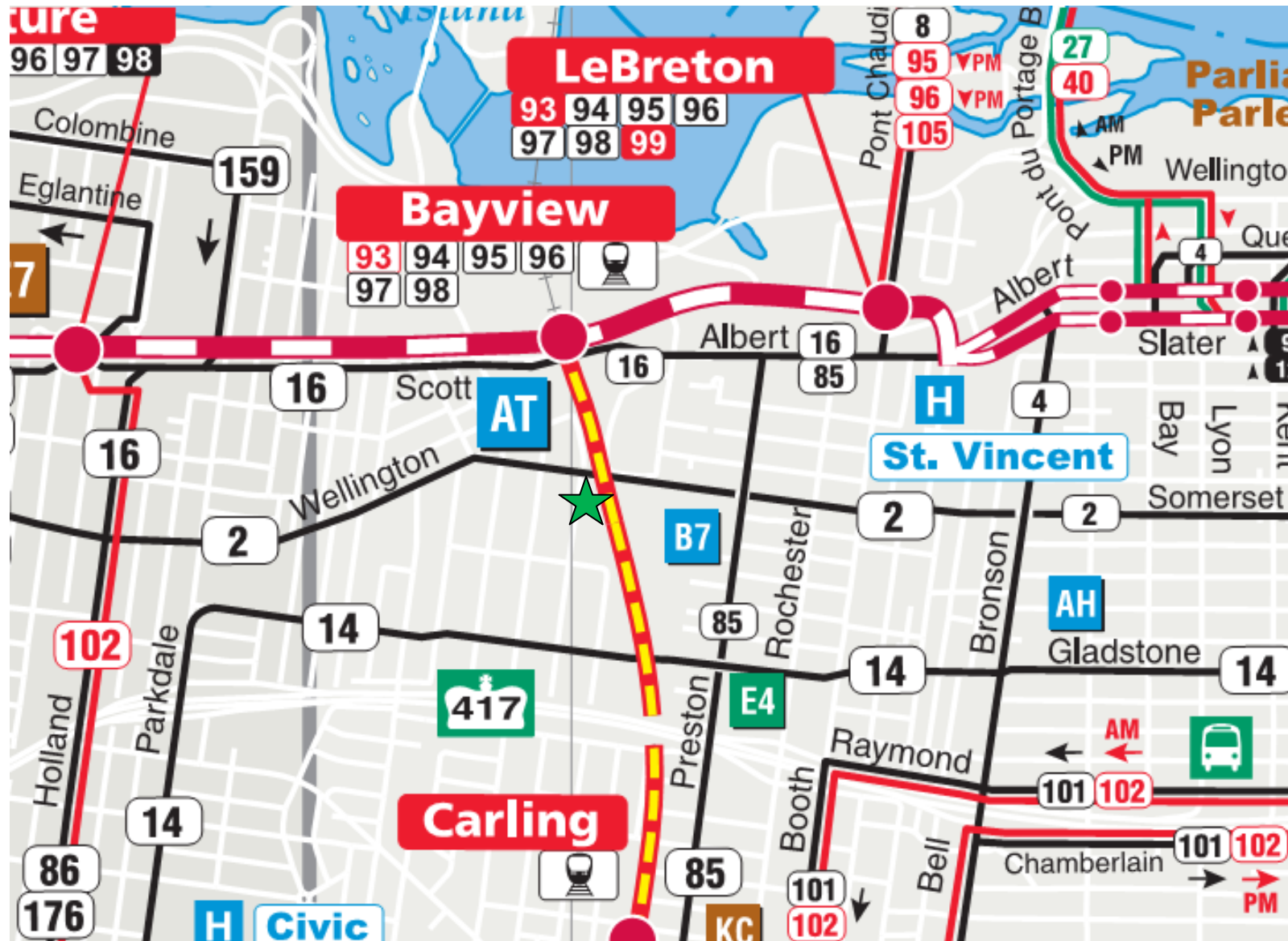

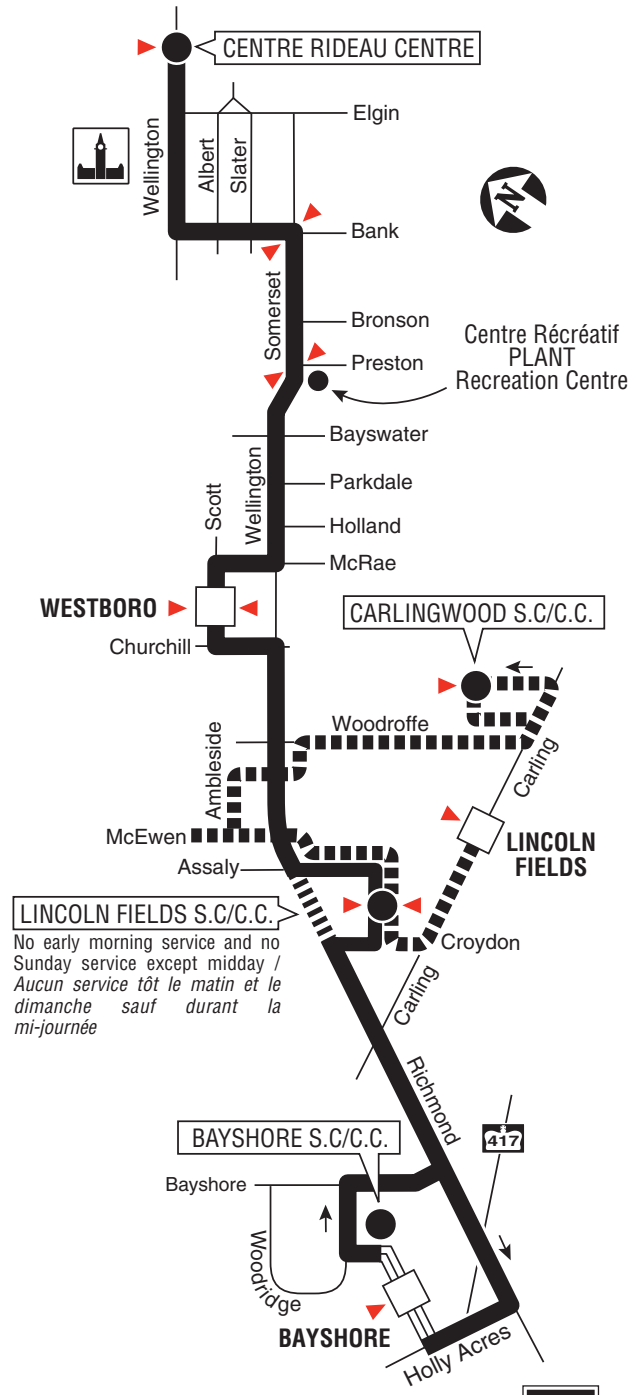


APPENDIX A

OC Transpo System Map & Route Information

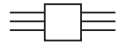





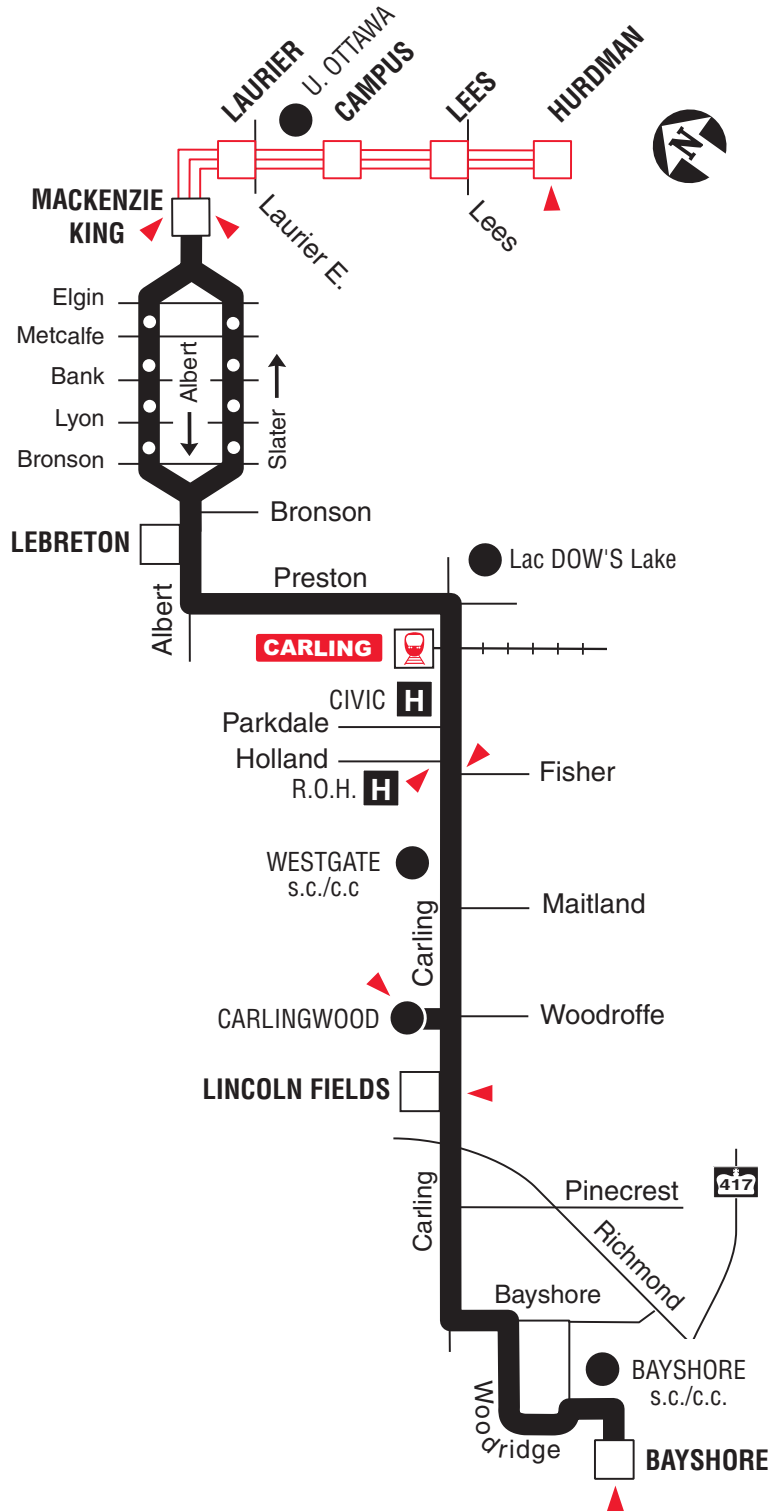
 = Subject Site




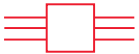

LINCOLN FIELDS S.C./C.C.
 No early morning service and no Sunday service except midday /
 Aucun service tôt le matin et le dimanche sauf durant la mi-journée

Legend • Légende

-  Transitway & Station
-  Some trips / *Quelques trajets*
-  Early morning service and some Sunday trips / *Service tôt le matin et quelques trajets le dimanche*
-  Timepoint / *Heures de passage*



Legend • Légende 

-  Transitway Station / Station du Transitway
-  No service evenings or weekends /
Aucun service en soirée et les fins de semaine
-  Light Rail Connection/
Correspondance au train léger
-  Timepoint / Heures de passage

APPENDIX B

Traffic Count Information & Bronson Ave Detour Plan

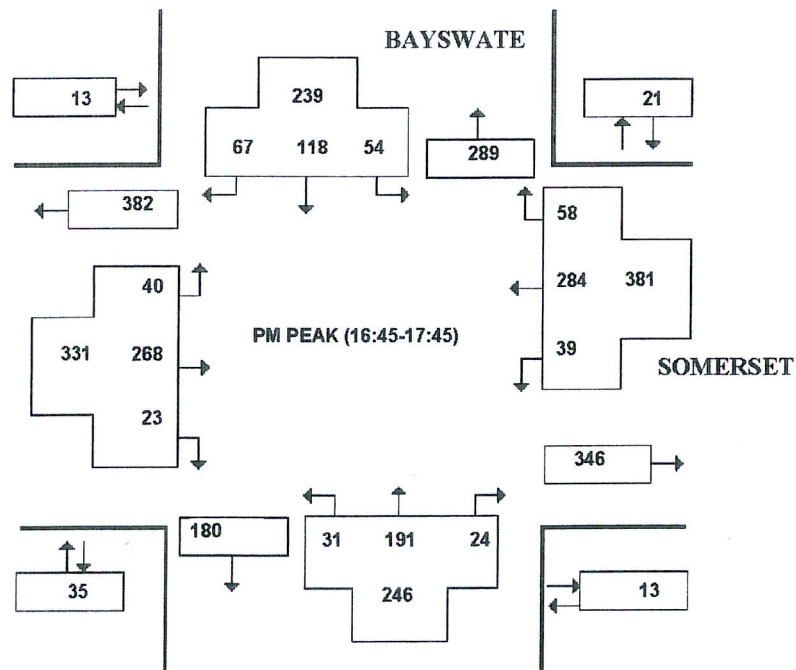
BAYSWATER AVE and SOMERSET ST
(ULRS Listing BAYSWATE & SOMERSET)

Survey Date: Friday 10 August 2012
Conditions: dry
Start Time: 0700

Total Observed U-Turns
Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 0

AADT Factor
Friday in August is 9

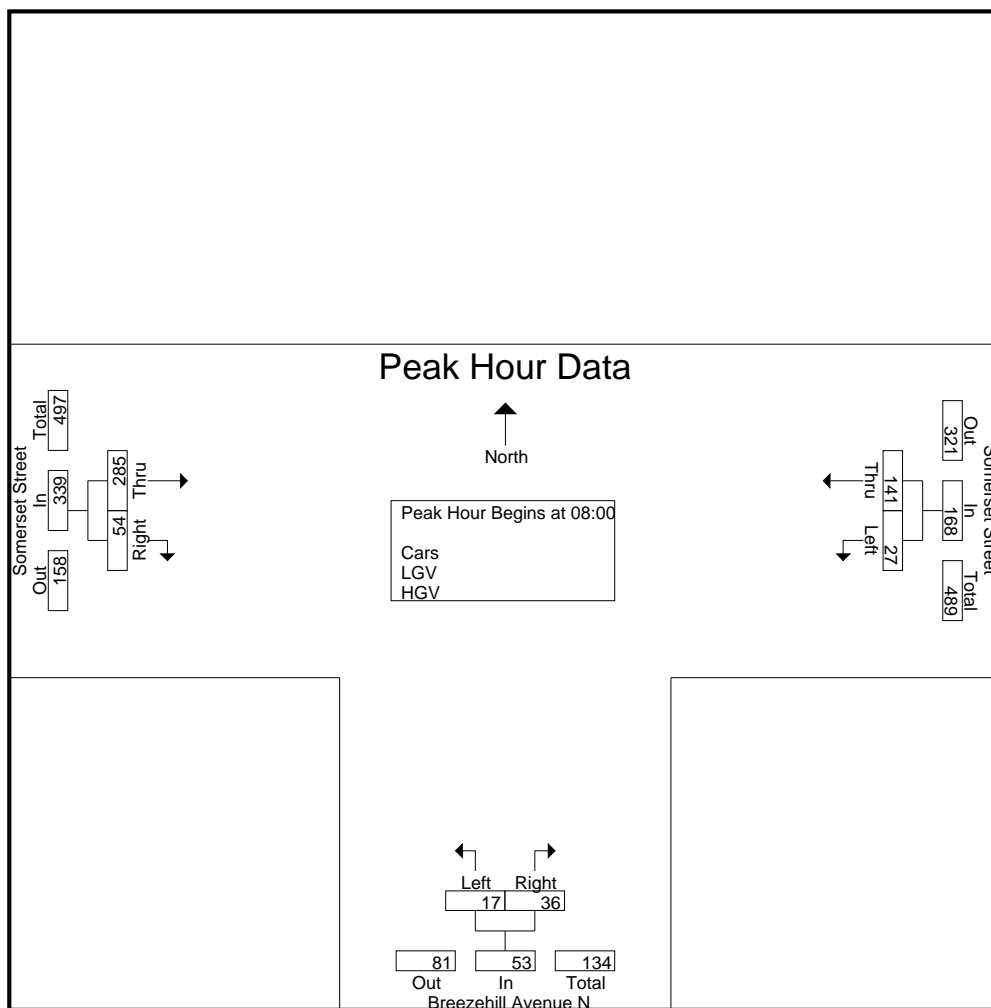
BAYSWATE				Pedestrians
9	239			9
	41	132	66	186
163				34
35				102
	AM PEAK (08:00-09:00)			146
200	147			10
				SOMERSET
18				229
	160	20	117	16
21				8



Weather: 3C, Overcast
Serial Number: TDC-12-1614
Collected By: H.Donald, H.Lu
Notes: Thursday

File Name : 20120329 - Somerset&Breezehill
Site Code : 11115214
Start Date : 3/29/2012
Page No : 4

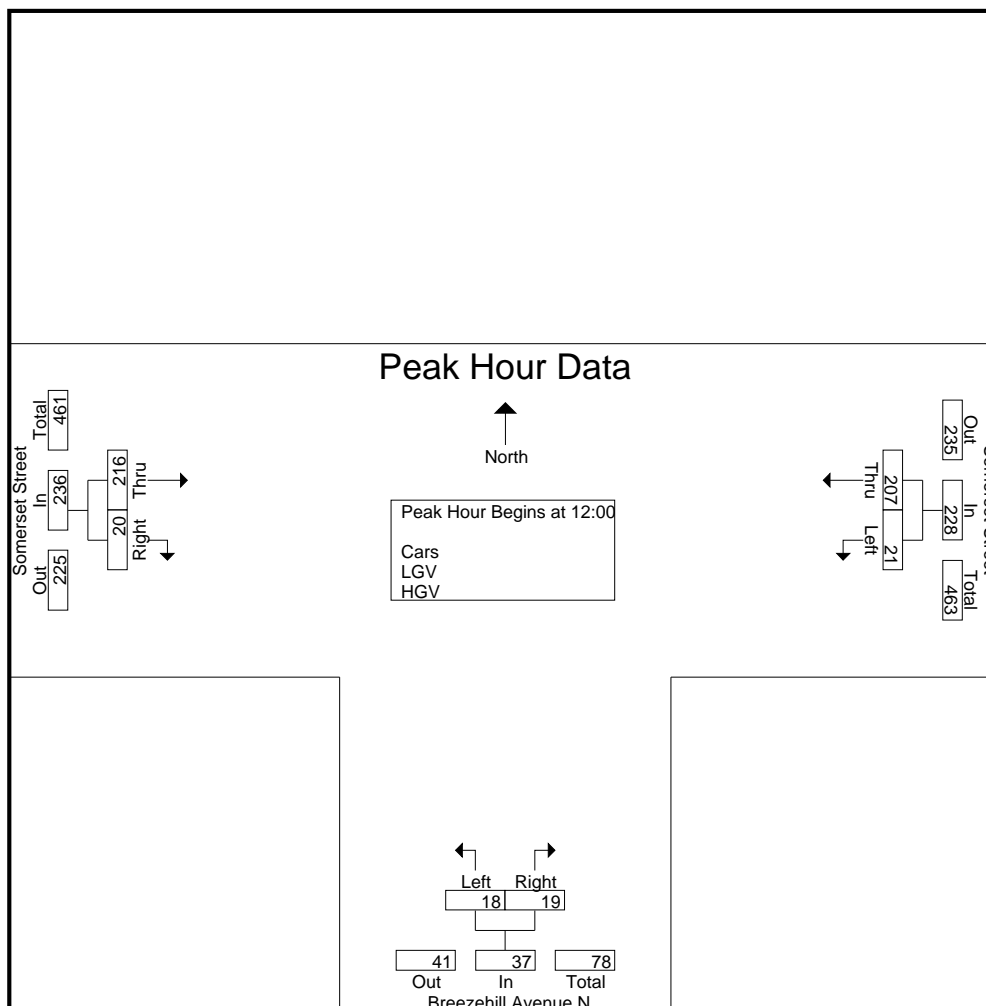
Start Time	Breezehill Avenue N Northbound			Somerset Street Westbound			Somerset Street Eastbound			Int. Total
	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00										
08:00	2	6	8	8	39	47	64	14	78	133
08:15	5	14	19	9	28	37	71	19	90	146
08:30	8	9	17	6	43	49	70	14	84	150
08:45	2	7	9	4	31	35	80	7	87	131
Total Volume	17	36	53	27	141	168	285	54	339	560
% App. Total	32.1	67.9		16.1	83.9		84.1	15.9		
PHF	.531	.643	.697	.750	.820	.857	.891	.711	.942	.933



Weather: 3C, Overcast
Serial Number: TDC-12-1614
Collected By: H.Donald, H.Lu
Notes: Thursday

File Name : 20120329 - Somerset&Breezehill
Site Code : 11115214
Start Date : 3/29/2012
Page No : 5

