

APPENDICES

Appendix A

Existing Vehicle Movements to the LHWRC

Average hourly tonnage throughput

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average Annual Weekday	Average Annual Weekend	Average Annual Daily	Average Annual Weekly
12am	-	0.06	0.10	-	-	-	-	0.03	-	0.02	0.16
1am	-	-	-	-	-	-	-	-	-	-	-
2am	-	-	-	-	-	-	-	-	-	-	-
3am	-	-	-	-	-	-	-	-	-	-	-
4am	-	-	-	-	-	-	-	-	-	-	-
5am	-	4.11	3.05	0.65	1.87	-	-	1.94	-	1.38	9.68
6am	392.24	447.75	452.91	435.70	457.10	-	-	437.14	-	312.24	2,185.70
7am	318.50	349.70	339.49	337.97	337.38	1.56	0.01	336.61	0.79	240.66	1,684.61
8am	426.35	506.53	509.35	547.55	480.57	300.23	193.12	494.07	246.68	423.39	2,963.70
9am	401.70	394.08	357.75	386.38	371.03	174.70	46.97	382.19	110.84	304.66	2,132.61
10am	468.73	482.01	443.50	470.67	462.29	207.59	86.25	465.44	146.92	374.43	2,621.04
11am	442.99	471.59	470.53	462.87	414.77	179.18	88.15	452.55	133.67	361.44	2,530.08
12pm	315.57	338.41	327.93	349.57	317.69	128.79	71.88	329.83	100.34	264.26	1,849.84
1pm	386.44	397.65	368.63	397.18	328.92	163.15	54.01	375.76	108.58	299.43	2,095.98
2pm	325.01	379.28	375.23	364.74	338.51	155.71	71.47	356.55	113.59	287.14	2,009.95
3pm	242.86	251.04	231.88	268.33	217.21	63.62	59.62	242.26	61.62	190.65	1,334.56
4pm	2.92	4.46	3.67	3.52	1.21	18.12	15.09	3.16	16.61	7.00	48.99
5pm	-	-	-	-	-	0.04	0.01	-	0.03	0.01	0.05
6pm	-	-	-	-	-	-	-	-	-	-	-
7pm	-	-	-	-	-	-	-	-	-	-	-
8pm	-	-	-	-	-	-	-	-	-	-	-
9pm	-	-	-	-	-	-	-	-	-	-	-
10pm	-	-	-	-	-	-	-	-	-	-	-
11pm	-	-	-	-	-	-	-	-	-	-	-
Total	3,723.31	4,026.67	3,884.02	4,025.13	3,728.55	1,392.69	686.58	3,877.54	1,039.64	3,066.71	21,466.95

Average hourly vehicle count

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average Annual Weekday	Average Annual Weekend	Average Annual Daily	Average Annual Weekly
12am	-	0.04	0.06	-	-	-	-	0.02	-	0.01	0.10
1am	-	-	-	-	-	-	-	-	-	-	-
2am	-	-	-	-	-	-	-	-	-	-	-
3am	-	-	-	-	-	-	-	-	-	-	-
4am	-	-	-	-	-	-	-	-	-	-	-
5am	-	0.34	0.49	0.10	0.44	-	-	0.27	-	0.20	1.37
6am	35.51	41.53	40.28	41.75	42.81	-	-	40.38	-	28.84	201.88
7am	28.62	33.47	31.94	30.77	33.71	0.12	0.02	31.70	0.07	22.66	158.65
8am	41.53	46.19	47.96	51.71	47.85	44.48	29.63	47.05	37.06	44.19	309.35
9am	51.51	47.79	43.89	45.12	46.12	40.02	32.48	46.89	36.25	43.85	306.93
10am	53.81	49.98	47.30	50.23	54.87	48.88	45.83	51.24	47.36	50.13	350.90
11am	56.15	52.68	52.53	52.56	51.54	52.02	52.73	53.09	52.38	52.89	370.21
12pm	48.34	41.68	41.23	44.42	45.29	47.12	50.69	44.19	48.91	45.54	318.77
1pm	49.25	44.62	45.34	45.46	41.29	48.37	49.40	45.19	48.89	46.25	323.73
2pm	42.72	40.58	40.96	40.88	39.98	50.06	47.10	41.02	48.58	43.18	302.28
3pm	32.74	30.85	30.58	32.42	30.37	42.79	40.48	31.39	41.64	34.32	240.23
4pm	0.36	0.45	0.45	0.38	0.29	18.96	16.44	0.39	17.70	5.33	37.33
5pm	-	-	-	-	-	0.08	0.04	-	0.06	0.02	0.12
6pm	-	-	-	-	-	-	-	-	-	-	-
7pm	-	-	-	-	-	-	-	-	-	-	-
8pm	-	-	-	-	-	-	-	-	-	-	-
9pm	-	-	-	-	-	-	-	-	-	-	-
10pm	-	-	-	-	-	-	-	-	-	-	-
11pm	-	-	-	-	-	-	-	-	-	-	-
Total	440.54	430.20	423.01	435.80	434.56	392.90	364.84	432.82	378.87	417.41	2,921.85

Average hourly tonnage throughput

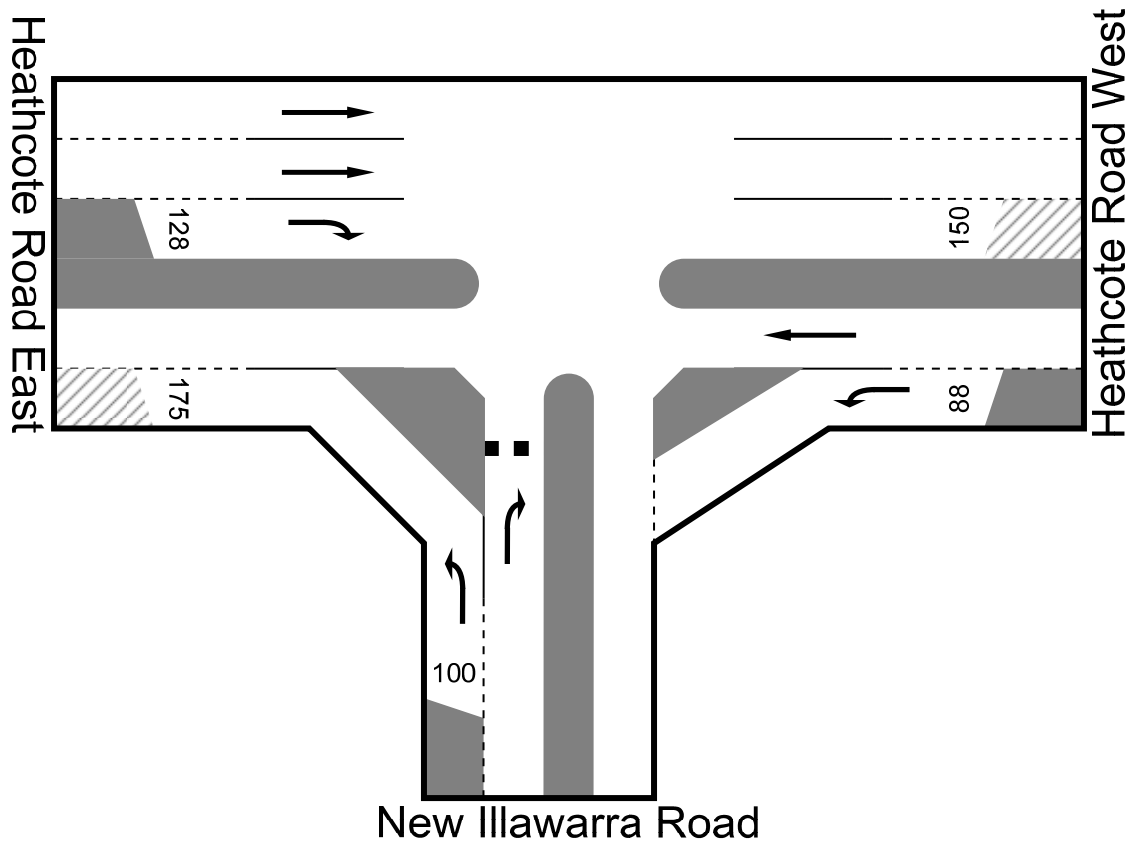
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average Annual Weekday	Average Annual Weekend	Average Annual Daily	Average Annual Weekly
12am	-	-	-	-	-	-	-	-	-	-	-
1am	-	-	-	-	-	-	-	-	-	-	-
2am	-	-	-	-	-	-	-	-	-	-	-
3am	-	-	-	-	-	-	-	-	-	-	-
4am	-	-	-	-	-	-	-	-	-	-	-
5am	-	-	-	-	1.28	-	-	0.26	-	0.18	1.28
6am	430.81	467.10	475.11	485.14	467.58	-	-	465.15	-	332.25	2,325.74
7am	360.87	317.77	347.30	305.60	305.62	0.14	-	327.43	0.07	233.90	1,637.30
8am	437.61	467.54	481.68	515.47	455.06	331.15	142.94	471.47	237.05	404.49	2,831.45
9am	409.13	353.00	352.92	421.51	385.60	224.71	28.71	384.43	126.71	310.80	2,175.58
10am	452.99	408.63	431.20	416.30	405.06	257.60	62.62	422.84	160.11	347.77	2,434.40
11am	441.18	443.82	511.44	479.04	467.51	238.56	81.45	468.60	160.01	380.43	2,663.00
12pm	308.37	315.64	333.91	357.94	315.53	158.34	47.02	326.28	102.68	262.39	1,836.75
1pm	364.55	354.03	423.88	361.07	331.66	224.20	46.60	367.04	135.40	300.86	2,105.99
2pm	329.18	388.36	416.08	404.50	395.67	187.27	66.57	386.76	126.92	312.52	2,187.63
3pm	253.92	251.07	307.24	274.25	234.00	84.72	17.78	264.10	51.25	203.28	1,422.98
4pm	8.83	11.45	0.03	6.29	2.90	21.00	11.70	5.90	16.35	8.89	62.20
5pm	-	-	-	-	-	-	-	-	-	-	-
6pm	-	-	-	-	-	-	-	-	-	-	-
7pm	-	-	-	-	-	-	-	-	-	-	-
8pm	-	-	-	-	-	-	-	-	-	-	-
9pm	-	-	-	-	-	-	-	-	-	-	-
10pm	-	-	-	-	-	-	-	-	-	-	-
11pm	-	-	-	-	-	-	-	-	-	-	-
Total	3,797.44	3,778.41	4,080.79	4,027.11	3,767.47	1,727.69	505.39	3,890.24	1,116.54	3,097.76	21,684.30

