

RESIDENTIAL

Plot Location Relative to Critical Junction	Plot	Dwellings	Percentage	Dwellings	Trip Generation					
					AM Peak			PM Peak		
					Arr	Dep	Tot	Arr	Dep	Tot
RESIDENTIAL TRIP RATES					0.169	0.405	0.574	0.396	0.247	0.643
North	None	0	0.00%	0	0	0	0	0	0	0
	Sub-Total	0		0	0	0	0	0	0	0
South	A1	62	100%	62	10	25	36	25	15	40
	A7	162	100%	162	27	66	93	64	40	104
	A8	141	100%	141	24	57	81	56	35	91
	A16	26	100%	26	4	11	15	10	6	17
	Other	82	100%	82	14	33	47	32	20	53
	Persimmon Site	1,600	100%	1,600	270	648	918	634	395	1029
	Sub-Total	2,073		2,073	350	840	1,190	821	512	1,333
East	A2	135	100%	135	23	55	77	53	33	87
	A3	115	100%	115	19	47	66	46	28	74
	A4	-	100%	-	0	0	0	0	0	0
	A5	69	100%	69	12	28	40	27	17	44
	A6	26	100%	26	4	11	15	10	6	17
	Other	82	100%	82	14	33	47	32	20	53
	Sub-Total	427		427	72	173	245	169	105	275
TOTAL					423	1,013	1,435	990	618	1,608

Does no. dwellings total 2,500? TRUE 0

EDUCATION

School Location Relative to Critical Junction	Plot	External School Places	Trip Generation						
			AM Peak			PM Peak			
			Arr	Dep	Tot	Arr	Dep	Tot	
PRIMARY SCHOOL TRIP RATES			0.351	0.237	0.588	0.006	0.027	0.033	
North	Sub-Total	0	0	0	0	0	0	0	
South	1 Form Entry School	46	16	11	27	0	1	2	
	2 Form Entry School	91	32	22	54	1	2	3	
	Sub-Total	137	48	32	81	1	4	5	
East	Sub-Total	0	0	0	0	0	0	0	
TOTAL			137	48	32	81	1	4	5

Total No. School Places 630
No. Internal School Places 493
No. External School Places 137

To/From South (no. external school places) 91
To/From South (no. external school places) 46

EMPLOYMENT

Employment Location Relative to Critical Junction	Plot	SQM	Trip Generation						
			AM Peak			PM Peak			
			Arr	Dep	Tot	Arr	Dep	Tot	
EMPLOYMENT TRIP RATES			1.225	0.198	1.423	0.212	1.151	1.363	
North	Sub-Total	0	0	0	0	0	0	0	
South	D1 Healthcare	3,000	37	6	43	6	35	41	
	Sub-Total	3,000	37	6	43	6	35	41	
East	Sub-Total	0	0	0	0	0	0	0	
TOTAL			3,000	37	6	43	6	35	41

RESI + EDUCATION

Trip Origin /Destination Relative to Critical Junction	Plot	Trip Generation					
		AM Peak			PM Peak		
		Arr	Dep	Tot	Arr	Dep	Tot
NORTH		0	0	0	0	0	0
SOUTH		398	872	1,270	822	516	1,337
EAST		72	173	245	169	105	275
TOTAL		471	1,045	1,516	991	621	1,612

TOTAL SUMMARY

Trip Origin /Destination Relative to Critical Junction	Plot	Trip Generation					
		AM Peak			PM Peak		
		Arr	Dep	Tot	Arr	Dep	Tot
NORTH		0	0	0	0	0	0
SOUTH		435	878	1,313	828	550	1,378
EAST		72	173	245	169	105	275
TOTAL		507	1,051	1,558	997	656	1,653

GEOGRAPHIC DISTRIBUTION

	Resi Traffic	Employment Traffic
North	13.60%	18.00%
West	41%	25%
South	24%	19%
East	22%	37%
	99.90%	99.90%

