.7	#222.5	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	

Lanes, Volumes, Timings  
 2: Alta Vista Dr & Heron Rd

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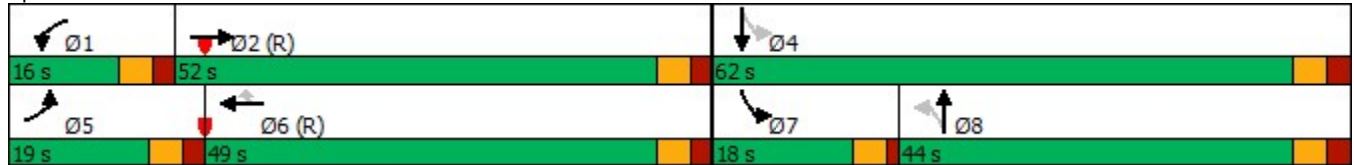


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	179	1282		138	1125	567	110	540		388	745	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.16	0.59		0.57	0.64	0.20	0.83	0.54		0.34	0.89	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 6 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.16  
 Intersection Signal Delay: 47.2      Intersection LOS: D  
 Intersection Capacity Utilization 91.6%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Alta Vista Dr & Heron Rd





Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	628	164	28	667	1	148	1	40	1	1	0
Future Volume (vph)	0	628	164	28	667	1	148	1	40	1	1	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	1.00			1.00		1.00		
Frt		0.969						0.972				
Flt Protected				0.950				0.962		0.950		
Satd. Flow (prot)	1820	3193	0	1729	3390	0	0	1548	0	1712	910	0
Flt Permitted				0.284				0.772		0.677		
Satd. Flow (perm)	1820	3193	0	515	3390	0	0	1239	0	1219	910	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59						16				
Link Speed (k/h)		50			50			50				50
Link Distance (m)		657.5			314.4			216.5				60.0
Travel Time (s)		47.3			22.6			15.6				4.3
Confl. Peds. (#/hr)	3		8	8		3	3		1	1		3
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 (%)	0%	4%	5%	0%	2%	0%	9%	100%	10%	1%	100%	0%
Adj. Flow (vph)	0	698	182	31	741	1	164	1	44	1	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	880	0	31	742	0	0	209	0	1	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		20.0		20.0
Minimum Split (s)	29.7	29.7		29.7	29.7		35.0	35.0		35.0		35.0
Total Split (s)	55.0	55.0		55.0	55.0		35.0	35.0		35.0		35.0
Total Split (%)	61.1%	61.1%		61.1%	61.1%		38.9%	38.9%		38.9%		38.9%
Maximum Green (s)	50.3	50.3		50.3	50.3		29.0	29.0		29.0		29.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	1.4	1.4		1.4	1.4		2.7	2.7		2.7		2.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7			6.0		6.0		6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0		10.0
Flash Dont Walk (s)	10.0	10.0		10.0	10.0		19.0	19.0		19.0		19.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)		56.9		56.9	56.9			22.4		22.4		22.4
Actuated g/C Ratio		0.63		0.63	0.63			0.25		0.25		0.25
v/c Ratio		0.43		0.10	0.35			0.65		0.00		0.00
Control Delay		9.0		17.6	18.9			37.7		22.0		23.0
Queue Delay		0.0		0.0	0.0			0.0		0.0		0.0
Total Delay		9.0		17.6	18.9			37.7		22.0		23.0
LOS		A		B	B			D		C		C
Approach Delay		9.0			18.8			37.7				22.5
Approach LOS		A			B			D				C
90th %ile Green (s)	50.3	50.3		50.3	50.3		29.0	29.0		29.0		29.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	56.3	56.3		56.3	56.3		23.0	23.0		23.0		23.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold		Hold
50th %ile Green (s)	59.3	59.3		59.3	59.3		20.0	20.0		20.0		20.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold		Hold
30th %ile Green (s)	59.3	59.3		59.3	59.3		20.0	20.0		20.0		20.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold		Hold
10th %ile Green (s)	59.3	59.3		59.3	59.3		20.0	20.0		20.0		20.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold		Hold
Stops (vph)		356		23	519			152		2		2
Fuel Used(l)		63		2	41			18		0		0
CO Emissions (g/hr)		1171		32	768			329		1		1
NOx Emissions (g/hr)		226		6	148			63		0		0
VOC Emissions (g/hr)		270		7	177			76		0		0
Dilemma Vehicles (#)		0		0	0			0		0		0
Queue Length 50th (m)		30.5		3.9	58.2			31.2		0.1		0.1
Queue Length 95th (m)		56.4		12.2	82.1			48.0		1.2		1.2
Internal Link Dist (m)		633.5			290.4			192.5				36.0

Lanes, Volumes, Timings  
 3: Baycrest Dr & Heron Rd

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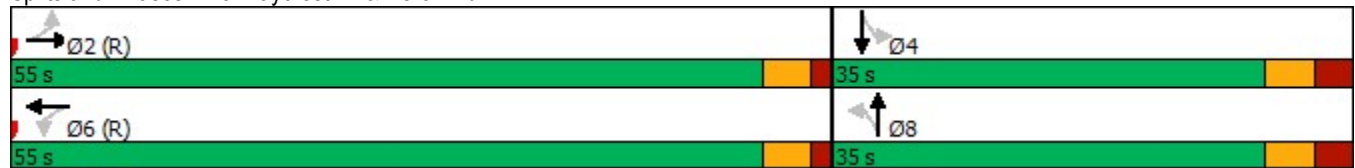


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)				55.0						30.0		
Base Capacity (vph)		2040		325	2143			410		392	293	
Starvation Cap Reductn		0		0	0			0		0	0	
Spillback Cap Reductn		0		0	0			0		0	0	
Storage Cap Reductn		0		0	0			0		0	0	
Reduced v/c Ratio		0.43		0.10	0.35			0.51		0.00	0.00	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	14 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	16.3
Intersection LOS:	B
Intersection Capacity Utilization	51.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: Baycrest Dr & Heron Rd



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/30/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	570	21	37	656	13	18	18	30	10	26	51
Future Volume (vph)	54	570	21	37	656	13	18	18	30	10	26	51
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	1.00		0.99	0.99		0.99	0.98	
Frt		0.995			0.997			0.907			0.901	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3309	0	1586	3347	0	1729	1632	0	1729	1517	0
Flt Permitted	0.361			0.399			0.701			0.722		
Satd. Flow (perm)	656	3309	0	662	3347	0	1262	1632	0	1307	1517	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			3			33				57
Link Speed (k/h)		50			50			50				50
Link Distance (m)		314.4			354.9			199.1				258.5
Travel Time (s)		22.6			25.6			14.3				18.6
Confl. Peds. (#/hr)	3		7	7		3	8		4	4		8
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 (%)	0%	4%	0%	9%	3%	0%	0%	0%	0%	0%	19%	0%
Adj. Flow (vph)	60	633	23	41	729	14	20	20	33	11	29	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	656	0	41	743	0	20	53	0	11	86	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	55.0	55.0		55.0	55.0		35.0	35.0		35.0		35.0
Total Split (%)	61.1%	61.1%		61.1%	61.1%		38.9%	38.9%		38.9%		38.9%
Maximum Green (s)	49.7	49.7		49.7	49.7		28.9	28.9		28.9		28.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	67.7	67.7		67.7	67.7		16.4	16.4		16.4		16.4
Actuated g/C Ratio	0.75	0.75		0.75	0.75		0.18	0.18		0.18		0.18
v/c Ratio	0.12	0.26		0.08	0.30		0.09	0.16		0.05		0.27
Control Delay	6.8	7.3		5.7	6.9		31.4	17.2		30.5		16.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	6.8	7.3		5.7	6.9		31.4	17.2		30.5		16.0
LOS	A	A		A	A		C	B		C		B
Approach Delay		7.2			6.8			21.1				17.7
Approach LOS		A			A			C				B
90th %ile Green (s)	60.6	60.6		60.6	60.6		18.0	18.0		18.0		18.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
50th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	84.7	84.7		84.7	84.7		0.0	0.0		0.0		0.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Skip	Skip		Skip		Skip
Stops (vph)	29	313		20	353		17	21		11		29
Fuel Used(l)	3	28		2	34		1	2		1		3
CO Emissions (g/hr)	47	519		35	633		22	37		14		65
NOx Emissions (g/hr)	9	100		7	122		4	7		3		13
VOC Emissions (g/hr)	11	120		8	146		5	9		3		15
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	5.6	35.8		3.5	41.2		2.9	2.9		1.6		4.3
Queue Length 95th (m)	m10.6	52.2		9.9	56.7		8.8	12.2		5.9		16.0
Internal Link Dist (m)		290.4			330.9			175.1				234.5

Lanes, Volumes, Timings  
 4: Sandalwood Dr & Heron Rd

10/30/2023

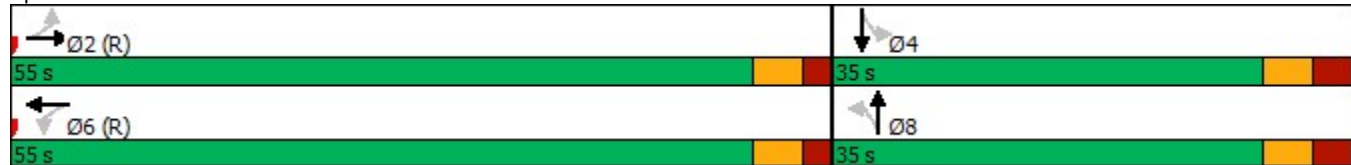


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	493	2490		497	2517		405	546		419	525	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.26		0.08	0.30		0.05	0.10		0.03	0.16	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	60 (67%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.30
Intersection Signal Delay:	8.3
Intersection LOS:	A
Intersection Capacity Utilization	55.6%
ICU Level of Service	B
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: Sandalwood Dr & Heron Rd



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	460	94	37	600	44	53	56	72	33	38	51
Future Volume (vph)	54	460	94	37	600	44	53	56	72	33	38	51
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	1.00	1.00		0.99		0.97		0.99	
Frt			0.850		0.990				0.850		0.943	
Flt Protected	0.950			0.950			0.950				0.987	
Satd. Flow (prot)	1662	3293	1547	1729	3317	0	1729	1784	1547	0	1627	0
Flt Permitted	0.344			0.452			0.687				0.911	
Satd. Flow (perm)	598	3293	1508	821	3317	0	1244	1784	1502	0	1495	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104		13				80			42
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		354.9			465.1			176.5			237.6	
Travel Time (s)		25.6			33.5			12.7			17.1	
Confl. Peds. (#/hr)	11		3	3		11	7		18	18		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 (%)	4%	5%	0%	0%	3%	2%	0%	2%	0%	3%	0%	6%
Adj. Flow (vph)	60	511	104	41	667	49	59	62	80	37	42	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	511	104	41	716	0	59	62	80	0	136	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1		2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1		30.5
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1		1.8
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0		27.0
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2		34.2
Total Split (s)	55.0	55.0	55.0	55.0	55.0		35.0	35.0	35.0	35.0		35.0
Total Split (%)	61.1%	61.1%	61.1%	61.1%	61.1%		38.9%	38.9%	38.9%	38.9%		38.9%
Maximum Green (s)	49.4	49.4	49.4	49.4	49.4		28.8	28.8	28.8	28.8		28.8
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3		3.3
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9		2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2			6.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None		None
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0		7.0
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0		21.0
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5		5
Act Effct Green (s)	51.0	51.0	51.0	51.0	51.0		27.2	27.2	27.2			27.2
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57		0.30	0.30	0.30			0.30
v/c Ratio	0.18	0.27	0.12	0.09	0.38		0.16	0.12	0.16			0.28
Control Delay	18.0	17.2	10.4	9.7	11.3		24.3	23.4	6.4			18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0
Total Delay	18.0	17.2	10.4	9.7	11.3		24.3	23.4	6.4			18.1
LOS	B	B	B	A	B		C	C	A			B
Approach Delay		16.2			11.2			16.9				18.1
Approach LOS		B			B			B				B
90th %ile Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0		28.0
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped		Ped
70th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0		27.0
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min		Min
50th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0		27.0
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min		Min
30th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0		27.0
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min		Min
10th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0		27.0
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Hold	Hold	Hold	Min		Min
Stops (vph)	45	369	48	17	327		39	40	13			64
Fuel Used(l)	4	30	5	2	41		3	3	2			6
CO Emissions (g/hr)	67	555	93	43	770		51	53	35			110
NOx Emissions (g/hr)	13	107	18	8	149		10	10	7			21
VOC Emissions (g/hr)	15	128	21	10	178		12	12	8			25
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0			0
Queue Length 50th (m)	8.6	40.6	5.8	3.0	32.5		7.5	7.7	0.0			12.1
Queue Length 95th (m)	20.9	57.5	22.0	7.9	45.2		16.4	16.6	9.5			25.8
Internal Link Dist (m)		330.9			441.1			152.5				213.6



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	339	1866	899	465	1885		398	570	535		506	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.18	0.27	0.12	0.09	0.38		0.15	0.11	0.15		0.27	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.38
Intersection Signal Delay:	14.3
Intersection LOS:	B
Intersection Capacity Utilization	81.4%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

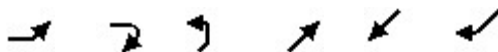
10/30/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	550	15	0	773	954	681
Future Volume (vph)	550	15	0	773	954	681
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.996					0.850
Flt Protected	0.954					
Satd. Flow (prot)	3289	0	0	3390	3390	2669
Flt Permitted	0.954					
Satd. Flow (perm)	3289	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3					757
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	611	17	0	859	1060	757
Shared Lane Traffic (%)						
Lane Group Flow (vph)	628	0	0	859	1060	757
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/30/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	51.0			59.0	59.0	59.0
Total Split (%)	46.4%			53.6%	53.6%	53.6%
Maximum Green (s)	44.3			52.4	52.4	52.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	44.3			52.4	52.4	52.4
Actuated g/C Ratio	0.40			0.48	0.48	0.48
v/c Ratio	0.47			0.53	0.66	0.45
Control Delay	25.6			21.7	24.4	2.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	25.6			21.7	24.4	2.1
LOS	C			C	C	A
Approach Delay	25.6			21.7	15.1	
Approach LOS	C			C	B	
90th %ile Green (s)	44.3			52.4	52.4	52.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	44.3			52.4	52.4	52.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	44.3			52.4	52.4	52.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	44.3			52.4	52.4	52.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	44.3			52.4	52.4	52.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	401			521	702	31
Fuel Used(l)	45			53	66	25
CO Emissions (g/hr)	839			995	1232	467
NOx Emissions (g/hr)	162			192	238	90
VOC Emissions (g/hr)	193			229	284	108
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	50.2			66.0	88.5	0.0
Queue Length 95th (m)	65.9			84.0	110.5	10.3
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1326			1614	1614	1667
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/30/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.47			0.53	0.66	0.45

Intersection Summary
























Area Type:	Other
Cycle Length:	110
Actuated Cycle Length:	110
Offset:	53 (48%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	18.8
Intersection LOS:	B
Intersection Capacity Utilization	56.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	282	372	236	243	480	238	191	738	201	232	1117	493
Future Volume (vph)	282	372	236	243	480	238	191	738	201	232	1117	493
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.96	0.98	0.98		0.99		0.95	0.98		0.95
Frt			0.850		0.950				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3354	3293	1547	3288	3184	0	1712	4919	1502	3321	3424	1547
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3275	3293	1489	3207	3184	0	1699	4919	1428	3254	3424	1466
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			239		63				223			340
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		154.1			197.3			245.1			260.6	
Travel Time (s)		11.1			14.2			17.6			18.8	
Confl. Peds. (#/hr)	36		22	22		36	28		26	26		28
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 (%)	0%	5%	0%	2%	1%	2%	1%	1%	3%	1%	1%	0%
Adj. Flow (vph)	313	413	262	270	533	264	212	820	223	258	1241	548
Shared Lane Traffic (%)												
Lane Group Flow (vph)	313	413	262	270	797	0	212	820	223	258	1241	548
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	35.0	35.0	7.0	35.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	41.7	41.7	13.8	41.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	25.0	41.7	41.7	25.0	41.7		19.0	38.0	38.0	27.0	46.0	46.0
Total Split (%)	19.0%	31.7%	31.7%	19.0%	31.7%		14.4%	28.9%	28.9%	20.5%	34.9%	34.9%
Maximum Green (s)	18.2	35.0	35.0	18.2	35.0		12.6	31.6	31.6	20.6	39.6	39.6
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	16.5	36.1	36.1	15.6	35.2		14.1	38.2	38.2	15.5	39.6	39.6
Actuated g/C Ratio	0.13	0.27	0.27	0.12	0.27		0.11	0.29	0.29	0.12	0.30	0.30
v/c Ratio	0.75	0.46	0.45	0.69	0.89		1.16	0.57	0.39	0.66	1.21	0.81
Control Delay	67.0	41.8	9.0	65.3	55.7		166.2	42.6	7.0	63.7	142.1	26.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	41.8	9.0	65.3	55.7		166.2	42.6	7.0	63.7	142.1	26.1
LOS	E	D	A	E	E		F	D	A	E	F	C
Approach Delay		41.1			58.1			57.1			101.2	
Approach LOS		D			E			E			F	
90th %ile Green (s)	18.2	35.0	35.0	18.2	35.0		12.6	32.5	32.5	19.7	39.6	39.6
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
70th %ile Green (s)	18.2	35.4	35.4	17.8	35.0		12.6	35.0	35.0	17.2	39.6	39.6
70th %ile Term Code	Max	Hold	Hold	Gap	Max		Max	Coord	Coord	Gap	Coord	Coord
50th %ile Green (s)	17.5	37.2	37.2	16.0	35.7		12.6	36.7	36.7	15.5	39.6	39.6
50th %ile Term Code	Gap	Hold	Hold	Gap	Max		Max	Coord	Coord	Gap	Coord	Coord
30th %ile Green (s)	15.6	36.5	36.5	14.3	35.2		15.0	40.8	40.8	13.8	39.6	39.6
30th %ile Term Code	Gap	Hold	Hold	Gap	Gap		Max	Coord	Coord	Gap	Coord	Coord
10th %ile Green (s)	12.9	36.2	36.2	11.7	35.0		17.9	46.2	46.2	11.3	39.6	39.6
10th %ile Term Code	Gap	Hold	Hold	Gap	Min		Max	Coord	Coord	Gap	Coord	Coord
Stops (vph)	266	304	33	229	612		142	619	22	217	932	201
Fuel Used(l)	25	24	6	22	58		32	55	6	37	245	60
CO Emissions (g/hr)	458	451	108	407	1077		596	1027	116	697	4565	1108
NOx Emissions (g/hr)	88	87	21	79	208		115	198	22	135	881	214
VOC Emissions (g/hr)	106	104	25	94	248		138	237	27	161	1053	256
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	40.6	46.4	4.4	35.1	97.3		~70.2	67.7	0.0	33.5	~206.1	53.6
Queue Length 95th (m)	56.0	63.5	26.9	48.7	#132.4		#119.3	85.9	19.9	46.0	#248.4	104.6
Internal Link Dist (m)		130.1			173.3			221.1			236.6	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/30/2023

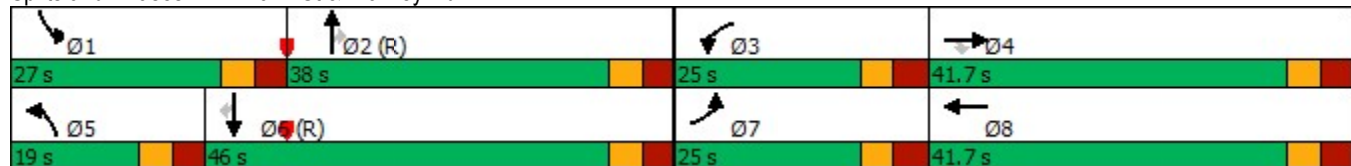


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	463	901	581	454	896		183	1428	572	519	1029	678
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.46	0.45	0.59	0.89		1.16	0.57	0.39	0.50	1.21	0.81

Intersection Summary

Area Type:	Other
Cycle Length:	131.7
Actuated Cycle Length:	131.7
Offset:	114 (87%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	145
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.21
Intersection Signal Delay:	71.2
Intersection LOS:	E
Intersection Capacity Utilization:	103.3%
ICU Level of Service:	G
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 7: Bank St & Walkley Rd



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	618	26	42	769	143	15	15	33	122	24	48
Future Volume (vph)	45	618	26	42	769	143	15	15	33	122	24	48
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	0.99			0.99		0.99	0.99	
Fr <sub>t</sub>		0.994			0.976			0.930			0.901	
Fl <sub>t</sub> Protected	0.950			0.950				0.988		0.950		
Satd. Flow (prot)	1729	3366	0	1729	3281	0	0	1654	0	1406	1554	0
Fl <sub>t</sub> Permitted	0.250			0.368				0.921		0.711		
Satd. Flow (perm)	453	3366	0	664	3281	0	0	1541	0	1043	1554	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			40			37			53	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	9		14	14		9	1		10	10		1
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 (%)	0%	2%	0%	0%	1%	9%	0%	0%	0%	23%	0%	7%
Adj. Flow (vph)	50	687	29	47	854	159	17	17	37	136	27	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	716	0	47	1013	0	0	71	0	136	80	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0		32.0
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%		40.0%
Maximum Green (s)	42.1	42.1		42.1	42.1		25.9	25.9		25.9		25.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	51.6	51.6		51.6	51.6			16.4		16.4		16.4
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.20		0.20		0.20
v/c Ratio	0.17	0.33		0.11	0.48			0.21		0.64		0.22
Control Delay	9.6	7.7		8.1	8.8			14.6		41.4		12.0
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	9.6	7.7		8.1	8.8			14.6		41.4		12.0
LOS	A	A		A	A			B		D		B
Approach Delay		7.8			8.8			14.6				30.5
Approach LOS		A			A			B				C
90th %ile Green (s)	43.0	43.0		43.0	43.0		25.0	25.0		25.0		25.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	49.2	49.2		49.2	49.2		18.8	18.8		18.8		18.8
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
50th %ile Green (s)	52.3	52.3		52.3	52.3		15.7	15.7		15.7		15.7
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	55.4	55.4		55.4	55.4		12.6	12.6		12.6		12.6
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
10th %ile Green (s)	58.0	58.0		58.0	58.0		10.0	10.0		10.0		10.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Min		Min
Stops (vph)	21	278		19	435			28		107		25
Fuel Used(l)	2	32		2	42			2		12		5
CO Emissions (g/hr)	44	597		35	787			33		223		85
NOx Emissions (g/hr)	8	115		7	152			6		43		16
VOC Emissions (g/hr)	10	138		8	182			8		51		20
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	2.6	21.6		2.3	33.6			4.3		19.3		3.4
Queue Length 95th (m)	10.1	42.4		8.7	65.1			12.4		32.1		12.0
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/30/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	292	2173		428	2129			523		337	538	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.17	0.33		0.11	0.48			0.14		0.40	0.15	

Intersection Summary	
Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	10.9
Intersection LOS:	B
Intersection Capacity Utilization	63.5%
ICU Level of Service	B
Analysis Period (min)	15

























Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	199	572	303	60	760	216	353	628	36	130	414	130
Future Volume (vph)	199	572	303	60	760	216	353	628	36	130	414	130
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.97	0.99		0.98	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.992			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3357	1446	1662	3293	1473	3225	3306	0	1712	3122	0
Flt Permitted	0.102			0.410			0.950			0.950		
Satd. Flow (perm)	184	3357	1404	713	3293	1438	3187	3306	0	1695	3122	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337			240		5			32	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	8		13	13		8	12		20	20		12
Confl. Bikes (#/hr)			1			3			3			9
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 (%)	1%	3%	7%	4%	5%	5%	4%	3%	13%	1%	7%	2%
Adj. Flow (vph)	221	636	337	67	844	240	392	698	40	144	460	144
Shared Lane Traffic (%)												
Lane Group Flow (vph)	221	636	337	67	844	240	392	738	0	144	604	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	32.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	14.3	59.3	59.3	45.0	45.0	45.0	28.7	38.7		22.0	32.4	
Total Split (%)	11.9%	49.3%	49.3%	37.4%	37.4%	37.4%	23.8%	32.1%		18.3%	26.9%	
Maximum Green (s)	7.8	52.9	52.9	40.7	40.7	40.7	22.2	32.3		15.5	26.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.3	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lead			Lag	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0	21.0	21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5	5	5	5		5			5	
Act Effct Green (s)	51.7	51.8	51.8	37.6	37.6	37.6	20.3	35.4		14.0	29.1	
Actuated g/C Ratio	0.43	0.43	0.43	0.31	0.31	0.31	0.17	0.29		0.12	0.24	
v/c Ratio	1.09	0.44	0.42	0.30	0.82	0.39	0.72	0.76		0.73	0.78	
Control Delay	119.4	25.2	3.9	34.4	45.4	5.5	55.4	45.0		72.0	49.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	119.4	25.2	3.9	34.4	45.4	5.5	55.4	45.0		72.0	49.0	
LOS	F	C	A	C	D	A	E	D		E	D	
Approach Delay		36.6			36.5			48.6			53.4	
Approach LOS		D			D			D			D	
90th %ile Green (s)	7.8	52.9	52.9	40.7	40.7	40.7	22.2	32.3		15.9	26.0	
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	7.8	52.9	52.9	40.7	40.7	40.7	22.2	32.3		15.9	26.0	
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Hold	Coord		Max	Coord	
50th %ile Green (s)	8.3	52.8	52.8	40.1	40.1	40.1	21.7	32.9		15.4	26.6	
50th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Hold	Coord		Gap	Coord	
30th %ile Green (s)	10.7	51.2	51.2	36.1	36.1	36.1	19.3	36.9		13.0	30.6	
30th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Hold	Coord		Gap	Coord	
10th %ile Green (s)	14.1	49.0	49.0	30.5	30.5	30.5	15.9	42.5		9.6	36.2	
10th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Hold	Coord		Gap	Coord	
Stops (vph)	99	388	22	44	683	21	327	583		124	462	
Fuel Used(l)	28	41	12	5	77	11	55	97		13	45	
CO Emissions (g/hr)	516	754	231	100	1440	214	1018	1802		249	838	
NOx Emissions (g/hr)	100	145	45	19	278	41	196	348		48	162	
VOC Emissions (g/hr)	119	174	53	23	332	49	235	416		57	193	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~46.0	53.7	0.0	11.6	93.7	0.0	45.0	85.4		32.9	69.0	
Queue Length 95th (m)	#96.9	69.1	16.3	24.0	116.7	16.9	61.2	109.3		#54.7	#98.6	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/31/2023

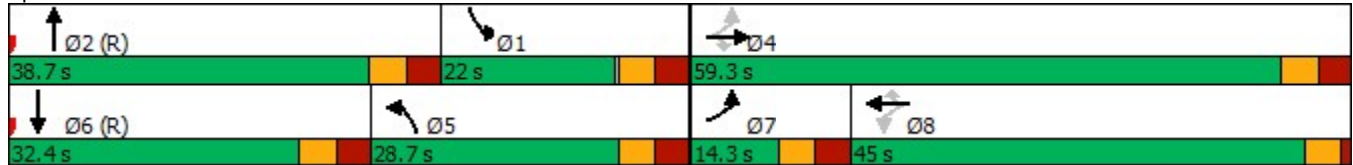


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		357.8			468.5			97.2			250.8	
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	202	1474	805	241	1113	644	594	975		226	778	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.09	0.43	0.42	0.28	0.76	0.37	0.66	0.76		0.64	0.78	