Average hourly vehicle count

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average Annual Weekday	Average Annual Weekend	Average Annual Daily	Average Annual Weekly
12am	-	-	-	-	-	-	-	-	-	-	-
1am	-	-	-	-	-	-	-	-	-	-	-
2am	-	-	-	-	-	-	-	-	-	-	-
3am	-	-	-	-	-	-	-	-	-	-	-
4am	-	-	-	-	-	-	-	-	-	-	-
5am	-	-	-	-	0.56	-	-	0.11	-	0.08	0.56
6am	35.11	38.56	38.00	40.50	40.00	-	-	38.43	-	27.45	192.17
7am	27.11	29.78	30.44	25.00	30.00	0.11	-	28.47	0.06	20.35	142.44
8am	41.33	43.00	43.22	47.63	44.00	33.89	21.78	43.84	27.84	39.26	274.85
9am	46.67	42.67	42.44	46.88	43.78	33.44	20.78	44.49	27.11	39.52	276.66
10am	48.56	45.33	39.78	43.50	44.56	41.00	38.11	44.35	39.56	42.98	300.84
11am	53.56	48.67	48.89	54.75	52.67	48.56	46.22	51.71	47.39	50.47	353.32
12pm	44.22	40.67	37.67	43.50	42.56	42.67	46.67	41.72	44.67	42.57	297.96
1pm	42.11	42.11	44.44	38.25	38.78	44.22	43.11	41.14	43.67	41.86	293.02
2pm	39.33	39.67	40.67	36.63	40.44	47.00	42.44	39.35	44.72	40.88	286.18
3pm	26.56	28.56	29.22	27.13	27.56	38.33	32.56	27.81	35.45	29.99	209.92
4pm	0.67	0.78	0.33	0.38	0.44	12.78	11.44	0.52	12.11	3.83	26.82
5pm	-	-	-	-	-	-	-	-	-	-	-
6pm	-	-	-	-	-	-	-	-	-	-	-
7pm	-	-	-	-	-	-	-	-	-	-	-
8pm	-	-	-	-	-	-	-	-	-	-	-
9pm	-	-	-	-	-	-	-	-	-	-	-
10pm	-	-	-	-	-	-	-	-	-	-	-
11pm	-	-	-	-	-	-	-	-	-	-	-
Total	405.23	399.80	395.10	404.15	405.35	342.00	303.11	401.93	322.56	379.25	2,654.74

Appendix B

Existing Intersection Vehicle Movement Summaries 2008 AM and PM Peaks



Movement Summary

Heathcote Road / New Illawarra Road

2008 AM Base

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road										
1	L	258	4.3	0.143	9.6	LOS A#	4#	0.00	0.65	54.6
3	R	326	6.4	0.970	75.5	LOS F	138	0.99	2.19	25.1
Approach		584	5.5	0.969	46.4	LOS D	138	0.55	1.51	31.9
Heathcote Road West										
4	L	238	3.8	0.461	20.4	LOS B	21	0.71	0.98	52.4
5	T	281	5.0	0.149	4.0	LOS A	0	0.00	0.29	82.4
Approach		519	4.4	0.462	11.5	LOS A	21	0.33	0.61	65.2
Heathcote Road East										
11	T	496	4.4	0.131	0.0	LOS A#	4#	0.00	0.00	70.0
12	R	636	5.3	0.462	11.8	LOS A	32	0.51	0.75	51.4
Approach		1132	4.9	0.462	6.6	LOS A	32	0.29	0.42	58.2
All Vehicles		2235	5.0	0.970	18.2	Not Applicable	138	0.36	0.75	48.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

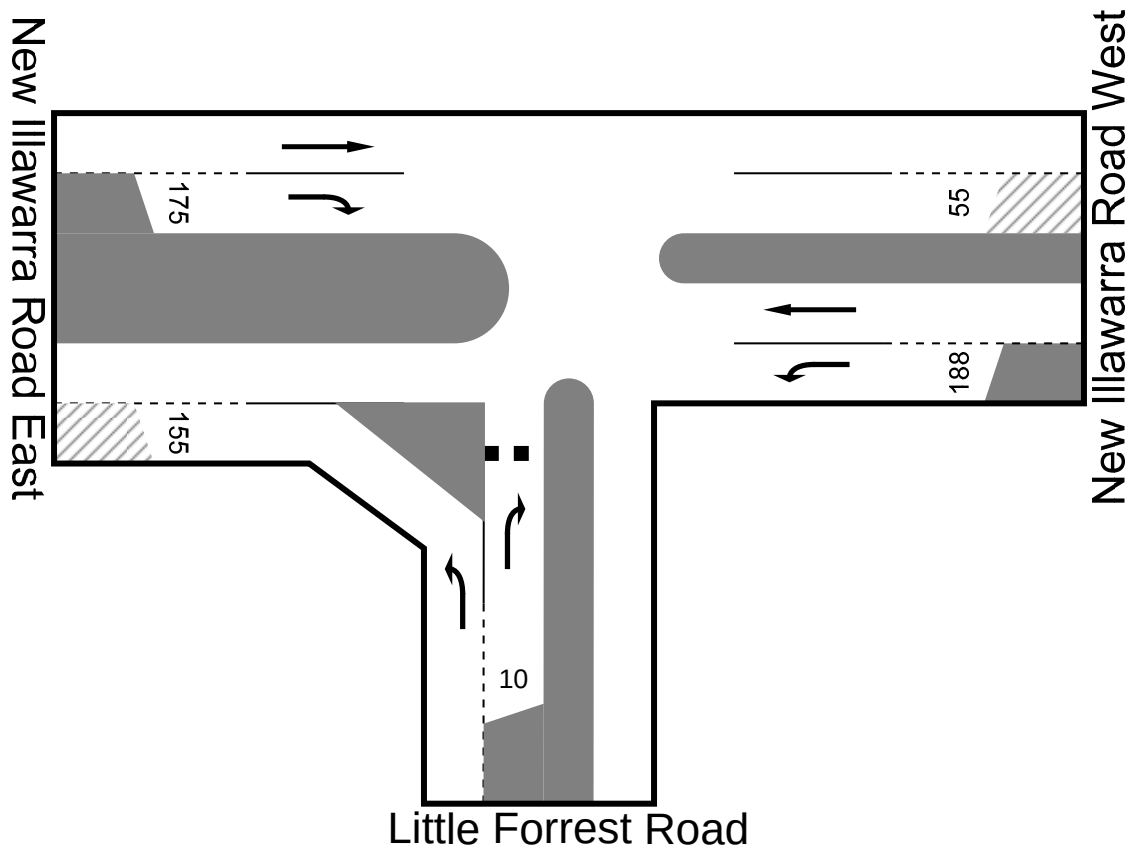
* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