ACCESS DISTRIBUTION

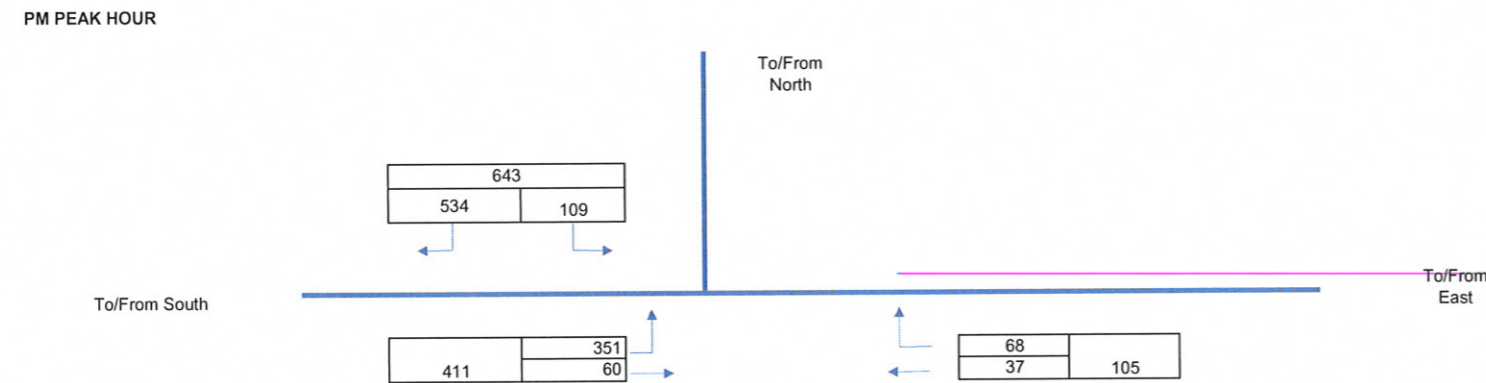
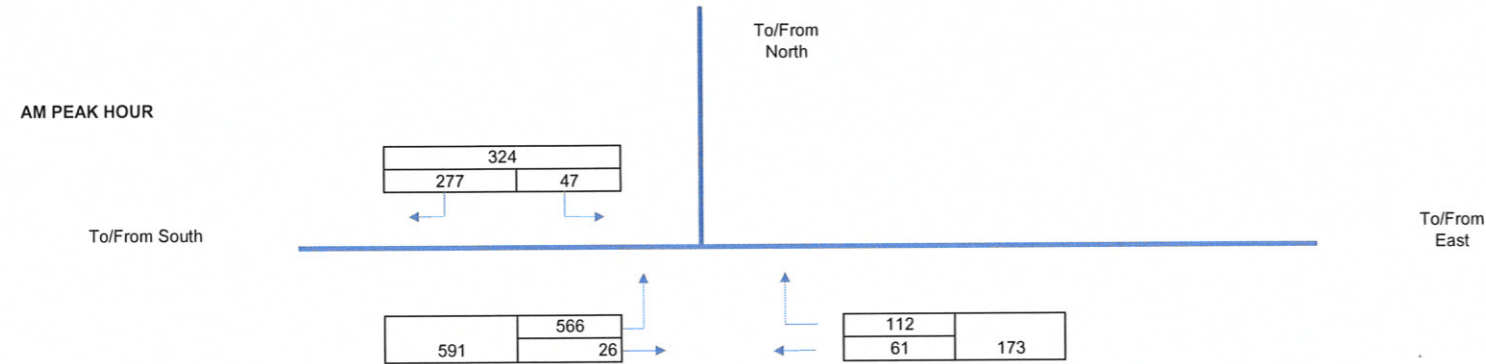
	North	West	South	East
Northern Access	100%	90%	50%	10%
Southern Access	0%	10%	50%	90%

NORTH / SOUTH ACCESS SPLIT

Resi / Education					Employment				
	North	West	South	East	North	West	South	East	
Northern Access	14%	37%	12%	2%	18%	23%	10%	4%	
	65%				54%				

Southern Access	0%	4%	12%	19%	35%	0%	3%	10%	33%	46%
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PLOT	via Northern Access						Southern Access					
	AM Peak			PM Peak			AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	0	0	0	0	0	0	0	0	0	0	0	0
	257	563	820	530	333	863	141	309	450	291	183	473
	47	112	158	109	68	177	26	61	87	60	37	97
Employment	0	0	0	0	0	0	0	0	0	0	0	0
	20	3	23	3	19	22	17	3	19	3	16	19
	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
	277	566	843	534	351	885	158	311	469	294	198	492
	47	112	158	109	68	177	26	61	87	60	37	97



