APPENDIX D

Level of Service Definitions

Level of Service Definitions

Two-Way Stop Controlled Intersections

Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	EXCELLENT. Large and frequent gaps in traffic on the main roadway. Queuing on the minor street is rare.
B	> 10 and ≤ 15	VERY GOOD. Many gaps exist in traffic on the main roadway. Queuing on the minor street is minimal.
C	> 15 and ≤ 25	GOOD. Fewer gaps exist in traffic on the main roadway. Delay on minor approach becomes more noticeable.
D	> 25 and ≤ 35	FAIR. Infrequent and shorter gaps in traffic on the main roadway. Queue lengths develop on the minor street.
E	> 35 and ≤ 50	POOR. Very infrequent gaps in traffic on the main roadway. Queue lengths become noticeable.
F	> 50	UNSATISFACTORY. Very few gaps in traffic on the main roadway. Excessive delay with significant queue lengths on the minor street.

Adapted from Highway Capacity Manual 2000, Transportation Research Board

Level of Service Definitions

Signalized Intersections

Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	EXCELLENT. Extremely favourable progression with most vehicles arriving during the green phase. Most vehicles do not stop and short cycle lengths may contribute to low delay.
B	> 10 and ≤ 20	VERY GOOD. Very good progression and/or short cycle lengths with slightly more vehicles stopping than LOS "A" causing slightly higher levels of average delay.
C	> 20 and ≤ 35	GOOD. Fair progression and longer cycle lengths lead to a greater number of vehicles stopping than LOS "B".
D	> 35 and ≤ 55	FAIR. Congestion becomes noticeable with higher average delays resulting from a combination of long cycle lengths, high volume-to-capacity ratios and unfavourable progression.
E	> 55 and ≤ 80	POOR. Lengthy delays values are indicative of poor progression, long cycle lengths and high volume-to-capacity ratios. Individual cycle failures are common with individual movement failures also common.
F	> 80	UNSATISFACTORY. Indicative of oversaturated conditions with vehicular demand greater than the capacity of the intersection.

Adapted from Highway Capacity Manual 2000, Transportation Research Board

Transit

Level of Service	Access to Transit Stops	Transit Headways
A	90% within ≤ 200 m	≤ 5 minutes
B	90% within ≤ 500 m and 70% within ≤ 200 m	> 5-10 minutes
C	90% within ≤ 500 m and 50% within ≤ 200 m	> 10-15 minutes
D	100% within ≤ 600 m	> 15-20 minutes
E	100% within ≤ 800 m	> 20-30 minutes
F	100% > 800 m	> 30 minutes

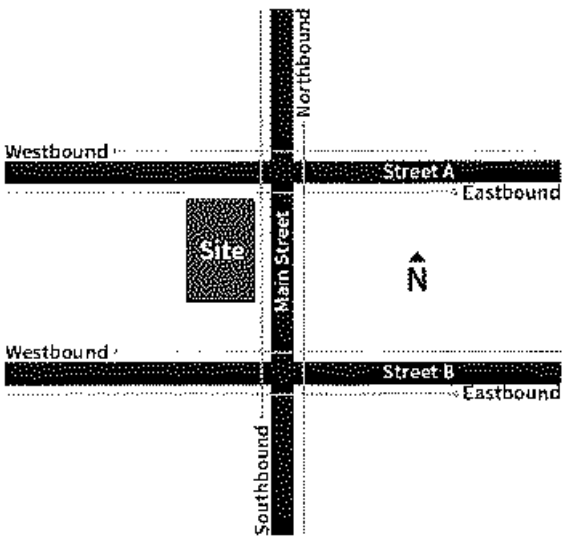
Adapted from Transportation Mobility Plan Guidelines, November 2016, York Region

Pedestrian

Level of Service	Segment	Intersection
A	≥ 2.0 m sidewalk with minimum 3.5 m buffer including planting and edge zone; or ≥ 3.0 m multi-use path	▪ ≥ 2.0 m sidewalk with minimum 3.5 m buffer including planting and edge zone; or ≥ 3.0 m multi-use path ▪ Pedestrian signal head with sufficient pedestrian clearance time ▪ Clearly delineated cross-walk
B	≥ 1.5 m sidewalk with minimum 1.0 m buffer including edge zone; or < 3.0 m multi-use path	▪ ≥ 1.5 m sidewalk with minimum 1.0 m buffer including edge zone; or < 3.0 m multi-use path ▪ Pedestrian signal head with sufficient pedestrian clearance time ▪ Clearly delineated cross-walk
C	≥ 1.5 m curb-faced sidewalk (no buffer)	▪ ≥ 1.5 m curb-faced sidewalk (no buffer) ▪ Pedestrian signal head sufficient pedestrian clearance time ▪ No clearly delineated cross-walk
D	< 1.5 m sidewalk	▪ < 1.5 m sidewalk ▪ Pedestrian signal head sufficient pedestrian clearance time ▪ No clearly delineated cross-walk
E	Paved shoulder or no sidewalk provision	▪ Paved shoulder or no sidewalk provision ▪ No pedestrian signal head ▪ No clearly delineated cross-walk
F	No sidewalk provision	▪ No sidewalk provision ▪ No pedestrian signal head ▪ No clearly delineated cross-walk

Adapted from Transportation Mobility Plan Guidelines, November 2016, York Region

Figure 4 - Example of Level of Service Assessment



Adapted from Transportation Mobility Plan Guidelines, November 2016, York Region

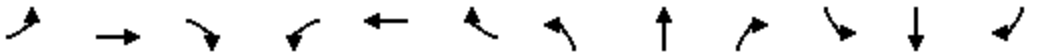
Bicycle Level

Level of Service	Segment	Intersection
A	Separated cycling facilities (e.g. cycle tracks, multi-use path)	• Separated cycling facilities • Bicycle box or clearly delineated bicycle treatment or bicycle signal head
B	≥ 1.8 m dedicated cycling facilities (e.g. bicycle lanes with and without buffer)	• 1.8 m dedicated cycling facilities (e.g. bicycle lanes with and without buffer), • Bicycle box, clearly delineated bicycle treatment or bicycle signal head
C	< 1.8 m dedicated cycling facilities with no buffer	• < 1.8 m dedicated cycling facilities with no buffer • Bicycle box, clearly delineated bicycle treatment or bicycle signal head
D	≤ 1.5 m bicycle lane with no buffer	• ≤ 1.5 m bicycle lane and no buffer • Bicycle treatment
E	Shared facilities (e.g. signed routes, sharrows or paved shoulder with minimum 1.2 m in constrained area)	• Shared facilities (e.g. signed routes, sharrows or paved shoulder with minimum 1.2 m in constrained area) • No clearly delineated bicycle treatment
F	No bicycle provision	• No bicycle provision

Adapted from Transportation Mobility Plan Guidelines, November 2016, York Region

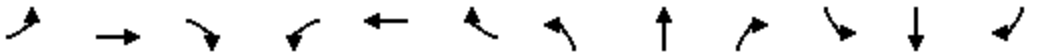
APPENDIX E

Detailed Capacity Analysis



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	216	4	12	330	88	4	23	14	76	15	17
Future Volume (vph)	15	216	4	12	330	88	4	23	14	76	15	17
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	60.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
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			0.972			0.954			0.979	
Flt Protected		0.997			0.999			0.995			0.966	
Satd. Flow (prot)	0	1297	0	0	1320	0	0	1325	0	0	1383	0
Flt Permitted		0.997			0.999			0.995			0.966	
Satd. Flow (perm)	0	1297	0	0	1320	0	0	1325	0	0	1383	0
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	18	260	5	14	398	106	5	28	17	92	18	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	283	0	0	518	0	0	50	0	0	130	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

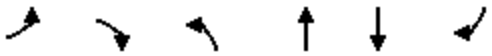
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.9%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	216	4	12	330	88	4	23	14	76	15	17
Future Volume (Veh/h)	15	216	4	12	330	88	4	23	14	76	15	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	18	260	5	14	398	106	5	28	17	92	18	20
Pedestrians					1							
Lane Width (m)					3.7							
Walking Speed (m/s)					1.1							
Percent Blockage					0							
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	504			265			807	831	264	810	780	451
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	504			265			807	831	264	810	780	451
tC, single (s)	4.2			4.1			7.1	6.6	6.3	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.1	3.4	3.5	4.0	3.4
p0 queue free %	98			99			98	90	98	65	94	97
cM capacity (veh/h)	1006			1311			274	289	762	265	320	588

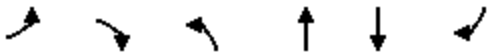
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	283	518	50	130
Volume Left	18	14	5	92
Volume Right	5	106	17	20
cSH	1006	1311	364	298
Volume to Capacity	0.02	0.01	0.14	0.44
Queue Length 95th (m)	0.4	0.2	3.6	16.1
Control Delay (s/veh)	0.7	0.3	16.5	26.2
Lane LOS	A	A	C	D
Approach Delay (s/veh)	0.7	0.3	16.5	26.2
Approach LOS			C	D

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	0	1	127	109	5
Future Volume (vph)	4	0	1	127	109	5
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.994	
Flt Protected	0.950					
Satd. Flow (prot)	1425	0	0	1194	1356	0
Flt Permitted	0.950					
Satd. Flow (perm)	1425	0	0	1194	1356	0
Link Speed (k/h)	30			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	5.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	4%	3%	0%
Adj. Flow (vph)	4	0	1	143	122	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	144	128	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	0	1	127	109	5
Future Volume (Veh/h)	4	0	1	127	109	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	0	1	143	122	6
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	270	128	128			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	270	128	128			
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	100	100			
cM capacity (veh/h)	723	925	1470			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	4	144	128
Volume Left	4	1	0
Volume Right	0	0	6
cSH	723	1470	1700
Volume to Capacity	0.01	0.00	0.08
Queue Length 95th (m)	0.1	0.0	0.0
Control Delay (s/veh)	10.0	0.1	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.0	0.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		22.5%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	146	77	61	140	142	83
Future Volume (vph)	146	77	61	140	142	83
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.950	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1282	0	0	1116	1305	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1282	0	0	1116	1305	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	170	90	71	163	165	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	260	0	0	234	262	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

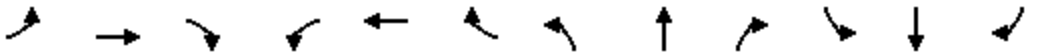
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.1%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	146	77	61	140	142	83
Future Volume (Veh/h)	146	77	61	140	142	83
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	170	90	71	163	165	97
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			260		520	215
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			260		520	215
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			94		66	88
cM capacity (veh/h)			1207		488	796

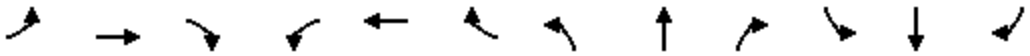
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	260	234	262
Volume Left	0	71	165
Volume Right	90	0	97
cSH	1700	1207	569
Volume to Capacity	0.15	0.06	0.46
Queue Length 95th (m)	0.0	1.4	18.3
Control Delay (s/veh)	0.0	2.8	16.6
Lane LOS		A	C
Approach Delay (s/veh)	0.0	2.8	16.6
Approach LOS			C

Intersection Summary			
Average Delay	6.6		
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	217	6	6	309	34	4	16	5	15	24	9
Future Volume (vph)	13	217	6	6	309	34	4	16	5	15	24	9
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.996			0.987			0.972			0.975	
Flt Protected		0.997			0.999			0.991			0.985	
Satd. Flow (prot)	0	1365	0	0	1400	0	0	1279	0	0	1381	0
Flt Permitted		0.997			0.999			0.991			0.985	
Satd. Flow (perm)	0	1365	0	0	1400	0	0	1279	0	0	1381	0
Link Speed (k/h)		60			60			48			48	
Link Distance (m)		446.4			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			23.6			19.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	15	247	7	7	351	39	5	18	6	17	27	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	269	0	0	397	0	0	29	0	0	54	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	217	6	6	309	34	4	16	5	15	24	9
Future Volume (Veh/h)	13	217	6	6	309	34	4	16	5	15	24	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	15	247	7	7	351	39	5	18	6	17	27	10
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	390			254			689	685	251	680	669	371
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	390			254			689	685	251	680	669	371
tC, single (s)	4.5			4.1			7.6	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.6			2.2			4.0	4.1	3.3	3.5	4.0	3.5
p0 queue free %	98			99			98	95	99	95	93	98
cM capacity (veh/h)	993			1323			278	357	793	345	374	631

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	269	397	29	54
Volume Left	15	7	5	17
Volume Right	7	39	6	10
cSH	993	1323	382	393
Volume to Capacity	0.02	0.01	0.08	0.14
Queue Length 95th (m)	0.3	0.1	1.9	3.6
Control Delay (s/veh)	0.6	0.2	15.2	15.6
Lane LOS	A	A	C	C
Approach Delay (s/veh)	0.6	0.2	15.2	15.6
Approach LOS			C	C

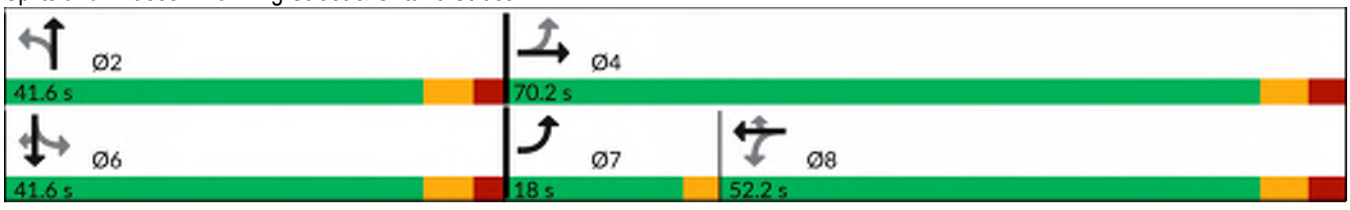
Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	38.6%	ICU Level of Service	A	
Analysis Period (min)	15			

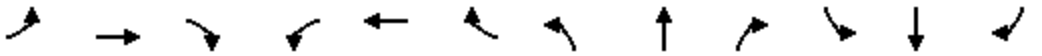
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	182	0	0	243	201	1	0	0	215	0	155
Future Volume (vph)	120	182	0	0	243	201	1	0	0	215	0	155
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99					0.95		0.96			1.00	0.92
Frt						0.850						0.850
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	0	1123	1150
Flt Permitted	0.445							0.564			0.757	
Satd. Flow (perm)	636	1376	0	0	1129	1076	0	815	0	0	892	1055
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						162						178
Link Speed (k/h)		50			50			48			48	
Link Distance (m)		934.2			721.8			39.6			180.7	
Travel Time (s)		67.3			52.0			3.0			13.6	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	138	209	0	0	279	231	1	0	0	247	0	178
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	209	0	0	279	231	0	1	0	0	247	178
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4	4		8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	47.3	43.0			28.1	28.1		35.6			35.6	35.6
Actuated g/C Ratio	0.51	0.46			0.30	0.30		0.38			0.38	0.38
v/c Ratio	0.33	0.33			0.82	0.53		0.00			0.72	0.35
Control Delay (s/veh)	13.7	16.3			48.8	12.9		24.0			41.9	6.2
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	13.7	16.3			48.8	12.9		24.0			41.9	6.2
LOS	B	B			D	B		C			D	A
Approach Delay (s/veh)		15.3			32.5			24.0			27.0	
Approach LOS		B			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 92.6			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 26.0		Intersection LOS: C	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

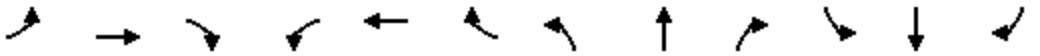




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	182	0	0	243	201	1	0	0	215	0	155
Future Volume (vph)	120	182	0	0	243	201	1	0	0	215	0	155
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.96		1.00			1.00	0.93
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.97			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	1369	1376			1129	1081		1376			1120	1067
Flt Permitted	0.45	1.00			1.00	1.00		0.56			0.76	1.00
Satd. Flow (perm)	642	1376			1129	1081		817			892	1067
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	138	209	0	0	279	231	1	0	0	247	0	178
RTOR Reduction (vph)	0	0	0	0	0	113	0	0	0	0	0	109
Lane Group Flow (vph)	138	209	0	0	279	118	0	1	0	0	247	69
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4	4		8		8	2			6		6
Actuated Green, G (s)	43.0	43.0			28.2	28.2		35.6			35.6	35.6
Effective Green, g (s)	43.0	43.0			28.2	28.2		35.6			35.6	35.6
Actuated g/C Ratio	0.47	0.47			0.31	0.31		0.39			0.39	0.39
Clearance Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8		2.5			4.0	4.0
Lane Grp Cap (vph)	391	640			344	329		314			343	411
v/s Ratio Prot	c0.04	0.15			c0.25							
v/s Ratio Perm	0.12					0.11		0.00			c0.28	0.06
v/c Ratio	0.35	0.33			0.81	0.36		0.00			0.72	0.17
Uniform Delay, d1	15.1	15.6			29.6	25.1		17.5			24.2	18.7
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.4	0.3			13.4	0.6		0.0			12.3	0.9
Delay (s)	15.5	15.8			43.0	25.7		17.5			36.5	19.5
Level of Service	B	B			D	C		B			D	B
Approach Delay (s/veh)		15.7			35.1			17.5			29.4	
Approach LOS		B			D			B			C	

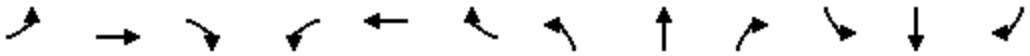
Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	92.4	Sum of lost time (s)	16.8
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	75	4	23	94	54	9	136	21	22	85	12
Future Volume (vph)	14	75	4	23	94	54	9	136	21	22	85	12
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.995			0.957			0.983			0.986	
Flt Protected		0.993			0.993			0.997			0.991	
Satd. Flow (prot)	0	1430	0	0	1350	0	0	1439	0	0	1431	0
Flt Permitted		0.993			0.993			0.997			0.991	
Satd. Flow (perm)	0	1430	0	0	1350	0	0	1439	0	0	1431	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	15	82	4	25	103	59	10	149	23	24	93	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	101	0	0	187	0	0	182	0	0	130	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

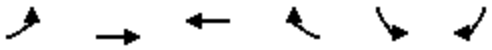
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.5%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	14	75	4	23	94	54	9	136	21	22	85	12
Future Volume (vph)	14	75	4	23	94	54	9	136	21	22	85	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	15	82	4	25	103	59	10	149	23	24	93	13

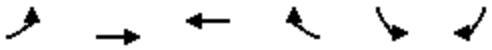
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	101	187	182	130
Volume Left (vph)	15	25	10	24
Volume Right (vph)	4	59	23	13
Hadj (s)	0.07	-0.07	-0.03	0.02
Departure Headway (s)	5.0	4.8	4.8	4.9
Degree Utilization, x	0.14	0.25	0.24	0.18
Capacity (veh/h)	659	706	709	683
Control Delay (s/veh)	8.8	9.3	9.3	8.9
Approach Delay (s/veh)	8.8	9.3	9.3	8.9
Approach LOS	A	A	A	A

Intersection Summary				
Delay	9.1			
Level of Service	A			
Intersection Capacity Utilization	39.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	235	356	5	2	2
Future Volume (vph)	3	235	356	5	2	2
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1171	1335	0	1364	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1171	1335	0	1364	0
Link Speed (k/h)		60	60		30	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		3.5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	6%	5%	0%	0%	0%
Adj. Flow (vph)	4	276	419	6	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	280	425	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

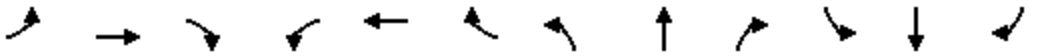
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	235	356	5	2	2
Future Volume (Veh/h)	3	235	356	5	2	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	276	419	6	2	2
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	425				706	422
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	425				706	422
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1145				404	636

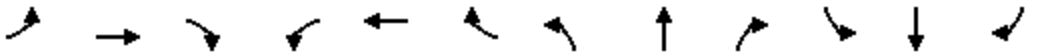
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	280	425	4
Volume Left	4	0	2
Volume Right	0	6	2
cSH	1145	1700	494
Volume to Capacity	0.00	0.25	0.01
Queue Length 95th (m)	0.1	0.0	0.2
Control Delay (s/veh)	0.2	0.0	12.3
Lane LOS	A		B
Approach Delay (s/veh)	0.2	0.0	12.3
Approach LOS			B

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		36.1%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	371	7	16	374	47	5	10	21	137	23	13
Future Volume (vph)	25	371	7	16	374	47	5	10	21	137	23	13
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	60.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
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			0.985			0.920			0.990	
Flt Protected		0.997			0.998			0.994			0.962	
Satd. Flow (prot)	0	1384	0	0	1356	0	0	1371	0	0	1417	0
Flt Permitted		0.997			0.998			0.994			0.962	
Satd. Flow (perm)	0	1384	0	0	1356	0	0	1371	0	0	1417	0
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	27	408	8	18	411	52	5	11	23	151	25	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	443	0	0	481	0	0	39	0	0	190	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

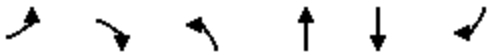
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.8%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	371	7	16	374	47	5	10	21	137	23	13
Future Volume (Veh/h)	25	371	7	16	374	47	5	10	21	137	23	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	27	408	8	18	411	52	5	11	23	151	25	14
Pedestrians					4						5	
Lane Width (m)					3.7						3.7	
Walking Speed (m/s)					1.1						1.1	
Percent Blockage					0						0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	468			416			966	970	416	977	948	442
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	468			416			966	970	416	977	948	442
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			98			98	95	96	27	90	98
cM capacity (veh/h)	1099			1154			206	244	639	206	251	617

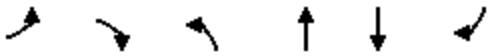
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	443	481	39	190
Volume Left	27	18	5	151
Volume Right	8	52	23	14
cSH	1099	1154	370	222
Volume to Capacity	0.02	0.02	0.11	0.85
Queue Length 95th (m)	0.6	0.4	2.7	50.6
Control Delay (s/veh)	0.8	0.5	15.9	73.9
Lane LOS	A	A	C	F
Approach Delay (s/veh)	0.8	0.5	15.9	73.9
Approach LOS			C	F

Intersection Summary				
Average Delay	13.2			
Intersection Capacity Utilization	66.8%	ICU Level of Service	C	
Analysis Period (min)	15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	1	2	85	176	8
Future Volume (vph)	8	1	2	85	176	8
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.986				0.994	
Flt Protected	0.957			0.999		
Satd. Flow (prot)	1415	0	0	1205	1356	0
Flt Permitted	0.957			0.999		
Satd. Flow (perm)	1415	0	0	1205	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	9	1	2	94	196	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	0	96	205	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	1	2	85	176	8
Future Volume (Veh/h)	8	1	2	85	176	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	1	2	94	196	9
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	299	204	205			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	299	204	205			
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	100	100			
cM capacity (veh/h)	696	840	1378			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	10	96	205
Volume Left	9	2	0
Volume Right	1	0	9
cSH	708	1378	1700
Volume to Capacity	0.01	0.00	0.12
Queue Length 95th (m)	0.3	0.0	0.0
Control Delay (s/veh)	10.2	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.2	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		24.3%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	166	175	75	137	83	72
Future Volume (vph)	166	175	75	137	83	72
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931				0.937	
Flt Protected				0.983	0.974	
Satd. Flow (prot)	1287	0	0	1167	1337	0
Flt Permitted				0.983	0.974	
Satd. Flow (perm)	1287	0	0	1167	1337	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	202	213	91	167	101	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	415	0	0	258	189	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

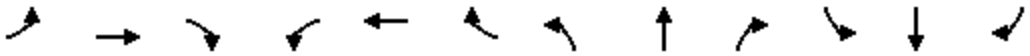
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.7%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	166	175	75	137	83	72
Future Volume (Veh/h)	166	175	75	137	83	72
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	202	213	91	167	101	88
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			415		658	309
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			415		658	309
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		75	88
cM capacity (veh/h)			1144		398	725

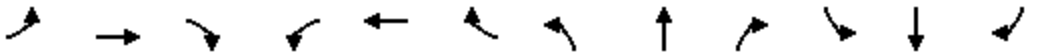
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	415	258	189
Volume Left	0	91	101
Volume Right	213	0	88
cSH	1700	1144	504
Volume to Capacity	0.24	0.08	0.38
Queue Length 95th (m)	0.0	2.0	13.1
Control Delay (s/veh)	0.0	3.5	16.4
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.5	16.4
Approach LOS			C

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	346	10	14	377	14	17	33	17	36	29	14
Future Volume (vph)	17	346	10	14	377	14	17	33	17	36	29	14
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.996			0.995			0.966			0.976	
Flt Protected		0.998			0.998			0.987			0.978	
Satd. Flow (prot)	0	1477	0	0	1440	0	0	1302	0	0	1363	0
Flt Permitted		0.998			0.998			0.987			0.978	
Satd. Flow (perm)	0	1477	0	0	1440	0	0	1302	0	0	1363	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	18	372	11	15	405	15	18	35	18	39	31	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	401	0	0	435	0	0	71	0	0	85	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

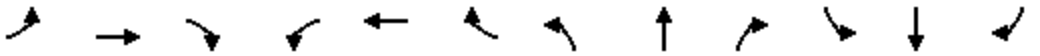
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.5%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	346	10	14	377	14	17	33	17	36	29	14
Future Volume (Veh/h)	17	346	10	14	377	14	17	33	17	36	29	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	18	372	11	15	405	15	18	35	18	39	31	15
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	420			383			887	864	378	892	862	413
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	420			383			887	864	378	892	862	413
tC, single (s)	4.1			4.3			7.4	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.7	4.1	3.3	3.6	4.0	3.3
p0 queue free %	98			99			91	87	97	82	89	98
cM capacity (veh/h)	1150			1098			211	278	674	222	281	644

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	401	435	71	85
Volume Left	18	15	18	39
Volume Right	11	15	18	15
cSH	1150	1098	299	275
Volume to Capacity	0.02	0.01	0.24	0.31
Queue Length 95th (m)	0.4	0.3	6.9	9.7
Control Delay (s/veh)	0.5	0.4	20.8	23.9
Lane LOS	A	A	C	C
Approach Delay (s/veh)	0.5	0.4	20.8	23.9
Approach LOS			C	C

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	49.5%	ICU Level of Service	A	
Analysis Period (min)	15			

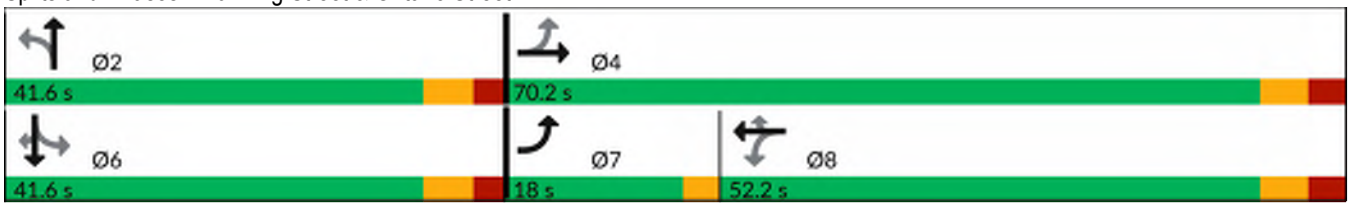


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	181	211	1	0	244	248	0	0	0	286	1	259
Future Volume (vph)	181	211	1	0	244	248	0	0	0	286	1	259
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.98	1.00				0.95					0.94	0.96
Frt		0.999				0.850						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	0	1183	1161
Flt Permitted	0.448										0.727	
Satd. Flow (perm)	657	1388	0	0	1229	1083	0	1470	0	0	852	1120
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						199						282
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			39.6			180.7	
Travel Time (s)		67.3			52.0			2.9			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	197	229	1	0	265	270	0	0	0	311	1	282
Shared Lane Traffic (%)												
Lane Group Flow (vph)	197	230	0	0	265	270	0	0	0	0	312	282
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	45.5	41.2			25.3	25.3					35.4	35.4
Actuated g/C Ratio	0.50	0.45			0.28	0.28					0.39	0.39
v/c Ratio	0.45	0.36			0.77	0.61					0.94	0.46
Control Delay (s/veh)	15.9	17.2			45.6	14.1					67.6	5.8
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay (s/veh)	15.9	17.2			45.6	14.1					67.6	5.8
LOS	B	B			D	B					E	A
Approach Delay (s/veh)		16.6			29.7						38.3	
Approach LOS		B			C						D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 90.6			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 29.4		Intersection LOS: C	
Intersection Capacity Utilization 90.5%		ICU Level of Service E	
Analysis Period (min) 15			

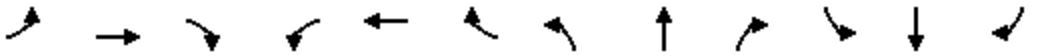
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	181	211	1	0	244	248	0	0	0	286	1	259
Future Volume (vph)	181	211	1	0	244	248	0	0	0	286	1	259
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00					1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.96					1.00	0.97
Flpb, ped/bikes	0.99	1.00			1.00	1.00					0.95	1.00
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	1409	1388			1229	1089					1129	1123
Flt Permitted	0.45	1.00			1.00	1.00					0.73	1.00
Satd. Flow (perm)	664	1388			1229	1089					862	1123
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	197	229	1	0	265	270	0	0	0	311	1	282
RTOR Reduction (vph)	0	0	0	0	0	143	0	0	0	0	0	172
Lane Group Flow (vph)	197	230	0	0	265	127	0	0	0	0	312	110
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	41.3	41.3			25.4	25.4					35.4	35.4
Effective Green, g (s)	41.3	41.3			25.4	25.4					35.4	35.4
Actuated g/C Ratio	0.46	0.46			0.28	0.28					0.39	0.39
Clearance Time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8					4.0	4.0
Lane Grp Cap (vph)	409	633			344	305					337	439
v/s Ratio Prot	c0.07	0.17			c0.22							
v/s Ratio Perm	0.15					0.12					c0.36	0.10
v/c Ratio	0.48	0.36			0.77	0.42					0.93	0.25
Uniform Delay, d1	15.9	16.0			29.9	26.5					26.3	18.6
Progression Factor	1.00	1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2	0.7	0.3			10.0	0.8					33.3	1.4
Delay (s)	16.6	16.3			39.9	27.3					59.6	20.0
Level of Service	B	B			D	C					E	B
Approach Delay (s/veh)		16.4			33.6			0.0			40.8	
Approach LOS		B			C			A			D	

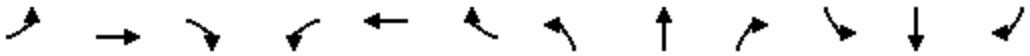
Intersection Summary			
HCM 2000 Control Delay (s/veh)	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	16.8
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	162	10	86	144	48	6	50	51	74	157	12
Future Volume (vph)	8	162	10	86	144	48	6	50	51	74	157	12
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.993			0.977			0.936			0.993	
Flt Protected		0.998			0.985			0.997			0.985	
Satd. Flow (prot)	0	1457	0	0	1404	0	0	1386	0	0	1448	0
Flt Permitted		0.998			0.985			0.997			0.985	
Satd. Flow (perm)	0	1457	0	0	1404	0	0	1386	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	1%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	8	169	10	90	150	50	6	52	53	77	164	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	187	0	0	290	0	0	111	0	0	254	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

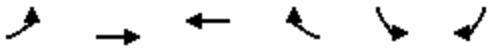
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	162	10	86	144	48	6	50	51	74	157	12
Future Volume (vph)	8	162	10	86	144	48	6	50	51	74	157	12
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	8	169	10	90	150	50	6	52	53	77	164	12

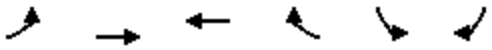
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	187	290	111	253
Volume Left (vph)	8	90	6	77
Volume Right (vph)	10	50	53	12
Hadj (s)	0.01	0.01	-0.26	0.05
Departure Headway (s)	5.4	5.2	5.4	5.4
Degree Utilization, x	0.28	0.42	0.17	0.38
Capacity (veh/h)	611	645	582	613
Control Delay (s/veh)	10.5	12.0	9.5	11.8
Approach Delay (s/veh)	10.5	12.0	9.5	11.8
Approach LOS	B	B	A	B

Intersection Summary			
Delay	11.3		
Level of Service	B		
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	401	389	5	4	15
Future Volume (vph)	4	401	389	5	4	15
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.892	
Flt Protected					0.990	
Satd. Flow (prot)	0	1229	1373	0	1324	0
Flt Permitted					0.990	
Satd. Flow (perm)	0	1229	1373	0	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		2.1	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%
Adj. Flow (vph)	4	436	423	5	4	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	440	428	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

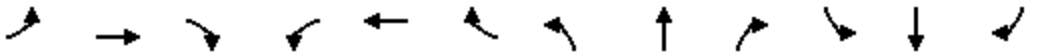
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	401	389	5	4	15
Future Volume (Veh/h)	4	401	389	5	4	15
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)	4	436	423	5	4	16
Pedestrians					1	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.1	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	429				871	427
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	429				871	427
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	97
cM capacity (veh/h)	1140				323	632

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	440	428	20
Volume Left	4	0	4
Volume Right	0	5	16
cSH	1140	1700	530
Volume to Capacity	0.00	0.25	0.04
Queue Length 95th (m)	0.1	0.0	0.9
Control Delay (s/veh)	0.1	0.0	12.1
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	12.1
Approach LOS			B

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		47.6%	ICU Level of Service A
Analysis Period (min)		15	

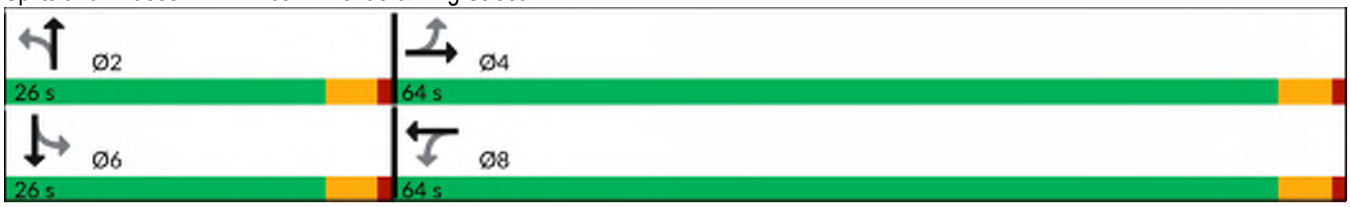


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	272	5	14	457	100	5	26	16	86	17	20
Future Volume (vph)	17	272	5	14	457	100	5	26	16	86	17	20
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.973			0.954			0.978	
Flt Protected	0.950			0.950				0.995			0.966	
Satd. Flow (prot)	1278	1304	0	1445	1320	0	0	1316	0	0	1380	0
Flt Permitted	0.264			0.522				0.975			0.770	
Satd. Flow (perm)	355	1304	0	794	1320	0	0	1289	0	0	1098	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			26			19			10	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	20	328	6	17	551	120	6	31	19	104	20	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	334	0	17	671	0	0	56	0	0	148	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	39.6	39.6		39.6	39.6			22.3			22.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.31			0.31	
v/c Ratio	0.10	0.46		0.04	0.90			0.13			0.42	
Control Delay (s/veh)	7.4	10.7		6.1	29.1			18.3			27.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	7.4	10.7		6.1	29.1			18.3			27.4	
LOS	A	B		A	C			B			C	
Approach Delay (s/veh)		10.5			28.6			18.3			27.4	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 71.2			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 22.8		Intersection LOS: C	
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			

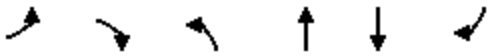
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	272	5	14	457	100	5	26	16	86	17	20
Future Volume (vph)	17	272	5	14	457	100	5	26	16	86	17	20
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1278	1304		1445	1320			1316			1379	
Flt Permitted	0.26	1.00		0.52	1.00			0.98			0.77	
Satd. Flow (perm)	355	1304		794	1320			1290			1098	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	20	328	6	17	551	120	6	31	19	104	20	24
RTOR Reduction (vph)	0	1	0	0	11	0	0	13	0	0	7	0
Lane Group Flow (vph)	20	333	0	17	660	0	0	43	0	0	141	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	39.6	39.6		39.6	39.6			22.3			22.3	
Effective Green, g (s)	39.6	39.6		39.6	39.6			22.3			22.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.31			0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	198	728		443	737			405			345	
v/s Ratio Prot		0.26			c0.50							
v/s Ratio Perm	0.06			0.02				0.03			c0.13	
v/c Ratio	0.10	0.46		0.04	0.89			0.11			0.41	
Uniform Delay, d1	7.3	9.3		7.1	13.8			17.2			19.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.5		0.0	13.4			0.5			3.6	
Delay (s)	7.5	9.7		7.1	27.2			17.8			22.7	
Level of Service	A	A		A	C			B			C	
Approach Delay (s/veh)		9.6			26.7			17.8			22.7	
Approach LOS		A			C			B			C	

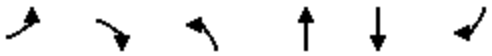
Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	70.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	0	2	143	123	6
Future Volume (vph)	5	0	2	143	123	6
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.993	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1425	0	0	1193	1355	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1425	0	0	1193	1355	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	4%	3%	0%
Adj. Flow (vph)	6	0	2	161	138	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	163	145	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	0	2	143	123	6
Future Volume (Veh/h)	5	0	2	143	123	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	0	2	161	138	7
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	307	145	145			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	307	145	145			
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	100	100			
cM capacity (veh/h)	689	906	1450			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	6	163	145
Volume Left	6	2	0
Volume Right	0	0	7
cSH	689	1450	1700
Volume to Capacity	0.01	0.00	0.09
Queue Length 95th (m)	0.2	0.0	0.0
Control Delay (s/veh)	10.3	0.1	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.3	0.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		25.1%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	165	87	69	158	160	94
Future Volume (vph)	165	87	69	158	160	94
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.950	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1282	0	0	1116	1305	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1282	0	0	1116	1305	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	192	101	80	184	186	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	0	0	264	295	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

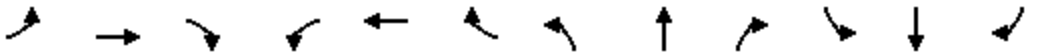
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.6%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	165	87	69	158	160	94
Future Volume (Veh/h)	165	87	69	158	160	94
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	192	101	80	184	186	109
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			293		587	243
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			293		587	243
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			93		58	86
cM capacity (veh/h)			1173		442	768

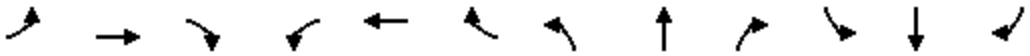
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	293	264	295
Volume Left	0	80	186
Volume Right	101	0	109
cSH	1700	1173	524
Volume to Capacity	0.17	0.07	0.56
Queue Length 95th (m)	0.0	1.7	26.2
Control Delay (s/veh)	0.0	3.0	20.4
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.0	20.4
Approach LOS			C

Intersection Summary			
Average Delay	8.0		
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	273	7	7	433	39	5	19	6	17	28	11
Future Volume (vph)	15	273	7	7	433	39	5	19	6	17	28	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.989			0.973			0.973	
Flt Protected		0.997			0.999			0.992			0.985	
Satd. Flow (prot)	0	1369	0	0	1404	0	0	1281	0	0	1373	0
Flt Permitted		0.997			0.999			0.992			0.985	
Satd. Flow (perm)	0	1369	0	0	1404	0	0	1281	0	0	1373	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.5			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	17	310	8	8	492	44	6	22	7	19	32	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	335	0	0	544	0	0	35	0	0	64	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

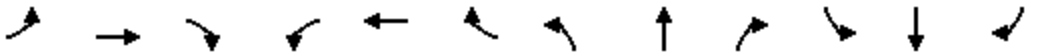
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	273	7	7	433	39	5	19	6	17	28	11
Future Volume (Veh/h)	15	273	7	7	433	39	5	19	6	17	28	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	17	310	8	8	492	44	6	22	7	19	32	12
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	536			318			906	900	314	896	882	514
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	536			318			906	900	314	896	882	514
tC, single (s)	4.5			4.1			7.6	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.6			2.2			4.0	4.1	3.3	3.5	4.0	3.5
p0 queue free %	98			99			97	92	99	92	89	98
cM capacity (veh/h)	869			1253			186	266	731	239	280	521

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	335	544	35	63
Volume Left	17	8	6	19
Volume Right	8	44	7	12
cSH	869	1253	281	291
Volume to Capacity	0.02	0.01	0.12	0.22
Queue Length 95th (m)	0.5	0.1	3.2	6.1
Control Delay (s/veh)	0.7	0.2	19.6	20.8
Lane LOS	A	A	C	C
Approach Delay (s/veh)	0.7	0.2	19.6	20.8
Approach LOS			C	C

Intersection Summary				
Average Delay	2.4			
Intersection Capacity Utilization	48.6%	ICU Level of Service	A	
Analysis Period (min)	15			

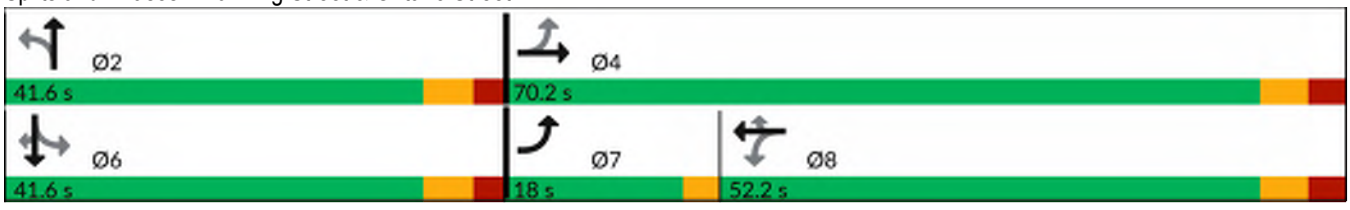


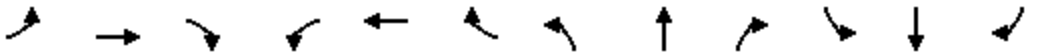
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	234	0	0	368	227	2	0	0	242	0	175
Future Volume (vph)	136	234	0	0	368	227	2	0	0	242	0	175
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99					0.95		0.97			1.00	0.92
Frt						0.850						0.850
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	0	1123	1150
Flt Permitted	0.336							0.478			0.757	
Satd. Flow (perm)	483	1376	0	0	1129	1076	0	694	0	0	892	1055
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						121						201
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			33.1			180.7	
Travel Time (s)		67.3			52.0			2.4			13.0	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	156	269	0	0	423	261	2	0	0	278	0	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	156	269	0	0	423	261	0	2	0	0	278	201
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	62.8	58.6			42.5	42.5		35.2			35.2	35.2
Actuated g/C Ratio	0.58	0.54			0.39	0.39		0.33			0.33	0.33
v/c Ratio	0.40	0.36			0.95	0.53		0.01			0.96	0.42
Control Delay (s/veh)	13.5	15.2			64.9	17.1		27.0			80.8	7.0
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	13.5	15.2			64.9	17.1		27.0			80.8	7.0
LOS	B	B			E	B		C			F	A
Approach Delay (s/veh)		14.6			46.7			27.0			49.8	
Approach LOS		B			D			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 107.6			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay (s/veh): 39.0		Intersection LOS: D	
Intersection Capacity Utilization 88.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

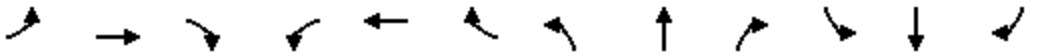




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	234	0	0	368	227	2	0	0	242	0	175
Future Volume (vph)	136	234	0	0	368	227	2	0	0	242	0	175
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.96		1.00			1.00	0.92
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.97			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	1373	1376			1129	1077		1379			1119	1057
Flt Permitted	0.34	1.00			1.00	1.00		0.48			0.76	1.00
Satd. Flow (perm)	486	1376			1129	1077		694			891	1057
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	156	269	0	0	423	261	2	0	0	278	0	201
RTOR Reduction (vph)	0	0	0	0	0	73	0	0	0	0	0	135
Lane Group Flow (vph)	156	269	0	0	423	188	0	2	0	0	278	66
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	58.5	58.5			42.4	42.4		35.2			35.2	35.2
Effective Green, g (s)	58.5	58.5			42.4	42.4		35.2			35.2	35.2
Actuated g/C Ratio	0.54	0.54			0.39	0.39		0.33			0.33	0.33
Clearance Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8		2.5			4.0	4.0
Lane Grp Cap (vph)	372	748			445	424		227			291	346
v/s Ratio Prot	c0.05	0.20			c0.37							
v/s Ratio Perm	0.18					0.17		0.00			c0.31	0.06
v/c Ratio	0.42	0.36			0.95	0.44		0.01			0.96	0.19
Uniform Delay, d1	14.1	13.9			31.5	23.9		24.4			35.4	25.9
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.6	0.3			30.3	0.7		0.1			42.5	1.2
Delay (s)	14.6	14.1			61.8	24.5		24.5			77.9	27.1
Level of Service	B	B			E	C		C			E	C
Approach Delay (s/veh)		14.3			47.6			24.5			56.6	
Approach LOS		B			D			C			E	

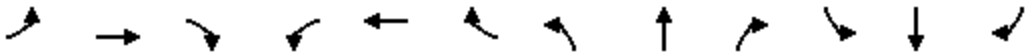
Intersection Summary			
HCM 2000 Control Delay (s/veh)	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	107.5	Sum of lost time (s)	16.8
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	85	5	26	106	61	11	154	24	25	96	14
Future Volume (vph)	16	85	5	26	106	61	11	154	24	25	96	14
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.994			0.957			0.983			0.986	
Flt Protected		0.992			0.993			0.997			0.991	
Satd. Flow (prot)	0	1427	0	0	1350	0	0	1439	0	0	1432	0
Flt Permitted		0.992			0.993			0.997			0.991	
Satd. Flow (perm)	0	1427	0	0	1350	0	0	1439	0	0	1432	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	18	93	5	29	116	67	12	169	26	27	105	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	212	0	0	207	0	0	147	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

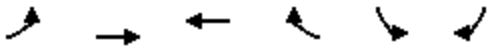
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	16	85	5	26	106	61	11	154	24	25	96	14
Future Volume (vph)	16	85	5	26	106	61	11	154	24	25	96	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	18	93	5	29	116	67	12	169	26	27	105	15

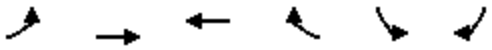
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	116	212	207	147
Volume Left (vph)	18	29	12	27
Volume Right (vph)	5	67	26	15
Hadj (s)	0.07	-0.07	-0.03	0.02
Departure Headway (s)	5.2	4.9	4.9	5.1
Degree Utilization, x	0.17	0.29	0.28	0.21
Capacity (veh/h)	631	681	681	654
Control Delay (s/veh)	9.2	9.9	9.9	9.4
Approach Delay (s/veh)	9.2	9.9	9.9	9.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	9.7			
Level of Service	A			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	293	486	6	3	3
Future Volume (vph)	4	293	486	6	3	3
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1171	1335	0	1364	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1171	1335	0	1364	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		2.1	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	6%	5%	0%	0%	0%
Adj. Flow (vph)	5	345	572	7	4	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	350	579	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

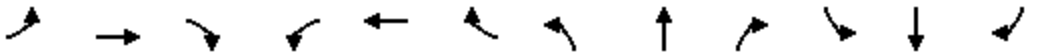
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	293	486	6	3	3
Future Volume (Veh/h)	4	293	486	6	3	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	345	572	7	4	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			64			
pX, platoon unblocked	0.60				0.60	0.60
vC, conflicting volume	579				931	576
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				545	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	976				298	650

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	350	579	8
Volume Left	5	0	4
Volume Right	0	7	4
cSH	976	1700	409
Volume to Capacity	0.01	0.34	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s/veh)	0.2	0.0	14.0
Lane LOS	A		B
Approach Delay (s/veh)	0.2	0.0	14.0
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

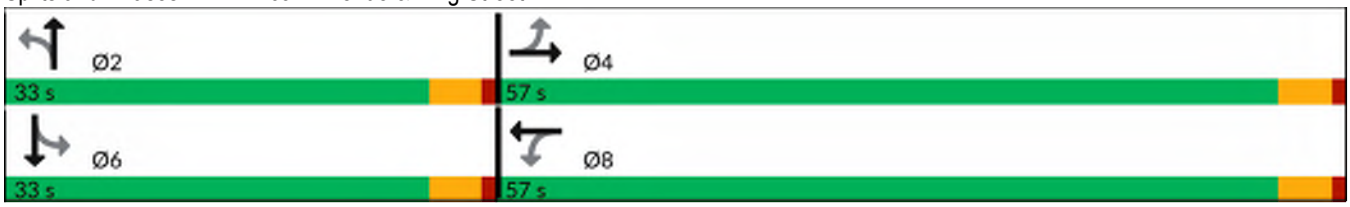


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	466	8	19	475	53	6	12	24	155	26	15
Future Volume (vph)	29	466	8	19	475	53	6	12	24	155	26	15
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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				1.00			0.98			0.99	
Frt		0.997			0.985			0.924			0.990	
Flt Protected	0.950			0.950				0.992			0.962	
Satd. Flow (prot)	1445	1386	0	1445	1354	0	0	1351	0	0	1417	0
Flt Permitted	0.276			0.325				0.962			0.740	
Satd. Flow (perm)	418	1386	0	494	1354	0	0	1310	0	0	1082	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			11			26			5	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	32	512	9	21	522	58	7	13	26	170	29	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	521	0	21	580	0	0	46	0	0	215	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	35.8	35.8		35.8	35.8			29.2			29.2	
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.39			0.39	
v/c Ratio	0.16	0.78		0.09	0.88			0.09			0.50	
Control Delay (s/veh)	11.6	24.0		9.9	32.1			12.0			25.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	11.6	24.0		9.9	32.1			12.0			25.4	
LOS	B	C		A	C			B			C	
Approach Delay (s/veh)		23.2			31.3			12.0			25.4	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 74.2			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 26.6		Intersection LOS: C	
Intersection Capacity Utilization 66.8%		ICU Level of Service C	
Analysis Period (min) 15			

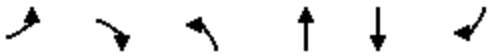
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	466	8	19	475	53	6	12	24	155	26	15
Future Volume (vph)	29	466	8	19	475	53	6	12	24	155	26	15
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.99			0.92			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)	1441	1386		1445	1354			1353			1408	
Flt Permitted	0.28	1.00		0.33	1.00			0.96			0.74	
Satd. Flow (perm)	418	1386		495	1354			1312			1083	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	32	512	9	21	522	58	7	13	26	170	29	16
RTOR Reduction (vph)	0	1	0	0	6	0	0	16	0	0	3	0
Lane Group Flow (vph)	32	520	0	21	574	0	0	30	0	0	212	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	35.8	35.8		35.8	35.8			29.2			29.2	
Effective Green, g (s)	35.8	35.8		35.8	35.8			29.2			29.2	
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.39			0.39	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	202	670		239	655			517			427	
v/s Ratio Prot		0.38			c0.42							
v/s Ratio Perm	0.08			0.04				0.02			c0.20	
v/c Ratio	0.16	0.78		0.09	0.88			0.06			0.50	
Uniform Delay, d1	10.7	15.8		10.3	17.1			13.9			16.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.4	5.6		0.2	12.6			0.2			4.1	
Delay (s)	11.0	21.4		10.5	29.7			14.1			20.9	
Level of Service	B	C		B	C			B			C	
Approach Delay (s/veh)		20.8			29.1			14.1			20.9	
Approach LOS		C			C			B			C	

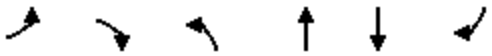
Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	2	3	96	199	10
Future Volume (vph)	10	2	3	96	199	10
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.979				0.994	
Flt Protected	0.959			0.999		
Satd. Flow (prot)	1408	0	0	1205	1356	0
Flt Permitted	0.959			0.999		
Satd. Flow (perm)	1408	0	0	1205	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	11	2	3	107	221	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	110	232	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	2	3	96	199	10
Future Volume (Veh/h)	10	2	3	96	199	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	2	3	107	221	11
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	340	230	232			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	340	230	232			
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	100	100			
cM capacity (veh/h)	659	812	1348			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	13	110	232
Volume Left	11	3	0
Volume Right	2	0	11
cSH	679	1348	1700
Volume to Capacity	0.02	0.00	0.14
Queue Length 95th (m)	0.4	0.1	0.0
Control Delay (s/veh)	10.4	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.4	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		26.1%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	187	197	85	155	94	82
Future Volume (vph)	187	197	85	155	94	82
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931				0.937	
Flt Protected				0.983	0.974	
Satd. Flow (prot)	1287	0	0	1167	1337	0
Flt Permitted				0.983	0.974	
Satd. Flow (perm)	1287	0	0	1167	1337	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	228	240	104	189	115	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	468	0	0	293	215	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

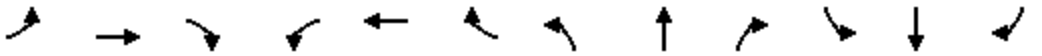
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 73.0%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	187	197	85	155	94	82
Future Volume (Veh/h)	187	197	85	155	94	82
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	228	240	104	189	115	100
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			468		745	348
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			468		745	348
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		67	85
cM capacity (veh/h)			1094		348	688

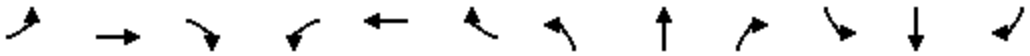
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	468	293	215
Volume Left	0	104	115
Volume Right	240	0	100
cSH	1700	1094	452
Volume to Capacity	0.28	0.10	0.48
Queue Length 95th (m)	0.0	2.4	19.1
Control Delay (s/veh)	0.0	3.7	20.0
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.7	20.0
Approach LOS			C

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	470	12	16	479	16	20	38	20	41	33	16
Future Volume (vph)	20	470	12	16	479	16	20	38	20	41	33	16
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.996			0.965			0.976	
Flt Protected		0.998			0.998			0.987			0.978	
Satd. Flow (prot)	0	1480	0	0	1442	0	0	1300	0	0	1363	0
Flt Permitted		0.998			0.998			0.987			0.978	
Satd. Flow (perm)	0	1480	0	0	1442	0	0	1300	0	0	1363	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.5			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	22	505	13	17	515	17	22	41	22	44	35	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	540	0	0	549	0	0	85	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

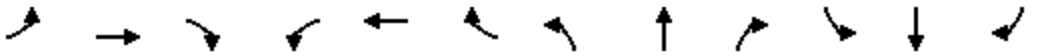
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 61.4%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	470	12	16	479	16	20	38	20	41	33	16
Future Volume (Veh/h)	20	470	12	16	479	16	20	38	20	41	33	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	22	505	13	17	515	17	22	41	22	44	35	17
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	532			518			1148	1122	512	1156	1120	524
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	532			518			1148	1122	512	1156	1120	524
tC, single (s)	4.1			4.3			7.4	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.7	4.1	3.3	3.6	4.0	3.3
p0 queue free %	98			98			83	79	96	67	82	97
cM capacity (veh/h)	1046			976			129	194	566	133	196	558

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	540	549	85	96
Volume Left	22	17	22	44
Volume Right	13	17	22	17
cSH	1046	976	202	178
Volume to Capacity	0.02	0.02	0.42	0.54
Queue Length 95th (m)	0.5	0.4	14.6	21.1
Control Delay (s/veh)	0.6	0.5	35.2	46.8
Lane LOS	A	A	E	E
Approach Delay (s/veh)	0.6	0.5	35.2	46.8
Approach LOS			E	E

Intersection Summary				
Average Delay	6.4			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B	
Analysis Period (min)	15			

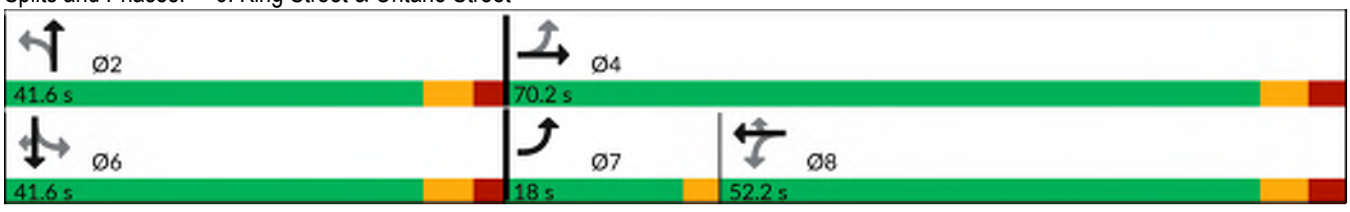


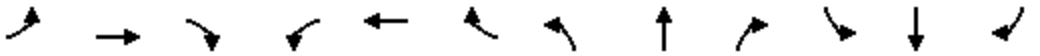
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	286	2	0	329	280	0	0	0	322	2	292
Future Volume (vph)	204	286	2	0	329	280	0	0	0	322	2	292
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95					0.94	0.96
Frt		0.999				0.850						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	0	1183	1161
Flt Permitted	0.362										0.728	
Satd. Flow (perm)	534	1388	0	0	1229	1083	0	1470	0	0	854	1120
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						166						317
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			33.1			180.7	
Travel Time (s)		67.3			52.0			2.4			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	222	311	2	0	358	304	0	0	0	350	2	317
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	313	0	0	358	304	0	0	0	0	352	317
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	53.9	49.6			33.0	33.0					35.5	35.5
Actuated g/C Ratio	0.54	0.50			0.33	0.33					0.36	0.36
v/c Ratio	0.54	0.45			0.88	0.65					1.15	0.52
Control Delay (s/veh)	16.8	17.6			53.5	18.7					132.3	6.8
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay (s/veh)	16.8	17.6			53.5	18.7					132.3	6.8
LOS	B	B			D	B					F	A
Approach Delay (s/veh)		17.2			37.6						72.8	
Approach LOS		B			D						E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 99.1			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay (s/veh): 44.4		Intersection LOS: D	
Intersection Capacity Utilization 100.6%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

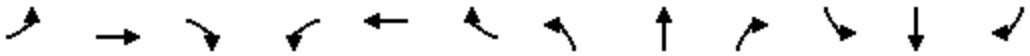




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	286	2	0	329	280	0	0	0	322	2	292
Future Volume (vph)	204	286	2	0	329	280	0	0	0	322	2	292
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00					1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95					1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00					0.95	1.00
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	1412	1388			1229	1086					1125	1122
Flt Permitted	0.36	1.00			1.00	1.00					0.73	1.00
Satd. Flow (perm)	538	1388			1229	1086					859	1122
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	222	311	2	0	358	304	0	0	0	350	2	317
RTOR Reduction (vph)	0	0	0	0	0	111	0	0	0	0	0	203
Lane Group Flow (vph)	222	313	0	0	358	193	0	0	0	0	352	114
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	49.6	49.6			33.0	33.0					35.5	35.5
Effective Green, g (s)	49.6	49.6			33.0	33.0					35.5	35.5
Actuated g/C Ratio	0.50	0.50			0.33	0.33					0.36	0.36
Clearance Time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8					4.0	4.0
Lane Grp Cap (vph)	390	696			410	362					308	402
v/s Ratio Prot	c0.08	0.23			c0.29							
v/s Ratio Perm	0.21					0.18					c0.41	0.10
v/c Ratio	0.57	0.45			0.87	0.53					1.14	0.28
Uniform Delay, d1	15.6	15.9			31.0	26.7					31.7	22.6
Progression Factor	1.00	1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2	1.5	0.4			18.1	1.4					95.7	1.8
Delay (s)	17.2	16.3			49.1	28.1					127.4	24.4
Level of Service	B	B			D	C					F	C
Approach Delay (s/veh)		16.6			39.5			0.0			78.6	
Approach LOS		B			D			A			E	

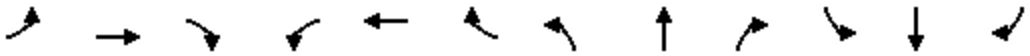
Intersection Summary			
HCM 2000 Control Delay (s/veh)	46.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	98.9	Sum of lost time (s)	16.8
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	183	12	97	163	55	7	57	58	84	177	14
Future Volume (vph)	10	183	12	97	163	55	7	57	58	84	177	14
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.977			0.936			0.993	
Flt Protected		0.998			0.985			0.997			0.985	
Satd. Flow (prot)	0	1456	0	0	1404	0	0	1386	0	0	1448	0
Flt Permitted		0.998			0.985			0.997			0.985	
Satd. Flow (perm)	0	1456	0	0	1404	0	0	1386	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	1%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	10	191	13	101	170	57	7	59	60	88	184	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	214	0	0	328	0	0	126	0	0	287	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