Movement Summary

Forrest Road / New Illawarra Road

2008 AM Base

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Little Forrest Road										
1	L	31	96.8	0.028	10.3	LOS A#	1#	0.00	0.58	49.8
3	R	14	92.9	0.483	124.6	LOS F	16	0.94	1.04	13.8
Approach		45	95.6	0.483	45.8	LOS D	16	0.29	0.73	27.7
New Illawarra Road West										
4	L	14	92.9	0.013	11.6	LOS A	0	0.00	0.67	49.0
5	T	860	3.5	0.451	0.0	LOS A	0	0.00	0.00	60.0
Approach		874	4.9	0.451	0.2	LOS A		0.00	0.01	59.8
New Illawarra Road East										
11	T	570	3.3	0.299	0.0	LOS B#	10#	0.00	0.00	59.9
12	R	25	92.0	0.150	34.2	LOS C	9	0.85	0.95	32.4
Approach		595	7.1	0.299	1.5	LOS A	9	0.04	0.04	57.9
All Vehicles		1514	8.5	0.483	2.0	Not Applicable	16	0.02	0.04	57.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

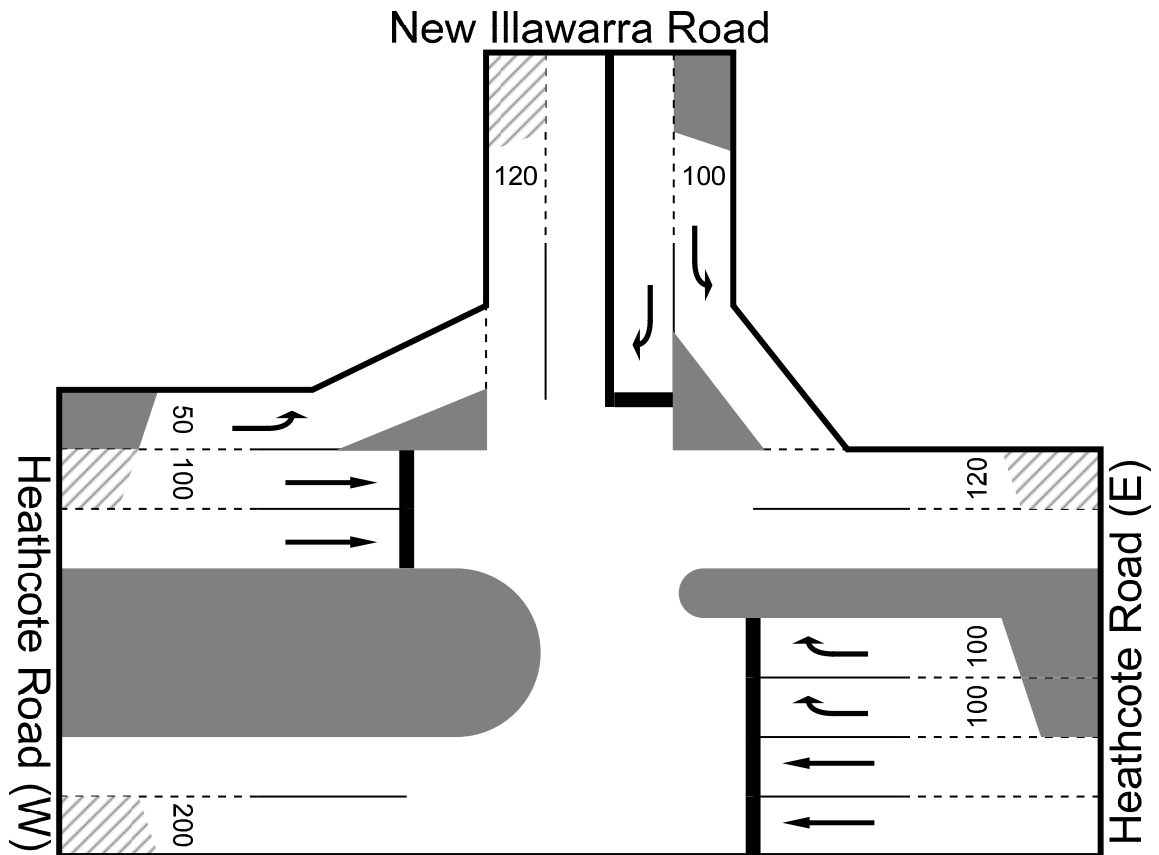
* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



Movement Summary

Heathcote Rd / New Illawarra Rd UPGRADE

2008 AM Peak

Signalised - Fixed time Cycle Time = 50 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	496	4.4	0.242	6.6	LOS A	33	0.56	0.47	58.4
6	R	636	5.3	0.917	39.6	LOS C	112	0.96	1.08	31.8
Approach		1132	4.9	0.917	25.2	LOS B	112	0.79	0.81	39.8
New Illawarra Road										
7	L	258	4.3	0.188	10.5	LOS A	10	0.30	0.71	52.8
9	R	326	6.4	0.835	36.7	LOS C	81	1.00	1.01	33.2
Approach		584	5.5	0.835	25.1	LOS B	81	0.69	0.88	39.8
Heathcote Road (W)										
10	L	238	3.8	0.216	10.5	LOS A	10	0.29	0.70	52.8
11	T	281	5.0	0.748	25.7	LOS B	45	0.99	0.84	39.4
Approach		519	4.4	0.748	18.7	LOS B	45	0.67	0.78	44.6
All Vehicles		2235	5.0	0.917	23.7	LOS B	112	0.73	0.82	40.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

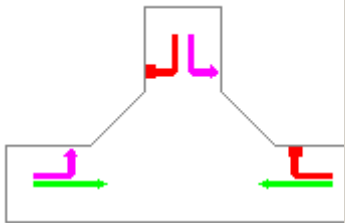
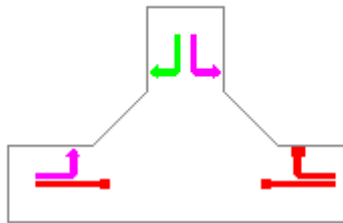
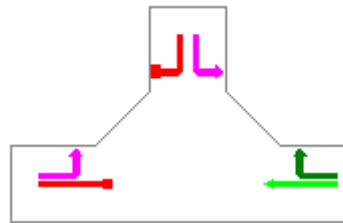
Heathcote Rd / New Illawarra Rd UPGRADE

2008 AM Peak

C = 50 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
		
Green Time = 6 seconds Phase Time = 12 seconds Phase Split = 24 %	Green Time = 11 seconds Phase Time = 17 seconds Phase Split = 34 %	Green Time = 15 seconds Phase Time = 21 seconds Phase Split = 42 %

- | | |
|--|---|
|  Normal Movement |  Permitted/Opposed |
|  Slip-Lane |  Opposed Slip-Lane |
|  Stopped Movement |  Continuous |
|  Turn On Red | |

Movement Summary

Heathcote Road / New Illawarra Road

2008 PM Base

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road										
1	L	631	3.0	0.347	9.5	LOS B#	9#	0.00	0.65	54.6
3	R	224	5.4	0.552	23.2	LOS B	27	0.81	1.08	47.1
Approach		855	3.6	0.551	13.1	LOS A	27	0.21	0.76	52.1
Heathcote Road West										
4	L	243	4.9	0.296	14.9	LOS B	12	0.48	0.79	59.8
5	T	468	4.1	0.246	4.0	LOS A	0	0.00	0.30	82.4
Approach		711	4.4	0.296	7.8	LOS A	12	0.16	0.47	72.9
Heathcote Road East										
11	T	241	7.5	0.065	0.0	LOS A#	2#	0.00	0.00	70.0
12	R	328	6.7	0.300	12.4	LOS A	14	0.56	0.81	51.1
Approach		569	7.0	0.300	7.2	LOS A	14	0.32	0.46	57.7
All Vehicles		2135	4.8	0.552	9.7	Not Applicable	27	0.23	0.58	59.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Forrest Road / New Illawarra Road