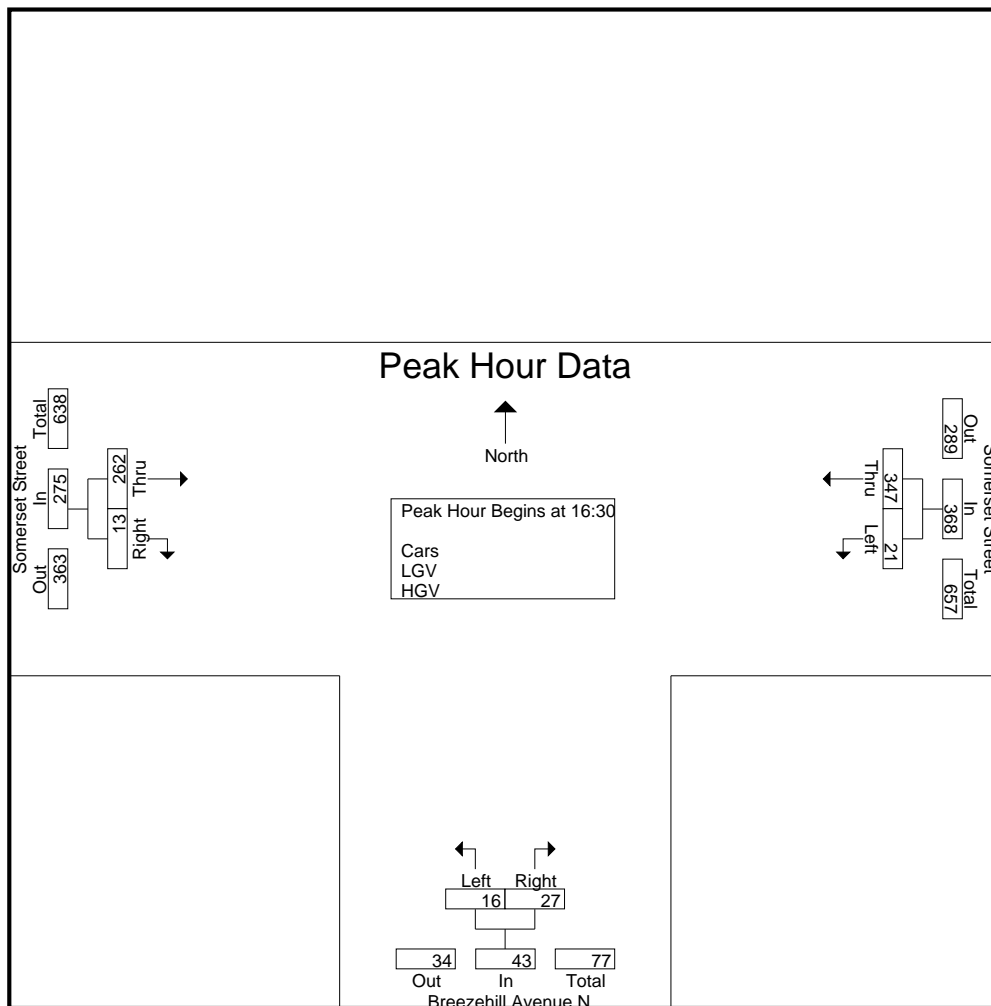
Start Time	Breezehill Avenue N Northbound			Somerset Street Westbound			Somerset Street Eastbound			Int. Total
	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00										
12:00	6	7	13	8	55	63	53	4	57	133
12:15	5	4	9	3	55	58	44	8	52	119
12:30	4	4	8	4	46	50	58	4	62	120
12:45	3	4	7	6	51	57	61	4	65	129
Total Volume	18	19	37	21	207	228	216	20	236	501
% App. Total	48.6	51.4		9.2	90.8		91.5	8.5		
PHF	.750	.679	.712	.656	.941	.905	.885	.625	.908	.942



Weather: 3C, Overcast
Serial Number: TDC-12-1614
Collected By: H.Donald, H.Lu
Notes: Thursday

File Name : 20120329 - Somerset&Breezehill
Site Code : 11115214
Start Date : 3/29/2012
Page No : 6

Start Time	Breezehill Avenue N Northbound			Somerset Street Westbound			Somerset Street Eastbound			Int. Total
	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	1	5	6	5	87	92	66	0	66	164
16:45	2	10	12	9	91	100	67	5	72	184
17:00	9	5	14	6	99	105	49	4	53	172
17:15	4	7	11	1	70	71	80	4	84	166
Total Volume	16	27	43	21	347	368	262	13	275	686
% App. Total	37.2	62.8		5.7	94.3		95.3	4.7		
PHF	.444	.675	.768	.583	.876	.876	.819	.650	.818	.932



BICYCLE TURNING MOVEMENTS (15 Min. Volumes)

Somerset Street & Breezehill Avenue

Survey Date: Wednesday, May 30, 2012

Total Observed U-Turns
 Westbound: 0 Southbound: 0
 Eastbound: 0 Northbound: 0

Job No.: 111152

Weather: 20 degrees, Sun

Recorded: DS

Time Period	Somerset Street							Breezehill Avenue					GRAND TOTAL	
	WESTBOUND			EASTBOUND				NORTHBOUND			SUB TOT	STR TOT		
			SUB TOT				SUB TOT	STR TOT						
7:30-7:45		3	3		13		13	16		4		4	4	20
7:45-8:00		6	6		15		15	21		5		5	5	26
8:00-8:15		6	6		13		13	19		4		4	4	23
8:15-8:30		5	5		14		14	19		11		11	11	30
8:30-8:45		6	6		11		11	17		4		4	4	21
8:45-9:00		7	7		20		20	27		2		2	2	29
3:00-3:15		7	7		5		5	12		3		3	3	15
3:15-3:30		8	8		10		10	18		0		0	0	18
3:30-3:45		6	6		4		4	10		2		2	2	12
3:45-4:00		12	12		7		7	19		1		1	1	20
4:00-4:15		15	15		7		7	22		4		4	4	26
4:15-4:30		12	12		7		7	19		1		1	1	20
4:30-4:45		18	18		5		5	23		1		1	1	24
4:45-5:00		19	19		12		12	31		5		5	5	36
5:00-5:15		25	25		6		6	31		0		0	0	31
5:15-5:30		21	21		5		5	26		2		2	2	28
														379

PEDESTRIAN (CHILD) TURNING MOVEMENTS (15 Min. Volumes)

Somerset Street & Breezehill Avenue

Survey Date: Wednesday, May 30, 2012

Total Observed U-Turns

Job No.: 111152

Weather: 20 degrees, Sun

Westbound: 0 Southbound: 0
Eastbound: 0 Northbound: 0

Recorded: DS

Time Period	Somerset Street								Breezehill Avenue				GRAND TOTAL
	<u>NORTH SOUTH</u> <u>WEST SIDE</u>		SUB TOT	<u>NORTH-SOUTH</u> <u>EAST SIDE</u>			SUB TOT	STR TOT	<u>CROSSING BREEZEHILL</u> <u>NORTHBOUND APPROACH</u>		SUB TOT	STR TOT	
7:30-7:45		0	0		0		0	0		0		0	0
7:45-8:00		0	0		0		0	0		0		0	0
8:00-8:15		2	2		0		0	2		1		1	3
8:15-8:30		22	22		1		1	23		13		13	36
8:30-8:45		6	6		1		1	7		6		6	13
8:45-9:00		0	0		0		0	0		0		0	0
3:00-3:15		34	34		0		0	34		11		11	45
3:15-3:30		51	51		0		0	51		10		10	61
3:30-3:45		7	7		0		0	7		5		5	12
3:45-4:00		4	4		0		0	4		1		1	5
4:00-4:15		1	1		0		0	1		0		0	1
4:15-4:30		1	1		0		0	1		0		0	1
4:30-4:45		2	2		0		0	2		1		1	3
4:45-5:00		1	1		0		0	1		0		0	1
5:00-5:15		1	1		1		1	2		0		0	2
5:15-5:30		7	7		3		3	10		3		3	13
													196



Public Works and Services Department

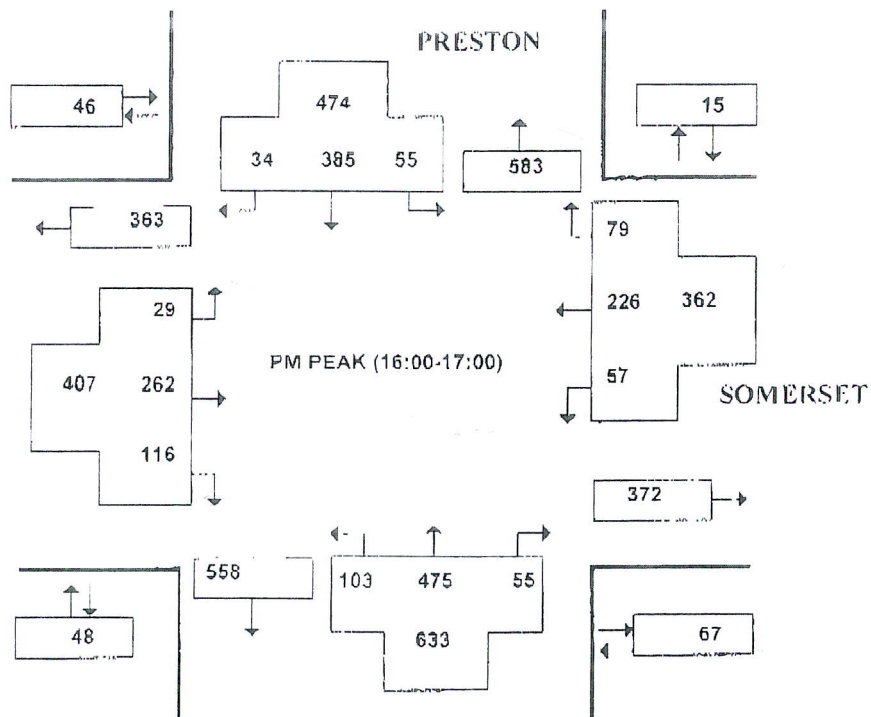
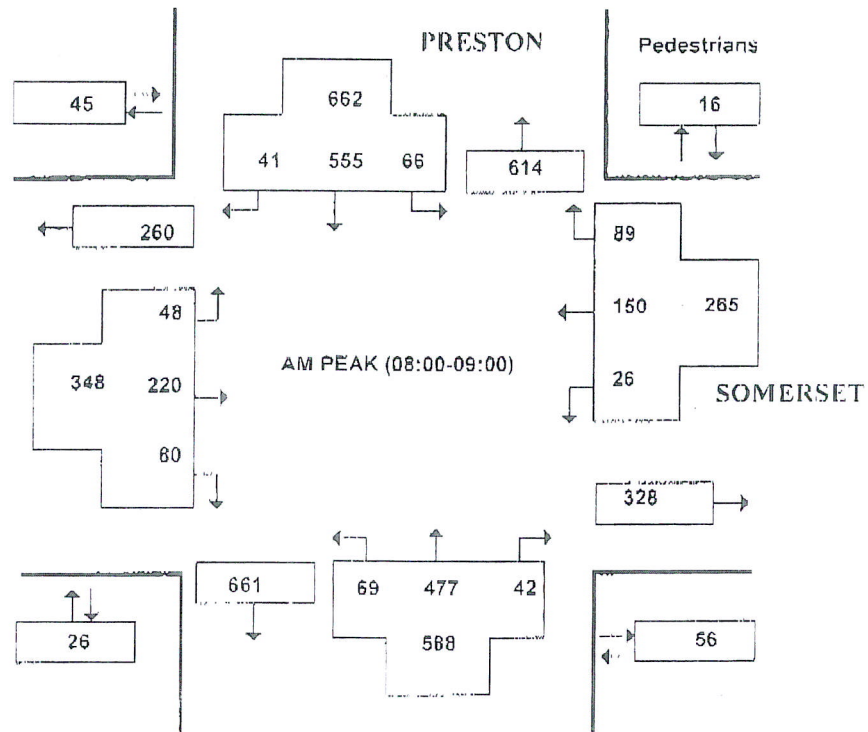
Count ID 2099

PRESTON ST and SOMERSET ST
(ULRS Using PRESTON & SOMERSET)

Survey Date: Tuesday 2 May 2006
Conditions: DRY
Start Time: 0700

Total Observed U-Turns
Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 0

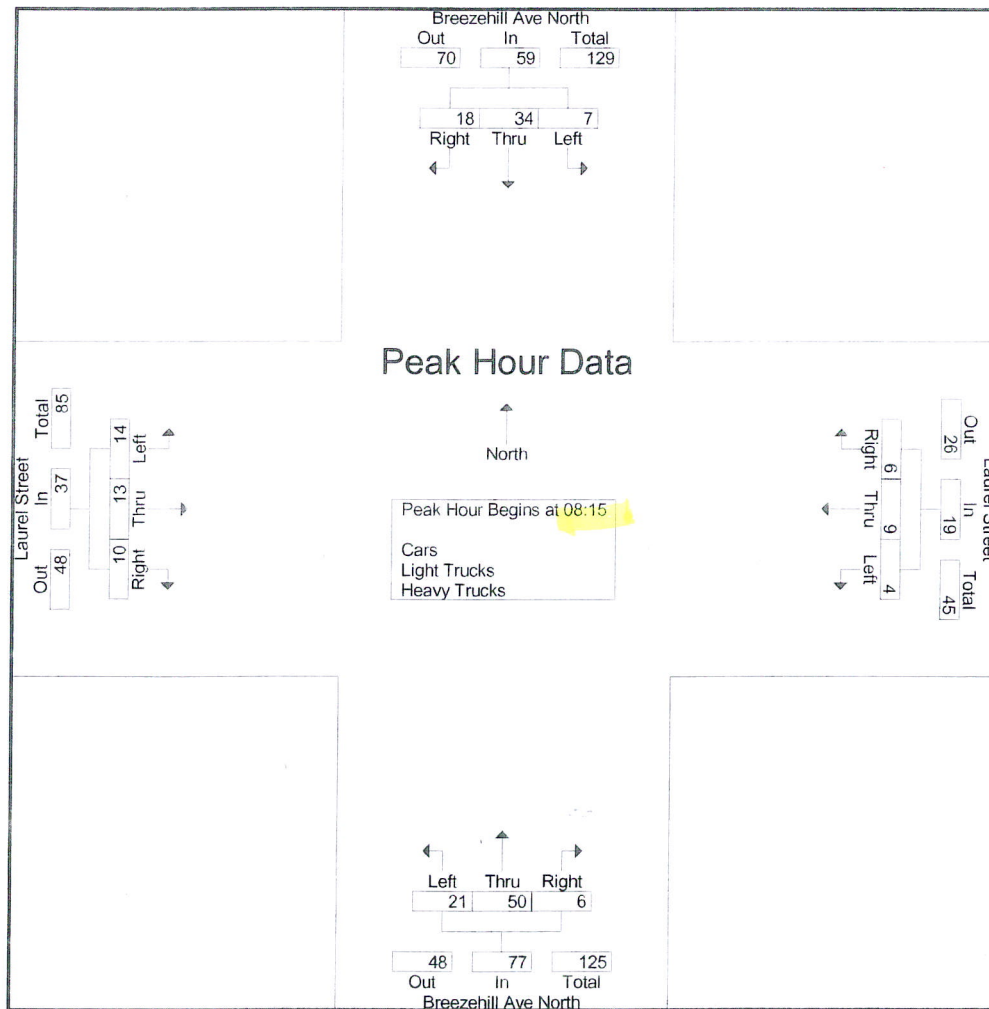
AADT Factor
Tuesday in May is
9



Serial Number: TDC-121612
Weather: High 17C Low 5C Sunny
Collected By: Brad Byvelds
Comments:

File Name : 20120512 - Laurel&Breezehill Count Combined
Site Code : 00111152
Start Date : 5/17/2012
Page No : 4

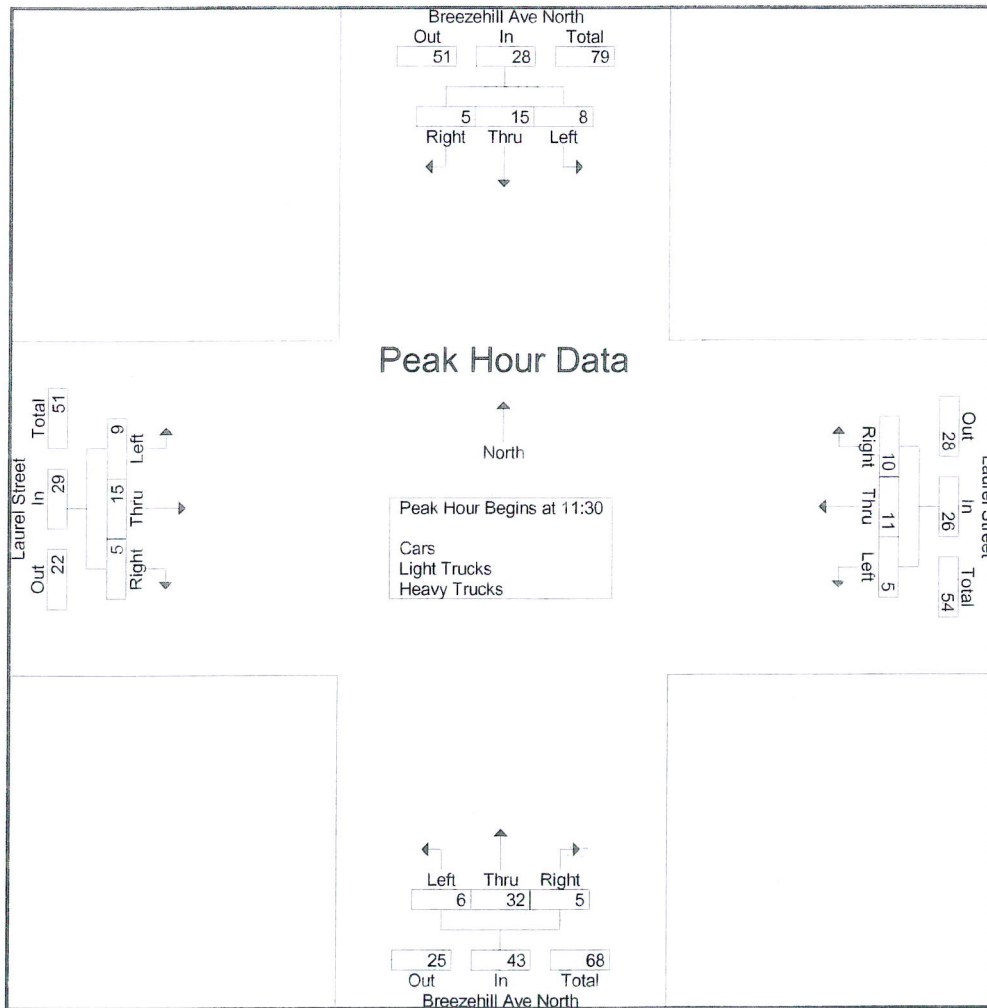
Start Time	Breezehill Ave North Northbound				Breezehill Ave North Southbound				Laurel Street Westbound				Laurel Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15																	
08:15	8	17	2	27	2	15	7	24	0	1	1	2	5	3	2	10	63
08:30	7	16	1	24	2	12	9	23	2	2	3	7	6	2	4	12	66
08:45	4	10	2	16	0	3	1	4	1	3	1	5	1	5	2	8	33
09:00	2	7	1	10	3	4	1	8	1	3	1	5	2	3	2	7	30
Total Volume	21	50	6	77	7	34	18	59	4	9	6	19	14	13	10	37	192
% App. Total	27.3	64.9	7.8		11.9	57.6	30.5		21.1	47.4	31.6		37.8	35.1	27		
PHF	.656	.735	.750	.713	.583	.567	.500	.615	.500	.750	.500	.679	.583	.650	.625	.771	.727



Serial Number: TDC-121612
Weather: High 17C Low 5C Sunny
Collected By: Brad Byvelds
Comments:

File Name : 20120512 - Laurel&Breezehill Count Combined
Site Code : 00111152
Start Date : 5/17/2012
Page No : 5