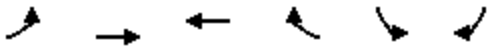
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.8%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	183	12	97	163	55	7	57	58	84	177	14
Future Volume (vph)	10	183	12	97	163	55	7	57	58	84	177	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	191	12	101	170	57	7	59	60	88	184	15

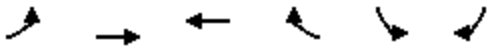
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	213	328	126	287
Volume Left (vph)	10	101	7	88
Volume Right (vph)	12	57	60	15
Hadj (s)	0.01	0.00	-0.26	0.05
Departure Headway (s)	5.7	5.5	5.8	5.7
Degree Utilization, x	0.34	0.50	0.20	0.46
Capacity (veh/h)	573	613	538	582
Control Delay (s/veh)	11.6	13.9	10.2	13.4
Approach Delay (s/veh)	11.6	13.9	10.2	13.4
Approach LOS	B	B	B	B

Intersection Summary				
Delay	12.8			
Level of Service	B			
Intersection Capacity Utilization	71.8%	ICU Level of Service	C	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	500	492	6	5	17
Future Volume (vph)	5	500	492	6	5	17
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.894	
Flt Protected					0.989	
Satd. Flow (prot)	0	1229	1374	0	1326	0
Flt Permitted					0.989	
Satd. Flow (perm)	0	1229	1374	0	1326	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		2.1	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%
Adj. Flow (vph)	5	543	535	7	5	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	548	542	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

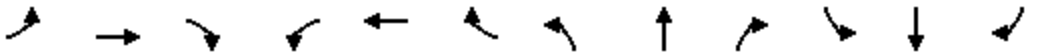
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	500	492	6	5	17
Future Volume (Veh/h)	5	500	492	6	5	17
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)	5	543	535	7	5	18
Pedestrians					1	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.1	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			64			
pX, platoon unblocked	0.64				0.64	0.64
vC, conflicting volume	543				1093	540
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	9				865	3
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	97
cM capacity (veh/h)	1042				209	697

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	548	542	23
Volume Left	5	0	5
Volume Right	0	7	18
cSH	1042	1700	462
Volume to Capacity	0.00	0.32	0.05
Queue Length 95th (m)	0.1	0.0	1.2
Control Delay (s/veh)	0.1	0.0	13.2
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	13.2
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

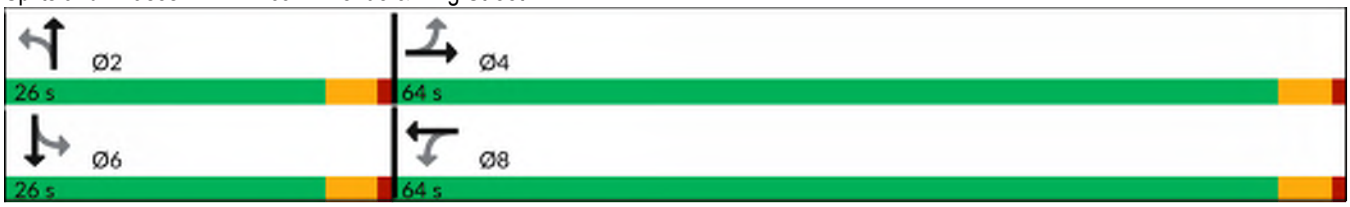


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Future Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.973			0.954			0.973	
Flt Protected	0.950			0.950				0.995			0.968	
Satd. Flow (prot)	1278	1304	0	1445	1320	0	0	1316	0	0	1370	0
Flt Permitted	0.264			0.516				0.975			0.777	
Satd. Flow (perm)	355	1304	0	785	1320	0	0	1289	0	0	1098	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			26			19			13	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		66.8			934.2			571.7			34.1	
Travel Time (s)		4.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	37	336	6	17	554	120	6	31	19	104	20	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	342	0	17	674	0	0	56	0	0	155	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	40.2	40.2		40.2	40.2			22.3			22.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.31			0.31	
v/c Ratio	0.19	0.47		0.04	0.90			0.14			0.44	
Control Delay (s/veh)	9.0	10.8		6.0	29.0			18.5			27.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	9.0	10.8		6.0	29.0			18.5			27.7	
LOS	A	B		A	C			B			C	
Approach Delay (s/veh)		10.6			28.4			18.5			27.7	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 71.8			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 22.6		Intersection LOS: C	
Intersection Capacity Utilization 64.9%		ICU Level of Service C	
Analysis Period (min) 15			

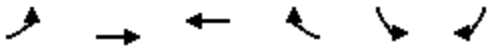
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Future Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1278	1304		1445	1320			1316			1368	
Flt Permitted	0.26	1.00		0.52	1.00			0.97			0.78	
Satd. Flow (perm)	355	1304		785	1320			1290			1099	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	37	336	6	17	554	120	6	31	19	104	20	31
RTOR Reduction (vph)	0	1	0	0	11	0	0	13	0	0	9	0
Lane Group Flow (vph)	37	341	0	17	663	0	0	43	0	0	146	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	40.1	40.1		40.1	40.1			22.3			22.3	
Effective Green, g (s)	40.1	40.1		40.1	40.1			22.3			22.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.31			0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	199	732		440	741			402			343	
v/s Ratio Prot		0.26			c0.50							
v/s Ratio Perm	0.10			0.02				0.03			c0.13	
v/c Ratio	0.19	0.47		0.04	0.89			0.11			0.43	
Uniform Delay, d1	7.7	9.3		7.0	13.8			17.5			19.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.5		0.0	13.2			0.5			3.8	
Delay (s)	8.1	9.8		7.0	27.0			18.0			23.3	
Level of Service	A	A		A	C			B			C	
Approach Delay (s/veh)		9.6			26.5			18.0			23.3	
Approach LOS		A			C			B			C	

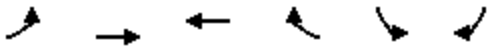
Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	71.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	298	490	8	20	30
Future Volume (vph)	13	298	490	8	20	30
Ideal Flow (vphpl)	1228	1228	1629	1351	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.919	
Flt Protected		0.998			0.980	
Satd. Flow (prot)	0	1215	1615	1138	1324	0
Flt Permitted		0.998			0.980	
Satd. Flow (perm)	0	1215	1615	1138	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		787.4	65.8		26.0	
Travel Time (s)		47.2	3.9		1.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	324	533	9	22	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	338	533	9	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

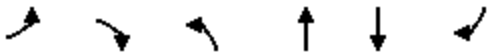
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	298	490	8	20	30
Future Volume (Veh/h)	13	298	490	8	20	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)	14	324	533	9	22	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			133			
pX, platoon unblocked						
vC, conflicting volume	542				885	533
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	542				885	533
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				93	94
cM capacity (veh/h)	1027				311	547

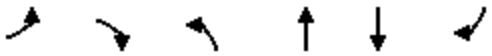
Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	338	533	9	55
Volume Left	14	0	0	22
Volume Right	0	0	9	33
cSH	1027	1700	1700	420
Volume to Capacity	0.01	0.31	0.01	0.13
Queue Length 95th (m)	0.3	0.0	0.0	3.4
Control Delay (s/veh)	0.5	0.0	0.0	14.9
Lane LOS	A			B
Approach Delay (s/veh)	0.5	0.0		14.9
Approach LOS				B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	0	2	157	129	6
Future Volume (vph)	5	0	2	157	129	6
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.994	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1425	0	0	1193	1356	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1425	0	0	1193	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	4%	3%	0%
Adj. Flow (vph)	6	0	2	176	145	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	178	152	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	0	2	157	129	6
Future Volume (Veh/h)	5	0	2	157	129	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	0	2	176	145	7
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	329	152	152			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	329	152	152			
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	100	100			
cM capacity (veh/h)	669	892	1441			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	6	178	152
Volume Left	6	2	0
Volume Right	0	0	7
cSH	669	1441	1700
Volume to Capacity	0.01	0.00	0.09
Queue Length 95th (m)	0.2	0.0	0.0
Control Delay (s/veh)	10.4	0.1	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.4	0.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		26.2%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	165	89	69	158	165	94
Future Volume (vph)	165	89	69	158	165	94
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.951	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1282	0	0	1116	1307	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1282	0	0	1116	1307	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	192	103	80	184	192	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	295	0	0	264	301	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

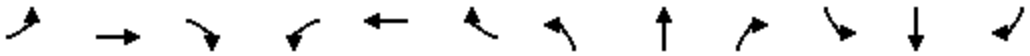
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.2%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	165	89	69	158	165	94
Future Volume (Veh/h)	165	89	69	158	165	94
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	192	103	80	184	192	109
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			295		588	244
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			295		588	244
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			93		56	86
cM capacity (veh/h)			1170		441	767

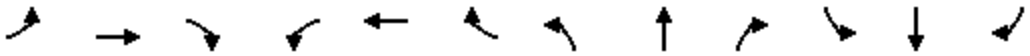
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	295	264	301
Volume Left	0	80	192
Volume Right	103	0	109
cSH	1700	1170	521
Volume to Capacity	0.17	0.07	0.58
Queue Length 95th (m)	0.0	1.7	27.5
Control Delay (s/veh)	0.0	3.0	20.9
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.0	20.9
Approach LOS			C

Intersection Summary			
Average Delay	8.2		
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	284	7	7	463	41	5	19	6	20	28	11
Future Volume (vph)	15	284	7	7	463	41	5	19	6	20	28	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.989			0.973			0.974	
Flt Protected		0.998			0.999			0.992			0.983	
Satd. Flow (prot)	0	1371	0	0	1404	0	0	1281	0	0	1375	0
Flt Permitted		0.998			0.999			0.992			0.983	
Satd. Flow (perm)	0	1371	0	0	1404	0	0	1281	0	0	1375	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			787.4			314.9			254.1	
Travel Time (s)		26.8			47.2			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	17	323	8	8	526	47	6	22	7	23	32	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	348	0	0	581	0	0	35	0	0	68	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 51.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	284	7	7	463	41	5	19	6	20	28	11
Future Volume (Veh/h)	15	284	7	7	463	41	5	19	6	20	28	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	17	323	8	8	526	47	6	22	7	23	32	12
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	573			331			955	950	327	945	931	550
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	573			331			955	950	327	945	931	550
tC, single (s)	4.5			4.1			7.6	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.6			2.2			4.0	4.1	3.3	3.5	4.0	3.5
p0 queue free %	98			99			96	91	99	90	88	98
cM capacity (veh/h)	840			1240			170	248	719	221	262	497

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	348	581	35	67
Volume Left	17	8	6	23
Volume Right	8	47	7	12
cSH	840	1240	262	267
Volume to Capacity	0.02	0.01	0.13	0.25
Queue Length 95th (m)	0.5	0.1	3.5	7.3
Control Delay (s/veh)	0.7	0.2	20.9	22.9
Lane LOS	A	A	C	C
Approach Delay (s/veh)	0.7	0.2	20.9	22.9
Approach LOS			C	C

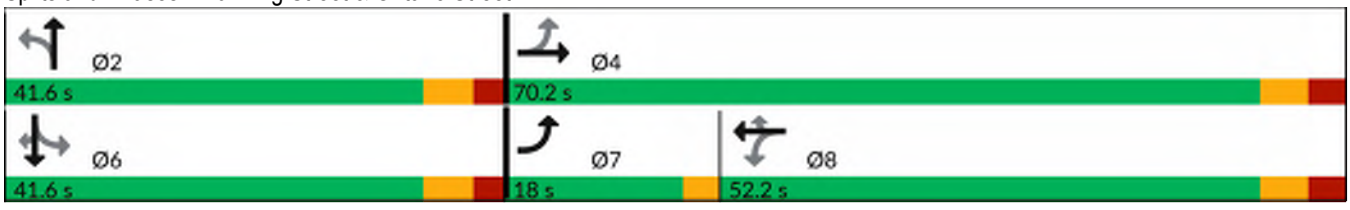
Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	51.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Future Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99					0.95		0.97			1.00	0.92
Frt						0.850						0.850
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	0	1123	1150
Flt Permitted	0.335							0.477			0.757	
Satd. Flow (perm)	482	1376	0	0	1129	1076	0	692	0	0	892	1055
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120						201
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			43.8			605.8	
Travel Time (s)		67.3			52.0			3.2			43.6	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	157	276	0	0	426	261	2	0	0	278	0	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	276	0	0	426	261	0	2	0	0	278	201
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	63.0	58.8			42.7	42.7		35.1			35.1	35.1
Actuated g/C Ratio	0.58	0.55			0.40	0.40		0.33			0.33	0.33
v/c Ratio	0.40	0.37			0.95	0.52		0.01			0.96	0.42
Control Delay (s/veh)	13.5	15.4			65.6	17.2		27.0			81.7	7.0
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	13.5	15.4			65.6	17.2		27.0			81.7	7.0
LOS	B	B			E	B		C			F	A
Approach Delay (s/veh)		14.7			47.2			27.0			50.3	
Approach LOS		B			D			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 107.8			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay (s/veh): 39.3		Intersection LOS: D	
Intersection Capacity Utilization 89.0%		ICU Level of Service E	
Analysis Period (min) 15			

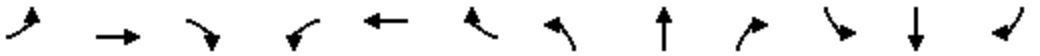
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Future Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.96		1.00			1.00	0.92
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.97			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	1373	1376			1129	1077		1379			1119	1057
Flt Permitted	0.33	1.00			1.00	1.00		0.48			0.76	1.00
Satd. Flow (perm)	484	1376			1129	1077		693			891	1057
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	157	276	0	0	426	261	2	0	0	278	0	201
RTOR Reduction (vph)	0	0	0	0	0	72	0	0	0	0	0	135
Lane Group Flow (vph)	157	276	0	0	426	189	0	2	0	0	278	66
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	58.8	58.8			42.7	42.7		35.1			35.1	35.1
Effective Green, g (s)	58.8	58.8			42.7	42.7		35.1			35.1	35.1
Actuated g/C Ratio	0.55	0.55			0.40	0.40		0.33			0.33	0.33
Clearance Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8		2.5			4.0	4.0
Lane Grp Cap (vph)	372	751			447	427		225			290	344
v/s Ratio Prot	c0.05	0.20			c0.38							
v/s Ratio Perm	0.18					0.18		0.00			c0.31	0.06
v/c Ratio	0.42	0.37			0.95	0.44		0.01			0.96	0.19
Uniform Delay, d1	14.0	13.9			31.5	23.8		24.5			35.6	26.1
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.6	0.3			30.7	0.7		0.1			43.3	1.2
Delay (s)	14.6	14.2			62.2	24.4		24.6			78.9	27.3
Level of Service	B	B			E	C		C			E	C
Approach Delay (s/veh)		14.3			47.8			24.6			57.2	
Approach LOS		B			D			C			E	

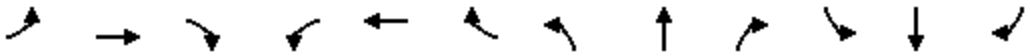
Intersection Summary			
HCM 2000 Control Delay (s/veh)	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	16.8
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Future Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.994			0.958			0.978			0.986	
Flt Protected		0.992			0.992			0.997			0.991	
Satd. Flow (prot)	0	1427	0	0	1351	0	0	1430	0	0	1432	0
Flt Permitted		0.992			0.992			0.997			0.991	
Satd. Flow (perm)	0	1427	0	0	1351	0	0	1430	0	0	1432	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	18	93	5	33	116	67	12	175	36	27	108	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	216	0	0	223	0	0	150	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

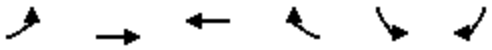
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Future Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	18	93	5	33	116	67	12	175	36	27	108	15

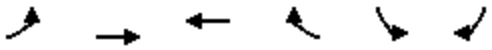
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	116	216	223	150
Volume Left (vph)	18	33	12	27
Volume Right (vph)	5	67	36	15
Hadj (s)	0.07	-0.06	-0.05	0.02
Departure Headway (s)	5.2	5.0	4.9	5.1
Degree Utilization, x	0.17	0.30	0.31	0.21
Capacity (veh/h)	621	669	681	647
Control Delay (s/veh)	9.3	10.1	10.1	9.5
Approach Delay (s/veh)	9.3	10.1	10.1	9.5
Approach LOS	A	B	B	A

Intersection Summary				
Delay	9.8			
Level of Service	A			
Intersection Capacity Utilization	45.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	313	495	6	3	3
Future Volume (vph)	4	313	495	6	3	3
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1171	1335	0	1364	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1171	1335	0	1364	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		65.8	66.8		21.9	
Travel Time (s)		3.9	4.0		1.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	6%	5%	0%	0%	0%
Adj. Flow (vph)	5	368	582	7	4	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	373	589	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

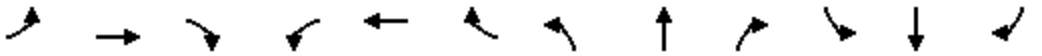
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	313	495	6	3	3
Future Volume (Veh/h)	4	313	495	6	3	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	368	582	7	4	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			67			
pX, platoon unblocked	0.60				0.60	0.60
vC, conflicting volume	589				964	586
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				601	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	976				277	651

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	373	589	8
Volume Left	5	0	4
Volume Right	0	7	4
cSH	976	1700	389
Volume to Capacity	0.01	0.35	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s/veh)	0.2	0.0	14.5
Lane LOS	A		B
Approach Delay (s/veh)	0.2	0.0	14.5
Approach LOS			B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		46.2%	ICU Level of Service
Analysis Period (min)		15	



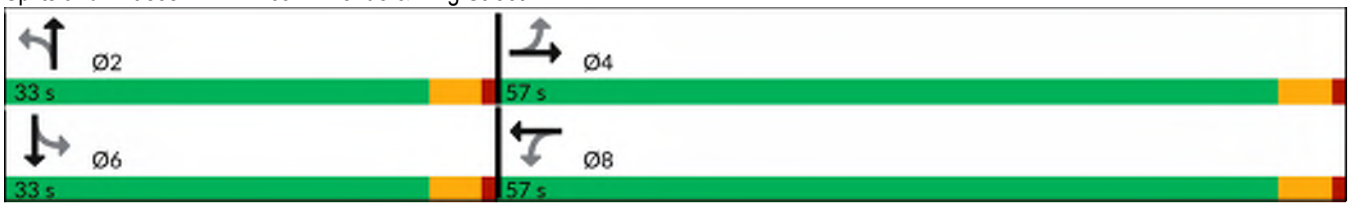
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Future Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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				1.00			0.98			0.99	
Frt		0.997			0.985			0.924			0.979	
Flt Protected	0.950			0.950				0.992			0.965	
Satd. Flow (prot)	1445	1386	0	1445	1354	0	0	1351	0	0	1406	0
Flt Permitted	0.270			0.319				0.961			0.757	
Satd. Flow (perm)	409	1386	0	485	1354	0	0	1309	0	0	1096	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			10			26			11	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		66.8			934.2			571.7			34.1	
Travel Time (s)		4.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	51	523	9	21	533	58	7	13	26	170	29	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	532	0	21	591	0	0	46	0	0	235	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	36.6	36.6		36.6	36.6			29.2			29.2	
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.39			0.39	
v/c Ratio	0.26	0.79		0.09	0.89			0.09			0.54	
Control Delay (s/veh)	13.7	24.3		9.9	32.9			12.1			26.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	13.7	24.3		9.9	32.9			12.1			26.3	
LOS	B	C		A	C			B			C	
Approach Delay (s/veh)		23.4			32.1			12.1			26.3	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 75
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.89
Intersection Signal Delay (s/veh): 27.1 Intersection LOS: C
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

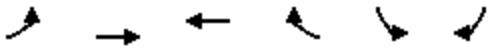
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Future Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.99			0.92			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1441	1386		1445	1354			1353			1399	
Flt Permitted	0.27	1.00		0.32	1.00			0.96			0.76	
Satd. Flow (perm)	410	1386		486	1354			1309			1097	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	51	523	9	21	533	58	7	13	26	170	29	36
RTOR Reduction (vph)	0	1	0	0	5	0	0	16	0	0	7	0
Lane Group Flow (vph)	51	531	0	21	586	0	0	30	0	0	228	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	36.6	36.6		36.6	36.6			29.2			29.2	
Effective Green, g (s)	36.6	36.6		36.6	36.6			29.2			29.2	
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.39			0.39	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	200	678		237	662			511			428	
v/s Ratio Prot		0.38			c0.43							
v/s Ratio Perm	0.12			0.04				0.02			c0.21	
v/c Ratio	0.26	0.78		0.09	0.89			0.06			0.53	
Uniform Delay, d1	11.1	15.8		10.2	17.2			14.2			17.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.7	5.9		0.2	13.4			0.2			4.7	
Delay (s)	11.8	21.7		10.4	30.6			14.4			22.3	
Level of Service	B	C		B	C			B			C	
Approach Delay (s/veh)		20.8			29.9			14.4			22.3	
Approach LOS		C			C			B			C	

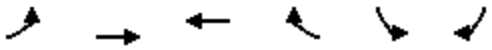
Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	506	509	28	26	25
Future Volume (vph)	42	506	509	28	26	25
Ideal Flow (vphpl)	1228	1228	1629	1351	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.934	
Flt Protected		0.996			0.975	
Satd. Flow (prot)	0	1212	1615	1138	1339	0
Flt Permitted		0.996			0.975	
Satd. Flow (perm)	0	1212	1615	1138	1339	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		787.4	65.8		26.0	
Travel Time (s)		47.2	3.9		1.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	550	553	30	28	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	596	553	30	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

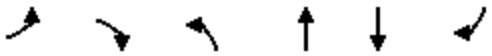
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 89.9%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	506	509	28	26	25
Future Volume (Veh/h)	42	506	509	28	26	25
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)	46	550	553	30	28	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			133			
pX, platoon unblocked	0.67				0.67	0.67
vC, conflicting volume	583				1195	553
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	138				1047	93
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				83	96
cM capacity (veh/h)	973				162	649

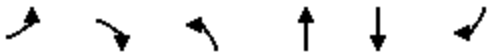
Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	596	553	30	55
Volume Left	46	0	0	28
Volume Right	0	0	30	27
cSH	973	1700	1700	257
Volume to Capacity	0.05	0.33	0.02	0.21
Queue Length 95th (m)	1.1	0.0	0.0	6.0
Control Delay (s/veh)	1.3	0.0	0.0	22.8
Lane LOS	A			C
Approach Delay (s/veh)	1.3	0.0		22.8
Approach LOS				C

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	2	3	113	217	10
Future Volume (vph)	10	2	3	113	217	10
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.979				0.994	
Flt Protected	0.959			0.999		
Satd. Flow (prot)	1408	0	0	1205	1356	0
Flt Permitted	0.959			0.999		
Satd. Flow (perm)	1408	0	0	1205	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	11	2	3	126	241	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	129	252	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	2	3	113	217	10
Future Volume (Veh/h)	10	2	3	113	217	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	2	3	126	241	11
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked	1.00					
vC, conflicting volume	379	250	252			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	377	250	252			
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	100	100			
cM capacity (veh/h)	626	792	1325			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	13	129	252
Volume Left	11	3	0
Volume Right	2	0	11
cSH	647	1325	1700
Volume to Capacity	0.02	0.00	0.15
Queue Length 95th (m)	0.5	0.1	0.0
Control Delay (s/veh)	10.7	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.7	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	187	204	86	155	100	83
Future Volume (vph)	187	204	86	155	100	83
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930				0.939	
Flt Protected				0.982	0.973	
Satd. Flow (prot)	1286	0	0	1166	1340	0
Flt Permitted				0.982	0.973	
Satd. Flow (perm)	1286	0	0	1166	1340	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	228	249	105	189	122	101
Shared Lane Traffic (%)						
Lane Group Flow (vph)	477	0	0	294	223	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			



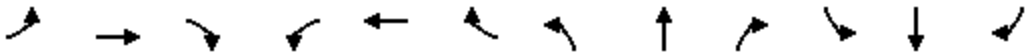
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	187	204	86	155	100	83
Future Volume (Veh/h)	187	204	86	155	100	83
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	228	249	105	189	122	101
Pedestrians						
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			477		752	353
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			477		752	353
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		65	85
cM capacity (veh/h)			1085		344	684

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	477	294	223
Volume Left	0	105	122
Volume Right	249	0	101
cSH	1700	1085	444
Volume to Capacity	0.28	0.10	0.50
Queue Length 95th (m)	0.0	2.4	20.9
Control Delay (s/veh)	0.0	3.7	21.0
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.7	21.0
Approach LOS			C

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	511	12	16	503	17	20	38	20	43	33	16
Future Volume (vph)	20	511	12	16	503	17	20	38	20	43	33	16
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.996			0.965			0.977	
Flt Protected		0.998			0.999			0.987			0.977	
Satd. Flow (prot)	0	1481	0	0	1444	0	0	1300	0	0	1362	0
Flt Permitted		0.998			0.999			0.987			0.977	
Satd. Flow (perm)	0	1481	0	0	1444	0	0	1300	0	0	1362	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			787.4			314.9			254.1	
Travel Time (s)		26.8			47.2			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	22	549	13	17	541	18	22	41	22	46	35	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	584	0	0	576	0	0	85	0	0	98	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 64.8%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	511	12	16	503	17	20	38	20	43	33	16
Future Volume (Veh/h)	20	511	12	16	503	17	20	38	20	43	33	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	22	549	13	17	541	18	22	41	22	46	35	17
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	559			562			1218	1193	556	1226	1190	550
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	559			562			1218	1193	556	1226	1190	550
tC, single (s)	4.1			4.3			7.4	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.7	4.1	3.3	3.6	4.0	3.3
p0 queue free %	98			98			81	77	96	60	80	97
cM capacity (veh/h)	1022			939			113	176	535	116	178	539

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	584	576	85	98
Volume Left	22	17	22	46
Volume Right	13	18	22	17
cSH	1022	939	181	157
Volume to Capacity	0.02	0.02	0.47	0.63
Queue Length 95th (m)	0.5	0.4	17.0	26.0
Control Delay (s/veh)	0.6	0.5	41.3	60.1
Lane LOS	A	A	E	F
Approach Delay (s/veh)	0.6	0.5	41.3	60.1
Approach LOS			E	F

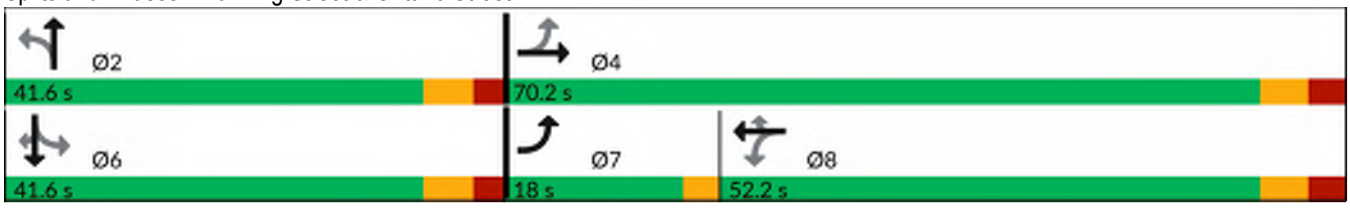
Intersection Summary				
Average Delay	7.5			
Intersection Capacity Utilization	64.8%	ICU Level of Service	C	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Future Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95					0.94	0.96
Frt		0.999				0.850						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	0	1183	1161
Flt Permitted	0.357										0.728	
Satd. Flow (perm)	526	1388	0	0	1229	1083	0	1470	0	0	854	1120
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						162						318
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			43.8			605.8	
Travel Time (s)		67.3			52.0			3.2			43.6	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	223	321	2	0	367	304	0	0	0	350	2	318
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	323	0	0	367	304	0	0	0	0	352	318
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	55.0	50.7			34.0	34.0					35.5	35.5
Actuated g/C Ratio	0.55	0.51			0.34	0.34					0.35	0.35
v/c Ratio	0.55	0.46			0.88	0.64					1.17	0.53
Control Delay (s/veh)	16.8	17.6			53.8	18.8					137.7	6.9
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay (s/veh)	16.8	17.6			53.8	18.8					137.7	6.9
LOS	B	B			D	B					F	A
Approach Delay (s/veh)		17.3			37.9						75.6	
Approach LOS		B			D						E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 100.2			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay (s/veh): 45.3		Intersection LOS: D	
Intersection Capacity Utilization 101.3%		ICU Level of Service G	
Analysis Period (min) 15			

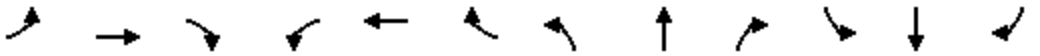
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Future Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00					1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95					1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00					0.95	1.00
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	1412	1388			1229	1086					1124	1122
Flt Permitted	0.36	1.00			1.00	1.00					0.73	1.00
Satd. Flow (perm)	531	1388			1229	1086					859	1122
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	223	321	2	0	367	304	0	0	0	350	2	318
RTOR Reduction (vph)	0	0	0	0	0	107	0	0	0	0	0	205
Lane Group Flow (vph)	223	323	0	0	367	197	0	0	0	0	352	113
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	50.7	50.7			34.1	34.1					35.5	35.5
Effective Green, g (s)	50.7	50.7			34.1	34.1					35.5	35.5
Actuated g/C Ratio	0.51	0.51			0.34	0.34					0.36	0.36
Clearance Time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8					4.0	4.0
Lane Grp Cap (vph)	389	703			419	370					304	398
v/s Ratio Prot	c0.08	0.23			c0.30							
v/s Ratio Perm	0.21					0.18					c0.41	0.10
v/c Ratio	0.57	0.46			0.88	0.53					1.16	0.28
Uniform Delay, d1	15.5	15.8			31.0	26.5					32.3	23.1
Progression Factor	1.00	1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2	1.7	0.4			18.1	1.3					101.5	1.8
Delay (s)	17.2	16.3			49.0	27.9					133.7	24.9
Level of Service	B	B			D	C					F	C
Approach Delay (s/veh)		16.7			39.5			0.0			82.1	
Approach LOS		B			D			A			F	

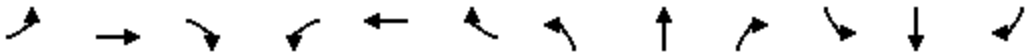
Intersection Summary			
HCM 2000 Control Delay (s/veh)	48.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.8
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Future Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.977			0.933			0.993	
Flt Protected		0.998			0.984			0.998			0.985	
Satd. Flow (prot)	0	1455	0	0	1402	0	0	1383	0	0	1448	0
Flt Permitted		0.998			0.984			0.998			0.985	
Satd. Flow (perm)	0	1455	0	0	1402	0	0	1383	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	10	191	13	111	170	57	7	67	72	88	193	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	214	0	0	338	0	0	146	0	0	296	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

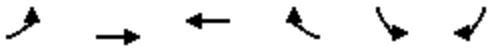
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 79.9%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Future Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	191	12	111	170	57	7	67	72	88	193	15

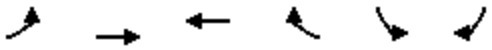
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	213	338	146	296
Volume Left (vph)	10	111	7	88
Volume Right (vph)	12	57	72	15
Hadj (s)	0.01	0.01	-0.27	0.05
Departure Headway (s)	5.9	5.6	5.8	5.8
Degree Utilization, x	0.35	0.53	0.24	0.48
Capacity (veh/h)	554	598	528	569
Control Delay (s/veh)	11.9	14.8	10.7	14.1
Approach Delay (s/veh)	11.9	14.8	10.7	14.1
Approach LOS	B	B	B	B

Intersection Summary				
Delay	13.4			
Level of Service	B			
Intersection Capacity Utilization	79.9%	ICU Level of Service	D	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	526	520	6	5	17
Future Volume (vph)	5	526	520	6	5	17
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.894	
Flt Protected					0.989	
Satd. Flow (prot)	0	1229	1373	0	1326	0
Flt Permitted					0.989	
Satd. Flow (perm)	0	1229	1373	0	1326	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		65.8	66.8		21.9	
Travel Time (s)		3.9	4.0		1.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%
Adj. Flow (vph)	5	572	565	7	5	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	577	572	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

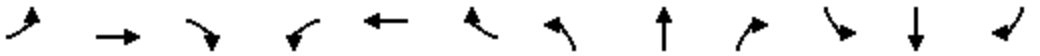
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	526	520	6	5	17
Future Volume (Veh/h)	5	526	520	6	5	17
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)	5	572	565	7	5	18
Pedestrians					1	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.1	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			67			
pX, platoon unblocked	0.63				0.63	0.63
vC, conflicting volume	573				1152	570
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	37				950	31
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	97
cM capacity (veh/h)	1004				183	664

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	577	572	23
Volume Left	5	0	5
Volume Right	0	7	18
cSH	1004	1700	423
Volume to Capacity	0.00	0.34	0.05
Queue Length 95th (m)	0.1	0.0	1.3
Control Delay (s/veh)	0.1	0.0	14.0
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	14.0
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

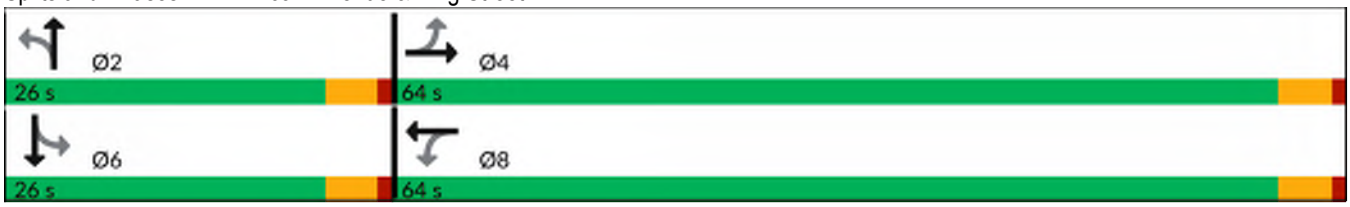


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	286	5	15	480	106	5	28	17	91	18	21
Future Volume (vph)	18	286	5	15	480	106	5	28	17	91	18	21
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.973			0.955			0.979	
Flt Protected	0.950			0.950				0.995			0.966	
Satd. Flow (prot)	1278	1304	0	1445	1320	0	0	1316	0	0	1382	0
Flt Permitted	0.256			0.512				0.976			0.762	
Satd. Flow (perm)	345	1304	0	779	1320	0	0	1291	0	0	1088	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			26			20			10	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	22	345	6	18	578	128	6	34	20	110	22	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	351	0	18	706	0	0	60	0	0	157	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	44.0	44.0		44.0	44.0			22.2			22.2	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.29			0.29	
v/c Ratio	0.11	0.46		0.04	0.91			0.15			0.48	
Control Delay (s/veh)	7.3	10.3		5.8	29.4			19.7			30.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	7.3	10.3		5.8	29.4			19.7			30.8	
LOS	A	B		A	C			B			C	
Approach Delay (s/veh)		10.2			28.8			19.7			30.8	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75.5			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 23.4		Intersection LOS: C	
Intersection Capacity Utilization 66.9%		ICU Level of Service C	
Analysis Period (min) 15			

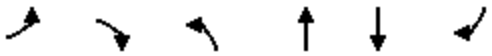
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	286	5	15	480	106	5	28	17	91	18	21
Future Volume (vph)	18	286	5	15	480	106	5	28	17	91	18	21
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.96			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.97	
Satd. Flow (prot)	1278	1304		1445	1320			1317			1380	
Flt Permitted	0.26	1.00		0.51	1.00			0.98			0.76	
Satd. Flow (perm)	344	1304		779	1320			1291			1087	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	22	345	6	18	578	128	6	34	20	110	22	25
RTOR Reduction (vph)	0	1	0	0	11	0	0	14	0	0	7	0
Lane Group Flow (vph)	22	350	0	18	695	0	0	46	0	0	150	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	44.0	44.0		44.0	44.0			22.2			22.2	
Effective Green, g (s)	44.0	44.0		44.0	44.0			22.2			22.2	
Actuated g/C Ratio	0.59	0.59		0.59	0.59			0.30			0.30	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	201	762		455	772			381			320	
v/s Ratio Prot		0.27			c0.53							
v/s Ratio Perm	0.06			0.02				0.04			c0.14	
v/c Ratio	0.11	0.46		0.04	0.90			0.12			0.47	
Uniform Delay, d1	6.9	8.9		6.6	13.7			19.4			21.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.4		0.0	13.6			0.6			4.9	
Delay (s)	7.2	9.3		6.7	27.3			20.0			26.5	
Level of Service	A	A		A	C			C			C	
Approach Delay (s/veh)		9.2			26.8			20.0			26.5	
Approach LOS		A			C			C			C	

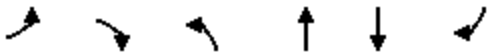
Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	75.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	0	2	152	131	6
Future Volume (vph)	5	0	2	152	131	6
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.994	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1425	0	0	1193	1356	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1425	0	0	1193	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	4%	3%	0%
Adj. Flow (vph)	6	0	2	171	147	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	173	154	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	0	2	152	131	6
Future Volume (Veh/h)	5	0	2	152	131	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	0	2	171	147	7
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	326	154	154			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	154	154			
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	100	100			
cM capacity (veh/h)	672	895	1439			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	6	173	154
Volume Left	6	2	0
Volume Right	0	0	7
cSH	672	1439	1700
Volume to Capacity	0.01	0.00	0.09
Queue Length 95th (m)	0.2	0.0	0.0
Control Delay (s/veh)	10.4	0.1	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.4	0.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		25.8%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	175	92	73	168	170	100
Future Volume (vph)	175	92	73	168	170	100
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.950	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1282	0	0	1116	1305	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1282	0	0	1116	1305	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	203	107	85	195	198	116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	310	0	0	280	314	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

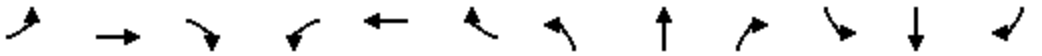
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.1%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	175	92	73	168	170	100
Future Volume (Veh/h)	175	92	73	168	170	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	203	107	85	195	198	116
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			310		622	257
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			310		622	257
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			93		53	85
cM capacity (veh/h)			1155		419	754

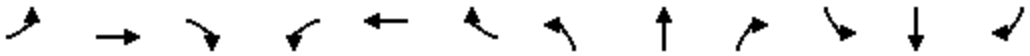
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	310	280	314
Volume Left	0	85	198
Volume Right	107	0	116
cSH	1700	1155	501
Volume to Capacity	0.18	0.07	0.63
Queue Length 95th (m)	0.0	1.8	32.3
Control Delay (s/veh)	0.0	3.0	23.5
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.0	23.5
Approach LOS			C

Intersection Summary			
Average Delay	9.1		
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	288	8	8	454	41	5	20	6	18	29	11
Future Volume (vph)	16	288	8	8	454	41	5	20	6	18	29	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.989			0.974			0.973	
Flt Protected		0.997			0.999			0.992			0.985	
Satd. Flow (prot)	0	1369	0	0	1404	0	0	1284	0	0	1375	0
Flt Permitted		0.997			0.999			0.992			0.985	
Satd. Flow (perm)	0	1369	0	0	1404	0	0	1284	0	0	1375	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.5			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	18	327	9	9	516	47	6	23	7	20	33	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	354	0	0	572	0	0	36	0	0	66	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

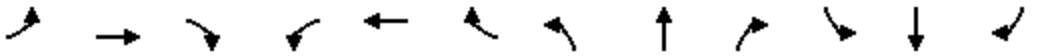
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	288	8	8	454	41	5	20	6	18	29	11
Future Volume (Veh/h)	16	288	8	8	454	41	5	20	6	18	29	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	18	327	9	9	516	47	6	23	7	20	33	12
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	563			336			954	949	332	944	930	540
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	563			336			954	949	332	944	930	540
tC, single (s)	4.5			4.1			7.6	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.6			2.2			4.0	4.1	3.3	3.5	4.0	3.5
p0 queue free %	98			99			96	91	99	91	87	98
cM capacity (veh/h)	848			1235			169	248	715	220	262	504

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	354	572	36	65
Volume Left	18	9	6	20
Volume Right	9	47	7	12
cSH	848	1235	261	270
Volume to Capacity	0.02	0.01	0.14	0.24
Queue Length 95th (m)	0.5	0.2	3.6	7.0
Control Delay (s/veh)	0.7	0.2	21.0	22.5
Lane LOS	A	A	C	C
Approach Delay (s/veh)	0.7	0.2	21.0	22.5
Approach LOS			C	C

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		

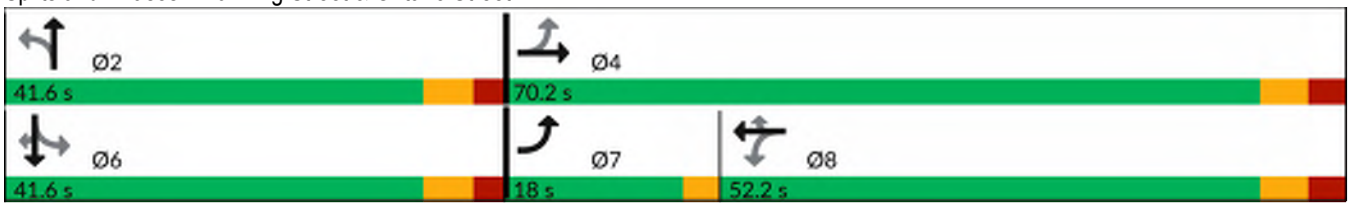


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	247	0	0	385	241	2	0	0	257	0	186
Future Volume (vph)	144	247	0	0	385	241	2	0	0	257	0	186
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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			1.00	0.92
Frt						0.850						0.850
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	0	1123	1150
Flt Permitted	0.324							0.447			0.757	
Satd. Flow (perm)	469	1376	0	0	1129	1076	0	650	0	0	892	1055
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						122						214
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			33.1			180.7	
Travel Time (s)		67.3			52.0			2.4			13.0	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	166	284	0	0	443	277	2	0	0	295	0	214
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	284	0	0	443	277	0	2	0	0	295	214
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	64.8	60.6			44.4	44.4		35.0			35.0	35.0
Actuated g/C Ratio	0.59	0.55			0.41	0.41		0.32			0.32	0.32
v/c Ratio	0.43	0.37			0.97	0.55		0.01			1.04	0.44
Control Delay (s/veh)	13.9	15.4			68.8	18.2		27.0			101.0	7.1
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	13.9	15.4			68.8	18.2		27.0			101.0	7.1
LOS	B	B			E	B		C			F	A
Approach Delay (s/veh)		14.8			49.4			27.0			61.5	
Approach LOS		B			D			C			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 109.5			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay (s/veh): 43.8		Intersection LOS: D	
Intersection Capacity Utilization 91.3%		ICU Level of Service F	
Analysis Period (min) 15			

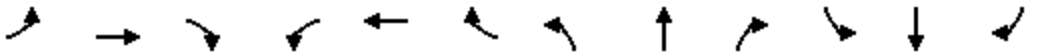
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	247	0	0	385	241	2	0	0	257	0	186
Future Volume (vph)	144	247	0	0	385	241	2	0	0	257	0	186
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95		1.00			1.00	0.92
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.97			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	1376	1376			1129	1076		1382			1119	1056
Flt Permitted	0.32	1.00			1.00	1.00		0.45			0.76	1.00
Satd. Flow (perm)	469	1376			1129	1076		651			891	1056
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	166	284	0	0	443	277	2	0	0	295	0	214
RTOR Reduction (vph)	0	0	0	0	0	73	0	0	0	0	0	146
Lane Group Flow (vph)	166	284	0	0	443	204	0	2	0	0	295	68
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	60.6	60.6			44.3	44.3		35.0			35.0	35.0
Effective Green, g (s)	60.6	60.6			44.3	44.3		35.0			35.0	35.0
Actuated g/C Ratio	0.55	0.55			0.40	0.40		0.32			0.32	0.32
Clearance Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8		2.5			4.0	4.0
Lane Grp Cap (vph)	370	762			457	435		208			285	337
v/s Ratio Prot	c0.05	0.21			c0.39							
v/s Ratio Perm	0.19					0.19		0.00			c0.33	0.06
v/c Ratio	0.45	0.37			0.97	0.47		0.01			1.04	0.20
Uniform Delay, d1	14.1	13.7			31.9	23.9		25.4			37.2	27.1
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.6	0.3			33.8	0.7		0.1			62.7	1.4
Delay (s)	14.7	14.0			65.7	24.6		25.5			99.9	28.4
Level of Service	B	B			E	C		C			F	C
Approach Delay (s/veh)		14.3			49.9			25.5			69.8	
Approach LOS		B			D			C			E	

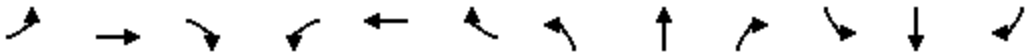
Intersection Summary			
HCM 2000 Control Delay (s/veh)	46.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	109.4	Sum of lost time (s)	16.8
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	90	5	28	113	65	11	163	26	27	102	15
Future Volume (vph)	17	90	5	28	113	65	11	163	26	27	102	15
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.995			0.958			0.982			0.986	
Flt Protected		0.992			0.993			0.997			0.991	
Satd. Flow (prot)	0	1428	0	0	1351	0	0	1437	0	0	1431	0
Flt Permitted		0.992			0.993			0.997			0.991	
Satd. Flow (perm)	0	1428	0	0	1351	0	0	1437	0	0	1431	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	19	99	5	31	124	71	12	179	29	30	112	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	226	0	0	220	0	0	158	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

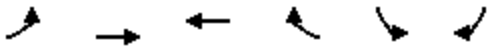
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	17	90	5	28	113	65	11	163	26	27	102	15
Future Volume (vph)	17	90	5	28	113	65	11	163	26	27	102	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	99	5	31	124	71	12	179	29	30	112	16

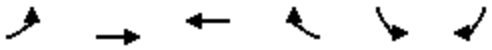
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	123	226	220	158
Volume Left (vph)	19	31	12	30
Volume Right (vph)	5	71	29	16
Hadj (s)	0.07	-0.07	-0.03	0.02
Departure Headway (s)	5.3	5.0	5.0	5.2
Degree Utilization, x	0.18	0.31	0.31	0.23
Capacity (veh/h)	615	665	658	639
Control Delay (s/veh)	9.5	10.3	10.2	9.7
Approach Delay (s/veh)	9.5	10.3	10.2	9.7
Approach LOS	A	B	B	A

Intersection Summary				
Delay	10.0			
Level of Service	A			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	309	511	6	3	3
Future Volume (vph)	4	309	511	6	3	3
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1171	1335	0	1364	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1171	1335	0	1364	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		2.1	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	6%	5%	0%	0%	0%
Adj. Flow (vph)	5	364	601	7	4	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	369	608	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

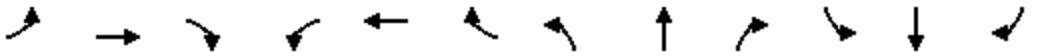
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	309	511	6	3	3
Future Volume (Veh/h)	4	309	511	6	3	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	364	601	7	4	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			64			
pX, platoon unblocked	0.57				0.57	0.57
vC, conflicting volume	608				979	605
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				589	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	937				270	625

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	369	608	8
Volume Left	5	0	4
Volume Right	0	7	4
cSH	937	1700	377
Volume to Capacity	0.01	0.36	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s/veh)	0.2	0.0	14.8
Lane LOS	A		B
Approach Delay (s/veh)	0.2	0.0	14.8
Approach LOS			B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		47.3%	ICU Level of Service
Analysis Period (min)		15	

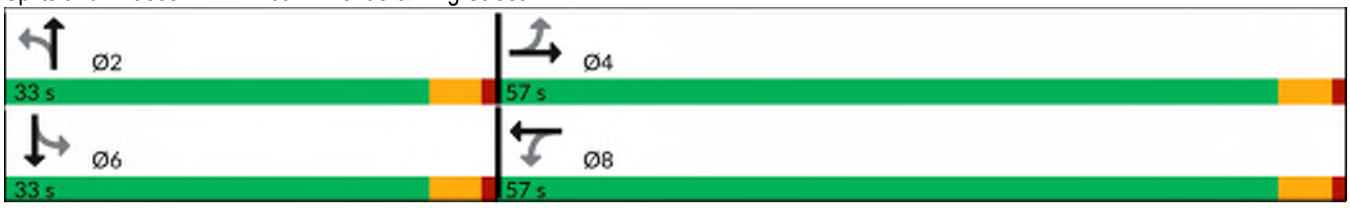


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	491	9	20	501	57	6	12	26	164	28	16
Future Volume (vph)	30	491	9	20	501	57	6	12	26	164	28	16
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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				1.00			0.98			0.99	
Frt		0.997			0.985			0.920			0.989	
Flt Protected	0.950			0.950				0.993			0.962	
Satd. Flow (prot)	1445	1386	0	1445	1354	0	0	1346	0	0	1416	0
Flt Permitted	0.262			0.313				0.963			0.739	
Satd. Flow (perm)	397	1386	0	476	1354	0	0	1305	0	0	1079	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			11			29			5	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	33	540	10	22	551	63	7	13	29	180	31	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	550	0	22	614	0	0	49	0	0	229	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	38.7	38.7		38.7	38.7			29.1			29.1	
Actuated g/C Ratio	0.50	0.50		0.50	0.50			0.38			0.38	
v/c Ratio	0.17	0.79		0.09	0.90			0.10			0.56	
Control Delay (s/veh)	11.5	24.2		9.8	33.6			12.1			28.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	11.5	24.2		9.8	33.6			12.1			28.4	
LOS	B	C		A	C			B			C	
Approach Delay (s/veh)		23.5			32.8			12.1			28.4	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 77			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 27.8		Intersection LOS: C	
Intersection Capacity Utilization 69.8%		ICU Level of Service C	
Analysis Period (min) 15			

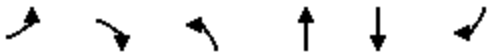
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	491	9	20	501	57	6	12	26	164	28	16
Future Volume (vph)	30	491	9	20	501	57	6	12	26	164	28	16
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.98			0.92			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)	1441	1386		1445	1353			1347			1407	
Flt Permitted	0.26	1.00		0.31	1.00			0.96			0.74	
Satd. Flow (perm)	398	1386		476	1353			1306			1081	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	33	540	10	22	551	63	7	13	29	180	31	18
RTOR Reduction (vph)	0	1	0	0	5	0	0	18	0	0	3	0
Lane Group Flow (vph)	33	549	0	22	609	0	0	31	0	0	226	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	38.7	38.7		38.7	38.7			29.1			29.1	
Effective Green, g (s)	38.7	38.7		38.7	38.7			29.1			29.1	
Actuated g/C Ratio	0.50	0.50		0.50	0.50			0.38			0.38	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	200	698		239	681			494			409	
v/s Ratio Prot		0.40			c0.45							
v/s Ratio Perm	0.08			0.05				0.02			c0.21	
v/c Ratio	0.17	0.79		0.09	0.89			0.06			0.55	
Uniform Delay, d1	10.3	15.7		9.9	17.2			15.2			18.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.4	5.8		0.2	14.1			0.2			5.3	
Delay (s)	10.7	21.5		10.1	31.3			15.4			24.0	
Level of Service	B	C		B	C			B			C	
Approach Delay (s/veh)		20.9			30.6			15.4			24.0	
Approach LOS		C			C			B			C	

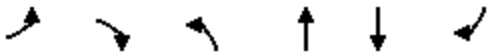
Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	76.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	2	3	102	211	10
Future Volume (vph)	10	2	3	102	211	10
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.979				0.994	
Flt Protected	0.959			0.999		
Satd. Flow (prot)	1408	0	0	1205	1356	0
Flt Permitted	0.959			0.999		
Satd. Flow (perm)	1408	0	0	1205	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	11	2	3	113	234	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	116	245	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	2	3	102	211	10
Future Volume (Veh/h)	10	2	3	102	211	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	2	3	113	234	11
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	359	243	245			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	359	243	245			
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	100	100			
cM capacity (veh/h)	643	799	1333			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	13	116	245
Volume Left	11	3	0
Volume Right	2	0	11
cSH	663	1333	1700
Volume to Capacity	0.02	0.00	0.14
Queue Length 95th (m)	0.5	0.1	0.0
Control Delay (s/veh)	10.5	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.5	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		



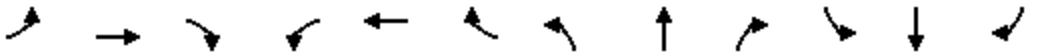
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	199	209	90	164	100	86
Future Volume (vph)	199	209	90	164	100	86
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931				0.938	
Flt Protected				0.983	0.974	
Satd. Flow (prot)	1287	0	0	1167	1339	0
Flt Permitted				0.983	0.974	
Satd. Flow (perm)	1287	0	0	1167	1339	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	243	255	110	200	122	105
Shared Lane Traffic (%)						
Lane Group Flow (vph)	498	0	0	310	227	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 76.7%		ICU Level of Service D	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	199	209	90	164	100	86
Future Volume (Veh/h)	199	209	90	164	100	86
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	243	255	110	200	122	105
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			498		791	371
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			498		791	371
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		62	84
cM capacity (veh/h)			1066		324	669

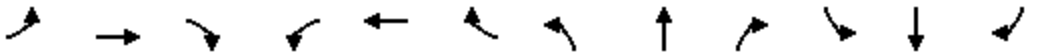
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	498	310	227
Volume Left	0	110	122
Volume Right	255	0	105
cSH	1700	1066	426
Volume to Capacity	0.29	0.10	0.53
Queue Length 95th (m)	0.0	2.6	23.2
Control Delay (s/veh)	0.0	3.8	22.7
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.8	22.7
Approach LOS			C

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	494	12	17	505	17	21	40	21	43	35	17
Future Volume (vph)	21	494	12	17	505	17	21	40	21	43	35	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.996			0.965			0.976	
Flt Protected		0.998			0.998			0.987			0.978	
Satd. Flow (prot)	0	1480	0	0	1442	0	0	1300	0	0	1363	0
Flt Permitted		0.998			0.998			0.987			0.978	
Satd. Flow (perm)	0	1480	0	0	1442	0	0	1300	0	0	1363	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.5			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	23	531	13	18	543	18	23	43	23	46	38	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	567	0	0	579	0	0	89	0	0	102	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

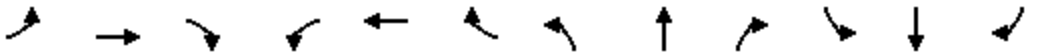
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.1%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	494	12	17	505	17	21	40	21	43	35	17
Future Volume (Veh/h)	21	494	12	17	505	17	21	40	21	43	35	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	23	531	13	18	543	18	23	43	23	46	38	18
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	561			544			1209	1181	538	1216	1178	552
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	561			544			1209	1181	538	1216	1178	552
tC, single (s)	4.1			4.3			7.4	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.7	4.1	3.3	3.6	4.0	3.3
p0 queue free %	98			98			80	76	96	61	79	97
cM capacity (veh/h)	1020			954			113	178	547	117	181	537

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	567	579	89	102
Volume Left	23	18	23	46
Volume Right	13	18	23	18
cSH	1020	954	183	160
Volume to Capacity	0.02	0.02	0.49	0.64
Queue Length 95th (m)	0.5	0.4	18.0	27.0
Control Delay (s/veh)	0.6	0.5	42.1	60.6
Lane LOS	A	A	E	F
Approach Delay (s/veh)	0.6	0.5	42.1	60.6
Approach LOS			E	F

Intersection Summary				
Average Delay	7.9			
Intersection Capacity Utilization	64.1%	ICU Level of Service	C	
Analysis Period (min)	15			

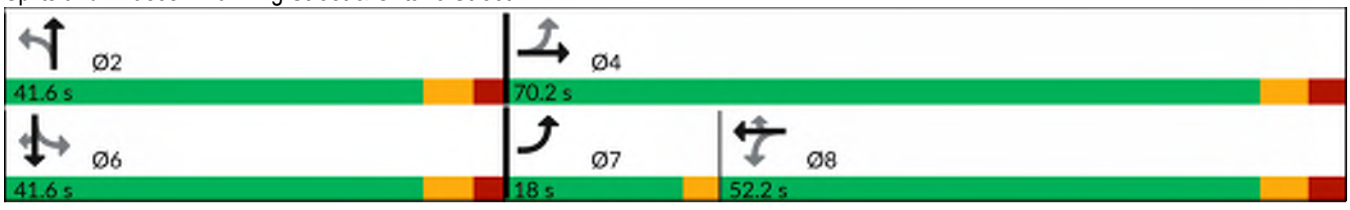


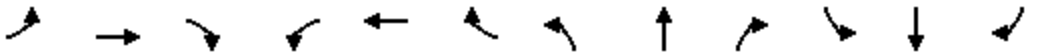
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	300	2	0	346	297	0	0	0	342	2	310
Future Volume (vph)	217	300	2	0	346	297	0	0	0	342	2	310
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95					0.94	0.96
Frt		0.999				0.850						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	0	1183	1161
Flt Permitted	0.352										0.728	
Satd. Flow (perm)	519	1388	0	0	1229	1083	0	1470	0	0	854	1120
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						168						337
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			33.1			180.7	
Travel Time (s)		67.3			52.0			2.4			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	236	326	2	0	376	323	0	0	0	372	2	337
Shared Lane Traffic (%)												
Lane Group Flow (vph)	236	328	0	0	376	323	0	0	0	0	374	337
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	56.4	52.2			35.2	35.2					35.4	35.4
Actuated g/C Ratio	0.56	0.51			0.35	0.35					0.35	0.35
v/c Ratio	0.57	0.46			0.88	0.67					1.26	0.55
Control Delay (s/veh)	17.4	17.5			54.1	19.8					172.3	7.1
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay (s/veh)	17.4	17.5			54.1	19.8					172.3	7.1
LOS	B	B			D	B					F	A
Approach Delay (s/veh)		17.5			38.2						94.0	
Approach LOS		B			D						F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 101.6			
Natural Cycle: 135			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay (s/veh): 52.4		Intersection LOS: D	
Intersection Capacity Utilization 103.7%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

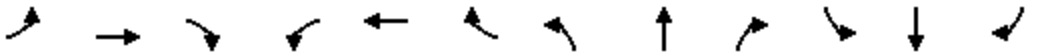




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	300	2	0	346	297	0	0	0	342	2	310
Future Volume (vph)	217	300	2	0	346	297	0	0	0	342	2	310
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00					1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95					1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00					0.95	1.00
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	1412	1388			1229	1086					1123	1121
Flt Permitted	0.35	1.00			1.00	1.00					0.73	1.00
Satd. Flow (perm)	523	1388			1229	1086					858	1121
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	236	326	2	0	376	323	0	0	0	372	2	337
RTOR Reduction (vph)	0	0	0	0	0	110	0	0	0	0	0	219
Lane Group Flow (vph)	236	328	0	0	376	213	0	0	0	0	374	118
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	52.2	52.2			35.3	35.3					35.4	35.4
Effective Green, g (s)	52.2	52.2			35.3	35.3					35.4	35.4
Actuated g/C Ratio	0.51	0.51			0.35	0.35					0.35	0.35
Clearance Time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8					4.0	4.0
Lane Grp Cap (vph)	391	714			427	378					299	391
v/s Ratio Prot	c0.08	0.24			c0.31							
v/s Ratio Perm	0.23					0.20					c0.44	0.10
v/c Ratio	0.60	0.46			0.88	0.56					1.25	0.30
Uniform Delay, d1	15.6	15.6			31.1	26.8					33.0	24.0
Progression Factor	1.00	1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2	2.2	0.4			18.6	1.8					137.5	2.0
Delay (s)	17.8	16.1			49.7	28.6					170.5	26.0
Level of Service	B	B			D	C					F	C
Approach Delay (s/veh)		16.8			39.9			0.0			102.0	
Approach LOS		B			D			A			F	

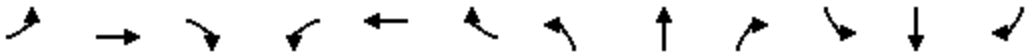
Intersection Summary			
HCM 2000 Control Delay (s/veh)	55.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	101.4	Sum of lost time (s)	16.8
Intersection Capacity Utilization	103.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	194	12	103	172	58	8	60	61	89	188	15
Future Volume (vph)	10	194	12	103	172	58	8	60	61	89	188	15
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.977			0.936			0.993	
Flt Protected		0.998			0.985			0.997			0.985	
Satd. Flow (prot)	0	1456	0	0	1404	0	0	1386	0	0	1448	0
Flt Permitted		0.998			0.985			0.997			0.985	
Satd. Flow (perm)	0	1456	0	0	1404	0	0	1386	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	1%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	10	202	13	107	179	60	8	63	64	93	196	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	225	0	0	346	0	0	135	0	0	305	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