### Intersection Summary

Area Type: Other  
 Cycle Length: 120.4  
 Actuated Cycle Length: 120.4  
 Offset: 52 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 42.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 86.1%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

### Splits and Phases: 1: Bank St & Heron Rd



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	593	67	64	910	88	45	275	192	138	267	81
Future Volume (vph)	78	593	67	64	910	88	45	275	192	138	267	81
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.99		0.96		0.83	0.99	0.95			0.99	
Frt		0.985				0.850		0.938			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3216	0	1695	3293	1459	1601	1576	0	1631	1716	0
Flt Permitted	0.950			0.950			0.533			0.141		
Satd. Flow (perm)	1648	3216	0	1631	3293	1213	886	1576	0	242	1716	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14				153		38			20	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		492.5			657.5			201.9			270.3	
Travel Time (s)		35.5			47.3			14.5			19.5	
Confl. Peds. (#/hr)	54		37	37		54	21		110	110		21
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 (%)	1%	5%	1%	2%	5%	6%	8%	2%	3%	6%	2%	0%
Adj. Flow (vph)	87	659	74	71	1011	98	50	306	213	153	297	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	733	0	71	1011	98	50	519	0	153	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	12.4	32.9		15.6	36.1	36.1	30.0	30.0		11.5	41.5	
Total Split (%)	13.8%	36.6%		17.3%	40.1%	40.1%	33.3%	33.3%		12.8%	46.1%	
Maximum Green (s)	7.0	27.5		10.2	30.7	30.7	24.1	24.1		7.2	35.6	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	7.0	31.3		8.8	33.2	33.2	24.1	24.1		37.2	35.6	
Actuated g/C Ratio	0.08	0.35		0.10	0.37	0.37	0.27	0.27		0.41	0.40	
v/c Ratio	0.65	0.65		0.43	0.83	0.18	0.21	1.16		0.73	0.56	
Control Delay	64.5	28.7		54.5	23.7	1.1	28.5	123.0		39.2	23.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	64.5	28.7		54.5	23.7	1.1	28.5	123.0		39.2	23.8	
LOS	E	C		D	C	A	C	F		D	C	
Approach Delay		32.5			23.7			114.7			28.2	
Approach LOS		C			C			F			C	
90th %ile Green (s)	7.0	27.5		10.2	30.7	30.7	24.1	24.1		7.2	35.6	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	7.0	27.5		10.2	30.7	30.7	24.1	24.1		7.2	35.6	
70th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
50th %ile Green (s)	7.0	28.6		9.1	30.7	30.7	24.1	24.1		7.2	35.6	
50th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
30th %ile Green (s)	7.0	30.0		7.7	30.7	30.7	24.1	24.1		7.2	35.6	
30th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
10th %ile Green (s)	0.0	43.1		0.0	43.1	43.1	24.1	24.1		7.2	35.6	
10th %ile Term Code	Skip	Coord		Skip	Coord	Coord	MaxR	MaxR		Max	MaxR	
Stops (vph)	70	541		62	542	3	35	355		81	251	
Fuel Used(l)	9	58		8	86	6	3	61		10	21	
CO Emissions (g/hr)	169	1071		150	1592	105	49	1137		177	389	
NOx Emissions (g/hr)	33	207		29	307	20	9	219		34	75	
VOC Emissions (g/hr)	39	247		35	367	24	11	262		41	90	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	14.9	57.1		12.7	48.9	0.1	6.7	~102.2		16.7	48.2	
Queue Length 95th (m)	#36.1	78.7		m21.6 m	#113.9	m0.3	16.2	#162.0		#39.0	75.6	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	

Lanes, Volumes, Timings  
 2: Alta Vista Dr & Heron Rd

10/31/2023

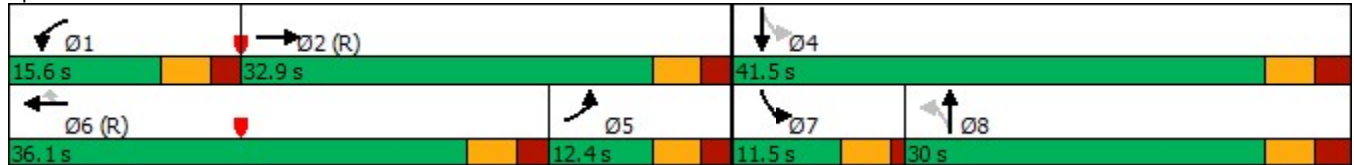


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	133	1129		192	1214	543	237	449		211	690	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.65	0.65		0.37	0.83	0.18	0.21	1.16		0.73	0.56	

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 10 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.16  
 Intersection Signal Delay: 43.4      Intersection LOS: D  
 Intersection Capacity Utilization 88.2%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Alta Vista Dr & Heron Rd





Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	680	243	30	703	1	359	0	60	0	0	0
Future Volume (vph)	0	680	243	30	703	1	359	0	60	0	0	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98		0.99	1.00			0.97				
Frt		0.961						0.981				
Flt Protected				0.950				0.959				
Satd. Flow (prot)	1820	3137	0	1478	3293	0	0	1633	0	1820	1820	0
Flt Permitted				0.186				0.756				
Satd. Flow (perm)	1820	3137	0	287	3293	0	0	1255	0	1820	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		75						21				
Link Speed (k/h)		50			50			50				50
Link Distance (m)		657.5			314.4			216.5				60.0
Travel Time (s)		47.3			22.6			15.6				4.3
Confl. Peds. (#/hr)	15		27	27		15	31		8	8		31
Confl. Bikes (#/hr)						1						2
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 (%)	0%	3%	7%	17%	5%	0%	5%	0%	2%	0%	0%	0%
Adj. Flow (vph)	0	756	270	33	781	1	399	0	67	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1026	0	33	782	0	0	466	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	29.7	29.7		29.7	29.7		35.0	35.0		35.0	35.0	
Total Split (s)	47.0	47.0		47.0	47.0		43.0	43.0		43.0	43.0	
Total Split (%)	52.2%	52.2%		52.2%	52.2%		47.8%	47.8%		47.8%	47.8%	
Maximum Green (s)	42.3	42.3		42.3	42.3		37.0	37.0		37.0	37.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	1.4	1.4		1.4	1.4		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	10.0	10.0		10.0	10.0		19.0	19.0		19.0	19.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)		44.4		44.4	44.4			34.9				
Actuated g/C Ratio		0.49		0.49	0.49			0.39				
v/c Ratio		0.65		0.23	0.48			0.93				
Control Delay		11.3		15.8	13.7			53.2				
Queue Delay		0.0		0.0	0.0			0.0				
Total Delay		11.3		15.8	13.7			53.2				
LOS		B		B	B			D				
Approach Delay		11.3			13.8			53.2				
Approach LOS		B			B			D				
90th %ile Green (s)	42.3	42.3		42.3	42.3		37.0	37.0		37.0	37.0	
90th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
70th %ile Green (s)	42.3	42.3		42.3	42.3		37.0	37.0		37.0	37.0	
70th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
50th %ile Green (s)	42.3	42.3		42.3	42.3		37.0	37.0		37.0	37.0	
50th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
30th %ile Green (s)	44.1	44.1		44.1	44.1		35.2	35.2		35.2	35.2	
30th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold	Hold	
10th %ile Green (s)	51.1	51.1		51.1	51.1		28.2	28.2		28.2	28.2	
10th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold	Hold	
Stops (vph)		253		15	409			348				
Fuel Used(l)		71		2	38			45				
CO Emissions (g/hr)		1328		30	700			829				
NOx Emissions (g/hr)		256		6	135			160				
VOC Emissions (g/hr)		306		7	161			191				
Dilemma Vehicles (#)		0		0	0			0				
Queue Length 50th (m)		27.6		2.2	27.5			69.8				
Queue Length 95th (m)		m33.1		5.9	36.3			#128.5				

Lanes, Volumes, Timings  
 3: Baycrest Dr & Heron Rd

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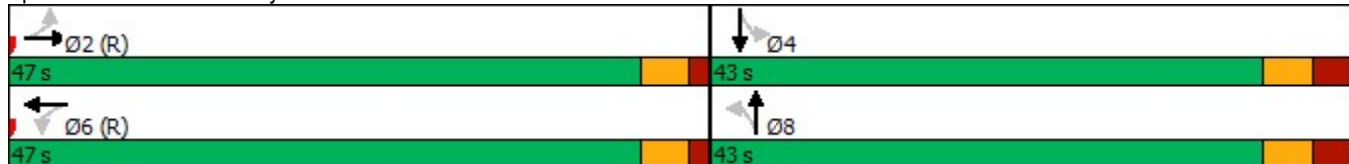


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		633.5			290.4			192.5			36.0	
Turn Bay Length (m)				55.0								
Base Capacity (vph)		1586		141	1625			528				
Starvation Cap Reductn		0		0	0			0				
Spillback Cap Reductn		0		0	0			0				
Storage Cap Reductn		0		0	0			0				
Reduced v/c Ratio		0.65		0.23	0.48			0.88				

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 51 (57%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 20.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 69.3%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Baycrest Dr & Heron Rd



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	666	30	20	604	20	81	26	67	13	18	47
Future Volume (vph)	51	666	30	20	604	20	81	26	67	13	18	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	1.00		0.99	0.99		0.99	0.99	
Frt		0.994			0.995			0.892			0.892	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3299	0	1601	3248	0	1478	1536	0	1729	1601	0
Flt Permitted	0.377			0.342			0.710			0.690		
Satd. Flow (perm)	682	3299	0	573	3248	0	1097	1536	0	1248	1601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			7			74				52
Link Speed (k/h)		50			50			50				50
Link Distance (m)		314.4			354.9			199.1				258.5
Travel Time (s)		22.6			25.6			14.3				18.6
Confl. Peds. (#/hr)	7		7	7		7	5		5	5		5
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 (%)	0%	3%	27%	8%	6%	0%	17%	15%	0%	0%	0%	0%
Adj. Flow (vph)	57	740	33	22	671	22	90	29	74	14	20	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	773	0	22	693	0	90	103	0	14	72	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	62.0	62.0		62.0	62.0		28.0	28.0		28.0		28.0
Total Split (%)	68.9%	68.9%		68.9%	68.9%		31.1%	31.1%		31.1%		31.1%
Maximum Green (s)	56.7	56.7		56.7	56.7		21.9	21.9		21.9		21.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	62.0	62.0		62.0	62.0		16.6	16.6		16.6		16.6
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.18	0.18		0.18		0.18
v/c Ratio	0.12	0.34		0.06	0.31		0.45	0.30		0.06		0.21
Control Delay	4.2	7.6		4.7	5.2		40.2	14.5		30.5		14.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	4.2	7.6		4.7	5.2		40.2	14.5		30.5		14.7
LOS	A	A		A	A		D	B		C		B
Approach Delay		7.4			5.1			26.5				17.3
Approach LOS		A			A			C				B
90th %ile Green (s)	59.8	59.8		59.8	59.8		18.8	18.8		18.8		18.8
90th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold		Hold
70th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
50th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold		Hold
Stops (vph)	21	512		5	177		70	32		12		23
Fuel Used(l)	2	36		1	27		6	4		1		3
CO Emissions (g/hr)	40	676		16	511		104	65		17		53
NOx Emissions (g/hr)	8	131		3	99		20	13		3		10
VOC Emissions (g/hr)	9	156		4	118		24	15		4		12
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	2.4	37.1		0.9	18.3		14.1	4.2		2.0		2.9
Queue Length 95th (m)	m5.0	m56.8		3.4	23.5		27.7	17.0		6.9		13.4
Internal Link Dist (m)		290.4			330.9			175.1				234.5

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023

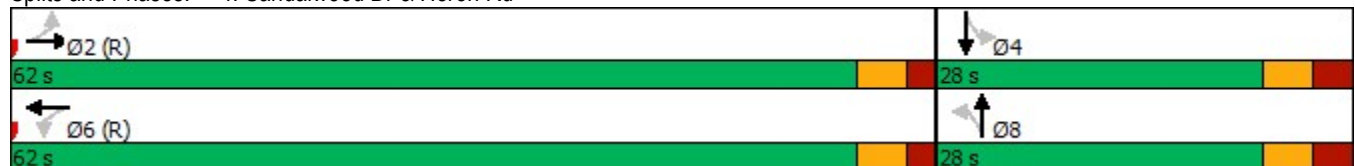


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	470	2277		394	2241		266	429		303	428	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.34		0.06	0.31		0.34	0.24		0.05	0.17	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization	56.3%
ICU Level of Service	B
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: Sandalwood Dr & Heron Rd



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	609	64	21	570	43	36	38	29	28	34	37
Future Volume (vph)	65	609	64	21	570	43	36	38	29	28	34	37
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00	1.00		1.00		0.98		0.99	
Frt			0.850		0.989				0.850		0.950	
Flt Protected	0.950			0.950			0.950				0.986	
Satd. Flow (prot)	1572	3357	1419	1383	3252	0	1679	1820	1381	0	1633	0
Flt Permitted	0.374			0.375			0.721				0.912	
Satd. Flow (perm)	616	3357	1379	545	3252	0	1269	1820	1357	0	1509	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71		13				32			36
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		354.9			465.1			176.5			237.6	
Travel Time (s)		25.6			33.5			12.7			17.1	
Confl. Peds. (#/hr)	6		4	4		6	5		5	5		5
Confl. Bikes (#/hr)			2						1			
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 (%)	10%	3%	9%	25%	5%	4%	3%	0%	12%	4%	0%	7%
Adj. Flow (vph)	72	677	71	23	633	48	40	42	32	31	38	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	677	71	23	681	0	40	42	32	0	110	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0	27.0	
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2	34.2	
Total Split (s)	54.0	54.0	54.0	54.0	54.0		36.0	36.0	36.0	36.0	36.0	
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%		40.0%	40.0%	40.0%	40.0%	40.0%	
Maximum Green (s)	48.4	48.4	48.4	48.4	48.4		29.8	29.8	29.8	29.8	29.8	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2		6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5	5	
Act Effct Green (s)	58.8	58.8	58.8	58.8	58.8		27.2	27.2	27.2		27.2	
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65		0.30	0.30	0.30		0.30	
v/c Ratio	0.18	0.31	0.08	0.06	0.32		0.10	0.08	0.07		0.23	
Control Delay	3.7	2.8	0.3	9.7	9.7		23.5	22.9	8.6		17.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	3.7	2.8	0.3	9.7	9.7		23.5	22.9	8.6		17.5	
LOS	A	A	A	A	A		C	C	A		B	
Approach Delay		2.7			9.7			19.1			17.5	
Approach LOS		A			A			B			B	
90th %ile Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0	28.0	
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped	Ped	
70th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
50th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
30th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
10th %ile Green (s)	84.4	84.4	84.4	84.4	84.4		0.0	0.0	0.0	0.0	0.0	
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Skip	Skip	Skip	Skip	Skip	
Stops (vph)	9	74	1	11	272		28	28	8		50	
Fuel Used(l)	3	24	2	1	38		2	2	1		5	
CO Emissions (g/hr)	48	438	41	25	703		35	36	16		87	
NOx Emissions (g/hr)	9	84	8	5	136		7	7	3		17	
VOC Emissions (g/hr)	11	101	9	6	162		8	8	4		20	
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0		0	
Queue Length 50th (m)	1.8	9.0	0.3	1.7	30.6		5.0	5.2	0.0		9.4	
Queue Length 95th (m)	3.8	11.8	0.0	5.4	43.0		12.1	12.3	6.2		21.4	



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023

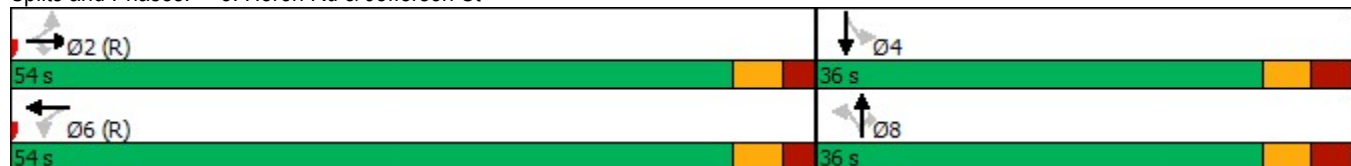


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		330.9			441.1			152.5				213.6
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	402	2191	925	356	2127		420	602	470			523
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	0	0	0		0	0	0			0
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.18	0.31	0.08	0.06	0.32		0.10	0.07	0.07			0.21

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.32
Intersection Signal Delay:	7.5
Intersection LOS:	A
Intersection Capacity Utilization	81.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	650	16	0	785	656	634
Future Volume (vph)	650	16	0	785	656	634
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.996					0.850
Flt Protected	0.953					
Satd. Flow (prot)	3286	0	0	3390	3390	2669
Flt Permitted	0.953					
Satd. Flow (perm)	3286	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3					704
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	722	18	0	872	729	704
Shared Lane Traffic (%)						
Lane Group Flow (vph)	740	0	0	872	729	704
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	46.0			54.0	54.0	54.0
Total Split (%)	46.0%			54.0%	54.0%	54.0%
Maximum Green (s)	39.3			47.4	47.4	47.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	39.3			47.4	47.4	47.4
Actuated g/C Ratio	0.39			0.47	0.47	0.47
v/c Ratio	0.57			0.54	0.45	0.43
Control Delay	25.8			20.2	18.8	2.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	25.8			20.2	18.8	2.1
LOS	C			C	B	A
Approach Delay	25.8			20.2	10.6	
Approach LOS	C			C	B	
90th %ile Green (s)	39.3			47.4	47.4	47.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	39.3			47.4	47.4	47.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	39.3			47.4	47.4	47.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	39.3			47.4	47.4	47.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	39.3			47.4	47.4	47.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	503			534	420	32
Fuel Used(l)	54			54	41	23
CO Emissions (g/hr)	1003			995	768	435
NOx Emissions (g/hr)	194			192	148	84
VOC Emissions (g/hr)	231			230	177	100
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	56.5			60.7	48.1	0.0
Queue Length 95th (m)	74.3			78.4	63.0	9.8
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1293			1606	1606	1635
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.57			0.54	0.45	0.43

Intersection Summary
























Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	23 (23%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	17.0
Intersection LOS:	B
Intersection Capacity Utilization	54.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	402	421	98	119	431	400	159	1280	175	178	503	260
Future Volume (vph)	402	421	98	119	431	400	159	1280	175	178	503	260
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.99		0.97	0.99	0.98		1.00		0.96	0.99		0.97
Frt			0.850		0.928				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3288	3390	1517	3288	3084	0	1695	4871	1517	3288	3390	1517
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3245	3390	1476	3254	3084	0	1687	4871	1459	3271	3390	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			209		181				215			289
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		154.1			197.3			245.1			260.6	
Travel Time (s)		11.1			14.2			17.6			18.8	
Confl. Peds. (#/hr)	26		11	11		26	8		17	17		8
Confl. Bikes (#/hr)			5			2			5			10
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
Adj. Flow (vph)	447	468	109	132	479	444	177	1422	194	198	559	289
Shared Lane Traffic (%)												
Lane Group Flow (vph)	447	468	109	132	923	0	177	1422	194	198	559	289
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	29.0	29.0	7.0	29.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	39.7	39.7	13.8	39.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	23.8	47.4	47.4	16.1	39.7		23.0	42.4	42.4	14.1	33.5	33.5
Total Split (%)	19.8%	39.5%	39.5%	13.4%	33.1%		19.2%	35.3%	35.3%	11.8%	27.9%	27.9%
Maximum Green (s)	17.0	40.7	40.7	9.3	33.0		16.6	36.0	36.0	7.7	27.1	27.1
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	17.0	40.8	40.8	8.8	32.6		15.5	36.0	36.0	8.1	28.6	28.6
Actuated g/C Ratio	0.14	0.34	0.34	0.07	0.27		0.13	0.30	0.30	0.07	0.24	0.24
v/c Ratio	0.96	0.41	0.17	0.55	0.95		0.81	0.97	0.33	0.90	0.69	0.51
Control Delay	84.6	31.7	0.6	62.4	53.9		78.0	59.7	4.6	95.3	47.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	31.7	0.6	62.4	53.9		78.0	59.7	4.6	95.3	47.4	7.8
LOS	F	C	A	E	D		E	E	A	F	D	A
Approach Delay		51.5			55.0			55.6			45.5	
Approach LOS		D			E			E			D	
90th %ile Green (s)	17.0	40.7	40.7	9.3	33.0		16.6	36.0	36.0	7.7	27.1	27.1
90th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
70th %ile Green (s)	17.0	40.7	40.7	9.3	33.0		16.6	36.0	36.0	7.7	27.1	27.1
70th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
50th %ile Green (s)	17.0	40.7	40.7	9.3	33.0		16.6	36.0	36.0	7.7	27.1	27.1
50th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
30th %ile Green (s)	17.0	41.0	41.0	9.0	33.0		15.7	36.0	36.0	7.7	28.0	28.0
30th %ile Term Code	Max	Hold	Hold	Gap	Max		Gap	Coord	Coord	Max	Coord	Coord
10th %ile Green (s)	17.0	40.9	40.9	7.3	31.2		11.9	36.0	36.0	9.5	33.6	33.6
10th %ile Term Code	Max	Hold	Hold	Gap	Gap		Gap	Coord	Coord	Max	Coord	Coord
Stops (vph)	361	313	0	112	632		146	1164	14	154	451	28
Fuel Used(l)	40	23	1	10	64		17	115	5	33	75	26
CO Emissions (g/hr)	747	436	28	194	1195		307	2134	93	610	1387	484
NOx Emissions (g/hr)	144	84	5	38	231		59	412	18	118	268	93
VOC Emissions (g/hr)	172	101	6	45	276		71	492	21	141	320	112
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	54.6	44.2	0.0	15.6	93.6		40.6	121.1	0.0	24.3	64.6	0.0
Queue Length 95th (m)	#85.9	59.0	0.0	25.8	#134.4		#73.4	#153.5	12.5	#47.3	84.4	22.4
Internal Link Dist (m)		130.1			173.3			221.1			236.6	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

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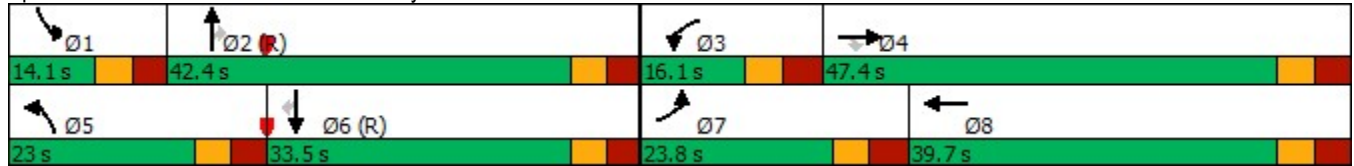


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	465	1152	639	254	979		234	1461	588	220	807	570
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.41	0.17	0.52	0.94		0.76	0.97	0.33	0.90	0.69	0.51

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 79 (66%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 52.5 Intersection LOS: D  
 Intersection Capacity Utilization 93.4% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank St & Walkley Rd



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	553	12	17	497	142	10	20	36	197	9	109
Future Volume (vph)	51	553	12	17	497	142	10	20	36	197	9	109
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	0.99			0.98		0.98	0.98	
Fr <sub>t</sub>		0.997			0.967			0.926			0.861	
Fl <sub>t</sub> Protected	0.950			0.950				0.993		0.950		
Satd. Flow (prot)	1530	3254	0	1530	3149	0	0	1645	0	1586	1537	0
Fl <sub>t</sub> Permitted	0.362			0.405				0.951		0.709		
Satd. Flow (perm)	580	3254	0	647	3149	0	0	1574	0	1163	1537	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			69			40			121	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	9		12	12		9	11		23	23		11
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 (%)	13%	6%	0%	13%	4%	10%	0%	0%	0%	9%	0%	0%
Adj. Flow (vph)	57	614	13	19	552	158	11	22	40	219	10	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	627	0	19	710	0	0	73	0	219	131	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	38.0	38.0		38.0	38.0		32.0	32.0		32.0		32.0
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%		45.7%
Maximum Green (s)	32.1	32.1		32.1	32.1		25.9	25.9		25.9		25.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	39.7	39.7		39.7	39.7			18.3		18.3		18.3
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.26		0.26		0.26
v/c Ratio	0.17	0.34		0.05	0.39			0.17		0.72		0.27
Control Delay	11.4	9.8		9.9	9.4			10.2		36.2		5.7
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	11.4	9.8		9.9	9.4			10.2		36.2		5.7
LOS	B	A		A	A			B		D		A
Approach Delay		10.0			9.4			10.2				24.8
Approach LOS		A			A			B				C
90th %ile Green (s)	32.1	32.1		32.1	32.1		25.9	25.9		25.9		25.9
90th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Max		Max
70th %ile Green (s)	36.3	36.3		36.3	36.3		21.7	21.7		21.7		21.7
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
50th %ile Green (s)	39.5	39.5		39.5	39.5		18.5	18.5		18.5		18.5
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	42.9	42.9		42.9	42.9		15.1	15.1		15.1		15.1
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
10th %ile Green (s)	47.7	47.7		47.7	47.7		10.3	10.3		10.3		10.3
10th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
Stops (vph)	29	294		10	314			25		169		21
Fuel Used(l)	3	30		1	30			2		19		7
CO Emissions (g/hr)	53	561		16	561			29		344		121
NOx Emissions (g/hr)	10	108		3	108			6		66		23
VOC Emissions (g/hr)	12	129		4	129			7		79		28
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	3.3	21.0		1.0	22.0			3.2		25.9		1.0
Queue Length 95th (m)	11.4	39.3		4.7	42.2			10.2		41.1		10.3
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	328	1847		366	1815			607		430	644	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.17	0.34		0.05	0.39			0.12		0.51	0.20	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	17 (24%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization	61.7%
ICU Level of Service	B
Analysis Period (min)	15

























Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	867	447	72	836	193	462	693	66	193	837	178
Future Volume (vph)	238	867	447	72	836	193	462	693	66	193	837	178
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00		0.97			0.97	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.987			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3357	1446	1662	3293	1473	3225	3274	0	1712	3154	0
Flt Permitted	0.123			0.123			0.950			0.950		
Satd. Flow (perm)	221	3357	1402	215	3293	1436	3205	3274	0	1696	3154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			334			192		7			21	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	8		13	13		8	12		20	20		12
Confl. Bikes (#/hr)			1			3			3			9
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 (%)	1%	3%	7%	4%	5%	5%	4%	3%	13%	1%	7%	2%
Adj. Flow (vph)	264	963	497	80	929	214	513	770	73	214	930	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	963	497	80	929	214	513	843	0	214	1128	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	5.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	9.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	17.0	49.4	49.4	9.6	42.0	42.0	22.0	40.0		31.0	49.0	
Total Split (%)	13.1%	38.0%	38.0%	7.4%	32.3%	32.3%	16.9%	30.8%		23.8%	37.7%	
Maximum Green (s)	10.5	43.0	43.0	5.1	37.7	37.7	15.5	33.6		24.5	42.6	
Yellow Time (s)	3.3	3.3	3.3	3.5	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.5	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0		21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5		5	5		5			5	
Act Effct Green (s)	42.9	43.0	43.0	37.5	37.7	37.7	15.5	37.6		20.5	42.6	
Actuated g/C Ratio	0.33	0.33	0.33	0.29	0.29	0.29	0.12	0.29		0.16	0.33	
v/c Ratio	1.37	0.87	0.72	0.68	0.97	0.39	1.34	0.89		0.79	1.08	
Control Delay	235.4	50.4	18.7	42.0	41.8	1.9	203.1	49.5		73.2	92.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	235.4	50.4	18.7	42.0	41.8	1.9	203.1	49.5		73.2	92.0	
LOS	F	D	B	D	D	A	F	D		E	F	
Approach Delay		69.6			34.8			107.6			89.0	
Approach LOS		E			C			F			F	
90th %ile Green (s)	10.5	43.0	43.0	5.1	37.7	37.7	15.5	33.6		24.5	42.6	
90th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	10.5	43.0	43.0	5.1	37.7	37.7	15.5	33.8		24.3	42.6	
70th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Gap	Coord	
50th %ile Green (s)	10.5	43.0	43.0	5.1	37.7	37.7	15.5	36.7		21.4	42.6	
50th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Gap	Coord	
30th %ile Green (s)	10.5	43.0	43.0	5.1	37.7	37.7	15.5	39.7		18.4	42.6	
30th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Gap	Coord	
10th %ile Green (s)	10.5	43.0	43.0	5.1	37.7	37.7	15.5	44.1		14.0	42.6	
10th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Gap	Coord	
Stops (vph)	137	783	151	31	703	7	364	667		182	878	
Fuel Used(l)	55	83	26	6	82	9	123	113		20	118	
CO Emissions (g/hr)	1019	1537	484	119	1521	176	2282	2110		372	2195	
NOx Emissions (g/hr)	197	297	94	23	294	34	441	407		72	424	
VOC Emissions (g/hr)	235	355	112	27	351	41	526	487		86	506	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~74.5	121.4	36.7	7.4	102.6	0.0	~89.3	113.0		53.0	~167.5	
Queue Length 95th (m)	#129.1	149.1	80.6	m10.7	m#138.4	m3.8	m#101.7	m#127.8		78.6	#209.9	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/31/2023

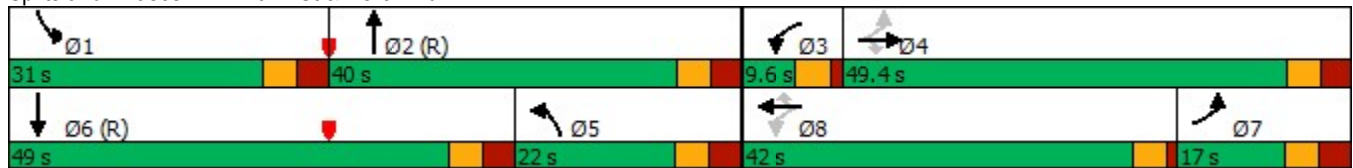


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		357.8			468.5			97.2			250.8	
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	193	1110	687	118	954	552	384	951		322	1047	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.37	0.87	0.72	0.68	0.97	0.39	1.34	0.89		0.66	1.08	

### Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 135  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.37  
 Intersection Signal Delay: 75.8      Intersection LOS: E  
 Intersection Capacity Utilization 102.6%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Bank St & Heron Rd



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	202	850	74	77	815	109	89	226	61	130	449	198
Future Volume (vph)	202	850	74	77	815	109	89	226	61	130	449	198
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.99		0.96		0.77		0.96		0.93	0.99	
Frt		0.988				0.850		0.968			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3220	0	1695	3293	1459	1601	1655	0	1631	1689	0
Flt Permitted	0.950			0.950			0.117			0.286		
Satd. Flow (perm)	1605	3220	0	1634	3293	1116	197	1655	0	457	1689	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				121		10			20	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		492.5			657.5			201.9			270.3	
Travel Time (s)		35.5			47.3			14.5			19.5	
Confl. Peds. (#/hr)	54		37	37		54	21		110	110		21
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 (%)	1%	5%	1%	2%	5%	6%	8%	2%	3%	6%	2%	0%
Adj. Flow (vph)	224	944	82	86	906	121	99	251	68	144	499	220
Shared Lane Traffic (%)												
Lane Group Flow (vph)	224	1026	0	86	906	121	99	319	0	144	719	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	19.0	57.7		16.3	55.0	55.0	38.8	38.8		17.2	56.0	
Total Split (%)	14.6%	44.4%		12.5%	42.3%	42.3%	29.8%	29.8%		13.2%	43.1%	
Maximum Green (s)	13.6	52.3		10.9	49.6	49.6	32.9	32.9		12.9	50.1	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	13.6	52.3		10.9	49.6	49.6	34.1	34.1		51.7	50.1	
Actuated g/C Ratio	0.10	0.40		0.08	0.38	0.38	0.26	0.26		0.40	0.39	
v/c Ratio	1.25	0.79		0.61	0.72	0.24	1.94	0.72		0.50	1.08	
Control Delay	170.1	31.2		75.9	38.3	5.7	514.6	53.3		32.4	97.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	170.1	31.2		75.9	38.3	5.7	514.6	53.3		32.4	97.3	
LOS	F	C		E	D	A	F	D		C	F	
Approach Delay		56.1			37.7			162.5			86.5	
Approach LOS		E			D			F			F	
90th %ile Green (s)	13.6	52.3		10.9	49.6	49.6	32.9	32.9		12.9	50.1	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	13.6	52.3		10.9	49.6	49.6	32.9	32.9		12.9	50.1	
70th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
50th %ile Green (s)	13.6	52.3		10.9	49.6	49.6	32.9	32.9		12.9	50.1	
50th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
30th %ile Green (s)	13.6	52.3		10.9	49.6	49.6	34.6	34.6		11.2	50.1	
30th %ile Term Code	Max	Coord		Hold	Coord	Coord	MaxR	MaxR		Gap	MaxR	
10th %ile Green (s)	13.6	52.3		10.9	49.6	49.6	37.2	37.2		8.6	50.1	
10th %ile Term Code	Max	Coord		Hold	Coord	Coord	MaxR	MaxR		Gap	MaxR	
Stops (vph)	160	941		73	680	13	56	250		84	541	
Fuel Used(l)	39	86		11	90	8	38	23		8	77	
CO Emissions (g/hr)	734	1608		204	1677	141	711	425		157	1436	
NOx Emissions (g/hr)	142	310		39	324	27	137	82		30	277	
VOC Emissions (g/hr)	169	371		47	387	33	164	98		36	331	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	~73.4	144.9		21.6	103.4	0.0	~39.4	73.5		24.1	~203.3	
Queue Length 95th (m)	m#96.9	m167.2		#41.5	127.4	12.3	#75.6	#108.3		39.5	#277.3	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023

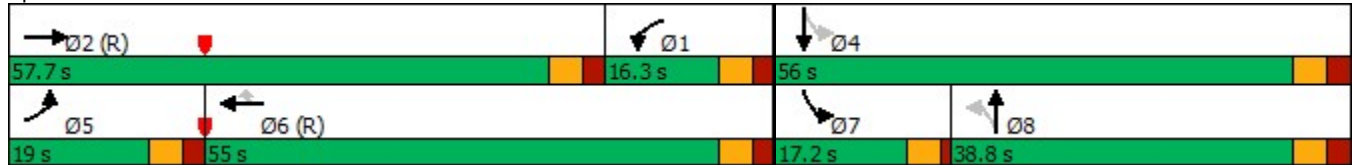


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	179	1300		142	1256	500	51	441		298	663	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.25	0.79		0.61	0.72	0.24	1.94	0.72		0.48	1.08	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 6 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.94  
 Intersection Signal Delay: 69.9  
 Intersection LOS: E  
 Intersection Capacity Utilization 101.0%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Alta Vista Dr & Heron Rd





Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	710	257	43	748	1	252	1	57	1	1	0
Future Volume (vph)	0	710	257	43	748	1	252	1	57	1	1	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98		0.99	1.00			0.97		1.00		
Frt		0.960						0.975				
Flt Protected				0.950				0.961		0.950		
Satd. Flow (prot)	1820	3133	0	1478	3293	0	0	1627	0	1729	1820	0
Flt Permitted				0.202				0.765		0.664		
Satd. Flow (perm)	1820	3133	0	312	3293	0	0	1265	0	1204	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		90						13				
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		657.5			314.4			216.5			60.0	
Travel Time (s)		47.3			22.6			15.6			4.3	
Confl. Peds. (#/hr)	15		27	27		15	31		8	8		31
Confl. Bikes (#/hr)						1						2
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 (%)	0%	3%	7%	17%	5%	0%	5%	0%	2%	0%	0%	0%
Adj. Flow (vph)	0	789	286	48	831	1	280	1	63	1	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1075	0	48	832	0	0	344	0	1	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	29.7	29.7		29.7	29.7		35.0	35.0		35.0	35.0	
Total Split (s)	54.0	54.0		54.0	54.0		36.0	36.0		36.0	36.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	49.3	49.3		49.3	49.3		30.0	30.0		30.0	30.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	1.4	1.4		1.4	1.4		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	10.0	10.0		10.0	10.0		19.0	19.0		19.0	19.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)		52.2		52.2	52.2			27.1		27.1	27.1	
Actuated g/C Ratio		0.58		0.58	0.58			0.30		0.30	0.30	
v/c Ratio		0.58		0.27	0.44			0.88		0.00	0.00	
Control Delay		12.9		11.9	8.6			53.4		20.0	20.0	
Queue Delay		0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay		12.9		11.9	8.6			53.4		20.0	20.0	
LOS		B		B	A			D		B	B	
Approach Delay		12.9			8.8			53.4			20.0	
Approach LOS		B			A			D			B	
90th %ile Green (s)	49.3	49.3		49.3	49.3		30.0	30.0		30.0	30.0	
90th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
70th %ile Green (s)	49.3	49.3		49.3	49.3		30.0	30.0		30.0	30.0	
70th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
50th %ile Green (s)	49.6	49.6		49.6	49.6		29.7	29.7		29.7	29.7	
50th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold	Hold	
30th %ile Green (s)	53.6	53.6		53.6	53.6		25.7	25.7		25.7	25.7	
30th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold	Hold	
10th %ile Green (s)	59.3	59.3		59.3	59.3		20.0	20.0		20.0	20.0	
10th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold	Hold	
Stops (vph)		547		21	339			265		2	2	
Fuel Used(l)		82		2	35			33		0	0	
CO Emissions (g/hr)		1532		40	649			617		1	1	
NOx Emissions (g/hr)		296		8	125			119		0	0	
VOC Emissions (g/hr)		353		9	150			142		0	0	
Dilemma Vehicles (#)		0		0	0			0		0	0	
Queue Length 50th (m)		56.4		1.9	39.6			51.9		0.1	0.1	
Queue Length 95th (m)		76.0		11.3	55.8			#96.1		1.2	1.2	

Lanes, Volumes, Timings  
 3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		633.5			290.4			192.5				36.0
Turn Bay Length (m)				55.0						30.0		
Base Capacity (vph)		1855		180	1910			430		401	606	
Starvation Cap Reductn		0		0	0			0		0	0	
Spillback Cap Reductn		0		0	0			0		0	0	
Storage Cap Reductn		0		0	0			0		0	0	
Reduced v/c Ratio		0.58		0.27	0.44			0.80		0.00	0.00	

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 14 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 17.4  
 Intersection LOS: B  
 Intersection Capacity Utilization 71.9%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Baycrest Dr & Heron Rd



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	633	60	63	735	14	43	20	46	11	28	55
Future Volume (vph)	59	633	60	63	735	14	43	20	46	11	28	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99	0.99		0.99	0.99	
Frt		0.987			0.997			0.895			0.901	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3238	0	1601	3254	0	1478	1537	0	1729	1619	0
Flt Permitted	0.325			0.350			0.697			0.709		
Satd. Flow (perm)	589	3238	0	587	3254	0	1077	1537	0	1282	1619	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			3			51			61	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		314.4			354.9			199.1			258.5	
Travel Time (s)		22.6			25.6			14.3			18.6	
Confl. Peds. (#/hr)	7		7	7		7	5		5	5		5
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 (%)	0%	3%	27%	8%	6%	0%	17%	15%	0%	0%	0%	0%
Adj. Flow (vph)	66	703	67	70	817	16	48	22	51	12	31	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	770	0	70	833	0	48	73	0	12	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	55.0	55.0		55.0	55.0		35.0	35.0		35.0		35.0
Total Split (%)	61.1%	61.1%		61.1%	61.1%		38.9%	38.9%		38.9%		38.9%
Maximum Green (s)	49.7	49.7		49.7	49.7		28.9	28.9		28.9		28.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	67.7	67.7		67.7	67.7		16.4	16.4		16.4		16.4
Actuated g/C Ratio	0.75	0.75		0.75	0.75		0.18	0.18		0.18		0.18
v/c Ratio	0.15	0.32		0.16	0.34		0.24	0.23		0.05		0.27
Control Delay	10.2	8.6		5.1	4.4		34.9	15.4		30.7		15.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	10.2	8.6		5.1	4.4		34.9	15.4		30.7		15.7
LOS	B	A		A	A		C	B		C		B
Approach Delay		8.8			4.5			23.2				17.4
Approach LOS		A			A			C				B
90th %ile Green (s)	60.6	60.6		60.6	60.6		18.0	18.0		18.0		18.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
50th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	84.7	84.7		84.7	84.7		0.0	0.0		0.0		0.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Skip	Skip		Skip		Skip
Stops (vph)	28	288		16	180		38	24		11		30
Fuel Used(l)	3	32		3	32		3	3		1		4
CO Emissions (g/hr)	53	591		51	593		52	48		14		69
NOx Emissions (g/hr)	10	114		10	114		10	9		3		13
VOC Emissions (g/hr)	12	136		12	137		12	11		3		16
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	4.7	32.6		3.1	20.6		7.2	3.2		1.7		4.5
Queue Length 95th (m)	m11.6	55.2		6.7	25.1		16.7	14.1		6.2		16.8
Internal Link Dist (m)		290.4			330.9			175.1				234.5

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023

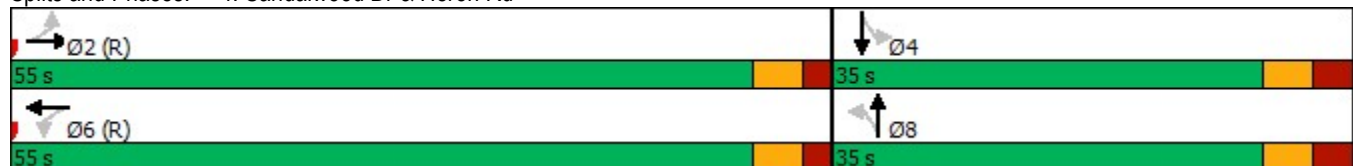


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	442	2439		441	2448		345	528		411	561	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.32		0.16	0.34		0.14	0.14		0.03	0.16	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	57.8%
ICU Level of Service	B
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: Sandalwood Dr & Heron Rd



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	528	102	40	697	48	58	61	78	36	41	55
Future Volume (vph)	59	528	102	40	697	48	58	61	78	36	41	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00	1.00		1.00		0.98		0.99	
Frt			0.850		0.990				0.850		0.944	
Flt Protected	0.950			0.950			0.950				0.987	
Satd. Flow (prot)	1572	3357	1419	1383	3256	0	1679	1820	1381	0	1619	0
Flt Permitted	0.295			0.410			0.671				0.907	
Satd. Flow (perm)	487	3357	1379	595	3256	0	1181	1820	1357	0	1486	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			113		12				87			42
Link Speed (k/h)		50			50			50				50
Link Distance (m)		354.9			465.1			176.5				237.6
Travel Time (s)		25.6			33.5			12.7				17.1
Confl. Peds. (#/hr)	6		4	4		6	5		5	5		5
Confl. Bikes (#/hr)			2						1			
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 (%)	10%	3%	9%	25%	5%	4%	3%	0%	12%	4%	0%	7%
Adj. Flow (vph)	66	587	113	44	774	53	64	68	87	40	46	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	587	113	44	827	0	64	68	87	0	147	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1		2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1		30.5
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1		1.8
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0	27.0	
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2	34.2	
Total Split (s)	55.0	55.0	55.0	55.0	55.0		35.0	35.0	35.0	35.0	35.0	
Total Split (%)	61.1%	61.1%	61.1%	61.1%	61.1%		38.9%	38.9%	38.9%	38.9%	38.9%	
Maximum Green (s)	49.4	49.4	49.4	49.4	49.4		28.8	28.8	28.8	28.8	28.8	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2		6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5	5	
Act Effct Green (s)	51.0	51.0	51.0	51.0	51.0		27.2	27.2	27.2		27.2	
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57		0.30	0.30	0.30		0.30	
v/c Ratio	0.24	0.31	0.14	0.13	0.45		0.18	0.12	0.18		0.31	
Control Delay	11.7	11.5	4.2	10.5	12.1		24.8	23.5	6.4		19.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	11.7	11.5	4.2	10.5	12.1		24.8	23.5	6.4		19.0	
LOS	B	B	A	B	B		C	C	A		B	
Approach Delay		10.5			12.1			17.1			19.0	
Approach LOS		B			B			B			B	
90th %ile Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0	28.0	
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped	Ped	
70th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
50th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
30th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
10th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Hold	Hold	Hold	Min	Min	
Stops (vph)	25	248	29	20	401		42	42	13		71	
Fuel Used(l)	3	28	4	3	49		3	3	2		7	
CO Emissions (g/hr)	57	522	82	47	908		56	57	37		121	
NOx Emissions (g/hr)	11	101	16	9	175		11	11	7		23	
VOC Emissions (g/hr)	13	120	19	11	209		13	13	9		28	
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0		0	
Queue Length 50th (m)	5.5	26.1	3.1	3.3	39.7		8.2	8.5	0.0		13.6	
Queue Length 95th (m)	9.8	28.7	5.6	8.8	54.4		17.6	17.8	9.9		28.3	



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

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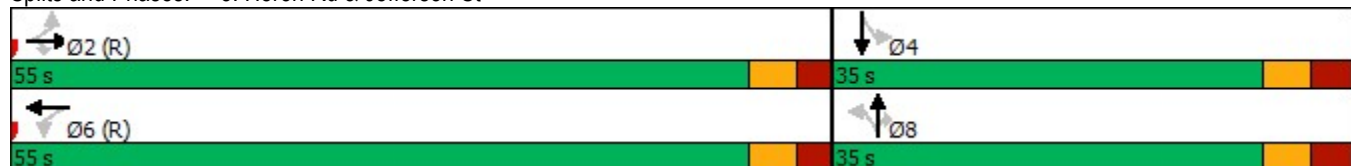


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		330.9			441.1			152.5				213.6
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	276	1902	830	337	1850		377	582	493			504
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	0	0	0		0	0	0			0
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.24	0.31	0.14	0.13	0.45		0.17	0.12	0.18			0.29

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	81.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

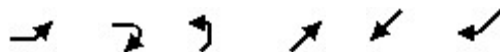
10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	626	16	0	910	1078	785
Future Volume (vph)	626	16	0	910	1078	785
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.996					0.850
Flt Protected	0.954					
Satd. Flow (prot)	3289	0	0	3390	3390	2669
Flt Permitted	0.954					
Satd. Flow (perm)	3289	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3					872
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	696	18	0	1011	1198	872
Shared Lane Traffic (%)						
Lane Group Flow (vph)	714	0	0	1011	1198	872
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	56.0			54.0	54.0	54.0
Total Split (%)	50.9%			49.1%	49.1%	49.1%
Maximum Green (s)	49.3			47.4	47.4	47.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	49.3			47.4	47.4	47.4
Actuated g/C Ratio	0.45			0.43	0.43	0.43
v/c Ratio	0.48			0.69	0.82	0.53
Control Delay	22.7			28.5	33.3	2.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	22.7			28.5	33.3	2.6
LOS	C			C	C	A
Approach Delay	22.7			28.5	20.4	
Approach LOS	C			C	C	
90th %ile Green (s)	49.3			47.4	47.4	47.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	49.3			47.4	47.4	47.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	49.3			47.4	47.4	47.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	49.3			47.4	47.4	47.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	49.3			47.4	47.4	47.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	435			715	923	40
Fuel Used(l)	49			70	85	29
CO Emissions (g/hr)	918			1301	1584	545
NOx Emissions (g/hr)	177			251	306	105
VOC Emissions (g/hr)	212			300	365	126
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	54.0			90.7	116.6	0.0
Queue Length 95th (m)	70.1			113.6	145.0	11.8
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1475			1460	1460	1646
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023

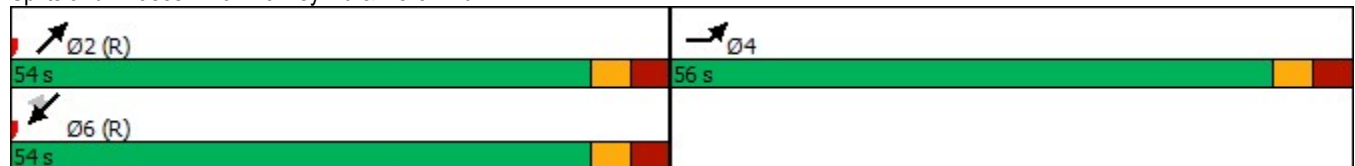


Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.48			0.69	0.82	0.53

Intersection Summary
































Area Type:	Other
Cycle Length:	110
Actuated Cycle Length:	110
Offset:	53 (48%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	23.0
Intersection LOS:	C
Intersection Capacity Utilization	61.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  		 	 	
Traffic Volume (vph)	306	455	256	282	556	276	207	801	247	285	1213	535
Future Volume (vph)	306	455	256	282	556	276	207	801	247	285	1213	535
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.99		0.97	0.99	0.99		1.00		0.96	0.99		0.97
Frt			0.850		0.950				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3288	3390	1517	3288	3174	0	1695	4871	1517	3288	3390	1517
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3242	3390	1473	3253	3174	0	1692	4871	1457	3249	3390	1472
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			245		63				248			228
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		154.1			197.3			245.1			260.6	
Travel Time (s)		11.1			14.2			17.6			18.8	
Confl. Peds. (#/hr)	26		11	11		26	8		17	17		8
Confl. Bikes (#/hr)			5			2			5			10
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
Adj. Flow (vph)	340	506	284	313	618	307	230	890	274	317	1348	594
Shared Lane Traffic (%)												
Lane Group Flow (vph)	340	506	284	313	925	0	230	890	274	317	1348	594
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	29.0	29.0	7.0	29.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	39.7	39.7	13.8	39.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	18.0	40.7	40.7	17.0	39.7		21.0	47.6	47.6	24.7	51.3	51.3
Total Split (%)	13.8%	31.3%	31.3%	13.1%	30.5%		16.2%	36.6%	36.6%	19.0%	39.5%	39.5%
Maximum Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.2	41.2	18.3	44.9	44.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	42.9	42.9	16.6	44.9	44.9
Actuated g/C Ratio	0.09	0.26	0.26	0.08	0.25		0.11	0.33	0.33	0.13	0.35	0.35
v/c Ratio	1.20	0.57	0.50	1.22	1.09		1.21	0.55	0.42	0.75	1.15	0.90
Control Delay	168.8	44.7	10.8	177.1	99.1		181.3	37.6	7.8	65.4	125.3	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.8	44.7	10.8	177.1	99.1		181.3	37.6	7.8	65.4	125.3	52.7
LOS	F	D	B	F	F		F	D	A	E	F	D
Approach Delay		73.5			118.8			55.5				97.8
Approach LOS		E			F			E				F
90th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.2	41.2	18.3	44.9	44.9
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Coord	Coord	Max	Coord	Coord
70th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.2	41.2	18.3	44.9	44.9
70th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
50th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.8	41.8	17.7	44.9	44.9
50th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
30th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	43.7	43.7	15.8	44.9	44.9
30th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
10th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	46.4	46.4	13.1	44.9	44.9
10th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
Stops (vph)	248	387	44	226	685		165	642	34	274	1028	344
Fuel Used(l)	50	31	7	49	94		37	56	8	47	251	78
CO Emissions (g/hr)	926	576	128	907	1756		696	1046	149	867	4671	1459
NOx Emissions (g/hr)	179	111	25	175	339		134	202	29	167	902	282
VOC Emissions (g/hr)	214	133	29	209	405		160	241	34	200	1077	336
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	~54.4	59.5	7.6	~50.4	~133.2		~71.8	69.2	4.6	41.7	~212.8	107.5
Queue Length 95th (m)	#84.5	77.5	32.4	#79.5	#174.1		#122.3	83.9	25.7	m49.2	m#227.0	m127.7
Internal Link Dist (m)		130.1			173.3			221.1				236.6

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

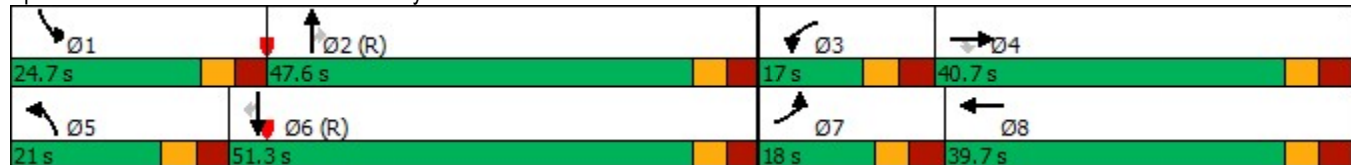


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	283	886	566	257	852		190	1605	646	462	1170	657
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.57	0.50	1.22	1.09		1.21	0.55	0.42	0.69	1.15	0.90

Intersection Summary




















Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 145  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 87.8  
 Intersection LOS: F  
 Intersection Capacity Utilization 105.6%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Bank St & Walkley Rd