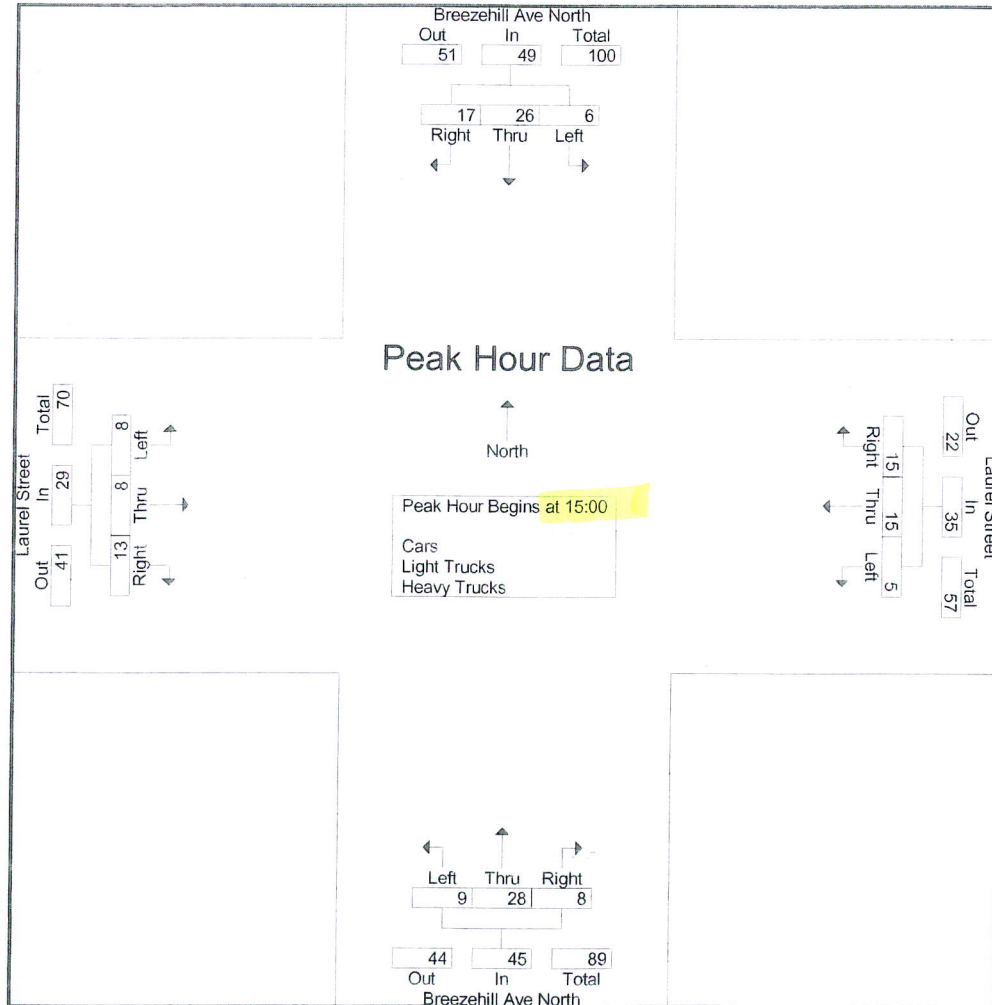
Start Time	Breezehill Ave North Northbound				Breezehill Ave North Southbound				Laurel Street Westbound				Laurel Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 11:00 to 13:15 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30																	
11:30	2	7	0	9	2	5	4	11	1	4	2	7	1	4	3	8	35
11:45	0	6	2	8	3	5	0	8	0	3	3	6	5	4	1	10	32
12:00	0	10	1	11	1	1	0	2	1	1	4	6	0	4	0	4	23
12:15	4	9	2	15	2	4	1	7	3	3	1	7	3	3	1	7	36
Total Volume	6	32	5	43	8	15	5	28	5	11	10	26	9	15	5	29	126
% App. Total	14	74.4	11.6		28.6	53.6	17.9		19.2	42.3	38.5		31	51.7	17.2		
PHF	.375	.800	.625	.717	.667	.750	.313	.636	.417	.688	.625	.929	.450	.938	.417	.725	.875



Serial Number: TDC-121612
Weather: High 17C Low 5C Sunny
Collected By: Brad Byvelds
Comments:

File Name : 20120512 - Laurel&Breezehill Count Combined
Site Code : 00111152
Start Date : 5/17/2012
Page No : 6

Start Time	Breezehill Ave North Northbound				Breezehill Ave North Southbound				Laurel Street Westbound				Laurel Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 15:00																	
15:00	4	11	4	19	2	11	3	16	0	3	6	9	2	2	8	12	56
15:15	0	6	1	7	0	1	3	4	3	5	5	13	2	1	2	5	29
15:30	4	3	1	8	1	5	7	13	1	4	4	9	1	1	2	4	34
15:45	1	8	2	11	3	9	4	16	1	3	0	4	3	4	1	8	39
Total Volume	9	28	8	45	6	26	17	49	5	15	15	35	8	8	13	29	158
% App. Total	20	62.2	17.8		12.2	53.1	34.7		14.3	42.9	42.9		27.6	27.6	44.8		
PHF	.563	.636	.500	.592	.500	.591	.607	.766	.417	.750	.625	.673	.667	.500	.406	.604	.705



BICYCLE TURNING MOVEMENTS (15 Min. Volumes)

Laurel Street & Breezehill Avenue

Survey Date: Thursday, May 17, 2012

Total Observed U-Turns
 Westbound: 0 Southbound: 0
 Eastbound: 0 Northbound: 0

Job No.: 111152

Weather: 20 degrees, Sun

Recorded: Cameron Odam

Time Period	Laurel Street									Breezehill Avenue									GRAND TOTAL
	WESTBOUND				EASTBOUND					NORTHBOUND				SOUTHBOUND					
	LT	ST	RT	SUB TOT	LT	ST	RT	SUB TOT	STR TOT	LT	ST	RT	SUB TOT	LT	ST	RT	SUB TOT	STR TOT	
7:00-7:15		0		0		0		0	0		0		0		0		0	0	0
7:15-7:30		1		1		2		2	3		0		0		1		1	1	4
7:30-7:45		0		0		4		4	4		0		0		0		0	0	4
7:45-8:00		1		1		6		6	7		3		3		1		1	4	11
8:00-8:15		0		0		0		0	0		0		0		3		3	3	3
8:15-8:30		0		0		30		30	30		1		1		9		9	10	40
8:30-8:45		0		0		6		6	6		3		3		7		7	10	16
8:45-9:00		1		1		3		3	4		2		2		0		0	2	6
9:00-9:15		0		0		4		4	4		0		0		0		0	0	4
9:15-9:30		1		1		0		0	1		1		1		0		0	1	2
9:30-9:45		0		0		2		2	2		0		0		0		0	0	2
9:45-10:00		2		2		0		0	2		0		0		2		2	2	4
11:00-11:15		0		0		1		1	1		0		0		4		4	4	5
11:15-11:30		0		0		1		1	1		0		0		0		0	0	1
11:30-11:45		0		0		0		0	0		0		0		0		0	0	0
11:45-12:00		0		0		0		0	0		1		1		1		1	2	2
12:00-12:15		0		0		2		2	2		0		0		1		1	1	3
12:15-12:30		0		0		1		1	1		0		0		4		4	4	5
12:30-12:45		1		1		1		1	2		0		0		1		1	1	3
12:45-1:00		1		1		2		2	3		0		0		0		0	0	3
1:00-1:15		0		0		0		0	0		0		0		0		0	0	0
1:15-1:30		0		0		0		0	0		1		1		1		1	2	2
3:00-3:15		0		0		2		2	2		3		3		0		0	3	5
3:15-3:30		0		0		1		1	1		0		0		2		2	2	3
3:30-3:45		0		0		0		0	0		0		0		8		8	8	8
3:45-4:00		0		0		1		1	1		1		1		2		2	3	4
4:00-4:15		1		1		0		0	1		2		2		11		11	13	14
4:15-4:30		2		2		1		1	3		0		0		7		7	7	10
4:30-4:45		2		2		0		0	2		1		1		2		2	3	5
4:45-5:00		3		3		3		3	6		3		3		3		3	6	12
5:00-5:15		0		0		3		3	3		1		1		6		6	7	10
5:15-5:30		2		2		1		1	3		1		1		3		3	4	7
5:30-5:45		0		0		0		0	0		0		0		3		3	3	3
5:45-6:00		1		1		7		7	8		0		0		3		3	3	11
																			212

PEDESTRIAN (ALL) TURNING MOVEMENTS (15 Min. Volumes)

Laurel Street & Breezehill Avenue

Survey Date: Thursday, May 17, 2012

Total Observed U-Turns
 Westbound: 0 Southbound: 0
 Eastbound: 0 Northbound: 0

Job No.:111152

Weather: 20 degrees, Sun

Recorded: Ryan Donnelly

Time Period	Laurel Street								Breezehill Avenue										
	CROSSING LAUREL EASTBOUND APPROACH			SUB TOT	CROSSING LAUREL WESTBOUND APPROACH			SUB TOT	STR TOT	CROSSING BREEZEHILL NORTHBOUND APPROACH			SUB TOT	CROSSING BREEZEHILL SOUTHBOUND APPROACH			SUB TOT	STR TOT	GRAND TOTAL
7:00-7:15		1		1		1		1	2		5		5		0		0	5	7
7:15-7:30		2		2		2		2	4		4		4		0		0	4	8
7:30-7:45		2		2		0		0	2		4		4		0		0	4	6
7:45-8:00		1		1		0		0	1		2		2		0		0	2	3
8:00-8:15		3		3		0		0	3		2		2		1		1	3	6
8:15-8:30		40		40		8		8	48		15		15		2		2	17	65
8:30-8:45		16		16		6		6	22		16		16		0		0	16	38
8:45-9:00		2		2		0		0	2		0		0		0		0	0	2
9:00-9:15		1		1		2		2	3		3		3		0		0	3	6
9:15-9:30		1		1		4		4	5		4		4		0		0	4	9
9:30-9:45		2		2		0		0	2		2		2		1		1	3	5
9:45-10:00		2		2		0		0	2		3		3		1		1	4	6
11:00-11:15		2		2		6		6	8		1		1		2		2	21	29
11:15-11:30		0		0		4		4	4		1		1		2		2	4	8
11:30-11:45		1		1		0		0	1		1		1		0		0	2	3
11:45-12:00		0		0		0		0	0		1		1		0		0	2	2
12:00-12:15		2		2		1		1	3		1		1		1		1	3	6
12:15-12:30		9		9		1		1	10		4		4		1		1	1	11
12:30-12:45		2		2		0		0	2		2		2		1		1	1	3
12:45-1:00		4		4		1		1	5		0		0		2		2	5	10
1:00-1:15		0		0		0		0	0		0		0		0		0	0	0
1:15-1:30		1		1		0		0	1		0		3		1		1	1	2
3:00-3:15		34		34		5		5	39		19		19		0		0	19	58
3:15-3:30		3		3		2		2	5		2		2		1		1	3	8
3:30-3:45		1		1		1		1	2		2		2		3		3	5	7
3:45-4:00		3		3		1		1	4		2		2		0		0	2	6
4:00-4:15		4		4		3		3	7		2		2		0		0	2	9
4:15-4:30		4		4		1		1	5		0		0		0		0	0	5
4:30-4:45		5		5		2		2	7		0		0		2		2	2	9
4:45-5:00		6		6		0		0	6		3		3		0		0	3	9
5:00-5:15		1		1		0		0	1		0		0		0		0	0	1
5:15-5:30		3		3		0		0	3		0		0		0		0	0	3
5:30-5:45		8		8		2		2	10		2		2		4		4	6	16
5:45-6:00		0		0		0		0	0		0		0		0		0	0	0
																			366

PEDESTRIAN (CHILD) TURNING MOVEMENTS (15 Min. Volumes)

Laurel Street & Breezehill Avenue

Survey Date: Thursday, May 17, 2012

Total Observed U-Turns
 Westbound: 0 Southbound: 0
 Eastbound: 0 Northbound: 0

Job No.:111152

Weather: 20 degrees, Sun

Recorded: Ryan Donnelly

Time Period	Laurel Street								Breezehill Avenue								
	CROSSING LAUREL EASTBOUND APPROACH			SUB TOT	CROSSING LAUREL WESTBOUND APPROACH			STR TOT	CROSSING BREEZEHILL NORTHBOUND APPROACH			SUB TOT	CROSSING BREEZEHILL SOUTHBOUND APPROACH			STR TOT	GRAND TOTAL
7:00-7:15		0		0		0		0	0		0		0		0	0	0
7:15-7:30		0		0		0		0	0		0		0		0	0	0
7:30-7:45		0		0		0		0	0		0		0		0	0	0
7:45-8:00		0		0		0		0	0		0		0		0	0	0
8:00-8:15		1		1		0		0	1		1		0		0	1	2
8:15-8:30		22		22		5		5	27		8		0		0	8	35
8:30-8:45		2		2		2		2	4		6		0		0	6	10
8:45-9:00		0		0		0		0	0		0		0		0	0	0
9:00-9:15		0		0		0		0	0		0		0		0	0	0
9:15-9:30		0		0		0		0	0		0		0		0	0	0
9:30-9:45		0		0		0		0	0		0		0		0	0	0
9:45-10:00		0		0		0		0	0		0		0		0	0	0
11:00-11:15		1		1		0		0	1		0		0		0	9	10
11:15-11:30		0		0		0		0	0		0		0		0	0	0
11:30-11:45		0		0		0		0	0		0		0		0	0	0
11:45-12:00		0		0		0		0	0		0		0		0	0	0
12:00-12:15		0		0		0		0	0		0		0		0	0	0
12:15-12:30		3		3		0		0	3		1		0		0	0	3
12:30-12:45		0		0		0		0	0		0		0		0	0	0
12:45-1:00		0		0		0		0	0		0		0		0	0	0
1:00-1:15		0		0		0		0	0		0		0		0	0	0
1:15-1:30		0		0		0		0	0		0		0		0	0	0
3:00-3:15		20		20		2		2	22		9		0		0	9	31
3:15-3:30		2		2		0		0	2		0		0		0	0	2
3:30-3:45		0		0		0		0	0		0		0		0	0	0
3:45-4:00		1		1		0		0	1		0		0		0	0	1
4:00-4:15		2		2		0		0	2		0		0		0	0	2
4:15-4:30		2		2		0		0	2		0		0		0	0	2
4:30-4:45		1		1		0		0	1		0		0		0	0	1
4:45-5:00		1		1		0		0	1		0		0		0	0	1
5:00-5:15		0		0		0		0	0		0		0		0	0	0
5:15-5:30		0		0		0		0	0		0		0		0	0	0
5:30-5:45		2		2		0		0	2		0		0		0	0	2
5:45-6:00		0		0		0		0	0		0		0		0	0	0
																	102

Suite 200
240 Michael Cowpland Drive
Kanata ON, K2M 1P6

Weather: Clear
Serial Number:T-1613
Collected By: Harry Hu
Notes:

File Name : 20121219 - Gladstone&Breezehill
Site Code : 00112191
Start Date : 19/12/2012
Page No : 1

Groups Printed- Cars - LGV - HGV

Start Time	Breezehill Northbound					Breezehill Southbound					Gladstone Westbound					Gladstone Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	1	0	1	2	1	0	2	0	3	2	11	0	1	14	0	31	3	0	34	53
07:15 AM	1	0	0	2	3	1	1	0	1	3	2	13	0	0	15	0	31	4	3	38	59
07:30 AM	1	0	1	0	2	1	1	2	0	4	5	22	0	3	30	0	42	3	3	48	84
07:45 AM	0	0	2	1	3	6	0	1	0	7	5	21	4	4	34	1	41	4	8	54	98
Total	2	1	3	4	10	9	2	5	1	17	14	67	4	8	93	1	145	14	14	174	294
08:00 AM	3	0	2	0	5	3	0	3	1	7	5	27	1	4	37	1	48	8	5	62	111
08:15 AM	1	0	1	1	3	11	0	10	2	23	4	22	0	1	27	1	51	26	10	88	141
08:30 AM	1	0	0	1	2	15	0	14	0	29	1	32	1	0	34	2	44	9	9	64	129
08:45 AM	0	0	1	0	1	2	0	1	0	3	6	31	0	1	38	1	39	4	8	52	94
Total	5	0	4	2	11	31	0	28	3	62	16	112	2	6	136	5	182	47	32	266	475
09:00 AM	0	0	1	0	1	4	0	8	1	13	4	34	0	2	40	0	47	5	6	58	112
09:15 AM	0	0	0	0	0	2	1	4	0	7	8	33	1	1	43	1	34	3	2	40	90
09:30 AM	1	1	0	0	2	3	0	6	0	9	5	42	1	0	48	0	42	11	4	57	116
09:45 AM	1	1	1	0	3	6	1	4	0	11	1	33	0	1	35	4	35	4	2	45	94
Total	2	2	2	0	6	15	2	22	1	40	18	142	2	4	166	5	158	23	14	200	412
11:30 AM	0	0	0	0	0	7	0	5	0	12	8	43	1	1	53	2	43	4	1	50	115
11:45 AM	0	0	1	1	2	5	0	5	1	11	10	41	0	0	51	0	42	8	1	51	115
Total	0	0	1	1	2	12	0	10	1	23	18	84	1	1	104	2	85	12	2	101	230
12:00 PM	2	2	0	0	4	8	0	5	0	13	4	34	1	0	39	1	32	5	0	38	94
12:15 PM	0	1	2	0	3	7	0	3	0	10	9	40	2	2	53	0	32	4	1	37	103
12:30 PM	0	0	1	0	1	11	1	4	0	16	3	59	1	3	66	3	37	5	4	49	132
12:45 PM	0	0	1	1	2	4	0	4	1	9	3	47	0	0	50	2	52	3	4	61	122
Total	2	3	4	1	10	30	1	16	1	48	19	180	4	5	208	6	153	17	9	185	451
01:00 PM	0	0	1	1	2	3	0	1	1	5	9	46	0	8	63	0	36	4	3	43	113
01:15 PM	0	0	1	0	1	9	0	4	1	14	8	42	4	2	56	1	37	8	3	49	120
Total	0	0	2	1	3	12	0	5	2	19	17	88	4	10	119	1	73	12	6	92	233
03:00 PM	1	0	1	1	3	16	0	8	0	24	11	55	1	3	70	2	39	6	4	51	148
03:15 PM	0	0	0	0	0	4	1	2	1	8	9	71	0	3	83	0	42	7	2	51	142
03:30 PM	3	0	1	1	5	7	1	7	0	15	6	72	1	4	83	0	25	1	3	29	132
03:45 PM	0	1	2	0	3	6	1	1	0	8	1	86	0	2	89	0	39	3	6	48	148
Total	4	1	4	2	11	33	3	18	1	55	27	284	2	12	325	2	145	17	15	179	570
04:00 PM	2	0	0	0	2	3	0	5	1	9	3	132	0	4	139	3	56	5	2	66	216
04:15 PM	1	0	1	0	2	4	0	3	1	8	13	123	1	7	144	2	51	4	5	62	216
04:30 PM	3	1	0	0	4	5	1	1	0	7	10	119	0	5	134	0	38	3	4	45	190
04:45 PM	2	0	0	0	2	3	0	4	0	7	7	91	1	10	109	1	63	4	7	75	193
Total	8	1	1	0	10	15	1	13	2	31	33	465	2	26	526	6	208	16	18	248	815
05:00 PM	1	1	1	1	4	10	0	0	0	10	7	111	1	6	125	12	44	4	4	64	203

Suite 200
240 Michael Cowpland Drive
Kanata ON, K2M 1P6

Weather: Clear
Serial Number:T-1613
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Notes:

File Name : 20121219 - Gladstone&Breezehill
Site Code : 00112191
Start Date : 19/12/2012
Page No : 2

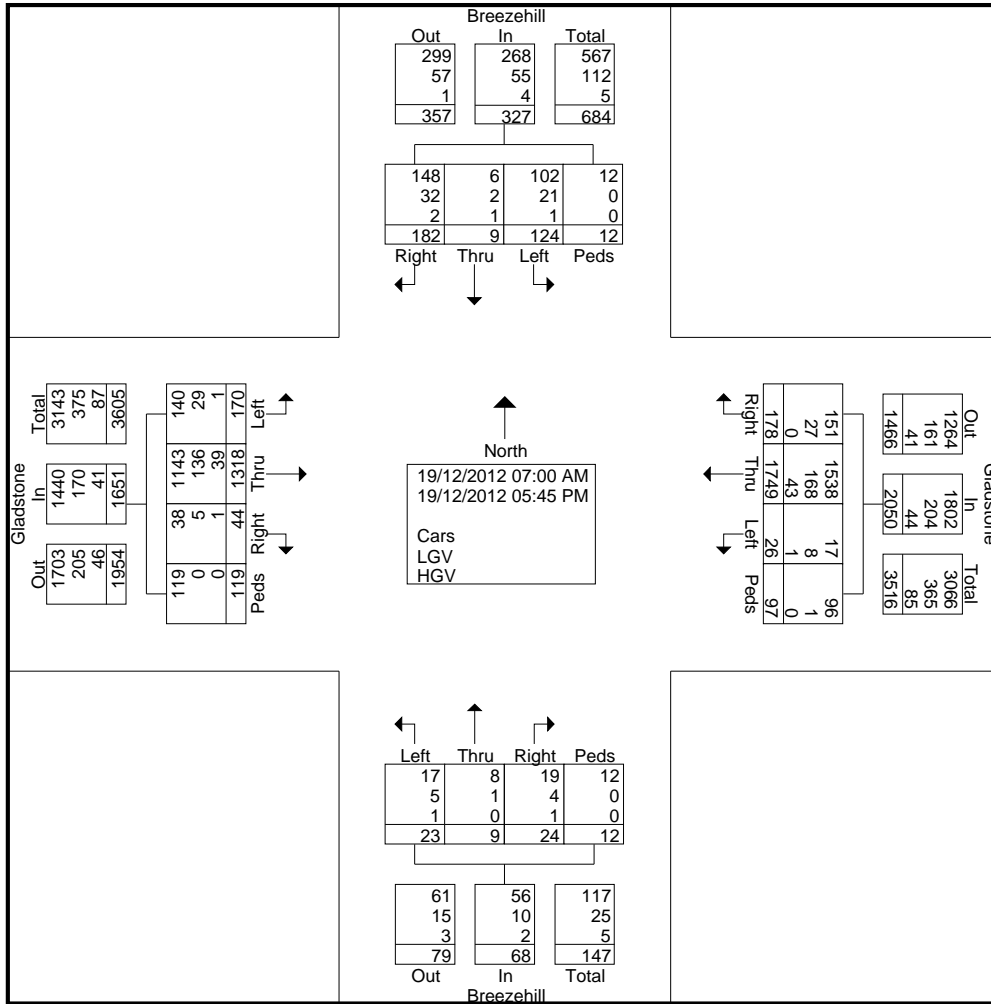
Groups Printed- Cars - LGV - HGV

Start Time	Breezehill Northbound					Breezehill Southbound					Gladstone Westbound					Gladstone Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:15 PM	0	0	0	0	0	4	0	1	0	5	3	92	1	11	107	1	47	6	2	56	168
05:30 PM	0	0	0	0	0	5	0	4	0	9	2	74	2	6	84	0	43	1	0	44	137
05:45 PM	0	0	1	0	1	6	0	2	0	8	4	50	1	2	57	3	35	1	3	42	108
Total	1	1	2	1	5	25	0	7	0	32	16	327	5	25	373	16	169	12	9	206	616
Grand Total	24	9	23	12	68	182	9	124	12	327	178	1749	26	97	2050	44	1318	170	119	1651	4096
Apprch %	35.3	13.2	33.8	17.6		55.7	2.8	37.9	3.7		8.7	85.3	1.3	4.7		2.7	79.8	10.3	7.2		
Total %	0.6	0.2	0.6	0.3	1.7	4.4	0.2	3	0.3	8	4.3	42.7	0.6	2.4	50	1.1	32.2	4.2	2.9	40.3	
Cars	19	8	17	12	56	148	6	102	12	268	151	1538	17	96	1802	38	1143	140	119	1440	3566
% Cars	79.2	88.9	73.9	100	82.4	81.3	66.7	82.3	100	82	84.8	87.9	65.4	99	87.9	86.4	86.7	82.4	100	87.2	87.1
LGV	4	1	5	0	10	32	2	21	0	55	27	168	8	1	204	5	136	29	0	170	439
% LGV	16.7	11.1	21.7	0	14.7	17.6	22.2	16.9	0	16.8	15.2	9.6	30.8	1	10	11.4	10.3	17.1	0	10.3	10.7
HGV	1	0	1	0	2	2	1	1	0	4	0	43	1	0	44	1	39	1	0	41	91
% HGV	4.2	0	4.3	0	2.9	1.1	11.1	0.8	0	1.2	0	2.5	3.8	0	2.1	2.3	3	0.6	0	2.5	2.2