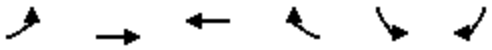
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 81.0%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	194	12	103	172	58	8	60	61	89	188	15
Future Volume (vph)	10	194	12	103	172	58	8	60	61	89	188	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	202	12	107	179	60	8	62	64	93	196	16

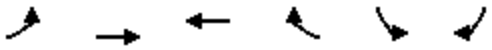
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	224	346	134	305
Volume Left (vph)	10	107	8	93
Volume Right (vph)	12	60	64	16
Hadj (s)	0.01	0.01	-0.26	0.05
Departure Headway (s)	5.9	5.7	5.9	5.9
Degree Utilization, x	0.37	0.54	0.22	0.50
Capacity (veh/h)	554	597	514	566
Control Delay (s/veh)	12.3	15.2	10.6	14.6
Approach Delay (s/veh)	12.3	15.2	10.6	14.6
Approach LOS	B	C	B	B

Intersection Summary				
Delay	13.7			
Level of Service	B			
Intersection Capacity Utilization	81.0%	ICU Level of Service	D	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	527	519	6	5	18
Future Volume (vph)	5	527	519	6	5	18
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.892	
Flt Protected					0.990	
Satd. Flow (prot)	0	1229	1373	0	1324	0
Flt Permitted					0.990	
Satd. Flow (perm)	0	1229	1373	0	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		2.1	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%
Adj. Flow (vph)	5	573	564	7	5	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	578	571	0	25	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

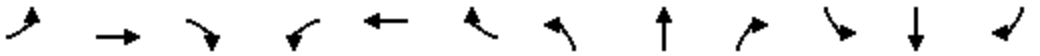
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	527	519	6	5	18
Future Volume (Veh/h)	5	527	519	6	5	18
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)	5	573	564	7	5	20
Pedestrians					1	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.1	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			64			
pX, platoon unblocked	0.62				0.62	0.62
vC, conflicting volume	572				1152	569
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				935	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	97
cM capacity (veh/h)	1008				182	672

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	578	571	25
Volume Left	5	0	5
Volume Right	0	7	20
cSH	1008	1700	437
Volume to Capacity	0.00	0.34	0.06
Queue Length 95th (m)	0.1	0.0	1.4
Control Delay (s/veh)	0.1	0.0	13.7
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	13.7
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

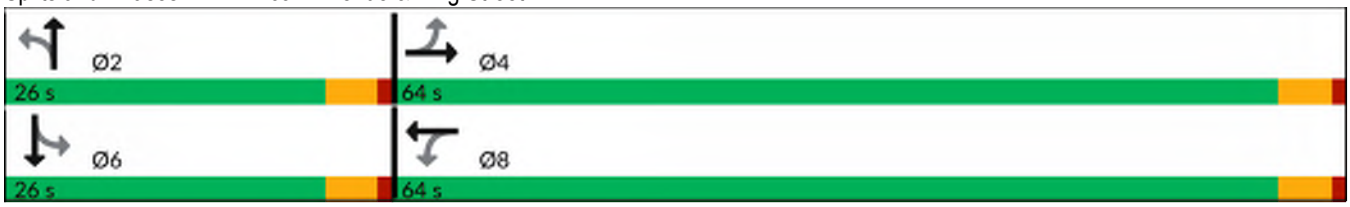


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Future Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.972			0.954			0.968	
Flt Protected	0.950			0.950				0.995			0.969	
Satd. Flow (prot)	1278	1304	0	1445	1319	0	0	1315	0	0	1359	0
Flt Permitted	0.257			0.509				0.974			0.777	
Satd. Flow (perm)	346	1304	0	774	1319	0	0	1287	0	0	1088	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27			20			16	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	42	349	6	18	573	129	6	33	20	113	22	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	355	0	18	702	0	0	59	0	0	177	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	43.6	43.6		43.6	43.6			22.2			22.2	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.30			0.30	
v/c Ratio	0.21	0.47		0.04	0.90			0.15			0.53	
Control Delay (s/veh)	9.3	10.5		5.9	29.3			19.5			31.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	9.3	10.5		5.9	29.3			19.5			31.5	
LOS	A	B		A	C			B			C	
Approach Delay (s/veh)		10.4			28.7			19.5			31.5	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75.1			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 23.3		Intersection LOS: C	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			

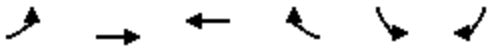
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Future Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1278	1305		1445	1319			1316			1358	
Flt Permitted	0.26	1.00		0.51	1.00			0.97			0.78	
Satd. Flow (perm)	346	1305		774	1319			1288			1089	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	42	349	6	18	573	129	6	33	20	113	22	42
RTOR Reduction (vph)	0	1	0	0	11	0	0	14	0	0	11	0
Lane Group Flow (vph)	42	354	0	18	691	0	0	45	0	0	166	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	43.6	43.6		43.6	43.6			22.2			22.2	
Effective Green, g (s)	43.6	43.6		43.6	43.6			22.2			22.2	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.30			0.30	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	201	760		451	768			382			323	
v/s Ratio Prot		0.27			c0.52							
v/s Ratio Perm	0.12			0.02				0.03			c0.15	
v/c Ratio	0.21	0.47		0.04	0.90			0.12			0.51	
Uniform Delay, d1	7.4	8.9		6.7	13.7			19.2			21.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.5		0.0	13.3			0.6			5.7	
Delay (s)	7.9	9.4		6.7	27.0			19.8			27.5	
Level of Service	A	A		A	C			B			C	
Approach Delay (s/veh)		9.2			26.5			19.8			27.5	
Approach LOS		A			C			B			C	

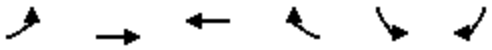
Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	313	519	8	20	30
Future Volume (vph)	13	313	519	8	20	30
Ideal Flow (vphpl)	1228	1228	1629	1351	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.919	
Flt Protected		0.998			0.980	
Satd. Flow (prot)	0	1215	1615	1138	1324	0
Flt Permitted		0.998			0.980	
Satd. Flow (perm)	0	1215	1615	1138	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	340	564	9	22	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	354	564	9	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

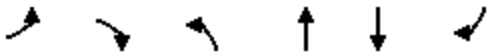
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	313	519	8	20	30
Future Volume (Veh/h)	13	313	519	8	20	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)	14	340	564	9	22	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked						
vC, conflicting volume	573				932	564
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	573				932	564
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	94
cM capacity (veh/h)	1000				292	525

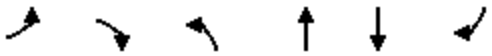
Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	354	564	9	55
Volume Left	14	0	0	22
Volume Right	0	0	9	33
cSH	1000	1700	1700	398
Volume to Capacity	0.01	0.33	0.01	0.14
Queue Length 95th (m)	0.3	0.0	0.0	3.6
Control Delay (s/veh)	0.5	0.0	0.0	15.5
Lane LOS	A			C
Approach Delay (s/veh)	0.5	0.0		15.5
Approach LOS				C

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	12	5	165	136	4
Future Volume (vph)	10	12	5	165	136	4
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.927				0.997	
Flt Protected	0.978			0.998		
Satd. Flow (prot)	1345	0	0	1193	1359	0
Flt Permitted	0.978			0.998		
Satd. Flow (perm)	1345	0	0	1193	1359	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	4%	3%	0%
Adj. Flow (vph)	11	13	6	185	153	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	0	191	157	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	12	5	165	136	4
Future Volume (Veh/h)	10	12	5	165	136	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	11	13	6	185	153	4
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	352	158	157			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	352	158	157			
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	99	100			
cM capacity (veh/h)	647	885	1435			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	191	157
Volume Left	11	6	0
Volume Right	13	0	4
cSH	757	1435	1700
Volume to Capacity	0.03	0.00	0.09
Queue Length 95th (m)	0.7	0.1	0.0
Control Delay (s/veh)	9.9	0.3	0.0
Lane LOS	A	A	
Approach Delay (s/veh)	9.9	0.3	0.0
Approach LOS	A		

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		30.6%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	175	90	73	168	177	100
Future Volume (vph)	175	90	73	168	177	100
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.954				0.951	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1283	0	0	1116	1307	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1283	0	0	1116	1307	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	203	105	85	195	206	116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	308	0	0	280	322	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

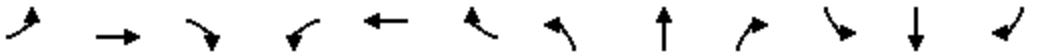
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	175	90	73	168	177	100
Future Volume (Veh/h)	175	90	73	168	177	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	203	105	85	195	206	116
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			308		621	256
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			308		621	256
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			93		51	85
cM capacity (veh/h)			1157		420	755

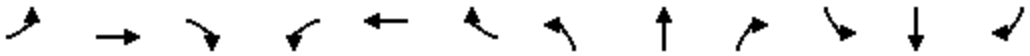
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	308	280	322
Volume Left	0	85	206
Volume Right	105	0	116
cSH	1700	1157	500
Volume to Capacity	0.18	0.07	0.64
Queue Length 95th (m)	0.0	1.8	34.4
Control Delay (s/veh)	0.0	3.0	24.4
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.0	24.4
Approach LOS			C

Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	297	8	8	489	43	5	20	6	22	29	11
Future Volume (vph)	16	297	8	8	489	43	5	20	6	22	29	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.989			0.974			0.975	
Flt Protected		0.998			0.999			0.992			0.983	
Satd. Flow (prot)	0	1371	0	0	1404	0	0	1284	0	0	1379	0
Flt Permitted		0.998			0.999			0.992			0.983	
Satd. Flow (perm)	0	1371	0	0	1404	0	0	1284	0	0	1379	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	18	338	9	9	556	49	6	23	7	25	33	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	365	0	0	614	0	0	36	0	0	71	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 54.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	297	8	8	489	43	5	20	6	22	29	11
Future Volume (Veh/h)	16	297	8	8	489	43	5	20	6	22	29	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	18	338	9	9	556	49	6	23	7	25	33	12
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	605			347			1006	1002	343	996	982	581
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	605			347			1006	1002	343	996	982	581
tC, single (s)	4.5			4.1			7.6	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.6			2.2			4.0	4.1	3.3	3.5	4.0	3.5
p0 queue free %	98			99			96	90	99	88	86	97
cM capacity (veh/h)	816			1223			154	231	705	202	244	477

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	365	614	36	70
Volume Left	18	9	6	25
Volume Right	9	49	7	12
cSH	816	1223	242	246
Volume to Capacity	0.02	0.01	0.15	0.28
Queue Length 95th (m)	0.5	0.2	3.9	8.6
Control Delay (s/veh)	0.7	0.2	22.4	25.3
Lane LOS	A	A	C	D
Approach Delay (s/veh)	0.7	0.2	22.4	25.3
Approach LOS			C	D

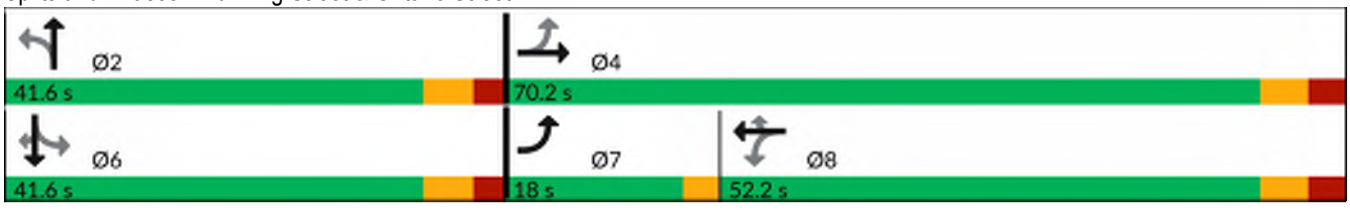
Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	54.8%	ICU Level of Service	A	
Analysis Period (min)	15			

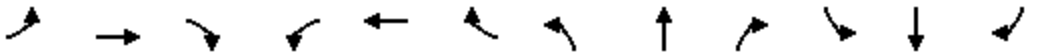
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Future Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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			1.00	0.92
Frt						0.850						0.850
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	0	1123	1150
Flt Permitted	0.325							0.449			0.757	
Satd. Flow (perm)	471	1376	0	0	1129	1076	0	653	0	0	892	1055
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123						214
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	166	291	0	0	439	277	2	0	0	295	0	214
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	291	0	0	439	277	0	2	0	0	295	214
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	64.2	60.0			43.8	43.8		35.1			35.1	35.1
Actuated g/C Ratio	0.59	0.55			0.40	0.40		0.32			0.32	0.32
v/c Ratio	0.43	0.38			0.97	0.55		0.01			1.03	0.44
Control Delay (s/veh)	13.9	15.6			68.7	18.2		27.0			99.3	7.1
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	13.9	15.6			68.7	18.2		27.0			99.3	7.1
LOS	B	B			E	B		C			F	A
Approach Delay (s/veh)		15.0			49.1			27.0			60.5	
Approach LOS		B			D			C			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 108.9			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 43.3		Intersection LOS: D	
Intersection Capacity Utilization 91.1%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

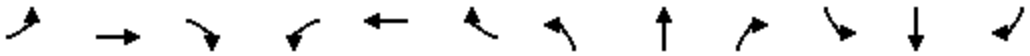




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Future Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95		1.00			1.00	0.92
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.97			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	1373	1376			1129	1076		1382			1119	1056
Flt Permitted	0.33	1.00			1.00	1.00		0.45			0.76	1.00
Satd. Flow (perm)	470	1376			1129	1076		654			891	1056
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	166	291	0	0	439	277	2	0	0	295	0	214
RTOR Reduction (vph)	0	0	0	0	0	74	0	0	0	0	0	145
Lane Group Flow (vph)	166	291	0	0	439	203	0	2	0	0	295	69
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	60.1	60.1			43.8	43.8		35.1			35.1	35.1
Effective Green, g (s)	60.1	60.1			43.8	43.8		35.1			35.1	35.1
Actuated g/C Ratio	0.55	0.55			0.40	0.40		0.32			0.32	0.32
Clearance Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8		2.5			4.0	4.0
Lane Grp Cap (vph)	369	758			453	432		210			286	340
v/s Ratio Prot	c0.05	0.21			c0.39							
v/s Ratio Perm	0.19					0.19		0.00			c0.33	0.07
v/c Ratio	0.45	0.38			0.97	0.47		0.01			1.03	0.20
Uniform Delay, d1	14.2	13.9			31.9	24.1		25.1			36.9	26.8
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.6	0.3			33.9	0.7		0.1			61.6	1.3
Delay (s)	14.8	14.2			65.9	24.8		25.2			98.5	28.1
Level of Service	B	B			E	C		C			F	C
Approach Delay (s/veh)		14.4			50.0			25.2			68.9	
Approach LOS		B			D			C			E	

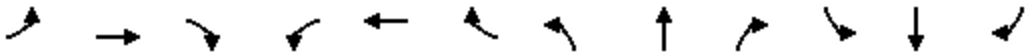
Intersection Summary			
HCM 2000 Control Delay (s/veh)	46.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	109.0	Sum of lost time (s)	16.8
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Future Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.995			0.958			0.975			0.986	
Flt Protected		0.992			0.992			0.998			0.990	
Satd. Flow (prot)	0	1428	0	0	1351	0	0	1426	0	0	1430	0
Flt Permitted		0.992			0.992			0.998			0.990	
Satd. Flow (perm)	0	1428	0	0	1351	0	0	1426	0	0	1430	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	19	99	5	35	124	71	12	186	46	30	110	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	230	0	0	244	0	0	156	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

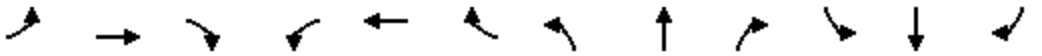
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Future Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	99	5	35	124	71	12	186	46	30	110	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	123	230	244	156
Volume Left (vph)	19	35	12	30
Volume Right (vph)	5	71	46	16
Hadj (s)	0.07	-0.06	-0.06	0.02
Departure Headway (s)	5.4	5.1	5.0	5.2
Degree Utilization, x	0.18	0.33	0.34	0.23
Capacity (veh/h)	604	655	670	630
Control Delay (s/veh)	9.6	10.5	10.6	9.8
Approach Delay (s/veh)	9.6	10.5	10.6	9.8
Approach LOS	A	B	B	A

Intersection Summary				
Delay		10.2		
Level of Service		B		
Intersection Capacity Utilization		48.1%	ICU Level of Service	A
Analysis Period (min)		15		

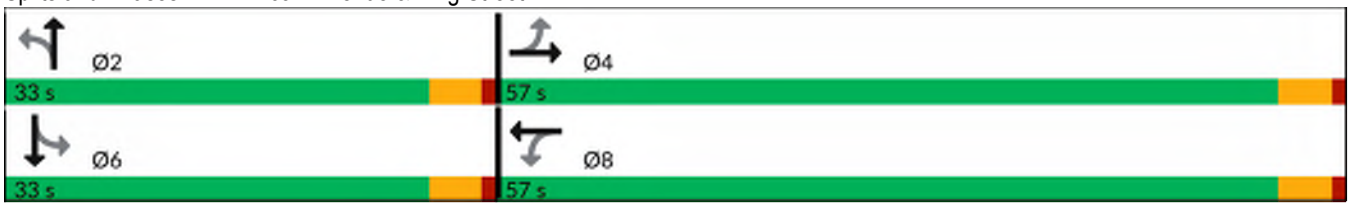


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Future Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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				1.00			0.98			0.99	
Frt		0.997			0.984			0.917			0.975	
Flt Protected	0.950			0.950				0.993			0.964	
Satd. Flow (prot)	1445	1386	0	1445	1352	0	0	1340	0	0	1399	0
Flt Permitted	0.259			0.312				0.959			0.752	
Satd. Flow (perm)	393	1386	0	474	1352	0	0	1294	0	0	1084	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			12			29			13	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	69	545	10	22	555	68	7	11	29	186	20	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	555	0	22	623	0	0	47	0	0	252	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	39.6	39.6		39.6	39.6			29.1			29.1	
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.37			0.37	
v/c Ratio	0.35	0.79		0.09	0.90			0.09			0.61	
Control Delay (s/veh)	15.9	24.0		9.7	33.9			12.0			30.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	15.9	24.0		9.7	33.9			12.0			30.1	
LOS	B	C		A	C			B			C	
Approach Delay (s/veh)		23.1			33.1			12.0			30.1	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 77.9			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 28.0		Intersection LOS: C	
Intersection Capacity Utilization 80.4%		ICU Level of Service D	
Analysis Period (min) 15			

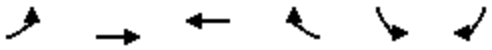
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Future Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.98			0.92			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)	1441	1386		1445	1352			1340			1392	
Flt Permitted	0.26	1.00		0.31	1.00			0.96			0.75	
Satd. Flow (perm)	393	1386		475	1352			1296			1086	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	69	545	10	22	555	68	7	11	29	186	20	46
RTOR Reduction (vph)	0	1	0	0	6	0	0	18	0	0	8	0
Lane Group Flow (vph)	69	554	0	22	617	0	0	29	0	0	244	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	39.6	39.6		39.6	39.6			29.1			29.1	
Effective Green, g (s)	39.6	39.6		39.6	39.6			29.1			29.1	
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.37			0.37	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	200	706		242	689			485			406	
v/s Ratio Prot		0.40			c0.46							
v/s Ratio Perm	0.18			0.05				0.02			c0.22	
v/c Ratio	0.35	0.78		0.09	0.90			0.06			0.60	
Uniform Delay, d1	11.3	15.6		9.8	17.2			15.5			19.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	5.7		0.2	14.2			0.2			6.4	
Delay (s)	12.4	21.3		10.0	31.4			15.8			26.0	
Level of Service	B	C		A	C			B			C	
Approach Delay (s/veh)		20.3			30.6			15.8			26.0	
Approach LOS		C			C			B			C	

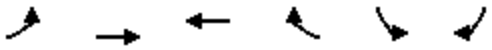
Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	544	528	28	26	25
Future Volume (vph)	42	544	528	28	26	25
Ideal Flow (vphpl)	1228	1228	1629	1351	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.934	
Flt Protected		0.996			0.975	
Satd. Flow (prot)	0	1212	1615	1138	1339	0
Flt Permitted		0.996			0.975	
Satd. Flow (perm)	0	1212	1615	1138	1339	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	591	574	30	28	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	637	574	30	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

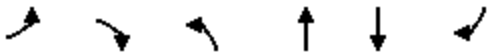
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 94.1%		ICU Level of Service F	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	544	528	28	26	25
Future Volume (Veh/h)	42	544	528	28	26	25
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)	46	591	574	30	28	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked	0.63				0.63	0.63
vC, conflicting volume	604				1257	574
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	85				1116	37
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				80	96
cM capacity (veh/h)	957				138	655

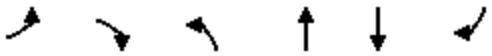
Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	637	574	30	55
Volume Left	46	0	0	28
Volume Right	0	0	30	27
cSH	957	1700	1700	226
Volume to Capacity	0.05	0.34	0.02	0.24
Queue Length 95th (m)	1.1	0.0	0.0	7.0
Control Delay (s/veh)	1.3	0.0	0.0	26.0
Lane LOS	A			D
Approach Delay (s/veh)	1.3	0.0		26.0
Approach LOS				D

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	14	22	118	228	19
Future Volume (vph)	14	14	22	118	228	19
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.990	
Flt Protected	0.976			0.992		
Satd. Flow (prot)	1364	0	0	1201	1352	0
Flt Permitted	0.976			0.992		
Satd. Flow (perm)	1364	0	0	1201	1352	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	16	16	24	131	253	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	155	274	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	14	22	118	228	19
Future Volume (Veh/h)	14	14	22	118	228	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	16	16	24	131	253	21
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked	0.99					
vC, conflicting volume	443	267	274			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	432	267	274			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	98			
cM capacity (veh/h)	568	775	1301			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	32	155	274
Volume Left	16	24	0
Volume Right	16	0	21
cSH	655	1301	1700
Volume to Capacity	0.05	0.02	0.16
Queue Length 95th (m)	1.2	0.4	0.0
Control Delay (s/veh)	10.8	1.3	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.8	1.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	199	219	91	164	103	87
Future Volume (vph)	199	219	91	164	103	87
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929				0.938	
Flt Protected				0.982	0.974	
Satd. Flow (prot)	1285	0	0	1166	1339	0
Flt Permitted				0.982	0.974	
Satd. Flow (perm)	1285	0	0	1166	1339	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	243	267	111	200	126	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	510	0	0	311	232	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

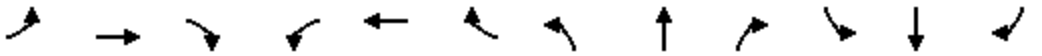
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 78.0%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	199	219	91	164	103	87
Future Volume (Veh/h)	199	219	91	164	103	87
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	243	267	111	200	126	106
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			510		799	377
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			510		799	377
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			89		61	84
cM capacity (veh/h)			1055		320	663

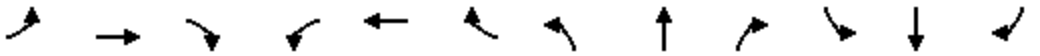
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	510	311	232
Volume Left	0	111	126
Volume Right	267	0	106
cSH	1700	1055	419
Volume to Capacity	0.30	0.11	0.55
Queue Length 95th (m)	0.0	2.7	24.8
Control Delay (s/veh)	0.0	3.8	23.7
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.8	23.7
Approach LOS			C

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	545	12	17	519	18	21	40	21	46	35	17
Future Volume (vph)	21	545	12	17	519	18	21	40	21	46	35	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.996			0.965			0.977	
Flt Protected		0.998			0.998			0.987			0.977	
Satd. Flow (prot)	0	1481	0	0	1442	0	0	1300	0	0	1362	0
Flt Permitted		0.998			0.998			0.987			0.977	
Satd. Flow (perm)	0	1481	0	0	1442	0	0	1300	0	0	1362	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	23	586	13	18	558	19	23	43	23	49	38	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	622	0	0	595	0	0	89	0	0	105	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 68.3%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	545	12	17	519	18	21	40	21	46	35	17
Future Volume (Veh/h)	21	545	12	17	519	18	21	40	21	46	35	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	23	586	13	18	558	19	23	43	23	49	38	18
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	577			599			1279	1252	593	1287	1249	568
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	577			599			1279	1252	593	1287	1249	568
tC, single (s)	4.1			4.3			7.4	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.7	4.1	3.3	3.6	4.0	3.3
p0 queue free %	98			98			77	73	95	52	77	97
cM capacity (veh/h)	1006			909			98	161	510	101	164	527

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	622	595	89	105
Volume Left	23	18	23	49
Volume Right	13	19	23	18
cSH	1006	909	163	140
Volume to Capacity	0.02	0.02	0.55	0.75
Queue Length 95th (m)	0.5	0.5	21.1	33.9
Control Delay (s/veh)	0.6	0.5	50.8	83.3
Lane LOS	A	A	F	F
Approach Delay (s/veh)	0.6	0.5	50.8	83.3
Approach LOS			F	F

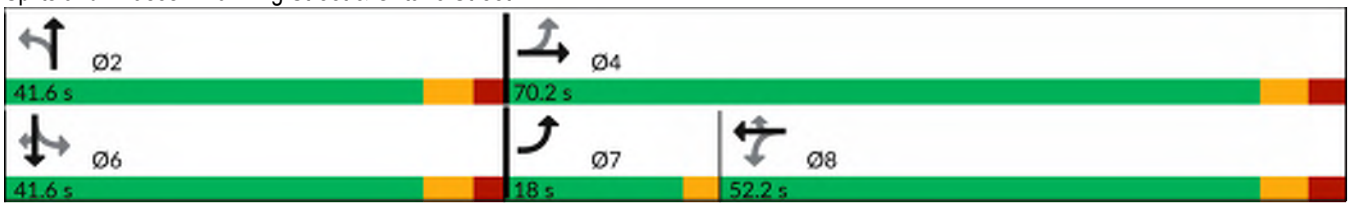
Intersection Summary				
Average Delay	9.9			
Intersection Capacity Utilization	68.3%	ICU Level of Service	C	
Analysis Period (min)	15			

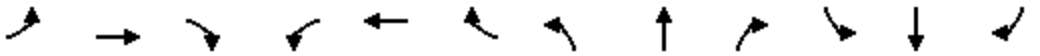
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Future Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95					0.94	0.96
Frt		0.999				0.850						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	0	1183	1161
Flt Permitted	0.345										0.728	
Satd. Flow (perm)	509	1388	0	0	1229	1083	0	1470	0	0	854	1120
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						164						338
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	236	336	2	0	385	323	0	0	0	372	2	338
Shared Lane Traffic (%)												
Lane Group Flow (vph)	236	338	0	0	385	323	0	0	0	0	374	338
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	57.2	52.9			35.9	35.9					35.4	35.4
Actuated g/C Ratio	0.56	0.52			0.35	0.35					0.35	0.35
v/c Ratio	0.58	0.47			0.89	0.66					1.27	0.56
Control Delay (s/veh)	17.5	17.6			55.1	20.1					176.3	7.1
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay (s/veh)	17.5	17.6			55.1	20.1					176.3	7.1
LOS	B	B			E	C					F	A
Approach Delay (s/veh)		17.6			39.1						96.0	
Approach LOS		B			D						F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 102.3			
Natural Cycle: 135			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay (s/veh): 53.2		Intersection LOS: D	
Intersection Capacity Utilization 104.9%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

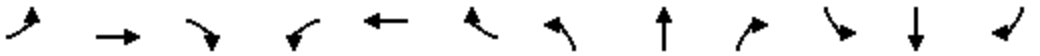




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Future Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00					1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95					1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00					0.95	1.00
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	1412	1388			1229	1085					1123	1121
Flt Permitted	0.34	1.00			1.00	1.00					0.73	1.00
Satd. Flow (perm)	512	1388			1229	1085					857	1121
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	236	336	2	0	385	323	0	0	0	372	2	338
RTOR Reduction (vph)	0	0	0	0	0	106	0	0	0	0	0	221
Lane Group Flow (vph)	236	338	0	0	385	217	0	0	0	0	374	117
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	53.0	53.0			36.0	36.0					35.4	35.4
Effective Green, g (s)	53.0	53.0			36.0	36.0					35.4	35.4
Actuated g/C Ratio	0.52	0.52			0.35	0.35					0.35	0.35
Clearance Time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8					4.0	4.0
Lane Grp Cap (vph)	388	719			432	382					296	388
v/s Ratio Prot	c0.08	0.24			c0.31							
v/s Ratio Perm	0.23					0.20					c0.44	0.10
v/c Ratio	0.61	0.47			0.89	0.57					1.26	0.30
Uniform Delay, d1	15.5	15.7			31.3	26.8					33.4	24.4
Progression Factor	1.00	1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2	2.3	0.4			20.0	1.8					142.8	2.0
Delay (s)	17.8	16.1			51.2	28.6					176.2	26.4
Level of Service	B	B			D	C					F	C
Approach Delay (s/veh)		16.8			40.9			0.0			105.1	
Approach LOS		B			D			A			F	

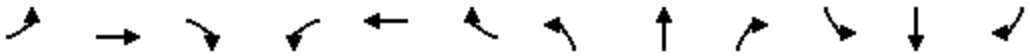
Intersection Summary			
HCM 2000 Control Delay (s/veh)	56.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	102.2	Sum of lost time (s)	16.8
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Future Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.978			0.931			0.993	
Flt Protected		0.998			0.983			0.997			0.985	
Satd. Flow (prot)	0	1455	0	0	1402	0	0	1378	0	0	1448	0
Flt Permitted		0.998			0.983			0.997			0.985	
Satd. Flow (perm)	0	1455	0	0	1402	0	0	1378	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	10	202	13	124	179	60	8	68	80	93	206	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	225	0	0	363	0	0	156	0	0	315	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

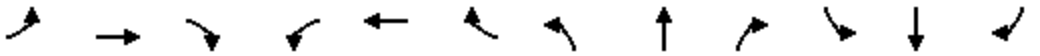
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 84.4%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Future Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	202	12	124	179	60	8	68	80	93	206	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	224	363	156	315
Volume Left (vph)	10	124	8	93
Volume Right (vph)	12	60	80	16
Hadj (s)	0.01	0.02	-0.28	0.05
Departure Headway (s)	6.1	5.9	6.1	6.1
Degree Utilization, x	0.38	0.59	0.27	0.53
Capacity (veh/h)	531	579	503	551
Control Delay (s/veh)	12.9	17.0	11.3	15.7
Approach Delay (s/veh)	12.9	17.0	11.3	15.7
Approach LOS	B	C	B	C

Intersection Summary			
Delay	14.9		
Level of Service	B		
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		

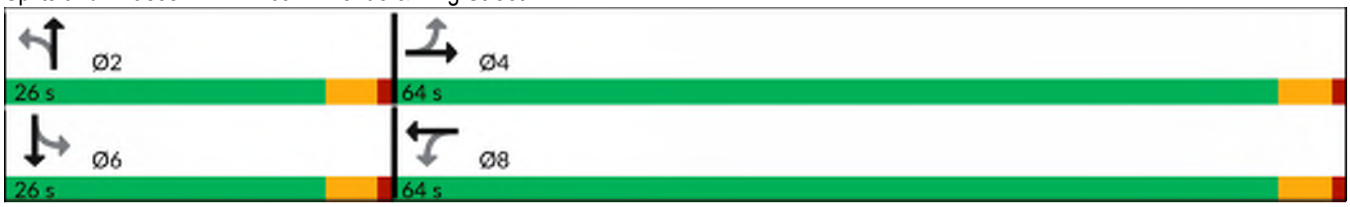


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	327	6	17	542	122	6	32	20	106	21	24
Future Volume (vph)	21	327	6	17	542	122	6	32	20	106	21	24
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.972			0.954			0.978	
Flt Protected	0.950			0.950				0.995			0.966	
Satd. Flow (prot)	1278	1304	0	1445	1319	0	0	1315	0	0	1381	0
Flt Permitted	0.226			0.483				0.972			0.781	
Satd. Flow (perm)	304	1304	0	735	1319	0	0	1285	0	0	1114	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27			24			10	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	25	394	7	20	653	147	7	39	24	128	25	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	401	0	20	800	0	0	70	0	0	182	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	53.1	53.1		53.1	53.1			21.8			21.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.26			0.26	
v/c Ratio	0.13	0.49		0.04	0.95			0.20			0.61	
Control Delay (s/veh)	7.6	10.2		5.6	35.7			21.3			38.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	7.6	10.2		5.6	35.7			21.3			38.8	
LOS	A	B		A	D			C			D	
Approach Delay (s/veh)		10.0			35.0			21.3			38.8	
Approach LOS		B			D			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 84			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 27.7		Intersection LOS: C	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

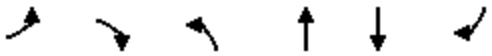
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	327	6	17	542	122	6	32	20	106	21	24
Future Volume (vph)	21	327	6	17	542	122	6	32	20	106	21	24
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.97	
Satd. Flow (prot)	1278	1304		1445	1319			1315			1379	
Flt Permitted	0.23	1.00		0.48	1.00			0.97			0.78	
Satd. Flow (perm)	304	1304		735	1319			1284			1115	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	25	394	7	20	653	147	7	39	24	128	25	29
RTOR Reduction (vph)	0	1	0	0	10	0	0	18	0	0	7	0
Lane Group Flow (vph)	25	400	0	20	790	0	0	52	0	0	175	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	53.1	53.1		53.1	53.1			21.8			21.8	
Effective Green, g (s)	53.1	53.1		53.1	53.1			21.8			21.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.26			0.26	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	192	825		465	834			333			289	
v/s Ratio Prot		0.31			c0.60							
v/s Ratio Perm	0.08			0.03				0.04			c0.16	
v/c Ratio	0.13	0.49		0.04	0.95			0.16			0.60	
Uniform Delay, d1	6.2	8.2		5.8	14.1			24.0			27.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.3	0.5		0.0	19.3			1.0			9.0	
Delay (s)	6.5	8.6		5.8	33.5			25.0			36.3	
Level of Service	A	A		A	C			C			D	
Approach Delay (s/veh)		8.5			32.8			25.0			36.3	
Approach LOS		A			C			C			D	

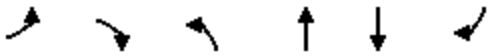
Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	83.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	6	0	2	176	151	7
Future Volume (vph)	6	0	2	176	151	7
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.994	
Flt Protected	0.950					
Satd. Flow (prot)	1425	0	0	1194	1356	0
Flt Permitted	0.950					
Satd. Flow (perm)	1425	0	0	1194	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	4%	3%	0%
Adj. Flow (vph)	7	0	2	198	170	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	200	178	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	0	2	176	151	7
Future Volume (Veh/h)	6	0	2	176	151	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	7	0	2	198	170	8
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	376	177	178			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	376	177	178			
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	100	100			
cM capacity (veh/h)	628	869	1410			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	7	200	178
Volume Left	7	2	0
Volume Right	0	0	8
cSH	628	1410	1700
Volume to Capacity	0.01	0.00	0.10
Queue Length 95th (m)	0.3	0.0	0.0
Control Delay (s/veh)	10.8	0.1	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.8	0.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		27.8%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	203	107	85	194	197	115
Future Volume (vph)	203	107	85	194	197	115
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.950	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1282	0	0	1116	1305	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1282	0	0	1116	1305	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	236	124	99	226	229	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	0	0	325	363	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

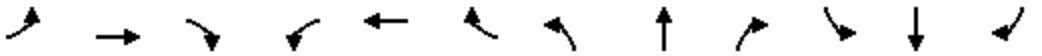
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 79.6%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	203	107	85	194	197	115
Future Volume (Veh/h)	203	107	85	194	197	115
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	236	124	99	226	229	134
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			360		722	298
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			360		722	298
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			91		36	81
cM capacity (veh/h)			1106		360	714

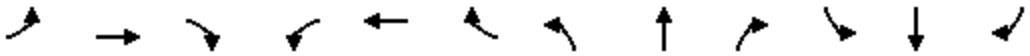
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	360	325	363
Volume Left	0	99	229
Volume Right	124	0	134
cSH	1700	1106	440
Volume to Capacity	0.21	0.09	0.82
Queue Length 95th (m)	0.0	2.2	59.2
Control Delay (s/veh)	0.0	3.2	41.4
Lane LOS		A	E
Approach Delay (s/veh)	0.0	3.2	41.4
Approach LOS			E

Intersection Summary			
Average Delay	15.4		
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	329	9	9	513	48	6	23	7	21	34	13
Future Volume (vph)	18	329	9	9	513	48	6	23	7	21	34	13
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.989			0.974			0.974	
Flt Protected		0.998			0.999			0.992			0.985	
Satd. Flow (prot)	0	1371	0	0	1404	0	0	1282	0	0	1378	0
Flt Permitted		0.998			0.999			0.992			0.985	
Satd. Flow (perm)	0	1371	0	0	1404	0	0	1282	0	0	1378	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.5			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	20	374	10	10	583	55	7	26	8	24	39	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	404	0	0	648	0	0	41	0	0	78	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 57.1%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	329	9	9	513	48	6	23	7	21	34	13
Future Volume (Veh/h)	18	329	9	9	513	48	6	23	7	21	34	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	20	374	10	10	583	55	7	26	8	24	39	15
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	638			384			1084	1077	379	1071	1055	611
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	638			384			1084	1077	379	1071	1055	611
tC, single (s)	4.5			4.1			7.6	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.6			2.2			4.0	4.1	3.3	3.5	4.0	3.5
p0 queue free %	97			99			95	87	99	86	82	97
cM capacity (veh/h)	792			1186			129	207	672	174	220	458

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	404	648	41	78
Volume Left	20	10	7	24
Volume Right	10	55	8	15
cSH	792	1186	214	224
Volume to Capacity	0.03	0.01	0.19	0.35
Queue Length 95th (m)	0.6	0.2	5.2	11.2
Control Delay (s/veh)	0.8	0.2	25.8	29.4
Lane LOS	A	A	D	D
Approach Delay (s/veh)	0.8	0.2	25.8	29.4
Approach LOS			D	D

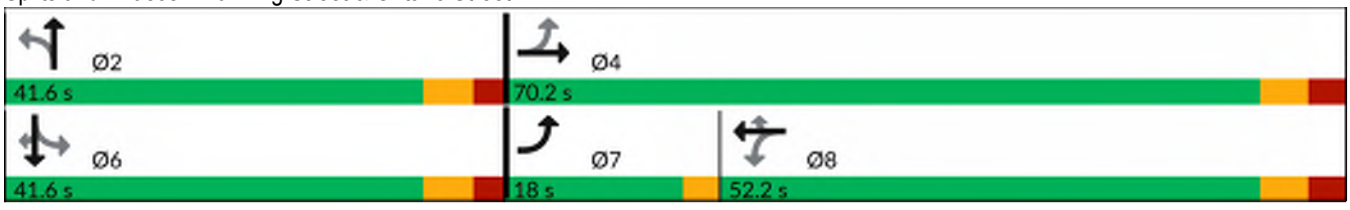
Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

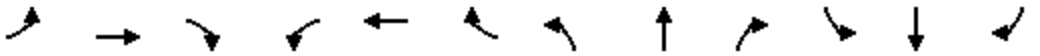
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	281	0	0	431	279	2	0	0	298	0	215
Future Volume (vph)	167	281	0	0	431	279	2	0	0	298	0	215
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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		0.98			1.00	0.92
Frt						0.850						0.850
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	0	1123	1150
Flt Permitted	0.274							0.377			0.757	
Satd. Flow (perm)	397	1376	0	0	1129	1076	0	552	0	0	892	1055
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						127						247
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			33.1			180.7	
Travel Time (s)		67.3			52.0			2.4			13.0	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	192	323	0	0	495	321	2	0	0	343	0	247
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	323	0	0	495	321	0	2	0	0	343	247
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	66.1	61.9			45.0	45.0		35.0			35.0	35.0
Actuated g/C Ratio	0.60	0.56			0.41	0.41		0.32			0.32	0.32
v/c Ratio	0.53	0.42			1.08	0.63		0.01			1.22	0.49
Control Delay (s/veh)	16.2	16.1			98.4	21.8		27.0			160.8	7.3
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	16.2	16.1			98.4	21.8		27.0			160.8	7.3
LOS	B	B			F	C		C			F	A
Approach Delay (s/veh)		16.1			68.2			27.0			96.5	
Approach LOS		B			E			C			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 110.7			
Natural Cycle: 145			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay (s/veh): 62.9		Intersection LOS: E	
Intersection Capacity Utilization 98.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

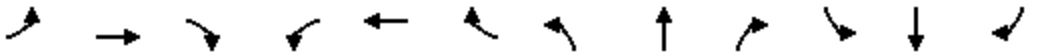




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	281	0	0	431	279	2	0	0	298	0	215
Future Volume (vph)	167	281	0	0	431	279	2	0	0	298	0	215
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95		1.00			1.00	0.92
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.98			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	1376	1376			1129	1076		1391			1119	1055
Flt Permitted	0.27	1.00			1.00	1.00		0.38			0.76	1.00
Satd. Flow (perm)	397	1376			1129	1076		552			891	1055
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	192	323	0	0	495	321	2	0	0	343	0	247
RTOR Reduction (vph)	0	0	0	0	0	75	0	0	0	0	0	169
Lane Group Flow (vph)	192	323	0	0	495	246	0	2	0	0	343	78
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	61.9	61.9			45.0	45.0		35.0			35.0	35.0
Effective Green, g (s)	61.9	61.9			45.0	45.0		35.0			35.0	35.0
Actuated g/C Ratio	0.56	0.56			0.41	0.41		0.32			0.32	0.32
Clearance Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8		2.5			4.0	4.0
Lane Grp Cap (vph)	344	769			458	437		174			281	333
v/s Ratio Prot	c0.07	0.23			c0.44							
v/s Ratio Perm	0.24					0.23		0.00			c0.38	0.07
v/c Ratio	0.56	0.42			1.08	0.56		0.01			1.22	0.23
Uniform Delay, d1	15.2	14.1			32.9	25.3		26.0			37.9	28.0
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	1.6	0.3			65.5	1.5		0.1			127.0	1.6
Delay (s)	16.7	14.4			98.4	26.8		26.1			164.8	29.6
Level of Service	B	B			F	C		C			F	C
Approach Delay (s/veh)		15.3			70.2			26.1			108.2	
Approach LOS		B			E			C			F	

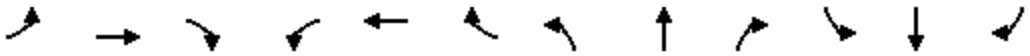
Intersection Summary			
HCM 2000 Control Delay (s/veh)	67.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	110.7	Sum of lost time (s)	16.8
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	104	6	32	131	75	13	189	30	31	118	17
Future Volume (vph)	20	104	6	32	131	75	13	189	30	31	118	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.993			0.958			0.983			0.986	
Flt Protected		0.992			0.993			0.997			0.991	
Satd. Flow (prot)	0	1425	0	0	1351	0	0	1439	0	0	1432	0
Flt Permitted		0.992			0.993			0.997			0.991	
Satd. Flow (perm)	0	1425	0	0	1351	0	0	1439	0	0	1432	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	22	114	7	35	144	82	14	208	33	34	130	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	261	0	0	255	0	0	183	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

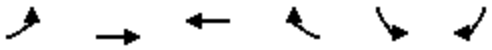
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	20	104	6	32	131	75	13	189	30	31	118	17
Future Volume (vph)	20	104	6	32	131	75	13	189	30	31	118	17
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	22	114	7	35	144	82	14	208	33	34	130	19

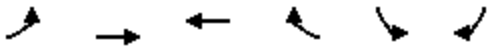
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	143	261	255	183
Volume Left (vph)	22	35	14	34
Volume Right (vph)	7	82	33	19
Hadj (s)	0.06	-0.07	-0.03	0.01
Departure Headway (s)	5.6	5.3	5.3	5.5
Degree Utilization, x	0.22	0.38	0.38	0.28
Capacity (veh/h)	576	630	623	601
Control Delay (s/veh)	10.2	11.5	11.5	10.6
Approach Delay (s/veh)	10.2	11.5	11.5	10.6
Approach LOS	B	B	B	B

Intersection Summary				
Delay	11.1			
Level of Service	B			
Intersection Capacity Utilization	52.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	354	578	7	3	3
Future Volume (vph)	5	354	578	7	3	3
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1171	1335	0	1364	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1171	1335	0	1364	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		2.1	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	6%	5%	0%	0%	0%
Adj. Flow (vph)	6	416	680	8	4	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	422	688	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

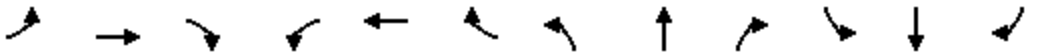
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	354	578	7	3	3
Future Volume (Veh/h)	5	354	578	7	3	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	416	680	8	4	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			64			
pX, platoon unblocked	0.48				0.48	0.48
vC, conflicting volume	688				1112	684
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				690	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	784				197	523

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	422	688	8
Volume Left	6	0	4
Volume Right	0	8	4
cSH	784	1700	286
Volume to Capacity	0.01	0.40	0.03
Queue Length 95th (m)	0.2	0.0	0.7
Control Delay (s/veh)	0.2	0.0	18.0
Lane LOS	A		C
Approach Delay (s/veh)	0.2	0.0	18.0
Approach LOS			C

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

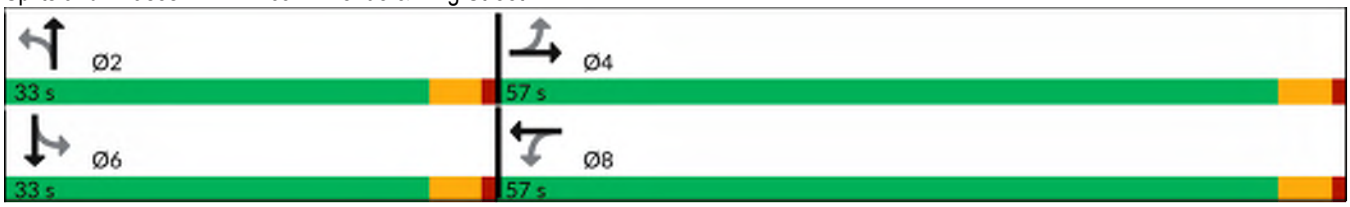


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	562	10	23	572	66	7	14	30	190	32	18
Future Volume (vph)	35	562	10	23	572	66	7	14	30	190	32	18
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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			0.98			0.99	
Frt		0.997			0.984			0.920			0.990	
Flt Protected	0.950			0.950				0.993			0.962	
Satd. Flow (prot)	1445	1386	0	1445	1352	0	0	1346	0	0	1417	0
Flt Permitted	0.230			0.281				0.957			0.733	
Satd. Flow (perm)	350	1386	0	427	1352	0	0	1297	0	0	1072	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			11			33			5	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		64.1			934.2			571.7			34.1	
Travel Time (s)		3.8			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	38	618	11	25	629	73	8	15	33	209	35	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	629	0	25	702	0	0	56	0	0	264	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	46.5	46.5		46.5	46.5			28.8			28.8	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.34			0.34	
v/c Ratio	0.20	0.82		0.11	0.94			0.12			0.72	
Control Delay (s/veh)	12.0	25.8		9.8	38.9			12.6			39.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	12.0	25.8		9.8	38.9			12.6			39.0	
LOS	B	C		A	D			B			D	
Approach Delay (s/veh)		25.0			37.9			12.6			39.0	
Approach LOS		C			D			B			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 84.4			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 32.2		Intersection LOS: C	
Intersection Capacity Utilization 78.0%		ICU Level of Service D	
Analysis Period (min) 15			

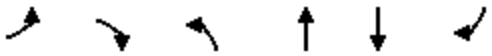
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	562	10	23	572	66	7	14	30	190	32	18
Future Volume (vph)	35	562	10	23	572	66	7	14	30	190	32	18
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.98			0.92			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)	1445	1386		1445	1353			1347			1407	
Flt Permitted	0.23	1.00		0.28	1.00			0.96			0.73	
Satd. Flow (perm)	349	1386		428	1353			1298			1072	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	38	618	11	25	629	73	8	15	33	209	35	20
RTOR Reduction (vph)	0	1	0	0	5	0	0	22	0	0	3	0
Lane Group Flow (vph)	38	628	0	25	697	0	0	34	0	0	261	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	46.5	46.5		46.5	46.5			28.8			28.8	
Effective Green, g (s)	46.5	46.5		46.5	46.5			28.8			28.8	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.34			0.34	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	192	764		236	746			443			366	
v/s Ratio Prot		0.45			c0.52							
v/s Ratio Perm	0.11			0.06				0.03			c0.24	
v/c Ratio	0.20	0.82		0.11	0.93			0.08			0.71	
Uniform Delay, d1	9.5	15.5		9.0	17.5			18.8			24.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	7.1		0.2	18.7			0.3			11.2	
Delay (s)	10.0	22.6		9.2	36.2			19.1			35.4	
Level of Service	B	C		A	D			B			D	
Approach Delay (s/veh)		21.9			35.3			19.1			35.4	
Approach LOS		C			D			B			D	

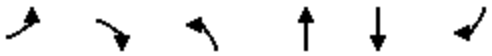
Intersection Summary			
HCM 2000 Control Delay (s/veh)	29.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	84.3	Sum of lost time (s)	9.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	2	3	118	244	12
Future Volume (vph)	12	2	3	118	244	12
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.982				0.994	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1411	0	0	1205	1356	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1411	0	0	1205	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	13	2	3	131	271	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	0	134	284	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	2	3	118	244	12
Future Volume (Veh/h)	12	2	3	118	244	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	13	2	3	131	271	13
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	415	281	284			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	415	281	284			
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	100	100			
cM capacity (veh/h)	597	761	1290			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	15	134	284
Volume Left	13	3	0
Volume Right	2	0	13
cSH	614	1290	1700
Volume to Capacity	0.02	0.00	0.17
Queue Length 95th (m)	0.6	0.1	0.0
Control Delay (s/veh)	11.0	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	11.0	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		29.5%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	243	104	190	115	100
Future Volume (vph)	230	243	104	190	115	100
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931				0.937	
Flt Protected				0.983	0.974	
Satd. Flow (prot)	1287	0	0	1167	1337	0
Flt Permitted				0.983	0.974	
Satd. Flow (perm)	1287	0	0	1167	1337	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	280	296	127	232	140	122
Shared Lane Traffic (%)						
Lane Group Flow (vph)	576	0	0	359	262	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

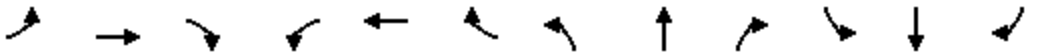
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 87.3%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	230	243	104	190	115	100
Future Volume (Veh/h)	230	243	104	190	115	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	280	296	127	232	140	122
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			576		914	428
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			576		914	428
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			87		48	80
cM capacity (veh/h)			997		267	620

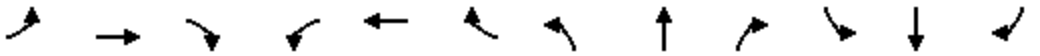
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	576	359	262
Volume Left	0	127	140
Volume Right	296	0	122
cSH	1700	997	363
Volume to Capacity	0.34	0.13	0.72
Queue Length 95th (m)	0.0	3.3	41.3
Control Delay (s/veh)	0.0	4.1	36.8
Lane LOS		A	E
Approach Delay (s/veh)	0.0	4.1	36.8
Approach LOS			E

Intersection Summary			
Average Delay	9.3		
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	559	14	20	576	20	24	46	24	50	41	20
Future Volume (vph)	24	559	14	20	576	20	24	46	24	50	41	20
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.996			0.965			0.975	
Flt Protected		0.998			0.998			0.987			0.978	
Satd. Flow (prot)	0	1480	0	0	1442	0	0	1300	0	0	1362	0
Flt Permitted		0.998			0.998			0.987			0.978	
Satd. Flow (perm)	0	1480	0	0	1442	0	0	1300	0	0	1362	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.5			854.6			314.9			254.1	
Travel Time (s)		26.8			51.3			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	26	601	15	22	619	22	26	49	26	54	44	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	642	0	0	663	0	0	101	0	0	120	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

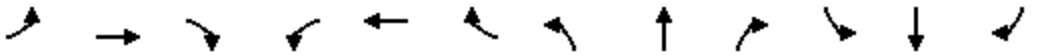
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 72.1%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	559	14	20	576	20	24	46	24	50	41	20
Future Volume (Veh/h)	24	559	14	20	576	20	24	46	24	50	41	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	26	601	15	22	619	22	26	49	26	54	44	22
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	641			616			1379	1346	609	1385	1342	630
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	641			616			1379	1346	609	1385	1342	630
tC, single (s)	4.1			4.3			7.4	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.7	4.1	3.3	3.6	4.0	3.3
p0 queue free %	97			98			66	65	95	31	69	95
cM capacity (veh/h)	953			895			76	140	499	78	142	485

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	642	663	101	120
Volume Left	26	22	26	54
Volume Right	15	22	26	22
cSH	953	895	136	115
Volume to Capacity	0.03	0.02	0.74	1.04
Queue Length 95th (m)	0.6	0.6	33.1	53.4
Control Delay (s/veh)	0.7	0.7	84.2	168.0
Lane LOS	A	A	F	F
Approach Delay (s/veh)	0.7	0.7	84.2	168.0
Approach LOS			F	F

Intersection Summary				
Average Delay	19.4			
Intersection Capacity Utilization	72.1%	ICU Level of Service	C	
Analysis Period (min)	15			

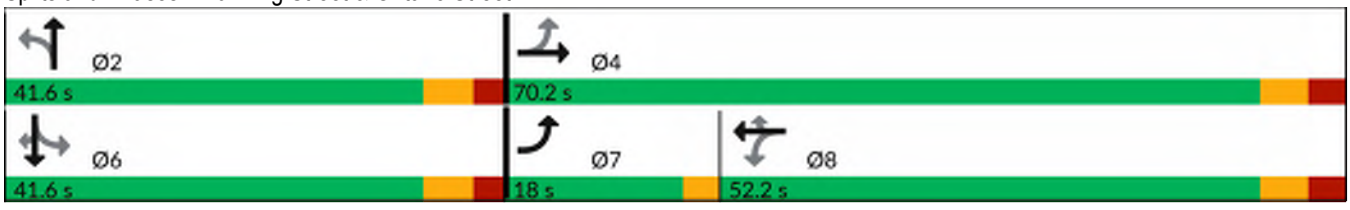


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	341	2	0	392	344	0	0	0	396	2	359
Future Volume (vph)	251	341	2	0	392	344	0	0	0	396	2	359
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95					0.94	0.96
Frt		0.999				0.850						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	0	1183	1161
Flt Permitted	0.318										0.727	
Satd. Flow (perm)	470	1388	0	0	1229	1083	0	1470	0	0	852	1120
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						172						390
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			33.1			180.7	
Travel Time (s)		67.3			52.0			2.4			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	273	371	2	0	426	374	0	0	0	430	2	390
Shared Lane Traffic (%)												
Lane Group Flow (vph)	273	373	0	0	426	374	0	0	0	0	432	390
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	61.8	57.6			40.1	40.1					35.2	35.2
Actuated g/C Ratio	0.58	0.54			0.38	0.38					0.33	0.33
v/c Ratio	0.68	0.50			0.92	0.73					1.54	0.62
Control Delay (s/veh)	20.9	17.9			59.1	23.9					289.2	7.8
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay (s/veh)	20.9	17.9			59.1	23.9					289.2	7.8
LOS	C	B			E	C					F	A
Approach Delay (s/veh)		19.1			42.6						155.7	
Approach LOS		B			D						F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 106.7			
Natural Cycle: 135			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.54			
Intersection Signal Delay (s/veh): 76.9		Intersection LOS: E	
Intersection Capacity Utilization 114.9%		ICU Level of Service H	
Analysis Period (min) 15			

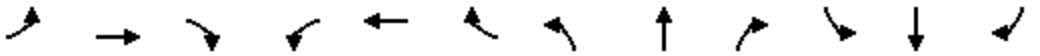
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	341	2	0	392	344	0	0	0	396	2	359
Future Volume (vph)	251	341	2	0	392	344	0	0	0	396	2	359
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00					1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95					1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00					0.95	1.00
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	1413	1388			1229	1084					1120	1121
Flt Permitted	0.32	1.00			1.00	1.00					0.73	1.00
Satd. Flow (perm)	473	1388			1229	1084					855	1121
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	273	371	2	0	426	374	0	0	0	430	2	390
RTOR Reduction (vph)	0	0	0	0	0	107	0	0	0	0	0	261
Lane Group Flow (vph)	273	373	0	0	426	267	0	0	0	0	432	129
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	57.6	57.6			40.1	40.1					35.2	35.2
Effective Green, g (s)	57.6	57.6			40.1	40.1					35.2	35.2
Actuated g/C Ratio	0.54	0.54			0.38	0.38					0.33	0.33
Clearance Time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8					4.0	4.0
Lane Grp Cap (vph)	383	749			462	407					282	370
v/s Ratio Prot	c0.10	0.27			c0.35							
v/s Ratio Perm	0.29					0.25					c0.51	0.11
v/c Ratio	0.71	0.50			0.92	0.66					1.53	0.35
Uniform Delay, d1	15.9	15.4			31.8	27.5					35.7	27.0
Progression Factor	1.00	1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2	5.8	0.5			23.9	3.6					256.5	2.6
Delay (s)	21.7	15.9			55.7	31.1					292.2	29.6
Level of Service	C	B			E	C					F	C
Approach Delay (s/veh)		18.3			44.2			0.0			167.6	
Approach LOS		B			D			A			F	

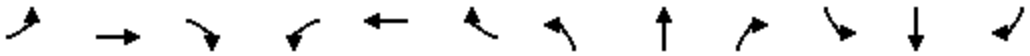
Intersection Summary			
HCM 2000 Control Delay (s/veh)	81.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	106.6	Sum of lost time (s)	16.8
Intersection Capacity Utilization	114.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	225	14	120	200	67	9	70	71	103	218	17
Future Volume (vph)	12	225	14	120	200	67	9	70	71	103	218	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.977			0.936			0.993	
Flt Protected		0.998			0.985			0.997			0.985	
Satd. Flow (prot)	0	1456	0	0	1404	0	0	1386	0	0	1448	0
Flt Permitted		0.998			0.985			0.997			0.985	
Satd. Flow (perm)	0	1456	0	0	1404	0	0	1386	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	1%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	13	234	15	125	208	70	9	73	74	107	227	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	403	0	0	156	0	0	352	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

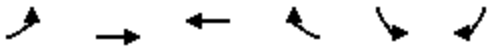
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 91.9%		ICU Level of Service F	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	12	225	14	120	200	67	9	70	71	103	218	17
Future Volume (vph)	12	225	14	120	200	67	9	70	71	103	218	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	12	234	15	125	208	70	9	73	74	107	227	18

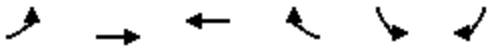
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	261	403	156	352
Volume Left (vph)	12	125	9	107
Volume Right (vph)	15	70	74	18
Hadj (s)	0.01	0.01	-0.26	0.05
Departure Headway (s)	6.5	6.2	6.7	6.5
Degree Utilization, x	0.47	0.70	0.29	0.63
Capacity (veh/h)	493	540	441	521
Control Delay (s/veh)	15.3	22.2	12.4	19.9
Approach Delay (s/veh)	15.3	22.2	12.4	19.9
Approach LOS	C	C	B	C

Intersection Summary				
Delay			18.7	
Level of Service			C	
Intersection Capacity Utilization			91.9%	ICU Level of Service
Analysis Period (min)			15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	604	593	7	6	21
Future Volume (vph)	6	604	593	7	6	21
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.896	
Flt Protected		0.999			0.988	
Satd. Flow (prot)	0	1228	1373	0	1327	0
Flt Permitted		0.999			0.988	
Satd. Flow (perm)	0	1228	1373	0	1327	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		854.6	64.1		29.4	
Travel Time (s)		51.3	3.8		2.1	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%
Adj. Flow (vph)	7	657	645	8	7	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	664	653	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

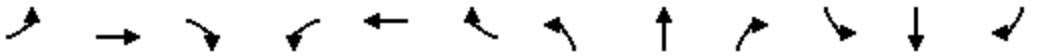
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	604	593	7	6	21
Future Volume (Veh/h)	6	604	593	7	6	21
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)	7	657	645	8	7	23
Pedestrians					1	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.1	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			64			
pX, platoon unblocked	0.54				0.54	0.54
vC, conflicting volume	654				1321	650
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				1169	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	96
cM capacity (veh/h)	883				115	589

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	664	653	30
Volume Left	7	0	7
Volume Right	0	8	23
cSH	883	1700	301
Volume to Capacity	0.01	0.38	0.10
Queue Length 95th (m)	0.2	0.0	2.5
Control Delay (s/veh)	0.2	0.0	18.3
Lane LOS	A		C
Approach Delay (s/veh)	0.2	0.0	18.3
Approach LOS			C