5% Sensitivity Test

PLOT	via Northern Access						via Southern Access					
	AM Peak			PM Peak			AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	0	0	0	0	0	0	0	0	0	0	0	0
	13	28	41	27	17	43	7	15	22	15	9	24
	2	6	8	5	3	9	1	3	4	3	2	5
Employment	0	0	0	0	0	0	0	0	0	0	0	0
	1	0	1	0	1	1	1	0	1	0	1	1
	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
	14	28	42	27	18	44	8	16	23	15	10	25
	2	6	8	5	3	9	1	3	4	3	2	5

PLOT	via Northern Access						Southern Access					
	AM Peak			PM Peak			AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	0	0	0	0	0	0	0	0	0	0	0	0
	270	591	861	557	349	906	148	324	472	305	192	497
	49	117	166	115	71	186	27	64	91	63	39	102
Employment	0	0	0	0	0	0	0	0	0	0	0	0
	21	3	24	4	20	23	18	3	20	3	17	20
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0

Current Layout without flare i.e west-east priority

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-AC	2.1	21.68	0.68	C	88.9	557.51	1.27	F
Stream C-AB	0.2	7.75	0.16	A	0.1	6.98	0.08	A

Current Layout with 1PCU flare

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-C	0.1	6.98	0.09	A	8.2	265.56	1.09	F
Stream B-A	1.4	17.01	0.59	C	29.8	175.64	1.07	F
Stream C-AB	0.2	7.75	0.16	A	0.1	6.98	0.08	A

Changed priority (no flare) i.e west-north priority

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-AC	0.6	12.23	0.39	B	0.4	12.09	0.28	B
Stream C-AB	0.2	4.65	0.09	A	0.5	6.35	0.2	A

Changed Priority (with 1PCU flare)

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-C	0.2	8.45	0.14	A	0.1	8.93	0.09	A
Stream B-A	0.4	12.93	0.31	B	0.3	13.46	0.22	B
Stream C-AB	0.2	4.65	0.09	A	0.5	6.35	0.2	A

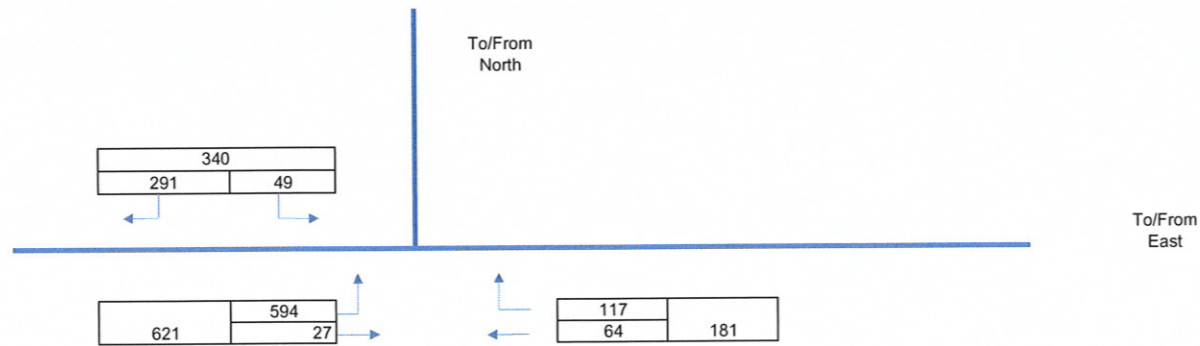
Roundabout

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Arm 1	1.7	9.55	0.63	A	0.8	6.02	0.43	A
Arm 2	0.6	6.24	0.38	A	3.3	17.18	0.77	C
Arm 3	0.3	5.89	0.23	A	0.2	6.64	0.17	A

Total	SOUTH	291	594	885	560	369	929	166	327	493	308	208	517
	EAST	49	117	166	115	71	186	27	64	91	63	39	102