Suite 200
 240 Michael Cowpland Drive
 Kanata ON, K2M 1P6

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 Site Code : 00112191
 Start Date : 19/12/2012
 Page No : 3

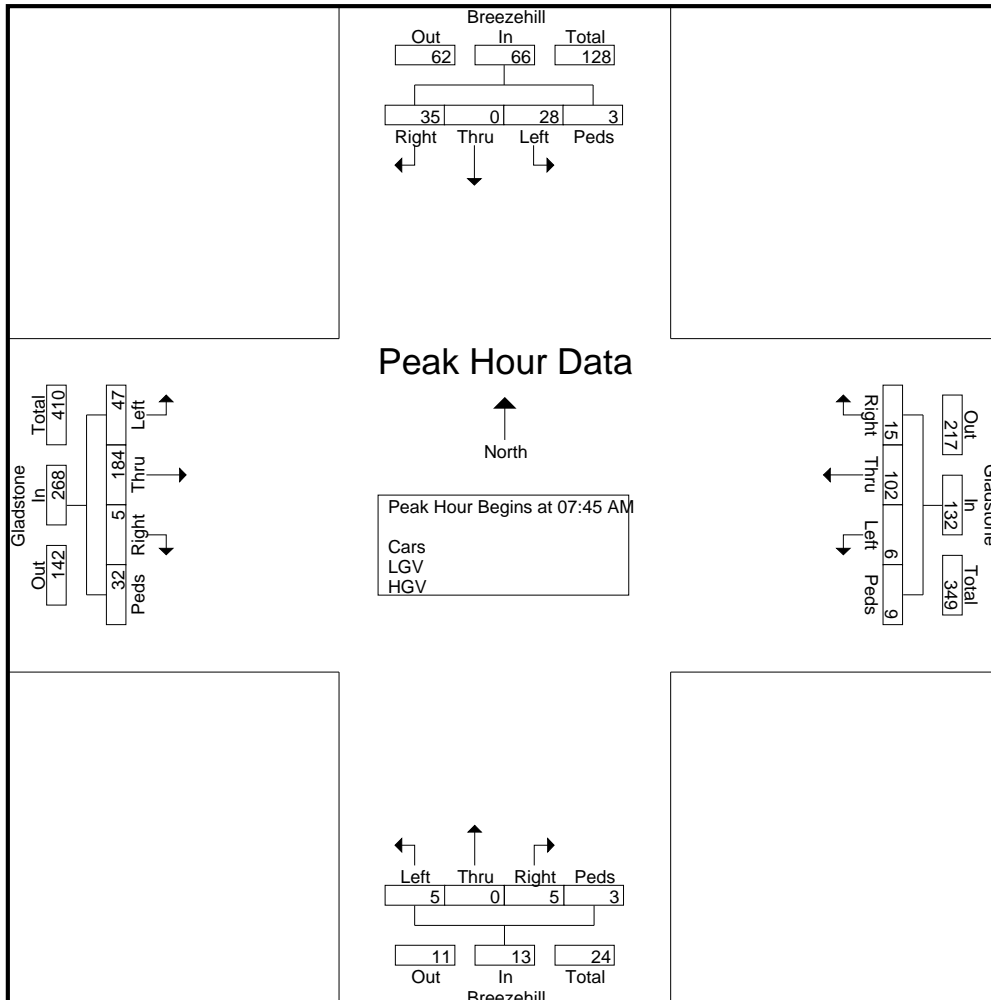


Suite 200
 240 Michael Cowpland Drive
 Kanata ON, K2M 1P6

Weather: Clear
 Serial Number:T-1613
 Collected By: Harry Hu
 Notes:

File Name : 20121219 - Gladstone&Breezehill
 Site Code : 00112191
 Start Date : 19/12/2012
 Page No : 4

Start Time	Breezehill Northbound					Breezehill Southbound					Gladstone Westbound					Gladstone Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	2	1	3	6	0	1	0	7	5	21	4	4	34	1	41	4	8	54	98
08:00 AM	3	0	2	0	5	3	0	3	1	7	5	27	1	4	37	1	48	8	5	62	111
08:15 AM	1	0	1	1	3	11	0	10	2	23	4	22	0	1	27	1	51	26	10	88	141
08:30 AM	1	0	0	1	2	15	0	14	0	29	1	32	1	0	34	2	44	9	9	64	129
Total Volume	5	0	5	3	13	35	0	28	3	66	15	102	6	9	132	5	184	47	32	268	479
% App. Total	38.5	0	38.5	23.1		53	0	42.4	4.5		11.4	77.3	4.5	6.8		1.9	68.7	17.5	11.9		
PHF	.417	.000	.625	.750	.650	.583	.000	.500	.375	.569	.750	.797	.375	.563	.892	.625	.902	.452	.800	.761	.849

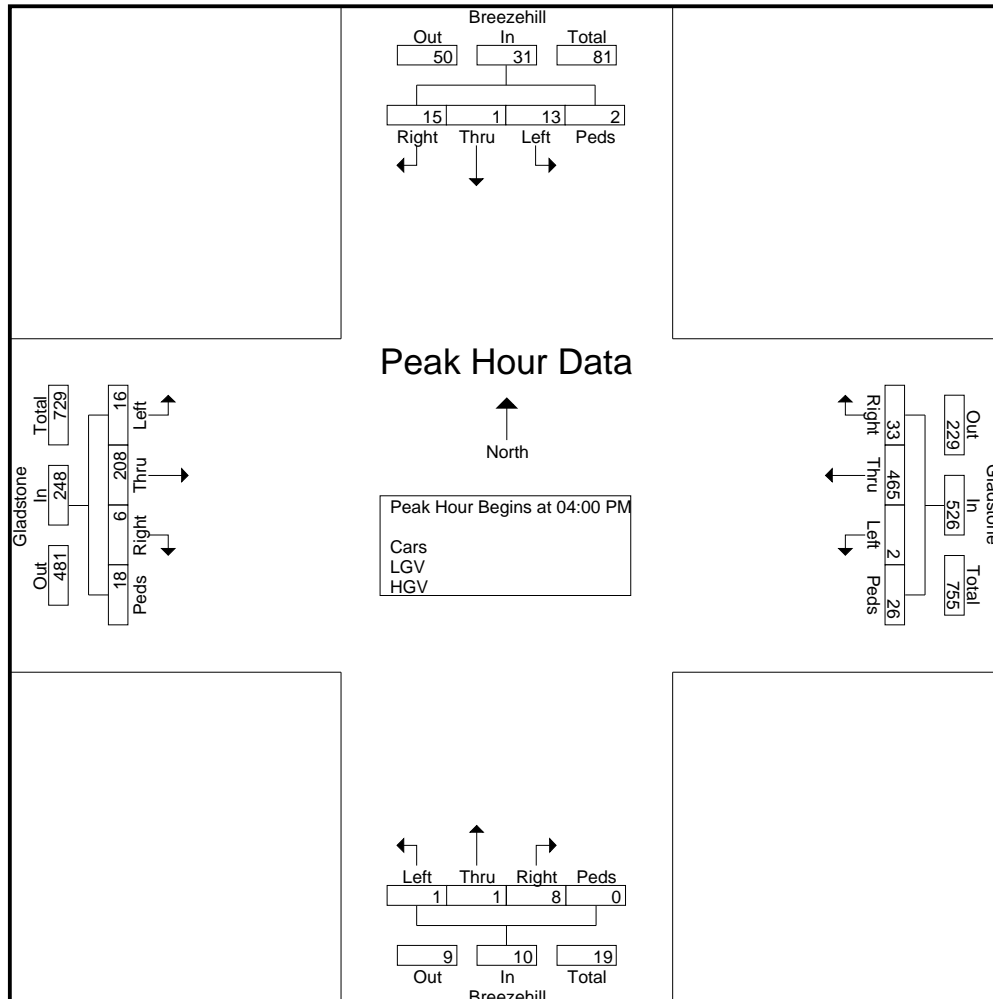


Suite 200
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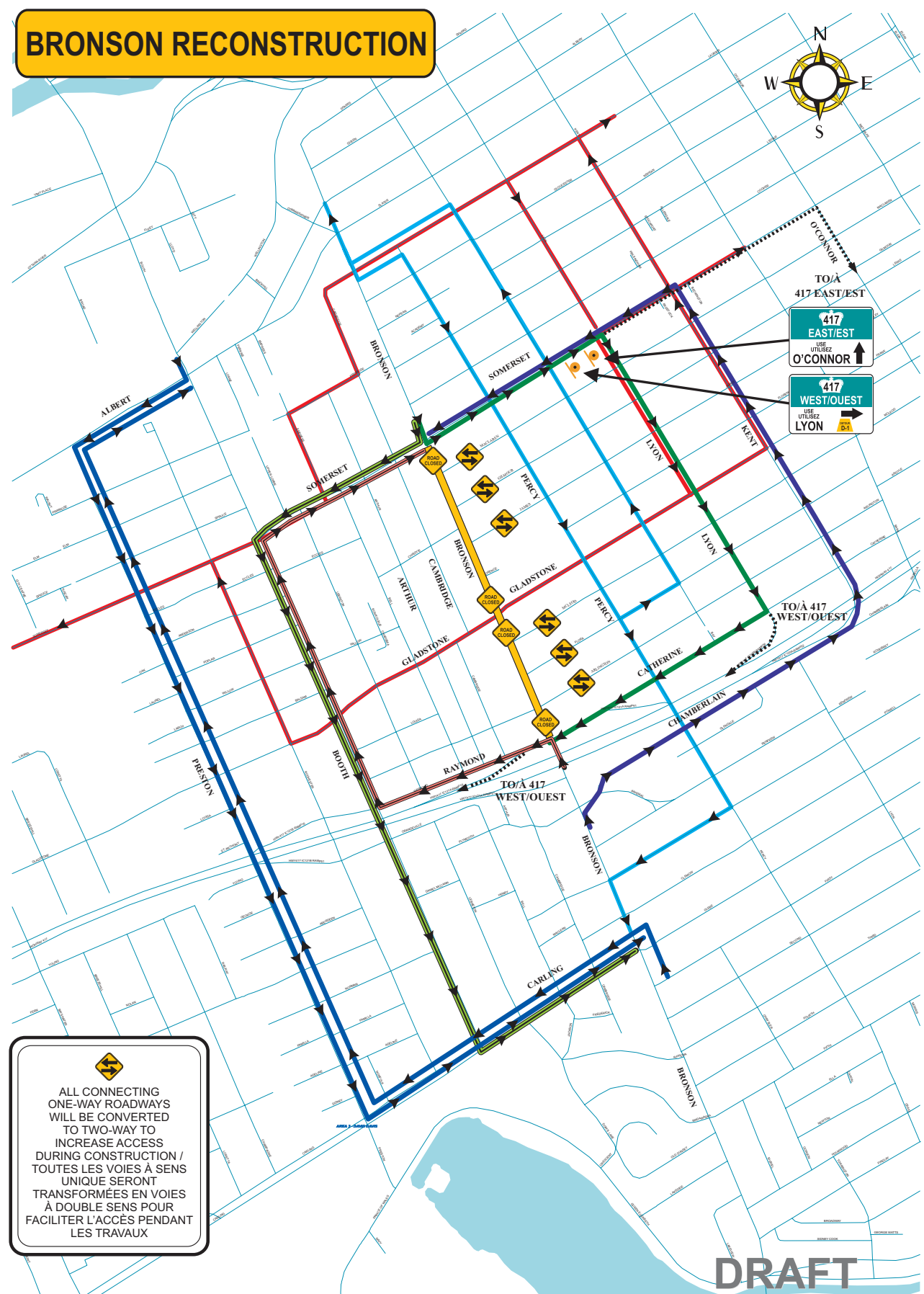
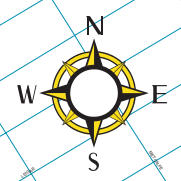
Weather: Clear
 Serial Number:T-1613
 Collected By: Harry Hu
 Notes:

File Name : 20121219 - Gladstone&Breezehill
 Site Code : 00112191
 Start Date : 19/12/2012
 Page No : 5

Start Time	Breezehill Northbound					Breezehill Southbound					Gladstone Westbound					Gladstone Eastbound					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Right	Thr u	Left	Peds	App. Total	Right	Thr u	Left	Peds	App. Total	
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	2	0	0	0	2	3	0	5	1	9	3	132	0	4	139	3	56	5	2	66	216
04:15 PM	1	0	1	0	2	4	0	3	1	8	13	123	1	7	144	2	51	4	5	62	216
04:30 PM	3	1	0	0	4	5	1	1	0	7	10	119	0	5	134	0	38	3	4	45	190
04:45 PM	2	0	0	0	2	3	0	4	0	7	7	91	1	10	109	1	63	4	7	75	193
Total Volume	8	1	1	0	10	15	1	13	2	31	33	465	2	26	526	6	208	16	18	248	815
% App. Total	.80	.10	.10	.00		48.4	3.2	41.9	6.5		6.3	88.4	0.4	4.9		2.4	83.9	6.5	7.3		
PHF	.667	.250	.250	.000	.625	.750	.250	.650	.500	.861	.635	.881	.500	.650	.913	.500	.825	.800	.643	.827	.943



BRONSON RECONSTRUCTION



TO/À 417 EAST/EST

417 EAST/EST
USE / UTILISEZ O'CONNOR ↑

417 WEST/OUEST
USE / UTILISEZ LYON →



ALL CONNECTING ONE-WAY ROADWAYS WILL BE CONVERTED TO TWO-WAY TO INCREASE ACCESS DURING CONSTRUCTION / TOUTES LES VOIES À SENS UNIQUE SERONT TRANSFORMÉES EN VOIES À DOUBLE SENS POUR FACILITER L'ACCÈS PENDANT LES TRAVAUX









DRAFT

BRONSON CONSTRUCTION DRAFT DETOUR PLAN
CITY OF OTTAWA TRAFFIC MANAGEMENT SECTOR
B.REDDICK 12.03.02
SCALE = NTS

NOT FOR CONSTRUCTION



LEGEND / LÉGENDE

-  PRIMARY NORTHBOUND DETOUR D-1 / PREMIÈRE DÉVIATION EN DIRECTION NORD D-1
-  SECONDARY NORTHBOUND DETOUR D-2 / DEUXIÈME DÉVIATION EN DIRECTION NORD D-2
-  ALTERNATIVE BYPASS ROUTE (NORTH & SOUTHBOUND) D-3 / AUTRE PARCOURS POSSIBLE (EN DIRECTION NORD ET SUD) D-3
-  PRIMARY SOUTHBOUND DETOUR D-1 / PREMIÈRE DÉVIATION EN DIRECTION SUD D-1
-  SECONDARY SOUTHBOUND DETOUR D-2 / DEUXIÈME DÉVIATION EN DIRECTION SUD D-2
-  ROADWAY UNDER CONSTRUCTION / CHAUSSÉE EN CONSTRUCTION
-  EXISTING BIKE ROUTES
-  RECOMMENDED EASTWEST CYCLING ALTERNATIVES

APPENDIX C1

Intersection Analysis Reports (Background Traffic)

3: Bayswater & Somerset
Existing AM Peak

1040 Somerset Street
04/04/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	217	18	11	110	37	20	117	24	98	132	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		0.99		0.97	0.99	
Frt			0.850			0.850		0.980			0.964	
Fit Protected		0.993			0.995			0.994		0.950		
Satd. Flow (prot)	0	1657	1570	0	1672	1617	0	1823	0	1807	1809	0
Fit Permitted		0.949			0.967			0.953		0.687		
Satd. Flow (perm)	0	1582	1519	0	1623	1567	0	1745	0	1272	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			45		15			28	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	8		9	9		8	9		21	21		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	2%	2%	1%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	38	236	20	12	120	40	22	127	26	107	143	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	20	0	132	40	0	175	0	107	188	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	29.8	29.8	29.8	29.8	29.8	29.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		29.8	29.8		29.8	29.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.43	0.43		0.43	0.43		0.42		0.42	0.42	
v/c Ratio		0.41	0.03		0.19	0.06		0.24		0.20	0.24	
Control Delay		16.3	1.6		13.5	4.1		13.2		14.4	12.3	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		16.3	1.6		13.5	4.1		13.2		14.4	12.3	
LOS		B	A		B	A		B		B	B	
Approach Delay		15.3			11.3			13.2			13.0	
Approach LOS		B			B			B			B	

Intersection Summary

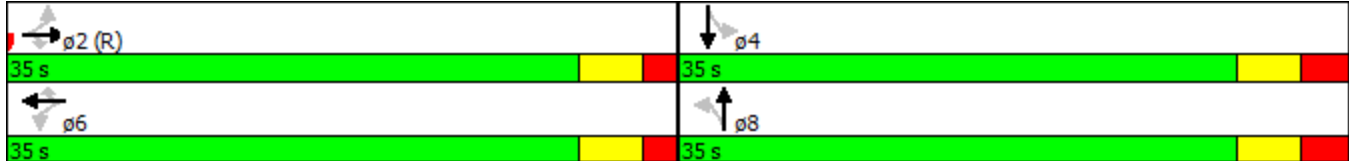
Area Type: Other
Cycle Length: 70

3: Bayswater & Somerset
Existing AM Peak

1040 Somerset Street
04/04/2013

Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 13.5
Intersection LOS: B
Intersection Capacity Utilization 72.7%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Bayswater & Somerset



13: Preston & Somerset
Existing AM Peak

1040 Somerset Street
04/04/2013



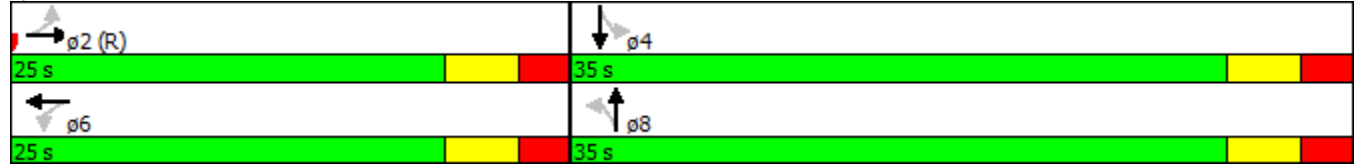
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	234	85	28	159	94	73	506	45	70	589	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.97		0.96	0.96		0.99	0.99		0.99	1.00	
Frt		0.960			0.944			0.988			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1547	0	1722	1477	0	1755	1605	0	1772	1596	0
Flt Permitted	0.538			0.437			0.220			0.294		
Satd. Flow (perm)	928	1547	0	761	1477	0	404	1605	0	542	1596	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			52			10			9	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	56		45	45		56	16		26	26		16
Confl. Bikes (#/hr)			8			14			32			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	55	254	92	30	173	102	79	550	49	76	640	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	346	0	30	275	0	79	599	0	76	688	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (%)	41.7%	41.7%		41.7%	41.7%		58.3%	58.3%		58.3%	58.3%	
Maximum Green (s)	19.4	19.4		19.4	19.4		29.3	29.3		29.3	29.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.4	19.4		19.4	19.4		29.3	29.3		29.3	29.3	
Actuated g/C Ratio	0.32	0.32		0.32	0.32		0.49	0.49		0.49	0.49	
v/c Ratio	0.18	0.66		0.12	0.54		0.40	0.76		0.29	0.88	
Control Delay	16.6	23.3		16.0	17.9		17.5	20.5		12.9	29.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.6	23.3		16.0	17.9		17.5	20.5		12.9	29.4	
LOS	B	C		B	B		B	C		B	C	
Approach Delay		22.4			17.7			20.1			27.8	
Approach LOS		C			B			C			C	