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

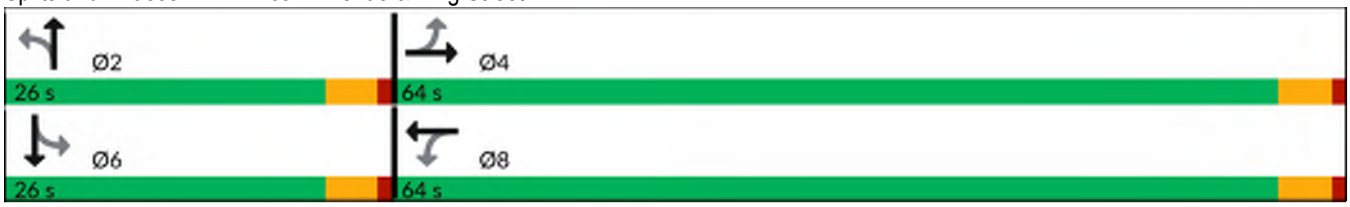


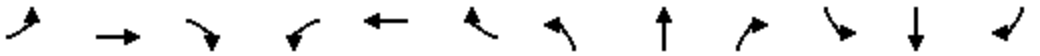
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Future Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.972			0.952			0.969	
Flt Protected	0.950			0.950				0.995			0.969	
Satd. Flow (prot)	1278	1304	0	1445	1319	0	0	1312	0	0	1362	0
Flt Permitted	0.227			0.479				0.970			0.792	
Satd. Flow (perm)	305	1304	0	728	1319	0	0	1279	0	0	1111	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27			24			16	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	46	399	7	20	648	148	7	37	24	130	25	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	406	0	20	796	0	0	68	0	0	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)		3.7			3.7			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	52.8	52.8		52.8	52.8			21.8			21.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.26			0.26	
v/c Ratio	0.24	0.49		0.04	0.95			0.19			0.67	
Control Delay (s/veh)	9.9	10.3		5.6	35.3			21.0			40.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	9.9	10.3		5.6	35.3			21.0			40.7	
LOS	A	B		A	D			C			D	
Approach Delay (s/veh)		10.3			34.6			21.0			40.7	
Approach LOS		B			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 83.7			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 27.6		Intersection LOS: C	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Lincoln Avenue & King Street

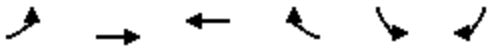




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Future Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1278	1304		1445	1319			1313			1360	
Flt Permitted	0.23	1.00		0.48	1.00			0.97			0.79	
Satd. Flow (perm)	305	1304		729	1319			1280			1111	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	46	399	7	20	648	148	7	37	24	130	25	46
RTOR Reduction (vph)	0	1	0	0	10	0	0	18	0	0	12	0
Lane Group Flow (vph)	46	405	0	20	786	0	0	50	0	0	189	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	52.7	52.7		52.7	52.7			21.8			21.8	
Effective Green, g (s)	52.7	52.7		52.7	52.7			21.8			21.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.26			0.26	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	192	823		460	832			334			290	
v/s Ratio Prot		0.31			c0.60							
v/s Ratio Perm	0.15			0.03				0.04			c0.17	
v/c Ratio	0.24	0.49		0.04	0.94			0.15			0.65	
Uniform Delay, d1	6.7	8.2		5.8	14.1			23.7			27.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.6	0.5		0.0	19.0			1.0			10.9	
Delay (s)	7.3	8.7		5.9	33.0			24.7			38.4	
Level of Service	A	A		A	C			C			D	
Approach Delay (s/veh)		8.6			32.4			24.7			38.4	
Approach LOS		A			C			C			D	

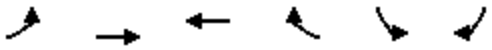
Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	83.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	357	587	8	20	30
Future Volume (vph)	13	357	587	8	20	30
Ideal Flow (vphpl)	1228	1228	1629	1351	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.919	
Flt Protected		0.998			0.980	
Satd. Flow (prot)	0	1215	1615	1138	1324	0
Flt Permitted		0.998			0.980	
Satd. Flow (perm)	0	1215	1615	1138	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	388	638	9	22	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	402	638	9	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

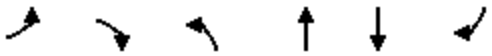
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	357	587	8	20	30
Future Volume (Veh/h)	13	357	587	8	20	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)	14	388	638	9	22	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked						
vC, conflicting volume	647				1054	638
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	647				1054	638
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				91	93
cM capacity (veh/h)	939				246	477

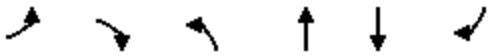
Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	402	638	9	55
Volume Left	14	0	0	22
Volume Right	0	0	9	33
cSH	939	1700	1700	347
Volume to Capacity	0.01	0.38	0.01	0.16
Queue Length 95th (m)	0.3	0.0	0.0	4.2
Control Delay (s/veh)	0.5	0.0	0.0	17.3
Lane LOS	A			C
Approach Delay (s/veh)	0.5	0.0		17.3
Approach LOS				C

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	12	5	189	156	4
Future Volume (vph)	10	12	5	189	156	4
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.927				0.997	
Flt Protected	0.978			0.999		
Satd. Flow (prot)	1345	0	0	1194	1359	0
Flt Permitted	0.978			0.999		
Satd. Flow (perm)	1345	0	0	1194	1359	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	4%	3%	0%
Adj. Flow (vph)	11	13	6	212	175	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	0	218	179	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	12	5	189	156	4
Future Volume (Veh/h)	10	12	5	189	156	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	11	13	6	212	175	4
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	401	180	179			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	401	180	179			
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	98	100			
cM capacity (veh/h)	606	860	1409			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	218	179
Volume Left	11	6	0
Volume Right	13	0	4
cSH	722	1409	1700
Volume to Capacity	0.03	0.00	0.11
Queue Length 95th (m)	0.8	0.1	0.0
Control Delay (s/veh)	10.2	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.2	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	203	104	85	194	203	115
Future Volume (vph)	203	104	85	194	203	115
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.954				0.951	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1283	0	0	1116	1307	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1283	0	0	1116	1307	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	236	121	99	226	236	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	357	0	0	325	370	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

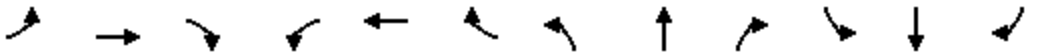
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 79.8%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	203	104	85	194	203	115
Future Volume (Veh/h)	203	104	85	194	203	115
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	236	121	99	226	236	134
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			357		721	297
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			357		721	297
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			91		35	81
cM capacity (veh/h)			1109		361	715

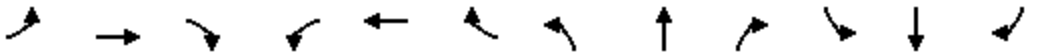
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	357	325	370
Volume Left	0	99	236
Volume Right	121	0	134
cSH	1700	1109	439
Volume to Capacity	0.21	0.09	0.84
Queue Length 95th (m)	0.0	2.2	62.4
Control Delay (s/veh)	0.0	3.2	43.7
Lane LOS		A	E
Approach Delay (s/veh)	0.0	3.2	43.7
Approach LOS			E

Intersection Summary			
Average Delay	16.4		
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	337	9	9	548	49	6	23	7	25	34	13
Future Volume (vph)	18	337	9	9	548	49	6	23	7	25	34	13
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.989			0.974			0.975	
Flt Protected		0.998			0.999			0.992			0.983	
Satd. Flow (prot)	0	1371	0	0	1404	0	0	1282	0	0	1379	0
Flt Permitted		0.998			0.999			0.992			0.983	
Satd. Flow (perm)	0	1371	0	0	1404	0	0	1282	0	0	1379	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	20	383	10	10	623	56	7	26	8	28	39	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	413	0	0	689	0	0	41	0	0	82	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

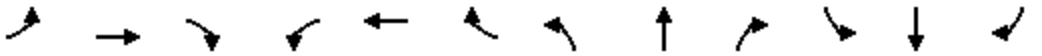
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	337	9	9	548	49	6	23	7	25	34	13
Future Volume (Veh/h)	18	337	9	9	548	49	6	23	7	25	34	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	20	383	10	10	623	56	7	26	8	28	39	15
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	679			393			1134	1127	388	1120	1104	651
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	679			393			1134	1127	388	1120	1104	651
tC, single (s)	4.5			4.1			7.6	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.6			2.2			4.0	4.1	3.3	3.5	4.0	3.5
p0 queue free %	97			99			94	87	99	83	81	97
cM capacity (veh/h)	762			1177			117	193	665	160	205	433

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	413	689	41	82
Volume Left	20	10	7	28
Volume Right	10	56	8	15
cSH	762	1177	199	205
Volume to Capacity	0.03	0.01	0.21	0.40
Queue Length 95th (m)	0.6	0.2	5.7	13.6
Control Delay (s/veh)	0.8	0.2	27.8	33.7
Lane LOS	A	A	D	D
Approach Delay (s/veh)	0.8	0.2	27.8	33.7
Approach LOS			D	D

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	60.7%	ICU Level of Service	B	
Analysis Period (min)	15			

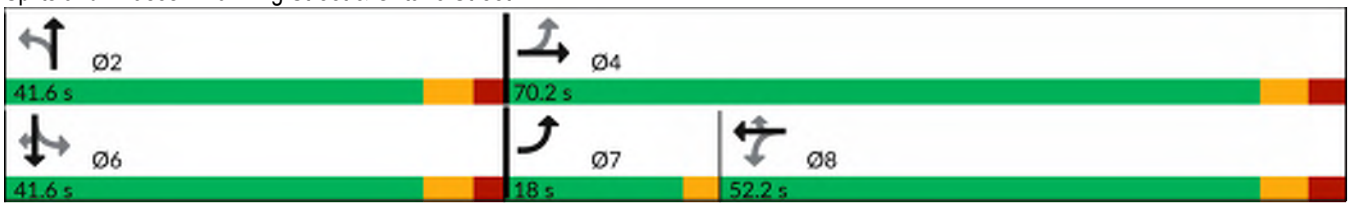


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Future Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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		0.98			1.00	0.92
Frt						0.850						0.850
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	0	1123	1150
Flt Permitted	0.278							0.377			0.757	
Satd. Flow (perm)	403	1376	0	0	1129	1076	0	552	0	0	892	1055
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						128						247
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	192	330	0	0	491	321	2	0	0	343	0	247
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	330	0	0	491	321	0	2	0	0	343	247
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	66.1	61.9			45.0	45.0		35.0			35.0	35.0
Actuated g/C Ratio	0.60	0.56			0.41	0.41		0.32			0.32	0.32
v/c Ratio	0.53	0.43			1.07	0.63		0.01			1.22	0.49
Control Delay (s/veh)	16.1	16.3			95.6	21.7		27.0			160.8	7.3
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	16.1	16.3			95.6	21.7		27.0			160.8	7.3
LOS	B	B			F	C		C			F	A
Approach Delay (s/veh)		16.2			66.4			27.0			96.5	
Approach LOS		B			E			C			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 110.7			
Natural Cycle: 145			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay (s/veh): 62.0		Intersection LOS: E	
Intersection Capacity Utilization 98.1%		ICU Level of Service F	
Analysis Period (min) 15			

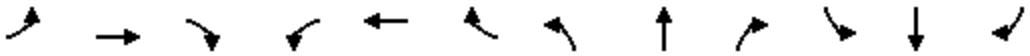
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Future Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95		1.00			1.00	0.92
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.98			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	1376	1376			1129	1076		1391			1119	1055
Flt Permitted	0.28	1.00			1.00	1.00		0.38			0.76	1.00
Satd. Flow (perm)	403	1376			1129	1076		552			891	1055
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	192	330	0	0	491	321	2	0	0	343	0	247
RTOR Reduction (vph)	0	0	0	0	0	76	0	0	0	0	0	169
Lane Group Flow (vph)	192	330	0	0	491	245	0	2	0	0	343	78
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	61.9	61.9			45.0	45.0		35.0			35.0	35.0
Effective Green, g (s)	61.9	61.9			45.0	45.0		35.0			35.0	35.0
Actuated g/C Ratio	0.56	0.56			0.41	0.41		0.32			0.32	0.32
Clearance Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8		2.5			4.0	4.0
Lane Grp Cap (vph)	347	769			458	437		174			281	333
v/s Ratio Prot	c0.07	0.24			c0.43							
v/s Ratio Perm	0.24					0.23		0.00			c0.38	0.07
v/c Ratio	0.55	0.43			1.07	0.56		0.01			1.22	0.23
Uniform Delay, d1	15.1	14.2			32.9	25.3		26.0			37.9	28.0
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	1.5	0.3			62.7	1.5		0.1			127.0	1.6
Delay (s)	16.6	14.5			95.5	26.8		26.1			164.8	29.6
Level of Service	B	B			F	C		C			F	C
Approach Delay (s/veh)		15.3			68.3			26.1			108.2	
Approach LOS		B			E			C			F	

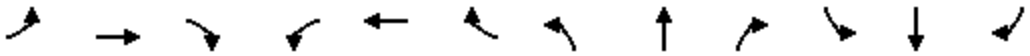
Intersection Summary			
HCM 2000 Control Delay (s/veh)	66.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	110.7	Sum of lost time (s)	16.8
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Future Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.993			0.959			0.975			0.986	
Flt Protected		0.992			0.992			0.997			0.991	
Satd. Flow (prot)	0	1425	0	0	1353	0	0	1425	0	0	1431	0
Flt Permitted		0.992			0.992			0.997			0.991	
Satd. Flow (perm)	0	1425	0	0	1353	0	0	1425	0	0	1431	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	22	114	7	41	144	82	14	213	51	34	126	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	267	0	0	278	0	0	179	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

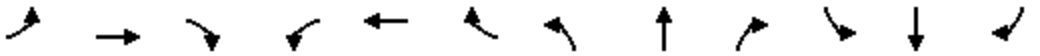
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Future Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	22	114	7	41	144	82	14	213	51	34	126	19

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	143	267	278	179
Volume Left (vph)	22	41	14	34
Volume Right (vph)	7	82	51	19
Hadj (s)	0.06	-0.06	-0.06	0.01
Departure Headway (s)	5.7	5.4	5.3	5.5
Degree Utilization, x	0.23	0.40	0.41	0.28
Capacity (veh/h)	564	621	626	591
Control Delay (s/veh)	10.4	11.9	11.9	10.6
Approach Delay (s/veh)	10.4	11.9	11.9	10.6
Approach LOS	B	B	B	B

Intersection Summary				
Delay		11.4		
Level of Service		B		
Intersection Capacity Utilization		54.0%	ICU Level of Service	A
Analysis Period (min)		15		

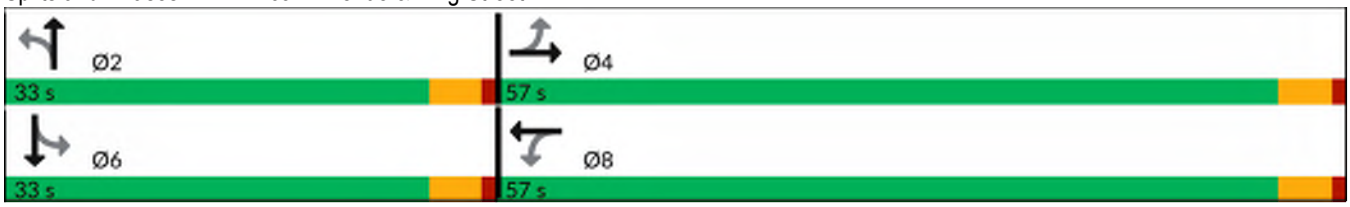


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Future Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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			0.98			0.99	
Frt		0.997			0.984			0.917			0.977	
Flt Protected	0.950			0.950				0.993			0.964	
Satd. Flow (prot)	1445	1386	0	1445	1352	0	0	1341	0	0	1402	0
Flt Permitted	0.227			0.280				0.953			0.745	
Satd. Flow (perm)	345	1386	0	426	1352	0	0	1287	0	0	1076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			12			33			12	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	75	622	11	25	632	78	8	13	33	214	23	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	633	0	25	710	0	0	54	0	0	285	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	47.0	47.0		47.0	47.0			28.7			28.7	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.34			0.34	
v/c Ratio	0.39	0.82		0.11	0.94			0.12			0.77	
Control Delay (s/veh)	17.6	25.8		9.8	39.7			12.3			41.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	17.6	25.8		9.8	39.7			12.3			41.8	
LOS	B	C		A	D			B			D	
Approach Delay (s/veh)		25.0			38.7			12.3			41.8	
Approach LOS		C			D			B			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 84.8			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 32.9		Intersection LOS: C	
Intersection Capacity Utilization 88.7%		ICU Level of Service E	
Analysis Period (min) 15			

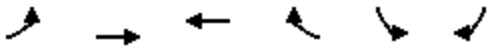
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Future Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.98			0.92			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)	1445	1386		1445	1351			1341			1393	
Flt Permitted	0.23	1.00		0.28	1.00			0.95			0.74	
Satd. Flow (perm)	345	1386		427	1351			1288			1076	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	75	622	11	25	632	78	8	13	33	214	23	48
RTOR Reduction (vph)	0	1	0	0	5	0	0	22	0	0	8	0
Lane Group Flow (vph)	75	632	0	25	705	0	0	32	0	0	277	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	47.0	47.0		47.0	47.0			28.7			28.7	
Effective Green, g (s)	47.0	47.0		47.0	47.0			28.7			28.7	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.34			0.34	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	191	769		236	749			436			364	
v/s Ratio Prot		0.46			c0.52							
v/s Ratio Perm	0.22			0.06				0.02			c0.26	
v/c Ratio	0.39	0.82		0.11	0.94			0.07			0.76	
Uniform Delay, d1	10.7	15.4		8.9	17.6			19.0			24.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.3	7.1		0.2	19.8			0.3			13.9	
Delay (s)	12.1	22.5		9.1	37.4			19.3			38.9	
Level of Service	B	C		A	D			B			D	
Approach Delay (s/veh)		21.4			36.4			19.3			38.9	
Approach LOS		C			D			B			D	

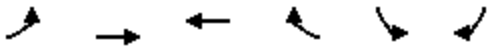
Intersection Summary			
HCM 2000 Control Delay (s/veh)	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	84.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	620	602	28	26	25
Future Volume (vph)	42	620	602	28	26	25
Ideal Flow (vphpl)	1228	1228	1629	1351	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.934	
Flt Protected		0.997			0.975	
Satd. Flow (prot)	0	1214	1615	1138	1339	0
Flt Permitted		0.997			0.975	
Satd. Flow (perm)	0	1214	1615	1138	1339	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	674	654	30	28	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	720	654	30	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

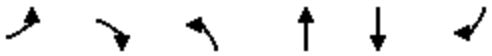
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 104.8%		ICU Level of Service G	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	620	602	28	26	25
Future Volume (Veh/h)	42	620	602	28	26	25
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)	46	674	654	30	28	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked	0.55				0.55	0.55
vC, conflicting volume	684				1420	654
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	25				1355	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				68	96
cM capacity (veh/h)	879				86	600

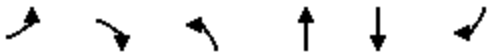
Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	720	654	30	55
Volume Left	46	0	0	28
Volume Right	0	0	30	27
cSH	879	1700	1700	149
Volume to Capacity	0.05	0.38	0.02	0.37
Queue Length 95th (m)	1.3	0.0	0.0	11.8
Control Delay (s/veh)	1.4	0.0	0.0	42.7
Lane LOS	A			E
Approach Delay (s/veh)	1.4	0.0		42.7
Approach LOS				E

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	14	22	134	261	19
Future Volume (vph)	14	14	22	134	261	19
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.991	
Flt Protected	0.976			0.993		
Satd. Flow (prot)	1364	0	0	1202	1353	0
Flt Permitted	0.976			0.993		
Satd. Flow (perm)	1364	0	0	1202	1353	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	16	16	24	149	290	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	173	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	14	22	134	261	19
Future Volume (Veh/h)	14	14	22	134	261	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	16	16	24	149	290	21
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked	0.99					
vC, conflicting volume	498	304	311			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	486	304	311			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	98			
cM capacity (veh/h)	528	739	1261			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	32	173	311
Volume Left	16	24	0
Volume Right	16	0	21
cSH	616	1261	1700
Volume to Capacity	0.05	0.02	0.18
Queue Length 95th (m)	1.2	0.4	0.0
Control Delay (s/veh)	11.2	1.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	11.2	1.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	251	105	190	117	101
Future Volume (vph)	230	251	105	190	117	101
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930				0.938	
Flt Protected				0.983	0.974	
Satd. Flow (prot)	1286	0	0	1167	1339	0
Flt Permitted				0.983	0.974	
Satd. Flow (perm)	1286	0	0	1167	1339	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	280	306	128	232	143	123
Shared Lane Traffic (%)						
Lane Group Flow (vph)	586	0	0	360	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

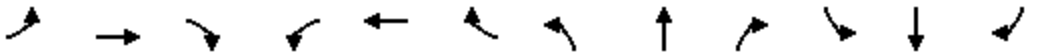
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 88.3%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	230	251	105	190	117	101
Future Volume (Veh/h)	230	251	105	190	117	101
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	280	306	128	232	143	123
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			586		921	433
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			586		921	433
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			87		46	80
cM capacity (veh/h)			989		264	616

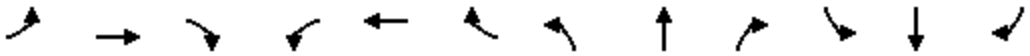
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	586	360	266
Volume Left	0	128	143
Volume Right	306	0	123
cSH	1700	989	358
Volume to Capacity	0.34	0.13	0.74
Queue Length 95th (m)	0.0	3.4	43.8
Control Delay (s/veh)	0.0	4.2	39.0
Lane LOS		A	E
Approach Delay (s/veh)	0.0	4.2	39.0
Approach LOS			E

Intersection Summary			
Average Delay	9.8		
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	610	14	20	588	21	24	46	24	53	41	20
Future Volume (vph)	24	610	14	20	588	21	24	46	24	53	41	20
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.997			0.995			0.965			0.976	
Flt Protected		0.998			0.998			0.987			0.977	
Satd. Flow (prot)	0	1481	0	0	1441	0	0	1300	0	0	1361	0
Flt Permitted		0.998			0.998			0.987			0.977	
Satd. Flow (perm)	0	1481	0	0	1441	0	0	1300	0	0	1361	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	26	656	15	22	632	23	26	49	26	57	44	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	697	0	0	677	0	0	101	0	0	123	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

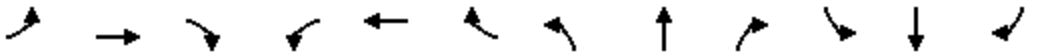
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 76.2%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	610	14	20	588	21	24	46	24	53	41	20
Future Volume (Veh/h)	24	610	14	20	588	21	24	46	24	53	41	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	26	656	15	22	632	23	26	49	26	57	44	22
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	655			671			1447	1415	664	1454	1411	644
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	655			671			1447	1415	664	1454	1411	644
tC, single (s)	4.1			4.3			7.4	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.7	4.1	3.3	3.6	4.0	3.3
p0 queue free %	97			97			60	61	94	15	66	95
cM capacity (veh/h)	942			853			66	127	464	67	129	477

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	697	677	101	123
Volume Left	26	22	26	57
Volume Right	15	23	26	22
cSH	942	853	121	99
Volume to Capacity	0.03	0.03	0.84	1.24
Queue Length 95th (m)	0.6	0.6	38.4	64.0
Control Delay (s/veh)	0.7	0.7	110.6	246.3
Lane LOS	A	A	F	F
Approach Delay (s/veh)	0.7	0.7	110.6	246.3
Approach LOS			F	F

Intersection Summary				
Average Delay	26.6			
Intersection Capacity Utilization	76.2%	ICU Level of Service	D	
Analysis Period (min)	15			

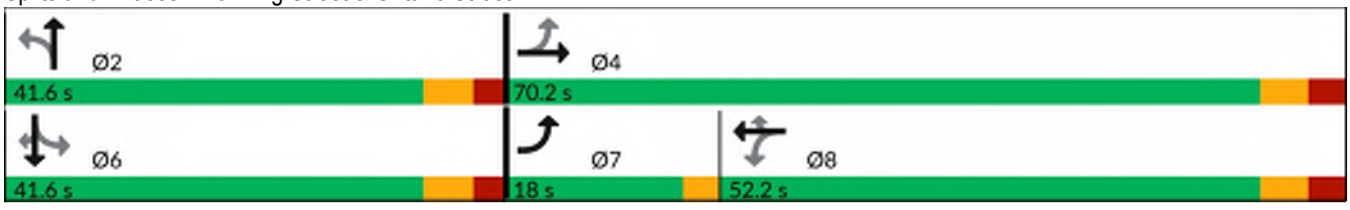


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Future Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	45.0			2.5			2.5			35.0		
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				0.95					0.94	0.96
Frt		0.999				0.850						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	0	1183	1161
Flt Permitted	0.313										0.727	
Satd. Flow (perm)	467	1388	0	0	1229	1083	0	1470	0	0	852	1120
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						169						391
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	274	378	2	0	434	374	0	0	0	430	2	391
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	380	0	0	434	374	0	0	0	0	432	391
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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.35	1.69	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Detector Phase	7	4		8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	9.0	26.2		17.5	17.5	17.5	14.6	14.6		14.6	14.6	14.6
Minimum Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (s)	18.0	70.2		52.2	52.2	52.2	41.6	41.6		41.6	41.6	41.6
Total Split (%)	16.1%	62.8%		46.7%	46.7%	46.7%	37.2%	37.2%		37.2%	37.2%	37.2%
Maximum Green (s)	15.0	63.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	4.1		4.1	4.1	4.1	4.1	4.1		4.1	4.1	4.1
All-Red Time (s)	0.0	3.1		3.1	3.1	3.1	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	7.2			7.2	7.2		6.6			6.6	6.6
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	2.5	2.8		2.8	2.8	2.8	2.5	2.5		4.0	4.0	4.0
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		6.0		6.0	6.0	6.0	3.0	3.0		3.0	3.0	3.0
Flash Don't Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	62.5	58.3			40.7	40.7					35.2	35.2
Actuated g/C Ratio	0.58	0.54			0.38	0.38					0.33	0.33
v/c Ratio	0.69	0.50			0.93	0.73					1.55	0.62
Control Delay (s/veh)	21.0	17.9			60.4	24.0					293.6	7.9
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay (s/veh)	21.0	17.9			60.4	24.0					293.6	7.9
LOS	C	B			E	C					F	A
Approach Delay (s/veh)		19.2			43.6						157.9	
Approach LOS		B			D						F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 111.8			
Actuated Cycle Length: 107.3			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.55			
Intersection Signal Delay (s/veh): 77.8		Intersection LOS: E	
Intersection Capacity Utilization 116.0%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street



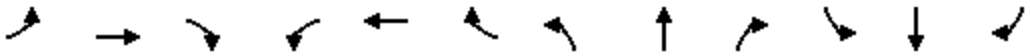
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Future Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1483	1228	1351
Total Lost time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Lane Util. Factor	1.00	1.00			1.00	1.00					1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.95					1.00	0.96
Flpb, ped/bikes	1.00	1.00			1.00	1.00					0.95	1.00
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	1413	1388			1229	1084					1120	1120
Flt Permitted	0.31	1.00			1.00	1.00					0.73	1.00
Satd. Flow (perm)	466	1388			1229	1084					855	1120
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	378	2	0	434	374	0	0	0	430	2	391
RTOR Reduction (vph)	0	0	0	0	0	105	0	0	0	0	0	263
Lane Group Flow (vph)	274	380	0	0	434	269	0	0	0	0	432	128
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm				Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	58.3	58.3			40.8	40.8					35.2	35.2
Effective Green, g (s)	58.3	58.3			40.8	40.8					35.2	35.2
Actuated g/C Ratio	0.54	0.54			0.38	0.38					0.33	0.33
Clearance Time (s)	3.0	7.2			7.2	7.2					6.6	6.6
Vehicle Extension (s)	2.5	2.8			2.8	2.8					4.0	4.0
Lane Grp Cap (vph)	381	754			467	412					280	367
v/s Ratio Prot	c0.10	0.27			c0.35							
v/s Ratio Perm	0.29					0.25					c0.51	0.11
v/c Ratio	0.72	0.50			0.93	0.65					1.54	0.35
Uniform Delay, d1	16.0	15.4			31.9	27.4					36.1	27.4
Progression Factor	1.00	1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2	6.0	0.5			24.8	3.5					261.4	2.6
Delay (s)	21.9	15.9			56.7	31.0					297.4	30.0
Level of Service	C	B			E	C					F	C
Approach Delay (s/veh)		18.4			44.8			0.0			170.4	
Approach LOS		B			D			A			F	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	82.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	107.3	Sum of lost time (s)	16.8
Intersection Capacity Utilization	116.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Future Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.977			0.930			0.993	
Flt Protected		0.998			0.983			0.997			0.985	
Satd. Flow (prot)	0	1455	0	0	1400	0	0	1376	0	0	1448	0
Flt Permitted		0.998			0.983			0.997			0.985	
Satd. Flow (perm)	0	1455	0	0	1400	0	0	1376	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	13	234	15	142	208	70	9	75	91	107	236	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	420	0	0	175	0	0	361	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 95.0%		ICU Level of Service F	
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	
Traffic Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Future Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	12	234	15	142	208	70	9	75	91	107	236	18

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	261	420	175	361
Volume Left (vph)	12	142	9	107
Volume Right (vph)	15	70	91	18
Hadj (s)	0.01	0.02	-0.28	0.05
Departure Headway (s)	6.8	6.4	6.9	6.7
Degree Utilization, x	0.49	0.75	0.34	0.67
Capacity (veh/h)	471	528	433	497
Control Delay (s/veh)	16.3	26.4	13.4	22.3
Approach Delay (s/veh)	16.3	26.4	13.4	22.3
Approach LOS	C	D	B	C

Intersection Summary				
Delay			21.2	
Level of Service			C	
Intersection Capacity Utilization			95.0%	ICU Level of Service
Analysis Period (min)			15	

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	4.0	1.0	12.8	16.5
Average Queue (m)	1.5	0.2	5.8	12.1
95th Queue (m)	6.5	1.4	14.0	19.4
Link Distance (m)	42.5	910.8	554.8	15.1
Upstream Blk Time (%)				9
Queuing Penalty (veh)				9
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	1.0	10.1
Average Queue (m)	0.2	3.5
95th Queue (m)	1.8	14.2
Link Distance (m)	36.4	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	8.4	28.9
Average Queue (m)	4.0	18.0
95th Queue (m)	10.4	29.6
Link Distance (m)	474.4	966.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	4.2	2.6	9.2	11.0
Average Queue (m)	1.0	1.0	4.3	6.2
95th Queue (m)	5.9	6.7	11.3	13.5
Link Distance (m)	436.8	836.7	305.8	244.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	29.7	26.7	66.5	22.5	34.5	15.7
Average Queue (m)	19.5	17.6	44.6	19.5	24.9	10.3
95th Queue (m)	34.4	31.4	80.4	28.5	39.5	17.3
Link Distance (m)		910.8	714.4		168.7	168.7
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	18	11	21	2		
Queuing Penalty (veh)	33	13	42	6		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.6	18.9	17.4	14.8
Average Queue (m)	11.2	14.8	12.4	11.3
95th Queue (m)	20.2	22.3	18.8	16.5
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	2.8
Average Queue (m)	0.8
95th Queue (m)	4.5
Link Distance (m)	18.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 103

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.5	4.1	10.2	16.6
Average Queue (m)	3.3	1.1	5.4	14.9
95th Queue (m)	13.7	5.1	12.9	19.6
Link Distance (m)	42.5	910.8	554.8	15.1
Upstream Blk Time (%)				44
Queuing Penalty (veh)				78
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	4.1	1.8	38.5
Average Queue (m)	1.8	0.4	20.2
95th Queue (m)	5.9	3.3	49.7
Link Distance (m)	36.4	15.1	1169.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Lincoln Avenue & South Service Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	2.6	14.3	19.3
Average Queue (m)	0.5	6.2	14.4
95th Queue (m)	3.4	15.8	25.3
Link Distance (m)	577.8	474.4	966.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Mountainview Road & King Street

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	3.5	16.7	10.6
Average Queue (m)	0.7	9.7	8.3
95th Queue (m)	3.4	17.7	12.2
Link Distance (m)	436.8	305.8	244.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	28.7	31.0	77.4	22.5	45.1	30.2
Average Queue (m)	20.0	19.4	49.4	21.2	34.0	18.1
95th Queue (m)	32.9	36.6	85.4	26.1	53.2	31.6
Link Distance (m)		910.8	714.4		168.7	168.7
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	28	12	23	7		
Queuing Penalty (veh)	58	21	57	16		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	19.5	21.5	17.5	18.8
Average Queue (m)	12.8	15.3	10.6	14.2
95th Queue (m)	20.3	24.0	17.6	21.0
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	7.3
Average Queue (m)	3.5
95th Queue (m)	9.6
Link Distance (m)	18.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 230

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	8.1	23.2	16.1	75.8	13.8	14.6
Average Queue (m)	3.3	13.0	3.9	45.1	6.5	10.8
95th Queue (m)	9.4	30.1	23.3	82.7	14.8	18.2
Link Distance (m)		43.3		910.8	554.8	14.6
Upstream Blk Time (%)		0				15
Queuing Penalty (veh)		0				18
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	0	5		20		
Queuing Penalty (veh)	0	1		3		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	3.0	1.8	25.4
Average Queue (m)	1.2	0.4	7.0
95th Queue (m)	4.7	3.2	24.5
Link Distance (m)	36.4	14.6	1169.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Lincoln Avenue & South Service Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	16.4	36.5
Average Queue (m)	7.8	22.9
95th Queue (m)	19.3	38.6
Link Distance (m)	474.4	966.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Mountainview Road & King Street

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	6.2	13.7	14.1
Average Queue (m)	1.4	6.7	8.8
95th Queue (m)	10.1	16.8	16.4
Link Distance (m)	437.1	305.8	244.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	LT	R
Maximum Queue (m)	38.3	46.2	141.2	22.5	1.7	65.7	26.2
Average Queue (m)	21.9	24.4	108.4	20.5	0.3	39.9	14.5
95th Queue (m)	40.9	52.8	192.0	27.5	3.1	70.5	28.2
Link Distance (m)		910.8	714.4		24.2	168.7	168.7
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0			
Storage Blk Time (%)	22	12	43	2			
Queuing Penalty (veh)	52	17	98	7			

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	17.4	23.2	17.0	19.8
Average Queue (m)	11.5	15.9	13.8	12.9
95th Queue (m)	21.4	26.6	19.6	21.7
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	7.3
Average Queue (m)	2.5
95th Queue (m)	8.0
Link Distance (m)	16.5
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 195

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	12.4	41.5	4.2	62.3	9.9	15.0
Average Queue (m)	5.8	28.4	1.8	47.9	5.1	13.8
95th Queue (m)	14.3	48.4	5.7	73.8	11.8	17.8
Link Distance (m)		43.3		910.8	554.8	14.6
Upstream Blk Time (%)		2				23
Queuing Penalty (veh)		9				46
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	1	17		26		
Queuing Penalty (veh)	5	5		5		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	5.1	32.4
Average Queue (m)	2.6	13.4
95th Queue (m)	6.7	34.1
Link Distance (m)	36.4	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	3.9	10.2	22.0
Average Queue (m)	1.1	7.1	15.3
95th Queue (m)	5.0	13.9	25.0
Link Distance (m)	577.8	474.4	966.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.5	8.5	21.0	20.6
Average Queue (m)	2.8	2.6	12.3	14.0
95th Queue (m)	14.0	10.8	24.1	23.0
Link Distance (m)	437.1	835.5	305.8	244.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	46.1	53.2	110.0	22.5	66.6	29.8
Average Queue (m)	30.5	29.3	78.3	20.7	47.0	20.1
95th Queue (m)	54.9	59.1	136.3	27.0	76.4	33.7
Link Distance (m)		910.8	714.4		168.7	168.7
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	39	18	36	5		
Queuing Penalty (veh)	111	37	101	15		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	22.5	21.5	18.4	19.9
Average Queue (m)	14.6	15.6	12.7	16.8
95th Queue (m)	25.4	24.4	19.7	22.0
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	18.6	7.3
Average Queue (m)	5.4	3.7
95th Queue (m)	20.8	9.7
Link Distance (m)	835.5	16.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 334

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	7.8	34.6	6.4	66.6	14.0	16.5
Average Queue (m)	3.2	15.9	2.3	43.8	6.8	12.1
95th Queue (m)	8.5	35.3	7.2	74.2	16.6	20.3
Link Distance (m)		43.3		910.8	554.8	14.6
Upstream Blk Time (%)		0				15
Queuing Penalty (veh)		1				19
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)		6	0	17		
Queuing Penalty (veh)		1	0	3		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	4.9	23.8
Average Queue (m)	1.0	10.2
95th Queue (m)	4.3	29.0
Link Distance (m)	36.4	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.4	15.1	37.8
Average Queue (m)	0.3	6.1	22.9
95th Queue (m)	2.5	16.6	39.5
Link Distance (m)	577.8	474.4	966.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.9	10.8	11.8	14.0
Average Queue (m)	2.8	2.5	6.0	7.7
95th Queue (m)	13.7	12.5	13.4	15.8
Link Distance (m)	437.1	835.5	305.8	244.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	LT	R
Maximum Queue (m)	32.2	34.7	140.4	22.5	3.4	54.6	26.4
Average Queue (m)	20.5	22.4	106.4	20.9	0.7	35.8	15.6
95th Queue (m)	35.3	38.1	172.2	27.6	4.5	63.2	27.5
Link Distance (m)		910.8	714.4		24.2	168.7	168.7
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0			
Storage Blk Time (%)	24	13	46	2			
Queuing Penalty (veh)	60	19	112	9			

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.6	18.8	20.4	18.3
Average Queue (m)	10.1	13.5	14.8	12.8
95th Queue (m)	17.7	20.6	22.7	20.1
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	4.4
Average Queue (m)	1.5
95th Queue (m)	6.3
Link Distance (m)	16.5
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 224

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	15.9	42.1	6.7	73.7	8.7	15.0
Average Queue (m)	6.0	31.3	3.2	45.9	5.0	13.9
95th Queue (m)	19.9	49.1	9.5	81.5	11.4	18.2
Link Distance (m)		43.3		910.8	554.8	14.6
Upstream Blk Time (%)	0	2				20
Queuing Penalty (veh)	0	9				43
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	0	20	0	26		
Queuing Penalty (veh)	0	6	0	5		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	4.1	33.6
Average Queue (m)	1.8	17.4
95th Queue (m)	5.9	40.1
Link Distance (m)	36.4	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	10.0	21.9
Average Queue (m)	6.3	16.5
95th Queue (m)	12.8	24.5
Link Distance (m)	474.4	966.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	5.4	23.8	22.0	22.2
Average Queue (m)	1.5	8.0	12.7	12.8
95th Queue (m)	6.2	28.9	24.1	27.4
Link Distance (m)	437.1	835.5	305.8	244.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	50.7	60.2	109.2	22.5	64.0	52.5
Average Queue (m)	27.7	32.1	78.9	22.1	47.6	29.1
95th Queue (m)	51.5	65.9	121.7	24.2	78.9	55.8
Link Distance (m)		910.8	714.4		168.7	168.7
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	36	18	37	6		
Queuing Penalty (veh)	109	39	111	20		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	19.0	23.1	13.8	20.2
Average Queue (m)	13.8	17.0	10.8	15.8
95th Queue (m)	21.2	24.9	16.0	22.7
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	10.8	12.7
Average Queue (m)	3.5	5.8
95th Queue (m)	15.2	16.2
Link Distance (m)	835.5	16.5
Upstream Blk Time (%)		3
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 345

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	8.3	25.8	5.2	53.6	11.0	16.6
Average Queue (m)	3.3	16.7	2.1	38.3	5.9	13.6
95th Queue (m)	9.6	33.3	6.2	58.9	12.7	18.7
Link Distance (m)		43.3		910.8	554.8	14.6
Upstream Blk Time (%)		0				20
Queuing Penalty (veh)		0				30
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	0	7		20		
Queuing Penalty (veh)	0	1		3		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	4.1	20.1
Average Queue (m)	0.8	9.2
95th Queue (m)	3.9	25.0
Link Distance (m)	36.4	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.3	19.7	41.0
Average Queue (m)	0.3	10.3	27.0
95th Queue (m)	2.4	24.2	44.8
Link Distance (m)	577.8	474.4	966.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	8.9	7.4	13.4	14.1
Average Queue (m)	2.7	2.0	8.8	8.5
95th Queue (m)	10.6	11.4	16.7	15.1
Link Distance (m)	437.1	835.5	305.8	244.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	LT	R
Maximum Queue (m)	30.8	50.4	285.7	22.5	5.1	64.2	24.0
Average Queue (m)	20.1	31.3	211.3	19.3	1.5	44.2	14.4
95th Queue (m)	32.9	55.8	375.9	30.0	6.6	70.6	25.5
Link Distance (m)		910.8	714.4		24.2	168.7	168.7
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0			
Storage Blk Time (%)	30	18	47	8			
Queuing Penalty (veh)	85	30	132	33			

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.5	22.1	19.9	16.2
Average Queue (m)	10.6	16.6	15.0	12.1
95th Queue (m)	16.2	24.0	21.6	18.6
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	1.6	5.7
Average Queue (m)	0.3	1.4
95th Queue (m)	3.0	6.0
Link Distance (m)	835.5	16.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 315

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	23.1	46.9	15.2	72.6	16.6	15.3
Average Queue (m)	8.0	38.4	3.5	46.7	8.4	14.6
95th Queue (m)	25.9	56.9	23.1	81.7	19.8	15.5
Link Distance (m)		43.3		910.8	554.8	14.6
Upstream Blk Time (%)	0	7				32
Queuing Penalty (veh)	0	40				80
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	1	28	0	27		
Queuing Penalty (veh)	3	10	0	6		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	5.2	6.8	44.6
Average Queue (m)	2.2	1.4	25.8
95th Queue (m)	7.0	7.6	56.3
Link Distance (m)	36.4	14.6	1169.2
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Lincoln Avenue & South Service Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	2.7	26.0	25.9
Average Queue (m)	0.8	10.3	17.0
95th Queue (m)	4.4	27.1	27.8
Link Distance (m)	577.8	474.4	966.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.6	16.0	30.1	29.1
Average Queue (m)	3.0	4.1	15.0	17.1
95th Queue (m)	14.2	16.9	33.6	38.9
Link Distance (m)	437.1	835.5	305.8	244.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	54.4	71.8	337.6	22.2	105.8	49.7
Average Queue (m)	40.3	43.5	255.8	21.2	86.0	28.8
95th Queue (m)	59.2	75.6	445.0	25.9	133.9	55.0
Link Distance (m)		910.8	714.4		168.7	168.7
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	64	19	54	6		
Queuing Penalty (veh)	220	48	185	24		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	19.4	33.4	17.4	24.0
Average Queue (m)	14.8	23.5	12.9	18.3
95th Queue (m)	21.3	39.2	19.3	25.8
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	24.1	8.4
Average Queue (m)	8.0	5.3
95th Queue (m)	25.3	11.2
Link Distance (m)	835.5	16.5
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 615

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	12.6	31.4	2.8	75.2	16.4	15.5
Average Queue (m)	6.8	17.8	0.8	40.7	8.7	12.5
95th Queue (m)	17.9	34.7	3.6	83.3	18.3	20.8
Link Distance (m)		44.5		910.8	554.8	15.0
Upstream Blk Time (%)		0				20
Queuing Penalty (veh)		1				26
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	5	9		15		
Queuing Penalty (veh)	14	3		2		

Intersection: 2: King Street & King Street Future Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	8.5	12.1
Average Queue (m)	2.4	7.4
95th Queue (m)	9.7	14.8
Link Distance (m)	775.1	16.4
Upstream Blk Time (%)		2
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	3.1	31.7
Average Queue (m)	0.6	13.1
95th Queue (m)	3.3	40.7
Link Distance (m)	36.4	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	13.9	32.9
Average Queue (m)	5.0	21.0
95th Queue (m)	15.2	35.4
Link Distance (m)	474.4	966.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	5.9	1.2	11.8	13.1
Average Queue (m)	1.8	0.3	7.1	7.0
95th Queue (m)	7.7	2.2	15.7	16.2
Link Distance (m)	436.8	775.1	305.8	244.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	LT	R
Maximum Queue (m)	26.4	41.2	115.2	22.6	3.4	61.3	24.1
Average Queue (m)	17.9	24.7	96.4	18.7	0.7	35.0	14.7
95th Queue (m)	32.2	47.8	145.2	29.4	4.4	66.1	26.2
Link Distance (m)		910.8	713.6		34.0	593.8	593.8
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0			
Storage Blk Time (%)	21	14	43	1			
Queuing Penalty (veh)	50	19	97	4			

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	12.2	21.4	18.9	16.2
Average Queue (m)	10.2	15.2	14.2	12.7
95th Queue (m)	14.3	23.0	22.1	18.4
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	11.9	1.7
Average Queue (m)	3.5	0.7
95th Queue (m)	16.6	4.4
Link Distance (m)	53.0	9.9
Upstream Blk Time (%)		1
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 216

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	12.6	40.2	5.3	68.4	9.0	17.6
Average Queue (m)	5.8	28.1	2.9	38.8	5.3	14.8
95th Queue (m)	14.2	46.3	7.8	76.9	11.5	21.2
Link Distance (m)		44.5		910.8	554.8	15.0
Upstream Blk Time (%)		1				27
Queuing Penalty (veh)		3				60
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	1	17	0	21		
Queuing Penalty (veh)	5	8	0	4		

Intersection: 2: King Street & King Street Future Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	28.0	7.5
Average Queue (m)	9.3	4.2
95th Queue (m)	30.5	9.8
Link Distance (m)	775.1	16.4
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	6.8	42.4
Average Queue (m)	2.3	21.3
95th Queue (m)	7.6	48.2
Link Distance (m)	36.4	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	12.4	18.6
Average Queue (m)	5.9	14.7
95th Queue (m)	14.0	21.3
Link Distance (m)	474.4	966.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	6.7	11.0	25.0	25.3
Average Queue (m)	1.7	3.2	13.7	15.6
95th Queue (m)	8.1	14.6	29.8	25.9
Link Distance (m)	436.8	775.1	305.8	244.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	50.7	50.8	121.0	22.7	63.4	38.3
Average Queue (m)	29.8	31.8	85.7	20.1	42.2	23.0
95th Queue (m)	51.4	55.2	155.7	30.1	67.5	41.4
Link Distance (m)		910.8	713.6		593.8	593.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	38	22	39	3		
Queuing Penalty (veh)	113	45	108	11		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.8	24.7	17.7	23.4
Average Queue (m)	14.0	18.1	13.1	17.1
95th Queue (m)	21.8	28.5	21.7	25.3
Link Distance (m)	441.4	636.2	1169.2	966.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	1.8	10.9
Average Queue (m)	0.4	4.6
95th Queue (m)	3.3	12.9
Link Distance (m)	53.0	9.9
Upstream Blk Time (%)		4
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 358

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	9.9	32.5	5.1	57.8	12.6	15.1
Average Queue (m)	3.3	16.1	1.6	35.0	6.4	12.4
95th Queue (m)	10.2	36.8	6.4	64.6	15.4	16.9
Link Distance (m)		79.4		910.8	554.8	10.6
Upstream Blk Time (%)						18
Queuing Penalty (veh)						27
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	1	8	0	18		
Queuing Penalty (veh)	3	3	0	3		

Intersection: 2: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	3.2	11.0
Average Queue (m)	0.6	6.7
95th Queue (m)	4.2	14.4
Link Distance (m)	800.5	17.0
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	5.1	1.8	20.6
Average Queue (m)	3.0	0.4	7.1
95th Queue (m)	7.0	3.4	22.4
Link Distance (m)	26.2	10.6	1169.2
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Lincoln Avenue & South Service Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	15.1	33.0
Average Queue (m)	6.9	22.5
95th Queue (m)	16.2	35.6
Link Distance (m)	474.3	965.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Mountainview Road & King Street

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	15.6	10.4	15.2
Average Queue (m)	4.3	5.4	8.6
95th Queue (m)	20.6	12.8	17.7
Link Distance (m)	436.8	305.8	244.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	LT	R
Maximum Queue (m)	39.2	44.1	191.7	22.4	1.7	57.8	20.4
Average Queue (m)	25.4	26.4	117.0	20.9	0.3	40.8	12.7
95th Queue (m)	46.8	51.9	229.2	27.2	3.1	65.6	21.7
Link Distance (m)		910.8	714.5		25.8	168.7	168.7
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0			
Storage Blk Time (%)	36	16	39	2			
Queuing Penalty (veh)	90	23	95	8			

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.7	23.4	17.9	14.5
Average Queue (m)	11.7	15.0	13.2	11.6
95th Queue (m)	20.7	25.1	20.1	18.2
Link Distance (m)	460.4	629.5	1169.2	965.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 251

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	26.5	59.7	16.6	67.4	12.8	14.2
Average Queue (m)	11.4	37.1	5.6	40.7	6.1	13.5
95th Queue (m)	36.6	70.7	25.3	77.8	14.8	15.8
Link Distance (m)		79.4		910.8	554.8	10.6
Upstream Blk Time (%)		0				33
Queuing Penalty (veh)		1				80
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	9	19	0	22		
Queuing Penalty (veh)	47	12	0	4		

Intersection: 2: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	34.4	17.4
Average Queue (m)	13.5	10.1
95th Queue (m)	41.6	19.8
Link Distance (m)	800.5	17.0
Upstream Blk Time (%)		5
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	8.8	3.6	34.3
Average Queue (m)	4.3	0.7	17.6
95th Queue (m)	12.3	4.7	36.9
Link Distance (m)	26.2	10.6	1169.2
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Lincoln Avenue & South Service Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	12.9	28.3
Average Queue (m)	6.5	17.1
95th Queue (m)	14.9	30.2
Link Distance (m)	474.3	965.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	8.4	8.8	22.0	20.1
Average Queue (m)	2.5	1.8	12.3	12.8
95th Queue (m)	9.7	10.4	24.0	21.8
Link Distance (m)	436.8	800.5	305.8	244.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	54.0	79.8	175.4	22.5	69.8	34.9
Average Queue (m)	39.4	50.3	131.2	20.3	50.5	22.8
95th Queue (m)	64.9	126.2	233.0	28.9	80.4	40.8
Link Distance (m)		910.8	714.5		168.7	168.7
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	55	19	43	8		
Queuing Penalty (veh)	171	42	129	27		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.8	23.6	17.6	20.2
Average Queue (m)	12.8	17.9	12.1	15.3
95th Queue (m)	20.2	23.6	18.7	22.5
Link Distance (m)	460.4	629.5	1169.2	965.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 513

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	7.4	35.1	16.1	73.4	14.3	15.6
Average Queue (m)	2.5	20.0	4.3	42.0	8.5	13.8
95th Queue (m)	8.7	41.7	23.5	79.7	18.0	16.8
Link Distance (m)		79.4		910.8	554.8	10.6
Upstream Blk Time (%)						30
Queuing Penalty (veh)						51
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	0	9		16		
Queuing Penalty (veh)	0	3		3		

Intersection: 2: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	10.8	15.2
Average Queue (m)	2.8	8.9
95th Queue (m)	12.7	16.0
Link Distance (m)	800.5	17.0
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	7.8	1.8	31.6
Average Queue (m)	3.5	0.4	15.1
95th Queue (m)	9.9	3.3	37.3
Link Distance (m)	26.2	10.6	1169.2
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Lincoln Avenue & South Service Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.2	14.4	34.2
Average Queue (m)	0.2	6.6	22.1
95th Queue (m)	2.2	17.6	37.4
Link Distance (m)	577.9	474.3	965.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.1	6.1	16.0	18.2
Average Queue (m)	4.5	1.5	8.2	10.8
95th Queue (m)	16.2	7.6	18.6	19.7
Link Distance (m)	436.8	800.5	305.8	244.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	LT	R
Maximum Queue (m)	43.0	46.0	295.6	22.5	3.4	70.4	26.2
Average Queue (m)	26.8	30.3	215.4	18.5	1.2	47.5	15.0
95th Queue (m)	48.2	51.5	438.1	29.9	5.7	79.6	28.2
Link Distance (m)		910.8	714.5		25.8	168.7	168.7
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0			
Storage Blk Time (%)	35	18	52	2			
Queuing Penalty (veh)	100	30	146	10			

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.8	23.8	19.9	17.2
Average Queue (m)	12.9	14.7	14.4	13.4
95th Queue (m)	20.9	26.6	22.1	19.4
Link Distance (m)	460.4	629.5	1169.2	965.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 344

Intersection: 1: Lincoln Avenue & King Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	21.2	61.0	18.5	72.6	14.4	15.5
Average Queue (m)	10.5	38.3	5.7	46.8	6.0	14.2
95th Queue (m)	25.2	71.6	24.7	83.3	15.9	16.5
Link Distance (m)		79.4		910.8	554.8	10.6
Upstream Blk Time (%)						44
Queuing Penalty (veh)						121
Storage Bay Dist (m)	16.0		16.0			
Storage Blk Time (%)	14	18	0	27		
Queuing Penalty (veh)	78	12	0	6		

Intersection: 2: King Street Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	28.5	12.4
Average Queue (m)	10.3	8.4
95th Queue (m)	29.7	16.6
Link Distance (m)	800.5	17.0
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Lincoln Avenue Site Access

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (m)	8.1	71.8
Average Queue (m)	4.0	43.6
95th Queue (m)	10.2	86.8
Link Distance (m)	26.2	1169.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Lincoln Avenue & South Service Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	5.8	15.4	28.8
Average Queue (m)	1.9	9.4	19.8
95th Queue (m)	8.3	18.5	32.5
Link Distance (m)	577.9	474.3	965.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Mountainview Road & King Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.1	13.9	18.2	26.8
Average Queue (m)	4.9	3.2	11.5	15.6
95th Queue (m)	16.3	16.6	22.0	29.2
Link Distance (m)	436.8	800.5	305.8	244.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: King Street & Ontario Street

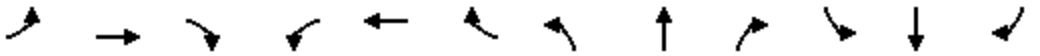
Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	LT	R
Maximum Queue (m)	55.0	56.2	303.7	22.5	104.5	44.9
Average Queue (m)	38.5	39.4	242.8	20.0	66.9	29.1
95th Queue (m)	61.2	69.4	380.1	30.2	111.2	52.1
Link Distance (m)		910.8	714.5		168.7	168.7
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0		
Storage Blk Time (%)	53	24	50	7		
Queuing Penalty (veh)	185	62	173	29		

Intersection: 7: Lincoln Avenue & Greenlane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	22.4	36.3	18.5	23.8
Average Queue (m)	15.6	22.9	13.3	19.4
95th Queue (m)	24.8	40.4	22.4	25.9
Link Distance (m)	460.4	629.5	1169.2	965.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 666

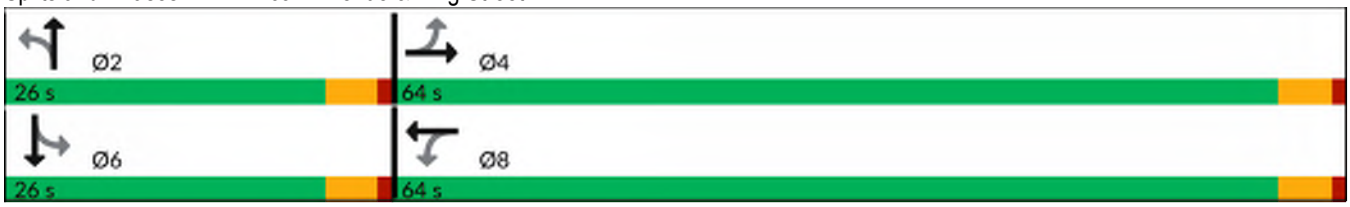


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Future Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.973			0.954			0.973	
Flt Protected	0.950			0.950				0.995			0.968	
Satd. Flow (prot)	1278	1304	0	1445	1320	0	0	1316	0	0	1370	0
Flt Permitted	0.264			0.516				0.975			0.777	
Satd. Flow (perm)	355	1304	0	785	1320	0	0	1289	0	0	1098	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			26			19			13	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		66.8			934.2			571.7			34.1	
Travel Time (s)		4.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	37	336	6	17	554	120	6	31	19	104	20	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	342	0	17	674	0	0	56	0	0	155	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	40.2	40.2		40.2	40.2			22.3			22.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.31			0.31	
v/c Ratio	0.19	0.47		0.04	0.90			0.14			0.44	
Control Delay (s/veh)	9.0	10.8		6.0	29.0			18.5			27.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	9.0	10.8		6.0	29.0			18.5			27.7	
LOS	A	B		A	C			B			C	
Approach Delay (s/veh)		10.6			28.4			18.5			27.7	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 71.8			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 22.6		Intersection LOS: C	
Intersection Capacity Utilization 64.9%		ICU Level of Service C	
Analysis Period (min) 15			

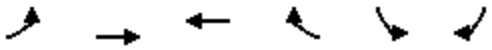
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Future Volume (vph)	31	279	5	14	460	100	5	26	16	86	17	26
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1278	1304		1445	1320			1316			1368	
Flt Permitted	0.26	1.00		0.52	1.00			0.97			0.78	
Satd. Flow (perm)	355	1304		785	1320			1290			1099	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	37	336	6	17	554	120	6	31	19	104	20	31
RTOR Reduction (vph)	0	1	0	0	11	0	0	13	0	0	9	0
Lane Group Flow (vph)	37	341	0	17	663	0	0	43	0	0	146	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	40.1	40.1		40.1	40.1			22.3			22.3	
Effective Green, g (s)	40.1	40.1		40.1	40.1			22.3			22.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.31			0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	199	732		440	741			402			343	
v/s Ratio Prot		0.26			c0.50							
v/s Ratio Perm	0.10			0.02				0.03			c0.13	
v/c Ratio	0.19	0.47		0.04	0.89			0.11			0.43	
Uniform Delay, d1	7.7	9.3		7.0	13.8			17.5			19.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.5		0.0	13.2			0.5			3.8	
Delay (s)	8.1	9.8		7.0	27.0			18.0			23.3	
Level of Service	A	A		A	C			B			C	
Approach Delay (s/veh)		9.6			26.5			18.0			23.3	
Approach LOS		A			C			B			C	

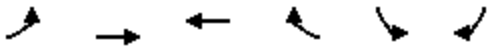
Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	71.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	298	490	8	20	30
Future Volume (vph)	13	298	490	8	20	30
Ideal Flow (vphpl)	1504	1629	1629	1351	1483	1483
Storage Length (m)	25.0			0.0	0.0	0.0
Storage Lanes	1			1	1	0
Taper Length (m)	55.0				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.919	
Flt Protected	0.950				0.980	
Satd. Flow (prot)	1416	1615	1615	1138	1324	0
Flt Permitted	0.950				0.980	
Satd. Flow (perm)	1416	1615	1615	1138	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		787.4	65.8		26.0	
Travel Time (s)		47.2	3.9		1.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	324	533	9	22	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	324	533	9	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.32	1.20	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

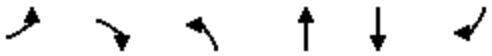
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	298	490	8	20	30
Future Volume (Veh/h)	13	298	490	8	20	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)	14	324	533	9	22	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			133			
pX, platoon unblocked						
vC, conflicting volume	542				885	533
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	542				885	533
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				93	94
cM capacity (veh/h)	1027				311	547

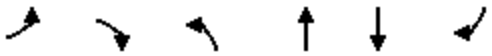
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	14	324	533	9	55
Volume Left	14	0	0	0	22
Volume Right	0	0	0	9	33
cSH	1027	1700	1700	1700	420
Volume to Capacity	0.01	0.19	0.31	0.01	0.13
Queue Length 95th (m)	0.3	0.0	0.0	0.0	3.4
Control Delay (s/veh)	8.6	0.0	0.0	0.0	14.9
Lane LOS	A				B
Approach Delay (s/veh)	0.4		0.0		14.9
Approach LOS					B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	0	2	157	129	6
Future Volume (vph)	5	0	2	157	129	6
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.994	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1425	0	0	1193	1356	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1425	0	0	1193	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	4%	3%	0%
Adj. Flow (vph)	6	0	2	176	145	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	178	152	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	0	2	157	129	6
Future Volume (Veh/h)	5	0	2	157	129	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	0	2	176	145	7
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	329	152	152			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	329	152	152			
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	100	100			
cM capacity (veh/h)	669	892	1441			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	6	178	152
Volume Left	6	2	0
Volume Right	0	0	7
cSH	669	1441	1700
Volume to Capacity	0.01	0.00	0.09
Queue Length 95th (m)	0.2	0.0	0.0
Control Delay (s/veh)	10.4	0.1	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.4	0.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		26.2%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	165	89	69	158	165	94
Future Volume (vph)	165	89	69	158	165	94
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.951	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1282	0	0	1116	1307	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1282	0	0	1116	1307	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	192	103	80	184	192	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	295	0	0	264	301	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