2008 PM Base

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Little Forrest Road										
1	L	15	80.0	0.013	9.8	LOS A#	0#	0.00	0.59	49.8
3	R	7	85.7	0.097	36.7	LOS C	3	0.77	0.92	31.2
Approach		22	81.8	0.097	18.4	LOS B	3	0.25	0.69	41.9
New Illawarra Road West										
4	L	6	83.3	0.005	11.3	LOS A	0	0.00	0.67	49.0
5	T	565	5.1	0.299	0.0	LOS A	0	0.00	0.00	60.0
Approach		571	6.0	0.299	0.1	LOS A		0.00	0.01	59.9
New Illawarra Road East										
11	T	849	2.9	0.444	0.1	LOS C#	15#	0.00	0.00	59.9
12	R	13	100.0	0.042	22.1	LOS B	3	0.68	0.84	39.0
Approach		862	4.4	0.444	0.4	LOS A	3	0.01	0.01	59.3
All Vehicles		1455	6.2	0.444	0.6	Not Applicable	3	0.01	0.02	59.2

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Rd / New Illawarra Rd UPGRADE

2008 PM Peak

Signalised - Fixed time Cycle Time = 40 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	241	7.5	0.123	5.3	LOS A	14	0.53	0.43	60.4
6	R	328	6.7	0.722	29.8	LOS C	42	0.98	0.85	36.8
Approach		569	7.0	0.722	19.4	LOS B	42	0.79	0.67	44.2
New Illawarra Road										
7	L	631	3.0	0.496	11.1	LOS A	31	0.49	0.76	51.7
9	R	224	5.4	0.715	29.6	LOS C	46	0.99	0.90	37.0
Approach		855	3.6	0.716	15.9	LOS B	46	0.62	0.79	46.8
Heathcote Road (W)										
10	L	243	4.9	0.211	10.8	LOS A	10	0.37	0.72	52.4
11	T	468	4.1	0.661	16.3	LOS B	52	0.94	0.80	47.0
Approach		711	4.4	0.661	14.4	LOS A	52	0.74	0.77	48.7
All Vehicles		2135	4.8	0.722	16.4	LOS B	52	0.71	0.75	46.7

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

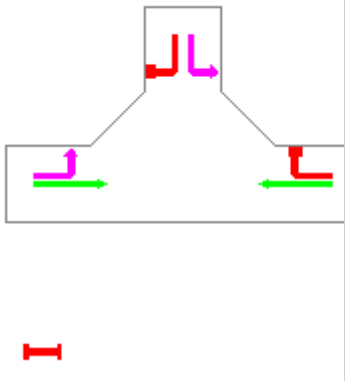
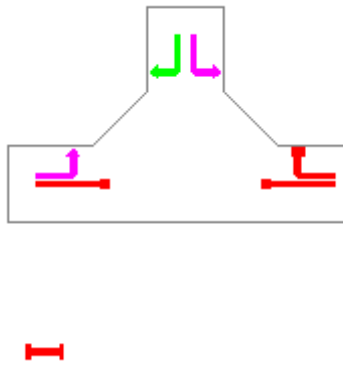
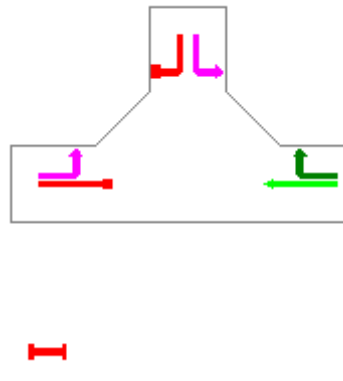
Heathcote Rd / New Illawarra Rd UPGRADE

2008 PM Peak

C = 40 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
		
Green Time = 9 seconds Phase Time = 15 seconds Phase Split = 38 %	Green Time = 7 seconds Phase Time = 13 seconds Phase Split = 33 %	Green Time = 6 seconds Phase Time = 12 seconds Phase Split = 30 %

 Normal Movement	 Permitted/Opposed
 Slip-Lane	 Opposed Slip-Lane
 Stopped Movement	 Continuous
 Turn On Red	

Movement Summary

Heathcote Road / New Illawarra Road

2008 AM Base + Construction

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road										
1	L	262	5.7	0.147	9.6	LOS A#	4#	0.00	0.65	54.6
3	R	328	7.0	1.012	114.5	LOS F	201	1.00	2.71	18.6
Approach		590	6.4	1.013	67.9	LOS E	201	0.56	1.80	25.3
Heathcote Road West										
4	L	245	4.5	0.488	21.0	LOS B	23	0.73	1.00	51.7
5	T	281	5.0	0.149	4.0	LOS A	0	0.00	0.29	82.4
Approach		526	4.8	0.488	12.0	LOS A	23	0.34	0.62	64.5
Heathcote Road East										
11	T	496	4.4	0.131	0.0	LOS A#	4#	0.00	0.00	70.0
12	R	647	5.9	0.473	11.9	LOS A	34	0.51	0.76	51.3
Approach		1143	5.2	0.473	6.8	LOS A	34	0.29	0.43	58.1
All Vehicles		2259	5.4	1.012	23.9	Not Applicable	201	0.37	0.83	43.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Road / New Illawarra Road

2008 PM Base + Construction

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road										
1	L	642	3.6	0.355	9.6	LOS B#	9#	0.00	0.65	54.6
3	R	231	6.1	0.583	24.2	LOS B	29	0.83	1.10	46.3
Approach		873	4.2	0.583	13.4	LOS A	29	0.22	0.77	51.8
Heathcote Road West										
4	L	245	5.7	0.304	15.1	LOS B	12	0.49	0.80	59.6
5	T	468	4.1	0.246	4.0	LOS A	0	0.00	0.30	82.4
Approach		713	4.6	0.304	7.8	LOS A	12	0.17	0.47	72.8
Heathcote Road East										
11	T	241	7.5	0.065	0.0	LOS A#	2#	0.00	0.00	70.0
12	R	332	7.8	0.308	12.6	LOS A	15	0.57	0.81	51.0
Approach		573	7.7	0.308	7.3	LOS A	15	0.33	0.47	57.6
All Vehicles		2159	5.3	0.583	10.0	Not Applicable	29	0.23	0.59	58.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Forrest Road / New Illawarra Road

2008 AM Base + Construction

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Little Forrest Road										
1	L	45	97.8	0.041	10.3	LOS A#	1#	0.00	0.58	49.8
3	R	20	95.0	0.833	191.7	LOS F	31	0.97	1.11	9.7
Approach		65	96.9	0.835	66.1	LOS E	31	0.30	0.74	22.1
New Illawarra Road West										
4	L	32	59.4	0.025	10.4	LOS A	0	0.00	0.67	49.0
5	T	860	3.5	0.451	0.0	LOS A	0	0.00	0.00	60.0
Approach		892	5.5	0.451	0.4	LOS A		0.00	0.02	59.5
New Illawarra Road East										
11	T	570	3.3	0.299	0.0	LOS B#	10#	0.00	0.00	59.9
12	R	51	72.5	0.237	29.9	LOS C	13	0.84	0.97	34.2
Approach		621	9.0	0.299	2.5	LOS A	13	0.07	0.08	56.4
All Vehicles		1578	10.6	0.833	3.9	Not Applicable	31	0.04	0.08	54.5

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Forrest Road / New Illawarra Road

2008 PM Base + Construction

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Little Forrest Road										
1	L	41	63.4	0.032	9.3	LOS A#	1#	0.00	0.59	49.8
3	R	24	50.0	0.192	26.4	LOS B	5	0.73	0.92	35.8
Approach		65	58.5	0.191	15.6	LOS B	5	0.27	0.71	43.5
New Illawarra Road West										
4	L	12	91.7	0.011	11.6	LOS A	0	0.00	0.67	49.0
5	T	565	5.1	0.299	0.0	LOS A	0	0.00	0.00	60.0
Approach		577	6.9	0.299	0.2	LOS A		0.00	0.01	59.7
New Illawarra Road East										
11	T	849	2.9	0.444	0.1	LOS C#	15#	0.00	0.00	59.9
12	R	27	100.0	0.091	22.9	LOS B	6	0.70	0.89	38.6
Approach		876	5.9	0.444	0.8	LOS A	6	0.02	0.03	58.7
All Vehicles		1518	8.6	0.444	1.2	Not Applicable	6	0.02	0.05	58.2

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Appendix C
Existing Intersection Vehicle
Movement Summaries
2008 AM and PM Peaks
with AWT Construction Traffic