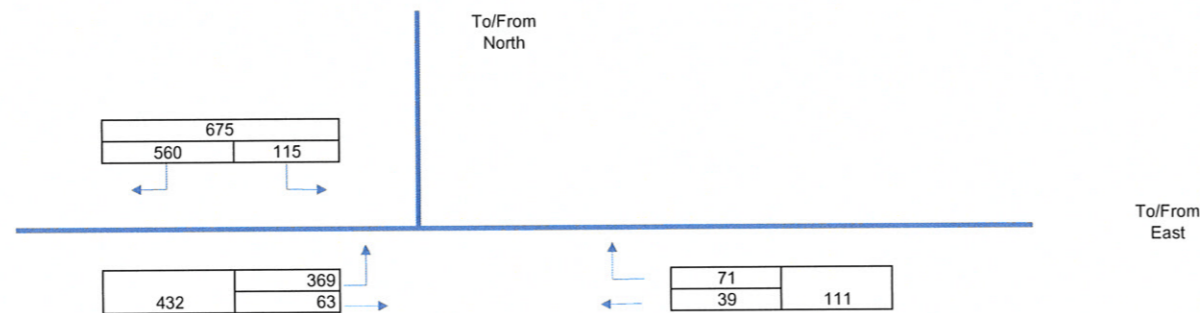
AM PEAK HOUR

To/From South



PM PEAK HOUR

To/From South



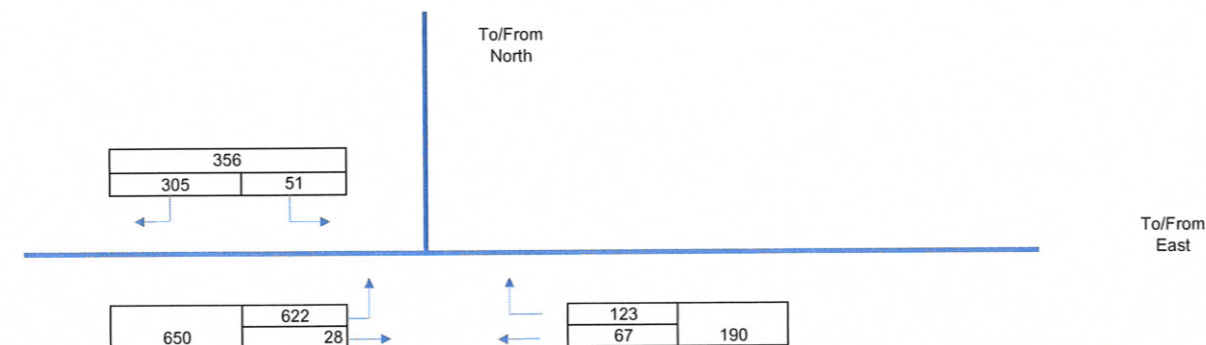
10% Sensitivity Test

PLOT		via Northern Access						via Southern Access					
		AM Peak			PM Peak			AM Peak			PM Peak		
		Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	26	56	82	53	33	86	14	31	45	29	18	47
	EAST	5	11	16	11	7	18	3	6	9	6	4	10
Employment	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	2	0	2	0	2	2	2	0	2	0	2	2
	EAST	0	0	0	0	0	0	0	0	0	0	0	0
Total	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	28	57	84	53	35	88	16	31	47	29	20	49
	EAST	5	11	16	11	7	18	3	6	9	6	4	10

PLOT		via Northern Access						Southern Access					
		AM Peak			PM Peak			AM Peak			PM Peak		
		Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	283	619	902	583	366	949	155	339	495	320	201	521
	EAST	51	123	174	120	75	195	28	67	95	66	41	107
Employment	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	22	4	25	4	21	24	18	3	21	3	17	21
	EAST	0	0	0	0	0	0	0	0	0	0	0	0
Total	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	305	622	927	587	387	973	174	342	516	323	218	541
	EAST	51	123	174	120	75	195	28	67	95	66	41	107