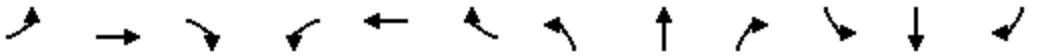
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.2%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	165	89	69	158	165	94
Future Volume (Veh/h)	165	89	69	158	165	94
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	192	103	80	184	192	109
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			295		588	244
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			295		588	244
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			93		56	86
cM capacity (veh/h)			1170		441	767

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	295	264	301
Volume Left	0	80	192
Volume Right	103	0	109
cSH	1700	1170	521
Volume to Capacity	0.17	0.07	0.58
Queue Length 95th (m)	0.0	1.7	27.5
Control Delay (s/veh)	0.0	3.0	20.9
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.0	20.9
Approach LOS			C

Intersection Summary			
Average Delay		8.2	
Intersection Capacity Utilization		67.2%	ICU Level of Service C
Analysis Period (min)		15	

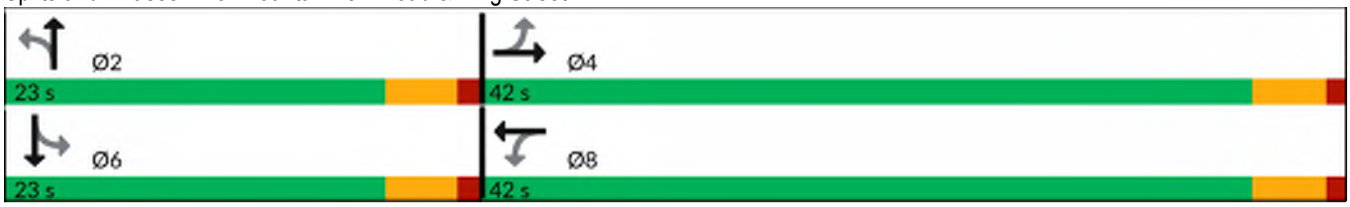


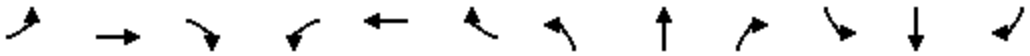
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	284	7	7	463	41	5	19	6	20	28	11
Future Volume (vph)	15	284	7	7	463	41	5	19	6	20	28	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.989			0.973			0.974	
Flt Protected		0.998			0.999			0.992			0.983	
Satd. Flow (prot)	0	1371	0	0	1404	0	0	1281	0	0	1375	0
Flt Permitted		0.968			0.995			0.969			0.925	
Satd. Flow (perm)	0	1330	0	0	1399	0	0	1251	0	0	1294	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			12			7			13	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			787.4			314.9			254.1	
Travel Time (s)		26.8			47.2			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	17	323	8	8	526	47	6	22	7	23	32	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	348	0	0	581	0	0	35	0	0	68	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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	42.0	42.0		42.0	42.0		23.0	23.0		23.0	23.0	
Total Split (%)	64.6%	64.6%		64.6%	64.6%		35.4%	35.4%		35.4%	35.4%	
Maximum Green (s)	37.5	37.5		37.5	37.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		26.3			26.3			18.9			18.9	
Actuated g/C Ratio		0.48			0.48			0.35			0.35	
v/c Ratio		0.54			0.85			0.08			0.15	
Control Delay (s/veh)		12.6			24.7			14.1			14.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		12.6			24.7			14.1			14.4	
LOS		B			C			B			B	
Approach Delay (s/veh)		12.6			24.7			14.1			14.4	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 54.5			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay (s/veh): 19.6		Intersection LOS: B	
Intersection Capacity Utilization 52.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Mountainview Road & King Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	284	7	7	463	41	5	19	6	20	28	11
Future Volume (vph)	15	284	7	7	463	41	5	19	6	20	28	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.97			0.97	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1371			1405			1280			1376	
Flt Permitted		0.97			1.00			0.97			0.92	
Satd. Flow (perm)		1330			1399			1251			1294	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	17	323	8	8	526	47	6	22	7	23	32	12
RTOR Reduction (vph)	0	2	0	0	6	0	0	5	0	0	8	0
Lane Group Flow (vph)	0	346	0	0	575	0	0	30	0	0	60	0
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.3			26.3			18.9			18.9	
Effective Green, g (s)		26.3			26.3			18.9			18.9	
Actuated g/C Ratio		0.49			0.49			0.35			0.35	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		645			678			436			451	
v/s Ratio Prot												
v/s Ratio Perm		0.26			c0.41			0.02			c0.05	
v/c Ratio		0.54			0.85			0.07			0.13	
Uniform Delay, d1		9.7			12.2			11.8			12.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.9			9.6			0.3			0.6	
Delay (s)		10.6			21.8			12.1			12.7	
Level of Service		B			C			B			B	
Approach Delay (s/veh)		10.6			21.8			12.1			12.7	
Approach LOS		B			C			B			B	

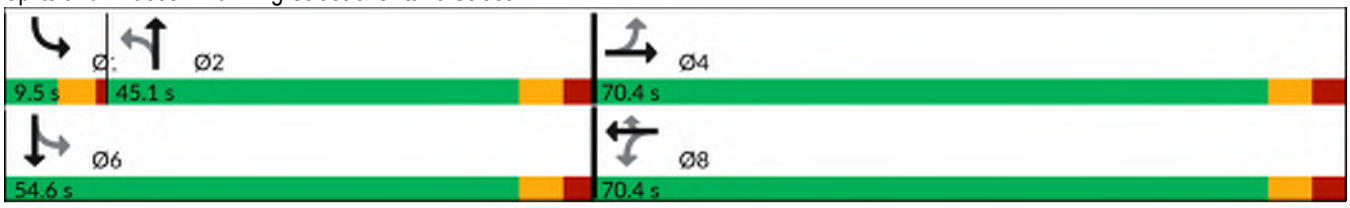
Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

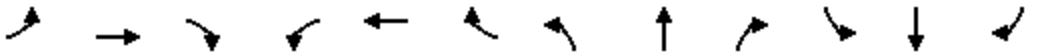
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Future Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	1		0
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99					0.95		0.95		1.00	0.91	
Frt						0.850					0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	1376	1075	0
Flt Permitted	0.375							0.632		0.782		
Satd. Flow (perm)	537	1376	0	0	1129	1072	0	896	0	1128	1075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						130					351	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			43.8			605.8	
Travel Time (s)		67.3			52.0			3.2			43.6	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	157	276	0	0	426	261	2	0	0	278	0	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	276	0	0	426	261	0	2	0	278	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)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.32	1.46	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	26.2	26.2		17.5	17.5	17.5	14.6	14.6		5.0	14.6	
Minimum Split (s)	70.2	70.2		52.2	52.2	52.2	41.6	41.6		9.5	41.6	
Total Split (s)	70.4	70.4		70.4	70.4	70.4	45.1	45.1		9.5	54.6	
Total Split (%)	56.3%	56.3%		56.3%	56.3%	56.3%	36.1%	36.1%		7.6%	43.7%	
Maximum Green (s)	63.2	63.2		63.2	63.2	63.2	38.5	38.5		5.0	48.0	
Yellow Time (s)	4.1	4.1		4.1	4.1	4.1	4.1	4.1		3.5	4.1	
All-Red Time (s)	3.1	3.1		3.1	3.1	3.1	2.5	2.5		1.0	2.5	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.8	2.8		2.8	2.8	2.8	2.5	2.5		3.0	4.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Walk Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	3.0			3.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	
Act Effct Green (s)	44.9	44.9			44.9	44.9		39.1		50.8	48.7	
Actuated g/C Ratio	0.42	0.42			0.42	0.42		0.36		0.47	0.45	
v/c Ratio	0.70	0.48			0.91	0.50		0.01		0.51	0.30	
Control Delay (s/veh)	42.7	24.9			52.6	13.5		28.5		26.8	1.1	
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay (s/veh)	42.7	24.9			52.6	13.5		28.5		26.8	1.1	
LOS	D	C			D	B		C		C	A	
Approach Delay (s/veh)		31.4			37.7			28.5			16.0	
Approach LOS		C			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 107.6			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 29.5		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

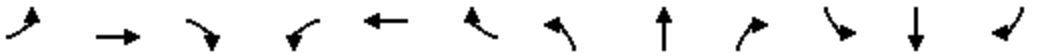




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Future Volume (vph)	137	240	0	0	371	227	2	0	0	242	0	175
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Total Lost time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.96		1.00		1.00	0.92	
Flpb, ped/bikes	0.99	1.00			1.00	1.00		0.95		1.00	1.00	
Frt	1.00	1.00			1.00	0.85		1.00		1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00		0.95		0.95	1.00	
Satd. Flow (prot)	1364	1376			1129	1077		1358		1372	1086	
Flt Permitted	0.37	1.00			1.00	1.00		0.63		0.78	1.00	
Satd. Flow (perm)	538	1376			1129	1077		903		1129	1086	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	157	276	0	0	426	261	2	0	0	278	0	201
RTOR Reduction (vph)	0	0	0	0	0	76	0	0	0	0	110	0
Lane Group Flow (vph)	157	276	0	0	426	185	0	2	0	278	91	0
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	Perm	NA			NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	44.9	44.9			44.9	44.9		39.1		48.7	48.7	
Effective Green, g (s)	44.9	44.9			44.9	44.9		39.1		48.7	48.7	
Actuated g/C Ratio	0.42	0.42			0.42	0.42		0.36		0.45	0.45	
Clearance Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Vehicle Extension (s)	2.8	2.8			2.8	2.8		2.5		3.0	4.0	
Lane Grp Cap (vph)	224	575			471	450		328		523	492	
v/s Ratio Prot		0.20			c0.38					c0.03	0.08	
v/s Ratio Perm	0.29					0.17		0.00		c0.22		
v/c Ratio	0.70	0.48			0.90	0.41		0.01		0.53	0.19	
Uniform Delay, d1	25.7	22.8			29.2	22.0		21.8		22.5	17.5	
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	9.2	0.6			20.6	0.5		0.0		1.0	0.8	
Delay (s)	35.0	23.3			49.8	22.5		21.8		23.6	18.3	
Level of Service	C	C			D	C		C		C	B	
Approach Delay (s/veh)		27.5			39.4			21.8			21.4	
Approach LOS		C			D			C			C	

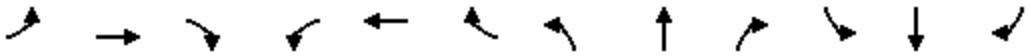
Intersection Summary			
HCM 2000 Control Delay (s/veh)	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	107.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Future Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.994			0.958			0.978			0.986	
Flt Protected		0.992			0.992			0.997			0.991	
Satd. Flow (prot)	0	1427	0	0	1351	0	0	1430	0	0	1432	0
Flt Permitted		0.992			0.992			0.997			0.991	
Satd. Flow (perm)	0	1427	0	0	1351	0	0	1430	0	0	1432	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	18	93	5	33	116	67	12	175	36	27	108	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	216	0	0	223	0	0	150	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

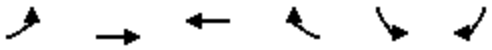
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Future Volume (vph)	16	85	5	30	106	61	11	159	33	25	98	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	18	93	5	33	116	67	12	175	36	27	108	15

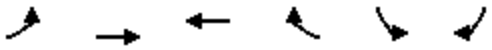
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	116	216	223	150
Volume Left (vph)	18	33	12	27
Volume Right (vph)	5	67	36	15
Hadj (s)	0.07	-0.06	-0.05	0.02
Departure Headway (s)	5.2	5.0	4.9	5.1
Degree Utilization, x	0.17	0.30	0.31	0.21
Capacity (veh/h)	621	669	681	647
Control Delay (s/veh)	9.3	10.1	10.1	9.5
Approach Delay (s/veh)	9.3	10.1	10.1	9.5
Approach LOS	A	B	B	A

Intersection Summary				
Delay	9.8			
Level of Service	A			
Intersection Capacity Utilization	45.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	313	495	6	3	3
Future Volume (vph)	4	313	495	6	3	3
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1171	1335	0	1364	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1171	1335	0	1364	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		65.8	66.8		21.9	
Travel Time (s)		3.9	4.0		1.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	6%	5%	0%	0%	0%
Adj. Flow (vph)	5	368	582	7	4	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	373	589	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

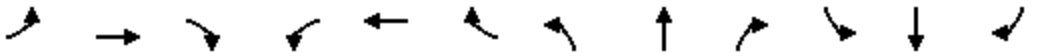
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	313	495	6	3	3
Future Volume (Veh/h)	4	313	495	6	3	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	368	582	7	4	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			67			
pX, platoon unblocked	0.60				0.60	0.60
vC, conflicting volume	589				964	586
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				601	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	976				277	651

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	373	589	8
Volume Left	5	0	4
Volume Right	0	7	4
cSH	976	1700	389
Volume to Capacity	0.01	0.35	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s/veh)	0.2	0.0	14.5
Lane LOS	A		B
Approach Delay (s/veh)	0.2	0.0	14.5
Approach LOS			B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		46.2%	ICU Level of Service
Analysis Period (min)		15	



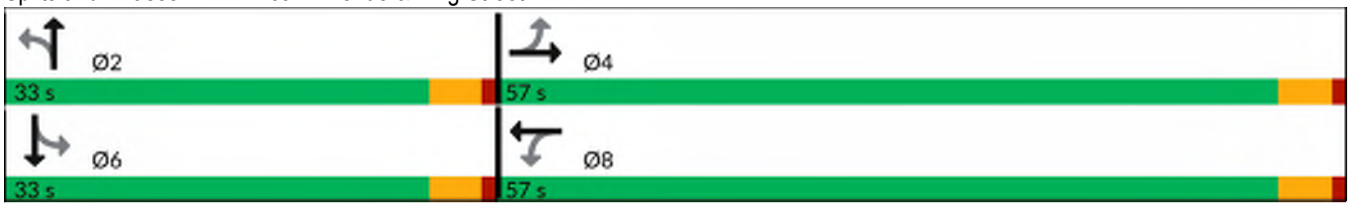
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Future Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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				1.00			0.98			0.99	
Frt		0.997			0.985			0.924			0.979	
Flt Protected	0.950			0.950				0.992			0.965	
Satd. Flow (prot)	1445	1386	0	1445	1354	0	0	1351	0	0	1406	0
Flt Permitted	0.270			0.319				0.961			0.757	
Satd. Flow (perm)	409	1386	0	485	1354	0	0	1309	0	0	1096	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			10			26			11	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		66.8			934.2			571.7			34.1	
Travel Time (s)		4.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	51	523	9	21	533	58	7	13	26	170	29	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	532	0	21	591	0	0	46	0	0	235	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

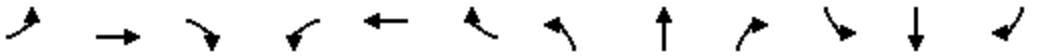
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	36.6	36.6		36.6	36.6			29.2			29.2	
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.39			0.39	
v/c Ratio	0.26	0.79		0.09	0.89			0.09			0.54	
Control Delay (s/veh)	13.7	24.3		9.9	32.9			12.1			26.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	13.7	24.3		9.9	32.9			12.1			26.3	
LOS	B	C		A	C			B			C	
Approach Delay (s/veh)		23.4			32.1			12.1			26.3	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 75
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.89
Intersection Signal Delay (s/veh): 27.1 Intersection LOS: C
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Lincoln Avenue & King Street

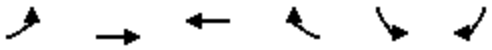




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Future Volume (vph)	46	476	8	19	485	53	6	12	24	155	26	33
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.99			0.92			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1441	1386		1445	1354			1353			1399	
Flt Permitted	0.27	1.00		0.32	1.00			0.96			0.76	
Satd. Flow (perm)	410	1386		486	1354			1309			1097	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	51	523	9	21	533	58	7	13	26	170	29	36
RTOR Reduction (vph)	0	1	0	0	5	0	0	16	0	0	7	0
Lane Group Flow (vph)	51	531	0	21	586	0	0	30	0	0	228	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	36.6	36.6		36.6	36.6			29.2			29.2	
Effective Green, g (s)	36.6	36.6		36.6	36.6			29.2			29.2	
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.39			0.39	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	200	678		237	662			511			428	
v/s Ratio Prot		0.38			c0.43							
v/s Ratio Perm	0.12			0.04				0.02			c0.21	
v/c Ratio	0.26	0.78		0.09	0.89			0.06			0.53	
Uniform Delay, d1	11.1	15.8		10.2	17.2			14.2			17.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.7	5.9		0.2	13.4			0.2			4.7	
Delay (s)	11.8	21.7		10.4	30.6			14.4			22.3	
Level of Service	B	C		B	C			B			C	
Approach Delay (s/veh)		20.8			29.9			14.4			22.3	
Approach LOS		C			C			B			C	

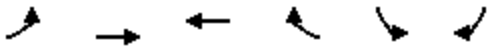
Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	506	509	28	26	25
Future Volume (vph)	42	506	509	28	26	25
Ideal Flow (vphpl)	1504	1629	1629	1351	1483	1483
Storage Length (m)	25.0			0.0	0.0	0.0
Storage Lanes	1			1	1	0
Taper Length (m)	55.0				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.934	
Flt Protected	0.950				0.975	
Satd. Flow (prot)	1416	1615	1615	1138	1339	0
Flt Permitted	0.950				0.975	
Satd. Flow (perm)	1416	1615	1615	1138	1339	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		787.4	65.8		26.0	
Travel Time (s)		47.2	3.9		1.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	550	553	30	28	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	550	553	30	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.32	1.20	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

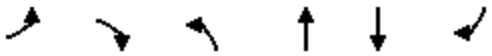
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	506	509	28	26	25
Future Volume (Veh/h)	42	506	509	28	26	25
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)	46	550	553	30	28	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			133			
pX, platoon unblocked	0.67				0.67	0.67
vC, conflicting volume	583				1195	553
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	138				1047	93
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				83	96
cM capacity (veh/h)	973				162	649

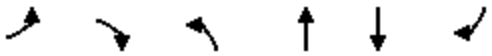
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	46	550	553	30	55
Volume Left	46	0	0	0	28
Volume Right	0	0	0	30	27
cSH	973	1700	1700	1700	257
Volume to Capacity	0.05	0.32	0.33	0.02	0.21
Queue Length 95th (m)	1.1	0.0	0.0	0.0	6.0
Control Delay (s/veh)	8.9	0.0	0.0	0.0	22.8
Lane LOS	A				C
Approach Delay (s/veh)	0.7		0.0		22.8
Approach LOS					C

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	2	3	113	217	10
Future Volume (vph)	10	2	3	113	217	10
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.979				0.994	
Flt Protected	0.959			0.999		
Satd. Flow (prot)	1408	0	0	1205	1356	0
Flt Permitted	0.959			0.999		
Satd. Flow (perm)	1408	0	0	1205	1356	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	47.1			34.1	1186.0	
Travel Time (s)	3.4			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	11	2	3	126	241	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	129	252	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	2	3	113	217	10
Future Volume (Veh/h)	10	2	3	113	217	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	2	3	126	241	11
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked	1.00					
vC, conflicting volume	379	250	252			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	377	250	252			
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	100	100			
cM capacity (veh/h)	626	792	1325			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	13	129	252
Volume Left	11	3	0
Volume Right	2	0	11
cSH	647	1325	1700
Volume to Capacity	0.02	0.00	0.15
Queue Length 95th (m)	0.5	0.1	0.0
Control Delay (s/veh)	10.7	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.7	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	187	204	86	155	100	83
Future Volume (vph)	187	204	86	155	100	83
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930				0.939	
Flt Protected				0.982	0.973	
Satd. Flow (prot)	1286	0	0	1166	1340	0
Flt Permitted				0.982	0.973	
Satd. Flow (perm)	1286	0	0	1166	1340	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.7	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	228	249	105	189	122	101
Shared Lane Traffic (%)						
Lane Group Flow (vph)	477	0	0	294	223	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	187	204	86	155	100	83
Future Volume (Veh/h)	187	204	86	155	100	83
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	228	249	105	189	122	101
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			477		752	353
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			477		752	353
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		65	85
cM capacity (veh/h)			1085		344	684

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	477	294	223
Volume Left	0	105	122
Volume Right	249	0	101
cSH	1700	1085	444
Volume to Capacity	0.28	0.10	0.50
Queue Length 95th (m)	0.0	2.4	20.9
Control Delay (s/veh)	0.0	3.7	21.0
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.7	21.0
Approach LOS			C

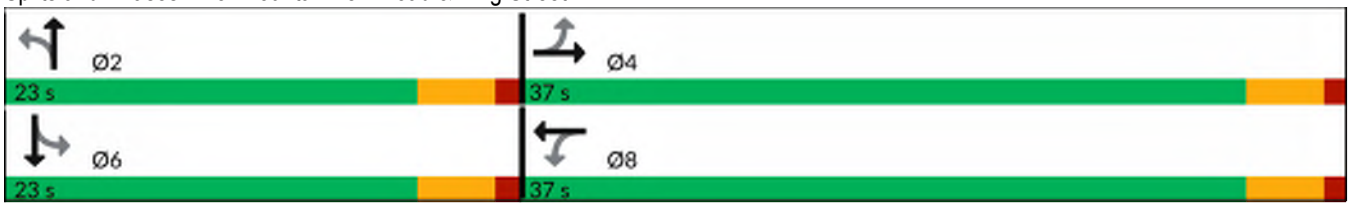
Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

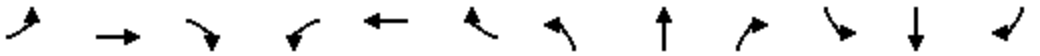
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	511	12	16	503	17	20	38	20	43	33	16
Future Volume (vph)	20	511	12	16	503	17	20	38	20	43	33	16
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.996			0.965			0.977	
Flt Protected		0.998			0.999			0.987			0.977	
Satd. Flow (prot)	0	1481	0	0	1444	0	0	1300	0	0	1362	0
Flt Permitted		0.972			0.980			0.930			0.860	
Satd. Flow (perm)	0	1442	0	0	1417	0	0	1225	0	0	1199	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			4			22			17	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			787.4			314.9			254.1	
Travel Time (s)		26.8			47.2			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	22	549	13	17	541	18	22	41	22	46	35	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	584	0	0	576	0	0	85	0	0	98	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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0		23.0	23.0	
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%		38.3%	38.3%	
Maximum Green (s)	32.5	32.5		32.5	32.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		25.4			25.4			18.8			18.8	
Actuated g/C Ratio		0.48			0.48			0.35			0.35	
v/c Ratio		0.85			0.85			0.19			0.23	
Control Delay (s/veh)		25.3			25.7			12.9			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		25.3			25.7			12.9			14.3	
LOS		C			C			B			B	
Approach Delay (s/veh)		25.3			25.7			12.9			14.3	
Approach LOS		C			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.4			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay (s/veh): 23.9		Intersection LOS: C	
Intersection Capacity Utilization 65.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: Mountainview Road & King Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	511	12	16	503	17	20	38	20	43	33	16
Future Volume (vph)	20	511	12	16	503	17	20	38	20	43	33	16
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1481			1443			1301			1362	
Flt Permitted		0.97			0.98			0.93			0.86	
Satd. Flow (perm)		1443			1416			1225			1198	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	22	549	13	17	541	18	22	41	22	46	35	17
RTOR Reduction (vph)	0	2	0	0	2	0	0	14	0	0	11	0
Lane Group Flow (vph)	0	582	0	0	574	0	0	71	0	0	87	0
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		25.4			25.4			18.8			18.8	
Effective Green, g (s)		25.4			25.4			18.8			18.8	
Actuated g/C Ratio		0.48			0.48			0.35			0.35	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		688			676			432			423	
v/s Ratio Prot												
v/s Ratio Perm		0.40			c0.41			0.06			c0.07	
v/c Ratio		0.85			0.85			0.16			0.21	
Uniform Delay, d1		12.2			12.2			11.8			12.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		9.4			9.7			0.8			1.1	
Delay (s)		21.6			22.0			12.6			13.1	
Level of Service		C			C			B			B	
Approach Delay (s/veh)		21.6			22.0			12.6			13.1	
Approach LOS		C			C			B			B	

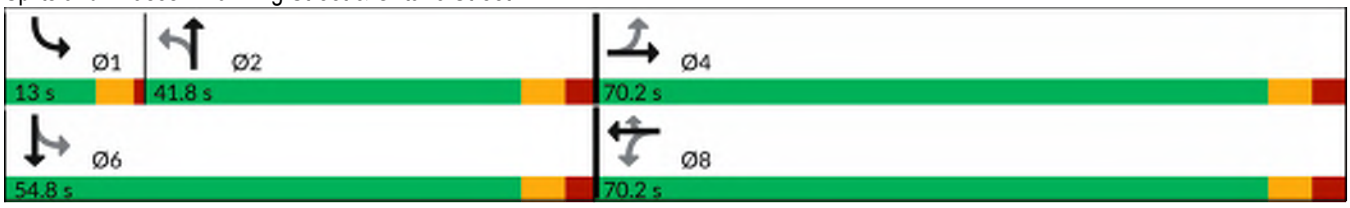
Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	53.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Future Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	1		0
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95				0.95	0.96	
Frt		0.999				0.850					0.851	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1416	1387	0	0	1229	1138	0	1470	0	1445	1150	0
Flt Permitted	0.420									0.673		
Satd. Flow (perm)	617	1387	0	0	1229	1079	0	1470	0	970	1150	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						175					318	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			43.8			605.8	
Travel Time (s)		67.3			52.0			3.2			43.6	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	223	321	2	0	367	304	0	0	0	350	2	318
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	323	0	0	367	304	0	0	0	350	320	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.32	1.46	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA	Perm				pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	26.2	26.2		17.5	17.5	17.5	14.6	14.6		5.0	14.6	
Minimum Split (s)	70.2	70.2		52.2	52.2	52.2	41.6	41.6		9.5	41.6	
Total Split (s)	70.2	70.2		70.2	70.2	70.2	41.8	41.8		13.0	54.8	
Total Split (%)	56.2%	56.2%		56.2%	56.2%	56.2%	33.4%	33.4%		10.4%	43.8%	
Maximum Green (s)	63.0	63.0		63.0	63.0	63.0	35.2	35.2		8.5	48.2	
Yellow Time (s)	4.1	4.1		4.1	4.1	4.1	4.1	4.1		3.5	4.1	
All-Red Time (s)	3.1	3.1		3.1	3.1	3.1	2.5	2.5		1.0	2.5	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.8	2.8		2.8	2.8	2.8	2.5	2.5		3.0	4.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Walk Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	3.0			3.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	
Act Effct Green (s)	39.3	39.3			39.3	39.3				51.1	49.0	
Actuated g/C Ratio	0.38	0.38			0.38	0.38				0.50	0.48	
v/c Ratio	0.94	0.61			0.78	0.58				0.67	0.45	
Control Delay (s/veh)	76.1	29.5			38.9	14.0				29.3	4.9	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	76.1	29.5			38.9	14.0				29.3	4.9	
LOS	E	C			D	B				C	A	
Approach Delay (s/veh)		48.5			27.6						17.6	
Approach LOS		D			C						B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 102.3			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 30.1		Intersection LOS: C	
Intersection Capacity Utilization 96.1%		ICU Level of Service F	
Analysis Period (min) 15			

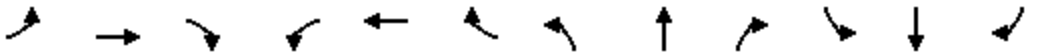
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Future Volume (vph)	205	295	2	0	338	280	0	0	0	322	2	293
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Total Lost time (s)	7.2	7.2			7.2	7.2				4.5	6.6	
Lane Util. Factor	1.00	1.00			1.00	1.00				1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.95				1.00	0.97	
Flpb, ped/bikes	0.99	1.00			1.00	1.00				0.97	1.00	
Frt	1.00	1.00			1.00	0.85				1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00				0.95	1.00	
Satd. Flow (prot)	1399	1388			1229	1085				1404	1154	
Flt Permitted	0.42	1.00			1.00	1.00				0.67	1.00	
Satd. Flow (perm)	619	1388			1229	1085				994	1154	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	223	321	2	0	367	304	0	0	0	350	2	318
RTOR Reduction (vph)	0	0	0	0	0	108	0	0	0	0	165	0
Lane Group Flow (vph)	223	323	0	0	367	196	0	0	0	350	155	0
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	Perm	NA			NA	Perm				pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	39.3	39.3			39.3	39.3				49.0	49.0	
Effective Green, g (s)	39.3	39.3			39.3	39.3				49.0	49.0	
Actuated g/C Ratio	0.38	0.38			0.38	0.38				0.48	0.48	
Clearance Time (s)	7.2	7.2			7.2	7.2				4.5	6.6	
Vehicle Extension (s)	2.8	2.8			2.8	2.8				3.0	4.0	
Lane Grp Cap (vph)	238	534			473	417				511	553	
v/s Ratio Prot		0.23			0.30					c0.06	0.13	
v/s Ratio Perm	c0.36					0.18				c0.27		
v/c Ratio	0.94	0.60			0.78	0.47				0.68	0.28	
Uniform Delay, d1	30.2	25.2			27.5	23.6				20.7	15.9	
Progression Factor	1.00	1.00			1.00	1.00				1.00	1.00	
Incremental Delay, d2	40.9	1.8			7.7	0.8				3.8	1.3	
Delay (s)	71.1	27.0			35.2	24.3				24.5	17.2	
Level of Service	E	C			D	C				C	B	
Approach Delay (s/veh)		45.0			30.3			0.0			21.0	
Approach LOS		D			C			A			C	

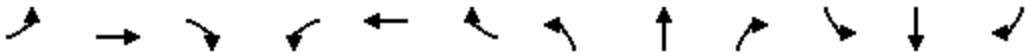
Intersection Summary			
HCM 2000 Control Delay (s/veh)	31.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	102.1	Sum of lost time (s)	18.3
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Future Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.977			0.933			0.993	
Flt Protected		0.998			0.984			0.998			0.985	
Satd. Flow (prot)	0	1455	0	0	1402	0	0	1383	0	0	1448	0
Flt Permitted		0.998			0.984			0.998			0.985	
Satd. Flow (perm)	0	1455	0	0	1402	0	0	1383	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		446.7			641.6			1186.0			980.7	
Travel Time (s)		32.2			46.2			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	10	191	13	111	170	57	7	67	72	88	193	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	214	0	0	338	0	0	146	0	0	296	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

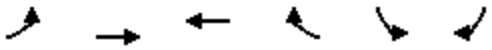
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 79.9%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Future Volume (vph)	10	183	12	107	163	55	7	64	69	84	185	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	191	12	111	170	57	7	67	72	88	193	15

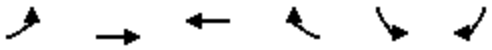
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	213	338	146	296
Volume Left (vph)	10	111	7	88
Volume Right (vph)	12	57	72	15
Hadj (s)	0.01	0.01	-0.27	0.05
Departure Headway (s)	5.9	5.6	5.8	5.8
Degree Utilization, x	0.35	0.53	0.24	0.48
Capacity (veh/h)	554	598	528	569
Control Delay (s/veh)	11.9	14.8	10.7	14.1
Approach Delay (s/veh)	11.9	14.8	10.7	14.1
Approach LOS	B	B	B	B

Intersection Summary				
Delay	13.4			
Level of Service	B			
Intersection Capacity Utilization	79.9%	ICU Level of Service	D	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	526	520	6	5	17
Future Volume (vph)	5	526	520	6	5	17
Ideal Flow (vphpl)	1228	1228	1388	1388	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.894	
Flt Protected					0.989	
Satd. Flow (prot)	0	1229	1373	0	1326	0
Flt Permitted					0.989	
Satd. Flow (perm)	0	1229	1373	0	1326	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		65.8	66.8		21.9	
Travel Time (s)		3.9	4.0		1.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%
Adj. Flow (vph)	5	572	565	7	5	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	577	572	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.69	1.69	1.46	1.46	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

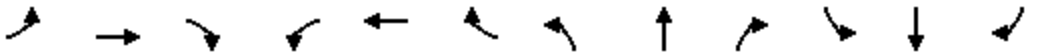
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	526	520	6	5	17
Future Volume (Veh/h)	5	526	520	6	5	17
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)	5	572	565	7	5	18
Pedestrians					1	
Lane Width (m)					3.7	
Walking Speed (m/s)					1.1	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			67			
pX, platoon unblocked	0.63				0.63	0.63
vC, conflicting volume	573				1152	570
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	37				950	31
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	97
cM capacity (veh/h)	1004				183	664

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	577	572	23
Volume Left	5	0	5
Volume Right	0	7	18
cSH	1004	1700	423
Volume to Capacity	0.00	0.34	0.05
Queue Length 95th (m)	0.1	0.0	1.3
Control Delay (s/veh)	0.1	0.0	14.0
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	14.0
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

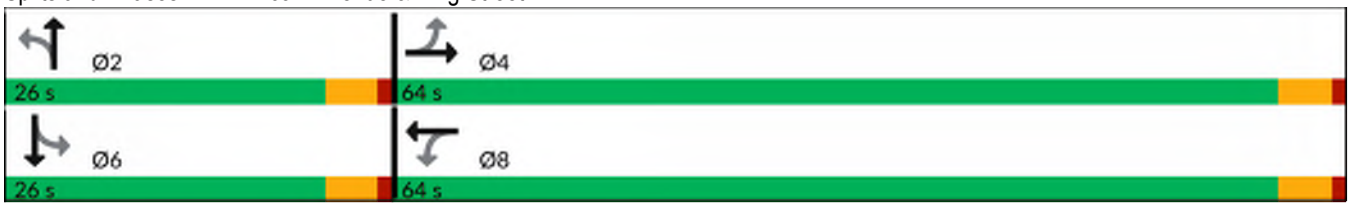


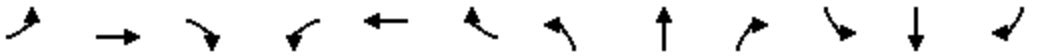
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Future Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.972			0.954			0.968	
Flt Protected	0.950			0.950				0.995			0.969	
Satd. Flow (prot)	1278	1304	0	1445	1319	0	0	1315	0	0	1359	0
Flt Permitted	0.257			0.509				0.974			0.777	
Satd. Flow (perm)	346	1304	0	774	1319	0	0	1287	0	0	1088	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27			20			16	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	42	349	6	18	573	129	6	33	20	113	22	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	355	0	18	702	0	0	59	0	0	177	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	43.6	43.6		43.6	43.6			22.2			22.2	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.30			0.30	
v/c Ratio	0.21	0.47		0.04	0.90			0.15			0.53	
Control Delay (s/veh)	9.3	10.5		5.9	29.3			19.5			31.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	9.3	10.5		5.9	29.3			19.5			31.5	
LOS	A	B		A	C			B			C	
Approach Delay (s/veh)		10.4			28.7			19.5			31.5	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75.1			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 23.3		Intersection LOS: C	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Lincoln Avenue & King Street

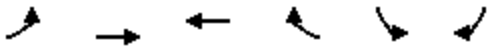




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Future Volume (vph)	35	290	5	15	476	107	5	27	17	94	18	35
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1278	1305		1445	1319			1316			1358	
Flt Permitted	0.26	1.00		0.51	1.00			0.97			0.78	
Satd. Flow (perm)	346	1305		774	1319			1288			1089	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	42	349	6	18	573	129	6	33	20	113	22	42
RTOR Reduction (vph)	0	1	0	0	11	0	0	14	0	0	11	0
Lane Group Flow (vph)	42	354	0	18	691	0	0	45	0	0	166	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	43.6	43.6		43.6	43.6			22.2			22.2	
Effective Green, g (s)	43.6	43.6		43.6	43.6			22.2			22.2	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.30			0.30	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	201	760		451	768			382			323	
v/s Ratio Prot		0.27			c0.52							
v/s Ratio Perm	0.12			0.02				0.03			c0.15	
v/c Ratio	0.21	0.47		0.04	0.90			0.12			0.51	
Uniform Delay, d1	7.4	8.9		6.7	13.7			19.2			21.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.5		0.0	13.3			0.6			5.7	
Delay (s)	7.9	9.4		6.7	27.0			19.8			27.5	
Level of Service	A	A		A	C			B			C	
Approach Delay (s/veh)		9.2			26.5			19.8			27.5	
Approach LOS		A			C			B			C	

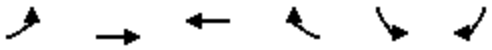
Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	313	519	8	20	30
Future Volume (vph)	13	313	519	8	20	30
Ideal Flow (vphpl)	1504	1629	1629	1351	1483	1483
Storage Length (m)	25.0			0.0	0.0	0.0
Storage Lanes	1			1	1	0
Taper Length (m)	55.0				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.919	
Flt Protected	0.950				0.980	
Satd. Flow (prot)	1416	1615	1615	1138	1324	0
Flt Permitted	0.950				0.980	
Satd. Flow (perm)	1416	1615	1615	1138	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	340	564	9	22	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	340	564	9	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.32	1.20	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

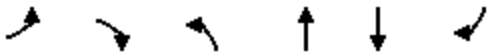
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	313	519	8	20	30
Future Volume (Veh/h)	13	313	519	8	20	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)	14	340	564	9	22	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked						
vC, conflicting volume	573				932	564
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	573				932	564
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	94
cM capacity (veh/h)	1000				292	525

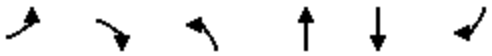
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	14	340	564	9	55
Volume Left	14	0	0	0	22
Volume Right	0	0	0	9	33
cSH	1000	1700	1700	1700	398
Volume to Capacity	0.01	0.20	0.33	0.01	0.14
Queue Length 95th (m)	0.3	0.0	0.0	0.0	3.6
Control Delay (s/veh)	8.7	0.0	0.0	0.0	15.5
Lane LOS	A				C
Approach Delay (s/veh)	0.3		0.0		15.5
Approach LOS					C

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	12	5	165	136	4
Future Volume (vph)	10	12	5	165	136	4
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.927				0.997	
Flt Protected	0.978			0.998		
Satd. Flow (prot)	1345	0	0	1193	1359	0
Flt Permitted	0.978			0.998		
Satd. Flow (perm)	1345	0	0	1193	1359	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	4%	3%	0%
Adj. Flow (vph)	11	13	6	185	153	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	0	191	157	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	12	5	165	136	4
Future Volume (Veh/h)	10	12	5	165	136	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	11	13	6	185	153	4
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	352	158	157			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	352	158	157			
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	99	100			
cM capacity (veh/h)	647	885	1435			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	191	157
Volume Left	11	6	0
Volume Right	13	0	4
cSH	757	1435	1700
Volume to Capacity	0.03	0.00	0.09
Queue Length 95th (m)	0.7	0.1	0.0
Control Delay (s/veh)	9.9	0.3	0.0
Lane LOS	A	A	
Approach Delay (s/veh)	9.9	0.3	0.0
Approach LOS	A		

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		30.6%	ICU Level of Service
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	175	90	73	168	177	100
Future Volume (vph)	175	90	73	168	177	100
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.954				0.951	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1283	0	0	1116	1307	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1283	0	0	1116	1307	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	203	105	85	195	206	116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	308	0	0	280	322	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

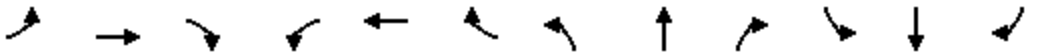
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	175	90	73	168	177	100
Future Volume (Veh/h)	175	90	73	168	177	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	203	105	85	195	206	116
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			308		621	256
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			308		621	256
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			93		51	85
cM capacity (veh/h)			1157		420	755

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	308	280	322
Volume Left	0	85	206
Volume Right	105	0	116
cSH	1700	1157	500
Volume to Capacity	0.18	0.07	0.64
Queue Length 95th (m)	0.0	1.8	34.4
Control Delay (s/veh)	0.0	3.0	24.4
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.0	24.4
Approach LOS			C

Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		

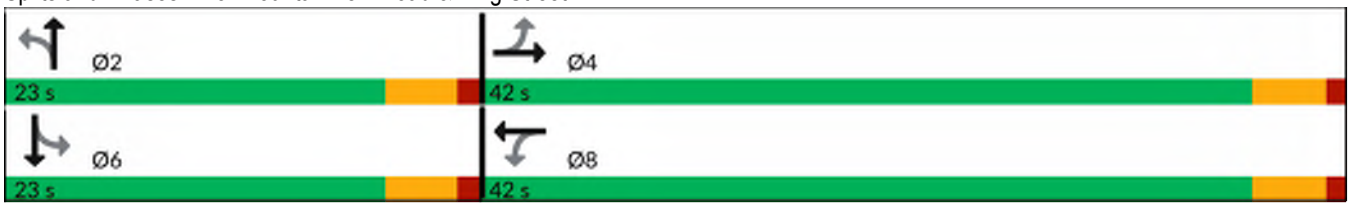


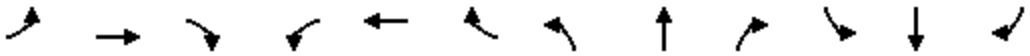
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	297	8	8	489	43	5	20	6	22	29	11
Future Volume (vph)	16	297	8	8	489	43	5	20	6	22	29	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.989			0.974			0.975	
Flt Protected		0.998			0.999			0.992			0.983	
Satd. Flow (prot)	0	1371	0	0	1404	0	0	1284	0	0	1379	0
Flt Permitted		0.966			0.994			0.969			0.919	
Satd. Flow (perm)	0	1327	0	0	1397	0	0	1255	0	0	1289	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			11			7			13	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	18	338	9	9	556	49	6	23	7	25	33	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	365	0	0	614	0	0	36	0	0	71	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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	42.0	42.0		42.0	42.0		23.0	23.0		23.0	23.0	
Total Split (%)	64.6%	64.6%		64.6%	64.6%		35.4%	35.4%		35.4%	35.4%	
Maximum Green (s)	37.5	37.5		37.5	37.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		28.5			28.5			18.9			18.9	
Actuated g/C Ratio		0.50			0.50			0.33			0.33	
v/c Ratio		0.55			0.87			0.09			0.16	
Control Delay (s/veh)		12.4			26.0			14.8			15.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		12.4			26.0			14.8			15.3	
LOS		B			C			B			B	
Approach Delay (s/veh)		12.4			26.0			14.8			15.3	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 56.6			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 20.4		Intersection LOS: C	
Intersection Capacity Utilization 55.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Mountainview Road & King Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	297	8	8	489	43	5	20	6	22	29	11
Future Volume (vph)	16	297	8	8	489	43	5	20	6	22	29	11
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1370			1405			1284			1379	
Flt Permitted		0.97			0.99			0.97			0.92	
Satd. Flow (perm)		1326			1398			1254			1290	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	18	338	9	9	556	49	6	23	7	25	33	12
RTOR Reduction (vph)	0	1	0	0	5	0	0	5	0	0	9	0
Lane Group Flow (vph)	0	364	0	0	609	0	0	31	0	0	62	0
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		28.5			28.5			18.9			18.9	
Effective Green, g (s)		28.5			28.5			18.9			18.9	
Actuated g/C Ratio		0.51			0.51			0.34			0.34	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		670			706			420			432	
v/s Ratio Prot												
v/s Ratio Perm		0.27			c0.44			0.02			c0.05	
v/c Ratio		0.54			0.86			0.07			0.14	
Uniform Delay, d1		9.5			12.2			12.8			13.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.9			10.6			0.3			0.7	
Delay (s)		10.4			22.8			13.1			13.8	
Level of Service		B			C			B			B	
Approach Delay (s/veh)		10.4			22.8			13.1			13.8	
Approach LOS		B			C			B			B	

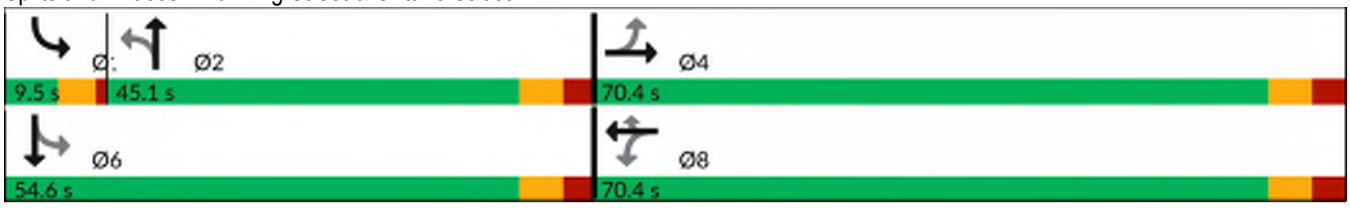
Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	56.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

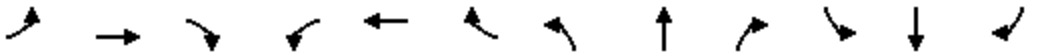
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Future Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	1		0
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99					0.95		0.95		1.00	0.91	
Frt						0.850					0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	1376	1075	0
Flt Permitted	0.367							0.624		0.782		
Satd. Flow (perm)	526	1376	0	0	1129	1072	0	886	0	1128	1075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						133					339	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	166	291	0	0	439	277	2	0	0	295	0	214
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	291	0	0	439	277	0	2	0	295	214	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.32	1.46	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	26.2	26.2		17.5	17.5	17.5	14.6	14.6		5.0	14.6	
Minimum Split (s)	70.2	70.2		52.2	52.2	52.2	41.6	41.6		9.5	41.6	
Total Split (s)	70.4	70.4		70.4	70.4	70.4	45.1	45.1		9.5	54.6	
Total Split (%)	56.3%	56.3%		56.3%	56.3%	56.3%	36.1%	36.1%		7.6%	43.7%	
Maximum Green (s)	63.2	63.2		63.2	63.2	63.2	38.5	38.5		5.0	48.0	
Yellow Time (s)	4.1	4.1		4.1	4.1	4.1	4.1	4.1		3.5	4.1	
All-Red Time (s)	3.1	3.1		3.1	3.1	3.1	2.5	2.5		1.0	2.5	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.8	2.8		2.8	2.8	2.8	2.5	2.5		3.0	4.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Walk Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	3.0			3.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	
Act Effct Green (s)	46.8	46.8			46.8	46.8		39.0		50.8	48.7	
Actuated g/C Ratio	0.43	0.43			0.43	0.43		0.36		0.46	0.44	
v/c Ratio	0.74	0.49			0.91	0.52		0.01		0.55	0.32	
Control Delay (s/veh)	46.1	25.0			52.9	14.1		29.0		28.8	1.3	
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay (s/veh)	46.1	25.0			52.9	14.1		29.0		28.8	1.3	
LOS	D	C			D	B		C		C	A	
Approach Delay (s/veh)		32.6			37.9			29.0			17.2	
Approach LOS		C			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 109.5			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 30.2		Intersection LOS: C	
Intersection Capacity Utilization 87.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

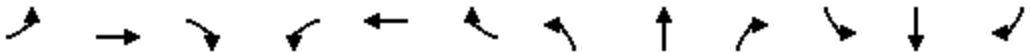




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Future Volume (vph)	144	253	0	0	382	241	2	0	0	257	0	186
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Total Lost time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.95		1.00		1.00	0.92	
Flpb, ped/bikes	0.99	1.00			1.00	1.00		0.95		1.00	1.00	
Frt	1.00	1.00			1.00	0.85		1.00		1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00		0.95		0.95	1.00	
Satd. Flow (prot)	1364	1376			1129	1076		1358		1372	1085	
Flt Permitted	0.37	1.00			1.00	1.00		0.62		0.78	1.00	
Satd. Flow (perm)	527	1376			1129	1076		893		1129	1085	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	166	291	0	0	439	277	2	0	0	295	0	214
RTOR Reduction (vph)	0	0	0	0	0	76	0	0	0	0	119	0
Lane Group Flow (vph)	166	291	0	0	439	201	0	2	0	295	95	0
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	Perm	NA			NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	46.8	46.8			46.8	46.8		39.1		48.7	48.7	
Effective Green, g (s)	46.8	46.8			46.8	46.8		39.1		48.7	48.7	
Actuated g/C Ratio	0.43	0.43			0.43	0.43		0.36		0.45	0.45	
Clearance Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Vehicle Extension (s)	2.8	2.8			2.8	2.8		2.5		3.0	4.0	
Lane Grp Cap (vph)	225	589			483	460		319		514	483	
v/s Ratio Prot		0.21			c0.39					c0.03	0.09	
v/s Ratio Perm	0.31					0.19		0.00		c0.23		
v/c Ratio	0.74	0.49			0.91	0.44		0.01		0.57	0.20	
Uniform Delay, d1	26.1	22.7			29.3	22.0		22.6		24.0	18.4	
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	11.6	0.6			20.7	0.6		0.0		1.6	0.9	
Delay (s)	37.8	23.2			50.0	22.6		22.6		25.6	19.3	
Level of Service	D	C			D	C		C		C	B	
Approach Delay (s/veh)		28.5			39.4			22.6			23.0	
Approach LOS		C			D			C			C	

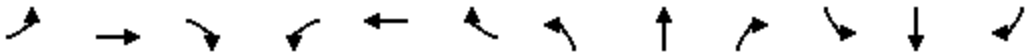
Intersection Summary			
HCM 2000 Control Delay (s/veh)	31.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	109.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Future Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.995			0.958			0.975			0.986	
Flt Protected		0.992			0.992			0.998			0.990	
Satd. Flow (prot)	0	1428	0	0	1351	0	0	1426	0	0	1430	0
Flt Permitted		0.992			0.992			0.998			0.990	
Satd. Flow (perm)	0	1428	0	0	1351	0	0	1426	0	0	1430	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	19	99	5	35	124	71	12	186	46	30	110	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	230	0	0	244	0	0	156	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

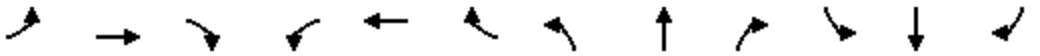
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Future Volume (vph)	17	90	5	32	113	65	11	169	42	27	100	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	99	5	35	124	71	12	186	46	30	110	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	123	230	244	156
Volume Left (vph)	19	35	12	30
Volume Right (vph)	5	71	46	16
Hadj (s)	0.07	-0.06	-0.06	0.02
Departure Headway (s)	5.4	5.1	5.0	5.2
Degree Utilization, x	0.18	0.33	0.34	0.23
Capacity (veh/h)	604	655	670	630
Control Delay (s/veh)	9.6	10.5	10.6	9.8
Approach Delay (s/veh)	9.6	10.5	10.6	9.8
Approach LOS	A	B	B	A

Intersection Summary				
Delay		10.2		
Level of Service		B		
Intersection Capacity Utilization		48.1%	ICU Level of Service	A
Analysis Period (min)		15		

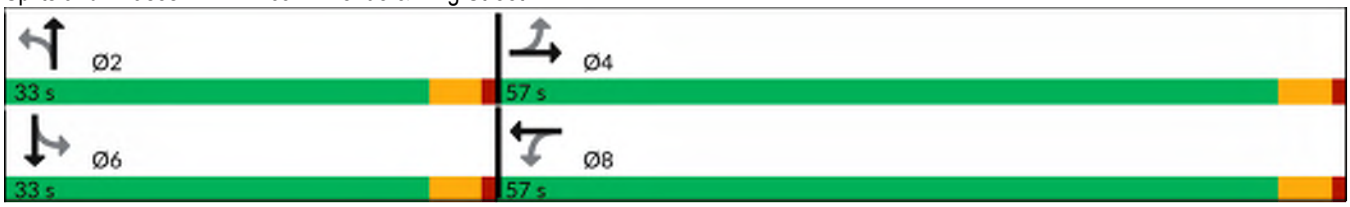


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Future Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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				1.00			0.98			0.99	
Frt		0.997			0.984			0.917			0.975	
Flt Protected	0.950			0.950				0.993			0.964	
Satd. Flow (prot)	1445	1386	0	1445	1352	0	0	1340	0	0	1399	0
Flt Permitted	0.259			0.312				0.959			0.752	
Satd. Flow (perm)	393	1386	0	474	1352	0	0	1294	0	0	1084	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			12			29			13	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	69	545	10	22	555	68	7	11	29	186	20	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	555	0	22	623	0	0	47	0	0	252	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	39.6	39.6		39.6	39.6			29.1			29.1	
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.37			0.37	
v/c Ratio	0.35	0.79		0.09	0.90			0.09			0.61	
Control Delay (s/veh)	15.9	24.0		9.7	33.9			12.0			30.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	15.9	24.0		9.7	33.9			12.0			30.1	
LOS	B	C		A	C			B			C	
Approach Delay (s/veh)		23.1			33.1			12.0			30.1	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 77.9			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 28.0		Intersection LOS: C	
Intersection Capacity Utilization 80.4%		ICU Level of Service D	
Analysis Period (min) 15			

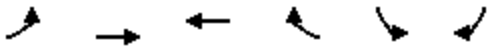
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Future Volume (vph)	63	496	9	20	505	62	6	10	26	169	18	42
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.98			0.92			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)	1441	1386		1445	1352			1340			1392	
Flt Permitted	0.26	1.00		0.31	1.00			0.96			0.75	
Satd. Flow (perm)	393	1386		475	1352			1296			1086	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	69	545	10	22	555	68	7	11	29	186	20	46
RTOR Reduction (vph)	0	1	0	0	6	0	0	18	0	0	8	0
Lane Group Flow (vph)	69	554	0	22	617	0	0	29	0	0	244	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	39.6	39.6		39.6	39.6			29.1			29.1	
Effective Green, g (s)	39.6	39.6		39.6	39.6			29.1			29.1	
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.37			0.37	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	200	706		242	689			485			406	
v/s Ratio Prot		0.40			c0.46							
v/s Ratio Perm	0.18			0.05				0.02			c0.22	
v/c Ratio	0.35	0.78		0.09	0.90			0.06			0.60	
Uniform Delay, d1	11.3	15.6		9.8	17.2			15.5			19.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	5.7		0.2	14.2			0.2			6.4	
Delay (s)	12.4	21.3		10.0	31.4			15.8			26.0	
Level of Service	B	C		A	C			B			C	
Approach Delay (s/veh)		20.3			30.6			15.8			26.0	
Approach LOS		C			C			B			C	

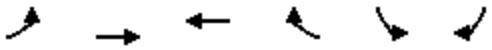
Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	544	528	28	26	25
Future Volume (vph)	42	544	528	28	26	25
Ideal Flow (vphpl)	1504	1629	1629	1351	1483	1483
Storage Length (m)	25.0			0.0	0.0	0.0
Storage Lanes	1			1	1	0
Taper Length (m)	55.0				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.934	
Flt Protected	0.950				0.975	
Satd. Flow (prot)	1416	1615	1615	1138	1339	0
Flt Permitted	0.950				0.975	
Satd. Flow (perm)	1416	1615	1615	1138	1339	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	591	574	30	28	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	591	574	30	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.32	1.20	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

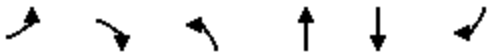
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	544	528	28	26	25
Future Volume (Veh/h)	42	544	528	28	26	25
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)	46	591	574	30	28	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked	0.63				0.63	0.63
vC, conflicting volume	604				1257	574
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	85				1116	37
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				80	96
cM capacity (veh/h)	957				138	655

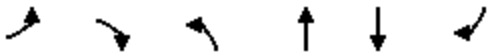
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	46	591	574	30	55
Volume Left	46	0	0	0	28
Volume Right	0	0	0	30	27
cSH	957	1700	1700	1700	226
Volume to Capacity	0.05	0.35	0.34	0.02	0.24
Queue Length 95th (m)	1.1	0.0	0.0	0.0	7.0
Control Delay (s/veh)	9.0	0.0	0.0	0.0	26.0
Lane LOS	A				D
Approach Delay (s/veh)	0.6		0.0		26.0
Approach LOS					D

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	14	22	118	228	19
Future Volume (vph)	14	14	22	118	228	19
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.990	
Flt Protected	0.976			0.992		
Satd. Flow (prot)	1364	0	0	1201	1352	0
Flt Permitted	0.976			0.992		
Satd. Flow (perm)	1364	0	0	1201	1352	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	16	16	24	131	253	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	155	274	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	14	22	118	228	19
Future Volume (Veh/h)	14	14	22	118	228	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	16	16	24	131	253	21
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked	0.99					
vC, conflicting volume	443	267	274			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	432	267	274			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	98			
cM capacity (veh/h)	568	775	1301			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	32	155	274
Volume Left	16	24	0
Volume Right	16	0	21
cSH	655	1301	1700
Volume to Capacity	0.05	0.02	0.16
Queue Length 95th (m)	1.2	0.4	0.0
Control Delay (s/veh)	10.8	1.3	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.8	1.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	199	219	91	164	103	87
Future Volume (vph)	199	219	91	164	103	87
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929				0.938	
Flt Protected				0.982	0.974	
Satd. Flow (prot)	1285	0	0	1166	1339	0
Flt Permitted				0.982	0.974	
Satd. Flow (perm)	1285	0	0	1166	1339	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	243	267	111	200	126	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	510	0	0	311	232	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

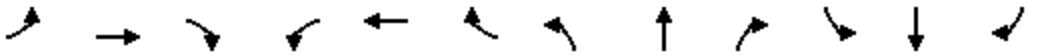
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 78.0%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	199	219	91	164	103	87
Future Volume (Veh/h)	199	219	91	164	103	87
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	243	267	111	200	126	106
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			510		799	377
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			510		799	377
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			89		61	84
cM capacity (veh/h)			1055		320	663

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	510	311	232
Volume Left	0	111	126
Volume Right	267	0	106
cSH	1700	1055	419
Volume to Capacity	0.30	0.11	0.55
Queue Length 95th (m)	0.0	2.7	24.8
Control Delay (s/veh)	0.0	3.8	23.7
Lane LOS		A	C
Approach Delay (s/veh)	0.0	3.8	23.7
Approach LOS			C

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

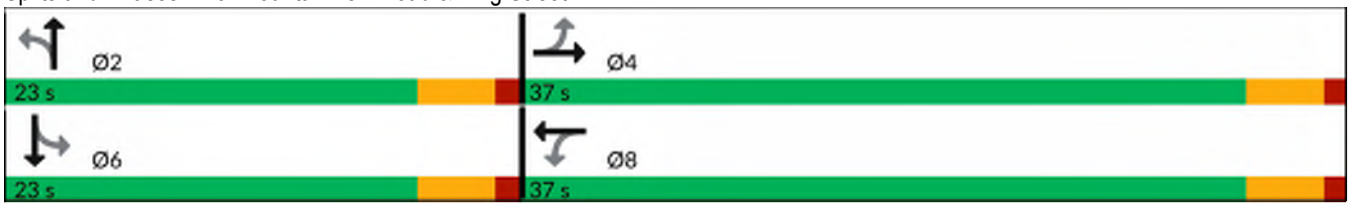


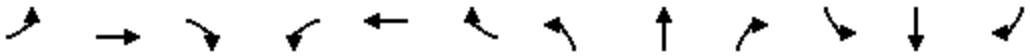
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	545	12	17	519	18	21	40	21	46	35	17
Future Volume (vph)	21	545	12	17	519	18	21	40	21	46	35	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.996			0.965			0.977	
Flt Protected		0.998			0.998			0.987			0.977	
Satd. Flow (prot)	0	1481	0	0	1442	0	0	1300	0	0	1362	0
Flt Permitted		0.972			0.978			0.927			0.855	
Satd. Flow (perm)	0	1443	0	0	1414	0	0	1221	0	0	1192	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			4			23			18	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	23	586	13	18	558	19	23	43	23	49	38	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	622	0	0	595	0	0	89	0	0	105	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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0		23.0	23.0	
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%		38.3%	38.3%	
Maximum Green (s)	32.5	32.5		32.5	32.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		27.1			27.1			18.7			18.7	
Actuated g/C Ratio		0.49			0.49			0.34			0.34	
v/c Ratio		0.87			0.85			0.21			0.25	
Control Delay (s/veh)		27.4			25.6			13.4			15.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		27.4			25.6			13.4			15.0	
LOS		C			C			B			B	
Approach Delay (s/veh)		27.4			25.6			13.4			15.0	
Approach LOS		C			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 24.8		Intersection LOS: C	
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: Mountainview Road & King Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	545	12	17	519	18	21	40	21	46	35	17
Future Volume (vph)	21	545	12	17	519	18	21	40	21	46	35	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1482			1443			1301			1362	
Flt Permitted		0.97			0.98			0.93			0.86	
Satd. Flow (perm)		1443			1413			1221			1192	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	23	586	13	18	558	19	23	43	23	49	38	18
RTOR Reduction (vph)	0	2	0	0	2	0	0	15	0	0	12	0
Lane Group Flow (vph)	0	620	0	0	593	0	0	74	0	0	93	0
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.1			27.1			18.7			18.7	
Effective Green, g (s)		27.1			27.1			18.7			18.7	
Actuated g/C Ratio		0.49			0.49			0.34			0.34	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		713			698			416			406	
v/s Ratio Prot												
v/s Ratio Perm		c0.43			0.42			0.06			c0.08	
v/c Ratio		0.87			0.85			0.18			0.23	
Uniform Delay, d1		12.3			12.1			12.7			12.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		11.2			9.5			0.9			1.3	
Delay (s)		23.5			21.6			13.6			14.2	
Level of Service		C			C			B			B	
Approach Delay (s/veh)		23.5			21.6			13.6			14.2	
Approach LOS		C			C			B			B	