Movement Summary

Heathcote Rd / New Illawarra Rd

2018 AM Peak

Signalised - Fixed time Cycle Time = 100 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	605	4.5	0.253	8.6	LOS A	59	0.47	0.41	55.6
6	R	775	5.3	0.996	37.3	LOS C	167	0.93	0.88	32.8
Approach		1380	4.9	0.996	24.8	LOS B	167	0.73	0.67	40.1
New Illawarra Road										
7	L	314	4.1	0.215	10.0	LOS A	12	0.15	0.68	53.6
9	R	398	6.5	0.897	63.9	LOS E	174	1.00	1.08	23.9
Approach		712	5.5	0.897	40.1	LOS C	174	0.63	0.90	31.7
Heathcote Road (W)										
10	L	290	3.8	0.234	10.0	LOS A	12	0.15	0.68	53.7
11	T	342	5.0	0.841	50.4	LOS D	92	0.99	0.89	27.8
Approach		632	4.4	0.841	31.8	LOS C	92	0.61	0.80	35.7
All Vehicles		2724	5.0	0.996	30.4	LOS C	174	0.67	0.76	36.5

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

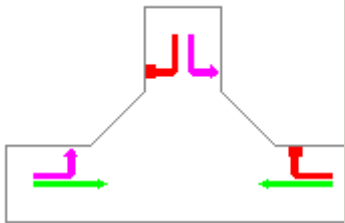
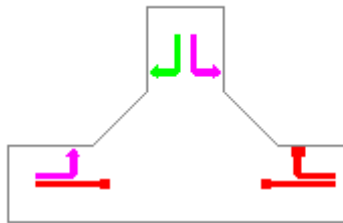
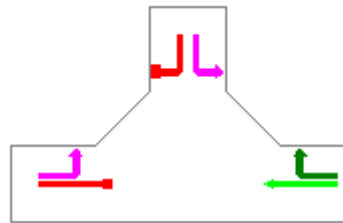
Heathcote Rd / New Illawarra Rd

2018 AM Peak

C = 100 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
		
Green Time = 13 seconds Phase Time = 19 seconds Phase Split = 19 %	Green Time = 25 seconds Phase Time = 31 seconds Phase Split = 31 %	Green Time = 44 seconds Phase Time = 50 seconds Phase Split = 50 %

 Normal Movement	 Permitted/Opposed
 Slip-Lane	 Opposed Slip-Lane
 Stopped Movement	 Continuous
 Turn On Red	

Movement Summary

Little Forrest Rd / New Illawarra Rd

2018 AM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	695	3.3	0.364	0.1	LOS B#	10#	0.00	0.00	69.9
6	R	25	92.0	0.210	46.5	LOS D	12	0.90	0.98	27.6
Approach		720	6.4	0.364	1.7	LOS A	12	0.03	0.03	66.8
Little Forest Road										
7	L	31	96.8	0.028	4.2	LOS A#	1#	0.00	0.37	37.5
9	R	14	92.9	0.824	291.4	LOS F	31	0.98	1.15	6.7
Approach		45	95.6	0.840	93.6	LOS F	31	0.31	0.61	14.6
New Illawarra Road (W)										
10	L	14	92.9	0.013	11.7	LOS A	0	0.00	0.67	53.4
11	T	1049	3.5	0.550	0.0	LOS A	0	0.00	0.00	70.0
Approach		1063	4.7	0.550	0.2	LOS A		0.00	0.01	69.8
All Vehicles		1828	7.6	0.824	3.1	Not Applicable	31	0.02	0.03	63.3

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Rd / New Illawarra Rd

2018 PM Peak

Signalised - Fixed time Cycle Time = 40 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	294	7.5	0.151	5.4	LOS A	17	0.54	0.44	60.3
6	R	400	6.8	0.896	34.6	LOS C	59	0.99	1.01	34.2
Approach		694	7.1	0.896	22.2	LOS B	59	0.80	0.77	41.9
New Illawarra Road										
7	L	769	3.0	0.604	11.3	LOS A	42	0.56	0.78	51.3
9	R	273	5.5	0.873	35.6	LOS C	62	1.00	1.08	33.7
Approach		1042	3.6	0.873	17.7	LOS B	62	0.67	0.86	45.2
Heathcote Road (W)										
10	L	297	5.1	0.259	10.8	LOS A	12	0.38	0.72	52.3
11	T	570	4.0	0.805	18.6	LOS B	68	0.97	0.89	44.9
Approach		867	4.4	0.805	15.9	LOS B	68	0.77	0.84	47.2
All Vehicles		2603	4.8	0.896	18.3	LOS B	68	0.74	0.83	44.9

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2018 PM Peak

C = 40 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 9 seconds Phase Time = 15 seconds Phase Split = 38 %	Green Time = 7 seconds Phase Time = 13 seconds Phase Split = 33 %	Green Time = 6 seconds Phase Time = 12 seconds Phase Split = 30 %

Normal Movement	Permitted/Opposed
Slip-Lane	Opposed Slip-Lane
Stopped Movement	Continuous
Turn On Red	

Movement Summary

Little Forrest Rd / New Illawarra Rd

2018 PM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	1034	2.9	0.540	0.1	LOS C#	15#	0.00	0.00	69.7
6	R	14	92.9	0.053	24.6	LOS B	3	0.73	0.90	39.6
Approach		1048	4.1	0.540	0.5	LOS A	3	0.01	0.01	69.1
Little Forest Road										
7	L	15	80.0	0.013	4.1	LOS A#	1#	0.00	0.37	37.5
9	R	7	85.7	0.130	46.6	LOS D	4	0.84	0.94	23.4
Approach		22	81.8	0.129	17.6	LOS B	4	0.27	0.55	31.0
New Illawarra Road (W)										
10	L	6	83.3	0.005	11.4	LOS A	0	0.00	0.68	53.4
11	T	688	5.1	0.364	0.0	LOS A	0	0.00	0.00	70.0
Approach		694	5.8	0.364	0.1	LOS A		0.00	0.01	69.8
All Vehicles		1764	5.7	0.540	0.5	Not Applicable	4	0.01	0.02	68.5

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Appendix D
Future Intersection Vehicle
Movement Summaries
2018 AM and PM Peaks
Background Traffic Only

Movement Summary

Heathcote Rd / New Illawarra Rd

2018+ Development AM Peak

Signalised - Fixed time Cycle Time = 110 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	605	4.3	0.256	8.7	LOS A	63	0.45	0.39	55.4
6	R	779	5.5	1.000#	36.6	LOS C	167	0.90	0.87	33.2
Approach		1384	5.0	1.000	24.0	LOS B	167	0.70	0.66	40.6
New Illawarra Road										
7	L	315	4.4	0.215	10.0	LOS A	12	0.14	0.68	53.7
9	R	398	6.5	0.914	72.1	LOS F	194	1.00	1.11	22.0
Approach		713	5.6	0.914	44.7	LOS D	194	0.62	0.92	29.8
Heathcote Road (W)										
10	L	292	3.8	0.236	10.0	LOS A	12	0.14	0.68	53.7
11	T	342	5.0	0.925	62.9	LOS E	109	1.00	0.98	24.2
Approach		634	4.4	0.925	38.5	LOS C	109	0.60	0.84	32.4
All Vehicles		2731	5.0	1.000	32.8	LOS C	194	0.66	0.77	35.2

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2018+Development AM Peak

C = **110** seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 13 seconds Phase Time = 19 seconds Phase Split = 17 %	Green Time = 27 seconds Phase Time = 33 seconds Phase Split = 30 %	Green Time = 52 seconds Phase Time = 58 seconds Phase Split = 53 %

Normal Movement	Permitted/Opposed
Slip-Lane	Opposed Slip-Lane
Stopped Movement	Continuous
Turn On Red	

Movement Summary

Little Forrest Rd / New Illawarra Rd

2018+ Development AM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	695	3.3	0.364	0.1	LOS B#	10#	0.00	0.00	69.9
6	R	33	78.8	0.224	40.0	LOS C	12	0.89	0.98	30.1
Approach		728	6.7	0.364	1.9	LOS A	12	0.04	0.04	66.5
Little Forest Road										
7	L	34	97.1	0.031	4.2	LOS A#	2#	0.00	0.37	37.5
9	R	15	93.3	0.938	201.1	LOS F	31	0.99	1.03	9.1
Approach		49	95.9	0.951	64.5	LOS E	31	0.30	0.57	18.3
New Illawarra Road (W)										
10	L	20	70.0	0.016	11.0	LOS A	0	0.00	0.68	53.4
11	T	1049	3.5	0.550	0.0	LOS A	0	0.00	0.00	70.0
Approach		1069	4.8	0.550	0.2	LOS A		0.00	0.01	69.7
All Vehicles		1846	8.0	0.938	2.6	Not Applicable	31	0.02	0.04	64.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Rd / New Illawarra Rd