AM PEAK HOUR

To/From South



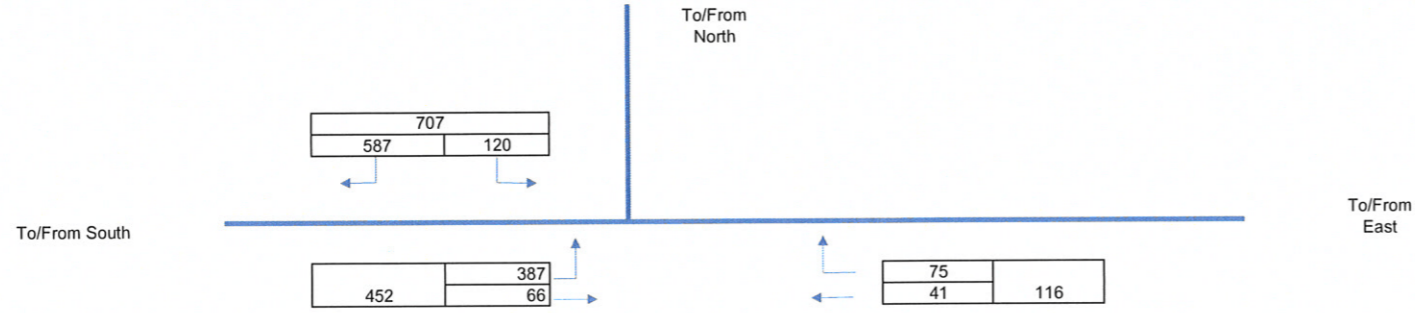
Changed Priority (with 1PCU flare)

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-C	0.2	8.71	0.15	A	0.1	9.21	0.1	A
Stream B-A	0.5	13.74	0.33	B	0.3	14.38	0.24	B
Stream C-AB	0.2	4.6	0.09	A	0.5	6.41	0.21	A

Changed Priority (with 1PCU flare)

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-C	0.2	9.04	0.16	A	0.1	9.56	0.11	A
Stream B-A	0.5	14.72	0.36	B	0.4	15.53	0.26	C
Stream C-AB	0.2	4.55	0.1	A	0.6	6.49	0.23	A