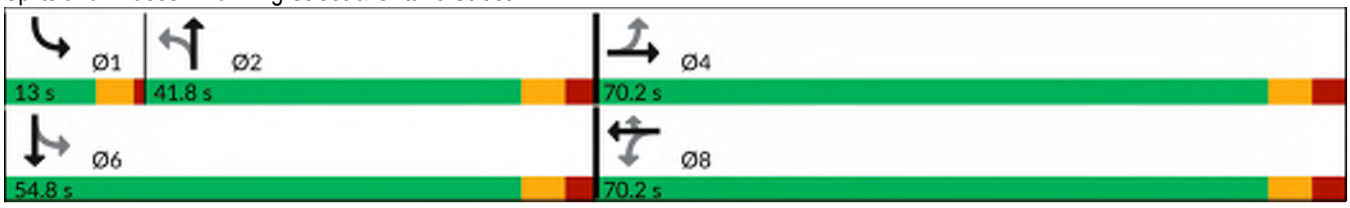
Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	54.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

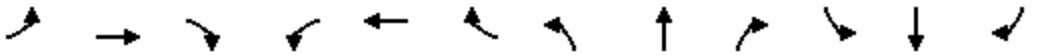
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Future Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	1		0
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95				0.95	0.96	
Frt		0.999				0.850					0.851	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1416	1387	0	0	1229	1138	0	1470	0	1445	1150	0
Flt Permitted	0.409									0.673		
Satd. Flow (perm)	601	1387	0	0	1229	1079	0	1470	0	970	1150	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						177					338	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	236	336	2	0	385	323	0	0	0	372	2	338
Shared Lane Traffic (%)												
Lane Group Flow (vph)	236	338	0	0	385	323	0	0	0	372	340	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.32	1.46	1.51
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA	Perm				pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	26.2	26.2		17.5	17.5	17.5	14.6	14.6		5.0	14.6	
Minimum Split (s)	70.2	70.2		52.2	52.2	52.2	41.6	41.6		9.5	41.6	
Total Split (s)	70.2	70.2		70.2	70.2	70.2	41.8	41.8		13.0	54.8	
Total Split (%)	56.2%	56.2%		56.2%	56.2%	56.2%	33.4%	33.4%		10.4%	43.8%	
Maximum Green (s)	63.0	63.0		63.0	63.0	63.0	35.2	35.2		8.5	48.2	
Yellow Time (s)	4.1	4.1		4.1	4.1	4.1	4.1	4.1		3.5	4.1	
All-Red Time (s)	3.1	3.1		3.1	3.1	3.1	2.5	2.5		1.0	2.5	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.8	2.8		2.8	2.8	2.8	2.5	2.5		3.0	4.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Walk Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	3.0			3.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	
Act Effct Green (s)	42.4	42.4			42.4	42.4				51.1	49.0	
Actuated g/C Ratio	0.40	0.40			0.40	0.40				0.48	0.46	
v/c Ratio	0.98	0.61			0.78	0.60				0.73	0.48	
Control Delay (s/veh)	83.9	28.9			38.3	14.5				34.2	5.2	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	83.9	28.9			38.3	14.5				34.2	5.2	
LOS	F	C			D	B				C	A	
Approach Delay (s/veh)		51.5			27.5						20.3	
Approach LOS		D			C						C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 105.4			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 31.8		Intersection LOS: C	
Intersection Capacity Utilization 99.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

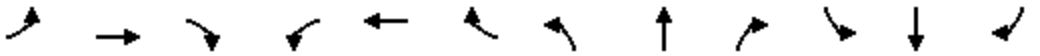




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Future Volume (vph)	217	309	2	0	354	297	0	0	0	342	2	311
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Total Lost time (s)	7.2	7.2			7.2	7.2				4.5	6.6	
Lane Util. Factor	1.00	1.00			1.00	1.00				1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.95				1.00	0.97	
Flpb, ped/bikes	0.99	1.00			1.00	1.00				0.97	1.00	
Frt	1.00	1.00			1.00	0.85				1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00				0.95	1.00	
Satd. Flow (prot)	1400	1388			1229	1085				1403	1153	
Flt Permitted	0.41	1.00			1.00	1.00				0.67	1.00	
Satd. Flow (perm)	603	1388			1229	1085				994	1153	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	236	336	2	0	385	323	0	0	0	372	2	338
RTOR Reduction (vph)	0	0	0	0	0	106	0	0	0	0	181	0
Lane Group Flow (vph)	236	338	0	0	385	217	0	0	0	372	159	0
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	Perm	NA			NA	Perm				pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	42.4	42.4			42.4	42.4				49.0	49.0	
Effective Green, g (s)	42.4	42.4			42.4	42.4				49.0	49.0	
Actuated g/C Ratio	0.40	0.40			0.40	0.40				0.47	0.47	
Clearance Time (s)	7.2	7.2			7.2	7.2				4.5	6.6	
Vehicle Extension (s)	2.8	2.8			2.8	2.8				3.0	4.0	
Lane Grp Cap (vph)	243	559			495	437				496	537	
v/s Ratio Prot		0.24			0.31					c0.06	0.14	
v/s Ratio Perm	c0.39					0.20				c0.29		
v/c Ratio	0.97	0.60			0.78	0.50				0.75	0.30	
Uniform Delay, d1	30.8	24.8			27.3	23.4				23.3	17.4	
Progression Factor	1.00	1.00			1.00	1.00				1.00	1.00	
Incremental Delay, d2	49.4	1.7			7.4	0.8				6.3	1.4	
Delay (s)	80.2	26.5			34.7	24.2				29.6	18.8	
Level of Service	F	C			C	C				C	B	
Approach Delay (s/veh)		48.6			29.9			0.0			24.5	
Approach LOS		D			C			A			C	

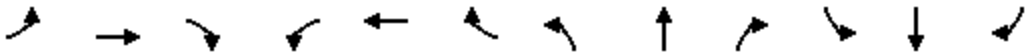
Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	105.2	Sum of lost time (s)	18.3
Intersection Capacity Utilization	99.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Future Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.978			0.931			0.993	
Flt Protected		0.998			0.983			0.997			0.985	
Satd. Flow (prot)	0	1455	0	0	1402	0	0	1378	0	0	1448	0
Flt Permitted		0.998			0.983			0.997			0.985	
Satd. Flow (perm)	0	1455	0	0	1402	0	0	1378	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	10	202	13	124	179	60	8	68	80	93	206	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	225	0	0	363	0	0	156	0	0	315	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

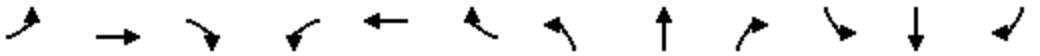
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 84.4%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Future Volume (vph)	10	194	12	119	172	58	8	65	77	89	198	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	202	12	124	179	60	8	68	80	93	206	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	224	363	156	315
Volume Left (vph)	10	124	8	93
Volume Right (vph)	12	60	80	16
Hadj (s)	0.01	0.02	-0.28	0.05
Departure Headway (s)	6.1	5.9	6.1	6.1
Degree Utilization, x	0.38	0.59	0.27	0.53
Capacity (veh/h)	531	579	503	551
Control Delay (s/veh)	12.9	17.0	11.3	15.7
Approach Delay (s/veh)	12.9	17.0	11.3	15.7
Approach LOS	B	C	B	C

Intersection Summary				
Delay		14.9		
Level of Service		B		
Intersection Capacity Utilization		84.4%	ICU Level of Service	E
Analysis Period (min)		15		

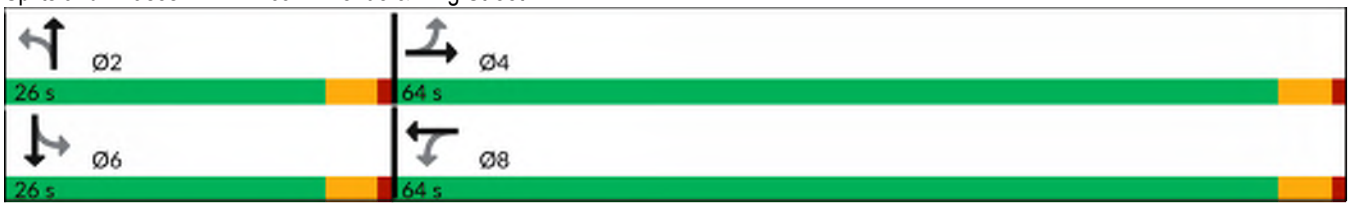


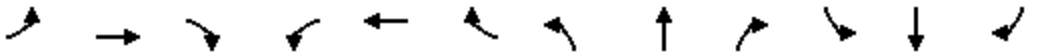
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Future Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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								0.99			1.00	
Frt		0.997			0.972			0.952			0.969	
Flt Protected	0.950			0.950				0.995			0.969	
Satd. Flow (prot)	1278	1304	0	1445	1319	0	0	1312	0	0	1362	0
Flt Permitted	0.227			0.479				0.970			0.792	
Satd. Flow (perm)	305	1304	0	728	1319	0	0	1279	0	0	1111	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27			24			16	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Adj. Flow (vph)	46	399	7	20	648	148	7	37	24	130	25	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	406	0	20	796	0	0	68	0	0	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)		3.7			3.7			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	64.0	64.0		64.0	64.0		26.0	26.0		26.0	26.0	
Total Split (%)	71.1%	71.1%		71.1%	71.1%		28.9%	28.9%		28.9%	28.9%	
Maximum Green (s)	59.5	59.5		59.5	59.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	52.8	52.8		52.8	52.8			21.8			21.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.26			0.26	
v/c Ratio	0.24	0.49		0.04	0.95			0.19			0.67	
Control Delay (s/veh)	9.9	10.3		5.6	35.3			21.0			40.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	9.9	10.3		5.6	35.3			21.0			40.7	
LOS	A	B		A	D			C			D	
Approach Delay (s/veh)		10.3			34.6			21.0			40.7	
Approach LOS		B			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 83.7			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 27.6		Intersection LOS: C	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Lincoln Avenue & King Street

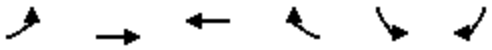




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Future Volume (vph)	38	331	6	17	538	123	6	31	20	108	21	38
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.97			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1278	1304		1445	1319			1313			1360	
Flt Permitted	0.23	1.00		0.48	1.00			0.97			0.79	
Satd. Flow (perm)	305	1304		729	1319			1280			1111	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	46	399	7	20	648	148	7	37	24	130	25	46
RTOR Reduction (vph)	0	1	0	0	10	0	0	18	0	0	12	0
Lane Group Flow (vph)	46	405	0	20	786	0	0	50	0	0	189	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	7%	25%	0%	4%	1%	0%	9%	7%	1%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	52.7	52.7		52.7	52.7			21.8			21.8	
Effective Green, g (s)	52.7	52.7		52.7	52.7			21.8			21.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.26			0.26	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	192	823		460	832			334			290	
v/s Ratio Prot		0.31			c0.60							
v/s Ratio Perm	0.15			0.03				0.04			c0.17	
v/c Ratio	0.24	0.49		0.04	0.94			0.15			0.65	
Uniform Delay, d1	6.7	8.2		5.8	14.1			23.7			27.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.6	0.5		0.0	19.0			1.0			10.9	
Delay (s)	7.3	8.7		5.9	33.0			24.7			38.4	
Level of Service	A	A		A	C			C			D	
Approach Delay (s/veh)		8.6			32.4			24.7			38.4	
Approach LOS		A			C			C			D	

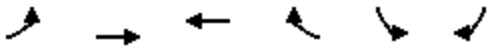
Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	83.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	357	587	8	20	30
Future Volume (vph)	13	357	587	8	20	30
Ideal Flow (vphpl)	1504	1629	1629	1351	1483	1483
Storage Length (m)	25.0			0.0	0.0	0.0
Storage Lanes	1			1	1	0
Taper Length (m)	55.0				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.919	
Flt Protected	0.950				0.980	
Satd. Flow (prot)	1416	1615	1615	1138	1324	0
Flt Permitted	0.950				0.980	
Satd. Flow (perm)	1416	1615	1615	1138	1324	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	388	638	9	22	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	388	638	9	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.32	1.20	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

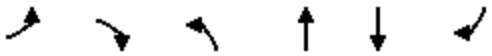
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	357	587	8	20	30
Future Volume (Veh/h)	13	357	587	8	20	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)	14	388	638	9	22	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked						
vC, conflicting volume	647				1054	638
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	647				1054	638
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				91	93
cM capacity (veh/h)	939				246	477

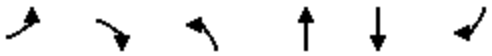
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	14	388	638	9	55
Volume Left	14	0	0	0	22
Volume Right	0	0	0	9	33
cSH	939	1700	1700	1700	347
Volume to Capacity	0.01	0.23	0.38	0.01	0.16
Queue Length 95th (m)	0.3	0.0	0.0	0.0	4.2
Control Delay (s/veh)	8.9	0.0	0.0	0.0	17.3
Lane LOS	A				C
Approach Delay (s/veh)	0.3		0.0		17.3
Approach LOS					C

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	12	5	189	156	4
Future Volume (vph)	10	12	5	189	156	4
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.927				0.997	
Flt Protected	0.978			0.999		
Satd. Flow (prot)	1345	0	0	1194	1359	0
Flt Permitted	0.978			0.999		
Satd. Flow (perm)	1345	0	0	1194	1359	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	4%	3%	0%
Adj. Flow (vph)	11	13	6	212	175	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	0	218	179	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	12	5	189	156	4
Future Volume (Veh/h)	10	12	5	189	156	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	11	13	6	212	175	4
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked						
vC, conflicting volume	401	180	179			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	401	180	179			
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	98	100			
cM capacity (veh/h)	606	860	1409			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	218	179
Volume Left	11	6	0
Volume Right	13	0	4
cSH	722	1409	1700
Volume to Capacity	0.03	0.00	0.11
Queue Length 95th (m)	0.8	0.1	0.0
Control Delay (s/veh)	10.2	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.2	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	203	104	85	194	203	115
Future Volume (vph)	203	104	85	194	203	115
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.954				0.951	
Flt Protected				0.985	0.969	
Satd. Flow (prot)	1283	0	0	1116	1307	0
Flt Permitted				0.985	0.969	
Satd. Flow (perm)	1283	0	0	1116	1307	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	3%	20%	5%	1%	14%
Adj. Flow (vph)	236	121	99	226	236	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	357	0	0	325	370	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

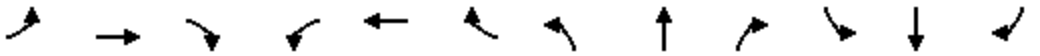
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 79.8%		ICU Level of Service D	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	203	104	85	194	203	115
Future Volume (Veh/h)	203	104	85	194	203	115
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	236	121	99	226	236	134
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			357		721	297
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			357		721	297
tC, single (s)			4.3		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.4
p0 queue free %			91		35	81
cM capacity (veh/h)			1109		361	715

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	357	325	370
Volume Left	0	99	236
Volume Right	121	0	134
cSH	1700	1109	439
Volume to Capacity	0.21	0.09	0.84
Queue Length 95th (m)	0.0	2.2	62.4
Control Delay (s/veh)	0.0	3.2	43.7
Lane LOS		A	E
Approach Delay (s/veh)	0.0	3.2	43.7
Approach LOS			E

Intersection Summary			
Average Delay	16.4		
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

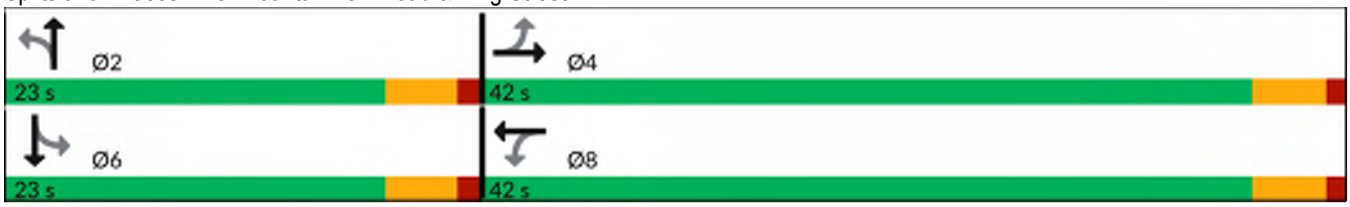


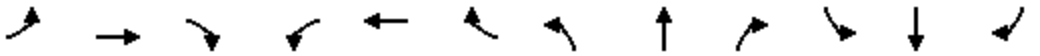
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	337	9	9	548	49	6	23	7	25	34	13
Future Volume (vph)	18	337	9	9	548	49	6	23	7	25	34	13
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.989			0.974			0.975	
Flt Protected		0.998			0.999			0.992			0.983	
Satd. Flow (prot)	0	1371	0	0	1404	0	0	1282	0	0	1379	0
Flt Permitted		0.961			0.994			0.965			0.915	
Satd. Flow (perm)	0	1321	0	0	1397	0	0	1248	0	0	1284	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			12			8			15	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Adj. Flow (vph)	20	383	10	10	623	56	7	26	8	28	39	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	413	0	0	689	0	0	41	0	0	82	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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	42.0	42.0		42.0	42.0		23.0	23.0		23.0	23.0	
Total Split (%)	64.6%	64.6%		64.6%	64.6%		35.4%	35.4%		35.4%	35.4%	
Maximum Green (s)	37.5	37.5		37.5	37.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		32.5			32.5			18.7			18.7	
Actuated g/C Ratio		0.54			0.54			0.31			0.31	
v/c Ratio		0.58			0.91			0.10			0.20	
Control Delay (s/veh)		12.8			30.7			15.5			16.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		12.8			30.7			15.5			16.4	
LOS		B			C			B			B	
Approach Delay (s/veh)		12.8			30.7			15.5			16.4	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 60.4			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 23.2		Intersection LOS: C	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			

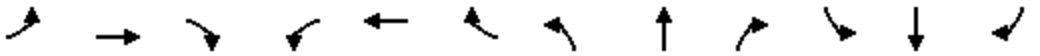
Splits and Phases: 5: Mountainview Road & King Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	18	337	9	9	548	49	6	23	7	25	34	13
Future Volume (vph)	18	337	9	9	548	49	6	23	7	25	34	13
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1370			1405			1281			1380	
Flt Permitted		0.96			0.99			0.97			0.92	
Satd. Flow (perm)		1321			1397			1247			1284	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	20	383	10	10	623	56	7	26	8	28	39	15
RTOR Reduction (vph)	0	1	0	0	6	0	0	6	0	0	10	0
Lane Group Flow (vph)	0	412	0	0	683	0	0	35	0	0	72	0
Heavy Vehicles (%)	39%	7%	17%	0%	5%	12%	50%	7%	0%	0%	0%	23%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		32.5			32.5			18.7			18.7	
Effective Green, g (s)		32.5			32.5			18.7			18.7	
Actuated g/C Ratio		0.54			0.54			0.31			0.31	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		713			754			387			398	
v/s Ratio Prot												
v/s Ratio Perm		0.31			c0.49			0.03			c0.06	
v/c Ratio		0.58			0.91			0.09			0.18	
Uniform Delay, d1		9.3			12.5			14.7			15.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.1			14.5			0.5			1.0	
Delay (s)		10.4			26.9			15.2			16.1	
Level of Service		B			C			B			B	
Approach Delay (s/veh)		10.4			26.9			15.2			16.1	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

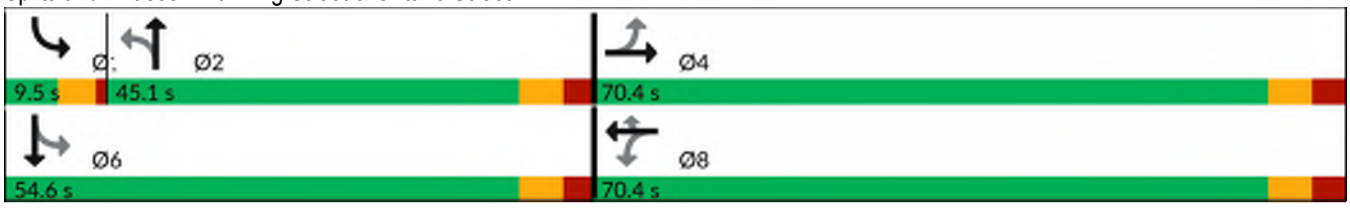


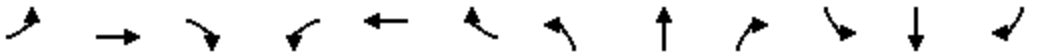
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Future Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1900
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	1		0
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99					0.95		0.95		1.00	0.91	
Frt						0.850					0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1376	1376	0	0	1129	1127	0	1425	0	1376	1075	0
Flt Permitted	0.340							0.606		0.782		
Satd. Flow (perm)	489	1376	0	0	1129	1072	0	863	0	1128	1075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						138					296	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Adj. Flow (vph)	192	330	0	0	491	321	2	0	0	343	0	247
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	330	0	0	491	321	0	2	0	343	247	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.32	1.46	0.99
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	26.2	26.2		17.5	17.5	17.5	14.6	14.6		5.0	14.6	
Minimum Split (s)	70.2	70.2		52.2	52.2	52.2	41.6	41.6		9.5	41.6	
Total Split (s)	70.4	70.4		70.4	70.4	70.4	45.1	45.1		9.5	54.6	
Total Split (%)	56.3%	56.3%		56.3%	56.3%	56.3%	36.1%	36.1%		7.6%	43.7%	
Maximum Green (s)	63.2	63.2		63.2	63.2	63.2	38.5	38.5		5.0	48.0	
Yellow Time (s)	4.1	4.1		4.1	4.1	4.1	4.1	4.1		3.5	4.1	
All-Red Time (s)	3.1	3.1		3.1	3.1	3.1	2.5	2.5		1.0	2.5	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.8	2.8		2.8	2.8	2.8	2.5	2.5		3.0	4.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Walk Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	3.0			3.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	
Act Effct Green (s)	54.2	54.2			54.2	54.2		38.8		50.5	48.4	
Actuated g/C Ratio	0.47	0.47			0.47	0.47		0.33		0.43	0.42	
v/c Ratio	0.85	0.52			0.94	0.56		0.01		0.69	0.40	
Control Delay (s/veh)	59.2	24.6			56.0	15.7		30.0		37.1	3.2	
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay (s/veh)	59.2	24.6			56.0	15.7		30.0		37.1	3.2	
LOS	E	C			E	B		C		D	A	
Approach Delay (s/veh)		37.3			40.1			30.0			22.9	
Approach LOS		D			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 116.5			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 34.1		Intersection LOS: C	
Intersection Capacity Utilization 93.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 6: King Street & Ontario Street

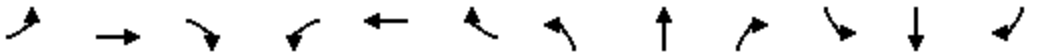




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Future Volume (vph)	167	287	0	0	427	279	2	0	0	298	0	215
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1900
Total Lost time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.95		1.00		1.00	0.91	
Flpb, ped/bikes	0.99	1.00			1.00	1.00		0.95		1.00	1.00	
Frt	1.00	1.00			1.00	0.85		1.00		1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00		0.95		0.95	1.00	
Satd. Flow (prot)	1366	1376			1129	1074		1357		1372	1080	
Flt Permitted	0.34	1.00			1.00	1.00		0.61		0.78	1.00	
Satd. Flow (perm)	489	1376			1129	1074		865		1129	1080	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	192	330	0	0	491	321	2	0	0	343	0	247
RTOR Reduction (vph)	0	0	0	0	0	74	0	0	0	0	144	0
Lane Group Flow (vph)	192	330	0	0	491	247	0	2	0	343	103	0
Confl. Peds. (#/hr)	8		16	16		8	16		1	1		16
Heavy Vehicles (%)	5%	2%	2%	2%	10%	3%	0%	2%	2%	5%	2%	1%
Turn Type	Perm	NA			NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	54.2	54.2			54.2	54.2		38.9		48.4	48.4	
Effective Green, g (s)	54.2	54.2			54.2	54.2		38.9		48.4	48.4	
Actuated g/C Ratio	0.47	0.47			0.47	0.47		0.33		0.42	0.42	
Clearance Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Vehicle Extension (s)	2.8	2.8			2.8	2.8		2.5		3.0	4.0	
Lane Grp Cap (vph)	227	640			525	500		289		479	449	
v/s Ratio Prot		0.24			c0.43					c0.03	0.10	
v/s Ratio Perm	0.39					0.23		0.00		c0.27		
v/c Ratio	0.85	0.52			0.94	0.49		0.01		0.72	0.23	
Uniform Delay, d1	27.4	21.9			29.4	21.6		25.9		29.9	22.0	
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	23.9	0.6			24.1	0.7		0.0		5.1	1.2	
Delay (s)	51.3	22.5			53.5	22.3		25.9		35.0	23.1	
Level of Service	D	C			D	C		C		C	C	
Approach Delay (s/veh)		33.1			41.2			25.9			30.0	
Approach LOS		C			D			C			C	

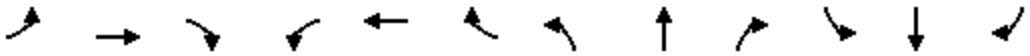
Intersection Summary			
HCM 2000 Control Delay (s/veh)	35.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	116.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	93.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Future Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.993			0.959			0.975			0.986	
Flt Protected		0.992			0.992			0.997			0.991	
Satd. Flow (prot)	0	1425	0	0	1353	0	0	1425	0	0	1431	0
Flt Permitted		0.992			0.992			0.997			0.991	
Satd. Flow (perm)	0	1425	0	0	1353	0	0	1425	0	0	1431	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	3%	0%	0%	9%	2%	12%	1%	5%	5%	2%	0%
Adj. Flow (vph)	22	114	7	41	144	82	14	213	51	34	126	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	267	0	0	278	0	0	179	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

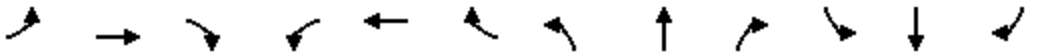
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Future Volume (vph)	20	104	6	37	131	75	13	194	46	31	115	17
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	22	114	7	41	144	82	14	213	51	34	126	19

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	143	267	278	179
Volume Left (vph)	22	41	14	34
Volume Right (vph)	7	82	51	19
Hadj (s)	0.06	-0.06	-0.06	0.01
Departure Headway (s)	5.7	5.4	5.3	5.5
Degree Utilization, x	0.23	0.40	0.41	0.28
Capacity (veh/h)	564	621	626	591
Control Delay (s/veh)	10.4	11.9	11.9	10.6
Approach Delay (s/veh)	10.4	11.9	11.9	10.6
Approach LOS	B	B	B	B

Intersection Summary				
Delay	11.4			
Level of Service	B			
Intersection Capacity Utilization	54.0%	ICU Level of Service	A	
Analysis Period (min)	15			

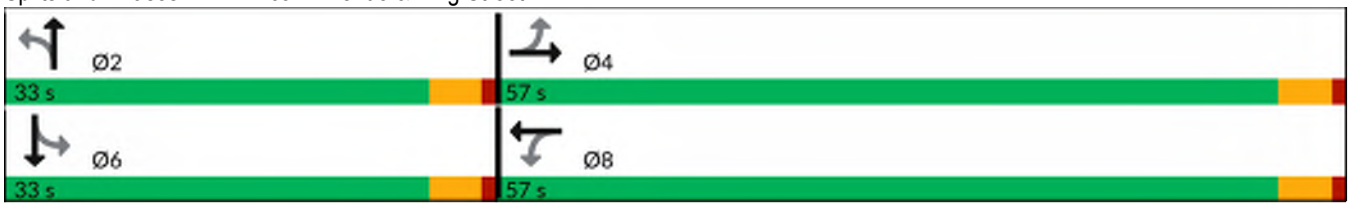


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Future Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Storage Length (m)	16.0		0.0	16.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	65.0			45.0			7.6			7.6		
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			0.98			0.99	
Frt		0.997			0.984			0.917			0.977	
Flt Protected	0.950			0.950				0.993			0.964	
Satd. Flow (prot)	1445	1386	0	1445	1352	0	0	1341	0	0	1402	0
Flt Permitted	0.227			0.280				0.953			0.745	
Satd. Flow (perm)	345	1386	0	426	1352	0	0	1287	0	0	1076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			12			33			12	
Link Speed (k/h)		60			50			50			50	
Link Distance (m)		99.5			934.2			571.7			34.1	
Travel Time (s)		6.0			67.3			41.2			2.5	
Confl. Peds. (#/hr)	5					5			4	4		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	75	622	11	25	632	78	8	13	33	214	23	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	633	0	25	710	0	0	54	0	0	285	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			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	1.32	1.46	1.35	1.32	1.46	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	57.0	57.0		57.0	57.0		33.0	33.0		33.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	52.5	52.5		52.5	52.5		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	47.0	47.0		47.0	47.0			28.7			28.7	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.34			0.34	
v/c Ratio	0.39	0.82		0.11	0.94			0.12			0.77	
Control Delay (s/veh)	17.6	25.8		9.8	39.7			12.3			41.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	17.6	25.8		9.8	39.7			12.3			41.8	
LOS	B	C		A	D			B			D	
Approach Delay (s/veh)		25.0			38.7			12.3			41.8	
Approach LOS		C			D			B			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 84.8			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 32.9		Intersection LOS: C	
Intersection Capacity Utilization 88.7%		ICU Level of Service E	
Analysis Period (min) 15			

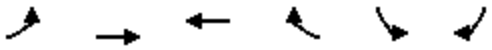
Splits and Phases: 1: Lincoln Avenue & King Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Future Volume (vph)	68	566	10	23	575	71	7	12	30	195	21	44
Ideal Flow (vphpl)	1504	1388	1483	1504	1388	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Frt	1.00	1.00		1.00	0.98			0.92			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)	1445	1386		1445	1351			1341			1393	
Flt Permitted	0.23	1.00		0.28	1.00			0.95			0.74	
Satd. Flow (perm)	345	1386		427	1351			1288			1076	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	75	622	11	25	632	78	8	13	33	214	23	48
RTOR Reduction (vph)	0	1	0	0	5	0	0	22	0	0	8	0
Lane Group Flow (vph)	75	632	0	25	705	0	0	32	0	0	277	0
Confl. Peds. (#/hr)	5					5			4	4		
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	47.0	47.0		47.0	47.0			28.7			28.7	
Effective Green, g (s)	47.0	47.0		47.0	47.0			28.7			28.7	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.34			0.34	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	191	769		236	749			436			364	
v/s Ratio Prot		0.46			c0.52							
v/s Ratio Perm	0.22			0.06				0.02			c0.26	
v/c Ratio	0.39	0.82		0.11	0.94			0.07			0.76	
Uniform Delay, d1	10.7	15.4		8.9	17.6			19.0			24.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.3	7.1		0.2	19.8			0.3			13.9	
Delay (s)	12.1	22.5		9.1	37.4			19.3			38.9	
Level of Service	B	C		A	D			B			D	
Approach Delay (s/veh)		21.4			36.4			19.3			38.9	
Approach LOS		C			D			B			D	

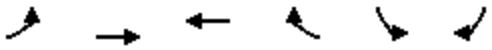
Intersection Summary			
HCM 2000 Control Delay (s/veh)	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	84.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	620	602	28	26	25
Future Volume (vph)	42	620	602	28	26	25
Ideal Flow (vphpl)	1504	1629	1629	1351	1483	1483
Storage Length (m)	25.0			0.0	0.0	0.0
Storage Lanes	1			1	1	0
Taper Length (m)	55.0				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.934	
Flt Protected	0.950				0.975	
Satd. Flow (prot)	1416	1615	1615	1138	1339	0
Flt Permitted	0.950				0.975	
Satd. Flow (perm)	1416	1615	1615	1138	1339	0
Link Speed (k/h)		60	60		50	
Link Distance (m)		819.6	99.5		29.4	
Travel Time (s)		49.2	6.0		2.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	674	654	30	28	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	674	654	30	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.32	1.20	1.20	1.51	1.35	1.35
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

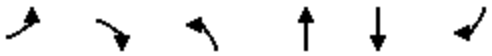
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	620	602	28	26	25
Future Volume (Veh/h)	42	620	602	28	26	25
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)	46	674	654	30	28	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			99			
pX, platoon unblocked	0.55				0.55	0.55
vC, conflicting volume	684				1420	654
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	25				1355	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				68	96
cM capacity (veh/h)	879				86	600

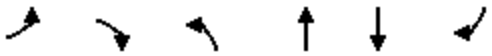
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	46	674	654	30	55
Volume Left	46	0	0	0	28
Volume Right	0	0	0	30	27
cSH	879	1700	1700	1700	149
Volume to Capacity	0.05	0.40	0.38	0.02	0.37
Queue Length 95th (m)	1.3	0.0	0.0	0.0	11.8
Control Delay (s/veh)	9.3	0.0	0.0	0.0	42.7
Lane LOS	A				E
Approach Delay (s/veh)	0.6		0.0		42.7
Approach LOS					E

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	14	22	134	261	19
Future Volume (vph)	14	14	22	134	261	19
Ideal Flow (vphpl)	1483	1483	1228	1228	1388	1388
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.991	
Flt Protected	0.976			0.993		
Satd. Flow (prot)	1364	0	0	1202	1353	0
Flt Permitted	0.976			0.993		
Satd. Flow (perm)	1364	0	0	1202	1353	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	37.0			34.1	1186.2	
Travel Time (s)	2.7			2.5	85.4	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	3%	3%	0%
Adj. Flow (vph)	16	16	24	149	290	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	173	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	1.35	1.35	1.69	1.69	1.46	1.46
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	14	22	134	261	19
Future Volume (Veh/h)	14	14	22	134	261	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	16	16	24	149	290	21
Pedestrians				3		
Lane Width (m)				3.7		
Walking Speed (m/s)				1.1		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				34		
pX, platoon unblocked	0.99					
vC, conflicting volume	498	304	311			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	486	304	311			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	98			
cM capacity (veh/h)	528	739	1261			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	32	173	311
Volume Left	16	24	0
Volume Right	16	0	21
cSH	616	1261	1700
Volume to Capacity	0.05	0.02	0.18
Queue Length 95th (m)	1.2	0.4	0.0
Control Delay (s/veh)	11.2	1.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	11.2	1.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		



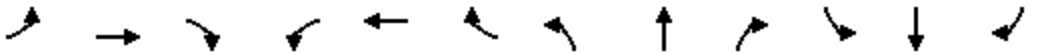
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	251	105	190	117	101
Future Volume (vph)	230	251	105	190	117	101
Ideal Flow (vphpl)	1388	1388	1228	1228	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930				0.938	
Flt Protected				0.983	0.974	
Satd. Flow (prot)	1286	0	0	1167	1339	0
Flt Permitted				0.983	0.974	
Satd. Flow (perm)	1286	0	0	1167	1339	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	585.0			478.8	980.5	
Travel Time (s)	26.3			21.5	70.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	1%	2%	6%	0%	5%
Adj. Flow (vph)	280	306	128	232	143	123
Shared Lane Traffic (%)						
Lane Group Flow (vph)	586	0	0	360	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	4.9	
Two way Left Turn Lane						
Headway Factor	1.46	1.46	1.69	1.69	1.35	1.35
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 88.3%		ICU Level of Service E	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	230	251	105	190	117	101
Future Volume (Veh/h)	230	251	105	190	117	101
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	280	306	128	232	143	123
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			586		921	433
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			586		921	433
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			87		46	80
cM capacity (veh/h)			989		264	616

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	586	360	266
Volume Left	0	128	143
Volume Right	306	0	123
cSH	1700	989	358
Volume to Capacity	0.34	0.13	0.74
Queue Length 95th (m)	0.0	3.4	43.8
Control Delay (s/veh)	0.0	4.2	39.0
Lane LOS		A	E
Approach Delay (s/veh)	0.0	4.2	39.0
Approach LOS			E

Intersection Summary			
Average Delay	9.8		
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		

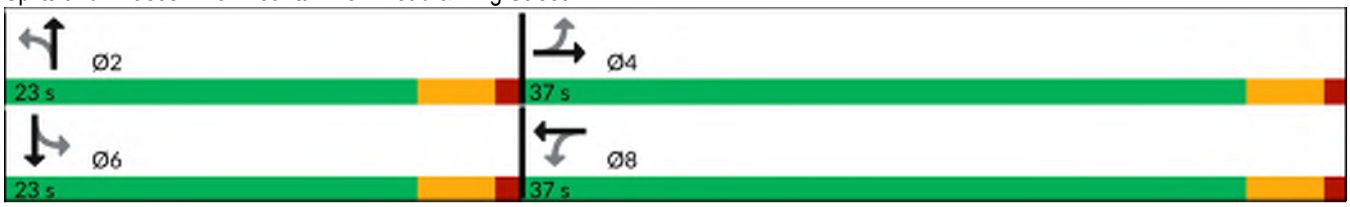


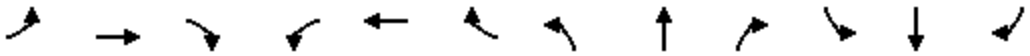
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	610	14	20	588	21	24	46	24	53	41	20
Future Volume (vph)	24	610	14	20	588	21	24	46	24	53	41	20
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.995			0.965			0.976	
Flt Protected		0.998			0.998			0.987			0.977	
Satd. Flow (prot)	0	1481	0	0	1441	0	0	1300	0	0	1361	0
Flt Permitted		0.967			0.972			0.919			0.842	
Satd. Flow (perm)	0	1435	0	0	1403	0	0	1211	0	0	1173	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			5			26			19	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		446.4			819.6			314.9			254.1	
Travel Time (s)		26.8			49.2			22.7			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Adj. Flow (vph)	26	656	15	22	632	23	26	49	26	57	44	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	697	0	0	677	0	0	101	0	0	123	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			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0		23.0	23.0	
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%		38.3%	38.3%	
Maximum Green (s)	32.5	32.5		32.5	32.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		30.3			30.3			18.6			18.6	
Actuated g/C Ratio		0.52			0.52			0.32			0.32	
v/c Ratio		0.93			0.92			0.25			0.32	
Control Delay (s/veh)		34.5			33.6			14.2			16.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		34.5			33.6			14.2			16.6	
LOS		C			C			B			B	
Approach Delay (s/veh)		34.5			33.6			14.2			16.6	
Approach LOS		C			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 58			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay (s/veh): 31.5		Intersection LOS: C	
Intersection Capacity Utilization 77.1%		ICU Level of Service D	
Analysis Period (min) 15			

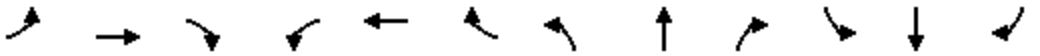
Splits and Phases: 5: Mountainview Road & King Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	610	14	20	588	21	24	46	24	53	41	20
Future Volume (vph)	24	610	14	20	588	21	24	46	24	53	41	20
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1481			1442			1301			1362	
Flt Permitted		0.97			0.97			0.92			0.84	
Satd. Flow (perm)		1436			1404			1211			1173	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	26	656	15	22	632	23	26	49	26	57	44	22
RTOR Reduction (vph)	0	1	0	0	2	0	0	18	0	0	13	0
Lane Group Flow (vph)	0	696	0	0	675	0	0	83	0	0	110	0
Heavy Vehicles (%)	0%	0%	34%	17%	3%	0%	25%	7%	0%	7%	5%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.3			30.3			18.6			18.6	
Effective Green, g (s)		30.3			30.3			18.6			18.6	
Actuated g/C Ratio		0.52			0.52			0.32			0.32	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		751			734			389			376	
v/s Ratio Prot												
v/s Ratio Perm		c0.48			0.48			0.07			c0.09	
v/c Ratio		0.93			0.92			0.21			0.29	
Uniform Delay, d1		12.8			12.7			14.3			14.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		17.3			16.4			1.3			2.0	
Delay (s)		30.0			29.1			15.6			16.7	
Level of Service		C			C			B			B	
Approach Delay (s/veh)		30.0			29.1			15.6			16.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	57.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

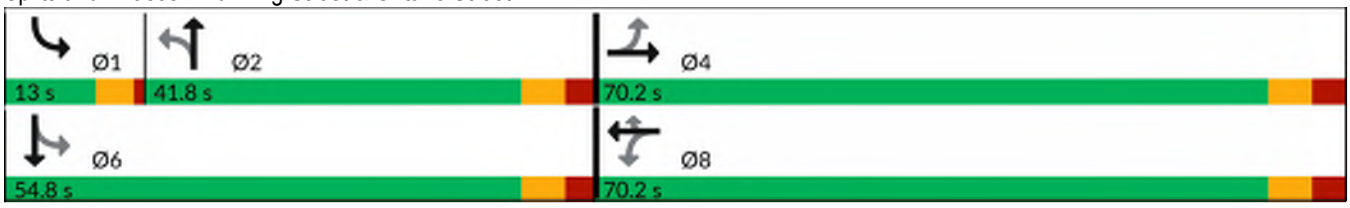


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Future Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Storage Length (m)	15.0		0.0	0.0		20.0	0.0		0.0	90.0		0.0
Storage Lanes	1		0	0		1	0		0	1		0
Taper Length (m)	45.0			2.5			2.5			35.0		
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	0.99	1.00				0.95				0.95	0.96	
Frt		0.999				0.850					0.851	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1416	1388	0	0	1229	1138	0	1470	0	1445	1150	0
Flt Permitted	0.397									0.672		
Satd. Flow (perm)	585	1388	0	0	1229	1079	0	1470	0	968	1150	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						182					341	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		934.2			721.8			34.7			180.7	
Travel Time (s)		67.3			52.0			2.5			13.0	
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
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 (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	274	378	2	0	434	374	0	0	0	430	2	391
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	380	0	0	434	374	0	0	0	430	393	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.32	1.46	0.99	0.99	1.69	1.51	1.35	1.35	1.35	1.32	1.46	1.51
Turning Speed (k/h)	24		97	97		14	97		97	24		14
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8	6.1	6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA	Perm				pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	26.2	26.2		17.5	17.5	17.5	14.6	14.6		5.0	14.6	
Minimum Split (s)	70.2	70.2		52.2	52.2	52.2	41.6	41.6		9.5	41.6	
Total Split (s)	70.2	70.2		70.2	70.2	70.2	41.8	41.8		13.0	54.8	
Total Split (%)	56.2%	56.2%		56.2%	56.2%	56.2%	33.4%	33.4%		10.4%	43.8%	
Maximum Green (s)	63.0	63.0		63.0	63.0	63.0	35.2	35.2		8.5	48.2	
Yellow Time (s)	4.1	4.1		4.1	4.1	4.1	4.1	4.1		3.5	4.1	
All-Red Time (s)	3.1	3.1		3.1	3.1	3.1	2.5	2.5		1.0	2.5	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	7.2	7.2			7.2	7.2		6.6		4.5	6.6	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.8	2.8		2.8	2.8	2.8	2.5	2.5		3.0	4.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Walk Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	3.0			3.0	
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	
Act Effct Green (s)	56.7	56.7			56.7	56.7				50.6	48.5	
Actuated g/C Ratio	0.48	0.48			0.48	0.48				0.42	0.41	
v/c Ratio	0.99	0.58			0.74	0.61				0.97	0.59	
Control Delay (s/veh)	82.5	26.1			33.9	15.5				69.6	8.9	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	82.5	26.1			33.9	15.5				69.6	8.9	
LOS	F	C			C	B				E	A	
Approach Delay (s/veh)		49.8			25.4						40.6	
Approach LOS		D			C						D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 119.1			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay (s/veh): 37.8		Intersection LOS: D	
Intersection Capacity Utilization 109.6%		ICU Level of Service H	
Analysis Period (min) 15			

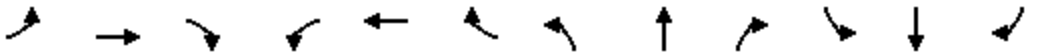
Splits and Phases: 6: King Street & Ontario Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Future Volume (vph)	252	348	2	0	399	344	0	0	0	396	2	360
Ideal Flow (vphpl)	1504	1388	1900	1900	1228	1351	1483	1483	1483	1504	1388	1351
Total Lost time (s)	7.2	7.2			7.2	7.2				4.5	6.6	
Lane Util. Factor	1.00	1.00			1.00	1.00				1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.95				1.00	0.96	
Flpb, ped/bikes	0.99	1.00			1.00	1.00				0.97	1.00	
Frt	1.00	1.00			1.00	0.85				1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00				0.95	1.00	
Satd. Flow (prot)	1401	1388			1229	1080				1397	1150	
Flt Permitted	0.40	1.00			1.00	1.00				0.67	1.00	
Satd. Flow (perm)	585	1388			1229	1080				988	1150	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	378	2	0	434	374	0	0	0	430	2	391
RTOR Reduction (vph)	0	0	0	0	0	95	0	0	0	0	202	0
Lane Group Flow (vph)	274	380	0	0	434	279	0	0	0	430	191	0
Confl. Peds. (#/hr)	9		19	19		9	4		14	14		4
Heavy Vehicles (%)	2%	1%	0%	2%	1%	2%	2%	2%	2%	0%	0%	0%
Turn Type	Perm	NA			NA	Perm				pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	56.7	56.7			56.7	56.7				48.5	48.5	
Effective Green, g (s)	56.7	56.7			56.7	56.7				48.5	48.5	
Actuated g/C Ratio	0.48	0.48			0.48	0.48				0.41	0.41	
Clearance Time (s)	7.2	7.2			7.2	7.2				4.5	6.6	
Vehicle Extension (s)	2.8	2.8			2.8	2.8				3.0	4.0	
Lane Grp Cap (vph)	278	661			585	514				432	468	
v/s Ratio Prot		0.27			0.35					c0.07	0.17	
v/s Ratio Perm	c0.47					0.26				c0.33		
v/c Ratio	0.99	0.57			0.74	0.54				1.00	0.41	
Uniform Delay, d1	30.7	22.5			25.2	22.0				35.5	25.0	
Progression Factor	1.00	1.00			1.00	1.00				1.00	1.00	
Incremental Delay, d2	49.6	1.1			4.9	1.1				41.8	2.6	
Delay (s)	80.3	23.6			30.2	23.1				77.3	27.7	
Level of Service	F	C			C	C				E	C	
Approach Delay (s/veh)		47.4			26.9			0.0			53.6	
Approach LOS		D			C			A			D	

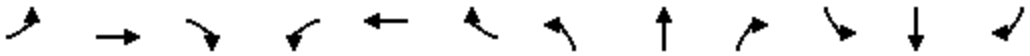
Intersection Summary			
HCM 2000 Control Delay (s/veh)	42.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	119.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	109.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Future Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Ideal Flow (vphpl)	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
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
Frt		0.992			0.977			0.930			0.993	
Flt Protected		0.998			0.983			0.997			0.985	
Satd. Flow (prot)	0	1455	0	0	1400	0	0	1376	0	0	1448	0
Flt Permitted		0.998			0.983			0.997			0.985	
Satd. Flow (perm)	0	1455	0	0	1400	0	0	1376	0	0	1448	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		465.9			634.8			1186.2			980.5	
Travel Time (s)		33.5			45.7			85.4			70.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	4%	2%	3%	0%	0%	2%	0%	2%	0%
Adj. Flow (vph)	13	234	15	142	208	70	9	75	91	107	236	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	420	0	0	175	0	0	361	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)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 95.0%		ICU Level of Service F	
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	
Traffic Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Future Volume (vph)	12	225	14	136	200	67	9	72	87	103	227	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	12	234	15	142	208	70	9	75	91	107	236	18

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	261	420	175	361
Volume Left (vph)	12	142	9	107
Volume Right (vph)	15	70	91	18
Hadj (s)	0.01	0.02	-0.28	0.05
Departure Headway (s)	6.8	6.4	6.9	6.7
Degree Utilization, x	0.49	0.75	0.34	0.67
Capacity (veh/h)	471	528	433	497
Control Delay (s/veh)	16.3	26.4	13.4	22.3
Approach Delay (s/veh)	16.3	26.4	13.4	22.3
Approach LOS	C	D	B	C

Intersection Summary				
Delay			21.2	
Level of Service			C	
Intersection Capacity Utilization			95.0%	ICU Level of Service
Analysis Period (min)			15	

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	L	TR
Maximum Queue (m)	54.6	83.8	116.6	22.5	1.7	59.8	23.0
Average Queue (m)	40.5	59.4	75.5	17.0	0.5	39.8	15.8
95th Queue (m)	61.8	131.0	124.3	29.2	3.6	64.6	26.9
Link Distance (m)		912.7	712.2		34.0		593.5
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0		90.0	
Storage Blk Time (%)	78	35	34	2			
Queuing Penalty (veh)	188	48	77	9			

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	L	TR
Maximum Queue (m)	59.8	98.6	101.5	22.8	74.4	32.6
Average Queue (m)	48.2	54.3	56.7	20.9	50.0	21.7
95th Queue (m)	68.4	116.1	115.8	26.3	80.2	34.4
Link Distance (m)		912.7	712.2			593.5
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0	90.0	
Storage Blk Time (%)	76	35	23	3	1	
Queuing Penalty (veh)	227	71	64	9	2	

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	L	TR
Maximum Queue (m)	53.2	91.9	129.0	22.5	3.5	54.3	28.8
Average Queue (m)	41.9	54.6	93.4	21.7	1.0	39.6	16.9
95th Queue (m)	68.7	108.9	158.5	24.2	5.4	70.3	31.9
Link Distance (m)		912.5	712.8		26.0		168.4
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0		90.0	
Storage Blk Time (%)	80	31	35	2		1	
Queuing Penalty (veh)	201	45	84	8		2	

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	L	TR
Maximum Queue (m)	59.7	185.8	119.4	22.5	72.7	48.9
Average Queue (m)	54.8	122.3	75.8	19.8	50.4	25.2
95th Queue (m)	70.8	246.3	134.8	27.1	78.8	50.4
Link Distance (m)		912.5	712.8			168.4
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0	90.0	
Storage Blk Time (%)	88	35	30	3		
Queuing Penalty (veh)	275	76	88	10		

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	L	TR
Maximum Queue (m)	59.0	199.1	147.7	22.5	3.5	78.6	27.6
Average Queue (m)	52.7	107.7	113.0	19.3	1.4	47.7	17.6
95th Queue (m)	69.2	238.1	195.6	27.5	6.1	79.6	32.5
Link Distance (m)		912.5	712.8		26.0		168.4
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	15.0			20.0		90.0	
Storage Blk Time (%)	90	34	37	2		0	
Queuing Penalty (veh)	258	57	104	8		0	

Intersection: 6: King Street & Ontario Street

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	TR	LT	R	L	TR
Maximum Queue (m)	59.8	354.5	166.1	22.5	92.5	45.9
Average Queue (m)	55.2	206.7	129.4	20.0	64.2	30.7
95th Queue (m)	70.1	465.2	206.0	29.1	103.0	52.4
Link Distance (m)		912.5	712.8			168.4
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	15.0			20.0	90.0	
Storage Blk Time (%)	92	26	40	4	2	
Queuing Penalty (veh)	322	66	137	16	8	

APPENDIX F

Background Developments

Andrew Bader

From: Josh Warkentin <jwarkentin@lincoln.ca>
Sent: Monday, October 7, 2024 9:58 AM
To: Andrew Bader; Melissa Shih
Cc: Ian Lindley; Matt Bruder
Subject: RE: Follow up - 5205 King Street, Beamsville - Transportation Engineering Services ToR

Hi Andrew,

I just sent you a link to a shared folder containing the TIS' for 4129 Hixon St. and 4040 Mountain St. Due to the modest size of the development at 5050 Hillside no TIS was required by the Town.

If you have any problems accessing the TIS' please let me know.

Regards,
Josh

Josh Warkentin
Senior Planner
Town of Lincoln
Direct: 905-563-2799 ext. 503
Tel: 905-563-8205
jwarkentin@lincoln.ca
lincoln.ca
@TownofLincolnON

From: Andrew Bader <abader@cfcrozier.ca>
Sent: October 3, 2024 11:32 AM
To: Josh Warkentin <jwarkentin@lincoln.ca>; Melissa Shih <mshih@lincoln.ca>
Cc: Ian Lindley <ilindley@cfcrozier.ca>; Matt Bruder <MBruder@lincoln.ca>
Subject: RE: Follow up - 5205 King Street, Beamsville - Transportation Engineering Services ToR

Hi Josh,

Thank you for sending this. I did a search for information relating to the impactful developments, but I was unable to find anything.

Would you be able to send the Transportation Impact Studies for 4129 Hixon Street, 4040 Mountain Street, and 5050 Hillside Drive?

Thank you,
Andrew

Andrew Bader
Engineering Intern, Transportation
Office: 289.204.8341
Collingwood | Milton | Toronto | Bradford | Guelph

Celebrating 20 years and another year as one of Canada's Top Growing Companies.

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From: Josh Warkentin <jwarkentin@lincoln.ca>
Sent: Wednesday, October 2, 2024 3:44 PM
To: Melissa Shih <mshih@lincoln.ca>; Andrew Bader <abader@cfcrozier.ca>
Cc: Ian Lindley <ilindley@cfcrozier.ca>; Matt Bruder <MBruder@lincoln.ca>
Subject: RE: Follow up - 5205 King Street, Beamsville - Transportation Engineering Services ToR

Hi Andrew,

This area of Beamsville has seen a lot of new development since 2020 including the following including the following:

- Vista Ridge Phase 1
  - 100 singles
  - 212 towns
- Vista Ridge Phase 2
  - 109 singles
- Vista Ridge - Block 40
  - 11 singles
- Cherry Heights Subdivision
  - 51 singles
  - 216 towns

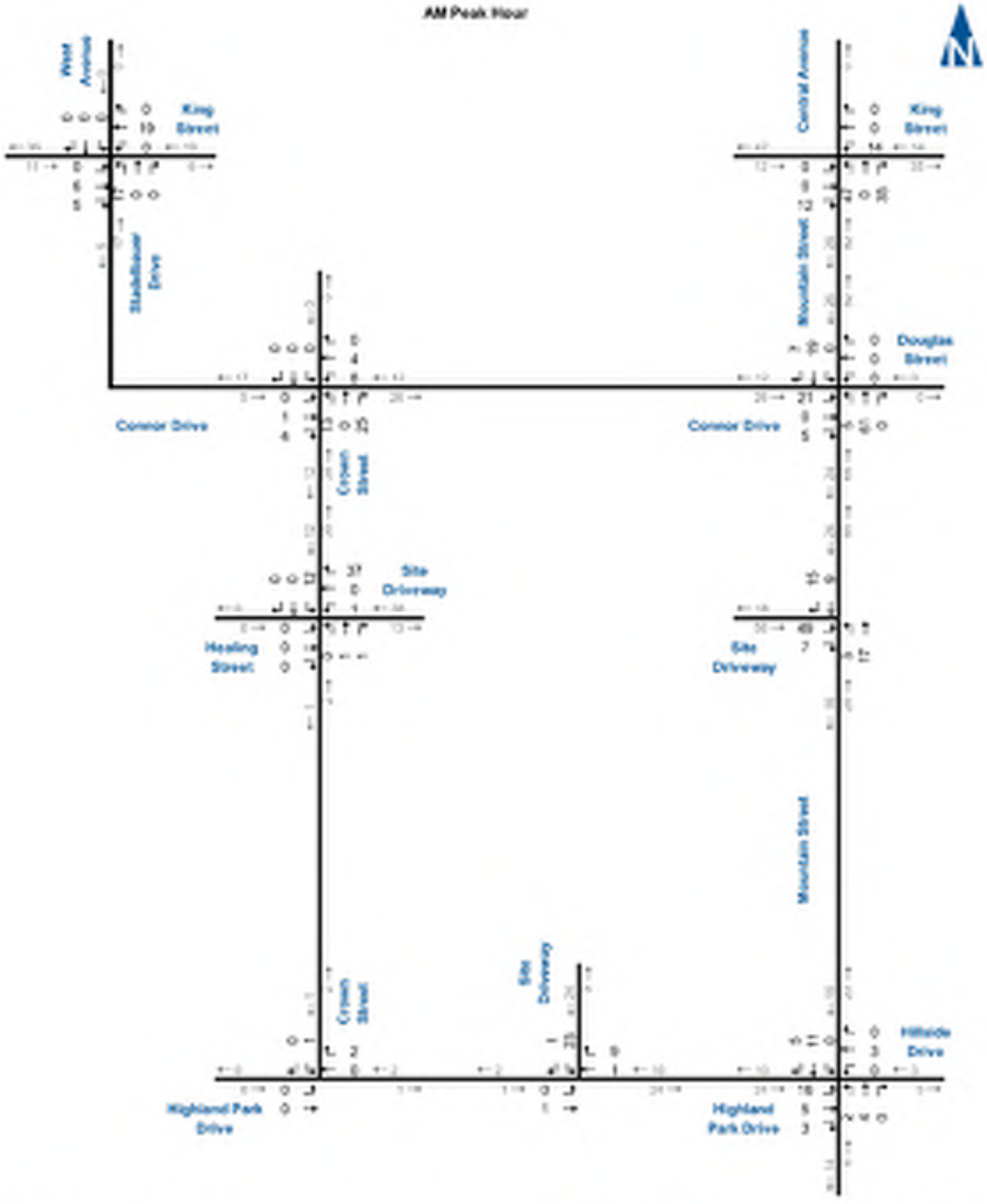
The following developments will impact one or more of the study intersections:

- 4129 Hixon St.
  - 17 singles
  - 36 semis
  - 44 towns
  - 63 apartments
- 4040 Mountain St.
  - 139 block townhouses
- 5050 Hillside Dr.
  - 192 long-term care beds
  - 70 units of retirement residents
  - 60 staff

If you have any questions or need more info on any of these developments please let me know.