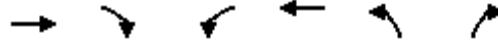
Intersection Summary

Area Type: Other

Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 22.9	Intersection LOS: C
Intersection Capacity Utilization 78.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	285	54	27	141	17	36
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	310	59	29	153	18	39
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	109					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			442		625	413
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			359		556	327
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		96	94
cM capacity (veh/h)			1041		418	620
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	368	183	58			
Volume Left	0	29	18			
Volume Right	59	0	39			
cSH	1700	1041	537			
Volume to Capacity	0.22	0.03	0.11			
Queue Length 95th (m)	0.0	0.7	2.7			
Control Delay (s)	0.0	1.6	12.5			
Lane LOS		A	B			
Approach Delay (s)	0.0	1.6	12.5			
Approach LOS			B			
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			40.5%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	13	10	4	9	6	21	50	6	7	34	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	14	11	4	10	7	23	54	7	8	37	20
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	40	21	84	64								
Volume Left (vph)	15	4	23	8								
Volume Right (vph)	11	7	7	20								
Hadj (s)	-0.07	-0.12	0.02	-0.14								
Departure Headway (s)	4.2	4.1	4.1	4.0								
Degree Utilization, x	0.05	0.02	0.10	0.07								
Capacity (veh/h)	831	834	850	885								
Control Delay (s)	7.4	7.2	7.5	7.3								
Approach Delay (s)	7.4	7.2	7.5	7.3								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.4									
Level of Service			A									
Intersection Capacity Utilization			29.3%	ICU Level of Service								A
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	184	5	6	102	15	5	0	5	28	0	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	200	5	7	111	16	5	0	5	30	0	38
Pedestrians		3			2			32			6	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			3			1	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	133			237			510	483	237	450	478	128
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	133			237			510	483	237	450	478	128
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			99	100	99	94	100	96
cM capacity (veh/h)	1450			1282			414	452	774	486	453	918
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	257	134	11	68								
Volume Left	51	7	5	30								
Volume Right	5	16	5	38								
cSH	1450	1282	539	658								
Volume to Capacity	0.04	0.01	0.02	0.10								
Queue Length 95th (m)	0.8	0.1	0.5	2.6								
Control Delay (s)	1.8	0.4	11.8	11.1								
Lane LOS	A	A	B	B								
Approach Delay (s)	1.8	0.4	11.8	11.1								
Approach LOS			B	B								
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			31.4%		ICU Level of Service				A			
Analysis Period (min)			15									

3: Bayswater & Somerset
Existing PM Peak

1040 Somerset Street
04/04/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	217	18	39	284	58	31	191	24	54	118	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.96		0.99		0.98	0.97	
Frt			0.850			0.850		0.987			0.946	
Fit Protected		0.993			0.994			0.994		0.950		
Satd. Flow (prot)	0	1657	1570	0	1671	1617	0	1840	0	1807	1746	0
Fit Permitted		0.919			0.937			0.943		0.568		
Satd. Flow (perm)	0	1532	1520	0	1573	1554	0	1736	0	1055	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			63		8			45	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	13		8	8		13	31		22	22		31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	1%	2%	2%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	38	236	20	42	309	63	34	208	26	59	128	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	20	0	351	63	0	268	0	59	201	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%	46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.8	34.8	34.8	34.8	34.8	34.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		34.8	34.8		34.8	34.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.46	0.46		0.46	0.46		0.39		0.39	0.39	
v/c Ratio		0.39	0.03		0.48	0.08		0.40		0.14	0.29	
Control Delay		15.2	1.7		16.7	3.7		18.2		16.1	13.4	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		15.2	1.7		16.7	3.7		18.2		16.1	13.4	
LOS		B	A		B	A		B		B	B	
Approach Delay		14.3			14.7			18.2			14.0	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 75

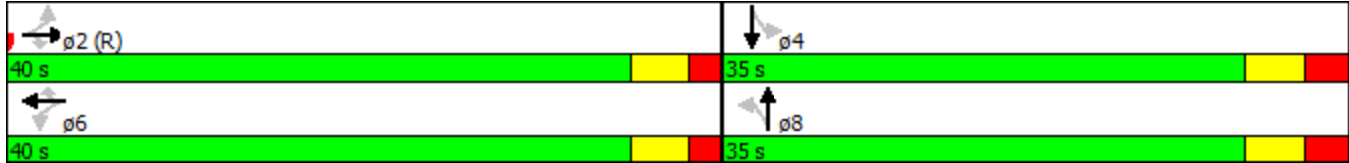
3: Bayswater & Somerset
Existing PM Peak

1040 Somerset Street
04/04/2013

Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 15.2
Intersection Capacity Utilization 93.5%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service F

Splits and Phases: 3: Bayswater & Somerset



13: Preston & Somerset
Existing PM Peak

1040 Somerset Street
04/04/2013



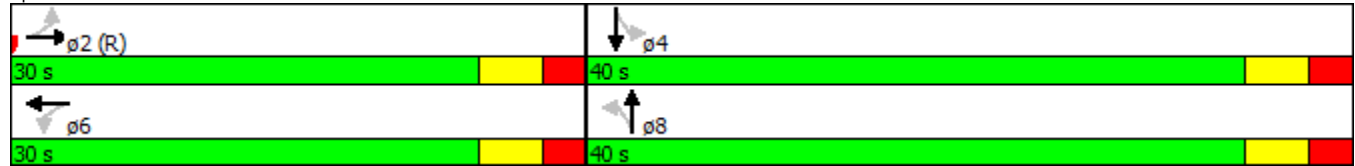
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	278	123	61	240	84	109	504	58	58	409	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.97		0.97			0.98	0.99		0.99		0.99
Fr t		0.954			0.961			0.985			0.988	
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1531	0	1722	1517	0	1755	1602	0	1772	1588	0
Fit Permitted	0.427			0.322			0.382			0.274		
Satd. Flow (perm)	747	1531	0	566	1517	0	692	1602	0	507	1588	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			28			12			9	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	34	302	134	66	261	91	118	548	63	63	445	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	436	0	66	352	0	118	611	0	63	484	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	42.9%	42.9%		42.9%	42.9%		57.1%	57.1%		57.1%	57.1%	
Maximum Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.49	0.49		0.49	0.49	
v/c Ratio	0.13	0.78		0.34	0.64		0.35	0.77		0.25	0.62	
Control Delay	17.3	31.0		22.8	24.0		14.7	22.9		13.8	17.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.3	31.0		22.8	24.0		14.7	22.9		13.8	17.1	
LOS	B	C		C	C		B	C		B	B	
Approach Delay		30.0			23.8			21.5			16.7	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	329	17	21	364	17	27
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	358	18	23	396	18	29
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	109					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			450		882	441
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			373		837	363
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		94	95
cM capacity (veh/h)			1034		290	595
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	376	418	48			
Volume Left	0	23	18			
Volume Right	18	0	29			
cSH	1700	1034	423			
Volume to Capacity	0.22	0.02	0.11			
Queue Length 95th (m)	0.0	0.5	2.9			
Control Delay (s)	0.0	0.7	14.6			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.7	14.6			
Approach LOS			B			
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			46.3%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	8	13	5	15	15	9	28	8	6	26	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	9	14	5	16	16	10	30	9	7	28	18
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	32	38	49	53								
Volume Left (vph)	9	5	10	7								
Volume Right (vph)	14	16	9	18								
Hadj (s)	-0.20	-0.20	-0.06	-0.17								
Departure Headway (s)	3.9	3.9	4.0	3.9								
Degree Utilization, x	0.03	0.04	0.05	0.06								
Capacity (veh/h)	883	884	863	895								
Control Delay (s)	7.1	7.1	7.3	7.2								
Approach Delay (s)	7.1	7.1	7.3	7.2								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.2									
Level of Service			A									
Intersection Capacity Utilization			18.4%	ICU Level of Service								A
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	208	6	2	465	33	1	1	8	13	1	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	226	7	2	505	36	1	1	9	14	1	16
Pedestrians					1			9			25	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	566			242			818	844	239	827	829	548
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	566			242			818	844	239	827	829	548
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			100	100	99	95	100	97
cM capacity (veh/h)	989			1303			270	288	788	271	292	526
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	250	543	11	32								
Volume Left	17	2	1	14								
Volume Right	7	36	9	16								
cSH	989	1303	577	363								
Volume to Capacity	0.02	0.00	0.02	0.09								
Queue Length 95th (m)	0.4	0.0	0.4	2.2								
Control Delay (s)	0.8	0.1	11.4	15.9								
Lane LOS	A	A	B	C								
Approach Delay (s)	0.8	0.1	11.4	15.9								
Approach LOS			B	C								
Intersection Summary												
Average Delay				1.0								
Intersection Capacity Utilization			38.8%		ICU Level of Service				A			
Analysis Period (min)			15									



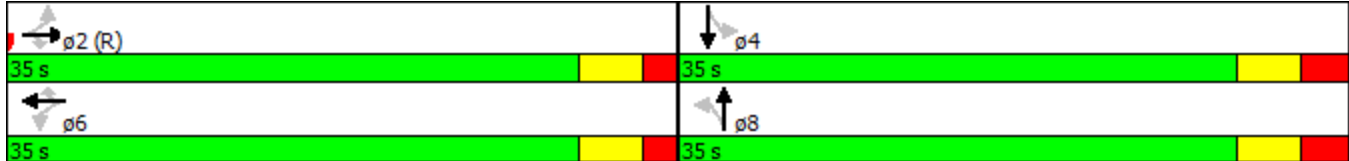
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	245	19	11	129	45	21	122	27	107	137	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97			0.99		0.97	0.99
Frt			0.850			0.850		0.979			0.964	
Fit Protected		0.994			0.996			0.994		0.950		
Satd. Flow (prot)	0	1659	1570	0	1673	1617	0	1820	0	1807	1809	0
Fit Permitted		0.950			0.969			0.952		0.675		
Satd. Flow (perm)	0	1583	1519	0	1627	1567	0	1741	0	1250	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			49		16			28	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	8		9	9		8	9		21	21		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	2%	2%	1%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	39	266	21	12	140	49	23	133	29	116	149	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	305	21	0	152	49	0	185	0	116	196	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	29.8	29.8	29.8	29.8	29.8	29.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		29.8	29.8		29.8	29.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.43	0.43		0.43	0.43		0.42		0.42	0.42	
v/c Ratio		0.45	0.03		0.22	0.07		0.25		0.22	0.26	
Control Delay		17.0	1.7		13.8	4.3		13.3		14.7	12.5	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		17.0	1.7		13.8	4.3		13.3		14.7	12.5	
LOS		B	A		B	A		B		B	B	
Approach Delay		16.1			11.5			13.3			13.3	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 70

Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 13.8
Intersection LOS: B
Intersection Capacity Utilization 83.7%
ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Bayswater & Somerset





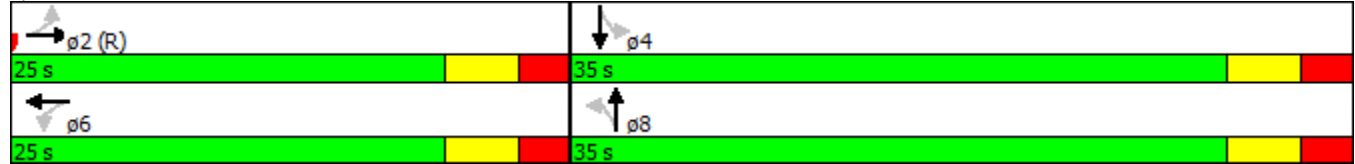
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	261	97	29	177	98	82	527	47	73	613	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95	0.97		0.96			0.99	0.99		0.99		1.00
Frt		0.960			0.946			0.988			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1547	0	1722	1482	0	1755	1605	0	1772	1593	0
Flt Permitted	0.504			0.379			0.193			0.273		
Satd. Flow (perm)	872	1547	0	663	1482	0	355	1605	0	503	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			49			10			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	56		45	45		56	16		26	26		16
Confl. Bikes (#/hr)			8			14			32			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	62	284	105	32	192	107	89	573	51	79	666	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	389	0	32	299	0	89	624	0	79	721	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (%)	41.7%	41.7%		41.7%	41.7%		58.3%	58.3%		58.3%	58.3%	
Maximum Green (s)	19.4	19.4		19.4	19.4		29.3	29.3		29.3	29.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.4	19.4		19.4	19.4		29.3	29.3		29.3	29.3	
Actuated g/C Ratio	0.32	0.32		0.32	0.32		0.49	0.49		0.49	0.49	
v/c Ratio	0.22	0.75		0.15	0.58		0.51	0.79		0.32	0.92	
Control Delay	17.4	27.6		16.7	19.5		24.3	22.3		13.9	34.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.4	27.6		16.7	19.5		24.3	22.3		13.9	34.9	
LOS	B	C		B	B		C	C		B	C	
Approach Delay		26.2			19.2			22.6			32.8	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	327	65	28	170	26	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.977				0.921	
Flt Protected				0.993	0.980	
Satd. Flow (prot)	1689	0	0	1683	1542	0
Flt Permitted				0.993	0.980	
Satd. Flow (perm)	1689	0	0	1683	1542	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	108.9			435.9	234.8	
Travel Time (s)	7.8			31.4	16.9	
Confl. Peds. (#/hr)		74	74			
Confl. Bikes (#/hr)		58				24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	2%
Parking (#/hr)	0			0	0	
Adj. Flow (vph)	355	71	30	185	28	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	426	0	0	215	68	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.13	0.99	0.99	1.13	1.13	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.1% ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	14	10	4	9	6	22	60	6	7	44	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.955			0.990			0.963	
Flt Protected		0.981			0.991			0.988			0.995	
Satd. Flow (prot)	0	1625	0	0	1792	0	0	1680	0	0	1823	0
Flt Permitted		0.981			0.991			0.988			0.995	
Satd. Flow (perm)	0	1625	0	0	1792	0	0	1680	0	0	1823	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		107.2			83.2			233.3			234.8	
Travel Time (s)		7.7			6.0			16.8			16.9	
Confl. Peds. (#/hr)	33		3	3		33	14		61	61		14
Confl. Bikes (#/hr)			39			1			6			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	1%	3%	0%	1%	0%	1%	1%	1%
Parking (#/hr)		0						0				
Adj. Flow (vph)	16	15	11	4	10	7	24	65	7	8	48	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	21	0	0	96	0	0	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)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	0.99	0.99	0.99	1.13	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.5%
ICU Level of Service	A
Analysis Period (min)	15



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	191	5	6	106	19	5	0	5	33	0	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.980			0.932			0.925	
Flt Protected		0.989			0.998			0.976			0.978	
Satd. Flow (prot)	0	1849	0	0	1831	0	0	1680	0	0	1721	0
Flt Permitted		0.989			0.998			0.976			0.978	
Satd. Flow (perm)	0	1849	0	0	1831	0	0	1680	0	0	1721	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		107.5			107.0			71.0			233.3	
Travel Time (s)		7.7			7.7			5.1			16.8	
Confl. Peds. (#/hr)	6		32	32		6	3		2	2		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	3%	2%	4%	3%	0%	4%	0%	4%	1%	1%	1%
Adj. Flow (vph)	59	208	5	7	115	21	5	0	5	36	0	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	272	0	0	143	0	0	10	0	0	81	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)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

13: Preston & Somerset
2016 AM Background (Preston Optimized)

1040 Somerset Street
12/04/2013



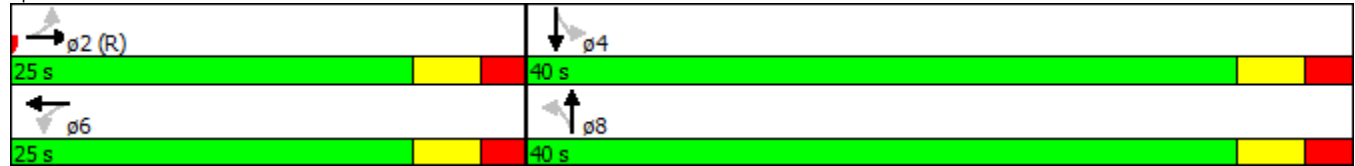
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	261	97	29	177	98	82	527	47	73	613	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.97		0.96	0.95		0.99	0.99		0.99	1.00	
Frt		0.960			0.946			0.988			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1544	0	1722	1478	0	1755	1605	0	1772	1593	0
Flt Permitted	0.474			0.341			0.222			0.296		
Satd. Flow (perm)	817	1544	0	595	1478	0	408	1605	0	545	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			44			10			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	56		45	45		56	16		26	26		16
Confl. Bikes (#/hr)			8			14			32			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	62	284	105	32	192	107	89	573	51	79	666	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	389	0	32	299	0	89	624	0	79	721	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (s)	25.0	25.0		25.0	25.0		40.0	40.0		40.0	40.0	
Total Split (%)	38.5%	38.5%		38.5%	38.5%		61.5%	61.5%		61.5%	61.5%	
Maximum Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.53	0.53		0.53	0.53	
v/c Ratio	0.26	0.81		0.18	0.63		0.41	0.73		0.28	0.85	
Control Delay	20.8	35.3		20.1	23.8		16.7	18.1		11.7	25.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.8	35.3		20.1	23.8		16.7	18.1		11.7	25.6	
LOS	C	D		C	C		B	B		B	C	
Approach Delay		33.3			23.5			17.9			24.3	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	297	24	45	330	71	32	199	27	63	123	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.96		0.99		0.98	0.97	
Frt			0.850			0.850		0.986			0.946	
Fit Protected		0.994			0.994			0.994		0.950		
Satd. Flow (prot)	0	1658	1570	0	1671	1617	0	1837	0	1807	1746	0
Fit Permitted		0.914			0.920			0.942		0.556		
Satd. Flow (perm)	0	1523	1520	0	1545	1554	0	1732	0	1033	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			77		9			44	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	13		8	8		13	31		22	22		31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	1%	2%	2%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	46	323	26	49	359	77	35	216	29	68	134	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	369	26	0	408	77	0	280	0	68	210	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%	46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.8	34.8	34.8	34.8	34.8	34.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		34.8	34.8		34.8	34.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.46	0.46		0.46	0.46		0.39		0.39	0.39	
v/c Ratio		0.52	0.04		0.57	0.10		0.41		0.17	0.30	
Control Delay		17.6	2.5		18.6	3.5		18.5		16.5	13.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		17.6	2.5		18.6	3.5		18.5		16.5	13.8	
LOS		B	A		B	A		B		B	B	
Approach Delay		16.6			16.2			18.5			14.5	
Approach LOS		B			B			B			B	

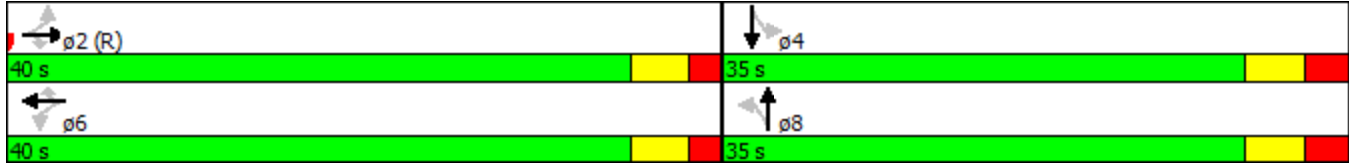
Intersection Summary

Area Type: Other
Cycle Length: 75

Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 16.4
Intersection Capacity Utilization 95.0%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service F