PM PEAK HOUR

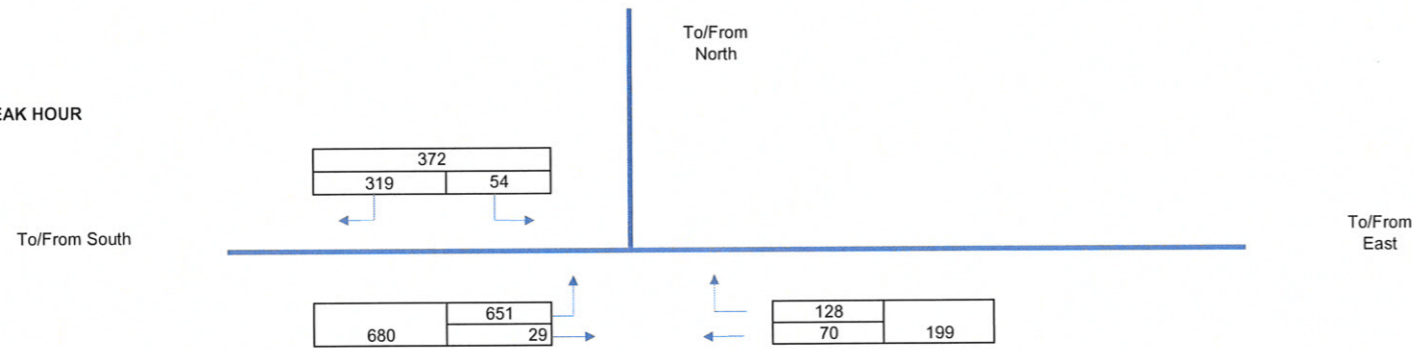


15% Sensitivity Test

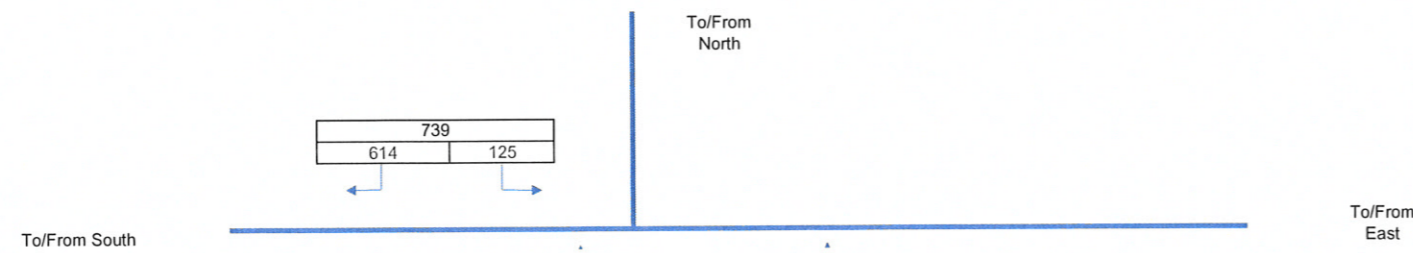
PLOT		via Northern Access						via Southern Access					
		AM Peak			PM Peak			AM Peak			PM Peak		
		Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	39	84	123	80	50	129	21	46	67	44	27	71
	EAST	7	17	24	16	10	27	4	9	13	9	6	15
Employment	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	3	0	3	1	3	3	3	0	3	0	2	3
	EAST	0	0	0	0	0	0	0	0	0	0	0	0
Total	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	42	85	126	80	53	133	24	47	70	44	30	74
	EAST	7	17	24	16	10	27	4	9	13	9	6	15

PLOT		via Northern Access						Southern Access					
		AM Peak			PM Peak			AM Peak			PM Peak		
		Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	296	647	943	610	383	992	162	355	517	334	210	544
	EAST	54	128	182	125	78	204	29	70	100	69	43	112
Employment	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	23	4	27	4	22	26	19	3	22	3	18	21
	EAST	0	0	0	0	0	0	0	0	0	0	0	0
Total	NORTH	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	319	651	969	614	404	1018	181	358	539	338	228	566
	EAST	54	128	182	125	78	204	29	70	100	69	43	112

AM PEAK HOUR



PM PEAK HOUR



Changed Priority (with 1PCU flare)

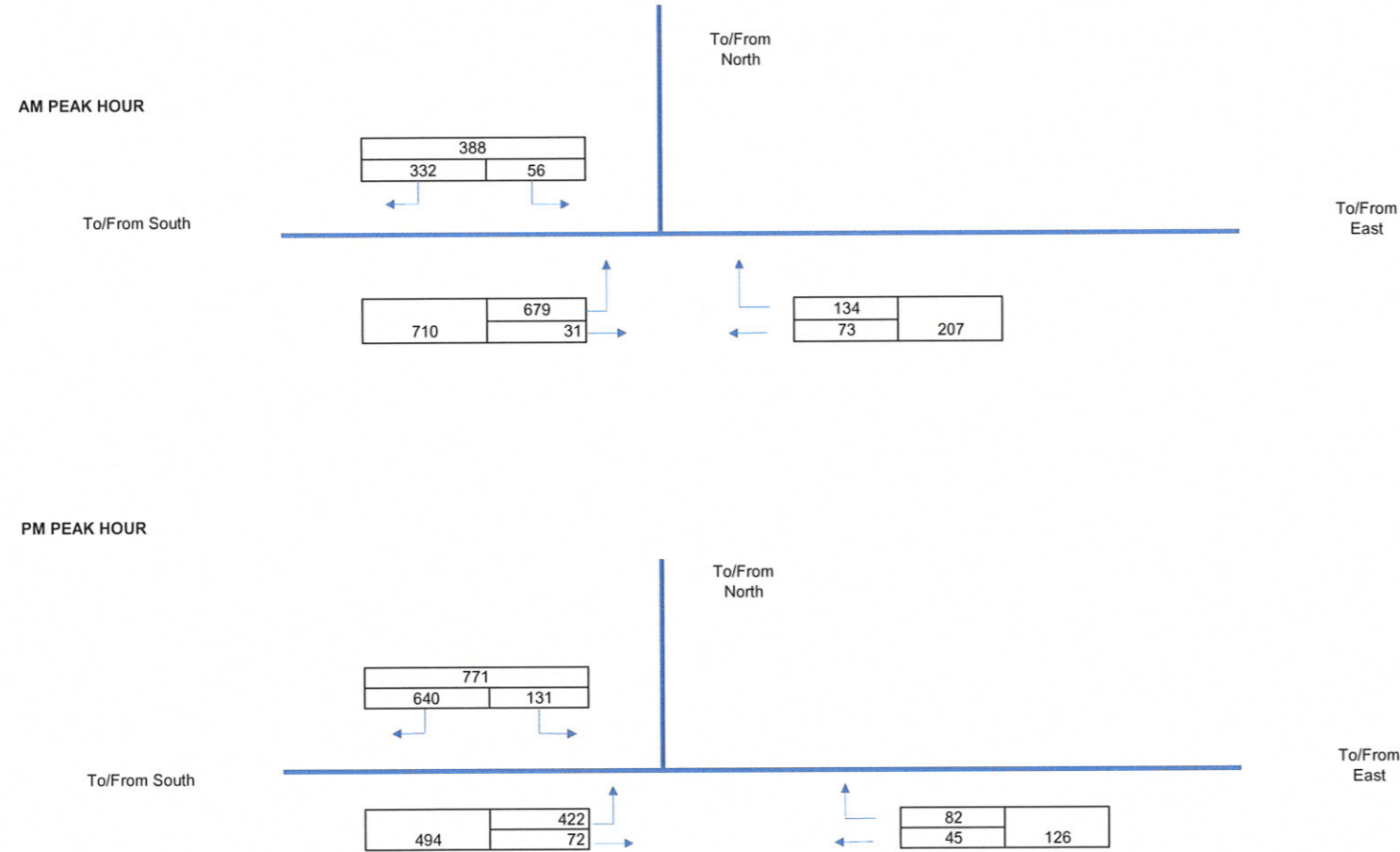
	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-C	0.2	9.38	0.17	A	0.1	9.92	0.12	A
Stream B-A	0.6	15.81	0.38	C	0.4	16.77	0.29	C
Stream C-AB	0.2	4.5	0.11	A	0.7	6.59	0.25	A