2018+ Development PM Peak

Signalised - Fixed time Cycle Time = 40 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	294	7.5	0.151	5.4	LOS A	17	0.54	0.44	60.3
6	R	402	7.0	0.903	35.1	LOS C	60	0.99	1.02	34.0
Approach		696	7.2	0.903	22.5	LOS B	60	0.80	0.77	41.7
New Illawarra Road										
7	L	774	3.1	0.609	11.3	LOS A	42	0.56	0.78	51.3
9	R	275	5.5	0.879	36.1	LOS C	63	1.00	1.10	33.5
Approach		1049	3.7	0.879	17.8	LOS B	63	0.68	0.86	45.0
Heathcote Road (W)										
10	L	297	5.1	0.259	10.8	LOS A	12	0.38	0.72	52.3
11	T	570	4.0	0.805	18.6	LOS B	68	0.97	0.89	44.9
Approach		867	4.4	0.805	15.9	LOS B	68	0.77	0.84	47.2
All Vehicles		2612	4.9	0.903	18.4	LOS B	68	0.74	0.83	44.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2018+Development PM Peak

C = 40 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 9 seconds Phase Time = 15 seconds Phase Split = 38 %	Green Time = 7 seconds Phase Time = 13 seconds Phase Split = 33 %	Green Time = 6 seconds Phase Time = 12 seconds Phase Split = 30 %

- Normal Movement
- Slip-Lane
- Stopped Movement
- Turn On Red
- Permitted/Opposed
- Opposed Slip-Lane
- Continuous

Movement Summary

Little Forrest Rd / New Illawarra Rd

2018+ Development PM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	1034	2.9	0.540	8.8	LOS C#	15#	0.00	0.64	55.3
6	R	16	93.8	0.062	25.1	LOS B	4	0.74	0.92	39.3
Approach		1050	4.3	0.540	9.1	LOS A	4	0.01	0.65	55.0
Little Forest Road										
7	L	18	83.3	0.015	4.1	LOS A#	1#	0.00	0.37	37.5
9	R	13	53.8	0.131	29.6	LOS C	4	0.78	0.91	28.1
Approach		31	71.0	0.132	14.8	LOS B	4	0.33	0.60	32.6
New Illawarra Road (W)										
10	L	8	75.0	0.007	11.2	LOS A	0	0.00	0.68	53.4
11	T	688	5.1	0.364	0.0	LOS A	0	0.00	0.00	70.0
Approach		696	5.9	0.364	0.1	LOS A		0.00	0.01	69.8
All Vehicles		1777	6.1	0.540	5.7	Not Applicable	4	0.01	0.39	59.3

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Appendix E
Future Intersection Vehicle
Movement Summaries
2018 AM and PM Peaks
Background plus
AWT Operational Traffic

Movement Summary

Heathcote Rd / New Illawarra Rd

2025 AM Peak

Signalised - Fixed time Cycle Time = 150 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	695	3.2	0.411	13.8	LOS A	133	0.53	0.47	49.4
6	R	891	7.9	1.000#	46.6	LOS D	167	0.90	0.87	29.0
Approach		1586	5.0	1.000	26.4	LOS B	167	0.67	0.62	39.0
New Illawarra Road										
7	L	361	4.2	0.247	9.9	LOS A	14	0.11	0.67	53.9
9	R	456	6.4	0.917	85.6	LOS F	283	1.00	1.08	19.5
Approach		817	5.4	0.917	52.2	LOS D	283	0.61	0.90	27.2
Heathcote Road (W)										
10	L	334	3.9	0.273	9.9	LOS A	13	0.11	0.67	54.0
11	T	394	5.1	0.900	76.4	LOS F	149	1.00	0.94	21.2
Approach		728	4.5	0.900	45.9	LOS D	149	0.59	0.82	29.4
All Vehicles		3131	5.0	1.000	37.6	LOS C	283	0.63	0.74	32.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2025 AM Peak

C = 150 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 21 seconds Phase Time = 27 seconds Phase Split = 18 %	Green Time = 42 seconds Phase Time = 48 seconds Phase Split = 32 %	Green Time = 69 seconds Phase Time = 75 seconds Phase Split = 50 %

Normal Movement	Permitted/Opposed
Slip-Lane	Opposed Slip-Lane
Stopped Movement	Continuous
Turn On Red	

Movement Summary

Little Forrest Rd / New Illawarra Rd

2025 AM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	799	3.4	0.419	0.1	LOS C#	12#	0.00	0.00	69.8
6	R	25	92.0	0.301	67.0	LOS E	17	0.94	1.01	21.5
Approach		824	6.1	0.419	2.1	LOS A	17	0.03	0.03	66.0
Little Forest Road										
7	L	31	89.0	0.031	4.2	LOS A#	2#	0.00	0.37	37.5
9	R	14	115.2	1.026	268.7	LOS F	31	0.99	1.00	7.2
Approach		45	95.6	1.000	70.5	LOS F	31	0.25	0.52	17.3
New Illawarra Road (W)										
10	L	14	92.9	0.013	11.7	LOS A	0	0.00	0.67	53.4
11	T	1204	3.5	0.631	0.0	LOS A	0	0.00	0.00	70.0
Approach		1218	4.5	0.631	0.1	LOS A		0.00	0.01	69.8
All Vehicles		2087	7.1	1.026	2.4	Not Applicable	31	0.02	0.03	64.5

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Rd / New Illawarra Rd

2025 PM Peak

Signalised - Fixed time Cycle Time = 60 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	337	7.4	0.151	5.7	LOS A	23	0.47	0.38	59.8
6	R	459	6.8	0.866	40.2	LOS C	87	0.97	0.98	31.5
Approach		796	7.0	0.867	25.6	LOS B	87	0.76	0.73	39.5
New Illawarra Road										
7	L	884	3.1	0.643	10.8	LOS A	50	0.42	0.74	52.1
9	R	314	5.4	0.878	45.4	LOS D	94	1.00	1.07	29.5
Approach		1198	3.7	0.878	19.9	LOS B	94	0.57	0.83	43.4
Heathcote Road (W)										
10	L	340	5.0	0.283	10.4	LOS A	14	0.26	0.70	53.0
11	T	656	4.1	0.834	26.4	LOS B	105	0.97	0.91	39.0
Approach		996	4.4	0.834	21.0	LOS B	105	0.73	0.84	42.9
All Vehicles		2990	4.8	0.878	21.8	LOS B	105	0.67	0.81	42.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2025 PM Peak

C = 60 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 15 seconds Phase Time = 21 seconds Phase Split = 35 %	Green Time = 12 seconds Phase Time = 18 seconds Phase Split = 30 %	Green Time = 15 seconds Phase Time = 21 seconds Phase Split = 35 %

- Normal Movement
- Slip-Lane
- Stopped Movement
- Turn On Red
- Permitted/Opposed
- Opposed Slip-Lane
- Continuous



Site: Heathcote Rd / New Illawarra Rd PM
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Movement Summary

Little Forrest Rd / New Illawarra Rd

2025 PM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	1189	2.9	0.622	0.2	LOS D#	18#	0.00	0.00	69.6
6	R	14	92.9	0.065	28.6	LOS C	4	0.79	0.93	36.7
Approach		1203	4.0	0.621	0.5	LOS A	4	0.01	0.01	69.0
Little Forest Road										
7	L	15	80.0	0.013	4.1	LOS A#	1#	0.00	0.37	37.5
9	R	7	85.7	0.167	63.2	LOS E	5	0.89	0.96	20.0
Approach		22	81.8	0.167	22.9	LOS B	5	0.28	0.56	28.8
New Illawarra Road (W)										
10	L	6	83.3	0.005	11.4	LOS A	0	0.00	0.68	53.4
11	T	792	5.2	0.420	0.0	LOS A	0	0.00	0.00	70.0
Approach		798	5.8	0.420	0.1	LOS A		0.00	0.01	69.9
All Vehicles		2023	5.5	0.622	0.6	Not Applicable	5	0.01	0.01	68.4