Splits and Phases: 3: Bayswater & Somerset





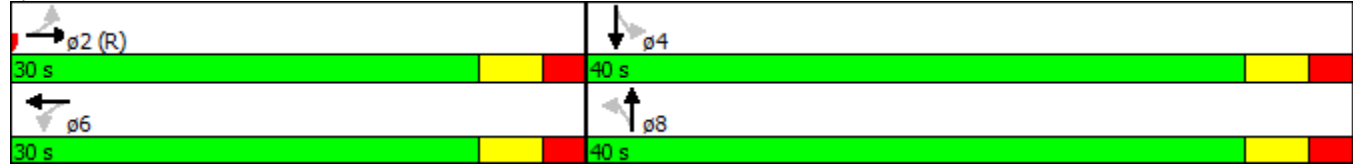
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	312	141	63	268	87	122	524	60	60	426	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.97		0.97			0.98	0.99		0.99		0.99
Fr t		0.953			0.963			0.985			0.987	
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1529	0	1722	1522	0	1755	1602	0	1772	1586	0
Fit Permitted	0.384			0.255			0.361			0.254		
Satd. Flow (perm)	675	1529	0	450	1522	0	655	1602	0	470	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			26			11			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	40	339	153	68	291	95	133	570	65	65	463	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	492	0	68	386	0	133	635	0	65	508	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	42.9%	42.9%		42.9%	42.9%		57.1%	57.1%		57.1%	57.1%	
Maximum Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.49	0.49		0.49	0.49	
v/c Ratio	0.17	0.88		0.44	0.71		0.42	0.80		0.28	0.65	
Control Delay	18.2	40.7		28.2	26.9		16.5	24.8		14.8	17.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.2	40.7		28.2	26.9		16.5	24.8		14.8	17.9	
LOS	B	D		C	C		B	C		B	B	
Approach Delay		39.0			27.1			23.4			17.6	
Approach LOS		D			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 26.2	Intersection LOS: C
Intersection Capacity Utilization 83.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	383	34	22	410	30	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	416	37	24	446	33	30
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	109					
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			527		1002	509
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			390		932	369
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		86	95
cM capacity (veh/h)			959		239	555
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	453	470	63			
Volume Left	0	24	33			
Volume Right	37	0	30			
cSH	1700	959	329			
Volume to Capacity	0.27	0.02	0.19			
Queue Length 95th (m)	0.0	0.6	5.3			
Control Delay (s)	0.0	0.7	18.5			
Lane LOS		A	C			
Approach Delay (s)	0.0	0.7	18.5			
Approach LOS			C			
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			49.6%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	8	14	5	16	18	9	41	8	6	43	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	9	15	5	17	20	10	45	9	7	47	20
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	33	42	63	73								
Volume Left (vph)	9	5	10	7								
Volume Right (vph)	15	20	9	20								
Hadj (s)	-0.22	-0.22	-0.04	-0.13								
Departure Headway (s)	4.0	4.0	4.1	4.0								
Degree Utilization, x	0.04	0.05	0.07	0.08								
Capacity (veh/h)	862	866	852	879								
Control Delay (s)	7.2	7.2	7.4	7.3								
Approach Delay (s)	7.2	7.2	7.4	7.3								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.3									
Level of Service			A									
Intersection Capacity Utilization			19.1%	ICU Level of Service								A
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	23	216	6	2	484	40	1	1	8	20	1	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	235	7	2	526	43	1	1	9	22	1	28
Pedestrians					1			9			25	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	595			250			878	896	248	875	877	573
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	595			250			878	896	248	875	877	573
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	99	91	100	94
cM capacity (veh/h)	965			1294			238	266	779	250	272	510
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	266	572	11	51								
Volume Left	25	2	1	22								
Volume Right	7	43	9	28								
cSH	965	1294	549	349								
Volume to Capacity	0.03	0.00	0.02	0.15								
Queue Length 95th (m)	0.6	0.0	0.5	3.9								
Control Delay (s)	1.1	0.0	11.7	17.1								
Lane LOS	A	A	B	C								
Approach Delay (s)	1.1	0.0	11.7	17.1								
Approach LOS			B	C								
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			43.7%		ICU Level of Service				A			
Analysis Period (min)			15									

3: Bayswater & Somerset
2021 AM Background

1040 Somerset Street
09/04/2013



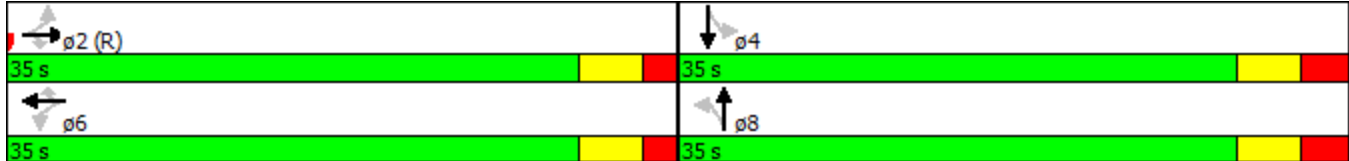
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	256	20	12	135	46	22	128	28	112	144	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		0.99		0.97	0.99	
Frt			0.850			0.850		0.979			0.964	
Fit Protected		0.994			0.996			0.994		0.950		
Satd. Flow (prot)	0	1659	1570	0	1673	1617	0	1820	0	1807	1809	0
Fit Permitted		0.948			0.967			0.950		0.666		
Satd. Flow (perm)	0	1580	1519	0	1624	1567	0	1737	0	1234	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			50		16			27	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	8		9	9		8	9		21	21		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	2%	2%	1%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	41	278	22	13	147	50	24	139	30	122	157	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	22	0	160	50	0	193	0	122	206	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	29.8	29.8	29.8	29.8	29.8	29.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		29.8	29.8		29.8	29.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.43	0.43		0.43	0.43		0.42		0.42	0.42	
v/c Ratio		0.47	0.03		0.23	0.07		0.26		0.24	0.27	
Control Delay		17.4	1.9		14.0	4.3		13.5		14.9	12.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		17.4	1.9		14.0	4.3		13.5		14.9	12.8	
LOS		B	A		B	A		B		B	B	
Approach Delay		16.4			11.7			13.5			13.5	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 70

Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 14.1
Intersection LOS: B
Intersection Capacity Utilization 87.4%
ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Bayswater & Somerset





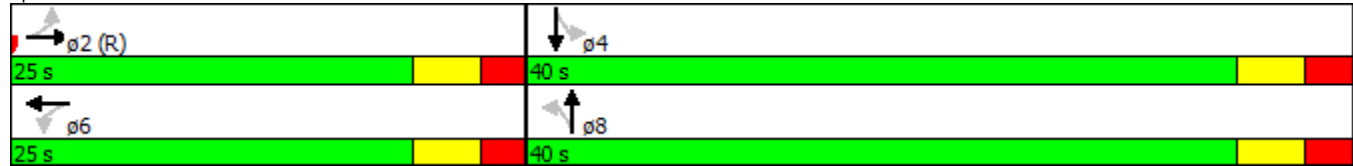
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	273	102	31	186	103	86	553	49	77	644	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.97		0.97	0.95		0.99	0.99		0.99	1.00	
Frt		0.959			0.946			0.988			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1542	0	1722	1478	0	1755	1605	0	1772	1593	0
Flt Permitted	0.451			0.313			0.195			0.273		
Satd. Flow (perm)	779	1542	0	548	1478	0	358	1605	0	503	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			44			10			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	56		45	45		56	16		26	26		16
Confl. Bikes (#/hr)			8			14			32			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	65	297	111	34	202	112	93	601	53	84	700	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	408	0	34	314	0	93	654	0	84	758	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (s)	25.0	25.0		25.0	25.0		40.0	40.0		40.0	40.0	
Total Split (%)	38.5%	38.5%		38.5%	38.5%		61.5%	61.5%		61.5%	61.5%	
Maximum Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.53	0.53		0.53	0.53	
v/c Ratio	0.28	0.85		0.21	0.67		0.49	0.77		0.32	0.90	
Control Delay	21.5	39.1		21.1	25.3		21.2	19.9		12.9	30.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.5	39.1		21.1	25.3		21.2	19.9		12.9	30.2	
LOS	C	D		C	C		C	B		B	C	
Approach Delay		36.7			24.9			20.1			28.5	
Approach LOS		D			C			C			C	

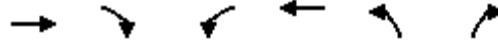
Intersection Summary

Area Type: Other

Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 85.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	342	68	30	177	27	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	372	74	33	192	29	42
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	109					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			520		740	483
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			398		646	356
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		92	93
cM capacity (veh/h)			967		354	573
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	446	225	72			
Volume Left	0	33	29			
Volume Right	74	0	42			
cSH	1700	967	457			
Volume to Capacity	0.26	0.03	0.16			
Queue Length 95th (m)	0.0	0.8	4.2			
Control Delay (s)	0.0	1.6	14.3			
Lane LOS		A	B			
Approach Delay (s)	0.0	1.6	14.3			
Approach LOS			B			
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			45.3%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	14	11	4	10	7	23	63	7	8	46	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	15	12	4	11	8	25	68	8	9	50	22
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	43	23	101	80								
Volume Left (vph)	16	4	25	9								
Volume Right (vph)	12	8	8	22								
Hadj (s)	-0.08	-0.14	0.02	-0.12								
Departure Headway (s)	4.2	4.2	4.1	4.0								
Degree Utilization, x	0.05	0.03	0.12	0.09								
Capacity (veh/h)	810	815	844	873								
Control Delay (s)	7.5	7.3	7.7	7.4								
Approach Delay (s)	7.5	7.3	7.7	7.4								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.5									
Level of Service			A									
Intersection Capacity Utilization			29.5%	ICU Level of Service								A
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	201	5	7	112	19	5	0	5	35	0	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	61	218	5	8	122	21	5	0	5	38	0	47
Pedestrians		3			2			32			6	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			3			1	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	148			256			572	539	255	504	531	141
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	148			256			572	539	255	504	531	141
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			99	100	99	91	100	95
cM capacity (veh/h)	1432			1262			370	417	756	445	419	902
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	285	150	11	85								
Volume Left	61	8	5	38								
Volume Right	5	21	5	47								
cSH	1432	1262	497	617								
Volume to Capacity	0.04	0.01	0.02	0.14								
Queue Length 95th (m)	1.0	0.1	0.5	3.6								
Control Delay (s)	1.9	0.4	12.4	11.8								
Lane LOS	A	A	B	B								
Approach Delay (s)	1.9	0.4	12.4	11.8								
Approach LOS			B	B								
Intersection Summary												
Average Delay			3.3									
Intersection Capacity Utilization			39.0%		ICU Level of Service				A			
Analysis Period (min)			15									

3: Bayswater & Somerset
2021 PM Background

1040 Somerset Street
09/04/2013



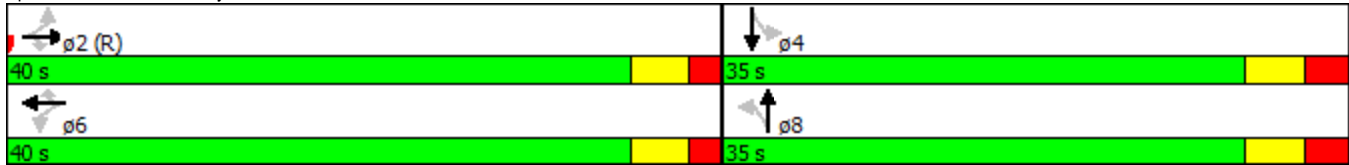
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	311	25	47	345	74	34	209	26	66	129	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.96		0.99		0.98	0.97	
Frt			0.850			0.850		0.987			0.946	
Fit Protected		0.994			0.994			0.994		0.950		
Satd. Flow (prot)	0	1658	1570	0	1671	1617	0	1840	0	1807	1746	0
Fit Permitted		0.910			0.917			0.939		0.545		
Satd. Flow (perm)	0	1517	1520	0	1540	1554	0	1729	0	1013	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			80		8			44	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	13		8	8		13	31		22	22		31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	1%	2%	2%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	48	338	27	51	375	80	37	227	28	72	140	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	386	27	0	426	80	0	292	0	72	219	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%	46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.8	34.8	34.8	34.8	34.8	34.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		34.8	34.8		34.8	34.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.46	0.46		0.46	0.46		0.39		0.39	0.39	
v/c Ratio		0.55	0.04		0.60	0.10		0.43		0.18	0.31	
Control Delay		18.2	2.6		19.2	3.4		18.9		16.7	14.1	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		18.2	2.6		19.2	3.4		18.9		16.7	14.1	
LOS		B	A		B	A		B		B	B	
Approach Delay		17.1			16.7			18.9			14.7	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 75

Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 16.9
Intersection LOS: B
Intersection Capacity Utilization 95.2%
ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Bayswater & Somerset





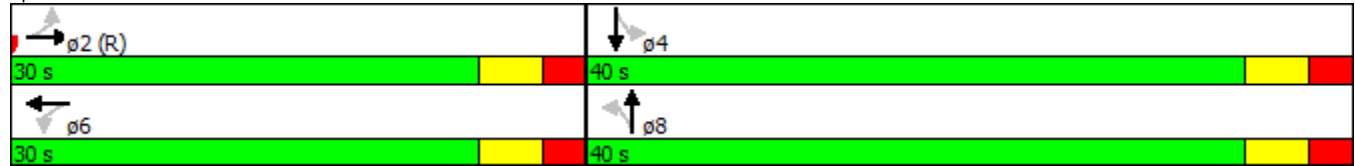
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	327	148	67	280	92	128	551	63	63	447	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.97		0.98	0.97		0.98	0.99		0.99	0.99	
Fr t		0.953			0.963			0.985			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1529	0	1722	1521	0	1755	1602	0	1772	1586	0
Flt Permitted	0.361			0.226			0.339			0.228		
Satd. Flow (perm)	636	1529	0	400	1521	0	616	1602	0	422	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			26			11			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	42	355	161	73	304	100	139	599	68	68	486	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	516	0	73	404	0	139	667	0	68	533	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	42.9%	42.9%		42.9%	42.9%		57.1%	57.1%		57.1%	57.1%	
Maximum Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.49	0.49		0.49	0.49	
v/c Ratio	0.19	0.93		0.53	0.74		0.46	0.84		0.33	0.68	
Control Delay	18.7	47.2		35.2	28.7		18.1	27.8		16.5	18.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.7	47.2		35.2	28.7		18.1	27.8		16.5	18.9	
LOS	B	D		D	C		B	C		B	B	
Approach Delay		45.1			29.7			26.1			18.6	
Approach LOS		D			C			C			B	

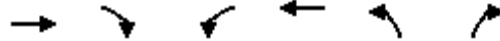
Intersection Summary

Area Type: Other

Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	401	35	23	429	31	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	436	38	25	466	34	33
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	109					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			548		1045	529
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			401		975	379
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		85	94
cM capacity (veh/h)			939		222	542
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	474	491	66			
Volume Left	0	25	34			
Volume Right	38	0	33			
cSH	1700	939	313			
Volume to Capacity	0.28	0.03	0.21			
Queue Length 95th (m)	0.0	0.6	6.0			
Control Delay (s)	0.0	0.8	19.6			
Lane LOS		A	C			
Approach Delay (s)	0.0	0.8	19.6			
Approach LOS			C			
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			51.6%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	9	14	5	16	16	10	43	9	7	44	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	10	15	5	17	17	11	47	10	8	48	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	35	40	67	76								
Volume Left (vph)	10	5	11	8								
Volume Right (vph)	15	17	10	21								
Hadj (s)	-0.20	-0.20	-0.04	-0.13								
Departure Headway (s)	4.0	4.0	4.1	4.0								
Degree Utilization, x	0.04	0.05	0.08	0.08								
Capacity (veh/h)	852	857	852	877								
Control Delay (s)	7.2	7.2	7.4	7.4								
Approach Delay (s)	7.2	7.2	7.4	7.4								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.3									
Level of Service			A									
Intersection Capacity Utilization			19.5%	ICU Level of Service								A
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	23	227	7	2	509	42	1	1	9	20	1	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	247	8	2	553	46	1	1	10	22	1	28
Pedestrians					1			9			25	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	624			263			919	938	261	917	919	601
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	624			263			919	938	261	917	919	601
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	99	91	100	94
cM capacity (veh/h)	942			1279			223	251	767	233	257	491
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	279	601	12	51								
Volume Left	25	2	1	22								
Volume Right	8	46	10	28								
cSH	942	1279	544	330								
Volume to Capacity	0.03	0.00	0.02	0.15								
Queue Length 95th (m)	0.6	0.0	0.5	4.1								
Control Delay (s)	1.1	0.0	11.8	17.9								
Lane LOS	A	A	B	C								
Approach Delay (s)	1.1	0.0	11.8	17.9								
Approach LOS			B	C								
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			44.9%		ICU Level of Service				A			
Analysis Period (min)			15									

13: Preston & Somerset
2021 PM Background (Preston Optimized)

1040 Somerset Street
16/04/2013



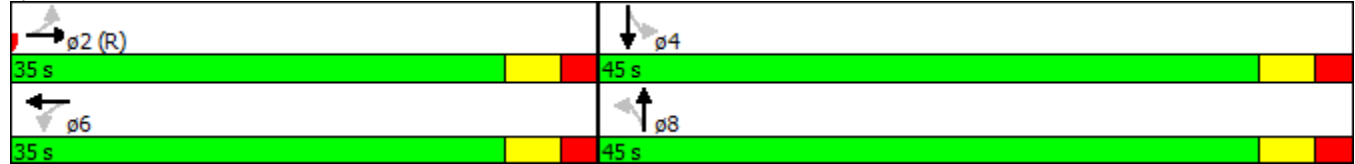
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	327	148	67	280	92	128	551	63	63	447	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.97		0.98	0.97		0.98	0.99		0.99	0.99	
Fr t		0.953			0.963			0.985			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1525	0	1722	1518	0	1755	1601	0	1772	1585	0
Flt Permitted	0.363			0.236			0.330			0.220		
Satd. Flow (perm)	637	1525	0	417	1518	0	599	1601	0	407	1585	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			23			10			9	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	42	355	161	73	304	100	139	599	68	68	486	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	516	0	73	404	0	139	667	0	68	533	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (s)	35.0	35.0		35.0	35.0		45.0	45.0		45.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		56.3%	56.3%		56.3%	56.3%	
Maximum Green (s)	29.4	29.4		29.4	29.4		39.3	39.3		39.3	39.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	29.4	29.4		29.4	29.4		39.3	39.3		39.3	39.3	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.49	0.49		0.49	0.49	
v/c Ratio	0.18	0.89		0.48	0.71		0.47	0.84		0.34	0.68	
Control Delay	19.7	42.5		32.1	28.4		20.2	29.6		18.6	20.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.7	42.5		32.1	28.4		20.2	29.6		18.6	20.8	
LOS	B	D		C	C		C	C		B	C	
Approach Delay		40.8			28.9			28.0			20.5	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset



APPENDIX C2

Intersection Analysis Reports (Total Traffic)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	247	19	10	150	53	21	122	26	107	137	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97			0.99		0.97	0.99
Frt			0.850			0.850		0.979			0.964	
Fit Protected		0.994			0.997			0.994		0.950		
Satd. Flow (prot)	0	1659	1570	0	1675	1617	0	1820	0	1807	1809	0
Fit Permitted		0.947			0.976			0.952		0.676		
Satd. Flow (perm)	0	1578	1519	0	1639	1567	0	1741	0	1252	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			58		16			28	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	8		9	9		8	9		21	21		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	2%	2%	1%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	39	268	21	11	163	58	23	133	28	116	149	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	21	0	174	58	0	184	0	116	196	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	29.8	29.8	29.8	29.8	29.8	29.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		29.8	29.8		29.8	29.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.43	0.43		0.43	0.43		0.42		0.42	0.42	
v/c Ratio		0.46	0.03		0.25	0.08		0.25		0.22	0.26	
Control Delay		17.1	1.7		14.1	4.2		13.3		14.7	12.5	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		17.1	1.7		14.1	4.2		13.3		14.7	12.5	
LOS		B	A		B	A		B		B	B	
Approach Delay		16.1			11.7			13.3			13.3	
Approach LOS		B			B			B			B	

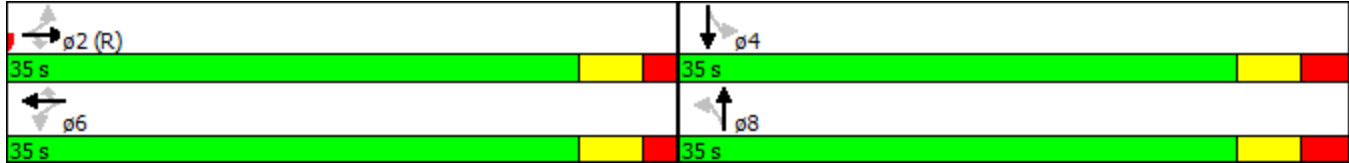
Intersection Summary

Area Type: Other
Cycle Length: 70

Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 13.8
Intersection Capacity Utilization 83.7%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service E