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	700	28	46	881	223	16	16	36	147	26	81
Future Volume (vph)	94	700	28	46	881	223	16	16	36	147	26	81
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	0.99			0.98		0.98	0.98	
Frt		0.994			0.970			0.929			0.887	
Flt Protected	0.950			0.950				0.988		0.950		
Satd. Flow (prot)	1530	3244	0	1530	3164	0	0	1641	0	1586	1587	0
Flt Permitted	0.183			0.326				0.913		0.708		
Satd. Flow (perm)	294	3244	0	522	3164	0	0	1513	0	1159	1587	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			59			40			88	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	9		12	12		9	11		23	23		11
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 (%)	13%	6%	0%	13%	4%	10%	0%	0%	0%	9%	0%	0%
Adj. Flow (vph)	104	778	31	51	979	248	18	18	40	163	29	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	809	0	51	1227	0	0	76	0	163	119	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	48.0	48.0		48.0	48.0		31.1	31.1		32.0		32.0
Total Split (%)	60.0%	60.0%		60.0%	60.0%		38.9%	38.9%		40.0%		40.0%
Maximum Green (s)	42.1	42.1		42.1	42.1		25.0	25.0		25.9		25.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	51.1	51.1		51.1	51.1			16.9		16.9		16.9
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.21		0.21		0.21
v/c Ratio	0.56	0.39		0.15	0.60			0.22		0.67		0.29
Control Delay	26.4	8.5		9.2	10.6			14.4		41.3		10.3
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	26.4	8.5		9.2	10.6			14.4		41.3		10.3
LOS	C	A		A	B			B		D		B
Approach Delay		10.5			10.6			14.4				28.2
Approach LOS		B			B			B				C
90th %ile Green (s)	43.0	43.0		43.0	43.0		25.0	25.0		25.0		25.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	48.4	48.4		48.4	48.4		19.6	19.6		19.6		19.6
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
50th %ile Green (s)	51.5	51.5		51.5	51.5		16.5	16.5		16.5		16.5
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	54.5	54.5		54.5	54.5		13.5	13.5		13.5		13.5
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
10th %ile Green (s)	58.0	58.0		58.0	58.0		10.0	10.0		10.0		10.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Min		Min
Stops (vph)	59	336		22	605			30		128		31
Fuel Used(l)	6	37		2	55			2		14		7
CO Emissions (g/hr)	120	692		40	1014			35		268		122
NOx Emissions (g/hr)	23	134		8	196			7		52		24
VOC Emissions (g/hr)	28	160		9	234			8		62		28
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	7.7	26.6		2.7	47.1			4.5		23.0		3.8
Queue Length 95th (m)	#37.3	50.2		9.9	88.0			12.9		37.1		14.3
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	187	2073		333	2041			516		375	573	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.56	0.39		0.15	0.60			0.15		0.43	0.21	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization	73.6%
ICU Level of Service	D
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

























Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

1: Bank St & Heron Rd

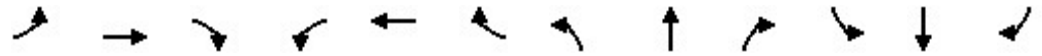
10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	199	611	303	70	799	252	353	628	46	166	414	130
Future Volume (vph)	199	611	303	70	799	252	353	628	46	166	414	130
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.97	0.99		0.98	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.990			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3357	1446	1662	3293	1473	3225	3293	0	1712	3123	0
Flt Permitted	0.093			0.393			0.950			0.950		
Satd. Flow (perm)	168	3357	1404	683	3293	1438	3187	3293	0	1695	3123	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337			278		6			32	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	8		13	13		8	12		20	20		12
Confl. Bikes (#/hr)			1			3			3			9
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 (%)	1%	3%	7%	4%	5%	5%	4%	3%	13%	1%	7%	2%
Adj. Flow (vph)	221	679	337	78	888	280	392	698	51	184	460	144
Shared Lane Traffic (%)												
Lane Group Flow (vph)	221	679	337	78	888	280	392	749	0	184	604	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	32.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	14.3	59.3	59.3	45.0	45.0	45.0	27.0	38.7		22.0	33.7	
Total Split (%)	11.9%	49.4%	49.4%	37.5%	37.5%	37.5%	22.5%	32.3%		18.3%	28.1%	
Maximum Green (s)	7.8	52.9	52.9	40.7	40.7	40.7	20.5	32.3		15.5	27.3	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.3	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lead			Lag	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0	21.0	21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5	5	5	5		5			5	
Act Effct Green (s)	51.2	51.3	51.3	38.5	38.5	38.5	20.0	34.5		15.0	29.5	
Actuated g/C Ratio	0.43	0.43	0.43	0.32	0.32	0.32	0.17	0.29		0.12	0.25	
v/c Ratio	1.24	0.47	0.43	0.36	0.84	0.43	0.73	0.79		0.86	0.76	
Control Delay	172.3	25.8	3.9	25.7	28.8	4.3	47.7	29.5		85.8	47.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	172.3	25.8	3.9	25.7	28.8	4.3	47.7	29.5		85.8	47.7	
LOS	F	C	A	C	C	A	D	C		F	D	
Approach Delay		46.0			23.1			35.8			56.6	
Approach LOS		D			C			D			E	
90th %ile Green (s)	7.8	52.9	52.9	40.7	40.7	40.7	20.5	32.3		15.5	27.3	
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	7.8	52.9	52.9	40.7	40.7	40.7	20.5	32.3		15.5	27.3	
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
50th %ile Green (s)	7.8	52.9	52.9	40.7	40.7	40.7	20.5	32.3		15.5	27.3	
50th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Hold	Coord		Max	Coord	
30th %ile Green (s)	7.8	50.2	50.2	38.0	38.0	38.0	20.5	35.0		15.5	30.0	
30th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Hold	Coord		Max	Coord	
10th %ile Green (s)	10.4	47.4	47.4	32.6	32.6	32.6	17.9	40.4		12.9	35.4	
10th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Hold	Coord		Gap	Coord	
Stops (vph)	100	422	22	26	368	36	336	591		150	467	
Fuel Used(l)	36	44	12	5	63	13	53	90		19	45	
CO Emissions (g/hr)	667	813	231	98	1179	250	983	1680		347	830	
NOx Emissions (g/hr)	129	157	45	19	227	48	190	324		67	160	
VOC Emissions (g/hr)	154	188	53	23	272	58	227	387		80	191	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~50.0	57.8	0.0	6.2	38.1	4.9	47.6	82.9		42.9	68.1	
Queue Length 95th (m)	#99.4	74.0	16.2	m9.9	m56.4	m14.8	m50.0	m88.0		#80.6	#91.0	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/31/2023

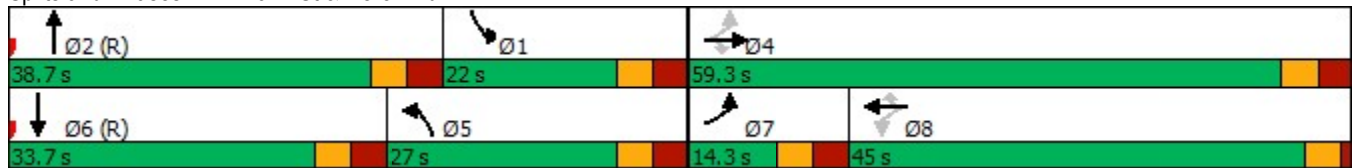


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		357.8			468.5			97.2			250.8	
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	178	1479	807	231	1116	671	550	949		221	790	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.24	0.46	0.42	0.34	0.80	0.42	0.71	0.79		0.83	0.76	

### Intersection Summary






















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 52 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.24  
 Intersection Signal Delay: 38.8      Intersection LOS: D  
 Intersection Capacity Utilization 87.0%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Bank St & Heron Rd



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	678	67	64	994	143	45	275	192	193	267	81
Future Volume (vph)	78	678	67	64	994	143	45	275	192	193	267	81
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.99		0.96		0.78	0.98	0.93				0.99
Frt		0.987				0.850		0.938				0.965
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3216	0	1695	3293	1459	1601	1548	0	1631	1713	0
Flt Permitted	0.950			0.950			0.533			0.103		
Satd. Flow (perm)	1637	3216	0	1621	3293	1141	882	1548	0	177	1713	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				159		29				15
Link Speed (k/h)		50			50			50				50
Link Distance (m)		492.5			657.5			201.9				270.3
Travel Time (s)		35.5			47.3			14.5				19.5
Confl. Peds. (#/hr)	54		37	37		54	21		110	110		21
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 (%)	1%	5%	1%	2%	5%	6%	8%	2%	3%	6%	2%	0%
Adj. Flow (vph)	87	753	74	71	1104	159	50	306	213	214	297	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	827	0	71	1104	159	50	519	0	214	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	13.8	47.1		18.5	51.8	51.8	40.4	40.4		14.0	54.4	
Total Split (%)	11.5%	39.3%		15.4%	43.2%	43.2%	33.7%	33.7%		11.7%	45.3%	
Maximum Green (s)	8.4	41.7		13.1	46.4	46.4	34.5	34.5		9.7	48.5	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	8.4	47.0		10.2	46.4	46.4	34.5	34.5		50.1	48.5	
Actuated g/C Ratio	0.07	0.39		0.08	0.39	0.39	0.29	0.29		0.42	0.40	
v/c Ratio	0.73	0.65		0.49	0.87	0.30	0.20	1.12		1.12	0.55	
Control Delay	73.6	26.0		58.9	45.5	13.3	35.0	115.3		129.3	29.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	73.6	26.0		58.9	45.5	13.3	35.0	115.3		129.3	29.9	
LOS	E	C		E	D	B	C	F		F	C	
Approach Delay		30.5			42.4			108.3			65.3	
Approach LOS		C			D			F			E	
90th %ile Green (s)	8.4	41.7		13.1	46.4	46.4	34.5	34.5		9.7	48.5	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	8.4	42.8		12.0	46.4	46.4	34.5	34.5		9.7	48.5	
70th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
50th %ile Green (s)	8.4	44.4		10.4	46.4	46.4	34.5	34.5		9.7	48.5	
50th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
30th %ile Green (s)	8.4	46.1		8.7	46.4	46.4	34.5	34.5		9.7	48.5	
30th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
10th %ile Green (s)	8.4	60.2		0.0	46.4	46.4	34.5	34.5		9.7	48.5	
10th %ile Term Code	Hold	Coord		Skip	Coord	Coord	MaxR	MaxR		Max	MaxR	
Stops (vph)	65	605		59	932	42	33	373		106	252	
Fuel Used(l)	10	63		8	118	11	3	59		27	23	
CO Emissions (g/hr)	177	1177		153	2191	211	52	1093		494	420	
NOx Emissions (g/hr)	34	227		30	423	41	10	211		95	81	
VOC Emissions (g/hr)	41	271		35	505	49	12	252		114	97	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	15.2	41.7		16.1	140.6	9.8	8.9	~135.4		~43.1	66.2	
Queue Length 95th (m)	m#37.7	75.5		m25.2	m144.8	m19.7	19.6	#201.7		#91.4	96.7	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023

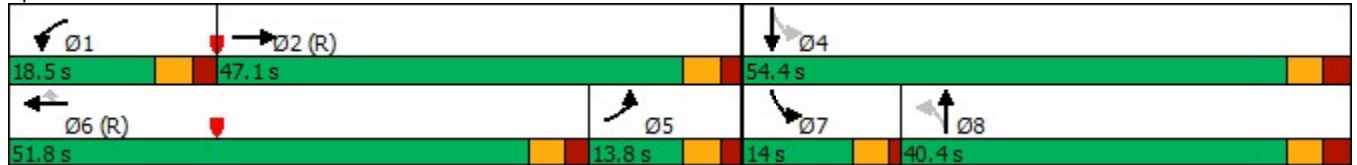


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	119	1266		185	1273	538	253	465		191	701	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.73	0.65		0.38	0.87	0.30	0.20	1.12		1.12	0.55	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.12  
 Intersection Signal Delay: 54.2 Intersection LOS: D  
 Intersection Capacity Utilization 93.8% ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.





















Splits and Phases: 2: Alta Vista Dr & Heron Rd





Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	680	243	30	771	1	359	10	60	47	10	71
Future Volume (vph)	140	680	243	30	771	1	359	10	60	47	10	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	60.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.98		0.99	1.00		0.97	0.98		0.99	0.95	
Frt		0.961						0.871			0.868	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3124	0	1478	3293	0	1647	1529	0	1729	1508	0
Flt Permitted	0.230			0.274			0.558			0.706		
Satd. Flow (perm)	416	3124	0	420	3293	0	937	1529	0	1273	1508	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66						67			79	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		657.5			169.5			216.5			60.0	
Travel Time (s)		47.3			12.2			15.6			4.3	
Confl. Peds. (#/hr)	15		27	27		15	31		8	8		31
Confl. Bikes (#/hr)						1						2
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 (%)	0%	3%	7%	17%	5%	0%	5%	0%	2%	0%	0%	0%
Adj. Flow (vph)	156	756	270	33	857	1	399	11	67	52	11	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	156	1026	0	33	858	0	399	78	0	52	90	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0		5.0	20.0		5.0	20.0	
Minimum Split (s)	9.5	29.7		29.7	29.7		9.5	35.0		9.5	35.0	
Total Split (s)	14.0	70.0		56.0	56.0		15.0	40.4		9.6	35.0	
Total Split (%)	11.7%	58.3%		46.7%	46.7%		12.5%	33.7%		8.0%	29.2%	
Maximum Green (s)	9.5	65.3		51.3	51.3		10.5	34.4		5.1	29.0	
Yellow Time (s)	3.5	3.3		3.3	3.3		3.5	3.3		3.5	3.3	
All-Red Time (s)	1.0	1.4		1.4	1.4		1.0	2.7		1.0	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7		4.7	4.7		4.5	6.0		4.5	6.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)		15.0		15.0	15.0			10.0			10.0	
Flash Dont Walk (s)		10.0		10.0	10.0			19.0			19.0	
Pedestrian Calls (#/hr)		5		5	5			5			5	
Act Effct Green (s)	75.7	75.5		61.8	61.8		35.3	26.1		24.1	21.8	
Actuated g/C Ratio	0.63	0.63		0.52	0.52		0.29	0.22		0.20	0.18	
v/c Ratio	0.43	0.52		0.15	0.51		1.14	0.20		0.19	0.27	
Control Delay	20.5	22.6		21.3	22.0		128.3	11.8		29.9	12.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.5	22.6		21.3	22.0		128.3	11.8		29.9	12.9	
LOS	C	C		C	C		F	B		C	B	
Approach Delay		22.3			22.0			109.2			19.1	
Approach LOS		C			C			F			B	
90th %ile Green (s)	9.5	65.3		51.3	51.3		10.5	34.4		5.1	29.0	
90th %ile Term Code	Max	Coord		Coord	Coord		Max	Hold		Max	Ped	
70th %ile Green (s)	11.1	74.3		58.7	58.7		10.5	25.4		5.1	20.0	
70th %ile Term Code	Gap	Coord		Coord	Coord		Max	Hold		Max	Min	
50th %ile Green (s)	10.0	74.3		59.8	59.8		10.5	25.4		5.1	20.0	
50th %ile Term Code	Gap	Coord		Coord	Coord		Max	Hold		Max	Min	
30th %ile Green (s)	8.8	74.3		61.0	61.0		10.5	25.4		5.1	20.0	
30th %ile Term Code	Gap	Coord		Coord	Coord		Max	Hold		Max	Min	
10th %ile Green (s)	6.7	89.3		78.1	78.1		21.5	20.0		0.0	0.0	
10th %ile Term Code	Gap	Coord		Coord	Coord		Hold	Hold		Skip	Skip	
Stops (vph)	87	764		19	503		275	17		34	18	
Fuel Used(l)	13	91		1	37		58	4		2	2	
CO Emissions (g/hr)	240	1689		26	684		1086	80		39	31	
NOx Emissions (g/hr)	46	326		5	132		210	15		8	6	
VOC Emissions (g/hr)	55	390		6	158		251	18		9	7	
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (m)	20.8	83.5		4.1	69.9		~102.3	2.1		8.8	2.2	
Queue Length 95th (m)	m36.3	m123.7		12.5	101.5		#145.6	13.3		16.2	15.0	

Lanes, Volumes, Timings  
 3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		633.5			145.5			192.5				36.0
Turn Bay Length (m)	43.0			55.0			60.0			30.0		
Base Capacity (vph)	371	1990		216	1695		351	486		275	424	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.42	0.52		0.15	0.51		1.14	0.16		0.19	0.21	

Intersection Summary





















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 37.4 Intersection LOS: D  
 Intersection Capacity Utilization 77.5% ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Baycrest Dr & Heron Rd



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	713	30	20	651	20	81	26	67	13	18	47
Future Volume (vph)	51	713	30	20	651	20	81	26	67	13	18	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		1.00	1.00		0.99	0.99		0.99	0.99	
Frt		0.994			0.996			0.892			0.892	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3302	0	1601	3251	0	1478	1536	0	1729	1601	0
Flt Permitted	0.354			0.321			0.710			0.690		
Satd. Flow (perm)	641	3302	0	538	3251	0	1097	1536	0	1248	1601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			7			74			52	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		144.9			354.9			199.1			258.5	
Travel Time (s)		10.4			25.6			14.3			18.6	
Confl. Peds. (#/hr)	7		7	7		7	5		5	5		5
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 (%)	0%	3%	27%	8%	6%	0%	17%	15%	0%	0%	0%	0%
Adj. Flow (vph)	57	792	33	22	723	22	90	29	74	14	20	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	825	0	22	745	0	90	103	0	14	72	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	63.0	63.0		63.0	63.0		27.0	27.0		27.0		27.0
Total Split (%)	70.0%	70.0%		70.0%	70.0%		30.0%	30.0%		30.0%		30.0%
Maximum Green (s)	57.7	57.7		57.7	57.7		20.9	20.9		20.9		20.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	62.0	62.0		62.0	62.0		16.6	16.6		16.6		16.6
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.18	0.18		0.18		0.18
v/c Ratio	0.13	0.36		0.06	0.33		0.45	0.30		0.06		0.21
Control Delay	5.9	6.4		4.8	5.3		40.2	14.5		30.5		14.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	5.9	6.4		4.8	5.3		40.2	14.5		30.5		14.7
LOS	A	A		A	A		D	B		C		B
Approach Delay		6.3			5.3			26.5				17.3
Approach LOS		A			A			C				B
90th %ile Green (s)	59.8	59.8		59.8	59.8		18.8	18.8		18.8		18.8
90th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold		Hold
70th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
50th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold		Hold
Stops (vph)	17	280		5	194		70	32		12		23
Fuel Used(l)	1	20		1	30		6	4		1		3
CO Emissions (g/hr)	24	374		16	552		104	65		17		53
NOx Emissions (g/hr)	5	72		3	107		20	13		3		10
VOC Emissions (g/hr)	6	86		4	127		24	15		4		12
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	2.8	25.7		0.9	20.3		14.1	4.2		2.0		2.9
Queue Length 95th (m)	7.7	38.8		m3.3	25.3		27.7	17.0		6.9		13.4
Internal Link Dist (m)		120.9			330.9			175.1				234.5

Lanes, Volumes, Timings  
 4: Sandalwood Dr & Heron Rd

10/31/2023

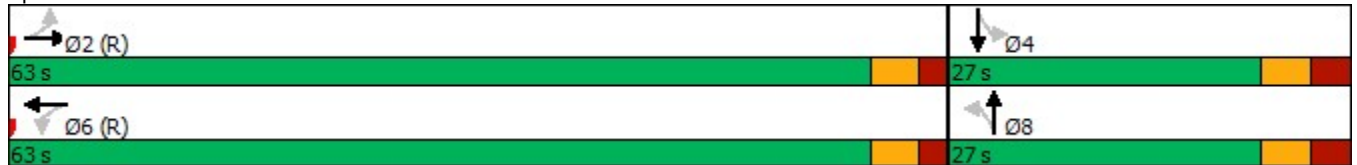


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	441	2279		371	2243		254	413		289	411	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.36		0.06	0.33		0.35	0.25		0.05	0.18	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	8.4
Intersection LOS:	A
Intersection Capacity Utilization	57.7%
ICU Level of Service	B
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: Sandalwood Dr & Heron Rd



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	656	64	21	617	43	36	38	29	28	34	37
Future Volume (vph)	65	656	64	21	617	43	36	38	29	28	34	37
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00	1.00		1.00		0.98		0.99	
Frt			0.850		0.990				0.850		0.950	
Flt Protected	0.950			0.950			0.950				0.986	
Satd. Flow (prot)	1572	3357	1419	1383	3256	0	1679	1820	1381	0	1633	0
Flt Permitted	0.349			0.351			0.721				0.912	
Satd. Flow (perm)	575	3357	1379	510	3256	0	1269	1820	1357	0	1509	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71		13				32			35
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		354.9			465.1			176.5			237.6	
Travel Time (s)		25.6			33.5			12.7			17.1	
Confl. Peds. (#/hr)	6		4	4		6	5		5	5		5
Confl. Bikes (#/hr)			2						1			
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 (%)	10%	3%	9%	25%	5%	4%	3%	0%	12%	4%	0%	7%
Adj. Flow (vph)	72	729	71	23	686	48	40	42	32	31	38	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	729	71	23	734	0	40	42	32	0	110	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1		2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1		30.5
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1		1.8
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0	27.0	
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2	34.2	
Total Split (s)	55.0	55.0	55.0	55.0	55.0		35.0	35.0	35.0	35.0	35.0	
Total Split (%)	61.1%	61.1%	61.1%	61.1%	61.1%		38.9%	38.9%	38.9%	38.9%	38.9%	
Maximum Green (s)	49.4	49.4	49.4	49.4	49.4		28.8	28.8	28.8	28.8	28.8	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2		6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5	5	
Act Effct Green (s)	58.8	58.8	58.8	58.8	58.8		27.2	27.2	27.2		27.2	
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65		0.30	0.30	0.30		0.30	
v/c Ratio	0.19	0.33	0.08	0.07	0.34		0.10	0.08	0.07		0.23	
Control Delay	9.2	7.6	1.7	9.8	10.0		23.5	22.9	8.6		17.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.2	7.6	1.7	9.8	10.0		23.5	22.9	8.6		17.6	
LOS	A	A	A	A	A		C	C	A		B	
Approach Delay		7.2			10.0			19.1			17.6	
Approach LOS		A			A			B			B	
90th %ile Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0	28.0	
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped	Ped	
70th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
50th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
30th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
10th %ile Green (s)	84.4	84.4	84.4	84.4	84.4		0.0	0.0	0.0	0.0	0.0	
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Skip	Skip	Skip	Skip	Skip	
Stops (vph)	20	177	6	11	299		28	28	8		51	
Fuel Used(l)	3	30	2	1	41		2	2	1		5	
CO Emissions (g/hr)	58	556	44	25	762		35	36	16		88	
NOx Emissions (g/hr)	11	107	9	5	147		7	7	3		17	
VOC Emissions (g/hr)	13	128	10	6	176		8	8	4		20	
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0		0	
Queue Length 50th (m)	4.1	22.1	0.2	1.7	33.8		5.0	5.2	0.0		9.5	
Queue Length 95th (m)	8.7	28.8	2.5	5.4	47.0		12.1	12.3	6.2		21.5	



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

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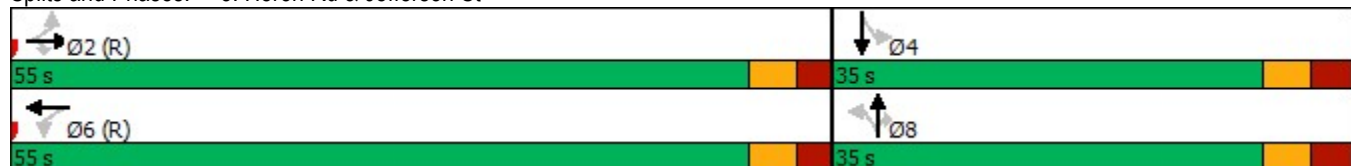


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		330.9			441.1			152.5				213.6
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	375	2191	925	333	2130		406	582	456			506
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	0	0	0		0	0	0			0
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.19	0.33	0.08	0.07	0.34		0.10	0.07	0.07			0.22

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization	81.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

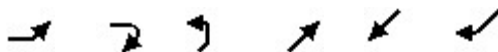
10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	697	16	0	785	656	681
Future Volume (vph)	697	16	0	785	656	681
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.997					0.850
Flt Protected	0.953					
Satd. Flow (prot)	3289	0	0	3390	3390	2669
Flt Permitted	0.953					
Satd. Flow (perm)	3289	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3					757
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	774	18	0	872	729	757
Shared Lane Traffic (%)						
Lane Group Flow (vph)	792	0	0	872	729	757
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	46.0			54.0	54.0	54.0
Total Split (%)	46.0%			54.0%	54.0%	54.0%
Maximum Green (s)	39.3			47.4	47.4	47.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	39.3			47.4	47.4	47.4
Actuated g/C Ratio	0.39			0.47	0.47	0.47
v/c Ratio	0.61			0.54	0.45	0.46
Control Delay	26.7			20.2	18.8	2.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	26.7			20.2	18.8	2.1
LOS	C			C	B	A
Approach Delay	26.7			20.2	10.3	
Approach LOS	C			C	B	
90th %ile Green (s)	39.3			47.4	47.4	47.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	39.3			47.4	47.4	47.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	39.3			47.4	47.4	47.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	39.3			47.4	47.4	47.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	39.3			47.4	47.4	47.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	549			534	420	33
Fuel Used(l)	58			54	41	25
CO Emissions (g/hr)	1087			995	768	467
NOx Emissions (g/hr)	210			192	148	90
VOC Emissions (g/hr)	251			230	177	108
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	61.8			60.7	48.1	0.0
Queue Length 95th (m)	80.8			78.4	63.0	10.1
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1294			1606	1606	1663
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.61			0.54	0.45	0.46

Intersection Summary
































Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	23 (23%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	17.1
Intersection LOS:	B
Intersection Capacity Utilization	55.5%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd















Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  		 	 	
Traffic Volume (vph)	402	421	98	119	431	400	159	1290	175	178	513	260
Future Volume (vph)	402	421	98	119	431	400	159	1290	175	178	513	260
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.99		0.97	0.99	0.98		1.00		0.96	0.99		0.97
Frt			0.850		0.928				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3288	3390	1517	3288	3084	0	1695	4871	1517	3288	3390	1517
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3245	3390	1476	3254	3084	0	1687	4871	1460	3272	3390	1470
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151		172				215			282
Link Speed (k/h)		50			50			50				50
Link Distance (m)		154.1			197.3			245.1				260.6
Travel Time (s)		11.1			14.2			17.6				18.8
Confl. Peds. (#/hr)	26		11	11		26	8		17	17		8
Confl. Bikes (#/hr)			5			2			5			10
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
Adj. Flow (vph)	447	468	109	132	479	444	177	1433	194	198	570	289
Shared Lane Traffic (%)												
Lane Group Flow (vph)	447	468	109	132	923	0	177	1433	194	198	570	289
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	29.0	29.0	7.0	29.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	39.7	39.7	13.8	39.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	23.0	46.6	46.6	16.1	39.7		19.9	43.5	43.5	13.8	37.4	37.4
Total Split (%)	19.2%	38.8%	38.8%	13.4%	33.1%		16.6%	36.3%	36.3%	11.5%	31.2%	31.2%
Maximum Green (s)	16.2	39.9	39.9	9.3	33.0		13.5	37.1	37.1	7.4	31.0	31.0
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	16.2	40.1	40.1	8.8	32.8		13.7	37.1	37.1	7.6	31.0	31.0
Actuated g/C Ratio	0.14	0.33	0.33	0.07	0.27		0.11	0.31	0.31	0.06	0.26	0.26
v/c Ratio	1.01	0.41	0.18	0.55	0.95		0.92	0.95	0.32	0.95	0.65	0.49
Control Delay	96.7	32.3	2.2	62.4	55.0		99.6	55.1	4.4	104.2	56.2	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.7	32.3	2.2	62.4	55.0		99.6	55.1	4.4	104.2	56.2	19.1
LOS	F	C	A	E	D		F	E	A	F	E	B
Approach Delay		57.2			55.9			54.0			55.1	
Approach LOS		E			E			D			E	
90th %ile Green (s)	16.2	39.9	39.9	9.3	33.0		13.5	37.1	37.1	7.4	31.0	31.0
90th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
70th %ile Green (s)	16.2	39.9	39.9	9.3	33.0		13.5	37.1	37.1	7.4	31.0	31.0
70th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
50th %ile Green (s)	16.2	39.9	39.9	9.3	33.0		13.5	37.1	37.1	7.4	31.0	31.0
50th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
30th %ile Green (s)	16.2	40.2	40.2	9.0	33.0		13.5	37.1	37.1	7.4	31.0	31.0
30th %ile Term Code	Max	Hold	Hold	Gap	Max		Max	Coord	Coord	Max	Coord	Coord
10th %ile Green (s)	16.2	40.8	40.8	7.3	31.9		14.5	37.1	37.1	8.5	31.1	31.1
10th %ile Term Code	Max	Hold	Hold	Gap	Gap		Gap	Coord	Coord	Max	Coord	Coord
Stops (vph)	355	317	4	112	636		137	1177	14	155	469	145
Fuel Used(l)	44	24	2	10	65		19	111	5	34	80	31
CO Emissions (g/hr)	814	441	31	194	1209		353	2067	93	634	1483	575
NOx Emissions (g/hr)	157	85	6	38	233		68	399	18	122	286	111
VOC Emissions (g/hr)	188	102	7	45	279		81	477	21	146	342	133
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	~55.5	44.6	0.0	15.6	94.8		42.0	120.7	0.0	25.2	67.5	23.6
Queue Length 95th (m)	#88.6	59.6	5.1	25.8	#136.1		#84.1	#151.5	12.3	m#44.7	86.8	m36.3
Internal Link Dist (m)		130.1			173.3			221.1			236.6	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