Have a good evening,
Josh

Josh Warkentin
Senior Planner

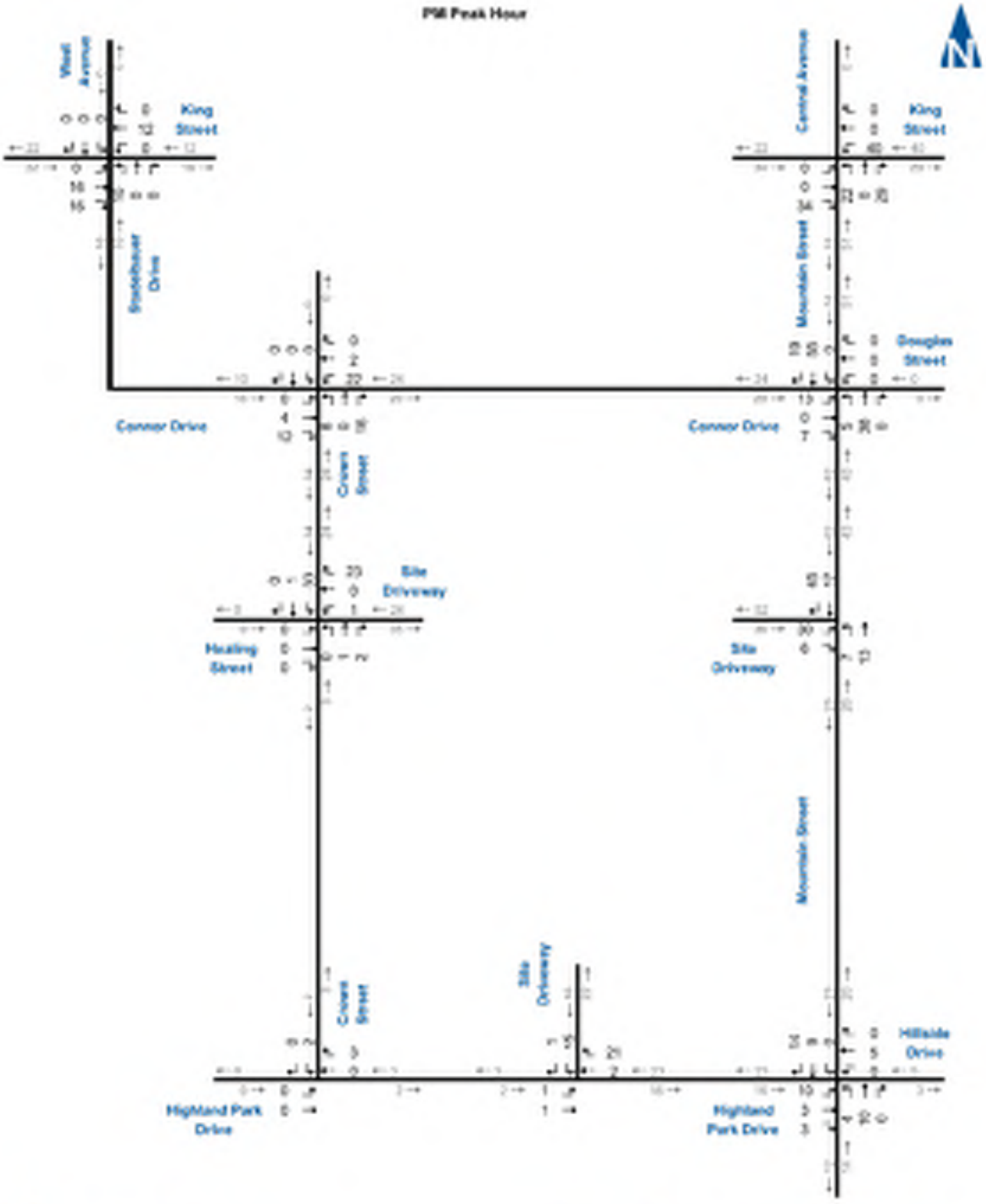


paradigm

Site Generated Traffic (AM Peak Hour)

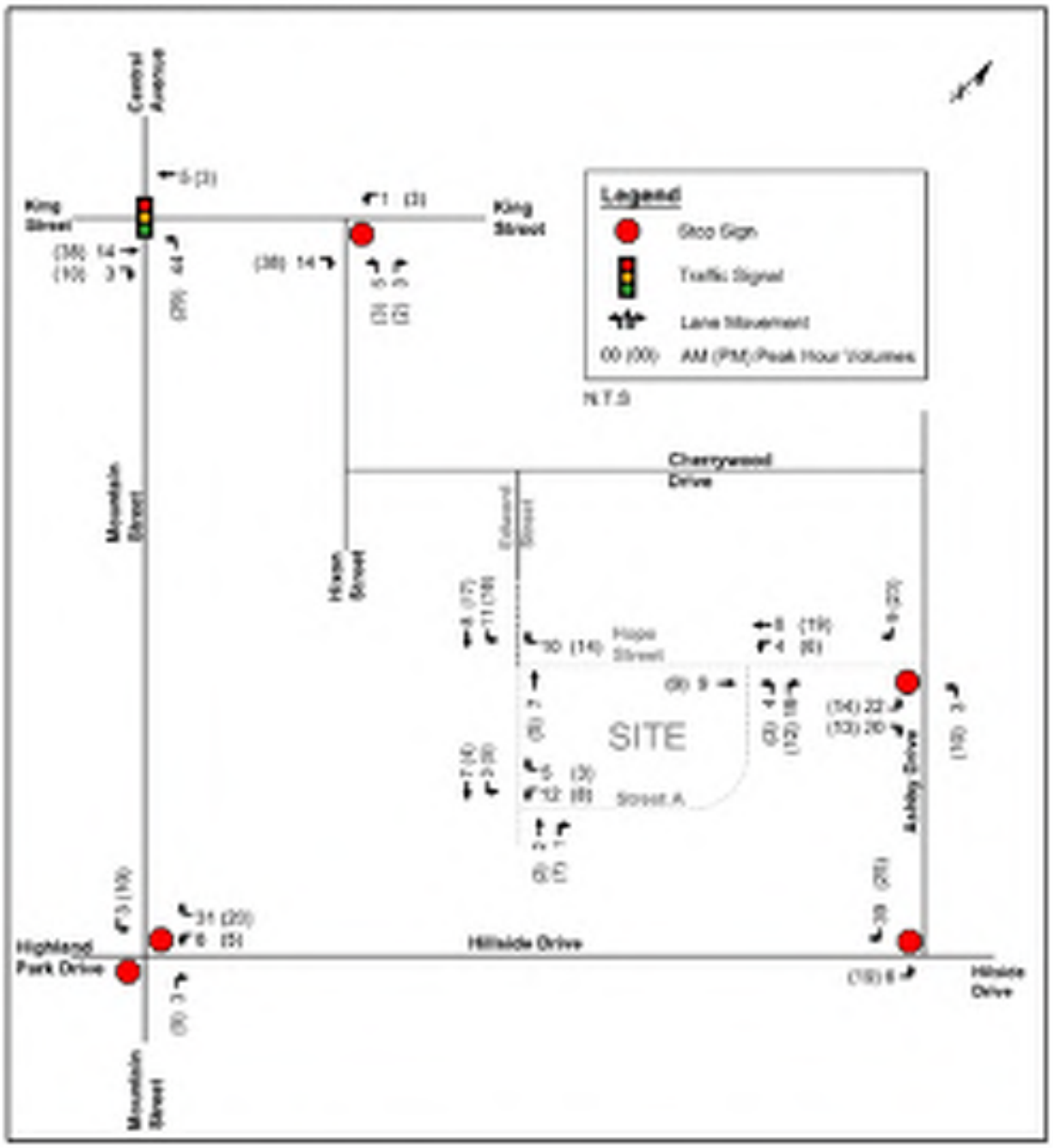
Vista Ridge TIS
220654

Figure 3.3a



Site Generated Traffic (PM Peak Hour)

Figure 7: Site Traffic Volumes



5.0 Total Traffic Conditions

Total traffic volumes consist of background traffic volumes plus site trips. The resulting 2030 total traffic volumes are shown in Figure 8.

APPENDIX G

Future Roadway Improvements

POLE & ELECTRICAL STRUCTURES

LOCATION (QUADRANT)	POLE OR STRUCT. No.	POLE HEIGHT	POLE BASE TYPE	ELEVATION	COMMENTS	SIGNAL ARM LENGTH	LUMINAIRE ARM LENGTH	LUMINAIRE WATTAGE	FAWS DIAL SETTING	BLACK POWDER COATED POLE W DECORATIVE BASE
SE	TS1	10.50m	6	000.000	SIGNAL HEAD, PED HEAD, PED BUTTON AND LUMINAIRE	3.00m	3.00m	160W	---	---
SW	TS2	5.40m	6	000.000	SIGNAL HEAD	3.65m	---	---	---	---
SW	TS3	3.66m	1	000.000	PED HEAD AND BUTTON	---	---	---	---	---
SW	TS4	3.66m	1	000.000	PED HEAD AND BUTTON	---	---	---	---	---
SW	TS5	5.40m	6	000.000	SIGNAL HEAD	1.20m	---	---	---	---
NW	TS6	10.50m	6	000.000	SIGNAL HEAD, LUMINAIRE, PED HEAD AND PED BUTTON	6.10m	3.00m	215W	---	---
NW	TS7	10.50m	6	000.000	SIGNAL HEAD, LUMINAIRE, PED HEAD AND PED BUTTON	2.44m	3.00m	160W	---	---
NE	TS8	5.40m	6	000.000	SIGNAL HEAD	3.00m	---	---	---	---
NE	TS9	3.66m	1	000.000	PED HEADS AND BUTTONS	---	---	---	---	---
NE	TS10	10.50m	6	000.000	SIGNAL HEAD AND LUMINAIRE	2.44m	3.00m	215W	---	---
SE	TS11	5.40m	6	000.000	SIGNAL HEAD, PRE-EMPTION ANTENNA, PED BUTTON AND PED HEAD	4.57m	---	---	---	---
SE	PS1	7.00m	DIRECT BURIED	000.000	POWER SUPPLY AND METER	---	---	---	---	---

TYPE AND LOCATION OF TRAFFIC SIGNAL HEADS

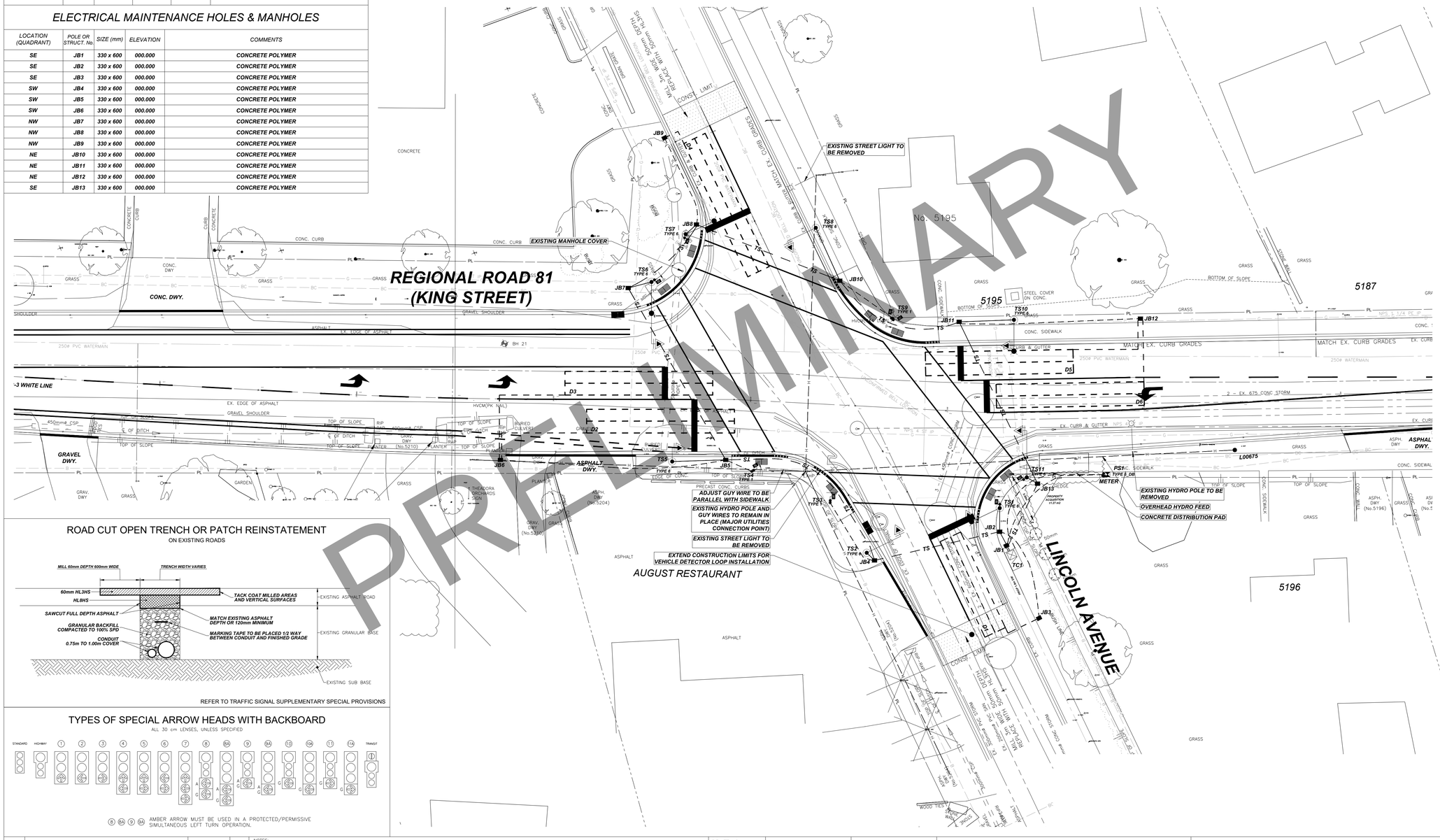
LOCATION	TYPE	BACKBOARD	SIGNAL MOUNTING HEIGHT	COMMENTS
SB SECONDARY	HWY	YES	5.00m	---
SB PRIMARY	HWY	YES	5.00m	---
---	---	---	---	---
---	---	---	---	---
WB SECONDARY	HWY	YES	5.00m	---
WB PRIMARY	HWY	YES	5.00m	---
NB SECONDARY	HWY	YES	5.00m	---
NB PRIMARY	HWY	YES	5.00m	---
---	---	---	---	---
EB SECONDARY	HWY	YES	5.00m	---
EB PRIMARY	HWY	YES	5.00m	---
---	---	---	---	---

TYPE AND LOCATION OF DETECTION

LOCATION	No.	TYPE	COMMENTS
LINCOLN AVENUE	D1	DUPLEX	CUSTOM SIZE - 10.70m x 2.30m
RR81 (KING STREET)	D2	DUPLEX	FULL SIZE
RR81 (KING STREET)	D3	DUPLEX	FULL SIZE
LINCOLN AVENUE	D4	DUPLEX	FULL SIZE
RR81 (KING STREET)	D5	DUPLEX	FULL SIZE
RR81 (KING STREET)	D6	DUPLEX	FULL SIZE

ELECTRICAL MAINTENANCE HOLES & MANHOLES

LOCATION (QUADRANT)	POLE OR STRUCT. No.	SIZE (mm)	ELEVATION	COMMENTS
SE	JB1	330 x 600	000.000	CONCRETE POLYMER
SE	JB2	330 x 600	000.000	CONCRETE POLYMER
SE	JB3	330 x 600	000.000	CONCRETE POLYMER
SW	JB4	330 x 600	000.000	CONCRETE POLYMER
SW	JB5	330 x 600	000.000	CONCRETE POLYMER
SW	JB6	330 x 600	000.000	CONCRETE POLYMER
NW	JB7	330 x 600	000.000	CONCRETE POLYMER
NW	JB8	330 x 600	000.000	CONCRETE POLYMER
NW	JB9	330 x 600	000.000	CONCRETE POLYMER
NE	JB10	330 x 600	000.000	CONCRETE POLYMER
NE	JB11	330 x 600	000.000	CONCRETE POLYMER
NE	JB12	330 x 600	000.000	CONCRETE POLYMER
SE	JB13	330 x 600	000.000	CONCRETE POLYMER



ROAD CUT OPEN TRENCH OR PATCH REINSTATEMENT

ON EXISTING ROADS

REFER TO TRAFFIC SIGNAL SUPPLEMENTARY SPECIAL PROVISIONS

TYPES OF SPECIAL ARROW HEADS WITH BACKBOARD

ALL 30 cm LENSES, UNLESS SPECIFIED

8 8A 9 9A AMBER ARROW MUST BE USED IN A PROTECTED/PERMISSIVE SIMULTANEOUS LEFT TURN OPERATION.

LEGEND

TRAFFIC SIGNAL BLOCKS

- HIGHWAY SIGNAL HEAD (30 cm, Red) WITH BACKBOARD AND MAST ARM
- HIGHWAY SIGNAL HEAD (30 cm, Red) WITH BACKBOARD AND OVERHEAD CABLE
- HIGHWAY SIGNAL HEAD WITH BACKBOARD AND MAST ARM (ALL 30 cm. LENSES)
- SPECIAL HEAD WITH ARROW INDICATION AND BACKBOARD (Example shows Type (2) Head)
- HIGHWAY SIGNAL HEAD WITH BACKBOARD AND MAST ARM (ALL 30 cm. LENSES) (Example shows Type (2) Head)
- SPECIAL HEAD WITH BACKBOARD AND ONE OR MORE PROGRAMMABLE LENSES (Example shows Type (2) Head)
- STANDARD SIGNAL HEAD WITH BACKBOARD AND MAST ARM (ALL 20 cm. LENSES)
- STANDARD SIGNAL HEAD WITH MAST ARM, WITHOUT BACKBOARD
- PEDESTRIAN SIGNAL HEAD
- COUNTDOWN PEDESTRIAN SIGNAL HEAD
- PEDESTRIAN PUSH BUTTON
- AUDIBLE PEDESTRIAN PUSH BUTTON
- VEHICLE PASSAGE LOOP DETECTOR
- VEHICLE LOOP / VIDEO DETECTION AREA
- DUPLEX LOOP DETECTOR
- DIAMOND LOOP DETECTOR
- EMERGENCY VEHICLE PRE-EMPTION DETECTOR
- MICRO-WAVE DETECTOR
- MAGNETIC VEHICLE DETECTOR
- TRAFFIC CONTROLLER
- Rb-25 TRAFFIC SIGN (Example shows Rb-25 Sign)
- TRAFFIC SIGN WITH FLASHING BEACON
- ILLUMINATED TRAFFIC SIGN
- VIDEO DETECTION CAMERA
- RADAR DETECTION CAMERA
- JB JUNCTION BOX
- TS SIGNAL POLE
- TILT/PAN/ZOOM VIDEO CAMERA
- MULTI-LEG DETECTION CAMERA
- LUMINAIRE
- POWER DISTRIBUTION CABINET / DISCONNECT
- RADIO INTERCONNECT
- HYDRO METER
- TACTILE WARNING SURFACE

TRAFFIC SIGNAL LINETYPES

- TRAFFIC SIGNAL CONDUITS (1-10mm AND 1-50mm) — 50&100mm —
- TRAFFIC SIGNAL CONDUIT (1-50mm) — — — —
- INTERCONNECT CONDUIT (1-50mm) — INTER —
- TRAFFIC SIGNAL AERIAL WIRE
- TRAFFIC LOOP DETECTION CABLE — — — —

ISSUED 90% DESIGN REVIEW
ISSUED: 2024 07 11
PROJECT: NEW TRAFFIC SIGNAL

INTERSECTION HARDWARE CHECKLIST
ENTER ☑ ALL THAT APPLY

CONTROL ☐ FULLY ACTUATED ☐ SEMI ACTUATED ☐ FIXED TIME

PEDESTRIANS	N. LEG	S. LEG	E. LEG	W. LEG
AUDIBLE PEDESTRIAN HEADS	☐	☐	☐	☐
COUNTDOWN HEADS	☐	☐	☐	☐

DETECTION	NB	SB	EB	WB
VIDEO	☐	☐	☐	☐
RADAR	☐	☐	☐	☐
LOOPS	☐	☐	☐	☐
LONG DISTANCE LOOPS	☐	☐	☐	☐
OTHER: _____	☐	☐	☐	☐

COMMUNICATION
RADIO ☐ FIBRE ☐ COPPER ☐ NONE ☐

PHASING
TWO PHASE ☐

	NB	SB	EB	WB
PROTECTED/PERMISSIVE LT	☐	☐	☐	☐
FULLY PROTECTED LT	☐	☐	☐	☐
SPLIT PHASE	☐	☐	☐	☐
OTHER: _____	☐	☐	☐	☐

BACKUP POWER SUPPLY
YES ☐ NO ☐

PRE-EMPTION
NONE ☐ RAIL ☐ BRIDGE ☐
EMERGENCY VEHICLE ☐

RETURN DATE

SIGNATURE
ADAM GEBAUER NICK ROSATI

081LNC

NO.	REVISION	DATE	INIT.
3	ISSUED FOR 90% REVIEW	2024 07 11	TC
2	RE-ISSUED FOR 60% REVIEW	2024 05 23	TC
1	ISSUED FOR 60% REVIEW	2024 04 15	TC

NOTES:
1. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWER AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
2. PROPERTY LINES WERE PLOTTED USING REGISTERED PLANS AND BARS LOCATED IN THE FIELD. TO VERIFY THE ACCURACY OF THESE PROPERTY LINES, A LEGAL SURVEY SHOULD BE PERFORMED PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CONTACT THE REGION'S TRAFFIC OPERATIONS MANAGER FOLLOWING THE TRAFFIC SIGNAL PLANT LAYOUT, PROPERTY AND UTILITY LOCATIONS MUST ALSO BE IDENTIFIED. THE FINAL LOCATIONS FOR ALL TRAFFIC SIGNAL PLANT INCLUDING, BUT NOT LIMITED TO DUCTS, POLE BASES, JUNCTION BOXES, CONTROLLER BASE AND LOOPS WILL BE VERIFIED IN THE FIELD BY THE NIAGARA REGION TRAFFIC SIGNAL SUPERVISOR OR DESIGNATE PRIOR TO INSTALLATION. A TRAFFIC SIGNAL INSPECTOR FROM THE REGION MUST BE ON SITE AT ALL TIMES (OR WHERE DETERMINED BY THE REGION'S TRAFFIC OPERATIONS MANAGER AS NECESSARY) WHEN TRAFFIC SIGNAL WORK IS BEING UNDERTAKEN.
4. ALL MATERIALS SHALL BE AS PER NIAGARA REGION TRAFFIC SIGNAL STANDARDS MANUAL (CONTRACTORS SHALL VERIFY ALL MATERIALS WITH REGION'S SIGNAL SUPERVISOR PRIOR TO COMMENCING CONSTRUCTION).
5. ALL CONDUIT FROM JUNCTION BOXES TO JUNCTION BOXES AND FROM JUNCTION BOXES TO TRAFFIC SIGNAL POLES SHALL INCLUDE 1-100mm DUCT AND 1-50mm DUCT UNLESS OTHERWISE SPECIFIED.
6. WHERE APPROVED FINAL POLE BASE LOCATION DIFFER FROM THIS PLAN, INSTALL SIGNAL MAST ARM OF APPROPRIATE LENGTH TO MAINTAIN POSITION OF SIGNAL HEAD AT DESIGNED LOCATION.
7. ALL TRAFFIC SIGNAL ELECTRICAL CONNECTIONS, BOTH TEMPORARY AND FINAL ARE TO BE COOORDINATED WITH AND PERFORMED BY NIAGARA REGION FORCES.

DRAFTING	TC
DESIGN	TC
CHECKED BY	AS,NR
APPROVED BY	NR

Niagara Region PUBLIC WORKS

NEW TRAFFIC SIGNAL CONSTRUCTION
REGIONAL ROAD 81 (KING STREET) at LINCOLN AVENUE TOWN OF LINCOLN DESIGN DRAWING

CONSULTANT FILE No.	–
DATE	2024 01 24
SCALE	Hor : 1:200 m
REF. No.	2022-T-ABC
DWG No.	RR81-TS01
REV.	3

DRAWING FILE: P:\PW_SIGNALS\Region\Dwg-working\081LNC\dwg\081LNC_DESIGN.dwg PLOTTED: Jul 17, 2024 – 11:06am PLOTTED BY: CHATZIS

PRELIMINARY

From: Latham, Chris <Chris.Latham@niagararegion.ca>
Sent: Monday, October 21, 2024 1:23 PM
To: Andrew Bader
Cc: Huppunen, Stephanie
Subject: King Street Improvements
Attachments: 2024 07 17 - 081LNC - PRELIMINARY.pdf

Good Afternoon Andrew,

Please find attached the preliminary traffic signal drawing for the intersection of RR81 and Lincoln Ave. The design is still subject to change as we work towards finalizing the EA and then detailed design.

In terms of timeline, we are looking to post the completed EA report for public review in November after which we will finalize the detailed design. We anticipate tendering and going to construction in 2025 so long as nothing major arises when the report is filed.

Please let me know should you require any other information relating to the Kings St improvements.

Thanks,

Chris Latham, C.E.T.
Project Manager
Transportation Engineering, Public Works
Niagara Region
1815 Sir Isaac Brock Way, Thorold L2V 4T7
Phone: 905-980-6000 ext. 3374 Toll-free: 1-800-263-7215
www.niagararegion.ca

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APPENDIX H

ITE Trip Generation Manual

Land Use: 221
Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

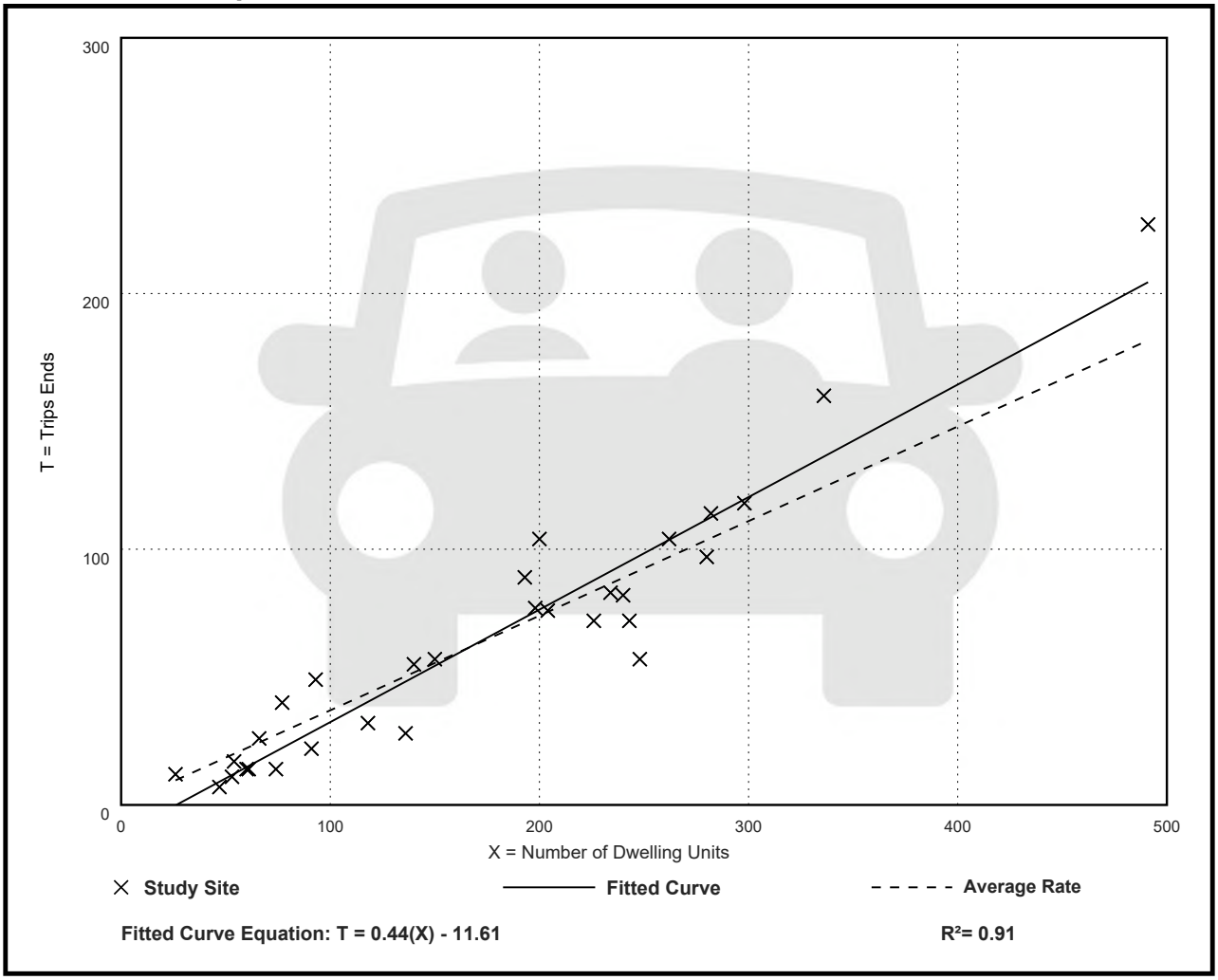
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



Fitted Curve Equation: T = 0.44(X) - 11.61

R^2= 0.91

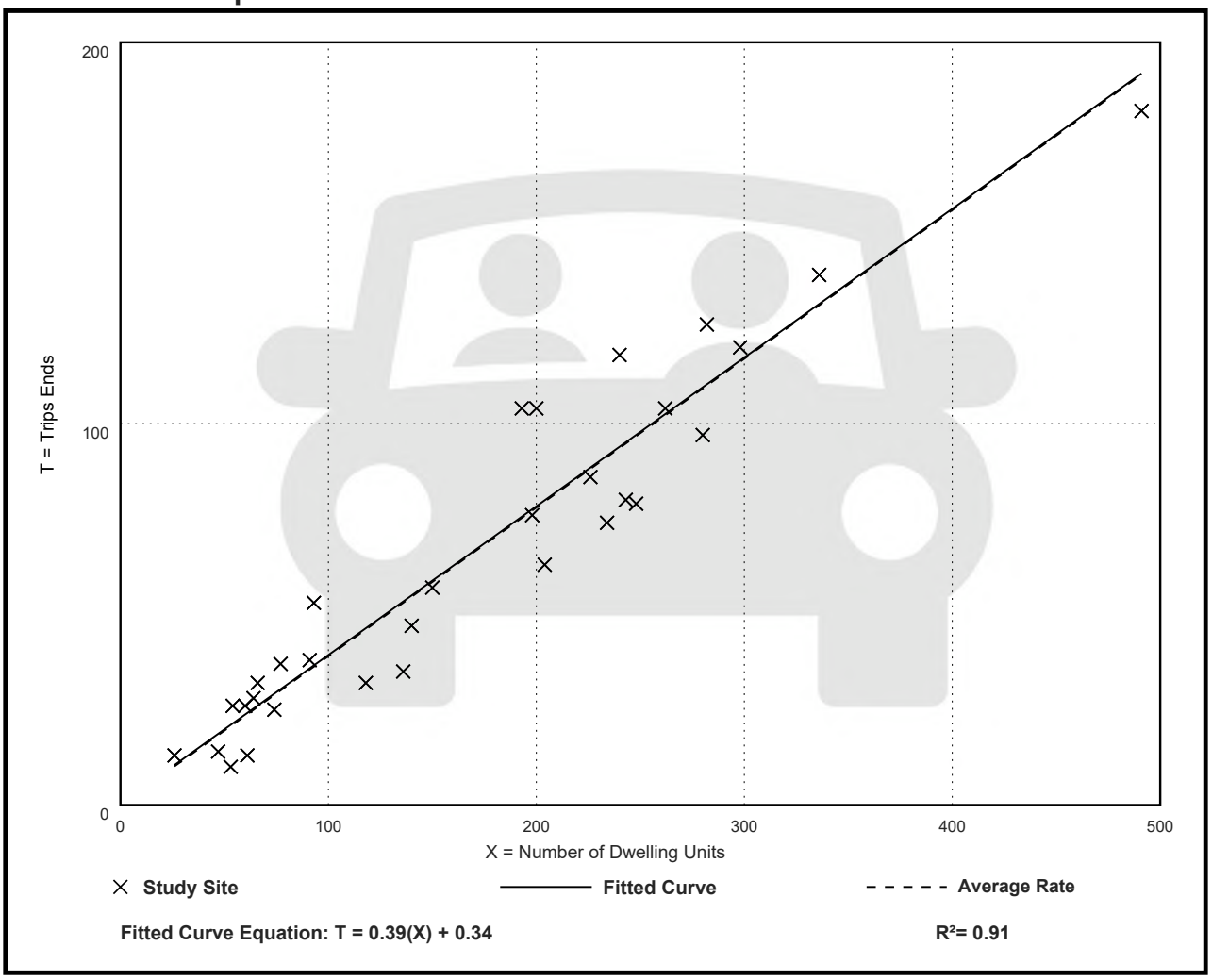
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



Land Use: 822
Strip Retail Plaza (<40k)

Description

A strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area of the building.

The 40,000 square feet GFA threshold between strip retail plaza and shopping plaza (Land Use 821) was selected based on an examination of the overall shopping center/plaza database. No shopping plaza with a supermarket as its anchor is smaller than 40,000 square feet GLA.

Shopping center (>150k) (Land use 820), shopping plaza (40-150k) (Land Use 821), and factory outlet center (Land Use 823) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Delaware, Florida, New Jersey, Ontario (CAN), South Dakota, Vermont, Washington, and Wisconsin.

Source Numbers

304, 358, 423, 428, 437, 507, 715, 728, 936, 960, 961, 974, 1009

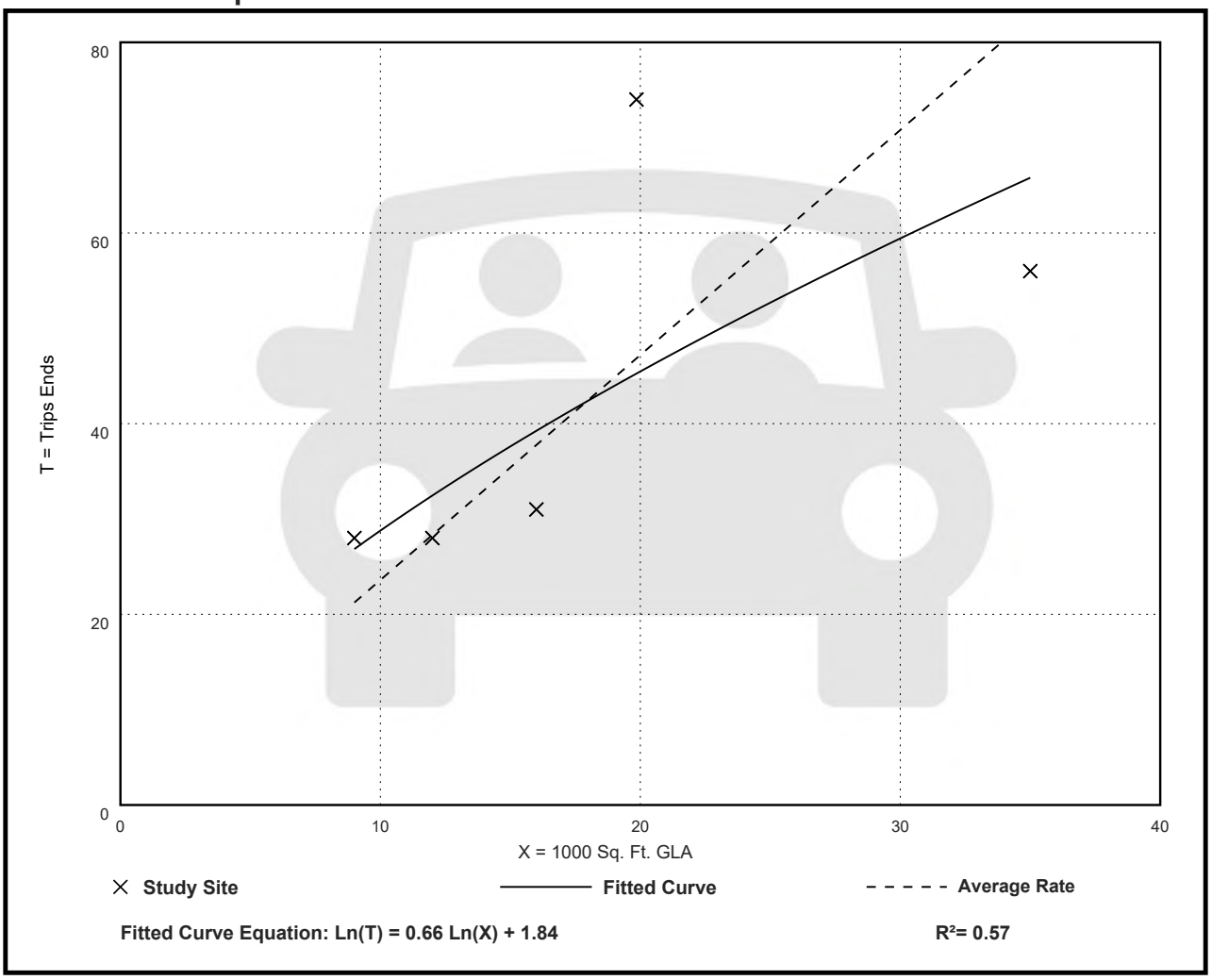
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.66 Ln(X) + 1.84

R^2= 0.57

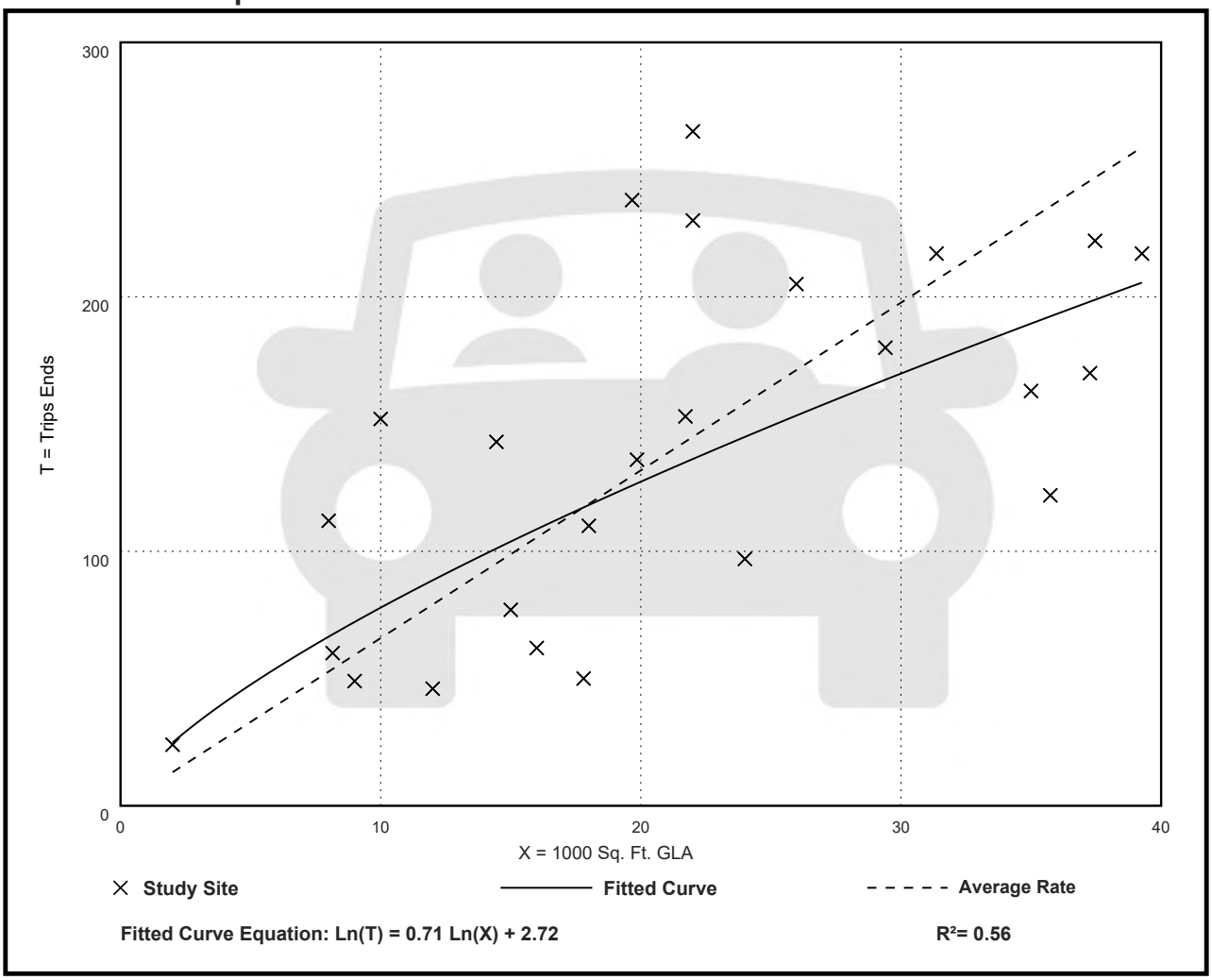
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.71 Ln(X) + 2.72

R^2= 0.56

Land Use: 932
High-Turnover (Sit-Down) Restaurant

Description

This land use consists of sit-down, full-service eating establishments with a typical duration of stay of 60 minutes or less. This type of restaurant is usually moderately priced, frequently belongs to a restaurant chain, and is commonly referred to as casual dining. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day. These restaurants typically do not accept reservations. A patron commonly waits to be seated, is served by wait staff, orders from a menu, and pays after the meal.

Some facilities offer carry-out for a small proportion of its customers. Some facilities within this land use may also contain a bar area for serving food and alcoholic drinks.

Fast casual restaurant (Land Use 930), fine dining restaurant (Land Use 931), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window (Land Use 934) are related uses.

Additional Data

Users should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

If the restaurant has outdoor seating, its area is not included in the overall gross floor area. For a restaurant that has significant outdoor seating, the number of seats may be more reliable than GFA as an independent variable on which to establish a trip generation rate.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Florida, Georgia, Indiana, Kentucky, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Vermont, and Wisconsin.

Source Numbers

126, 269, 275, 280, 300, 301, 305, 338, 340, 341, 358, 384, 424, 432, 437, 438, 444, 507, 555, 577, 589, 617, 618, 728, 868, 884, 885, 903, 927, 939, 944, 961, 962, 977, 1048

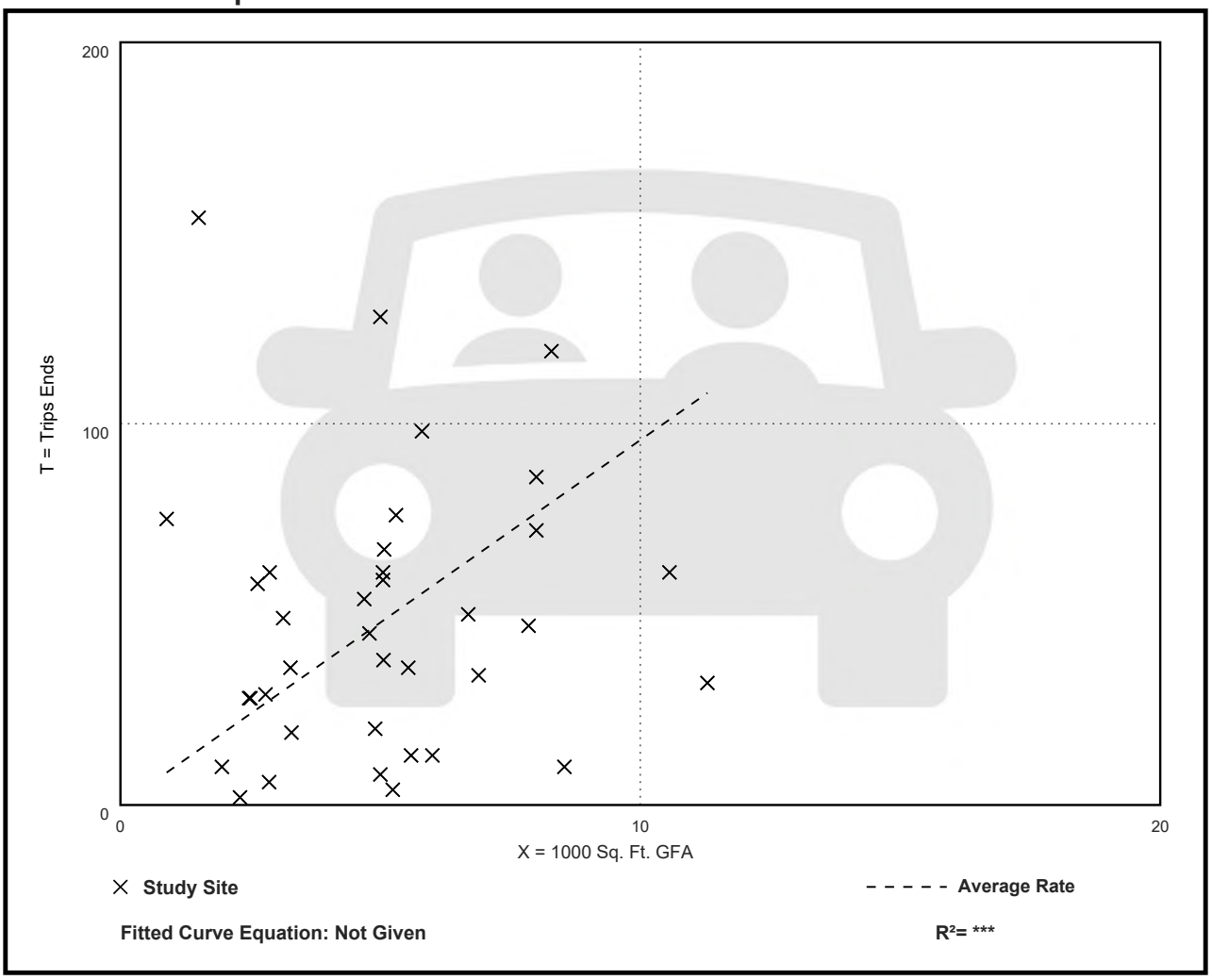
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 37
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



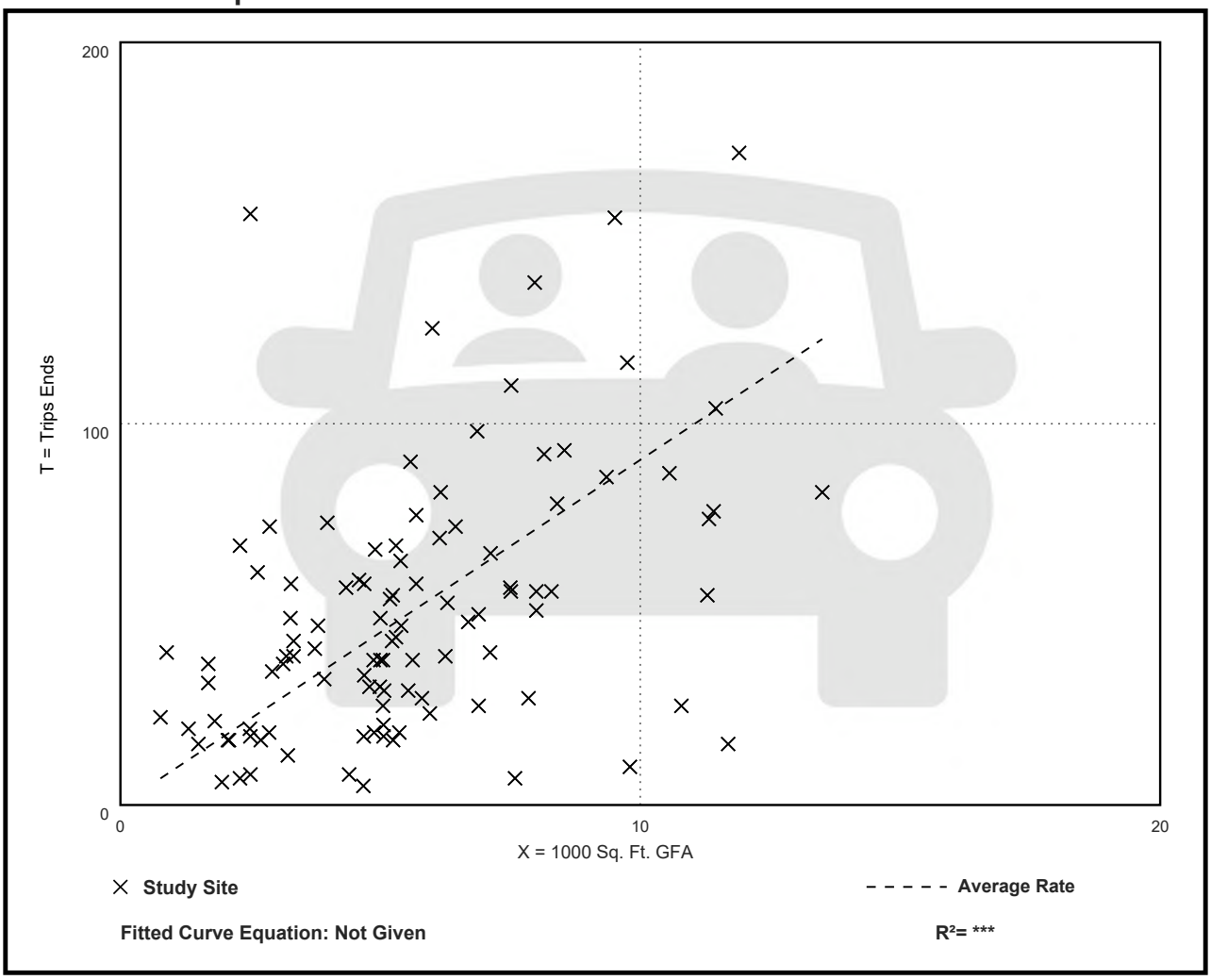
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



APPENDIX I

Transportation Tomorrow Survey Results

Thu Sep 19 2024 11:22:00 GMT-0400 (Eastern Daylight Time) - Run Time: 3159ms

Cross Tabulation Query Form - Trip - 2016

Row: 2006 GTA zone of origin - gta06_orig
Column: 2006 GTA zone of destination - gta06_dest

Filters:
(2006 GTA zone of destination - gta06_dest In 6022, 6023
and
Start time of trip - start_time In 0630-0930
and
Trip purpose of destination - purp_dest In H)

Trip 2016
Table:

,6023
322,24
5107,33
6010,39
6020,39
6021,53
6023,134
6025,18
6258,22

Thu Sep 19 2024 11:36:21 GMT-0400 (Eastern Daylight Time) - Run Time: 2824ms

Cross Tabulation Query Form - Trip - 2016

Row: 2006 GTA zone of destination - gta06_dest
Column: 2006 GTA zone of origin - gta06_orig

Filters:
(2006 GTA zone of origin - gta06_orig In 6022, 6023
and
Start time of trip - start_time In 0630-0930
and
Trip purpose of origin - purp_orig In H)

Trip 2016
Table:

,6022,6023
43,0,12
55,0,25
342,44,0
378,0,27
3480,0,58
3824,0,68
3866,0,39
4002,0,14
4012,0,12
4056,0,49
4059,0,65
4060,0,33
4078,0,21
4083,0,4
4185,0,14
5032,0,8
5052,0,36
5107,0,33
5110,0,10
5118,0,10
5119,0,47
5126,0,10
5128,34,0
5135,0,11
5136,34,231
5144,0,65
5145,0,35
5153,0,26
5170,0,43
5171,0,17
5172,0,39

5183,14,0
5206,36,0
5211,0,8
5251,0,79
6003,0,6
6004,12,87
6008,0,33
6009,0,32
6010,36,223
6012,33,23
6020,0,139
6021,0,140
6023,0,492
6025,0,18
6026,36,0
6029,0,14
6049,0,34
6052,0,13
6062,0,23
6093,0,19
6107,0,31
6126,0,11
6129,0,9
6130,0,35
6146,0,22
6158,0,18
6163,33,89
6165,0,23
6191,0,36
6210,0,18
6258,0,138
6360,0,55
6366,31,136
8014,12,0
9998,0,6

Thu Sep 19 2024 11:29:17 GMT-0400 (Eastern Daylight Time) - Run Time: 3030ms

Cross Tabulation Query Form - Trip - 2016

Row: 2006 GTA zone of origin - gta06_orig
Column: 2006 GTA zone of destination - gta06_dest

Filters:
(2006 GTA zone of destination - gta06_dest In 6022, 6023
and
Start time of trip - start_time In 1530-1830
and
Trip purpose of destination - purp_dest In H)

Trip 2016
Table:

,6022,6023
43,0,12
55,0,12
378,0,27
3480,0,58
3824,0,68
3866,0,39
4002,0,14
4005,0,38
4008,0,23
4012,0,12
4056,0,49
4059,0,65
4078,0,21
4185,0,14
5052,0,36
5055,0,23
5096,0,33
5108,33,0
5118,0,10
5119,0,47
5126,0,10
5128,34,0
5136,34,0
5145,0,35
5153,0,26
5170,0,43
5171,0,17
5172,0,39
5197,0,33
5206,36,0
5251,0,58

6003,0,36
6004,12,87
6009,0,55
6010,36,95
6012,0,75
6016,0,11
6018,0,18
6020,10,79
6021,0,100
6022,0,19
6023,46,736
6025,0,35
6026,36,0
6027,0,16
6029,0,9
6049,0,34
6062,0,23
6071,37,0
6076,0,9
6086,14,0
6110,0,18
6146,0,55
6157,0,6
6158,0,18
6163,33,0
6165,0,23
6191,0,36
6210,0,18
6258,0,22
6289,0,9
6360,0,29
6366,33,140
7043,44,0
8014,12,0
8903,0,24

Thu Sep 19 2024 11:33:15 GMT-0400 (Eastern Daylight Time) - Run Time: 2543ms

Cross Tabulation Query Form - Trip - 2016

Row: 2006 GTA zone of destination - gta06_dest
Column: 2006 GTA zone of origin - gta06_orig

Filters:
(2006 GTA zone of origin - gta06_orig In 6022, 6023
and
Start time of trip - start_time In 1530-1830
and
Trip purpose of origin - purp_orig In H)

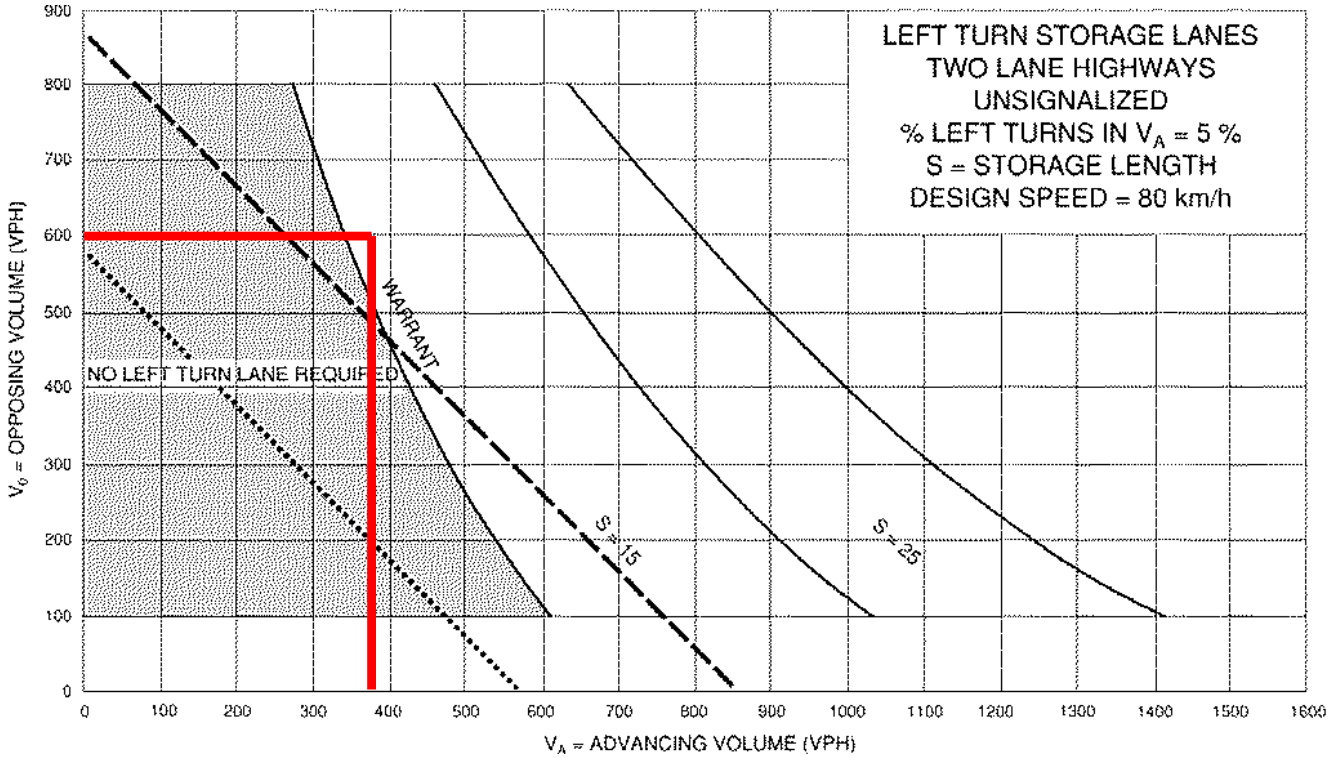
Trip 2016
Table:

,6022,6023
608,0,24
3693,0,82
4021,0,106
5136,0,115
6003,0,30
6009,0,17
6010,0,71
6012,0,24
6021,0,19
6023,107,454
6029,0,32
6071,0,22
6151,0,23
6157,0,68
6163,0,26
6177,0,22
6199,0,19
6366,44,53

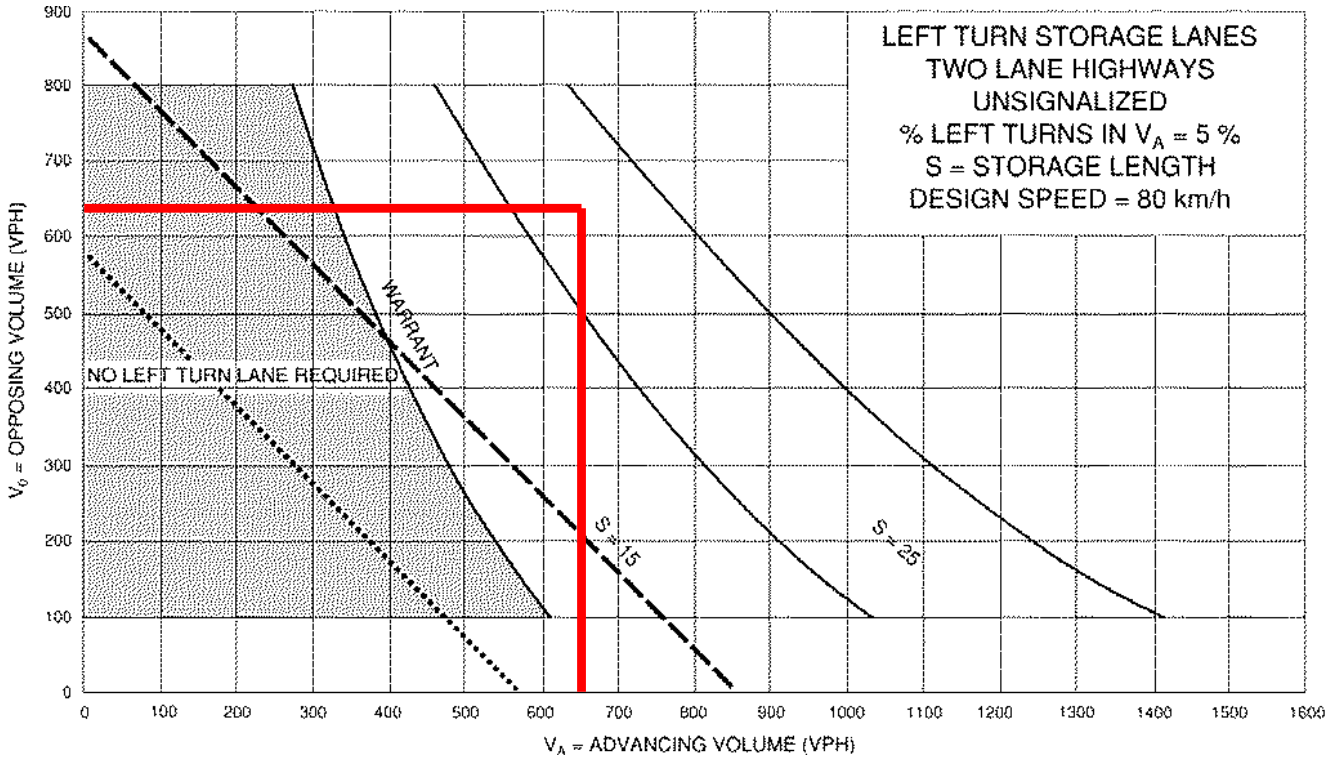
APPENDIX J

Warrant Analysis Worksheets

AM Peak Hour



PM Peak Hour



Left-Turn Lane Warrant

New Site Access and King Street

2035 Future Total Horizon

TRAFFIC SIGNAL WARRANTS - JUSTIFICATION 7 (PROJECTED VOLUMES)
PER OTM BOOK 12

Project and Scenario Summary

Project	5205 King Street, Beamsville	**Project Number**	2740-7216
		Date	4/4/2025
Horizon	2035	**Analyst**	Andrew B

Study Intersection Summary

Major Street	King Street	**Direction**	East/West
Minor Street	Mountainview Road	**Direction**	North/South

Intersection Details for Warrant Parameters

Flow Conditions	Restricted Flow (Urban)	**Number of Lanes**	1
T-Intersection?	No	**Intersection Type**	Existing

Notes: Free Flow (Rural) is used when the operating speed is greater than or equal to 70km/h. Restricted Flow (Urban) is used otherwise.
The Number of Lanes greater than 1 only needs to be for one direction along the major road.
An intersection is considered New if at least 1-leg is added to an existing intersection.

Input Volumes and Average Hourly Volume Determination

Peak Hour	Major: King Street						Minor: Mountainview Road						Pedestrians Crossing Major Street
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM	18	337	9	9	548	49	6	23	7	25	34	13	0
PM	24	610	14	20	588	21	24	46	24	53	41	20	0
AHV	11	237	6	7	284	18	8	17	8	20	19	8	0

The AHV is determined by the availability of the peak hour estimates. If both Peak 1 and Peak 2 Peak Hour Volume estimates are available then AHV = (Peak1phv + Peak2phv)/4. In only the case that one estimate is available then AHV = Peak1phv/2 **or** Peak2phv/2.