Splits and Phases: 3: Bayswater & Somerset





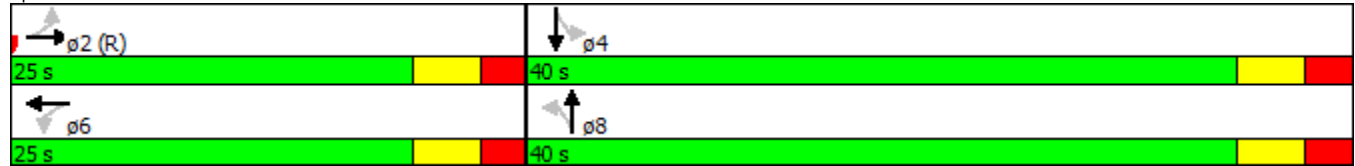
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	286	109	29	181	98	83	527	47	73	613	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.97		0.97	0.95		0.99	0.99		0.99	1.00	
Fr t		0.959			0.947			0.988			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1542	0	1722	1480	0	1755	1605	0	1772	1593	0
Flt Permitted	0.466			0.284			0.222			0.296		
Satd. Flow (perm)	804	1542	0	498	1480	0	408	1605	0	545	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			43			10			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	56		45	45		56	16		26	26		16
Confl. Bikes (#/hr)			8			14			32			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	66	311	118	32	197	107	90	573	51	79	666	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	429	0	32	304	0	90	624	0	79	721	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (s)	25.0	25.0		25.0	25.0		40.0	40.0		40.0	40.0	
Total Split (%)	38.5%	38.5%		38.5%	38.5%		61.5%	61.5%		61.5%	61.5%	
Maximum Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.53	0.53		0.53	0.53	
v/c Ratio	0.28	0.89		0.22	0.65		0.42	0.73		0.28	0.85	
Control Delay	21.3	44.7		21.7	24.3		16.9	18.1		11.7	25.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.3	44.7		21.7	24.3		16.9	18.1		11.7	25.6	
LOS	C	D		C	C		B	B		B	C	
Approach Delay		41.5			24.1			18.0			24.3	
Approach LOS		D			C			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 84.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	327	66	33	170	54	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.977				0.920	
Flt Protected				0.992	0.980	
Satd. Flow (prot)	1689	0	0	1682	1541	0
Flt Permitted				0.992	0.980	
Satd. Flow (perm)	1689	0	0	1682	1541	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	108.9			435.9	50.2	
Travel Time (s)	7.8			31.4	3.6	
Confl. Peds. (#/hr)		74	74			
Confl. Bikes (#/hr)		58				24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	2%
Parking (#/hr)	0			0	0	
Adj. Flow (vph)	355	72	36	185	59	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	427	0	0	221	144	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.13	0.99	0.99	1.13	1.13	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.6%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	12	69	63	0	6	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.885					
Flt Protected	0.993					0.997
Satd. Flow (prot)	1655	0	1883	0	0	1878
Flt Permitted	0.993					0.997
Satd. Flow (perm)	1655	0	1883	0	0	1878
Link Speed (k/h)	48		50			50
Link Distance (m)	47.1		184.6			50.2
Travel Time (s)	3.5		13.3			3.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	75	68	0	7	101
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	68	0	0	108
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		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	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.4%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	14	10	4	9	6	22	60	6	7	56	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.955			0.990			0.968	
Flt Protected		0.981			0.991			0.988			0.996	
Satd. Flow (prot)	0	1625	0	0	1792	0	0	1680	0	0	1834	0
Flt Permitted		0.981			0.991			0.988			0.996	
Satd. Flow (perm)	0	1625	0	0	1792	0	0	1680	0	0	1834	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		107.2			83.2			233.3			184.6	
Travel Time (s)		7.7			6.0			16.8			13.3	
Confl. Peds. (#/hr)	33		3	3		33	14		61	61		14
Confl. Bikes (#/hr)			39			1			6			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	1%	3%	0%	1%	0%	1%	1%	1%
Parking (#/hr)		0						0				
Adj. Flow (vph)	16	15	11	4	10	7	24	65	7	8	61	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	21	0	0	96	0	0	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)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	0.99	0.99	0.99	1.13	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization 29.6%	ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	191	5	6	106	19	5	0	5	39	0	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.980			0.932			0.926	
Flt Protected		0.989			0.998			0.976			0.978	
Satd. Flow (prot)	0	1849	0	0	1831	0	0	1680	0	0	1723	0
Flt Permitted		0.989			0.998			0.976			0.978	
Satd. Flow (perm)	0	1849	0	0	1831	0	0	1680	0	0	1723	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		107.5			107.0			71.0			233.3	
Travel Time (s)		7.7			7.7			5.1			16.8	
Confl. Peds. (#/hr)	6		32	32		6	3		2	2		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	3%	2%	4%	3%	0%	4%	0%	4%	1%	1%	1%
Adj. Flow (vph)	59	208	5	7	115	21	5	0	5	42	0	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	272	0	0	143	0	0	10	0	0	93	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)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.6%
Analysis Period (min)	15
	ICU Level of Service A

3: Bayswater & Somerset
2016 PM Total

1040 Somerset Street
12/04/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	316	24	45	338	74	32	199	27	70	123	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.96		0.99		0.98	0.97	
Frt			0.850			0.850		0.986			0.946	
Fit Protected		0.994			0.994			0.994		0.950		
Satd. Flow (prot)	0	1658	1570	0	1670	1617	0	1837	0	1807	1746	0
Fit Permitted		0.917			0.919			0.942		0.556		
Satd. Flow (perm)	0	1528	1520	0	1543	1554	0	1732	0	1033	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			80		9			44	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	13		8	8		13	31		22	22		31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	1%	2%	2%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	46	343	26	49	367	80	35	216	29	76	134	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	389	26	0	416	80	0	280	0	76	210	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%	46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.8	34.8	34.8	34.8	34.8	34.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		34.8	34.8		34.8	34.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.46	0.46		0.46	0.46		0.39		0.39	0.39	
v/c Ratio		0.55	0.04		0.58	0.10		0.41		0.19	0.30	
Control Delay		18.1	2.5		18.9	3.4		18.5		16.8	13.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		18.1	2.5		18.9	3.4		18.5		16.8	13.8	
LOS		B	A		B	A		B		B	B	
Approach Delay		17.2			16.4			18.5			14.6	
Approach LOS		B			B			B			B	

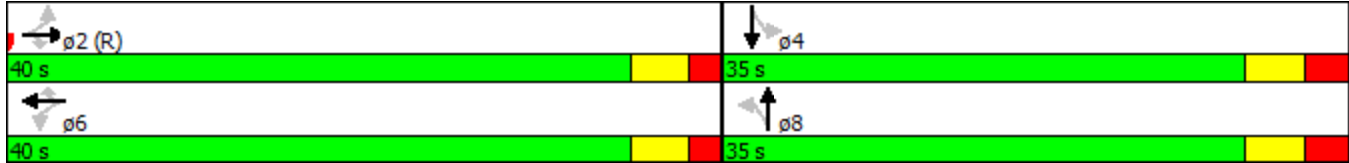
Intersection Summary

Area Type: Other
Cycle Length: 75

Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 16.6
Intersection Capacity Utilization 95.0%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service F

Splits and Phases: 3: Bayswater & Somerset





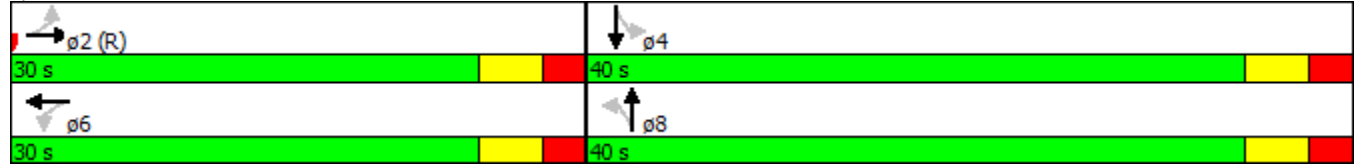
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	323	146	63	292	87	133	524	60	60	426	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.97		0.98	0.97		0.98	0.99		0.99	0.99	
Fr t		0.953			0.965			0.985			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1529	0	1722	1527	0	1755	1602	0	1772	1584	0
Flt Permitted	0.351			0.233			0.358			0.254		
Satd. Flow (perm)	618	1529	0	412	1527	0	650	1602	0	470	1584	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			24			11			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	41	351	159	68	317	95	145	570	65	65	463	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	510	0	68	412	0	145	635	0	65	511	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	42.9%	42.9%		42.9%	42.9%		57.1%	57.1%		57.1%	57.1%	
Maximum Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.4	24.4		24.4	24.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.49	0.49		0.49	0.49	
v/c Ratio	0.19	0.92		0.48	0.75		0.46	0.80		0.28	0.65	
Control Delay	18.8	45.4		31.2	29.7		17.6	24.8		14.8	18.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.8	45.4		31.2	29.7		17.6	24.8		14.8	18.1	
LOS	B	D		C	C		B	C		B	B	
Approach Delay		43.4			29.9			23.5				17.7
Approach LOS		D			C			C				B

Intersection Summary

Area Type: Other

Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	383	60	60	410	41	45
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	416	65	65	446	45	49
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	109					
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			556		1099	523
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			407		1036	369
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		77	91
cM capacity (veh/h)			932		195	547
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	482	511	93			
Volume Left	0	65	45			
Volume Right	65	0	49			
cSH	1700	932	294			
Volume to Capacity	0.28	0.07	0.32			
Queue Length 95th (m)	0.0	1.7	10.1			
Control Delay (s)	0.0	1.9	22.9			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.9	22.9			
Approach LOS			C			
Intersection Summary						
Average Delay			2.9			
Intersection Capacity Utilization			64.4%		ICU Level of Service	C
Analysis Period (min)			15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	6	28	58	10	64	56
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	30	63	11	70	61
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	268	68			74	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	268	68			74	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	97			95	
cM capacity (veh/h)	688	995			1526	
Direction, Lane #						
	WB 1	NB 1	SB 1			
Volume Total	37	74	130			
Volume Left	7	0	70			
Volume Right	30	11	0			
cSH	922	1700	1526			
Volume to Capacity	0.04	0.04	0.05			
Queue Length 95th (m)	1.0	0.0	1.1			
Control Delay (s)	9.1	0.0	4.2			
Lane LOS	A		A			
Approach Delay (s)	9.1	0.0	4.2			
Approach LOS	A					
Intersection Summary						
Average Delay			3.6			
Intersection Capacity Utilization			23.2%		ICU Level of Service A	
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	8	14	5	16	18	9	51	8	6	49	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	9	15	5	17	20	10	55	9	7	53	20
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	33	42	74	79								
Volume Left (vph)	9	5	10	7								
Volume Right (vph)	15	20	9	20								
Hadj (s)	-0.22	-0.22	-0.03	-0.11								
Departure Headway (s)	4.1	4.0	4.1	4.0								
Degree Utilization, x	0.04	0.05	0.08	0.09								
Capacity (veh/h)	849	853	849	873								
Control Delay (s)	7.2	7.2	7.5	7.4								
Approach Delay (s)	7.2	7.2	7.5	7.4								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.4									
Level of Service			A									
Intersection Capacity Utilization			19.5%	ICU Level of Service								A
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	28	216	6	2	484	45	1	1	8	23	1	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	235	7	2	526	49	1	1	9	25	1	32
Pedestrians					1			9			25	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	600			250			895	912	248	889	891	576
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	600			250			895	912	248	889	891	576
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	99	90	100	94
cM capacity (veh/h)	961			1294			229	259	779	243	265	508
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	272	577	11	58								
Volume Left	30	2	1	25								
Volume Right	7	49	9	32								
cSH	961	1294	541	341								
Volume to Capacity	0.03	0.00	0.02	0.17								
Queue Length 95th (m)	0.7	0.0	0.5	4.6								
Control Delay (s)	1.3	0.0	11.8	17.7								
Lane LOS	A	A	B	C								
Approach Delay (s)	1.3	0.0	11.8	17.7								
Approach LOS			B	C								
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utilization			48.8%		ICU Level of Service				A			
Analysis Period (min)			15									



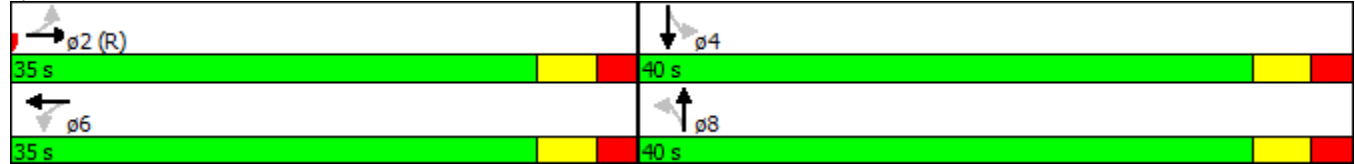
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	323	146	63	292	87	133	524	60	60	426	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.97		0.97			0.98	0.99		0.99		0.99
Fr t		0.953			0.965			0.985			0.986	
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1527	0	1722	1526	0	1755	1601	0	1772	1583	0
Fit Permitted	0.380			0.275			0.331			0.220		
Satd. Flow (perm)	668	1527	0	486	1526	0	601	1601	0	407	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			24			10			9	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	41	351	159	68	317	95	145	570	65	65	463	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	510	0	68	412	0	145	635	0	65	511	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (s)	35.0	35.0		35.0	35.0		40.0	40.0		40.0	40.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%		53.3%	53.3%		53.3%	53.3%	
Maximum Green (s)	29.4	29.4		29.4	29.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	29.4	29.4		29.4	29.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.39	0.39		0.39	0.39		0.46	0.46		0.46	0.46	
v/c Ratio	0.16	0.82		0.36	0.67		0.53	0.86		0.35	0.70	
Control Delay	20.4	37.5		22.9	24.3		23.3	32.4		19.9	22.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.4	37.5		22.9	24.3		23.3	32.4		19.9	22.4	
LOS	C	D		C	C		C	C		B	C	
Approach Delay		36.2			24.1			30.7			22.1	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 28.5	Intersection LOS: C
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





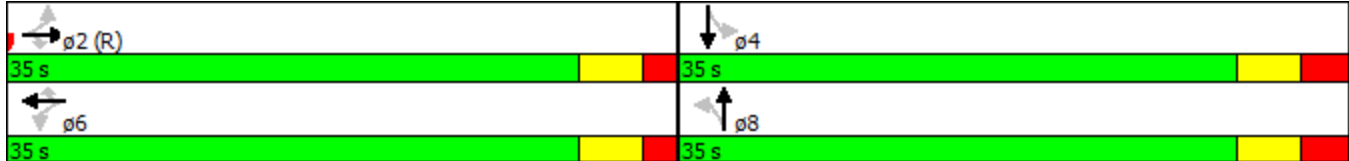
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	258	20	11	156	54	22	128	27	112	144	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		0.99		0.97	0.99	
Frt			0.850			0.850		0.980			0.964	
Fit Protected		0.994			0.997			0.994		0.950		
Satd. Flow (prot)	0	1659	1570	0	1675	1617	0	1822	0	1807	1809	0
Fit Permitted		0.945			0.973			0.950		0.667		
Satd. Flow (perm)	0	1575	1519	0	1634	1567	0	1739	0	1236	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			59		16			27	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	8		9	9		8	9		21	21		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	2%	2%	1%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	41	280	22	12	170	59	24	139	29	122	157	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	22	0	182	59	0	192	0	122	206	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	29.8	29.8	29.8	29.8	29.8	29.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		29.8	29.8		29.8	29.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.43	0.43		0.43	0.43		0.42		0.42	0.42	
v/c Ratio		0.48	0.03		0.26	0.08		0.26		0.24	0.27	
Control Delay		17.5	1.9		14.3	4.1		13.4		14.9	12.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		17.5	1.9		14.3	4.1		13.4		14.9	12.8	
LOS		B	A		B	A		B		B	B	
Approach Delay		16.5			11.8			13.4			13.5	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 70

Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 14.1
Intersection LOS: B
Intersection Capacity Utilization 87.4%
ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Bayswater & Somerset





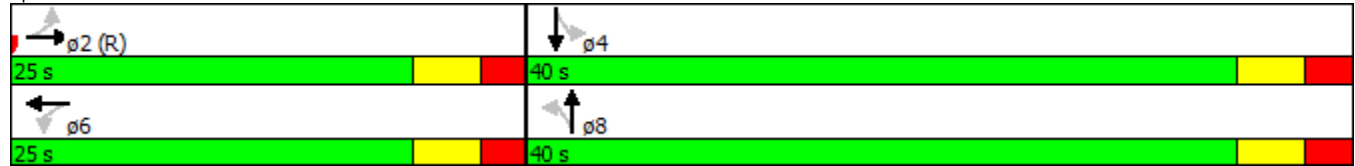
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	298	114	31	190	103	87	553	49	77	644	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95	0.97		0.97	0.95		0.99	0.99		0.99	1.00	
Fr t		0.958			0.947			0.988			0.989	
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1540	0	1722	1480	0	1755	1605	0	1772	1593	0
Fit Permitted	0.444			0.257			0.195			0.273		
Satd. Flow (perm)	768	1540	0	451	1480	0	358	1605	0	503	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			43			10			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	56		45	45		56	16		26	26		16
Confl. Bikes (#/hr)			8			14			32			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	70	324	124	34	207	112	95	601	53	84	700	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	448	0	34	319	0	95	654	0	84	758	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (s)	25.0	25.0		25.0	25.0		40.0	40.0		40.0	40.0	
Total Split (%)	38.5%	38.5%		38.5%	38.5%		61.5%	61.5%		61.5%	61.5%	
Maximum Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.4	19.4		19.4	19.4		34.3	34.3		34.3	34.3	
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.53	0.53		0.53	0.53	
v/c Ratio	0.31	0.93		0.25	0.68		0.51	0.77		0.32	0.90	
Control Delay	22.1	51.5		23.3	26.0		21.7	19.9		12.9	30.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.1	51.5		23.3	26.0		21.7	19.9		12.9	30.2	
LOS	C	D		C	C		C	B		B	C	
Approach Delay		47.5			25.7			20.1			28.5	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 75	
Control Type: Pretimed	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 29.5	Intersection LOS: C
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	342	69	35	177	55	80
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	372	75	38	192	60	87
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	109					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			521		752	483
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			397		658	355
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		83	85
cM capacity (veh/h)			966		346	573
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	447	230	147			
Volume Left	0	38	60			
Volume Right	75	0	87			
cSH	1700	966	452			
Volume to Capacity	0.26	0.04	0.32			
Queue Length 95th (m)	0.0	0.9	10.6			
Control Delay (s)	0.0	1.8	16.8			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.8	16.8			
Approach LOS			C			
Intersection Summary						
Average Delay			3.5			
Intersection Capacity Utilization			52.3%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	12	69	66	0	6	98
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	75	72	0	7	107
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	191	72			72	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	191	72			72	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	92			100	
cM capacity (veh/h)	794	991			1528	
Direction, Lane #						
	WB 1	NB 1	SB 1			
Volume Total	88	72	113			
Volume Left	13	0	7			
Volume Right	75	0	0			
cSH	956	1700	1528			
Volume to Capacity	0.09	0.04	0.00			
Queue Length 95th (m)	2.3	0.0	0.1			
Control Delay (s)	9.1	0.0	0.5			
Lane LOS	A		A			
Approach Delay (s)	9.1	0.0	0.5			
Approach LOS	A					
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization		21.7%		ICU Level of Service		A
Analysis Period (min)		15				

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	14	11	4	10	7	23	63	7	8	58	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	15	12	4	11	8	25	68	8	9	63	22
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	43	23	101	93								
Volume Left (vph)	16	4	25	9								
Volume Right (vph)	12	8	8	22								
Hadj (s)	-0.08	-0.14	0.02	-0.10								
Departure Headway (s)	4.3	4.2	4.2	4.0								
Degree Utilization, x	0.05	0.03	0.12	0.10								
Capacity (veh/h)	802	807	841	869								
Control Delay (s)	7.5	7.3	7.7	7.5								
Approach Delay (s)	7.5	7.3	7.7	7.5								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.6									
Level of Service			A									
Intersection Capacity Utilization			29.6%	ICU Level of Service								A
Analysis Period (min)			15									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	201	5	7	112	19	5	0	5	41	0	49
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	61	218	5	8	122	21	5	0	5	45	0	53
Pedestrians		3			2			32			6	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			3			1	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	148			256			578	539	255	504	531	141
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	148			256			578	539	255	504	531	141
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			99	100	99	90	100	94
cM capacity (veh/h)	1432			1262			363	417	756	445	419	902
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	285	150	11	98								
Volume Left	61	8	5	45								
Volume Right	5	21	5	53								
cSH	1432	1262	491	614								
Volume to Capacity	0.04	0.01	0.02	0.16								
Queue Length 95th (m)	1.0	0.1	0.5	4.3								
Control Delay (s)	1.9	0.4	12.5	12.0								
Lane LOS	A	A	B	B								
Approach Delay (s)	1.9	0.4	12.5	12.0								
Approach LOS			B	B								
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			39.8%		ICU Level of Service				A			
Analysis Period (min)			15									



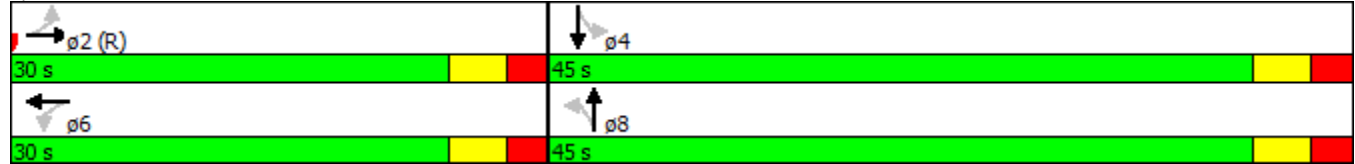
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	298	114	31	190	103	87	553	49	77	644	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.97		0.97	0.95		0.99	0.99		0.99	1.00	
Frt		0.958			0.947			0.988			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1535	0	1722	1473	0	1755	1604	0	1772	1593	0
Flt Permitted	0.444			0.273			0.183			0.261		
Satd. Flow (perm)	763	1535	0	478	1473	0	336	1604	0	481	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			38			9			8	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	56		45	45		56	16		26	26		16
Confl. Bikes (#/hr)			8			14			32			19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	70	324	124	34	207	112	95	601	53	84	700	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	448	0	34	319	0	95	654	0	84	758	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	25.0	25.0		25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (s)	30.0	30.0		30.0	30.0		45.0	45.0		45.0	45.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	
Maximum Green (s)	24.4	24.4		24.4	24.4		39.3	39.3		39.3	39.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.4	24.4		24.4	24.4		39.3	39.3		39.3	39.3	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.52	0.52		0.52	0.52	
v/c Ratio	0.28	0.87		0.22	0.63		0.54	0.77		0.33	0.90	
Control Delay	22.7	41.9		22.9	25.5		26.3	22.1		15.0	33.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.7	41.9		22.9	25.5		26.3	22.1		15.0	33.1	
LOS	C	D		C	C		C	C		B	C	
Approach Delay		39.3			25.2			22.7			31.3	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 75	
Control Type: Pretimed	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 29.5	Intersection LOS: C
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset