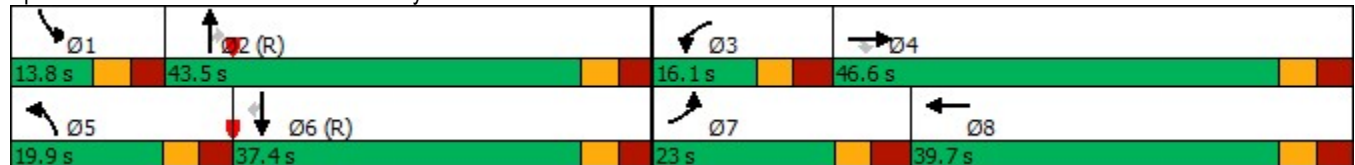


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	443	1134	594	254	972		193	1505	599	208	876	588
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.41	0.18	0.52	0.95		0.92	0.95	0.32	0.95	0.65	0.49

Intersection Summary




















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 79 (66%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 55.3 Intersection LOS: E  
 Intersection Capacity Utilization 93.6% ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Bank St & Walkley Rd



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	553	12	17	497	146	10	22	36	201	11	113
Future Volume (vph)	55	553	12	17	497	146	10	22	36	201	11	113
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	0.99			0.98		0.98	0.98	
Fr <sub>t</sub>		0.997			0.966			0.928			0.863	
Fl <sub>t</sub> Protected	0.950			0.950				0.993		0.950		
Satd. Flow (prot)	1530	3254	0	1530	3145	0	0	1649	0	1586	1540	0
Fl <sub>t</sub> Permitted	0.360			0.404				0.951		0.708		
Satd. Flow (perm)	577	3254	0	645	3145	0	0	1578	0	1162	1540	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			72			40			126	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	9		12	12		9	11		23	23		11
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 (%)	13%	6%	0%	13%	4%	10%	0%	0%	0%	9%	0%	0%
Adj. Flow (vph)	61	614	13	19	552	162	11	24	40	223	12	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	627	0	19	714	0	0	75	0	223	138	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	38.0	38.0		38.0	38.0		32.0	32.0		32.0		32.0
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%		45.7%
Maximum Green (s)	32.1	32.1		32.1	32.1		25.9	25.9		25.9		25.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	39.5	39.5		39.5	39.5			18.5		18.5		18.5
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.26		0.26		0.26
v/c Ratio	0.19	0.34		0.05	0.40			0.17		0.73		0.28
Control Delay	11.7	9.9		9.9	9.5			10.3		36.5		5.7
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	11.7	9.9		9.9	9.5			10.3		36.5		5.7
LOS	B	A		A	A			B		D		A
Approach Delay		10.1			9.5			10.3				24.7
Approach LOS		B			A			B				C
90th %ile Green (s)	32.1	32.1		32.1	32.1		25.9	25.9		25.9		25.9
90th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Max		Max
70th %ile Green (s)	36.0	36.0		36.0	36.0		22.0	22.0		22.0		22.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
50th %ile Green (s)	39.3	39.3		39.3	39.3		18.7	18.7		18.7		18.7
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	42.6	42.6		42.6	42.6		15.4	15.4		15.4		15.4
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
10th %ile Green (s)	47.6	47.6		47.6	47.6		10.4	10.4		10.4		10.4
10th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
Stops (vph)	30	295		10	316			26		173		23
Fuel Used(l)	3	30		1	30			2		19		7
CO Emissions (g/hr)	57	562		16	565			30		352		128
NOx Emissions (g/hr)	11	109		3	109			6		68		25
VOC Emissions (g/hr)	13	130		4	130			7		81		29
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	3.6	21.1		1.0	22.2			3.4		26.4		1.2
Queue Length 95th (m)	12.2	39.3		4.7	42.2			10.3		41.8		10.8
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	325	1838		364	1807			609		429	649	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.19	0.34		0.05	0.40			0.12		0.52	0.21	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	17 (24%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization	62.0%
ICU Level of Service	B
Analysis Period (min)	15

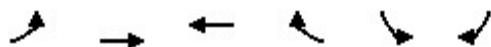
Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

29: Heron Rd

10/31/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (vph)	0	786	734	47	0	69
Future Volume (vph)	0	786	734	47	0	69
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.991			0.865
Flt Protected						
Satd. Flow (prot)	0	3390	3360	0	0	1543
Flt Permitted						
Satd. Flow (perm)	0	3390	3360	0	0	1543
Link Speed (k/h)		50	50		50	
Link Distance (m)		169.5	144.9		73.5	
Travel Time (s)		12.2	10.4		5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	873	816	52	0	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	873	868	0	0	77
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

























Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.2%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	901	447	80	869	223	462	693	75	224	837	178
Future Volume (vph)	238	901	447	80	869	223	462	693	75	224	837	178
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.97	1.00		0.97	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.985			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3357	1446	1662	3293	1473	3225	3262	0	1712	3154	0
Flt Permitted	0.093			0.116			0.950			0.950		
Satd. Flow (perm)	168	3357	1402	202	3293	1436	3205	3262	0	1696	3154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			332			197		8			21	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	8		13	13		8	12		20	20		12
Confl. Bikes (#/hr)			1			3			3			9
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 (%)	1%	3%	7%	4%	5%	5%	4%	3%	13%	1%	7%	2%
Adj. Flow (vph)	264	1001	497	89	966	248	513	770	83	249	930	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	1001	497	89	966	248	513	853	0	249	1128	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023

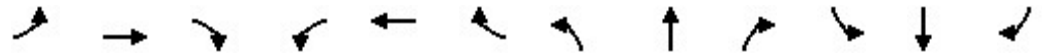


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	5.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	9.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	16.0	49.5	49.5	9.5	43.0	43.0	22.0	38.8		32.2	49.0	
Total Split (%)	12.3%	38.1%	38.1%	7.3%	33.1%	33.1%	16.9%	29.8%		24.8%	37.7%	
Maximum Green (s)	9.5	43.1	43.1	5.0	38.7	38.7	15.5	32.4		25.7	42.6	
Yellow Time (s)	3.3	3.3	3.3	3.5	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.5	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0		21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5		5	5		5			5	
Act Effct Green (s)	52.5	43.1	43.1	43.5	38.7	38.7	15.5	35.4		22.7	42.6	
Actuated g/C Ratio	0.40	0.33	0.33	0.33	0.30	0.30	0.12	0.27		0.17	0.33	
v/c Ratio	1.47	0.90	0.72	0.72	0.99	0.44	1.34	0.95		0.84	1.08	
Control Delay	264.1	53.3	18.9	46.2	44.4	3.2	203.3	57.8		75.0	92.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	264.1	53.3	18.9	46.2	44.4	3.2	203.3	57.8		75.0	92.0	
LOS	F	D	B	D	D	A	F	E		E	F	
Approach Delay		75.2			36.7			112.5			88.9	
Approach LOS		E			D			F			F	
90th %ile Green (s)	9.5	43.1	43.1	5.0	38.7	38.7	15.5	32.4		25.7	42.6	
90th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	9.5	43.1	43.1	5.0	38.7	38.7	15.5	32.4		25.7	42.6	
70th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
50th %ile Green (s)	9.5	43.1	43.1	5.0	38.7	38.7	15.5	33.8		24.3	42.6	
50th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Gap	Coord	
30th %ile Green (s)	9.5	43.1	43.1	5.0	38.7	38.7	15.5	37.0		21.1	42.6	
30th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Gap	Coord	
10th %ile Green (s)	9.5	43.1	43.1	5.0	38.7	38.7	15.5	41.6		16.5	42.6	
10th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Gap	Coord	
Stops (vph)	124	815	153	47	800	54	367	670		211	878	
Fuel Used(l)	60	88	26	8	88	12	123	120		23	118	
CO Emissions (g/hr)	1112	1636	486	142	1642	227	2285	2224		437	2195	
NOx Emissions (g/hr)	215	316	94	27	317	44	441	429		84	424	
VOC Emissions (g/hr)	256	377	112	33	379	52	527	513		101	506	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~77.9	128.3	37.3	6.9	133.8	9.6	~90.5	~117.4		61.3	~167.5	
Queue Length 95th (m)	#132.5	#165.6	81.1	m11.7	m#152.5	m9.1	m#103.3	m#135.5		#94.6	#209.9	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		357.8			468.5			97.2			250.8	
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	180	1112	686	123	980	565	384	895		338	1047	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.47	0.90	0.72	0.72	0.99	0.44	1.34	0.95		0.74	1.08	

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.47

Intersection Signal Delay: 78.6

Intersection LOS: E

Intersection Capacity Utilization 103.6%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

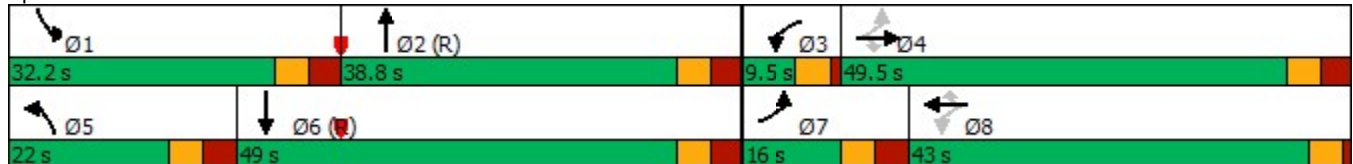
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Bank St & Heron Rd



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	202	927	74	77	886	155	89	226	61	178	449	198
Future Volume (vph)	202	927	74	77	886	155	89	226	61	178	449	198
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.99		0.97		0.77		0.96		0.93	0.99	
Frt		0.989				0.850		0.968			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3226	0	1695	3293	1459	1601	1655	0	1631	1689	0
Flt Permitted	0.950			0.950			0.132			0.243		
Satd. Flow (perm)	1616	3226	0	1641	3293	1116	222	1655	0	389	1689	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				172		10			20	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		492.5			657.5			201.9			270.3	
Travel Time (s)		35.5			47.3			14.5			19.5	
Confl. Peds. (#/hr)	54		37	37		54	21		110	110		21
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 (%)	1%	5%	1%	2%	5%	6%	8%	2%	3%	6%	2%	0%
Adj. Flow (vph)	224	1030	82	86	984	172	99	251	68	198	499	220
Shared Lane Traffic (%)												
Lane Group Flow (vph)	224	1112	0	86	984	172	99	319	0	198	719	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	18.6	59.0		16.0	56.4	56.4	35.0	35.0		20.0	55.0	
Total Split (%)	14.3%	45.4%		12.3%	43.4%	43.4%	26.9%	26.9%		15.4%	42.3%	
Maximum Green (s)	13.2	53.6		10.6	51.0	51.0	29.1	29.1		15.7	49.1	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	13.2	54.3		9.9	51.0	51.0	30.4	30.4		50.7	49.1	
Actuated g/C Ratio	0.10	0.42		0.08	0.39	0.39	0.23	0.23		0.39	0.38	
v/c Ratio	1.29	0.82		0.67	0.76	0.32	1.94	0.81		0.69	1.11	
Control Delay	186.9	44.8		83.0	39.0	5.3	508.4	62.8		40.7	105.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	186.9	44.8		83.0	39.0	5.3	508.4	62.8		40.7	105.3	
LOS	F	D		F	D	A	F	E		D	F	
Approach Delay		68.7			37.4			168.3			91.3	
Approach LOS		E			D			F			F	
90th %ile Green (s)	13.2	53.6		10.6	51.0	51.0	29.1	29.1		15.7	49.1	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	13.2	53.6		10.6	51.0	51.0	29.1	29.1		15.7	49.1	
70th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
50th %ile Green (s)	13.2	53.6		10.6	51.0	51.0	29.1	29.1		15.7	49.1	
50th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
30th %ile Green (s)	13.2	54.0		10.2	51.0	51.0	30.8	30.8		14.0	49.1	
30th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Gap	MaxR	
10th %ile Green (s)	13.2	56.8		7.4	51.0	51.0	34.0	34.0		10.8	49.1	
10th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Gap	MaxR	
Stops (vph)	158	975		72	750	15	55	250		122	538	
Fuel Used(l)	42	103		11	99	11	38	25		13	81	
CO Emissions (g/hr)	782	1920		211	1836	198	702	464		240	1508	
NOx Emissions (g/hr)	151	371		41	354	38	136	90		46	291	
VOC Emissions (g/hr)	180	443		49	424	46	162	107		55	348	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	~74.9	153.4		21.7	113.8	0.0	~39.5	76.6		34.9	~206.8	
Queue Length 95th (m)	m#94.9	m172.0		#42.5	139.5	14.2	#75.7	#124.9		54.2	#280.8	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	173	1352		138	1291	542	51	395		301	650	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.29	0.82		0.62	0.76	0.32	1.94	0.81		0.66	1.11	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	6 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle:	120
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.94
Intersection Signal Delay:	74.7
Intersection LOS:	E
Intersection Capacity Utilization	103.1%
ICU Level of Service	G
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Alta Vista Dr & Heron Rd



Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	710	257	43	806	1	252	10	57	41	9	60
Future Volume (vph)	122	710	257	43	806	1	252	10	57	41	9	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	60.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.98		0.99	1.00		0.97	0.98		0.99	0.96	
Frt		0.960						0.872			0.869	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3119	0	1478	3293	0	1647	1532	0	1729	1511	0
Flt Permitted	0.280			0.221			0.707			0.709		
Satd. Flow (perm)	505	3119	0	340	3293	0	1183	1532	0	1279	1511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		93						63				67
Link Speed (k/h)		50			50			50				50
Link Distance (m)		657.5			172.8			216.5				60.0
Travel Time (s)		47.3			12.4			15.6				4.3
Confl. Peds. (#/hr)	15		27	27		15	31		8	8		31
Confl. Bikes (#/hr)						1						2
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 (%)	0%	3%	7%	17%	5%	0%	5%	0%	2%	0%	0%	0%
Adj. Flow (vph)	136	789	286	48	896	1	280	11	63	46	10	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	1075	0	48	897	0	280	74	0	46	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	29.7	29.7		29.7	29.7		35.0	35.0		35.0	35.0	
Total Split (s)	85.0	85.0		85.0	85.0		35.0	35.0		35.0	35.0	
Total Split (%)	70.8%	70.8%		70.8%	70.8%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	80.3	80.3		80.3	80.3		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	1.4	1.4		1.4	1.4		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	10.0	10.0		10.0	10.0		19.0	19.0		19.0	19.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)	80.3	80.3		80.3	80.3		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.67	0.67		0.67	0.67		0.24	0.24		0.24	0.24	
v/c Ratio	0.40	0.51		0.21	0.41		0.98	0.18		0.15	0.19	
Control Delay	13.4	9.9		10.5	9.7		95.0	12.4		37.5	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.4	9.9		10.5	9.7		95.0	12.4		37.5	11.9	
LOS	B	A		B	A		F	B		D	B	
Approach Delay		10.3			9.7			77.7			21.5	
Approach LOS		B			A			E			C	
90th %ile Green (s)	80.3	80.3		80.3	80.3		29.0	29.0		29.0	29.0	
90th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Ped	Ped	
70th %ile Green (s)	80.3	80.3		80.3	80.3		29.0	29.0		29.0	29.0	
70th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
50th %ile Green (s)	80.3	80.3		80.3	80.3		29.0	29.0		29.0	29.0	
50th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
30th %ile Green (s)	80.3	80.3		80.3	80.3		29.0	29.0		29.0	29.0	
30th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
10th %ile Green (s)	80.3	80.3		80.3	80.3		29.0	29.0		29.0	29.0	
10th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold	Hold	
Stops (vph)	57	419		16	345		215	16		32	15	
Fuel Used(l)	10	77		1	27		35	4		2	1	
CO Emissions (g/hr)	189	1437		26	502		652	77		40	25	
NOx Emissions (g/hr)	36	277		5	97		126	15		8	5	
VOC Emissions (g/hr)	44	331		6	116		150	18		9	6	
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (m)	13.3	55.2		4.0	46.2		65.9	2.0		8.6	1.8	
Queue Length 95th (m)	27.1	69.5		10.0	57.6		#120.1	14.0		18.6	13.8	

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023

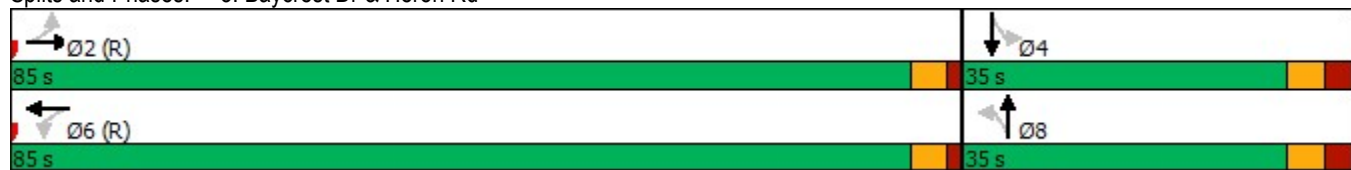


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		633.5			148.8			192.5			36.0	
Turn Bay Length (m)	43.0			55.0			60.0			30.0		
Base Capacity (vph)	337	2117		227	2203		285	418		309	415	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.51		0.21	0.41		0.98	0.18		0.15	0.19	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 19.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 73.3%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Baycrest Dr & Heron Rd



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	673	60	63	776	14	43	20	46	11	28	55
Future Volume (vph)	59	673	60	63	776	14	43	20	46	11	28	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99	0.99		0.99	0.99	
Frt		0.988			0.997			0.895				0.901
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3245	0	1601	3254	0	1478	1537	0	1729	1619	0
Flt Permitted	0.308			0.332			0.697			0.709		
Satd. Flow (perm)	558	3245	0	557	3254	0	1077	1537	0	1282	1619	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			4			51				61
Link Speed (k/h)		50			50			50				50
Link Distance (m)		141.6			354.9			199.1				258.5
Travel Time (s)		10.2			25.6			14.3				18.6
Confl. Peds. (#/hr)	7		7	7		7	5		5	5		5
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 (%)	0%	3%	27%	8%	6%	0%	17%	15%	0%	0%	0%	0%
Adj. Flow (vph)	66	748	67	70	862	16	48	22	51	12	31	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	815	0	70	878	0	48	73	0	12	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	65.9	65.9		65.9	65.9		24.1	24.1		24.1		24.1
Total Split (%)	73.2%	73.2%		73.2%	73.2%		26.8%	26.8%		26.8%		26.8%
Maximum Green (s)	60.6	60.6		60.6	60.6		18.0	18.0		18.0		18.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	67.7	67.7		67.7	67.7		16.4	16.4		16.4		16.4
Actuated g/C Ratio	0.75	0.75		0.75	0.75		0.18	0.18		0.18		0.18
v/c Ratio	0.16	0.33		0.17	0.36		0.24	0.23		0.05		0.27
Control Delay	6.2	5.4		13.0	13.3		34.9	15.4		30.7		15.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	6.2	5.4		13.0	13.3		34.9	15.4		30.7		15.7
LOS	A	A		B	B		C	B		C		B
Approach Delay		5.4			13.3			23.2				17.4
Approach LOS		A			B			C				B
90th %ile Green (s)	60.6	60.6		60.6	60.6		18.0	18.0		18.0		18.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
50th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	84.7	84.7		84.7	84.7		0.0	0.0		0.0		0.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Skip	Skip		Skip		Skip
Stops (vph)	20	235		43	525		38	24		11		30
Fuel Used(l)	2	18		4	47		3	3		1		4
CO Emissions (g/hr)	28	338		69	865		52	48		14		69
NOx Emissions (g/hr)	5	65		13	167		10	9		3		13
VOC Emissions (g/hr)	7	78		16	200		12	11		3		16
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	3.4	25.0		8.1	62.2		7.2	3.2		1.7		4.5
Queue Length 95th (m)	8.9	36.6		19.3	83.7		16.7	14.1		6.2		16.8
Internal Link Dist (m)		117.6			330.9			175.1				234.5

Lanes, Volumes, Timings  
 4: Sandalwood Dr & Heron Rd

10/31/2023

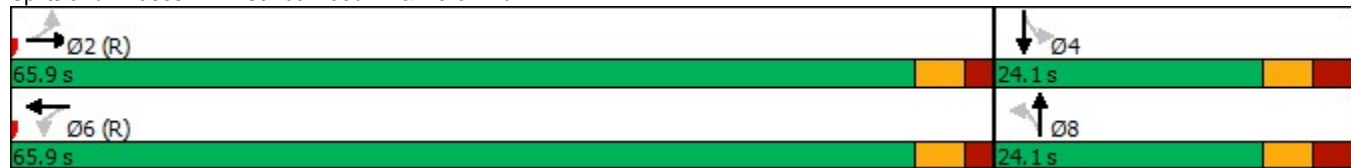


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	419	2446		419	2448		215	348		256	372	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.16	0.33		0.17	0.36		0.22	0.21		0.05	0.25	

Intersection Summary























Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	60 (67%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	10.7
Intersection LOS:	B
Intersection Capacity Utilization	59.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 4: Sandalwood Dr & Heron Rd



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	567	102	40	738	48	58	61	78	36	41	55
Future Volume (vph)	59	567	102	40	738	48	58	61	78	36	41	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00	1.00		1.00		0.98		0.99	
Frt			0.850		0.991				0.850			0.944
Flt Protected	0.950			0.950			0.950					0.987
Satd. Flow (prot)	1572	3357	1419	1383	3260	0	1679	1820	1381	0	1619	0
Flt Permitted	0.276			0.387			0.671				0.907	
Satd. Flow (perm)	455	3357	1379	562	3260	0	1181	1820	1357	0	1486	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			113		12				87			41
Link Speed (k/h)		50			50			50				50
Link Distance (m)		354.9			465.1			176.5				237.6
Travel Time (s)		25.6			33.5			12.7				17.1
Confl. Peds. (#/hr)	6		4	4		6	5		5	5		5
Confl. Bikes (#/hr)			2						1			
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 (%)	10%	3%	9%	25%	5%	4%	3%	0%	12%	4%	0%	7%
Adj. Flow (vph)	66	630	113	44	820	53	64	68	87	40	46	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	630	113	44	873	0	64	68	87	0	147	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1		2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1		30.5
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1		1.8
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0	27.0	
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2	34.2	
Total Split (s)	55.8	55.8	55.8	55.8	55.8		34.2	34.2	34.2	34.2	34.2	
Total Split (%)	62.0%	62.0%	62.0%	62.0%	62.0%		38.0%	38.0%	38.0%	38.0%	38.0%	
Maximum Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0	28.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2		6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5	5	
Act Effct Green (s)	51.0	51.0	51.0	51.0	51.0		27.2	27.2	27.2		27.2	
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57		0.30	0.30	0.30		0.30	
v/c Ratio	0.26	0.33	0.14	0.14	0.47		0.18	0.12	0.18		0.31	
Control Delay	11.2	9.2	3.6	10.7	12.4		24.8	23.5	6.4		19.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	11.2	9.2	3.6	10.7	12.4		24.8	23.5	6.4		19.2	
LOS	B	A	A	B	B		C	C	A		B	
Approach Delay		8.6			12.4			17.1			19.2	
Approach LOS		A			B			B			B	
90th %ile Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0	28.0	
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped	Ped	
70th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
50th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
30th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
10th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Hold	Hold	Hold	Min	Min	
Stops (vph)	36	320	29	20	433		42	42	13		71	
Fuel Used(l)	3	30	4	3	52		3	3	2		7	
CO Emissions (g/hr)	61	564	81	47	967		56	57	37		121	
NOx Emissions (g/hr)	12	109	16	9	187		11	11	7		23	
VOC Emissions (g/hr)	14	130	19	11	223		13	13	9		28	
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0		0	
Queue Length 50th (m)	6.2	32.8	2.4	3.3	42.6		8.2	8.5	0.0		13.7	
Queue Length 95th (m)	16.2	46.6	12.7	8.9	58.4		17.6	17.8	9.9		28.4	

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023

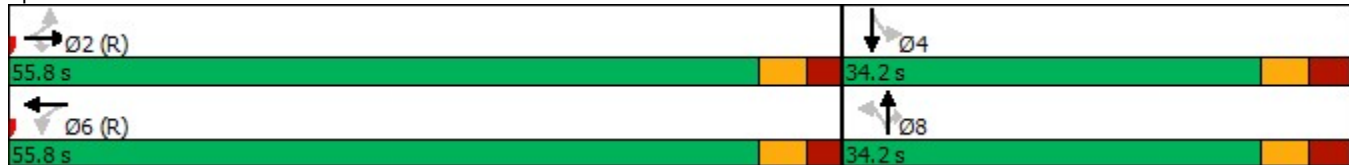


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		330.9			441.1			152.5				213.6
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	257	1902	830	318	1852		367	566	482			490
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	0	0	0		0	0	0			0
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.26	0.33	0.14	0.14	0.47		0.17	0.12	0.18			0.30