Justification 7 - OTM Book 12

JUSTIFICATION	DESCRIPTION	MINIMUM REQUIREMENT 1 LANE HIGHWAYS		MINIMUM REQUIREMENT 2 OR MORE LANE HIGHWAYS		COMPLIANCE		
						Sectional		Entire Percentage
		Free Flow	Restricted Flow	Free Flow	Restricted Flow	Numerical	Percentage	
1. Minimum Vehicular Volume	A. Vehicle Volume, All Approaches (Avg. Hour)	480	720	600	900	643	89.3%	47.1%
	B. Vehicle Volume, Along Minor Streets (Avg. Hour)	120	170	120	170	80	47.1%	
2. Delay to Cross Traffic	A. Vehicle Volume, Major Street (Avg. Hour)	480	720	600	900	563	78.2%	62.7%
	B. Combined Vehicle and Pedestrian Volume Crossing Artery From Minor Streets (Avg. Hour)	50	75	50	75	47	62.7%	
Applicable Threshold			**X**					

Note: For T-intersections the thresholds for 1B have been increased by 50% per OTM Book 12.
Existing Intersections Require 120% Justification
New/Proposed Intersections Require 150% Justification

Percent Compliance: 62.7%
Percentage Required to be Justified: 120%

Signal Justification 7 Met: [ ] **Yes** [X] **No**

APPENDIX K

Transportation Association of Canada Excerpts

Stopping sight distance is the sum of the distance travelled during the perception and reaction time and the braking distance.

$$SSD = 0.278Vt + 0.039 \frac{V^2}{a} \quad (2.5.2)$$

Where:

SSD = Stopping sight distance (m)
t = Brake reaction time, 2.5 s
V = Design speed (km/h)
a = Deceleration rate (m/s^2)

Table 2.5.2 gives the minimum stopping sight distances on level grade, on wet pavement, for a range of design speeds. These values are used for vertical curve design, intersection geometry and the placement of traffic control devices. The stopping sight distances quoted in **Table 2.5.2** may need to be increased for a variety of reasons related to grade and vehicle type as noted below.

Table 2.5.2: Stopping Sight Distance on level roadways for Automobiles[54]

Design speed (km/h)	Brake reaction distance (m)	Braking distance on level (m)	Stopping sight distance	
			Calculated (m)	Design (m)
20	13.9	4.6	18.5	20
30	20.9	10.3	31.2	35
40	27.8	18.4	46.2	50
50	34.8	28.7	63.5	65
60	41.7	41.3	83.0	85
70	48.7	56.2	104.9	105
80	55.6	73.4	129.0	130
90	62.6	92.9	155.5	160
100	69.5	114.7	184.2	185
110	76.5	138.8	215.3	220
120	83.4	165.2	248.6	250
130	90.4	193.8	284.2	285

Note: Brake reaction distance predicated on a time of 2.5 s; deceleration rate of 3.4 m/s^2 used to determine calculated sight distance.

Table 9.9.3: Time Gap for Case B1, Left Turn from Stop

Design Vehicle	Time Gap (t_g)(s) at Design Speed of Major Road
Passenger car	7.5
Single-unit truck	9.5
Combination truck (WB 19 and WB 20)	11.5
Longer truck	To be established by road authority

Notes: Time gaps are for a stopped vehicle to turn left onto a two-lane highway with no median and with grades of 3% or less. The table values should be adjusted as follows:

- For multi-lane highways: For left turns onto two-lane highways with more than two lanes, add 0.5 s for passenger cars and 0.7 s for trucks for each additional lane, from the left, in excess of one, to be crossed by the turning vehicle.
- For minor approach grades: If the approach grade is an upgrade that exceeds 3%, add 0.2 s for each percent grade for left turns.
- Some road authorities use higher values for certain specialized vehicles (e.g., Alberta uses 22 s for very long log trucks).

The intersection sight distance along the major road (distance b in **Figure 9.9.2**) is determined by:

$$ISD = 0.278\, V_{major}\, t_g \qquad (9.9.1)$$

Where:

ISD = intersection sight distance (length of the leg of sight triangle along the major road) (m)
V_{major} = design speed of the major road (km/h)
t_g = time gap for minor road vehicle to enter the major road (s)

For example, a passenger car turning left onto a two-lane major road should be provided sight distance equivalent to a time gap of 7.5 s in major-road traffic. If the design speed of the major road is 100 km/h, this corresponds to a sight distance of 0.278(100)(7.5) = 208.5 or 210 m, rounded for design.

A passenger car turning left onto a four-lane undivided roadway will need to cross two near lanes, rather than one. This increases the recommended gap in major-road traffic from 7.5 to 8.0 s. The corresponding value of sight distance for this example would be 223 m. If the minor-road approach to such an intersection is located on a 4% upgrade, then the time gap selected for intersection sight distance design for left turns should be increased from 8.0 to 8.8 s, equivalent to an increase of 0.2 s for each percent grade.

The design values for intersection sight distance for passenger cars are shown in **Table 9.9.4**. **Figure 9.9.4** includes design values, based on the time gaps for the design vehicles included in **Table 9.9.3**.

No adjustment of the recommended sight distance values for the major-road grade is generally needed because both the major- and minor-road vehicle will be on the same grade when departing from the intersection. However, if the minor-road design vehicle is a heavy truck and the intersection is located near a sag vertical curve with grades over 3%, then an adjustment to extend the recommended sight distance based on the major-road grade should be considered.

Table 9.9.4: Design Intersection Sight Distance – Case B1, Left Turn From Stop

Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	41.7	45
30	35	62.6	65
40	50	83.4	85
50	65	104.3	105
60	85	125.1	130
70	105	146.0	150
80	130	166.8	170
90	160	187.7	190
100	185	208.5	210
110	220	229.4	230
120	250	250.2	255
130	285	271.1	275

Note: Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane highway with no median and grades 3% or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Sight distance design for left turns at divided-highway intersections should consider multiple design vehicles and median width. If the design vehicle used to determine sight distance for a divided-highway intersection is larger than a passenger car, then sight distance for left turns will need to be checked for that selected design vehicle and for smaller design vehicles as well. If the divided-highway median is wide enough to store the design vehicle with a clearance to the through lanes of approximately 1 m at both ends of the vehicle, no separate analysis for the departure sight triangle for left turns is needed on the minor-road approach for the near roadway to the left. In most cases, the departure sight triangle for right turns (case B2) will provide sufficient sight distance for a passenger car to cross the near roadway to reach the median. Possible exceptions are addressed in the discussion of case B3.

The time gaps in **Table 9.9.3** can be decreased by 1.0 s for right-turn maneuvers without undue interference with major-road traffic. These adjusted time gaps for the right turn from the minor road are shown in **Table 9.9.5**. Design values based on these adjusted time gaps are shown in **Table 9.9.6** for passenger cars. **Figure 9.9.5** includes the design values for the design vehicles for each of the time gaps in **Table 9.9.5**.

Table 9.9.5: Time Gap for Case B2—Right Turn from Stop and Case B3—Crossing Maneuver

Design Vehicle	Time Gap (t_g)(s) at Design Speed of Major Road
Passenger car	6.5
Single-unit truck	8.5
Combination truck (WB 19 and WB 20)	10.5

Note: Time gaps are for a stopped vehicle to turn left onto a two-lane highway with no median and with grades of 3% or less. The table values should be adjusted as follows:

- For multi-lane highways: For left turns onto two-lane highways with more than two lanes, add 0.5 s for passenger cars and 0.7 s for trucks for each additional lane, from the left, in excess of one, to be crossed by the turning vehicle.
- For minor approach grades: If the approach grade is an upgrade that exceeds 3%, add 0.1 s for each percent grade for left turns.

Table 9.9.6: Design Intersection Sight Distance – Case B2, Right Turn from Stop, and Case B3, Crossing Maneuver

Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	36.1	40
30	35	54.2	55
40	50	72.3	75
50	65	90.4	95
60	85	108.4	110
70	105	126.5	130
80	130	144.6	145
90	160	162.6	165
100	185	180.7	185
110	220	198.8	200
120	250	216.8	220
130	285	234.9	235

Note: Intersection sight distance shown is for a stopped passenger car to turn right onto or to cross a two-lane highway with no median and with grades of 3% or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

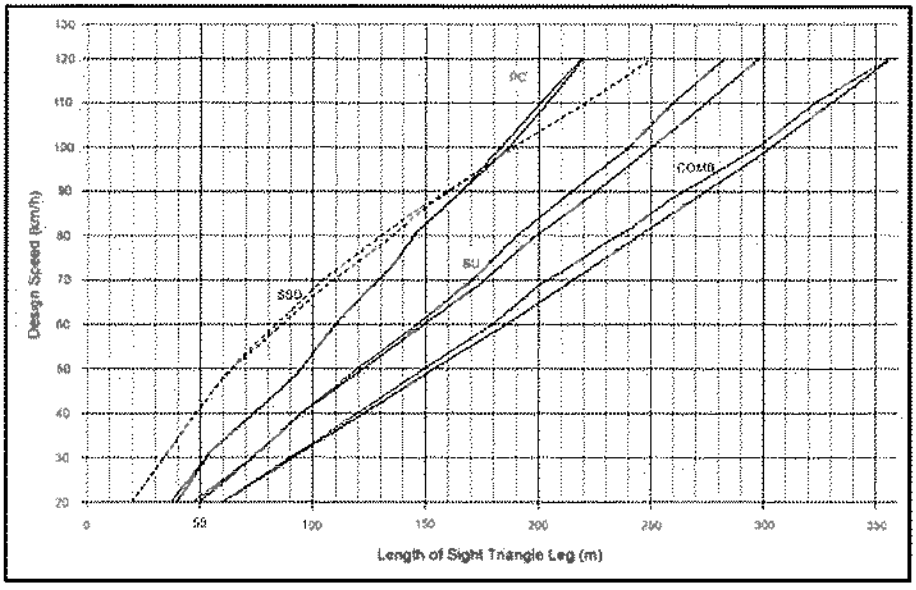


Figure 9.9.5: Intersection Sight Distance – Case B2, Right Turn from Stop, and Case B3, Crossing Maneuver (Calculated and Design Values Plotted)

Case F – Left Turns from the Major Road

All locations along a major highway from which vehicles are permitted to turn left across opposing traffic, including intersections and driveways, should have sufficient sight distance to accommodate the left-turn maneuver. Left-turning drivers need sufficient sight distance to decide when to turn left across the lane(s) used by opposing traffic. Sight distance design should be based on a left turn by a stopped vehicle, since a vehicle that turns left without stopping would need less sight distance. The sight distance along the major road to accommodate left turns is the distance traversed at the design speed of the major road in the travel time for the design vehicle given in **Table 9.9.11**.

Table 9.9.11: Time Gap for Case F, Left Turns from the Major Road

Design Vehicle	Time Gap (t_g)(s) at Design Speed of Major Road
Passenger car	5.5
Single-unit truck	6.5
Combination truck (WB 19 and WB 20)	7.5

Note: Adjustment for multi-lane highways: For turning vehicles that cross more than one opposing lane, add 0.5 s for passenger cars and 0.7 s for trucks for each additional lane to be crossed.

The table also contains appropriate adjustment factors for the number of major-road lanes to be crossed by the turning vehicle. The unadjusted time gap in **Table 9.9.11** for passenger cars was used to develop the sight distances in **Table 9.9.12** and is illustrated in **Figure 9.9.8.**

Table 9.9.12: Intersection Sight Distance – Case F, Left Turn from the Major Road

Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance	
		Passenger Cars	
		Calculated (m)	Design (m)
20	20	30.6	35
30	35	45.9	50
40	50	61.2	65
50	65	76.5	80
60	85	91.7	95
70	105	107.0	110
80	130	122.3	125
90	160	137.6	140
100	185	152.9	155
110	220	168.2	170
120	250	183.5	185
130	285	198.8	200

Note: Intersection sight distance shown is for a passenger car making a left turn from an undivided highway. For other conditions and design vehicles, the time gap should be adjusted and the sight distance recalculated.

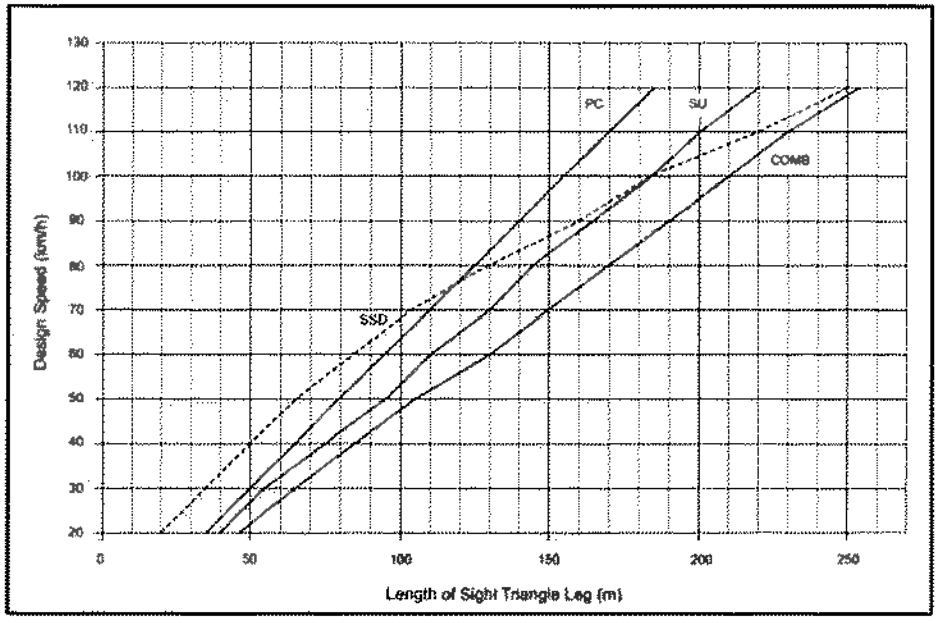
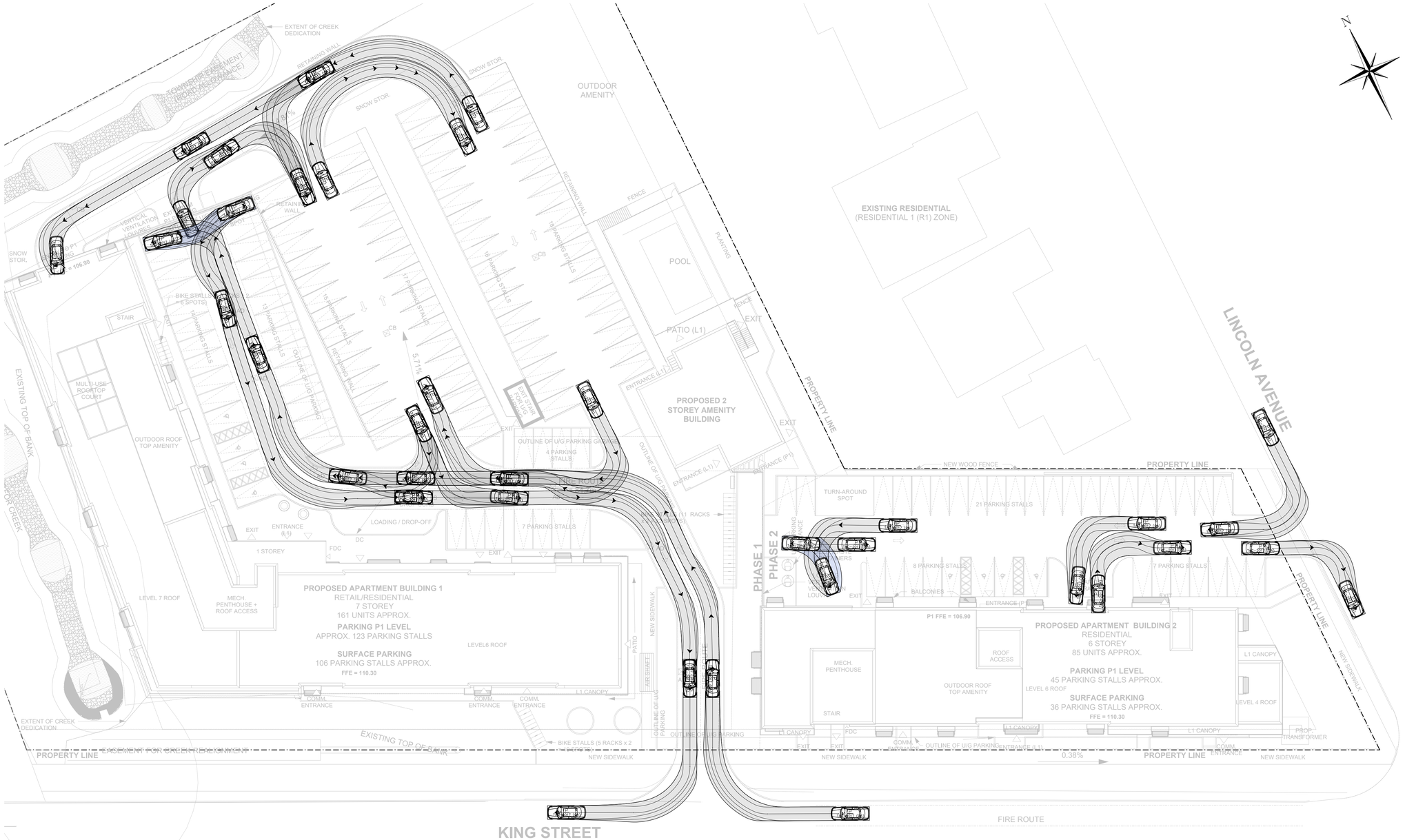
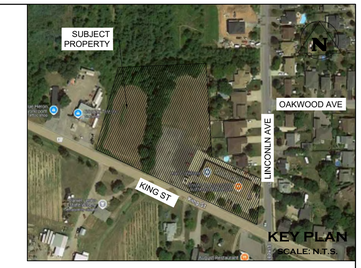


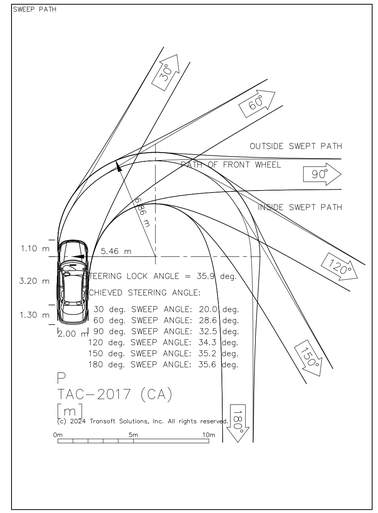
Figure 9.9.8: Intersection Sight Distance – Case F, Left Turn from the Major Road

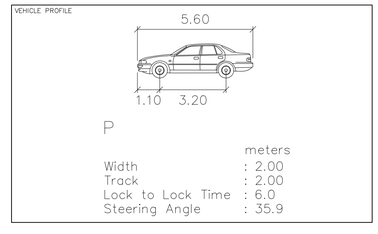
APPENDIX L

Vehicle Turning Diagrams











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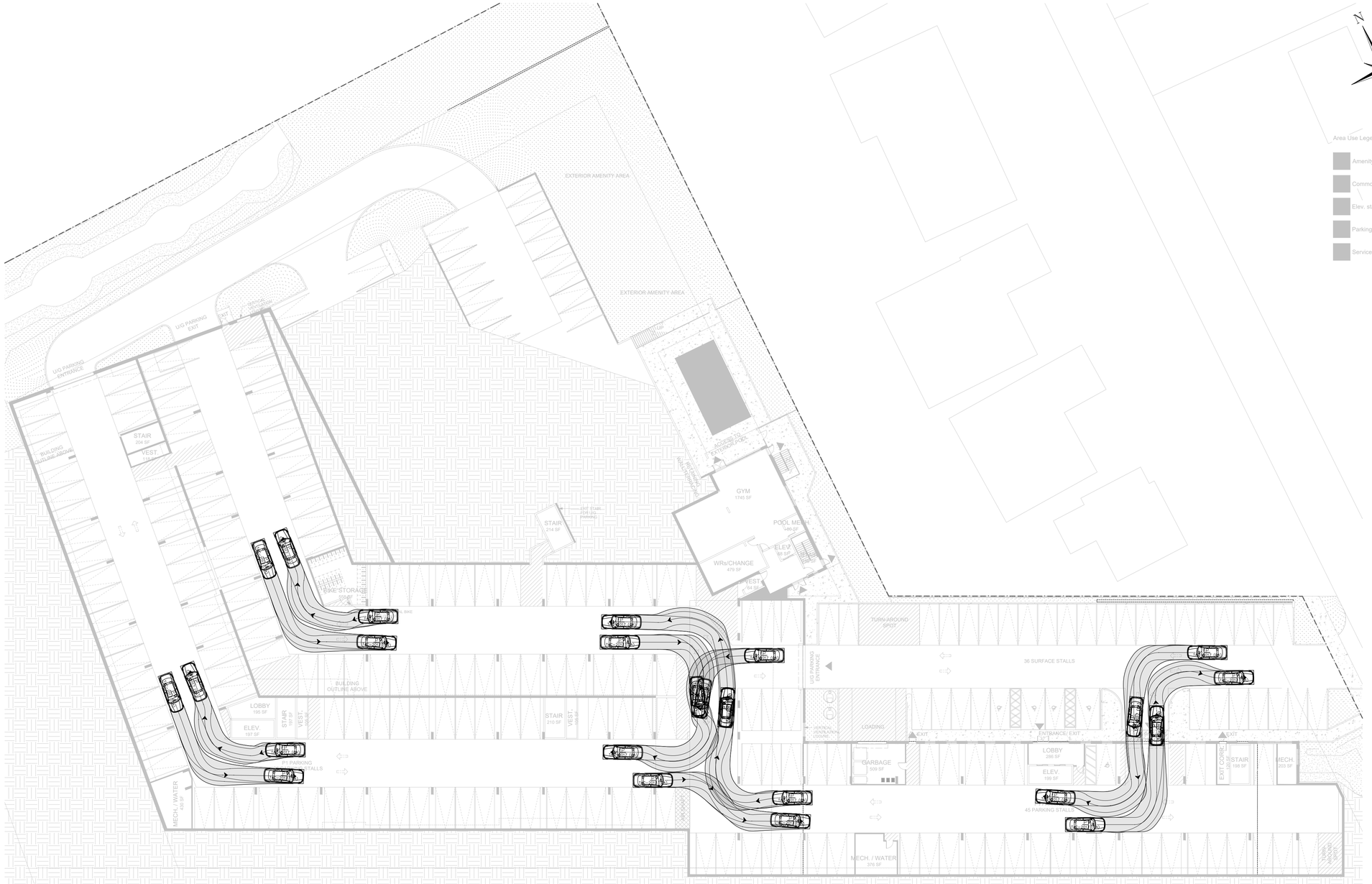
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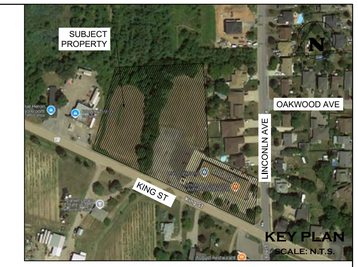
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VEHICLE MANEUVERING ANALYSIS
PASSENGER CAR

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Check By	Check By	Drawing
I.L.	I.L.	T201

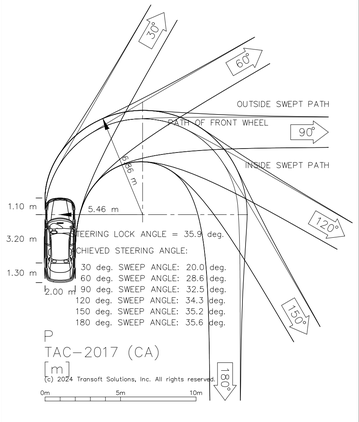




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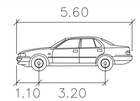
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- Common
- Elev. stair core
- Parking
- Services

SWEEP PATH



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VEHICLE PROFILE



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Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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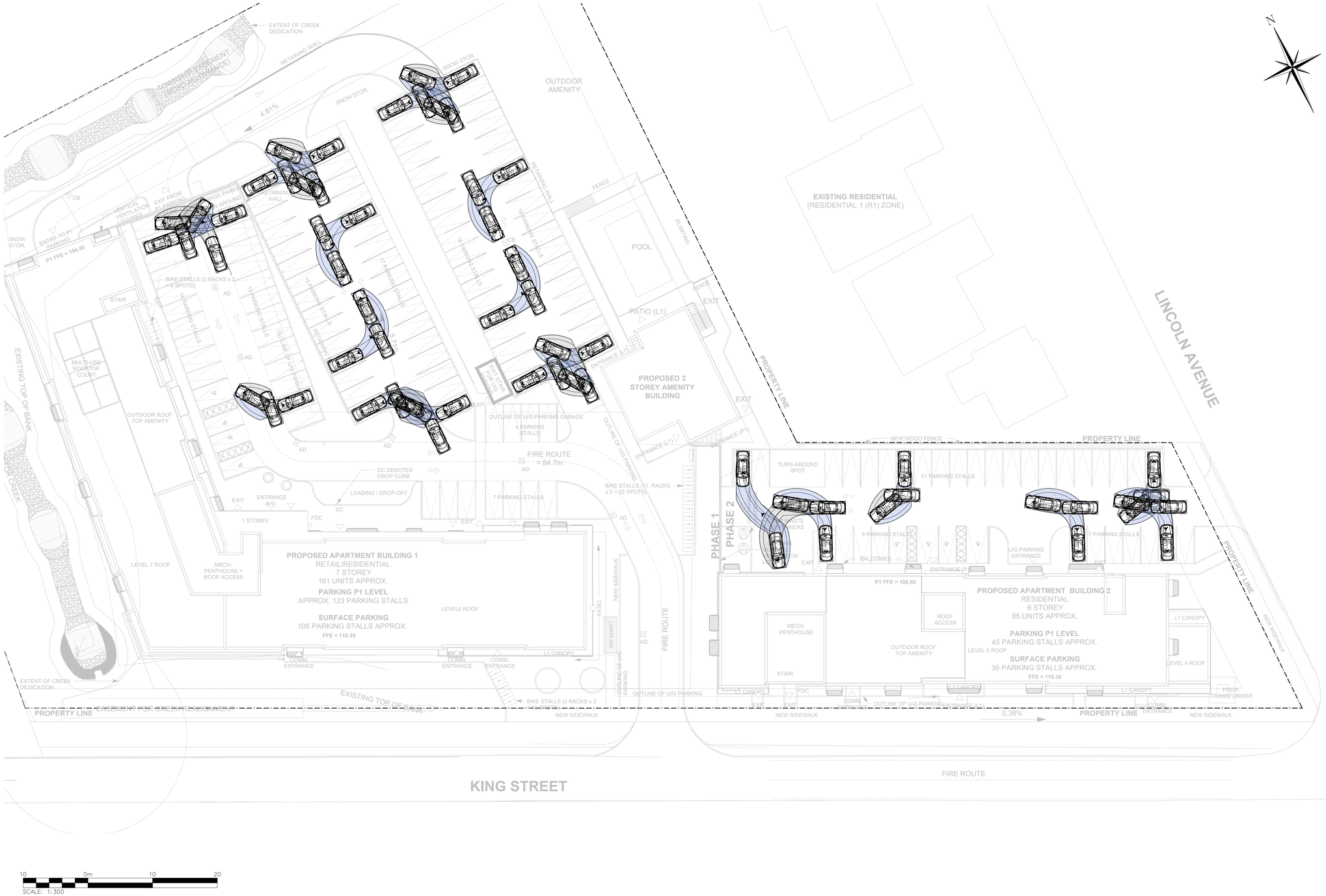
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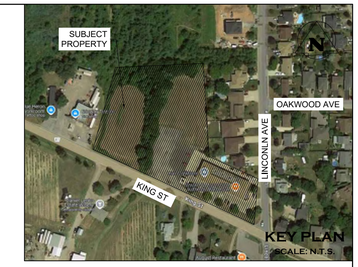
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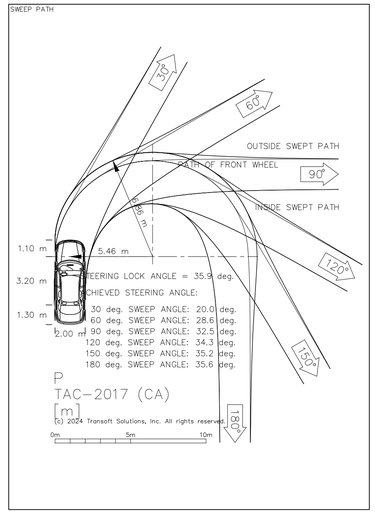
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PASSENGER CAR

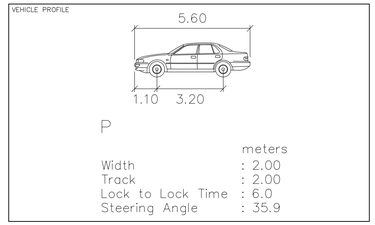
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Check By	I.L.	Check By	I.L.	Drawing	T202









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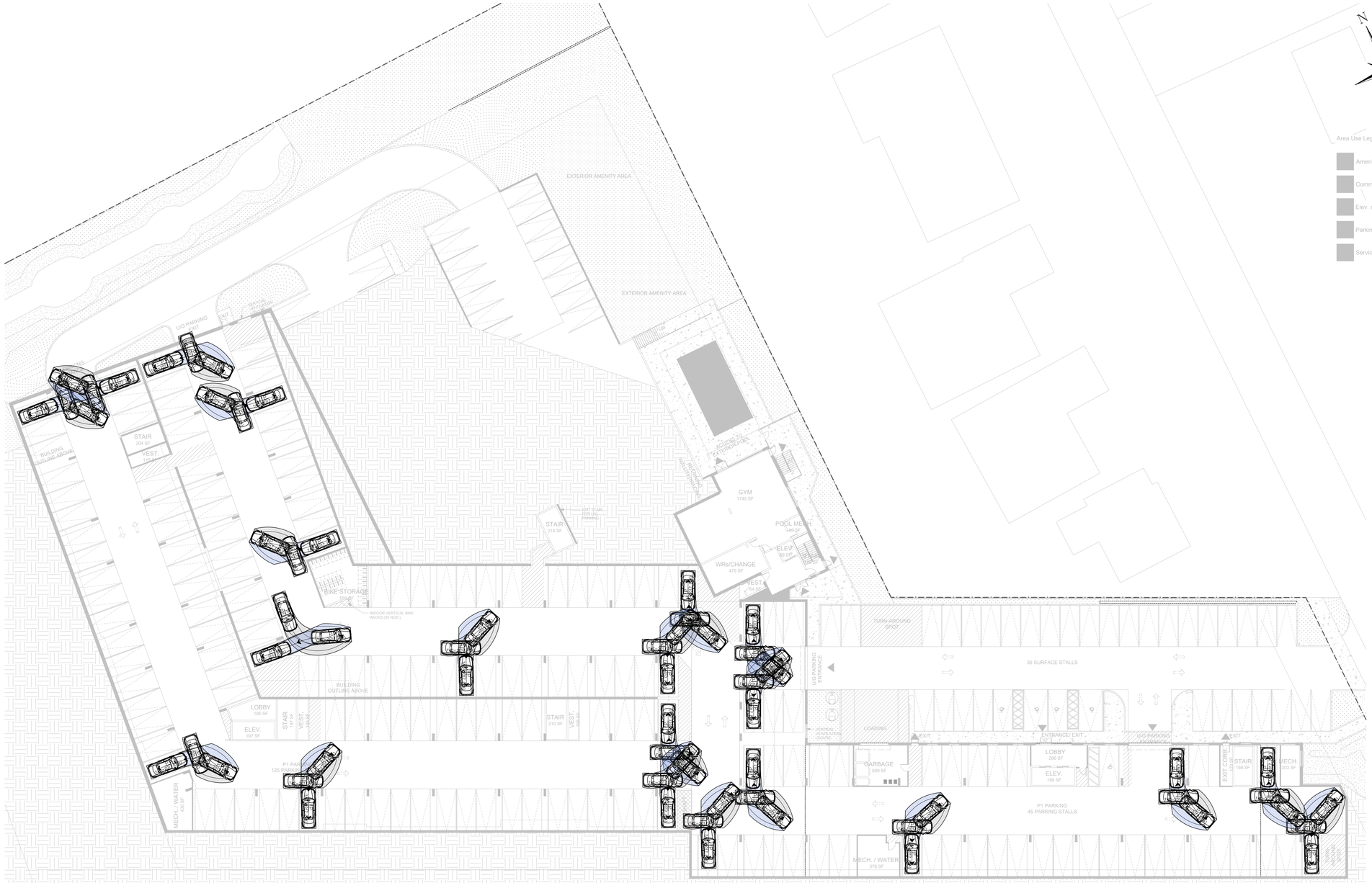
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PASSENGER CAR

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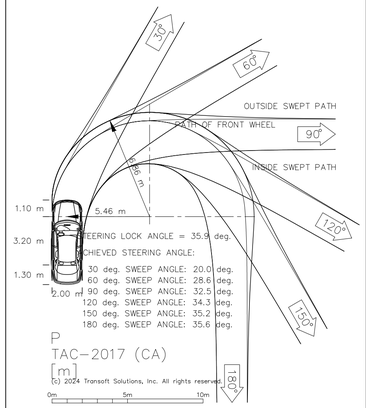


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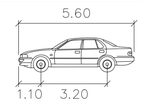
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- Common
- Elev. stair core
- Parking
- Services



SWEEP PATH



VEHICLE PROFILE



P

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Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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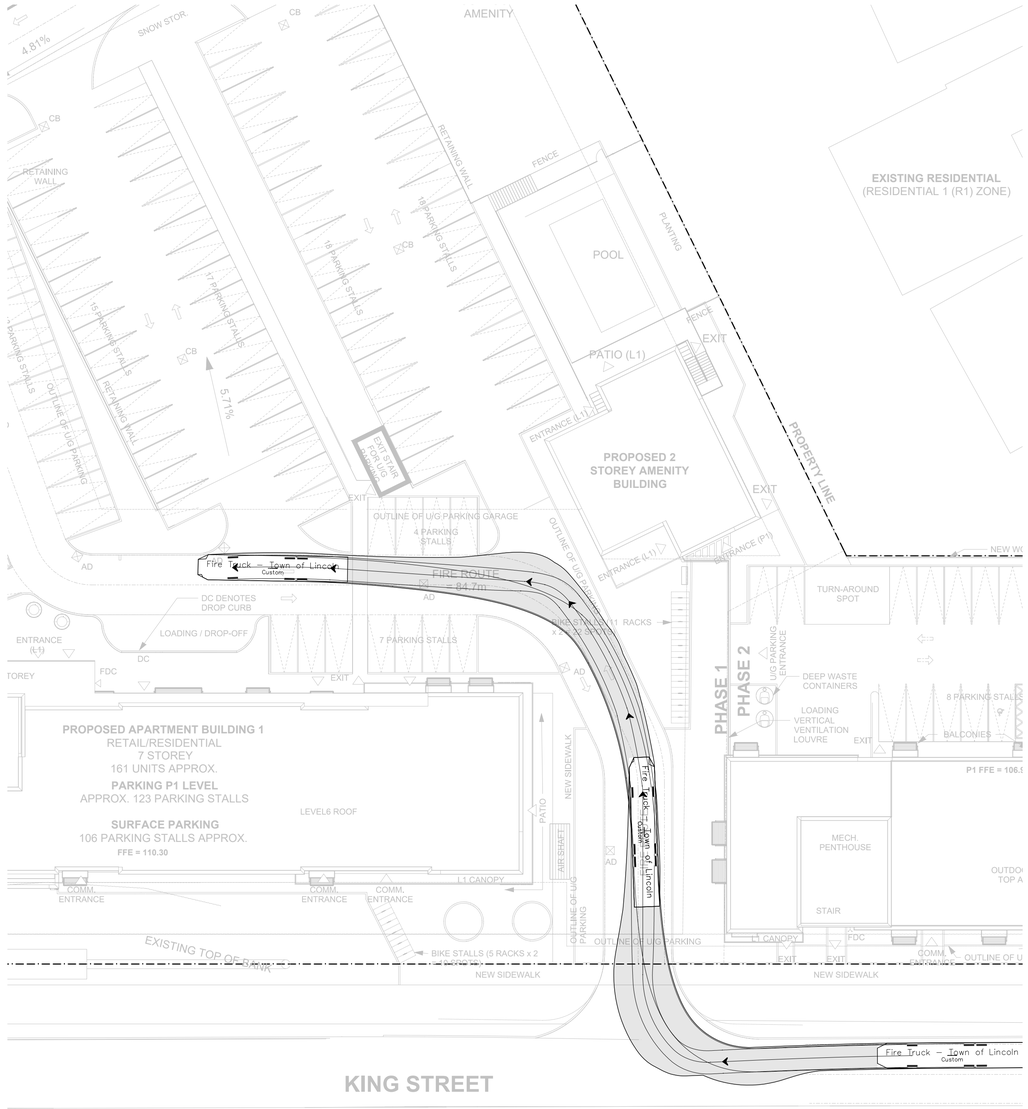
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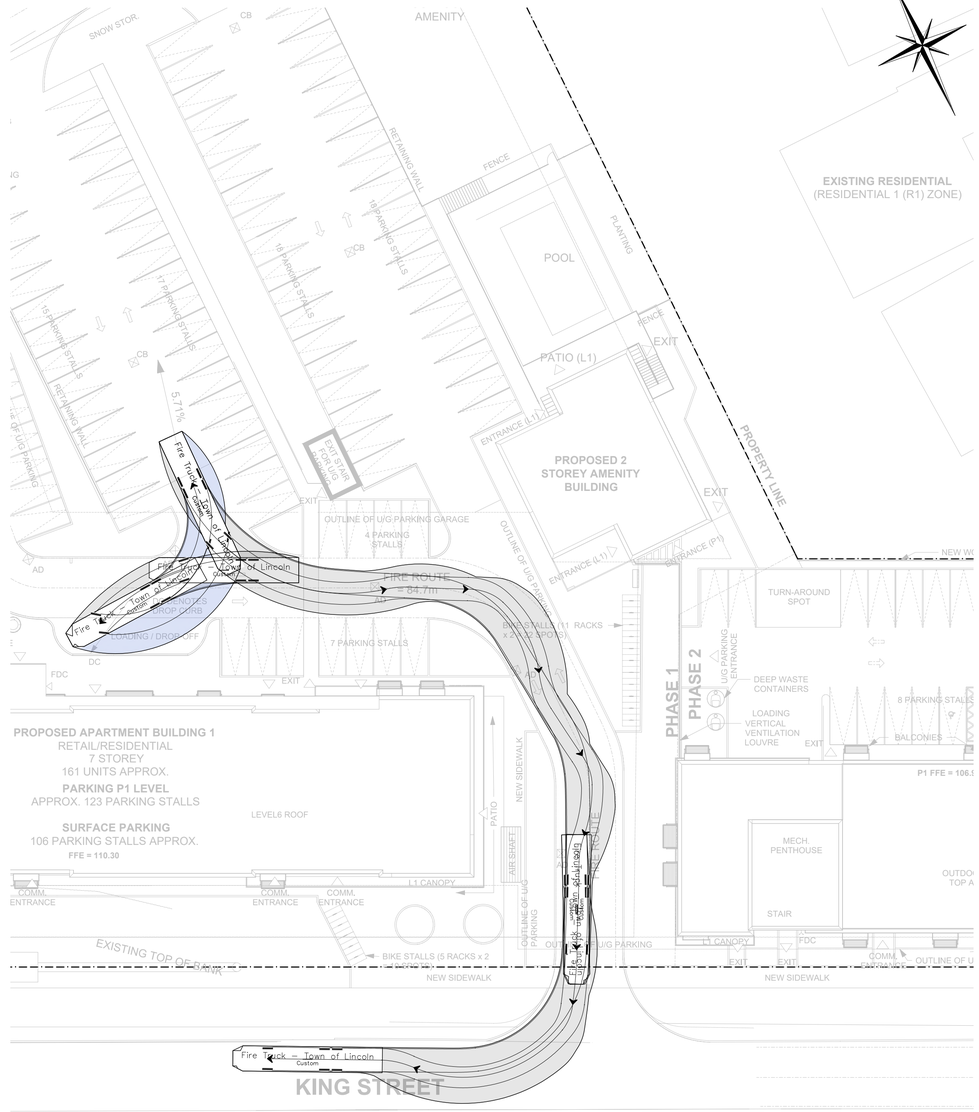
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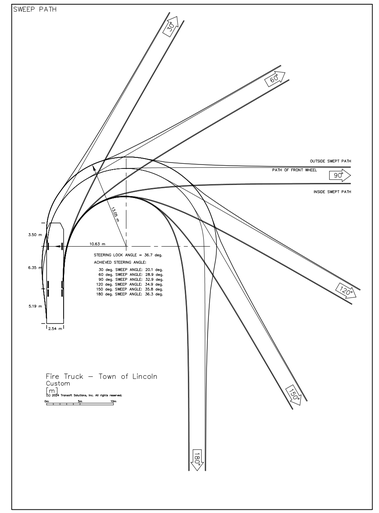
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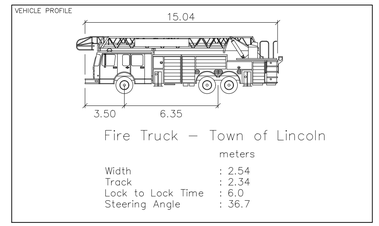
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No.	ISSUE	DATE: MMM/DD/YYYY
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Engineer

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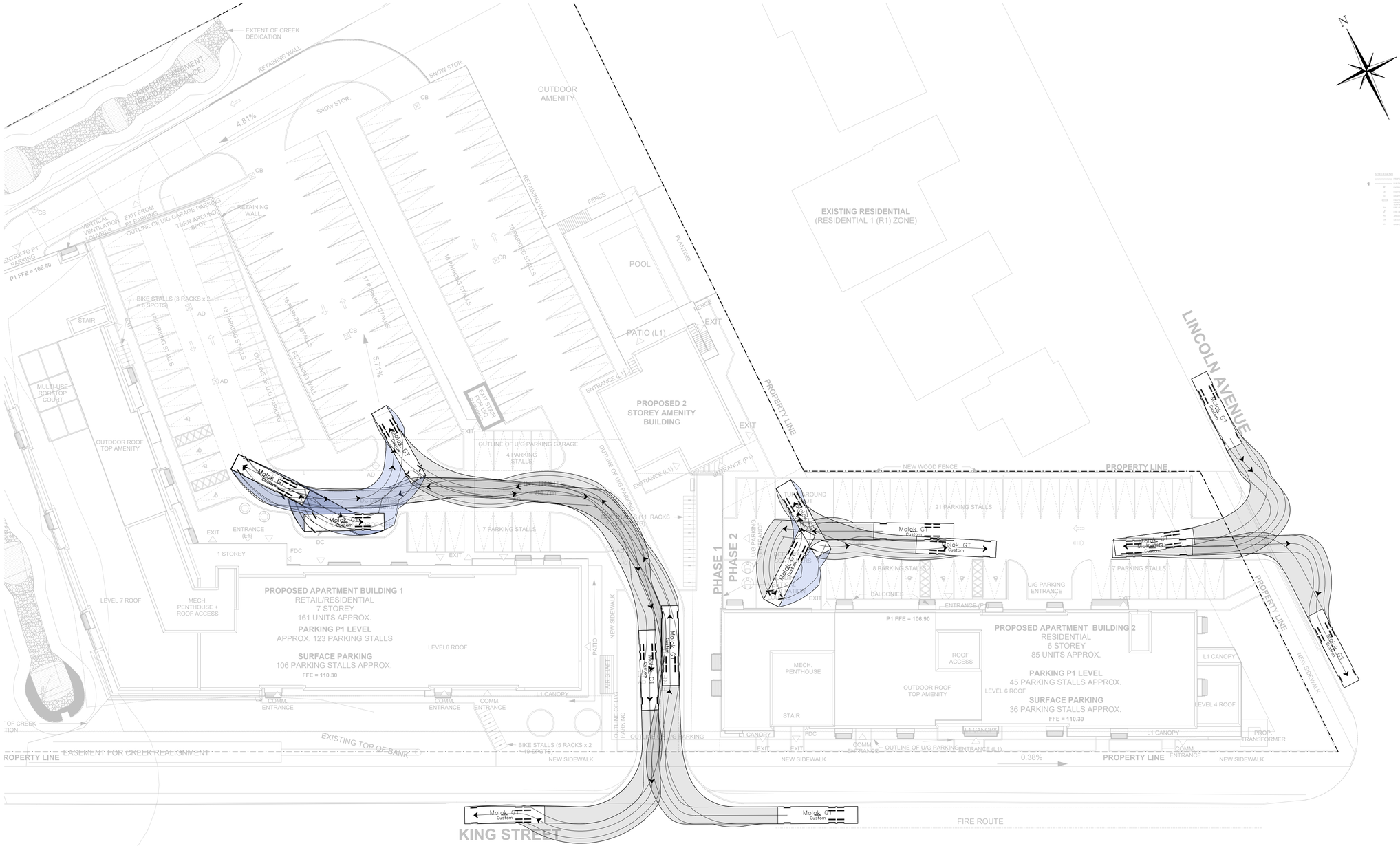
Engineer

Project
5205 KING STREET BEAMSVILLE
TOWN OF LINCOLN

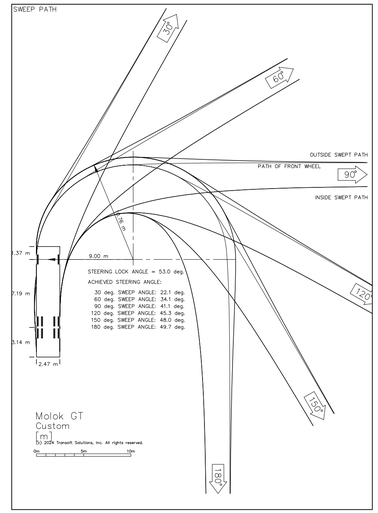
Drawing
VEHICLE MANEUVERING ANALYSIS
FIRE TRUCK

CROZIER CONSULTING ENGINEERS

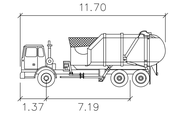
Drawn By	M.P.	Design By	M.P.	Project	2740-7216
Check By	I.L.	Check By	I.L.	Drawing	T205







VEHICLE PROFILE



Molok GT

	meters
Width	: 2.47
Track	: 2.47
Lock to Lock Time	: 6.0
Steering Angle	: 53.0

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6. DO NOT SCALE DRAWINGS.

Town

No.	ISSUE	DATE: MMM/DD/YYYY
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Engineer

FOR REVIEW
NOT TO BE USED FOR CONSTRUCTION

Project
5205 KING STREET BEAMSVILLE
TOWN OF LINCOLN

Drawing
VEHICLE MANEUVERING ANALYSIS
GARBAGE TRUCK

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
M.P.	M.P.	2740-7216
Check By	Check By	Drawing
I.L.	I.L.	T206

APPENDIX M

Town of Lincoln Zoning By-Law 2022-50

SECTION 4 – PARKING AND LOADING REQUIREMENTS

4.1 PARKING PROVISIONS

4.1.1 NUMBER OF REQUIRED PARKING SPACES

Where land, **buildings** or **structures** are **used** in accordance with this By-law, every owner shall provide and maintain off-**street vehicle parking areas** for the sole **use** of the owner, occupant or **persons** making **use** of the premises on the same **lot** in accordance with the requirements outlined for the respective **uses** as specified in the table below and in accordance with the other provisions contained in this Section. In addition, the owner or occupant of any **lot**, **building** or **structure erected** shall provide and maintain bicycle **parking spaces** in accordance with the table below.

Use	Minimum Number of Parking Spaces	Bicycle Parking Requirements
Residential Uses		
Apartment Dwelling	1.25 space per **dwelling unit**	0.25 spaces per **apartment dwelling unit**
Bed and Breakfast Establishment	2 spaces per **dwelling unit** plus 1 additional space for each **guest room**	0.25 spaces per guest room
Short-term accommodation	2 spaces per **dwelling unit** plus 1 additional space for each **guest room**	0.25 spaces per guest room
Duplex Dwelling	2 spaces per **dwelling unit**	N/A
Dwelling Unit in a Mixed **Use** Development	1 space per **dwelling unit** in addition to the requirements for other **uses** in the development	0.25 spaces per dwelling unit
Farm Labour Housing	1 space per **dwelling unit**	N/A
Fourplex Dwelling	1 space per **dwelling unit**	N/A
Home for Special Care	2 spaces per **dwelling unit** plus 1 additional space for the **home for special care**	N/A
Home-based Business	2 spaces per **dwelling unit** plus 1 additional space for **home-based business use**	N/A
Nursing Home, **Long-Term Care Home** and **Retirement**	.25 spaces per bed or per room or per unit, whichever is greater and 1 space per employee	0.25 spaces per number of employees

Use	Minimum Number of Parking Spaces	Bicycle Parking Requirements
Home		
Secondary Residential Unit	1 spaces per **dwelling unit**	-N/A
Single Detached Dwelling, **Semi-Detached Dwelling, Stacked Townhouse Dwelling, Street Townhouse Dwelling**	2 spaces per **dwelling unit**	N/A
Triplex and Fourplex	1 space per **dwelling unit**	N/A
Other **Residential Uses**	2 spaces per **dwelling unit**	N/A
Commercial Uses		
Veterinary Clinic	1 space per 30 square metres of **gross floor area**	N/A
Clinic	6 spaces per practitioner	N/A
Commercial or **Private Club**	1 space per 10 square metres of **gross floor area**	N/A
Drive-Thru Facility	10 tandem spaces, in addition to the requirements of subsection 3.9	N/A
Dry Cleaning Distribution Station	1 space per 6 square metres of **public floor area** with a minimum of 2 spaces	N/A
Eating Establishment	Dining: 1 space per 4.5 square metres of **public floor area** Takeout: 1 space per 6 square metres of **public floor area**	1.0 spaces per 100 square metres of **gross floor area**
Hotel/Motel, **Inn**	1 space per **guest room** plus the **required** parking for any other **use**	1 space per 200 square metres of **gross floor area**
Marina	1 space per boat slip	N/A
Office Use	1 space per 30 square metres of **gross floor area**	1 space per 100 square metres of **gross floor area**
Personal Service Use	1 space per 30 square metres of **gross floor area**	N/A
Retail Use	1 space per 30 square metres of	1 space per 200

Use	Minimum Number of Parking Spaces	Bicycle Parking Requirements
	gross floor area	square metres of **gross floor area**
Service or Repair Use	1 space per 30 square metres of **gross floor area**	N/A
Other **Commercial Uses**	1 space per 30 square metres of **gross floor area**.	1 space per 200 square metres of **gross floor area**
Automotive Uses		
Vehicle Fueling Station	2 spaces	N/A
Vehicle Sales and Rental Establishment	1 space per 30 square metres of **gross floor area** with a minimum of 10 spaces	N/A
Vehicle Service and Repair Establishment	1 space per 30 square metres of **gross floor area** with a minimum of 10 spaces of which 50% of the **required** spaces may be **tandem parking**	N/A
Farm Implement Sales and Service Establishment	1 space per 30 square metres of **gross floor area**	N/A
Vehicle Wash Establishment	Mechanical: 5 Tandem spaces per bay Self Serve: 3 spaces per bay	N/A
Industrial Uses		
Industrial Mall	1 space per 50 square metres of **gross floor area**	N/A
Industrial Use	1 space per employee on the largest shift	N/A
Institutional Uses		
Place of Worship	The greater of: 1 space per 6 seats or 3 linear metres of pew space	
Schools	Elementary: 1.5 spaces per classroom plus 5 additional spaces Secondary: 5 spaces per classroom plus 5 additional spaces College, University: 1 space per 30 square metres of **gross floor area**.	1 space per 100 square metres of **gross floor area**.
Other	1 space per 30 square metres of	N/A

Use	Minimum Number of Parking Spaces	Bicycle Parking Requirements
Institutional Uses	**gross floor area**.	
Recreational Uses		
Place of Entertainment, **Recreational Use**	The greater of: 1 space per 6 seats or 1 space per 10 square metres of **gross floor area**.	N/A
Agricultural Uses		
Greenhouse Use, **Agricultural Produce Warehouse and/or Shipping Use, Cannabis production facility**	1 space per employee on the largest shift	N/A
Winery, **Brewery or Distillery**	1 space per 50 square metres of **gross floor area**.	N/A

4.1.2 VISITOR PARKING

For **apartment dwellings**, **block townhouse dwellings, maissonette** and **stacked townhouse dwellings**, **parking spaces** shall be provided and **used** to accommodate the **vehicles** of **persons** visiting the **dwelling units** at a ratio of 1 additional visitor **parking space** for every 10 **dwelling units** or part thereof. All **required** visitor **parking spaces** shall be clearly identified, demarcated and signed accordingly.

4.1.3 PARKING SPACE AND PARKING AREA PROVISIONS

Parking spaces and **parking areas** shall be designed and maintained in accordance with the following requirements:

(a) Each **parking space** shall be readily accessible at all times and arranged in such a manner to provide access and maneuvering space for the parking and removal of a **vehicle**, except that this does not apply in the case of a **single detached dwelling**, **semi-detached dwelling**, **duplex dwelling**, **triplex dwelling**, **fourplex dwelling**, **modular home, street townhouse dwelling, back-to-back townhouse dwelling, or secondary dwelling unit**.

(b) The dimensions required for **parking spaces** shall be in accordance with Schedule 'B'**.**

(c) Where a **lot**, **building** or **structure** accommodates more than one type of **use**, the **parking space** requirements shall be the sum of the requirements for the separate parts of the **lot**, **building** or **structure** occupied by the separate types of **uses**.

(d) Where an **addition** is made to a **building** or the **use** is changed, then additional **parking spaces** must be provided up to the number **required** for the **addition** or change in **use**.

(e) For the purposes of calculating the total number of **parking spaces**, where the application of ratios results in a fraction of a **parking space**, the **required** number of **parking spaces** for each permitted **use** shall be increased to the next higher whole number.

(f) Where off-**street** parking for any **use** other than a **residential use within a Residential Zone** abuts a **side lot line** or **rear lot line** in a **Residential Zone**, a screen shall be **erected** or planted and maintained along the side or **rear lot line** and the screen shall have a minimum **height** of 1.5 metres and shall be suitable for provision of privacy and protection from **vehicle** headlights.

(g) The **front yard** on any **lot**, excepting the **driveway** shall be landscaped and no parking shall be permitted within this **landscaped open space**. a minimum area of 1 metre between the **driveway** and nearest **lot line** must be maintained as landscaped space in the form of grass, flowers, trees, shrubbery, natural vegetation and indigenous species.

(h) The width of a driveway accessing a residential use shall be in accordance with the Table below:

	Lot Frontage	Maximum Driveway Width
Residential Zone:	9 metres or less	4.3 m
	Greater than 9 metres	50% of the lot frontage to a maximum of 7.3 metres
Agricultural Zone:	N/A	50% of the lot frontage to a maximum of 9 metres

(i) For commercial, industrial, institutional properties and residential property with more than three (3) dwelling units, the width of the driveway shall be established through the Site Plan Control Approval process.

4.1.4 DESIGNATION OF ACCESSIBLE PARKING SPACES

(a) Accessible **parking spaces** shall be designated in accordance with the following table:

	Total number of **parking spaces required**	Minimum number of accessible parking **required** to be designated
(i)	0 to 12 required **parking spaces**	One (1) Type A
(ii)	13 to 100 **required parking spaces**	4% of the total number of parking spaces(1),of which, 50% shall be Type A and 50% shall be Type B (2)
(iii)	101 to 200 **required parking spaces**	1 space plus 3% of the total number of parking spaces, of which, 50% shall be Type A and 50% shall be Type B (2)
(iv)	201 to 1000 **required parking spaces**	2 spaces plus 2% of the total number of parking spaces, of which, 50% shall be Type A and 50% shall be Type B (2)
(v)	1001 or more **parking spaces**	11 spaces plus 1% of the total number of parking spaces, of which, 50% shall be Type A and 50% shall be Type B (2)

(1) Where the minimum number of required Accessible Parking Spaces results in one (1) Accessible Parking Space being required, the parking space shall be a Type A parking space.

(2) Where the minimum number of required Accessible Parking Spaces results in an odd number of Accessible Parking Spaces being required, the additional space may be a Type B parking space.

(b) The calculation of accessible **parking spaces** shall be included as part of the total calculation of **parking spaces required** for any **lot**, **building** or **use**.

(c) Accessible **parking spaces** shall not be **required** for **single detached dwellings**, **semi-detached dwellings**, **triplex dwellings**, **fourplex dwellings, townhouse dwellings, back-to-back townhouse dwellings, duplex dwellings or modular homes**.

(d) The dimensions required for an accessible **parking space** shall be in accordance with Schedule 'B'

(e) The 1.5 metre unobstructed pedestrian access aisle may be shared by two abutting accessible **parking spaces** and must meet the following requirements:

(i) the unobstructed pedestrian access aisle shall extend the full length of the accessible **parking space**; and

(ii) the unobstructed pedestrian access aisle shall be marked with high tonal contrast diagonal lines, to discourage parking in them, where the surface is asphalt, concrete or some other hard surface.

(f) Accessible **parking spaces** shall be designed in accordance with the **Town**'s Accessible Parking By-law.

4.1.5 SHARED PARKING REQUIREMENTS FOR MIXED USE DEVELOPMENTS

For mixed **use** development where more than one of the **uses** listed in the table below are located on the same **lot**, the minimum parking requirement may be reduced through sharing of **parking spaces**, and the cumulative total of **parking spaces required** for all the **uses** on the **lot** may be calculated as follows:

(a) Calculate the **required parking spaces** for each **use** in the mixed-**use** development;

(b) Multiply the number of **parking spaces required** in the By-law by the occupancy rate for each **use** in each of the time periods (weekday and weekend, morning, afternoon, evening and overnight occupancy);

(c) For each time period add the **parking space** calculations for all the **uses** to arrive at a cumulative total; and

(d) The largest cumulative total of all the **uses** in any time period is the number of **parking spaces required** for the **lot**.

	Type of Use	Morning Occupancy Rate		
(i)	**Office/Clinic/Financial Use**	Morning:	100	
		Afternoon:	95	
		Evening:	25	
		Overnight:	0	
(ii)	**Eating Establishment**	Morning:	15	
		Afternoon:	50	
		Evening:	100	
		Overnight:	0	
(iii)	**Retail Use / Personal Service Use**	Morning:	80	
		Afternoon:	90	
		Evening:	90	
		Overnight:	0	
(iv)	Overnight Accommodation – **Hotel**, **Motel**, **Short-term accommodation**	Morning:	70	
		Afternoon:	60	
		Evening:	75	
		Overnight:	100	
(v)	**Residential**	Morning:	90	*Visitor – 20
		Afternoon:	40	*Visitor – 10
		Evening:	90	*Visitor – 80
		Overnight:	100	*Visitor – 100
	Type of Use	**Percentage of Peak Period (Weekend)**		
(vi)	**Office/Clinic/Financial Use**	Morning:	10	
		Afternoon:	10	
		Evening:	10	
		Overnight:	10	
(vii)	**Eating Establishment**	Morning:	15	
		Afternoon:	50	
		Evening:	100	
		Overnight:	0	
(viii)	**Retail Use / Personal Service Use**	Morning:	80	
		Afternoon:	100	

		Evening:	10	
		Overnight:	0	
(ix)	Overnight Accommodation – **Hotel**, **Motel**, **Short-term accommodation**	Morning:	70	
		Afternoon:	60	
		Evening:	75	
		Overnight:	100	
(x)	**Residential**	Morning:	90	*Visitor – 20
		Afternoon:	40	*Visitor – 10
		Evening:	90	*Visitor – 80
		Overnight:	100	*Visitor – 100

4.1.6 CALCULATION OF REQUIRED SPACES

(a) Where part of a **parking space** is **required**, such part shall be considered one **parking space** for the purpose of calculating the minimum total **parking space** requirements.

(b) Where a **building** or **structure**, other than an **industrial mall**, or **lot** accommodates more than one **use**, the **parking space** requirements for the **lot** shall be the sum of the requirements for the individual **uses**, unless the Section 4.1.4 (Shared Parking Requirements for Mixed **Use** Developments) apply.

(c) **Parking spaces** shall be provided for any **addition** to a **building** or **structure** or a change in **use**, except that, where a **building** or **structure** has less than the **required parking spaces** as of the effective date of this By-law, this By-law shall not be interpreted to require that the deficiency be made up in the event of an **addition** or change of **use** provided that any parking **required** for such **addition** or change of **use** is provided.

4.1.7 EXCEPTION TO PARKING REQUIREMENTS

Notwithstanding the provisions of Section 4.1, all lands within the Central Business District as identified on Schedules A2, A3, A5 and A6 shall be exempted from the parking and loading requirements of this By-law, providing:

(a) The commercial use involves a change of use within an existing building; and/or

(b) The commercial development involves an addition to an existing commercial building; and/or