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Appendix F
Future Intersection Vehicle
Movement Summaries
2025 AM and PM Peaks
Background Traffic Only

Movement Summary

Heathcote Rd / New Illawarra Rd

2025+ Development AM Peak

Signalised - Fixed time Cycle Time = 150 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	695	3.1	0.413	13.9	LOS A	134	0.53	0.47	49.4
6	R	895	8.1	1.000#	46.6	LOS D	167	0.90	0.87	29.0
Approach		1590	5.0	1.000	26.3	LOS B	167	0.67	0.62	39.0
New Illawarra Road										
7	L	362	4.4	0.248	9.9	LOS A	14	0.11	0.67	53.9
9	R	457	6.6	0.920	86.8	LOS F	286	1.00	1.08	19.3
Approach		819	5.6	0.920	52.8	LOS D	286	0.61	0.90	27.0
Heathcote Road (W)										
10	L	337	4.2	0.276	9.9	LOS A	14	0.11	0.67	53.9
11	T	394	5.1	0.900	76.4	LOS F	149	1.00	0.94	21.2
Approach		731	4.7	0.900	45.7	LOS D	149	0.59	0.82	29.5
All Vehicles		3140	5.1	1.000	37.7	LOS C	286	0.63	0.74	32.7

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2025+Development AM Peak

C = **150** seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 21 seconds Phase Time = 27 seconds Phase Split = 18 %	Green Time = 42 seconds Phase Time = 48 seconds Phase Split = 32 %	Green Time = 69 seconds Phase Time = 75 seconds Phase Split = 50 %

- Normal Movement
- Slip-Lane
- Stopped Movement
- Turn On Red
- Permitted/Opposed
- Opposed Slip-Lane
- Continuous

Movement Summary

Little Forrest Rd / New Illawarra Rd

2025+ Development AM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	799	3.4	0.419	0.1	LOS C#	12#	0.00	0.00	69.8
6	R	33	78.8	0.314	56.0	LOS D	17	0.93	1.01	24.3
Approach		832	6.4	0.419	2.3	LOS A	17	0.04	0.04	65.6
Little Forest Road										
7	L	34	89.1	0.034	4.2	LOS A#	2#	0.00	0.37	37.5
9	R	16	115.9	0.996	291.0	LOS F	31	0.99	1.00	6.7
Approach		50	96.0	1.000	78.5	LOS F	31	0.26	0.53	16.3
New Illawarra Road (W)										
10	L	21	71.4	0.017	11.1	LOS A	0	0.00	0.68	53.4
11	T	1204	3.5	0.631	0.0	LOS A	0	0.00	0.00	70.0
Approach		1225	4.7	0.631	0.2	LOS A		0.00	0.01	69.7
All Vehicles		2107	7.5	0.996	2.9	Not Applicable	31	0.02	0.04	63.6

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Rd / New Illawarra Rd

2025+ Development PM Peak

Signalised - Fixed time Cycle Time = 60 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	337	7.4	0.151	5.7	LOS A	23	0.47	0.38	59.8
6	R	461	6.9	0.873	40.8	LOS C	89	0.97	0.99	31.3
Approach		798	7.1	0.873	26.0	LOS B	89	0.76	0.73	39.3
New Illawarra Road										
7	L	887	2.9	0.644	10.8	LOS A	50	0.42	0.74	52.1
9	R	317	5.7	0.888	46.6	LOS D	96	1.00	1.10	29.0
Approach		1204	3.7	0.888	20.2	LOS B	96	0.57	0.84	43.1
Heathcote Road (W)										
10	L	341	5.3	0.284	10.4	LOS A	14	0.26	0.70	53.0
11	T	656	4.1	0.834	26.4	LOS B	105	0.97	0.91	39.0
Approach		997	4.5	0.834	21.0	LOS B	105	0.73	0.84	42.9
All Vehicles		2999	4.9	0.888	22.0	LOS B	105	0.67	0.81	42.0

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2025+Development PM Peak

C = 60 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 15 seconds Phase Time = 21 seconds Phase Split = 35 %	Green Time = 12 seconds Phase Time = 18 seconds Phase Split = 30 %	Green Time = 15 seconds Phase Time = 21 seconds Phase Split = 35 %

- Normal Movement
- Slip-Lane
- Stopped Movement
- Turn On Red
- Permitted/Opposed
- Opposed Slip-Lane
- Continuous



Site: Heathcote Rd / New Illawarra Rd PM+Dev
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Movement Summary

Little Forrest Rd / New Illawarra Rd

2025+ Development PM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	1189	2.9	0.622	8.9	LOS D#	18#	0.00	0.64	55.2
6	R	17	94.1	0.083	29.5	LOS C	5	0.80	0.93	36.1
Approach		1206	4.2	0.621	9.2	LOS A	5	0.01	0.65	54.9
Little Forest Road										
7	L	24	62.5	0.019	3.9	LOS A#	1#	0.00	0.38	37.5
9	R	14	57.1	0.187	40.8	LOS C	5	0.85	0.95	24.7
Approach		38	60.5	0.186	17.5	LOS B	5	0.31	0.59	31.1
New Illawarra Road (W)										
10	L	9	77.8	0.008	11.3	LOS A	0	0.00	0.68	53.4
11	T	792	5.2	0.420	0.0	LOS A	0	0.00	0.00	70.0
Approach		801	6.0	0.420	0.1	LOS A		0.00	0.01	69.8
All Vehicles		2045	6.0	0.622	5.8	Not Applicable	5	0.01	0.39	59.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Appendix G
Future Intersection Vehicle
Movement Summaries
2025 AM and PM Peaks
Background plus
AWT Operational Traffic

Movement Summary

Heathcote Rd / New Illawarra Rd

2035 AM Peak

Signalised - Fixed time Cycle Time = 150 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	847	2.8	0.620	20.1	LOS B	232	0.69	0.63	43.6
6	R	1086	10.5	1.000#	51.5	LOS D	167	0.92	0.87	27.3
Approach		1933	5.0	1.000	29.1	LOS C	232	0.76	0.70	37.3
New Illawarra Road										
7	L	441	4.3	0.302	9.9	LOS A	18	0.11	0.68	53.9
9	R	557	6.5	0.981	118.2	LOS F	426	1.00	1.29	15.3
Approach		998	5.5	0.981	70.3	LOS E	426	0.61	1.02	22.4
Heathcote Road (W)										
10	L	406	3.7	0.331	9.9	LOS A	17	0.14	0.68	53.8
11	T	480	5.0	1.001#	107.3	LOS F	231	1.00	1.12	16.6
Approach		886	4.4	1.001	62.7	LOS E	231	0.60	0.92	24.3
All Vehicles		3817	5.0	1.001	47.7	LOS D	426	0.68	0.83	28.7

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2035 AM Peak

C = 150 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 23 seconds Phase Time = 29 seconds Phase Split = 19 %	Green Time = 48 seconds Phase Time = 54 seconds Phase Split = 36 %	Green Time = 61 seconds Phase Time = 67 seconds Phase Split = 45 %

Normal Movement	Permitted/Opposed
Slip-Lane	Opposed Slip-Lane
Stopped Movement	Continuous
Turn On Red	

Movement Summary

Little Forrest Rd / New Illawarra Rd

2035 AM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	972	3.3	0.509	0.1	LOS C#	14#	0.00	0.00	69.8
6	R	25	92.0	0.581	159.5	LOS F	32	0.98	1.07	10.7
Approach		997	5.5	0.584	4.1	LOS A	32	0.02	0.03	62.4
Little Forest Road										
7	L	31	96.8	0.028	4.2	LOS A#	1#	0.00	0.37	37.5
9	R	14	92.9	1.000#	701.0	LOS F	36	1.00	1.00	3.0
Approach		45	95.6	1.000	221.0	LOS F	36	0.31	0.56	7.8
New Illawarra Road (W)										
10	L	14	92.9	0.013	11.7	LOS A	0	0.00	0.67	53.4
11	T	1468	3.5	0.770	0.0	LOS A	0	0.00	0.00	70.0
Approach		1482	4.3	0.770	0.1	LOS A		0.00	0.01	69.8
All Vehicles		2524	6.4	1.000	5.6	Not Applicable	36	0.02	0.02	59.3