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	11.9
Intersection LOS:	B
Intersection Capacity Utilization	81.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	665	16	0	910	1078	826
Future Volume (vph)	665	16	0	910	1078	826
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.996					0.850
Flt Protected	0.953					
Satd. Flow (prot)	3286	0	0	3390	3390	2669
Flt Permitted	0.953					
Satd. Flow (perm)	3286	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3					906
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	739	18	0	1011	1198	918
Shared Lane Traffic (%)						
Lane Group Flow (vph)	757	0	0	1011	1198	918
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	57.0			53.0	53.0	53.0
Total Split (%)	51.8%			48.2%	48.2%	48.2%
Maximum Green (s)	50.3			46.4	46.4	46.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	50.3			46.4	46.4	46.4
Actuated g/C Ratio	0.46			0.42	0.42	0.42
v/c Ratio	0.50			0.71	0.84	0.56
Control Delay	22.4			29.6	35.0	2.9
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	22.4			29.6	35.0	2.9
LOS	C			C	C	A
Approach Delay	22.4			29.6	21.1	
Approach LOS	C			C	C	
90th %ile Green (s)	50.3			46.4	46.4	46.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	50.3			46.4	46.4	46.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	50.3			46.4	46.4	46.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	50.3			46.4	46.4	46.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	50.3			46.4	46.4	46.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	461			726	931	48
Fuel Used(l)	52			71	87	31
CO Emissions (g/hr)	970			1320	1613	580
NOx Emissions (g/hr)	187			255	311	112
VOC Emissions (g/hr)	224			304	372	134
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	57.1			92.2	118.6	0.8
Queue Length 95th (m)	73.7			115.7	147.6	13.1
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1504			1429	1429	1649
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023

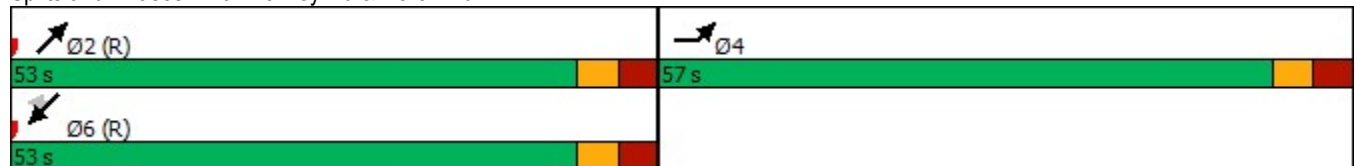


Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.50			0.71	0.84	0.56

Intersection Summary
































Area Type:	Other
Cycle Length:	110
Actuated Cycle Length:	110
Offset:	53 (48%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	23.5
Intersection LOS:	C
Intersection Capacity Utilization	63.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  		 	 	
Traffic Volume (vph)	306	455	256	282	556	276	207	810	247	285	1221	535
Future Volume (vph)	306	455	256	282	556	276	207	810	247	285	1221	535
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.99		0.97	0.99	0.99		1.00		0.96	0.99		0.97
Frt			0.850		0.950				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3288	3390	1517	3288	3174	0	1695	4871	1517	3288	3390	1517
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3242	3390	1473	3253	3174	0	1692	4871	1457	3250	3390	1472
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			245		63				248			228
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		154.1			197.3			245.1			260.6	
Travel Time (s)		11.1			14.2			17.6			18.8	
Confl. Peds. (#/hr)	26		11	11		26	8		17	17		8
Confl. Bikes (#/hr)			5			2			5			10
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
Adj. Flow (vph)	340	506	284	313	618	307	230	900	274	317	1357	594
Shared Lane Traffic (%)												
Lane Group Flow (vph)	340	506	284	313	925	0	230	900	274	317	1357	594
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	29.0	29.0	7.0	29.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	39.7	39.7	13.8	39.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	18.0	40.7	40.7	17.0	39.7		21.0	47.6	47.6	24.7	51.3	51.3
Total Split (%)	13.8%	31.3%	31.3%	13.1%	30.5%		16.2%	36.6%	36.6%	19.0%	39.5%	39.5%
Maximum Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.2	41.2	18.3	44.9	44.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	42.9	42.9	16.6	44.9	44.9
Actuated g/C Ratio	0.09	0.26	0.26	0.08	0.25		0.11	0.33	0.33	0.13	0.35	0.35
v/c Ratio	1.20	0.57	0.50	1.22	1.09		1.21	0.56	0.42	0.75	1.16	0.90
Control Delay	168.8	44.7	10.8	177.1	99.1		181.3	37.7	7.8	57.3	124.3	47.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.8	44.7	10.8	177.1	99.1		181.3	37.7	7.8	57.3	124.3	47.3
LOS	F	D	B	F	F		F	D	A	E	F	D
Approach Delay		73.5			118.8			55.4			94.8	
Approach LOS		E			F			E			F	
90th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.2	41.2	18.3	44.9	44.9
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Coord	Coord	Max	Coord	Coord
70th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.2	41.2	18.3	44.9	44.9
70th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
50th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	41.8	41.8	17.7	44.9	44.9
50th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
30th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	43.7	43.7	15.8	44.9	44.9
30th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
10th %ile Green (s)	11.2	34.0	34.0	10.2	33.0		14.6	46.4	46.4	13.1	44.9	44.9
10th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
Stops (vph)	248	387	44	226	685		165	651	34	274	1061	361
Fuel Used(l)	50	31	7	49	94		37	57	8	45	252	77
CO Emissions (g/hr)	926	576	128	907	1756		696	1060	149	834	4695	1425
NOx Emissions (g/hr)	179	111	25	175	339		134	205	29	161	906	275
VOC Emissions (g/hr)	214	133	29	209	405		160	244	34	192	1083	329
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	~54.4	59.5	7.6	~50.4	~133.2		~71.8	70.1	4.6	41.9	~220.1	111.9
Queue Length 95th (m)	#84.5	77.5	32.4	#79.5	#174.1		#122.3	85.1	25.7	m49.8	m#234.5	m133.7
Internal Link Dist (m)		130.1			173.3			221.1			236.6	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	283	886	566	257	852		190	1605	646	462	1170	657
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.57	0.50	1.22	1.09		1.21	0.56	0.42	0.69	1.16	0.90

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 145  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 86.6      Intersection LOS: F  
 Intersection Capacity Utilization 105.9%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.




















Splits and Phases: 7: Bank St & Walkley Rd





Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	700	28	46	881	226	16	18	36	150	28	84
Future Volume (vph)	97	700	28	46	881	226	16	18	36	150	28	84
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	0.99			0.98		0.98	0.98	
Fr <sub>t</sub>		0.994			0.969			0.931			0.887	
Fl <sub>t</sub> Protected	0.950			0.950				0.989		0.950		
Satd. Flow (prot)	1530	3244	0	1530	3160	0	0	1647	0	1586	1587	0
Fl <sub>t</sub> Permitted	0.181			0.325				0.914		0.706		
Satd. Flow (perm)	291	3244	0	520	3160	0	0	1519	0	1155	1587	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			62			40			93	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	9		12	12		9	11		23	23		11
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 (%)	13%	6%	0%	13%	4%	10%	0%	0%	0%	9%	0%	0%
Adj. Flow (vph)	108	778	31	51	979	251	18	20	40	167	31	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	809	0	51	1230	0	0	78	0	167	124	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	48.9	48.9		48.9	48.9		31.1	31.1		31.1		31.1
Total Split (%)	61.1%	61.1%		61.1%	61.1%		38.9%	38.9%		38.9%		38.9%
Maximum Green (s)	43.0	43.0		43.0	43.0		25.0	25.0		25.0		25.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	50.9	50.9		50.9	50.9			17.1		17.1		17.1
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.21		0.21		0.21
v/c Ratio	0.58	0.39		0.15	0.61			0.22		0.68		0.30
Control Delay	28.6	8.6		9.3	10.8			14.6		41.9		10.1
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	28.6	8.6		9.3	10.8			14.6		41.9		10.1
LOS	C	A		A	B			B		D		B
Approach Delay		10.9			10.7			14.6				28.3
Approach LOS		B			B			B				C
90th %ile Green (s)	43.0	43.0		43.0	43.0		25.0	25.0		25.0		25.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Ped		Ped
70th %ile Green (s)	48.1	48.1		48.1	48.1		19.9	19.9		19.9		19.9
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
50th %ile Green (s)	51.2	51.2		51.2	51.2		16.8	16.8		16.8		16.8
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	54.3	54.3		54.3	54.3		13.7	13.7		13.7		13.7
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
10th %ile Green (s)	58.0	58.0		58.0	58.0		10.0	10.0		10.0		10.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Min		Min
Stops (vph)	61	337		22	610			30		131		32
Fuel Used(l)	7	37		2	55			2		15		7
CO Emissions (g/hr)	127	693		40	1020			36		275		127
NOx Emissions (g/hr)	24	134		8	197			7		53		25
VOC Emissions (g/hr)	29	160		9	235			8		63		29
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	8.3	26.9		2.7	47.8			4.7		23.6		3.8
Queue Length 95th (m)	#39.4	50.1		9.9	88.2			13.2		38.1		14.5
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	185	2067		330	2033			502		360	559	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.58	0.39		0.15	0.61			0.16		0.46	0.22	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	12.9
Intersection LOS:	B
Intersection Capacity Utilization	73.9%
ICU Level of Service	D
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

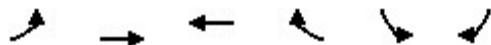
Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

29: Heron Rd

10/31/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (vph)	0	808	793	41	0	58
Future Volume (vph)	0	808	793	41	0	58
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.993			0.865
Flt Protected						
Satd. Flow (prot)	0	3390	3366	0	0	1543
Flt Permitted						
Satd. Flow (perm)	0	3390	3366	0	0	1543
Link Speed (k/h)		50	50		50	
Link Distance (m)		172.8	141.6		61.9	
Travel Time (s)		12.4	10.2		4.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	898	881	46	0	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	898	927	0	0	64
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

























Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.0%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	656	315	72	899	274	367	653	48	176	430	135
Future Volume (vph)	207	656	315	72	899	274	367	653	48	176	430	135
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.97	0.99		0.98	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.990			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3357	1446	1662	3293	1473	3225	3293	0	1712	3123	0
Flt Permitted	0.088			0.375			0.950			0.950		
Satd. Flow (perm)	159	3357	1404	652	3293	1438	3188	3293	0	1696	3123	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			350			271		6			32	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	8		13	13		8	12		20	20		12
Confl. Bikes (#/hr)			1			3			3			9
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 (%)	1%	3%	7%	4%	5%	5%	4%	3%	13%	1%	7%	2%
Adj. Flow (vph)	230	729	350	80	999	304	408	726	53	196	478	150
Shared Lane Traffic (%)												
Lane Group Flow (vph)	230	729	350	80	999	304	408	779	0	196	628	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023

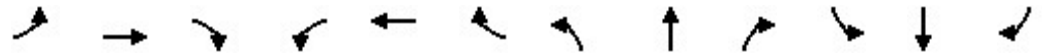


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	32.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	13.5	59.5	59.5	46.0	46.0	46.0	26.0	38.5		22.0	34.5	
Total Split (%)	11.3%	49.6%	49.6%	38.3%	38.3%	38.3%	21.7%	32.1%		18.3%	28.8%	
Maximum Green (s)	7.0	53.1	53.1	41.7	41.7	41.7	19.5	32.1		15.5	28.1	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.3	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0	21.0	21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5	5	5	5		5			5	
Act Effct Green (s)	52.1	52.2	52.2	40.8	40.8	40.8	18.5	33.2		15.3	30.0	
Actuated g/C Ratio	0.43	0.44	0.44	0.34	0.34	0.34	0.15	0.28		0.13	0.25	
v/c Ratio	1.45	0.50	0.43	0.36	0.89	0.46	0.82	0.85		0.90	0.78	
Control Delay	257.0	25.7	3.9	53.4	66.1	28.7	50.4	28.2		91.7	48.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	257.0	25.7	3.9	53.4	66.1	28.7	50.4	28.2		91.7	48.1	
LOS	F	C	A	D	E	C	D	C		F	D	
Approach Delay		60.5			57.1			35.8			58.5	
Approach LOS		E			E			D			E	
90th %ile Green (s)	7.0	53.1	53.1	41.7	41.7	41.7	19.5	32.1		15.5	28.1	
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	7.0	53.1	53.1	41.7	41.7	41.7	19.5	32.1		15.5	28.1	
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
50th %ile Green (s)	7.0	53.1	53.1	41.7	41.7	41.7	19.5	32.1		15.5	28.1	
50th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
30th %ile Green (s)	7.0	53.1	53.1	41.7	41.7	41.7	18.4	32.1		15.5	29.2	
30th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Gap	Coord		Max	Coord	
10th %ile Green (s)	7.0	48.7	48.7	37.3	37.3	37.3	15.4	37.6		14.4	36.6	
10th %ile Term Code	Max	Hold	Hold	Gap	Gap	Gap	Gap	Coord		Gap	Coord	
Stops (vph)	100	455	23	71	886	200	310	603		155	485	
Fuel Used(l)	51	47	13	8	108	23	55	93		20	47	
CO Emissions (g/hr)	943	874	240	147	2002	434	1019	1729		381	866	
NOx Emissions (g/hr)	182	169	46	28	386	84	197	334		74	167	
VOC Emissions (g/hr)	217	202	55	34	462	100	235	399		88	200	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~58.5	63.0	0.0	19.9	133.3	45.4	40.5	85.5		46.0	70.9	
Queue Length 95th (m)	#108.3	80.0	16.4	m22.9	m147.5	m50.0	m39.8	m83.3		#87.9	#95.4	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/31/2023

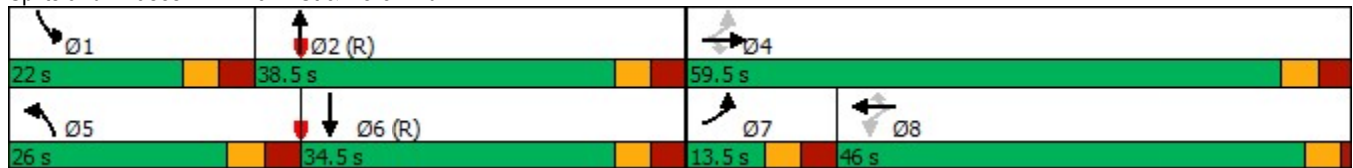


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		357.8			468.5			97.2			250.8	
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	159	1485	816	226	1144	676	524	915		221	805	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.45	0.49	0.43	0.35	0.87	0.45	0.78	0.85		0.89	0.78	

### Intersection Summary

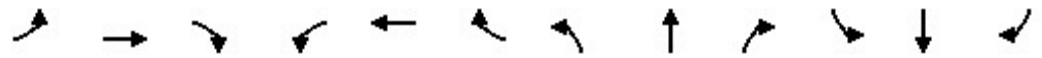
Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 52 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.45  
 Intersection Signal Delay: 52.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 90.8%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Bank St & Heron Rd



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	728	70	67	1113	146	46	286	200	198	278	85
Future Volume (vph)	81	728	70	67	1113	146	46	286	200	198	278	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.99		0.96		0.78	0.98	0.93				0.99
Frt		0.987				0.850		0.938				0.965
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3217	0	1695	3293	1459	1601	1548	0	1631	1712	0
Flt Permitted	0.950			0.950			0.487			0.107		
Satd. Flow (perm)	1650	3217	0	1626	3293	1141	807	1548	0	184	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				155		29				15
Link Speed (k/h)		50			50			50				50
Link Distance (m)		492.5			657.5			201.9				270.3
Travel Time (s)		35.5			47.3			14.5				19.5
Confl. Peds. (#/hr)	54		37	37		54	21		110	110		21
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 (%)	1%	5%	1%	2%	5%	6%	8%	2%	3%	6%	2%	0%
Adj. Flow (vph)	90	809	78	74	1237	162	51	318	222	220	309	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	887	0	74	1237	162	51	540	0	220	403	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0



Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	13.0	49.4		18.6	55.0	55.0	39.0	39.0		13.0	52.0	
Total Split (%)	10.8%	41.2%		15.5%	45.8%	45.8%	32.5%	32.5%		10.8%	43.3%	
Maximum Green (s)	7.6	44.0		13.2	49.6	49.6	33.1	33.1		8.7	46.1	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	7.6	49.3		10.4	49.6	49.6	33.1	33.1		47.7	46.1	
Actuated g/C Ratio	0.06	0.41		0.09	0.41	0.41	0.28	0.28		0.40	0.38	
v/c Ratio	0.83	0.67		0.51	0.91	0.29	0.23	1.21		1.24	0.61	
Control Delay	113.9	22.1		57.7	50.8	14.2	37.1	149.4		171.9	33.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	113.9	22.1		57.7	50.8	14.2	37.1	149.4		171.9	33.1	
LOS	F	C		E	D	B	D	F		F	C	
Approach Delay		30.6			47.1			139.7			82.1	
Approach LOS		C			D			F			F	
90th %ile Green (s)	7.6	44.0		13.2	49.6	49.6	33.1	33.1		8.7	46.1	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	7.6	44.9		12.3	49.6	49.6	33.1	33.1		8.7	46.1	
70th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
50th %ile Green (s)	7.6	46.6		10.6	49.6	49.6	33.1	33.1		8.7	46.1	
50th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
30th %ile Green (s)	7.6	48.4		8.8	49.6	49.6	33.1	33.1		8.7	46.1	
30th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Max	MaxR	
10th %ile Green (s)	7.6	62.6		0.0	49.6	49.6	33.1	33.1		8.7	46.1	
10th %ile Term Code	Max	Coord		Skip	Coord	Coord	MaxR	MaxR		Max	MaxR	
Stops (vph)	72	851		62	974	77	35	374		106	277	
Fuel Used(l)	13	70		9	135	12	3	74		34	25	
CO Emissions (g/hr)	233	1302		159	2509	231	55	1369		626	461	
NOx Emissions (g/hr)	45	251		31	484	45	11	264		121	89	
VOC Emissions (g/hr)	54	300		37	579	53	13	316		144	106	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	22.5	37.6		17.0	150.9	7.9	9.3	~150.3		~49.4	72.6	
Queue Length 95th (m)	m#45.4	m43.8		m24.9	m169.1	m19.7	20.4	#217.1		#98.7	105.6	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	108	1326		186	1361	562	222	447		178	666	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.83	0.67		0.40	0.91	0.29	0.23	1.21		1.24	0.61	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.24  
 Intersection Signal Delay: 63.6      Intersection LOS: E  
 Intersection Capacity Utilization 98.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Alta Vista Dr & Heron Rd



Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	725	262	37	854	1	403	10	72	47	10	71
Future Volume (vph)	140	725	262	37	854	1	403	10	72	47	10	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	60.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98		0.99	1.00		0.97	0.98		0.99	0.95	
Frt		0.960						0.868			0.868	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3119	0	1478	3293	0	1647	1523	0	1729	1508	0
Flt Permitted	0.196			0.246			0.558			0.698		
Satd. Flow (perm)	357	3119	0	378	3293	0	937	1523	0	1259	1508	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		67						80				79
Link Speed (k/h)		50			50			50				50
Link Distance (m)		657.5			177.1			216.5				60.0
Travel Time (s)		47.3			12.8			15.6				4.3
Confl. Peds. (#/hr)	15		27	27		15	31		8	8		31
Confl. Bikes (#/hr)						1						2
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 (%)	0%	3%	7%	17%	5%	0%	5%	0%	2%	0%	0%	0%
Adj. Flow (vph)	156	806	291	41	949	1	448	11	80	52	11	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	156	1097	0	41	950	0	448	91	0	52	90	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0		5.0	20.0		5.0	20.0	
Minimum Split (s)	9.5	29.7		29.7	29.7		9.5	35.0		9.5	35.0	
Total Split (s)	13.1	69.9		56.8	56.8		15.1	40.5		9.6	35.0	
Total Split (%)	10.9%	58.3%		47.3%	47.3%		12.6%	33.8%		8.0%	29.2%	
Maximum Green (s)	8.6	65.2		52.1	52.1		10.6	34.5		5.1	29.0	
Yellow Time (s)	3.5	3.3		3.3	3.3		3.5	3.3		3.5	3.3	
All-Red Time (s)	1.0	1.4		1.4	1.4		1.0	2.7		1.0	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7		4.7	4.7		4.5	6.0		4.5	6.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)		15.0		15.0	15.0			10.0			10.0	
Flash Dont Walk (s)		10.0		10.0	10.0			19.0			19.0	
Pedestrian Calls (#/hr)		5		5	5			5			5	
Act Effct Green (s)	75.6	75.4		61.9	61.9		35.4	26.2		24.1	21.8	
Actuated g/C Ratio	0.63	0.63		0.52	0.52		0.30	0.22		0.20	0.18	
v/c Ratio	0.48	0.55		0.21	0.56		1.28	0.23		0.19	0.27	
Control Delay	23.8	25.3		22.9	22.9		178.8	11.0		29.9	12.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.8	25.3		22.9	22.9		178.8	11.0		29.9	12.9	
LOS	C	C		C	C		F	B		C	B	
Approach Delay		25.1			22.9			150.4			19.1	
Approach LOS		C			C			F			B	
90th %ile Green (s)	8.6	65.2		52.1	52.1		10.6	34.5		5.1	29.0	
90th %ile Term Code	Max	Coord		Coord	Coord		Max	Hold		Max	Ped	
70th %ile Green (s)	11.1	74.2		58.6	58.6		10.6	25.5		5.1	20.0	
70th %ile Term Code	Gap	Coord		Coord	Coord		Max	Hold		Max	Min	
50th %ile Green (s)	10.0	74.2		59.7	59.7		10.6	25.5		5.1	20.0	
50th %ile Term Code	Gap	Coord		Coord	Coord		Max	Hold		Max	Min	
30th %ile Green (s)	8.9	74.2		60.8	60.8		10.6	25.5		5.1	20.0	
30th %ile Term Code	Gap	Coord		Coord	Coord		Max	Hold		Max	Min	
10th %ile Green (s)	6.7	89.3		78.1	78.1		21.5	20.0		0.0	0.0	
10th %ile Term Code	Gap	Coord		Coord	Coord		Hold	Hold		Skip	Skip	
Stops (vph)	86	641		23	578		292	18		34	18	
Fuel Used(l)	13	95		2	42		81	5		2	2	
CO Emissions (g/hr)	246	1772		33	789		1504	92		39	31	
NOx Emissions (g/hr)	48	342		6	152		290	18		8	6	
VOC Emissions (g/hr)	57	409		8	182		347	21		9	7	
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (m)	20.3	90.8		5.3	80.5		~134.1	2.1		8.8	2.2	
Queue Length 95th (m)	m34.8	m109.4		15.2	114.3		#179.2	14.0		16.2	15.0	

Lanes, Volumes, Timings  
 3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		633.5			153.1			192.5				36.0
Turn Bay Length (m)	43.0			55.0			60.0			30.0		
Base Capacity (vph)	332	1985		195	1697		351	494		273	424	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.47	0.55		0.21	0.56		1.28	0.18		0.19	0.21	

Intersection Summary





















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.28  
 Intersection Signal Delay: 47.2  
 Intersection LOS: D  
 Intersection Capacity Utilization 82.1%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Baycrest Dr & Heron Rd



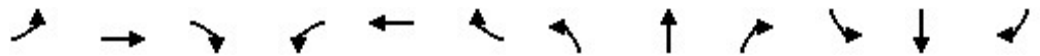
Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	749	49	24	679	20	138	27	79	14	19	49
Future Volume (vph)	53	749	49	24	679	20	138	27	79	14	19	49
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99	0.99		0.99	0.99	
Frt		0.991			0.996			0.888			0.892	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3273	0	1601	3251	0	1478	1534	0	1729	1601	0
Flt Permitted	0.336			0.292			0.708			0.681		
Satd. Flow (perm)	609	3273	0	490	3251	0	1094	1534	0	1232	1601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			88			54	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		137.3			354.9			199.1			258.5	
Travel Time (s)		9.9			25.6			14.3			18.6	
Confl. Peds. (#/hr)	7		7	7		7	5		5	5		5
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 (%)	0%	3%	27%	8%	6%	0%	17%	15%	0%	0%	0%	0%
Adj. Flow (vph)	59	832	54	27	754	22	153	30	88	16	21	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	886	0	27	776	0	153	118	0	16	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	60.0	60.0		60.0	60.0		30.0	30.0		30.0		30.0
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%		33.3%
Maximum Green (s)	54.7	54.7		54.7	54.7		23.9	23.9		23.9		23.9
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	59.7	59.7		59.7	59.7		18.9	18.9		18.9		18.9
Actuated g/C Ratio	0.66	0.66		0.66	0.66		0.21	0.21		0.21		0.21
v/c Ratio	0.15	0.41		0.08	0.36		0.67	0.30		0.06		0.20
Control Delay	7.7	8.0		6.4	6.5		46.7	11.8		27.1		12.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	7.7	8.0		6.4	6.5		46.7	11.8		27.1		12.7
LOS	A	A		A	A		D	B		C		B
Approach Delay		8.0			6.5			31.5				15.2
Approach LOS		A			A			C				B
90th %ile Green (s)	54.7	54.7		54.7	54.7		23.9	23.9		23.9		23.9
90th %ile Term Code	Coord	Coord		Coord	Coord		Max	Max		Hold		Hold
70th %ile Green (s)	57.6	57.6		57.6	57.6		21.0	21.0		21.0		21.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold		Hold
50th %ile Green (s)	60.8	60.8		60.8	60.8		17.8	17.8		17.8		17.8
50th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Hold		Hold
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Hold		Hold
Stops (vph)	21	343		7	232		124	31		11		23
Fuel Used(l)	1	23		1	32		10	4		1		3
CO Emissions (g/hr)	27	428		20	600		193	68		16		53
NOx Emissions (g/hr)	5	83		4	116		37	13		3		10
VOC Emissions (g/hr)	6	99		5	138		44	16		4		12
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	3.2	30.7		1.2	23.2		24.9	4.3		2.3		3.0
Queue Length 95th (m)	9.8	51.4		4.2	31.7		42.0	16.5		6.9		12.8
Internal Link Dist (m)		113.3			330.9			175.1				234.5

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023

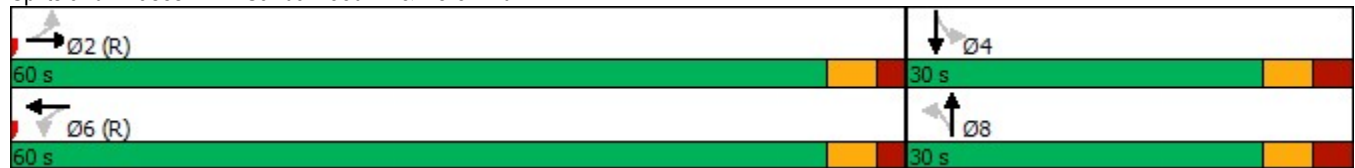


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	403	2174		324	2157		290	471		327	464	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.41		0.08	0.36		0.53	0.25		0.05	0.16	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	10.8
Intersection LOS:	B
Intersection Capacity Utilization	60.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 4: Sandalwood Dr & Heron Rd





Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	701	67	21	646	45	37	40	30	29	35	38
Future Volume (vph)	68	701	67	21	646	45	37	40	30	29	35	38
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00	1.00		1.00		0.98		0.99	
Frt			0.850		0.990				0.850		0.950	
Flt Protected	0.950			0.950			0.950				0.986	
Satd. Flow (prot)	1572	3357	1419	1383	3256	0	1679	1820	1381	0	1633	0
Flt Permitted	0.334			0.329			0.715				0.910	
Satd. Flow (perm)	551	3357	1379	478	3256	0	1258	1820	1357	0	1505	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		13				33			35
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		354.9			465.1			176.5			237.6	
Travel Time (s)		25.6			33.5			12.7			17.1	
Confl. Peds. (#/hr)	6		4	4		6	5		5	5		5
Confl. Bikes (#/hr)			2						1			
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 (%)	10%	3%	9%	25%	5%	4%	3%	0%	12%	4%	0%	7%
Adj. Flow (vph)	76	779	74	23	718	50	41	44	33	32	39	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	779	74	23	768	0	41	44	33	0	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1		2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1		30.5
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1		1.8
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0	27.0	
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2	34.2	
Total Split (s)	55.0	55.0	55.0	55.0	55.0		35.0	35.0	35.0	35.0	35.0	
Total Split (%)	61.1%	61.1%	61.1%	61.1%	61.1%		38.9%	38.9%	38.9%	38.9%	38.9%	
Maximum Green (s)	49.4	49.4	49.4	49.4	49.4		28.8	28.8	28.8	28.8	28.8	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2		6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5	5	
Act Effct Green (s)	58.8	58.8	58.8	58.8	58.8		27.2	27.2	27.2		27.2	
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65		0.30	0.30	0.30		0.30	
v/c Ratio	0.21	0.36	0.08	0.07	0.36		0.11	0.08	0.08		0.24	
Control Delay	8.9	7.2	1.4	10.0	10.1		23.5	22.9	8.5		17.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	8.9	7.2	1.4	10.0	10.1		23.5	22.9	8.5		17.8	
LOS	A	A	A	A	B		C	C	A		B	
Approach Delay		6.9			10.1			19.1			17.8	
Approach LOS		A			B			B			B	
90th %ile Green (s)	50.2	50.2	50.2	50.2	50.2		28.0	28.0	28.0	28.0	28.0	
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped	Ped	
70th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
50th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
30th %ile Green (s)	51.2	51.2	51.2	51.2	51.2		27.0	27.0	27.0	27.0	27.0	
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
10th %ile Green (s)	84.4	84.4	84.4	84.4	84.4		0.0	0.0	0.0	0.0	0.0	
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Skip	Skip	Skip	Skip	Skip	
Stops (vph)	20	175	5	11	318		28	29	8		53	
Fuel Used(l)	3	31	2	1	43		2	2	1		5	
CO Emissions (g/hr)	60	585	45	25	801		36	38	16		91	
NOx Emissions (g/hr)	12	113	9	5	155		7	7	3		18	
VOC Emissions (g/hr)	14	135	10	6	185		8	9	4		21	
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0		0	
Queue Length 50th (m)	4.0	21.6	0.3	1.7	35.9		5.1	5.4	0.0		9.9	
Queue Length 95th (m)	8.3	28.0	2.1	5.5	49.6		12.4	12.8	6.3		22.3	

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023

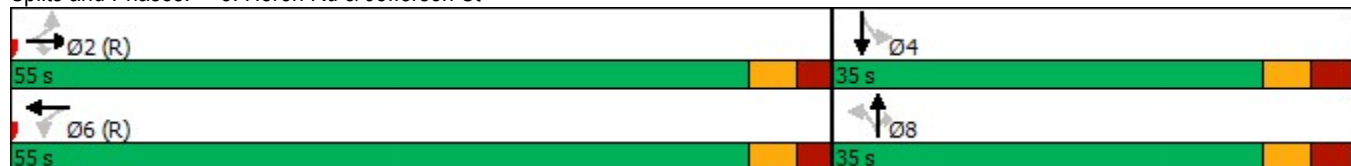


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		330.9			441.1			152.5				213.6
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	359	2191	926	311	2130		402	582	456			505
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	0	0	0		0	0	0			0
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.21	0.36	0.08	0.07	0.36		0.10	0.08	0.07			0.22

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	9.6
Intersection LOS:	A
Intersection Capacity Utilization	81.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	744	17	0	868	699	713
Future Volume (vph)	744	17	0	868	699	713
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.997					0.850
Flt Protected	0.953					
Satd. Flow (prot)	3289	0	0	3390	3390	2669
Flt Permitted	0.953					
Satd. Flow (perm)	3289	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3					792
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	827	19	0	964	777	792
Shared Lane Traffic (%)						
Lane Group Flow (vph)	846	0	0	964	777	792
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	47.0			53.0	53.0	53.0
Total Split (%)	47.0%			53.0%	53.0%	53.0%
Maximum Green (s)	40.3			46.4	46.4	46.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	40.3			46.4	46.4	46.4
Actuated g/C Ratio	0.40			0.46	0.46	0.46
v/c Ratio	0.64			0.61	0.49	0.48
Control Delay	26.6			22.2	20.0	2.2
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	26.6			22.2	20.0	2.2
LOS	C			C	B	A
Approach Delay	26.6			22.2	11.0	
Approach LOS	C			C	B	
90th %ile Green (s)	40.3			46.4	46.4	46.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	40.3			46.4	46.4	46.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	40.3			46.4	46.4	46.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	40.3			46.4	46.4	46.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	40.3			46.4	46.4	46.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	590			625	466	35
Fuel Used(l)	62			61	45	26
CO Emissions (g/hr)	1161			1139	839	490
NOx Emissions (g/hr)	224			220	162	95
VOC Emissions (g/hr)	268			263	193	113
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	66.3			71.2	53.3	0.0
Queue Length 95th (m)	86.0			91.2	69.5	10.4
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1327			1572	1572	1662
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.64			0.61	0.49	0.48

Intersection Summary
































Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	23 (23%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	18.1
Intersection LOS:	B
Intersection Capacity Utilization	59.4%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  		 	 	
Traffic Volume (vph)	418	447	102	130	471	438	165	1341	186	189	533	270
Future Volume (vph)	418	447	102	130	471	438	165	1341	186	189	533	270
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.99		0.97	0.99	0.98		1.00		0.96	1.00		0.97
Fr <sub>t</sub>			0.850		0.928				0.850			0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3288	3390	1517	3288	3083	0	1695	4871	1517	3288	3390	1517
Fl <sub>t</sub> Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3250	3390	1476	3256	3083	0	1687	4871	1459	3273	3390	1469
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151		179				166			281
Link Speed (k/h)		50			50			50				50
Link Distance (m)		154.1			197.3			245.1				260.6
Travel Time (s)		11.1			14.2			17.6				18.8
Confl. Peds. (#/hr)	26		11	11		26	8		17	17		8
Confl. Bikes (#/hr)			5			2			5			10
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
Adj. Flow (vph)	464	497	113	144	523	487	183	1490	207	210	592	300
Shared Lane Traffic (%)												
Lane Group Flow (vph)	464	497	113	144	1010	0	183	1490	207	210	592	300
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	29.0	29.0	7.0	29.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	39.7	39.7	13.8	39.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	23.6	46.4	46.4	16.9	39.7		20.4	42.6	42.6	14.1	36.3	36.3
Total Split (%)	19.7%	38.7%	38.7%	14.1%	33.1%		17.0%	35.5%	35.5%	11.8%	30.3%	30.3%
Maximum Green (s)	16.8	39.7	39.7	10.1	33.0		14.0	36.2	36.2	7.7	29.9	29.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	16.8	40.4	40.4	9.4	33.0		14.0	36.2	36.2	7.7	29.9	29.9
Actuated g/C Ratio	0.14	0.34	0.34	0.08	0.28		0.12	0.30	0.30	0.06	0.25	0.25
v/c Ratio	1.01	0.44	0.19	0.56	1.03		0.93	1.01	0.37	1.00	0.70	0.52
Control Delay	95.6	32.6	2.5	61.8	73.2		100.9	68.8	10.1	109.6	59.9	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.6	32.6	2.5	61.8	73.2		100.9	68.8	10.1	109.6	59.9	22.7
LOS	F	C	A	E	E		F	E	B	F	E	C
Approach Delay		56.6			71.7			65.4			59.2	
Approach LOS		E			E			E			E	
90th %ile Green (s)	16.8	39.7	39.7	10.1	33.0		14.0	36.2	36.2	7.7	29.9	29.9
90th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
70th %ile Green (s)	16.8	39.7	39.7	10.1	33.0		14.0	36.2	36.2	7.7	29.9	29.9
70th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
50th %ile Green (s)	16.8	39.7	39.7	10.1	33.0		14.0	36.2	36.2	7.7	29.9	29.9
50th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
30th %ile Green (s)	16.8	40.5	40.5	9.3	33.0		14.0	36.2	36.2	7.7	29.9	29.9
30th %ile Term Code	Max	Hold	Hold	Gap	Max		Max	Coord	Coord	Max	Coord	Coord
10th %ile Green (s)	16.8	42.2	42.2	7.6	33.0		14.0	36.2	36.2	7.7	29.9	29.9
10th %ile Term Code	Max	Hold	Hold	Gap	Max		Max	Coord	Coord	Max	Coord	Coord
Stops (vph)	370	338	5	123	686		142	1210	37	164	508	180
Fuel Used(l)	45	25	2	11	84		20	129	7	37	85	34
CO Emissions (g/hr)	840	471	34	212	1555		369	2405	123	687	1577	623
NOx Emissions (g/hr)	162	91	6	41	300		71	464	24	133	304	120
VOC Emissions (g/hr)	194	109	8	49	359		85	555	28	158	364	144
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	~57.6	48.0	0.0	17.0	~117.2		43.3	~131.8	6.9	26.1	73.4	25.1
Queue Length 95th (m)	#91.3	63.6	6.0	27.5	#158.1		#86.3	#164.9	25.8	m#47.2	93.4	m43.1
Internal Link Dist (m)		130.1			173.3			221.1			236.6	



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

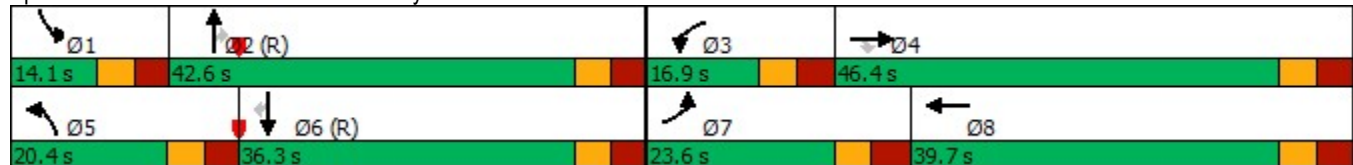


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	460	1140	596	276	977		197	1469	556	210	844	577
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.44	0.19	0.52	1.03		0.93	1.01	0.37	1.00	0.70	0.52

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 79 (66%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 135  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 63.7      Intersection LOS: E  
 Intersection Capacity Utilization 97.4%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Bank St & Walkley Rd



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	595	12	18	524	161	10	22	37	239	11	138
Future Volume (vph)	63	595	12	18	524	161	10	22	37	239	11	138
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	0.99			0.98		0.98	0.98	
Fr <sub>t</sub>		0.997			0.965			0.927			0.861	
Fl <sub>t</sub> Protected	0.950			0.950				0.993		0.950		
Satd. Flow (prot)	1530	3253	0	1530	3139	0	0	1647	0	1586	1536	0
Fl <sub>t</sub> Permitted	0.331			0.374				0.951		0.708		
Satd. Flow (perm)	531	3253	0	598	3139	0	0	1576	0	1162	1536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			78			41			153	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	9		12	12		9	11		23	23		11
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 (%)	13%	6%	0%	13%	4%	10%	0%	0%	0%	9%	0%	0%
Adj. Flow (vph)	70	661	13	20	582	179	11	24	41	266	12	153
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	674	0	20	761	0	0	76	0	266	165	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	38.9	38.9		38.9	38.9		31.1	31.1		31.1		31.1
Total Split (%)	55.6%	55.6%		55.6%	55.6%		44.4%	44.4%		44.4%		44.4%
Maximum Green (s)	33.0	33.0		33.0	33.0		25.0	25.0		25.0		25.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	37.8	37.8		37.8	37.8			20.2		20.2		20.2
Actuated g/C Ratio	0.54	0.54		0.54	0.54			0.29		0.29		0.29
v/c Ratio	0.24	0.38		0.06	0.44			0.16		0.79		0.30
Control Delay	13.5	11.1		10.6	10.6			9.7		39.7		5.2
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	13.5	11.1		10.6	10.6			9.7		39.7		5.2
LOS	B	B		B	B			A		D		A
Approach Delay		11.3			10.6			9.7				26.5
Approach LOS		B			B			A				C
90th %ile Green (s)	33.0	33.0		33.0	33.0		25.0	25.0		25.0		25.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Max		Max
70th %ile Green (s)	33.0	33.0		33.0	33.0		25.0	25.0		25.0		25.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Max		Max
50th %ile Green (s)	36.8	36.8		36.8	36.8		21.2	21.2		21.2		21.2
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	40.3	40.3		40.3	40.3		17.7	17.7		17.7		17.7
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
10th %ile Green (s)	45.7	45.7		45.7	45.7		12.3	12.3		12.3		12.3
10th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
Stops (vph)	38	340		12	362			26		212		25
Fuel Used(l)	4	34		1	33			2		23		8
CO Emissions (g/hr)	68	625		17	623			29		432		150
NOx Emissions (g/hr)	13	121		3	120			6		83		29
VOC Emissions (g/hr)	16	144		4	144			7		100		35
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	4.7	25.5		1.2	26.5			3.3		31.1		1.1
Queue Length 95th (m)	14.0	41.5		4.9	44.1			10.7		52.6		11.9
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	286	1756		322	1729			589		415	646	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.24	0.38		0.06	0.44			0.13		0.64	0.26	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	17 (24%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	14.2
Intersection LOS:	B
Intersection Capacity Utilization	64.9%
ICU Level of Service	C
Analysis Period (min)	15

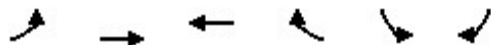
Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

29: Heron Rd

10/31/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (vph)	0	844	823	47	0	69
Future Volume (vph)	0	844	823	47	0	69
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.992			0.865
Flt Protected						
Satd. Flow (prot)	0	3390	3363	0	0	1543
Flt Permitted						
Satd. Flow (perm)	0	3390	3363	0	0	1543
Link Speed (k/h)		50	50		50	
Link Distance (m)		177.1	137.3		61.0	
Travel Time (s)		12.8	9.9		4.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	938	914	52	0	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	938	966	0	0	77
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

























Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

1: Bank St & Heron Rd

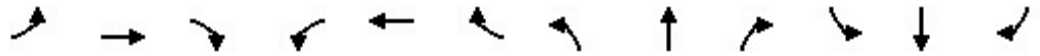
10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	990	465	83	941	236	480	720	79	247	870	185
Future Volume (vph)	247	990	465	83	941	236	480	720	79	247	870	185
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	73.0		85.0	50.0		70.0	110.0		0.0	70.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	20.0			30.0			0.0			0.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.97	1.00		0.97	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.985			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3357	1446	1662	3293	1473	3225	3261	0	1712	3154	0
Flt Permitted	0.091			0.101			0.950			0.950		
Satd. Flow (perm)	164	3357	1402	176	3293	1436	3206	3261	0	1697	3154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			310			194		9			20	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.8			492.5			121.2			274.8	
Travel Time (s)		27.5			35.5			8.7			19.8	
Confl. Peds. (#/hr)	8		13	13		8	12		20	20		12
Confl. Bikes (#/hr)			1			3			3			9
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 (%)	1%	3%	7%	4%	5%	5%	4%	3%	13%	1%	7%	2%
Adj. Flow (vph)	274	1100	517	92	1046	262	533	800	88	274	967	206
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	1100	517	92	1046	262	533	888	0	274	1173	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lanes, Volumes, Timings

1: Bank St & Heron Rd

10/31/2023

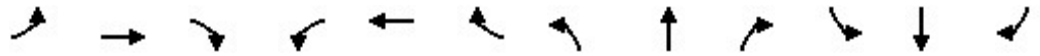


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	5.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	13.5	34.4	34.4	9.5	32.5	32.5	13.5	32.4		13.5	32.4	
Total Split (s)	17.0	51.5	51.5	9.5	44.0	44.0	21.0	43.0		26.0	48.0	
Total Split (%)	13.1%	39.6%	39.6%	7.3%	33.8%	33.8%	16.2%	33.1%		20.0%	36.9%	
Maximum Green (s)	10.5	45.1	45.1	5.0	39.7	39.7	14.5	36.6		19.5	41.6	
Yellow Time (s)	3.3	3.3	3.3	3.5	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.1	3.1	1.0	1.0	1.0	3.2	3.1		3.2	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.4	6.4	4.5	4.3	4.3	6.5	6.4		6.5	6.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		21.0	21.0		21.0	21.0		19.0			19.0	
Pedestrian Calls (#/hr)		5	5		5	5		5			5	
Act Effct Green (s)	54.5	45.1	45.1	44.5	39.7	39.7	14.5	36.6		19.5	41.6	
Actuated g/C Ratio	0.42	0.35	0.35	0.34	0.31	0.31	0.11	0.28		0.15	0.32	
v/c Ratio	1.42	0.95	0.75	0.79	1.04	0.46	1.48	0.96		1.07	1.15	
Control Delay	243.8	57.6	22.1	45.3	63.9	7.0	263.6	57.3		127.9	117.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	243.8	57.6	22.1	45.3	63.9	7.0	263.6	57.3		127.9	117.7	
LOS	F	E	C	D	E	A	F	E		F	F	
Approach Delay		74.9			52.1			134.7			119.6	
Approach LOS		E			D			F			F	
90th %ile Green (s)	10.5	45.1	45.1	5.0	39.7	39.7	14.5	36.6		19.5	41.6	
90th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	10.5	45.1	45.1	5.0	39.7	39.7	14.5	36.6		19.5	41.6	
70th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
50th %ile Green (s)	10.5	45.1	45.1	5.0	39.7	39.7	14.5	36.6		19.5	41.6	
50th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
30th %ile Green (s)	10.5	45.1	45.1	5.0	39.7	39.7	14.5	36.6		19.5	41.6	
30th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
10th %ile Green (s)	10.5	45.1	45.1	5.0	39.7	39.7	14.5	36.6		19.5	41.6	
10th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
Stops (vph)	134	894	192	54	862	109	349	731		208	887	
Fuel Used(l)	58	100	29	8	110	15	149	125		35	143	
CO Emissions (g/hr)	1085	1856	541	149	2040	274	2775	2322		659	2662	
NOx Emissions (g/hr)	209	358	104	29	394	53	536	448		127	514	
VOC Emissions (g/hr)	250	428	125	34	470	63	640	535		152	614	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (m)	~79.7	143.4	48.4	7.2	~155.5	24.9	~96.5	120.6		~77.5	~184.0	
Queue Length 95th (m)	#134.3	#186.4	95.3	m10.8	m#168.9	m21.7	m#106.6	m124.0		#131.3	#226.4	

# Lanes, Volumes, Timings

## 1: Bank St & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		357.8			468.5			97.2			250.8	
Turn Bay Length (m)	73.0		85.0	50.0		70.0	110.0			70.0		
Base Capacity (vph)	193	1164	688	117	1005	573	359	924		256	1022	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.42	0.95	0.75	0.79	1.04	0.46	1.48	0.96		1.07	1.15	

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.48

Intersection Signal Delay: 94.0

Intersection LOS: F

Intersection Capacity Utilization 107.9%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

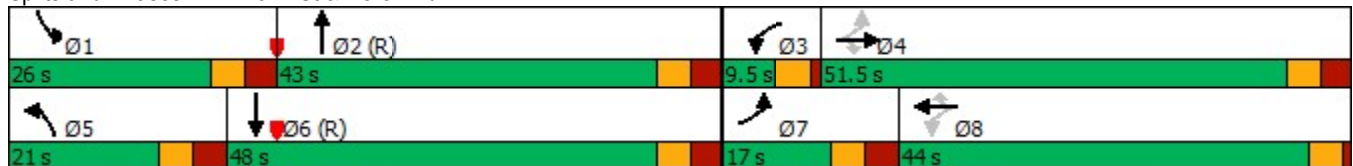
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.






















### Splits and Phases: 1: Bank St & Heron Rd





Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	1029	77	80	962	159	93	235	63	183	466	205
Future Volume (vph)	210	1029	77	80	962	159	93	235	63	183	466	205
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	65.0		0.0	57.0		85.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	30.0			24.0			2.5			48.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95	0.99		0.97		0.77		0.96		0.94	0.99	
Frt		0.990				0.850		0.968			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3231	0	1695	3293	1459	1601	1655	0	1631	1689	0
Flt Permitted	0.950			0.950			0.136			0.210		
Satd. Flow (perm)	1627	3231	0	1649	3293	1116	229	1655	0	338	1689	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				177		10			19	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		492.5			657.5			201.9			270.3	
Travel Time (s)		35.5			47.3			14.5			19.5	
Confl. Peds. (#/hr)	54		37	37		54	21		110	110		21
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 (%)	1%	5%	1%	2%	5%	6%	8%	2%	3%	6%	2%	0%
Adj. Flow (vph)	233	1143	86	89	1069	177	103	261	70	203	518	228
Shared Lane Traffic (%)												
Lane Group Flow (vph)	233	1229	0	89	1069	177	103	331	0	203	746	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases						6	8			4		
Detector Phase	5	2		1	6	6	8	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	10.0	10.0	10.0		7.0	10.0	
Minimum Split (s)	12.4	23.4		12.4	23.4	23.4	29.9	29.9		11.5	29.9	
Total Split (s)	18.0	62.0		15.0	59.0	59.0	35.0	35.0		18.0	53.0	
Total Split (%)	13.8%	47.7%		11.5%	45.4%	45.4%	26.9%	26.9%		13.8%	40.8%	
Maximum Green (s)	12.6	56.6		9.6	53.6	53.6	29.1	29.1		13.7	47.1	
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1	2.6	2.6		1.0	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4	5.4	5.9	5.9		4.3	5.9	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0	7.0	7.0			7.0	
Flash Dont Walk (s)		9.0			9.0	9.0	17.0	17.0			17.0	
Pedestrian Calls (#/hr)		5			5	5	5	5			5	
Act Effct Green (s)	12.6	56.9		9.3	53.6	53.6	29.4	29.4		48.7	47.1	
Actuated g/C Ratio	0.10	0.44		0.07	0.41	0.41	0.23	0.23		0.37	0.36	
v/c Ratio	1.41	0.87		0.74	0.79	0.31	1.98	0.87		0.78	1.20	
Control Delay	229.8	36.7		92.2	38.4	4.9	537.4	69.8		51.6	139.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	229.8	36.7		92.2	38.4	4.9	537.4	69.8		51.6	139.3	
LOS	F	D		F	D	A	F	E		D	F	
Approach Delay		67.5			37.6			180.7			120.6	
Approach LOS		E			D			F			F	
90th %ile Green (s)	12.6	56.6		9.6	53.6	53.6	29.1	29.1		13.7	47.1	
90th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
70th %ile Green (s)	12.6	56.6		9.6	53.6	53.6	29.1	29.1		13.7	47.1	
70th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
50th %ile Green (s)	12.6	56.6		9.6	53.6	53.6	29.1	29.1		13.7	47.1	
50th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
30th %ile Green (s)	12.6	56.6		9.6	53.6	53.6	29.1	29.1		13.7	47.1	
30th %ile Term Code	Max	Coord		Max	Coord	Coord	MaxR	MaxR		Max	MaxR	
10th %ile Green (s)	12.6	58.3		7.9	53.6	53.6	30.8	30.8		12.0	47.1	
10th %ile Term Code	Max	Coord		Gap	Coord	Coord	MaxR	MaxR		Gap	MaxR	
Stops (vph)	152	1101		73	819	15	58	260		124	539	
Fuel Used(l)	50	108		12	107	11	42	28		15	101	
CO Emissions (g/hr)	937	2002		229	1988	202	773	512		274	1883	
NOx Emissions (g/hr)	181	386		44	384	39	149	99		53	364	
VOC Emissions (g/hr)	216	462		53	458	47	178	118		63	434	
Dilemma Vehicles (#)	0	0		0	0	0	0	0		0	0	
Queue Length 50th (m)	~78.1	172.7		22.7	123.8	0.0	~41.2	80.2		36.9	~228.7	
Queue Length 95th (m)	m#83.0	m179.6		#48.7	151.0	13.9	#77.9	#131.4		#61.1	#303.3	
Internal Link Dist (m)		468.5			633.5			177.9			246.3	

Lanes, Volumes, Timings  
2: Alta Vista Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	65.0			57.0		85.0				30.0		
Base Capacity (vph)	165	1419		125	1357	564	52	382		262	624	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.41	0.87		0.71	0.79	0.31	1.98	0.87		0.77	1.20	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle:	140
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.98
Intersection Signal Delay:	81.7
Intersection LOS:	F
Intersection Capacity Utilization:	107.2%
ICU Level of Service:	G
Analysis Period (min):	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Alta Vista Dr & Heron Rd



Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	791	335	61	865	1	227	10	65	41	9	60
Future Volume (vph)	122	791	335	61	865	1	227	10	65	41	9	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	43.0		0.0	55.0		0.0	60.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	70.0			25.0			2.5			0.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.98		0.99	1.00		0.97	0.98		0.99	0.96	
Frt		0.955						0.870			0.869	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3091	0	1478	3293	0	1647	1527	0	1729	1511	0
Flt Permitted	0.217			0.208			0.707			0.703		
Satd. Flow (perm)	393	3091	0	320	3293	0	1183	1527	0	1268	1511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118						72				67
Link Speed (k/h)		50			50			50				50
Link Distance (m)		657.5			177.1			216.5				60.0
Travel Time (s)		47.3			12.8			15.6				4.3
Confl. Peds. (#/hr)	15		27	27		15	31		8	8		31
Confl. Bikes (#/hr)						1						2
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 (%)	0%	3%	7%	17%	5%	0%	5%	0%	2%	0%	0%	0%
Adj. Flow (vph)	136	879	372	68	961	1	252	11	72	46	10	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	1251	0	68	962	0	252	83	0	46	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
3: Baycrest Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	9.5	29.7		29.7	29.7		35.0	35.0		35.0	35.0	
Total Split (s)	14.0	85.0		71.0	71.0		35.0	35.0		35.0	35.0	
Total Split (%)	11.7%	70.8%		59.2%	59.2%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	9.5	80.3		66.3	66.3		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.5	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	1.0	1.4		1.4	1.4		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7		4.7	4.7		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)		15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		10.0		10.0	10.0		19.0	19.0		19.0	19.0	
Pedestrian Calls (#/hr)		5		5	5		5	5		5	5	
Act Effct Green (s)	81.8	81.6		68.7	68.7		27.7	27.7		27.7	27.7	
Actuated g/C Ratio	0.68	0.68		0.57	0.57		0.23	0.23		0.23	0.23	
v/c Ratio	0.38	0.58		0.37	0.51		0.93	0.20		0.16	0.19	
Control Delay	10.0	10.6		22.6	17.2		83.9	11.8		37.6	12.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.0	10.6		22.6	17.2		83.9	11.8		37.6	12.0	
LOS	A	B		C	B		F	B		D	B	
Approach Delay		10.5			17.5			66.0			21.6	
Approach LOS		B			B			E			C	
90th %ile Green (s)	9.5	80.3		66.3	66.3		29.0	29.0		29.0	29.0	
90th %ile Term Code	Max	Coord		Coord	Coord		Max	Max		Ped	Ped	
70th %ile Green (s)	9.5	80.3		66.3	66.3		29.0	29.0		29.0	29.0	
70th %ile Term Code	Max	Coord		Coord	Coord		Max	Max		Hold	Hold	
50th %ile Green (s)	8.8	80.3		67.0	67.0		29.0	29.0		29.0	29.0	
50th %ile Term Code	Gap	Coord		Coord	Coord		Max	Max		Hold	Hold	
30th %ile Green (s)	7.9	80.4		68.0	68.0		28.9	28.9		28.9	28.9	
30th %ile Term Code	Gap	Coord		Coord	Coord		Gap	Gap		Hold	Hold	
10th %ile Green (s)	6.5	86.7		75.7	75.7		22.6	22.6		22.6	22.6	
10th %ile Term Code	Gap	Coord		Coord	Coord		Gap	Gap		Hold	Hold	
Stops (vph)	41	521		37	507		201	18		32	15	
Fuel Used(l)	9	91		3	37		30	5		2	1	
CO Emissions (g/hr)	176	1696		54	695		554	85		40	25	
NOx Emissions (g/hr)	34	327		10	134		107	16		8	5	
VOC Emissions (g/hr)	41	391		13	160		128	20		9	6	
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (m)	10.4	70.0		8.6	71.0		57.5	2.0		8.6	1.8	
Queue Length 95th (m)	17.6	88.0		21.5	89.6		#104.4	14.5		18.7	13.8	