473	404	78	121
	69	43	

20% Sensitivity Test

PLOT	via Northern Access						via Southern Access					
	AM Peak			PM Peak			AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	NORTH	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	51	113	164	106	67	173	28	62	90	58	37
	EAST	9	22	32	22	14	35	5	12	17	12	7
Employment	NORTH	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	4	1	5	1	4	4	3	1	4	1	3
	EAST	0	0	0	0	0	0	0	0	0	0	0
Total	NORTH	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	55	113	169	107	70	177	32	62	94	59	40
	EAST	9	22	32	22	14	35	5	12	17	12	7

PLOT	via Northern Access						Southern Access			PM Peak		
	AM Peak			PM Peak			AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Resi / Education	NORTH	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	308	675	983	636	399	1035	169	370	540	349	219
	EAST	56	134	190	131	82	213	31	73	104	72	45
Employment	NORTH	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	24	4	28	4	22	27	20	3	23	3	19
	EAST	0	0	0	0	0	0	0	0	0	0	0
Total	NORTH	0	0	0	0	0	0	0	0	0	0	0
	SOUTH	332	679	1011	640	422	1062	189	374	563	352	238
	EAST	56	134	190	131	82	213	31	73	104	72	45



Changed Priority (with 1PCU flare)

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2018								
Stream B-C	0.2	9.81	0.18	A	0.1	10.36	0.12	B
Stream B-A	0.7	17.16	0.41	C	0.5	18.34	0.32	C
Stream C-AB	0.3	4.46	0.12	A	0.8	6.7	0.27	A

Roundabout

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2500 Dwellings + 5%								
Arm 1	2	10.52	0.67	B	0.8	6.28	0.45	A
Arm 2	0.7	6.45	0.4	A	4.1	20.7	0.81	C
Arm 3	0.3	6.05	0.25	A	0.2	6.9	0.19	A
2500 Dwellings + 10%								
Arm 1	2.3	11.72	0.7	B	0.9	6.57	0.47	A
Arm 2	0.7	6.66	0.42	A	5.3	25.87	0.85	D
Arm 3	0.4	6.24	0.26	A	0.3	7.19	0.2	A
2500 Dwellings + 15%								
Arm 1	2.7	13.26	0.73	B	1	6.86	0.5	A
Arm 2	0.8	6.91	0.44	A	7.2	33.84	0.89	D
Arm 3	0.4	6.42	0.28	A	0.3	7.49	0.21	A
2500 Dwellings + 20%								
Arm 1	3.2	15.29	0.77	C	1.1	7.21	0.52	A
Arm 2	0.8	7.15	0.46	A	10.3	46.59	0.93	E
Arm 3	0.4	6.62	0.29	A	0.3	7.81	0.23	A