3: Bayswater & Somerset
2021 PM Total

1040 Somerset Street
12/04/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	330	25	47	353	77	34	209	28	73	129	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		40.0	0.0		45.0	0.0		0.0	40.0		0.0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (m)	7.6			7.6			7.6			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.96		0.99		0.98	0.97	
Frt			0.850			0.850		0.986			0.946	
Fit Protected		0.994			0.994			0.994		0.950		
Satd. Flow (prot)	0	1658	1570	0	1670	1617	0	1837	0	1807	1746	0
Fit Permitted		0.913			0.916			0.939		0.543		
Satd. Flow (perm)	0	1521	1520	0	1538	1554	0	1727	0	1010	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			84		9			44	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.8			108.9			142.8			114.2	
Travel Time (s)		6.4			7.8			10.3			8.2	
Confl. Peds. (#/hr)	13		8	8		13	31		22	22		31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	4%	2%	3%	1%	1%	2%	2%	1%	2%	0%
Parking (#/hr)		0			0							
Adj. Flow (vph)	48	359	27	51	384	84	37	227	30	79	140	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	407	27	0	435	84	0	294	0	79	219	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)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Minimum Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%	46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.8	34.8	34.8	34.8	34.8	34.8	29.1	29.1		29.1	29.1	
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)	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.2	5.2		5.2	5.2		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)		34.8	34.8		34.8	34.8		29.1		29.1	29.1	
Actuated g/C Ratio		0.46	0.46		0.46	0.46		0.39		0.39	0.39	
v/c Ratio		0.58	0.04		0.61	0.11		0.44		0.20	0.31	
Control Delay		18.8	2.6		19.6	3.4		18.9		17.0	14.1	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		18.8	2.6		19.6	3.4		18.9		17.0	14.1	
LOS		B	A		B	A		B		B	B	
Approach Delay		17.8			17.0			18.9			14.9	
Approach LOS		B			B			B			B	

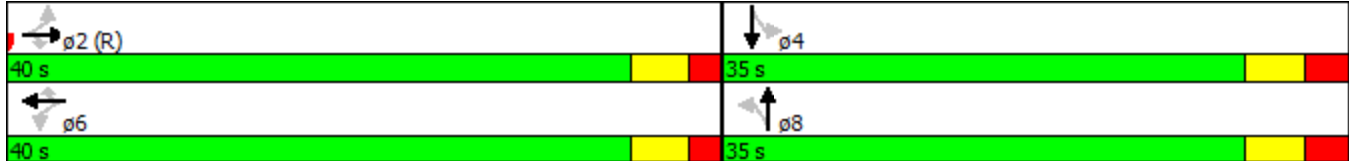
Intersection Summary

Area Type: Other
Cycle Length: 75

Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 17.2
Intersection Capacity Utilization 95.5%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service F

Splits and Phases: 3: Bayswater & Somerset





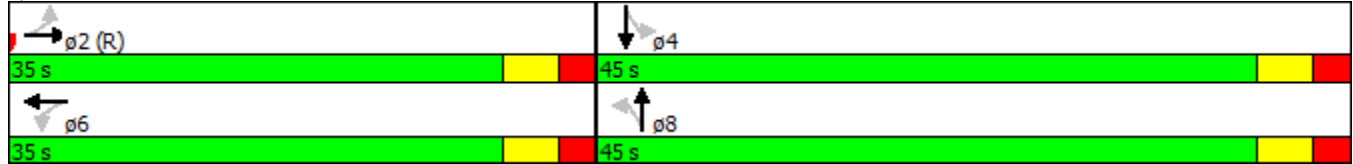
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	338	153	67	304	92	139	551	63	63	447	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.97		0.98	0.97		0.98	0.99		0.99	0.99	
Frnt		0.953			0.965			0.985			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1525	0	1722	1523	0	1755	1601	0	1772	1583	0
Flt Permitted	0.333			0.217			0.328			0.220		
Satd. Flow (perm)	586	1525	0	384	1523	0	595	1601	0	407	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			22			10			9	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	43	367	166	73	330	100	151	599	68	68	486	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	533	0	73	430	0	151	667	0	68	536	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	35.0	35.0		35.0	35.0		45.0	45.0		45.0	45.0	
Total Split (s)	35.0	35.0		35.0	35.0		45.0	45.0		45.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		56.3%	56.3%		56.3%	56.3%	
Maximum Green (s)	29.4	29.4		29.4	29.4		39.3	39.3		39.3	39.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	29.4	29.4		29.4	29.4		39.3	39.3		39.3	39.3	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.49	0.49		0.49	0.49	
v/c Ratio	0.20	0.92		0.52	0.75		0.52	0.84		0.34	0.69	
Control Delay	20.4	46.8		35.7	30.9		21.8	29.6		18.6	20.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.4	46.8		35.7	30.9		21.8	29.6		18.6	20.9	
LOS	C	D		D	C		C	C		B	C	
Approach Delay		44.9			31.6			28.2			20.7	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 80
 Control Type: Pretimed
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 30.9
 Intersection LOS: C
 Intersection Capacity Utilization 87.2%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 13: Preston & Somerset





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	401	61	61	429	42	47
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	436	66	66	466	46	51
Pedestrians					74	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.2	
Percent Blockage					6	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	109					
pX, platoon unblocked			0.85		0.85	0.85
vC, conflicting volume			576		1142	543
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			417		1080	378
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		75	90
cM capacity (veh/h)			912		180	534
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	502	533	97			
Volume Left	0	66	46			
Volume Right	66	0	51			
cSH	1700	912	277			
Volume to Capacity	0.30	0.07	0.35			
Queue Length 95th (m)	0.0	1.8	11.4			
Control Delay (s)	0.0	2.0	24.8			
Lane LOS		A	C			
Approach Delay (s)	0.0	2.0	24.8			
Approach LOS			C			
Intersection Summary						
Average Delay			3.0			
Intersection Capacity Utilization			66.6%		ICU Level of Service	C
Analysis Period (min)			15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	6	28	60	10	64	58
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	30	65	11	70	63
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	273	71			76	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	273	71			76	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	97			95	
cM capacity (veh/h)	684	992			1523	
Direction, Lane #						
	WB 1	NB 1	SB 1			
Volume Total	37	76	133			
Volume Left	7	0	70			
Volume Right	30	11	0			
cSH	919	1700	1523			
Volume to Capacity	0.04	0.04	0.05			
Queue Length 95th (m)	1.0	0.0	1.1			
Control Delay (s)	9.1	0.0	4.1			
Lane LOS	A		A			
Approach Delay (s)	9.1	0.0	4.1			
Approach LOS	A					
Intersection Summary						
Average Delay			3.6			
Intersection Capacity Utilization			23.3%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	9	14	5	16	18	10	53	9	7	50	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	10	15	5	17	20	11	58	10	8	54	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	35	42	78	83								
Volume Left (vph)	10	5	11	8								
Volume Right (vph)	15	20	10	21								
Hadj (s)	-0.20	-0.22	-0.03	-0.11								
Departure Headway (s)	4.1	4.1	4.1	4.0								
Degree Utilization, x	0.04	0.05	0.09	0.09								
Capacity (veh/h)	840	848	847	871								
Control Delay (s)	7.3	7.3	7.5	7.4								
Approach Delay (s)	7.3	7.3	7.5	7.4								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.4									
Level of Service			A									
Intersection Capacity Utilization			19.9%	ICU Level of Service								A
Analysis Period (min)			15									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	28	227	7	2	509	47	1	1	9	23	1	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	247	8	2	553	51	1	1	10	25	1	32
Pedestrians					1			9			25	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			1			2	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	629			263			936	954	261	931	932	604
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	629			263			936	954	261	931	932	604
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			99	100	99	89	100	94
cM capacity (veh/h)	937			1279			215	245	767	227	251	490
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	285	607	12	58								
Volume Left	30	2	1	25								
Volume Right	8	51	10	32								
cSH	937	1279	537	323								
Volume to Capacity	0.03	0.00	0.02	0.18								
Queue Length 95th (m)	0.8	0.0	0.5	4.9								
Control Delay (s)	1.3	0.0	11.9	18.6								
Lane LOS	A	A	B	C								
Approach Delay (s)	1.3	0.0	11.9	18.6								
Approach LOS			B	C								
Intersection Summary												
Average Delay				1.7								
Intersection Capacity Utilization			50.0%		ICU Level of Service				A			
Analysis Period (min)			15									

13: Preston & Somerset
2021 PM Total (Preston Optimized)

1040 Somerset Street
12/04/2013



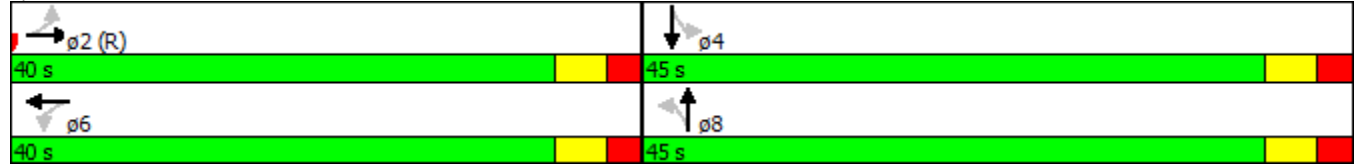
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	338	153	67	304	92	139	551	63	63	447	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	15.0		0.0	15.0		0.0	20.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			35.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.96		0.98	0.97		0.98	0.99		0.99	0.99	
Fr t		0.953			0.965			0.985			0.986	
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	1523	0	1722	1522	0	1755	1601	0	1772	1582	0
Fit Permitted	0.359			0.253			0.303			0.189		
Satd. Flow (perm)	630	1523	0	447	1522	0	550	1601	0	353	1582	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			22			9			8	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		435.9			97.2			225.8			107.4	
Travel Time (s)		31.4			7.0			16.3			7.7	
Confl. Peds. (#/hr)	45		39	39		45	27		17	17		27
Confl. Bikes (#/hr)			10			26			15			25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	3%	6%	7%	3%	4%	6%	3%	3%	7%	5%
Parking (#/hr)		0			0			0			0	
Adj. Flow (vph)	43	367	166	73	330	100	151	599	68	68	486	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	533	0	73	430	0	151	667	0	68	536	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)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99	0.99	1.13	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (s)	40.0	40.0		40.0	40.0		45.0	45.0		45.0	45.0	
Total Split (%)	47.1%	47.1%		47.1%	47.1%		52.9%	52.9%		52.9%	52.9%	
Maximum Green (s)	34.4	34.4		34.4	34.4		39.3	39.3		39.3	39.3	
Yellow Time (s)	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		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.6	5.6		5.6	5.6		5.7	5.7		5.7	5.7	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	34.4	34.4		34.4	34.4		39.3	39.3		39.3	39.3	
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.46	0.46		0.46	0.46	
v/c Ratio	0.17	0.84		0.41	0.68		0.59	0.90		0.42	0.73	
Control Delay	18.4	35.5		26.6	26.4		28.8	37.9		25.1	25.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.4	35.5		26.6	26.4		28.8	37.9		25.1	25.4	
LOS	B	D		C	C		C	D		C	C	
Approach Delay		34.2			26.4			36.2			25.3	
Approach LOS		C			C			D			C	

Intersection Summary

Area Type: Other

Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 75	
Control Type: Pretimed	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 31.2	Intersection LOS: C
Intersection Capacity Utilization 87.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Preston & Somerset



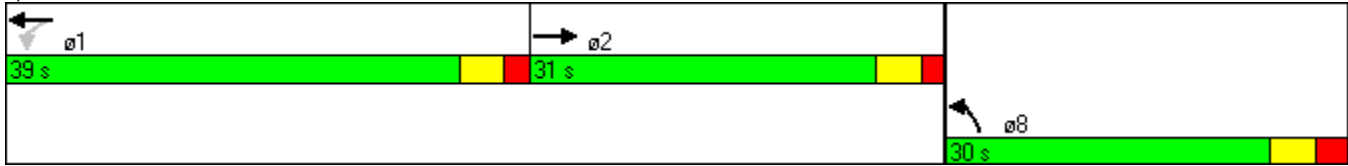


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	342	69	35	177	55	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96				0.97	
Frt	0.977				0.920	
Fit Protected				0.992	0.980	
Satd. Flow (prot)	1622	0	0	1682	1489	0
Fit Permitted				0.257	0.980	
Satd. Flow (perm)	1622	0	0	436	1489	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	10				69	
Link Speed (k/h)	50			50	50	
Link Distance (m)	108.9			435.9	50.2	
Travel Time (s)	7.8			31.4	3.6	
Confl. Peds. (#/hr)		74	74			
Confl. Bikes (#/hr)		58				24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	2%
Parking (#/hr)	0			0	0	
Adj. Flow (vph)	372	75	38	192	60	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	447	0	0	230	147	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.13	0.99	0.99	1.13	1.13	0.99
Turning Speed (k/h)		14	24		24	14
Turn Type	NA		Perm	NA	NA	
Protected Phases	2			1	8	
Permitted Phases			1			
Minimum Split (s)	30.2		15.2	15.2	26.9	
Total Split (s)	31.0		39.0	39.0	30.0	
Total Split (%)	31.0%		39.0%	39.0%	30.0%	
Maximum Green (s)	25.8		33.8	33.8	24.1	
Yellow Time (s)	3.3		3.3	3.3	3.3	
All-Red Time (s)	1.9		1.9	1.9	2.6	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.2			5.2	5.9	
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Walk Time (s)	18.0				13.0	
Flash Dont Walk (s)	7.0				8.0	
Pedestrian Calls (#/hr)	10				5	
Act Effct Green (s)	25.8			33.8	24.1	
Actuated g/C Ratio	0.26			0.34	0.24	
v/c Ratio	1.05			1.56	0.36	
Control Delay	93.9			312.0	19.8	
Queue Delay	13.9			0.0	0.0	
Total Delay	107.7			312.0	19.8	
LOS	F			F	B	
Approach Delay	107.7			312.0	19.8	
Approach LOS	F			F	B	

Intersection Summary
 Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 130
Control Type: Pretimed
Maximum v/c Ratio: 1.56
Intersection Signal Delay: 149.1
Intersection LOS: F
Intersection Capacity Utilization 56.2%
ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Breezehill & Somerset





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	401	61	61	429	42	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96					
Frt	0.982				0.929	
Fit Protected				0.994	0.977	
Satd. Flow (prot)	1638	0	0	1685	1553	0
Fit Permitted				0.147	0.977	
Satd. Flow (perm)	1638	0	0	249	1553	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	6				40	
Link Speed (k/h)	50			50	50	
Link Distance (m)	108.9			435.9	50.3	
Travel Time (s)	7.8			31.4	3.6	
Confl. Peds. (#/hr)		74	74			
Confl. Bikes (#/hr)		58				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	2%
Parking (#/hr)	0			0	0	
Adj. Flow (vph)	436	66	66	466	46	51
Shared Lane Traffic (%)						
Lane Group Flow (vph)	502	0	0	532	97	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.13	0.99	0.99	1.13	1.13	0.99
Turning Speed (k/h)		14	24		24	14
Turn Type	NA		Perm	NA	NA	
Protected Phases	2			1	8	
Permitted Phases			1			
Minimum Split (s)	30.2		15.2	15.2	26.9	
Total Split (s)	34.0		59.0	59.0	27.0	
Total Split (%)	28.3%		49.2%	49.2%	22.5%	
Maximum Green (s)	28.8		53.8	53.8	21.1	
Yellow Time (s)	3.3		3.3	3.3	3.3	
All-Red Time (s)	1.9		1.9	1.9	2.6	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.2			5.2	5.9	
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Walk Time (s)	18.0				13.0	
Flash Dont Walk (s)	7.0				8.0	
Pedestrian Calls (#/hr)	10				5	
Act Effct Green (s)	28.8			53.8	21.1	
Actuated g/C Ratio	0.24			0.45	0.18	
v/c Ratio	1.26			4.75	0.32	
Control Delay	174.5			1719.1	29.3	
Queue Delay	64.1			0.0	0.0	
Total Delay	238.6			1719.1	29.3	
LOS	F			F	C	
Approach Delay	238.6			1719.1	29.3	
Approach LOS	F			F	C	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green



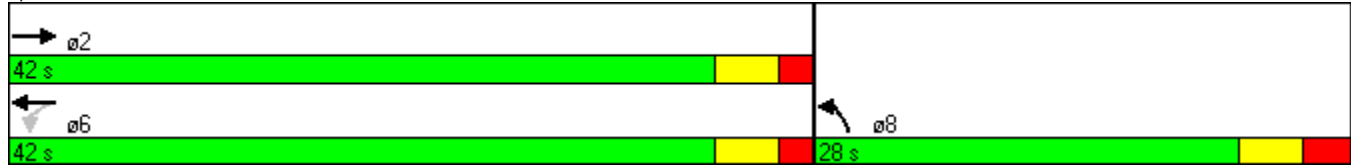
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	342	69	35	177	55	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97			0.99	0.97	
Frt	0.977				0.920	
Fit Protected				0.992	0.980	
Satd. Flow (prot)	1644	0	0	1682	1497	0
Fit Permitted				0.894	0.980	
Satd. Flow (perm)	1644	0	0	1503	1497	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	22				87	
Link Speed (k/h)	50			50	50	
Link Distance (m)	108.9			435.9	50.2	
Travel Time (s)	7.8			31.4	3.6	
Confl. Peds. (#/hr)		74	74			
Confl. Bikes (#/hr)		58				24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	2%
Parking (#/hr)	0			0	0	
Adj. Flow (vph)	372	75	38	192	60	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	447	0	0	230	147	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.13	0.99	0.99	1.13	1.13	0.99
Turning Speed (k/h)		14	24		24	14
Turn Type	NA		Perm	NA	NA	
Protected Phases	2			6	8	
Permitted Phases			6			
Minimum Split (s)	30.2		30.2	30.2	26.9	
Total Split (s)	42.0		42.0	42.0	28.0	
Total Split (%)	60.0%		60.0%	60.0%	40.0%	
Maximum Green (s)	36.8		36.8	36.8	22.1	
Yellow Time (s)	3.3		3.3	3.3	3.3	
All-Red Time (s)	1.9		1.9	1.9	2.6	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.2			5.2	5.9	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	18.0		18.0	18.0	13.0	
Flash Dont Walk (s)	7.0		7.0	7.0	8.0	
Pedestrian Calls (#/hr)	10		10	10	5	
Act Effct Green (s)	36.8			36.8	22.1	
Actuated g/C Ratio	0.53			0.53	0.32	
v/c Ratio	0.51			0.29	0.28	
Control Delay	9.9			10.6	9.9	
Queue Delay	0.2			0.0	0.0	
Total Delay	10.1			10.6	9.9	
LOS	B			B	A	
Approach Delay	10.1			10.6	9.9	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60	
Control Type: Pretimed	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 56.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Breezehill & Somerset





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	401	61	0	429	42	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98					
Frt	0.982				0.929	
Fit Protected					0.977	
Satd. Flow (prot)	1662	0	0	1695	1553	0
Fit Permitted					0.977	
Satd. Flow (perm)	1662	0	0	1695	1553	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	15				51	
Link Speed (k/h)	50			50	50	
Link Distance (m)	108.9			435.9	50.3	
Travel Time (s)	7.8			31.4	3.6	
Confl. Peds. (#/hr)		74	74			
Confl. Bikes (#/hr)		58				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	2%
Parking (#/hr)	0			0	0	
Adj. Flow (vph)	436	66	0	466	46	51
Shared Lane Traffic (%)						
Lane Group Flow (vph)	502	0	0	466	97	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.13	0.99	0.99	1.13	1.13	0.99
Turning Speed (k/h)		14	24		24	14
Turn Type	NA			NA	NA	
Protected Phases	2			6	8	
Permitted Phases						
Minimum Split (s)	30.2			30.2	26.9	
Total Split (s)	40.0			40.0	30.0	
Total Split (%)	57.1%			57.1%	42.9%	
Maximum Green (s)	34.8			34.8	24.1	
Yellow Time (s)	3.3			3.3	3.3	
All-Red Time (s)	1.9			1.9	2.6	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.2			5.2	5.9	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	18.0			18.0	13.0	
Flash Dont Walk (s)	7.0			7.0	8.0	
Pedestrian Calls (#/hr)	10			10	5	
Act Effct Green (s)	34.8			34.8	24.1	
Actuated g/C Ratio	0.50			0.50	0.34	
v/c Ratio	0.60			0.55	0.17	
Control Delay	16.0			15.3	9.8	
Queue Delay	1.5			0.0	0.0	
Total Delay	17.5			15.3	9.8	
LOS	B			B	A	
Approach Delay	17.5			15.3	9.8	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60	
Control Type: Pretimed	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 43.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Breezehill & Somerset