Lanes, Volumes, Timings  
 3: Baycrest Dr & Heron Rd

10/31/2023

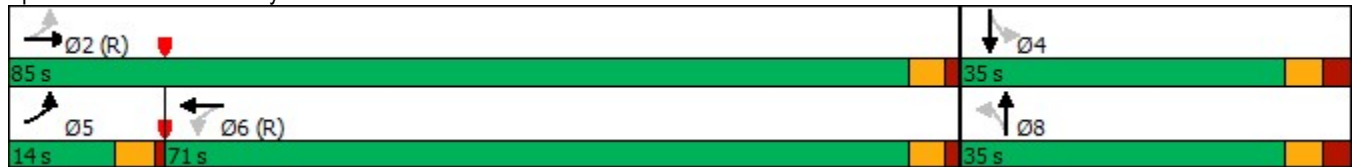


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		633.5			153.1			192.5				36.0
Turn Bay Length (m)	43.0			55.0			60.0			30.0		
Base Capacity (vph)	373	2139		182	1884		285	423		306	415	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.36	0.58		0.37	0.51		0.88	0.20		0.15	0.19	

Intersection Summary






















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 20.0 Intersection LOS: B  
 Intersection Capacity Utilization 77.8% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Baycrest Dr & Heron Rd



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	704	109	74	815	15	74	20	54	11	29	58
Future Volume (vph)	61	704	109	74	815	15	74	20	54	11	29	58
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	55.0		0.0	55.0		0.0	32.0		0.0	37.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	25.0			25.0			12.0			37.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99	0.99		0.99	0.99	
Frt		0.980			0.997			0.890				0.900
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	3175	0	1601	3254	0	1478	1535	0	1729	1617	0
Flt Permitted	0.291			0.299			0.695			0.704		
Satd. Flow (perm)	528	3175	0	502	3254	0	1074	1535	0	1273	1617	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			4			60			64	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		137.3			354.9			199.1			258.5	
Travel Time (s)		9.9			25.6			14.3			18.6	
Confl. Peds. (#/hr)	7		7	7		7	5		5	5		5
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 (%)	0%	3%	27%	8%	6%	0%	17%	15%	0%	0%	0%	0%
Adj. Flow (vph)	68	782	121	82	906	17	82	22	60	12	32	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	903	0	82	923	0	82	82	0	12	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		16.0	16.0		16.0		16.0
Minimum Split (s)	24.3	24.3		24.3	24.3		24.1	24.1		24.1		24.1
Total Split (s)	65.8	65.8		65.8	65.8		24.2	24.2		24.2		24.2
Total Split (%)	73.1%	73.1%		73.1%	73.1%		26.9%	26.9%		26.9%		26.9%
Maximum Green (s)	60.5	60.5		60.5	60.5		18.1	18.1		18.1		18.1
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.0	2.0		2.0	2.0		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	5.3	5.3		5.3	5.3		6.1	6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	8.0	8.0		8.0	8.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	67.7	67.7		67.7	67.7		16.4	16.4		16.4		16.4
Actuated g/C Ratio	0.75	0.75		0.75	0.75		0.18	0.18		0.18		0.18
v/c Ratio	0.17	0.38		0.22	0.38		0.42	0.25		0.05		0.28
Control Delay	6.4	5.6		7.0	5.8		39.9	14.6		30.7		15.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	6.4	5.6		7.0	5.8		39.9	14.6		30.7		15.5
LOS	A	A		A	A		D	B		C		B
Approach Delay		5.6			5.9			27.2				17.2
Approach LOS		A			A			C				B
90th %ile Green (s)	60.6	60.6		60.6	60.6		18.0	18.0		18.0		18.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Gap	Gap		Ped		Ped
70th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
70th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
50th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
50th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
30th %ile Green (s)	62.6	62.6		62.6	62.6		16.0	16.0		16.0		16.0
30th %ile Term Code	Coord	Coord		Coord	Coord		Min	Min		Min		Min
10th %ile Green (s)	84.7	84.7		84.7	84.7		0.0	0.0		0.0		0.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Skip	Skip		Skip		Skip
Stops (vph)	21	267		26	286		65	26		11		31
Fuel Used(l)	2	20		3	38		5	3		1		4
CO Emissions (g/hr)	29	373		65	710		95	52		14		71
NOx Emissions (g/hr)	6	72		12	137		18	10		3		14
VOC Emissions (g/hr)	7	86		15	164		22	12		3		16
Dilemma Vehicles (#)	0	0		0	0		0	0		0		0
Queue Length 50th (m)	3.5	28.2		4.5	30.4		12.8	3.2		1.7		4.7
Queue Length 95th (m)	9.4	41.3		11.4	43.8		25.9	14.6		6.2		17.1
Internal Link Dist (m)		113.3			330.9			175.1				234.5



Lanes, Volumes, Timings  
4: Sandalwood Dr & Heron Rd

10/31/2023

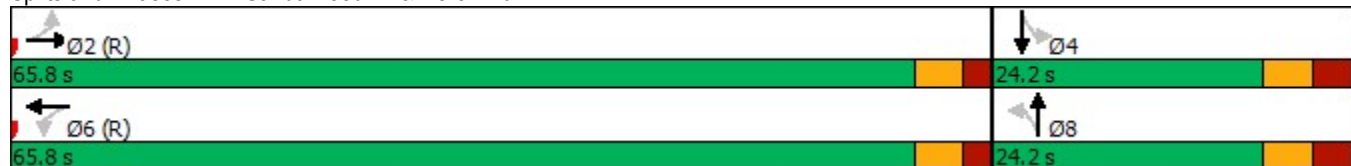


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	55.0			55.0			32.0			37.0		
Base Capacity (vph)	397	2398		377	2448		215	356		256	376	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.38		0.22	0.38		0.38	0.23		0.05	0.26	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization	60.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 4: Sandalwood Dr & Heron Rd



Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	599	106	42	784	50	60	63	81	37	43	58
Future Volume (vph)	61	599	106	42	784	50	60	63	81	37	43	58
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	58.0		62.0	55.0		0.0	18.0		15.0	0.0		0.0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (m)	27.0			17.0			10.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00	1.00		1.00		0.98		0.99	
Frt			0.850		0.991				0.850		0.944	
Flt Protected	0.950			0.950			0.950				0.987	
Satd. Flow (prot)	1572	3357	1419	1383	3259	0	1679	1820	1381	0	1619	0
Flt Permitted	0.263			0.374			0.640				0.905	
Satd. Flow (perm)	434	3357	1378	543	3259	0	1126	1820	1356	0	1482	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			118		12				90			36
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		354.9			465.1			176.5			237.6	
Travel Time (s)		25.6			33.5			12.7			17.1	
Confl. Peds. (#/hr)	6		4	4		6	5		5	5		5
Confl. Bikes (#/hr)			2						1			
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 (%)	10%	3%	9%	25%	5%	4%	3%	0%	12%	4%	0%	7%
Adj. Flow (vph)	68	666	118	47	871	56	67	70	90	41	48	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	666	118	47	927	0	67	70	90	0	153	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1		2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1		30.5
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1		1.8
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Detector 2 Position(m)		28.7			28.7			28.7				28.7
Detector 2 Size(m)		1.8			1.8			1.8				1.8
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Detector Phase	2	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		27.0	27.0	27.0	27.0	27.0	
Minimum Split (s)	30.6	30.6	30.6	30.6	30.6		34.2	34.2	34.2	34.2	34.2	
Total Split (s)	65.8	65.8	65.8	65.8	65.8		34.2	34.2	34.2	34.2	34.2	
Total Split (%)	65.8%	65.8%	65.8%	65.8%	65.8%		34.2%	34.2%	34.2%	34.2%	34.2%	
Maximum Green (s)	60.2	60.2	60.2	60.2	60.2		28.0	28.0	28.0	28.0	28.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3		2.9	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6		6.2	6.2	6.2		6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0		21.0	21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)	5	5	5	5	5		5	5	5	5	5	
Act Effct Green (s)	61.0	61.0	61.0	61.0	61.0		27.2	27.2	27.2		27.2	
Actuated g/C Ratio	0.61	0.61	0.61	0.61	0.61		0.27	0.27	0.27		0.27	
v/c Ratio	0.26	0.33	0.13	0.14	0.47		0.22	0.14	0.21		0.36	
Control Delay	12.3	10.1	2.0	9.8	11.4		30.4	28.4	7.4		24.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	12.3	10.1	2.0	9.8	11.4		30.4	28.4	7.4		24.9	
LOS	B	B	A	A	B		C	C	A		C	
Approach Delay		9.1			11.4			20.7			24.9	
Approach LOS		A			B			C			C	
90th %ile Green (s)	60.2	60.2	60.2	60.2	60.2		28.0	28.0	28.0	28.0	28.0	
90th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Ped	Ped	Ped	Ped	Ped	
70th %ile Green (s)	61.2	61.2	61.2	61.2	61.2		27.0	27.0	27.0	27.0	27.0	
70th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
50th %ile Green (s)	61.2	61.2	61.2	61.2	61.2		27.0	27.0	27.0	27.0	27.0	
50th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
30th %ile Green (s)	61.2	61.2	61.2	61.2	61.2		27.0	27.0	27.0	27.0	27.0	
30th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Min	Min	Min	Min	Min	
10th %ile Green (s)	61.2	61.2	61.2	61.2	61.2		27.0	27.0	27.0	27.0	27.0	
10th %ile Term Code	Coord	Coord	Coord	Coord	Coord		Hold	Hold	Hold	Min	Min	
Stops (vph)	29	274	9	19	423		46	46	14		84	
Fuel Used(l)	3	31	4	3	54		3	3	2		8	
CO Emissions (g/hr)	61	576	73	48	998		64	64	40		142	
NOx Emissions (g/hr)	12	111	14	9	193		12	12	8		27	
VOC Emissions (g/hr)	14	133	17	11	230		15	15	9		33	
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0		0	
Queue Length 50th (m)	5.6	30.3	0.0	3.6	46.6		10.1	10.3	0.0		18.0	
Queue Length 95th (m)	13.9	41.4	6.5	9.2	61.8		21.0	20.8	11.2		34.9	

Lanes, Volumes, Timings  
5: Heron Rd & Jefferson St

10/31/2023

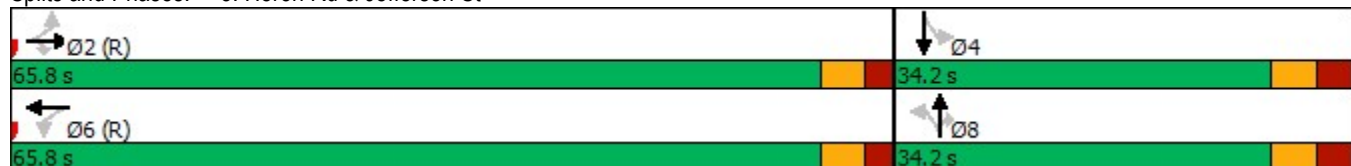


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		330.9			441.1			152.5				213.6
Turn Bay Length (m)	58.0		62.0	55.0			18.0		15.0			
Base Capacity (vph)	264	2047	886	331	1992		315	509	444			440
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	0	0	0		0	0	0			0
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.26	0.33	0.13	0.14	0.47		0.21	0.14	0.20			0.35

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	12.4
Intersection LOS:	B
Intersection Capacity Utilization	81.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Heron Rd & Jefferson St



Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	701	17	0	974	1165	875
Future Volume (vph)	701	17	0	974	1165	875
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0	0.0	0.0			65.0
Storage Lanes	2	0	0			1
Taper Length (m)	2.5		2.5			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.95	0.88
Frt	0.996					0.850
Flt Protected	0.953					
Satd. Flow (prot)	3286	0	0	3390	3390	2669
Flt Permitted	0.953					
Satd. Flow (perm)	3286	0	0	3390	3390	2669
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3					836
Link Speed (k/h)	50			50	50	
Link Distance (m)	465.1			393.2	359.8	
Travel Time (s)	33.5			28.3	25.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	779	19	0	1082	1294	972
Shared Lane Traffic (%)						
Lane Group Flow (vph)	798	0	0	1082	1294	972
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	11.1			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1			2	2	1
Detector Template	Left			Thru	Thru	Right
Leading Detector (m)	6.1			30.5	30.5	6.1
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	6.1			1.8	1.8	6.1
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)				28.7	28.7	
Detector 2 Size(m)				1.8	1.8	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot			NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases						6

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023



Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Detector Phase	4			2	6	6
Switch Phase						
Minimum Initial (s)	10.0			10.0	10.0	10.0
Minimum Split (s)	33.7			16.6	16.6	16.6
Total Split (s)	61.0			59.0	59.0	59.0
Total Split (%)	50.8%			49.2%	49.2%	49.2%
Maximum Green (s)	54.3			52.4	52.4	52.4
Yellow Time (s)	3.3			3.3	3.3	3.3
All-Red Time (s)	3.4			3.3	3.3	3.3
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	6.7			6.6	6.6	6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Recall Mode	Max			C-Max	C-Max	C-Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	20.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	54.3			52.4	52.4	52.4
Actuated g/C Ratio	0.45			0.44	0.44	0.44
v/c Ratio	0.54			0.73	0.87	0.59
Control Delay	25.3			31.6	38.8	5.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	25.3			31.6	38.8	5.1
LOS	C			C	D	A
Approach Delay	25.3			31.6	24.3	
Approach LOS	C			C	C	
90th %ile Green (s)	54.3			52.4	52.4	52.4
90th %ile Term Code	MaxR			Coord	Coord	Coord
70th %ile Green (s)	54.3			52.4	52.4	52.4
70th %ile Term Code	MaxR			Coord	Coord	Coord
50th %ile Green (s)	54.3			52.4	52.4	52.4
50th %ile Term Code	MaxR			Coord	Coord	Coord
30th %ile Green (s)	54.3			52.4	52.4	52.4
30th %ile Term Code	MaxR			Coord	Coord	Coord
10th %ile Green (s)	54.3			52.4	52.4	52.4
10th %ile Term Code	MaxR			Coord	Coord	Coord
Stops (vph)	500			782	1016	108
Fuel Used(l)	57			78	97	36
CO Emissions (g/hr)	1059			1443	1811	665
NOx Emissions (g/hr)	204			279	350	128
VOC Emissions (g/hr)	244			333	418	153
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (m)	68.1			108.7	143.2	10.6
Queue Length 95th (m)	86.2			133.8	174.6	27.1
Internal Link Dist (m)	441.1			369.2	335.8	
Turn Bay Length (m)						65.0
Base Capacity (vph)	1488			1480	1480	1636
Starvation Cap Reductn	0			0	0	0

Lanes, Volumes, Timings  
6: Walkley Rd & Heron Rd

10/31/2023

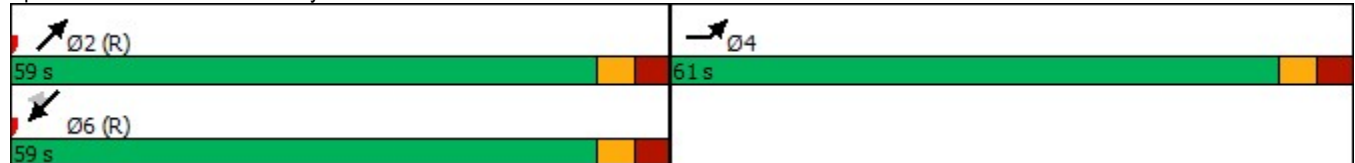


Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.54			0.73	0.87	0.59

Intersection Summary
































Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	26.4
Intersection LOS:	C
Intersection Capacity Utilization	66.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 6: Walkley Rd & Heron Rd



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  		 	 	
Traffic Volume (vph)	318	494	266	300	592	295	216	842	269	309	1269	557
Future Volume (vph)	318	494	266	300	592	295	216	842	269	309	1269	557
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	60.0		50.0	78.0		0.0	208.0		70.0	156.0		0.0
Storage Lanes	2		1	2		0	1		1	2		1
Taper Length (m)	27.0			24.0			0.0			24.0		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.95	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor	0.99		0.97	0.99	0.99		1.00		0.96	0.99		0.97
Frt			0.850		0.950				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3288	3390	1517	3288	3174	0	1695	4871	1517	3288	3390	1517
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3246	3390	1473	3255	3174	0	1692	4871	1457	3252	3390	1472
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			244		64				250			237
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		154.1			197.3			245.1			260.6	
Travel Time (s)		11.1			14.2			17.6			18.8	
Confl. Peds. (#/hr)	26		11	11		26	8		17	17		8
Confl. Bikes (#/hr)			5			2			5			10
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
Adj. Flow (vph)	353	549	296	333	658	328	240	936	299	343	1410	619
Shared Lane Traffic (%)												
Lane Group Flow (vph)	353	549	296	333	986	0	240	936	299	343	1410	619
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1	6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	29.0	29.0	7.0	29.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	13.8	39.7	39.7	13.8	39.7		13.4	33.4	33.4	13.4	33.4	33.4
Total Split (s)	18.0	39.7	39.7	18.0	39.7		21.0	46.7	46.7	25.6	51.3	51.3
Total Split (%)	13.8%	30.5%	30.5%	13.8%	30.5%		16.2%	35.9%	35.9%	19.7%	39.5%	39.5%
Maximum Green (s)	11.2	33.0	33.0	11.2	33.0		14.6	40.3	40.3	19.2	44.9	44.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	3.5	3.4	3.4	3.5	3.4		3.1	3.1	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.7	6.7	6.8	6.7		6.4	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0			20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)		5	5		5			5	5		5	5
Act Effct Green (s)	11.2	33.0	33.0	11.2	33.0		14.6	41.9	41.9	17.6	44.9	44.9
Actuated g/C Ratio	0.09	0.25	0.25	0.09	0.25		0.11	0.32	0.32	0.14	0.35	0.35
v/c Ratio	1.25	0.64	0.53	1.18	1.16		1.26	0.60	0.47	0.77	1.21	0.93
Control Delay	184.9	47.2	12.5	160.5	123.8		199.4	39.1	9.7	56.3	139.4	47.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.9	47.2	12.5	160.5	123.8		199.4	39.1	9.7	56.3	139.4	47.4
LOS	F	D	B	F	F		F	D	A	E	F	D
Approach Delay		79.2			133.1			59.2			103.4	
Approach LOS		E			F			E			F	
90th %ile Green (s)	11.2	33.0	33.0	11.2	33.0		14.6	40.3	40.3	19.2	44.9	44.9
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Coord	Coord	Max	Coord	Coord
70th %ile Green (s)	11.2	33.0	33.0	11.2	33.0		14.6	40.3	40.3	19.2	44.9	44.9
70th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Max	Coord	Coord
50th %ile Green (s)	11.2	33.0	33.0	11.2	33.0		14.6	40.8	40.8	18.7	44.9	44.9
50th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
30th %ile Green (s)	11.2	33.0	33.0	11.2	33.0		14.6	42.7	42.7	16.8	44.9	44.9
30th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
10th %ile Green (s)	11.2	33.0	33.0	11.2	33.0		14.6	45.6	45.6	13.9	44.9	44.9
10th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Coord	Coord	Gap	Coord	Coord
Stops (vph)	252	432	53	246	708		167	691	47	299	1079	370
Fuel Used(l)	56	35	8	48	117		42	60	9	48	277	80
CO Emissions (g/hr)	1033	648	142	896	2177		780	1124	173	900	5145	1481
NOx Emissions (g/hr)	199	125	27	173	420		151	217	33	174	993	286
VOC Emissions (g/hr)	238	149	33	207	502		180	259	40	208	1187	342
Dilemma Vehicles (#)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 50th (m)	~57.9	66.2	10.4	~52.4	~150.3		~77.1	74.5	8.9	45.4	~235.4	117.2
Queue Length 95th (m)	#88.4	85.5	37.3	#82.4	#191.8		#128.7	89.9	33.3	m#51.8	m#240.3	m#134.0
Internal Link Dist (m)		130.1			173.3			221.1			236.6	

Lanes, Volumes, Timings  
7: Bank St & Walkley Rd

10/31/2023

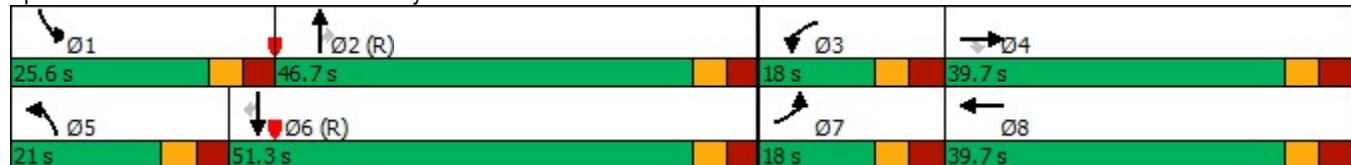


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	60.0		50.0	78.0			208.0		70.0	156.0		
Base Capacity (vph)	283	860	555	283	853		190	1571	639	485	1170	663
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.64	0.53	1.18	1.16		1.26	0.60	0.47	0.71	1.21	0.93

Intersection Summary




















Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	145
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.26
Intersection Signal Delay:	94.8
Intersection LOS:	F
Intersection Capacity Utilization	109.2%
ICU Level of Service	H
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Bank St & Walkley Rd



Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	739	29	47	933	262	17	19	37	191	29	98
Future Volume (vph)	119	739	29	47	933	262	17	19	37	191	29	98
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	50.0		0.0	33.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (m)	22.0			27.0			2.5			15.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	0.99			0.98		0.98	0.98	
Fr <sub>t</sub>		0.994			0.967			0.932			0.884	
Fl <sub>t</sub> Protected	0.950			0.950				0.988		0.950		
Satd. Flow (prot)	1530	3245	0	1530	3150	0	0	1650	0	1586	1583	0
Fl <sub>t</sub> Permitted	0.140			0.299				0.913		0.704		
Satd. Flow (perm)	225	3245	0	479	3150	0	0	1522	0	1155	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			69			41			54	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		360.2			304.5			74.0			276.3	
Travel Time (s)		25.9			21.9			5.3			19.9	
Confl. Peds. (#/hr)	9		12	12		9	11		23	23		11
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 (%)	13%	6%	0%	13%	4%	10%	0%	0%	0%	9%	0%	0%
Adj. Flow (vph)	132	821	32	52	1037	291	19	21	41	212	32	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	853	0	52	1328	0	0	81	0	212	141	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0		10.0
Minimum Split (s)	25.9	25.9		25.9	25.9		31.1	31.1		31.1		31.1
Total Split (s)	38.9	38.9		38.9	38.9		31.1	31.1		31.1		31.1
Total Split (%)	55.6%	55.6%		55.6%	55.6%		44.4%	44.4%		44.4%		44.4%
Maximum Green (s)	33.0	33.0		33.0	33.0		25.0	25.0		25.0		25.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3		3.3
All-Red Time (s)	2.6	2.6		2.6	2.6		2.8	2.8		2.8		2.8
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.1		6.1		6.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		18.0	18.0		18.0		18.0
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5		5
Act Effct Green (s)	40.2	40.2		40.2	40.2			17.8		17.8		17.8
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.25		0.25		0.25
v/c Ratio	1.02	0.46		0.19	0.72			0.19		0.72		0.32
Control Delay	113.6	10.7		11.7	15.0			11.3		37.0		13.8
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0		0.0
Total Delay	113.6	10.7		11.7	15.0			11.3		37.0		13.8
LOS	F	B		B	B			B		D		B
Approach Delay		24.5			14.9			11.3				27.7
Approach LOS		C			B			B				C
90th %ile Green (s)	33.0	33.0		33.0	33.0		25.0	25.0		25.0		25.0
90th %ile Term Code	Coord	Coord		Coord	Coord		Ped	Ped		Max		Max
70th %ile Green (s)	36.7	36.7		36.7	36.7		21.3	21.3		21.3		21.3
70th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
50th %ile Green (s)	39.9	39.9		39.9	39.9		18.1	18.1		18.1		18.1
50th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
30th %ile Green (s)	43.2	43.2		43.2	43.2		14.8	14.8		14.8		14.8
30th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Gap		Gap
10th %ile Green (s)	48.0	48.0		48.0	48.0		10.0	10.0		10.0		10.0
10th %ile Term Code	Coord	Coord		Coord	Coord		Hold	Hold		Min		Min
Stops (vph)	75	429		27	777			30		165		59
Fuel Used(l)	16	42		2	66			2		18		9
CO Emissions (g/hr)	300	785		44	1223			34		336		160
NOx Emissions (g/hr)	58	152		9	236			7		65		31
VOC Emissions (g/hr)	69	181		10	282			8		78		37
Dilemma Vehicles (#)	0	0		0	0			0		0		0
Queue Length 50th (m)	~17.5	30.7		3.0	57.5			4.0		25.2		8.9
Queue Length 95th (m)	#39.8	55.2		10.9	#118.0			11.4		40.7		18.8
Internal Link Dist (m)		336.2			280.5			50.0				252.3

Lanes, Volumes, Timings  
8: Walkley Rd & Baycrest Dr

10/31/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)	50.0			33.0						20.0		
Base Capacity (vph)	129	1864		274	1836			569		412	600	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	1.02	0.46		0.19	0.72			0.14		0.51	0.23	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	17 (24%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.02
Intersection Signal Delay:	19.8
Intersection LOS:	B
Intersection Capacity Utilization	80.9%
ICU Level of Service	D
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

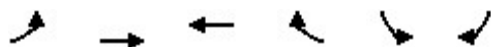
Splits and Phases: 8: Walkley Rd & Baycrest Dr



Lanes, Volumes, Timings

29: Heron Rd

10/31/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (vph)	0	897	869	41	0	58
Future Volume (vph)	0	897	869	41	0	58
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.993			0.865
Flt Protected						
Satd. Flow (prot)	0	3390	3366	0	0	1543
Flt Permitted						
Satd. Flow (perm)	0	3390	3366	0	0	1543
Link Speed (k/h)		50	50		50	
Link Distance (m)		177.1	137.3		61.0	
Travel Time (s)		12.8	9.9		4.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	997	966	46	0	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	997	1012	0	0	64
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.06	1.06	1.06	1.06
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.2%
Analysis Period (min)	15
	ICU Level of Service A