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Rd / New Illawarra Rd

2035 PM Peak

Signalised - Fixed time Cycle Time = 130 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	412	7.2	0.174	8.4	LOS A	49	0.40	0.34	55.8
6	R	560	7.0	1.000#	57.9	LOS E	167	0.96	0.89	25.4
Approach		972	7.1	1.000	36.0	LOS C	167	0.71	0.64	33.6
New Illawarra Road										
7	L	1077	3.0	0.732	10.5	LOS A	69	0.34	0.72	52.5
9	R	382	5.2	0.895	75.9	LOS F	202	1.00	1.05	21.2
Approach		1459	3.6	0.895	27.6	LOS B	202	0.52	0.81	38.0
Heathcote Road (W)										
10	L	414	4.8	0.339	10.0	LOS A	17	0.14	0.68	53.7
11	T	798	4.0	0.977	79.0	LOS F	358	0.96	1.12	20.7
Approach		1212	4.3	0.977	55.5	LOS D	358	0.68	0.97	26.2
All Vehicles		3643	4.7	1.000	39.1	LOS C	358	0.62	0.82	32.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2035 PM Peak

C = 130 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 38 seconds Phase Time = 44 seconds Phase Split = 34 %	Green Time = 31 seconds Phase Time = 37 seconds Phase Split = 28 %	Green Time = 43 seconds Phase Time = 49 seconds Phase Split = 38 %

Normal Movement	Permitted/Opposed
Slip-Lane	Opposed Slip-Lane
Stopped Movement	Continuous
Turn On Red	

Movement Summary

Little Forrest Rd / New Illawarra Rd

2035 PM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	1449	3.0	0.757	0.3	LOS D#	21#	0.00	0.00	69.3
6	R	14	92.9	0.095	37.3	LOS C	5	0.86	0.95	31.6
Approach		1463	3.8	0.757	0.7	LOS A	5	0.01	0.01	68.6
Little Forest Road										
7	L	15	80.0	0.013	4.1	LOS A#	1#	0.00	0.37	37.5
9	R	7	85.7	0.259	113.0	LOS F	8	0.94	1.00	13.9
Approach		22	81.8	0.264	38.7	LOS C	8	0.30	0.57	23.7
New Illawarra Road (W)										
10	L	6	83.3	0.005	11.4	LOS A	0	0.00	0.68	53.4
11	T	964	5.1	0.511	0.0	LOS A	0	0.00	0.00	70.0
Approach		970	5.6	0.511	0.1	LOS A		0.00	0.00	69.9
All Vehicles		2455	5.2	0.757	0.8	Not Applicable	8	0.01	0.01	68.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Appendix H
Future Intersection Vehicle
Movement Summaries
2025 AM and PM Peaks
Background Traffic Only

Movement Summary

Heathcote Rd / New Illawarra Rd

2035+ Development AM Peak

Signalised - Fixed time Cycle Time = 150 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	847	2.7	0.625	20.2	LOS B	234	0.69	0.64	43.5
6	R	1090	10.7	1.000#	52.1	LOS D	167	0.92	0.87	27.1
Approach		1937	5.0	1.000	29.3	LOS C	234	0.76	0.70	37.2
New Illawarra Road										
7	L	442	4.5	0.303	9.9	LOS A	18	0.11	0.68	53.9
9	R	558	6.6	0.984	120.8	LOS F	433	1.00	1.31	15.0
Approach		1000	5.7	0.983	71.8	LOS F	433	0.61	1.03	22.1
Heathcote Road (W)										
10	L	409	3.9	0.334	9.9	LOS A	17	0.14	0.68	53.8
11	T	480	5.0	0.959	86.8	LOS F	201	0.99	1.03	19.4
Approach		889	4.5	0.959	51.4	LOS D	201	0.60	0.87	27.5
All Vehicles		3826	5.1	1.000	45.5	LOS D	433	0.68	0.83	29.5

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2035+Development AM Peak

C = 150 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 24 seconds Phase Time = 30 seconds Phase Split = 20 %	Green Time = 48 seconds Phase Time = 54 seconds Phase Split = 36 %	Green Time = 60 seconds Phase Time = 66 seconds Phase Split = 44 %

- Normal Movement
- Slip-Lane
- Stopped Movement
- Turn On Red
- Permitted/Opposed
- Opposed Slip-Lane
- Continuous

Movement Summary

Little Forrest Rd / New Illawarra Rd

2035+Development AM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	972	3.3	0.509	0.1	LOS C#	14#	0.00	0.00	69.8
6	R	33	78.8	0.579	123.5	LOS F	31	0.98	1.08	13.3
Approach		1005	5.8	0.582	4.2	LOS A	31	0.03	0.04	62.3
Little Forest Road										
7	L	34	97.1	0.031	4.2	LOS A#	2#	0.00	0.37	37.5
9	R	16	93.8	1.000#	767.4	LOS F	36	1.00	1.00	2.8
Approach		50	96.0	1.000	248.4	LOS F	36	0.32	0.57	7.1
New Illawarra Road (W)										
10	L	21	71.4	0.017	11.1	LOS A	0	0.00	0.68	53.4
11	T	1468	3.5	0.770	0.0	LOS A	0	0.00	0.00	70.0
Approach		1489	4.4	0.770	0.2	LOS A		0.00	0.01	69.7
All Vehicles		2544	6.8	1.000	6.6	Not Applicable	36	0.02	0.03	57.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Movement Summary

Heathcote Rd / New Illawarra Rd

2035+ Development PM Peak

Signalised - Fixed time Cycle Time = 130 seconds

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	% HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Heathcote Road (E)										
5	T	412	7.1	0.175	8.4	LOS A	49	0.40	0.34	55.8
6	R	562	7.2	1.000#	58.1	LOS E	167	0.96	0.89	25.3
Approach		974	7.2	1.000	35.9	LOS C	167	0.71	0.64	33.6
New Illawarra Road										
7	L	1082	3.0	0.736	10.5	LOS A	69	0.35	0.72	52.5
9	R	385	5.5	0.903	77.8	LOS F	208	1.00	1.06	20.8
Approach		1467	3.7	0.903	28.2	LOS B	208	0.52	0.81	37.6
Heathcote Road (W)										
10	L	415	5.1	0.341	10.0	LOS A	17	0.14	0.68	53.7
11	T	798	4.0	0.977	79.0	LOS F	358	0.96	1.12	20.7
Approach		1213	4.4	0.977	55.4	LOS D	358	0.68	0.97	26.2
All Vehicles		3654	4.8	1.000	39.3	LOS C	358	0.62	0.82	32.0

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Phasing Summary

Heathcote Rd / New Illawarra Rd

2035+Development PM Peak

C = 130 seconds

Cycle Time Option: **Program calculated cycle time**

Phase times determined by the program.

Phase A	Phase B	Phase C
Green Time = 38 seconds Phase Time = 44 seconds Phase Split = 34 %	Green Time = 31 seconds Phase Time = 37 seconds Phase Split = 28 %	Green Time = 43 seconds Phase Time = 49 seconds Phase Split = 38 %

- Normal Movement
- Slip-Lane
- Stopped Movement
- Turn On Red
- Permitted/Opposed
- Opposed Slip-Lane
- Continuous

Movement Summary

Little Forrest Rd / New Illawarra Rd

2035+Development PM Peak

Give-way

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95 % Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New Illawarra Road (E)										
5	T	1449	3.0	0.757	9.0	LOS D#	21#	0.00	0.64	55.1
6	R	17	94.1	0.121	38.8	LOS C	7	0.87	0.96	30.9
Approach		1466	4.0	0.757	9.3	LOS A	7	0.01	0.64	54.6
Little Forest Road										
7	L	24	62.5	0.019	3.9	LOS A#	1#	0.00	0.38	37.5
9	R	14	57.1	0.269	65.2	LOS E	8	0.91	1.00	19.6
Approach		38	60.5	0.268	26.5	LOS B	8	0.34	0.61	27.4
New Illawarra Road (W)										
10	L	9	77.8	0.008	11.3	LOS A	0	0.00	0.68	53.4
11	T	964	5.1	0.511	0.0	LOS A	0	0.00	0.00	70.0
Approach		973	5.8	0.511	0.1	LOS A		0.00	0.01	69.8
All Vehicles		2477	5.6	0.757	6.0	Not Applicable	8	0.01	0.39	58.9

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement

Appendix I
Future Intersection Vehicle
Movement Summaries
2025 AM and PM Peaks
Background plus
AWT Operational Traffic



PRELIMINARY

A CLIENTS COMMENTS		MP			17.07.09
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing			
		Drawn	Checked	Approved	Date



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Approved

Date

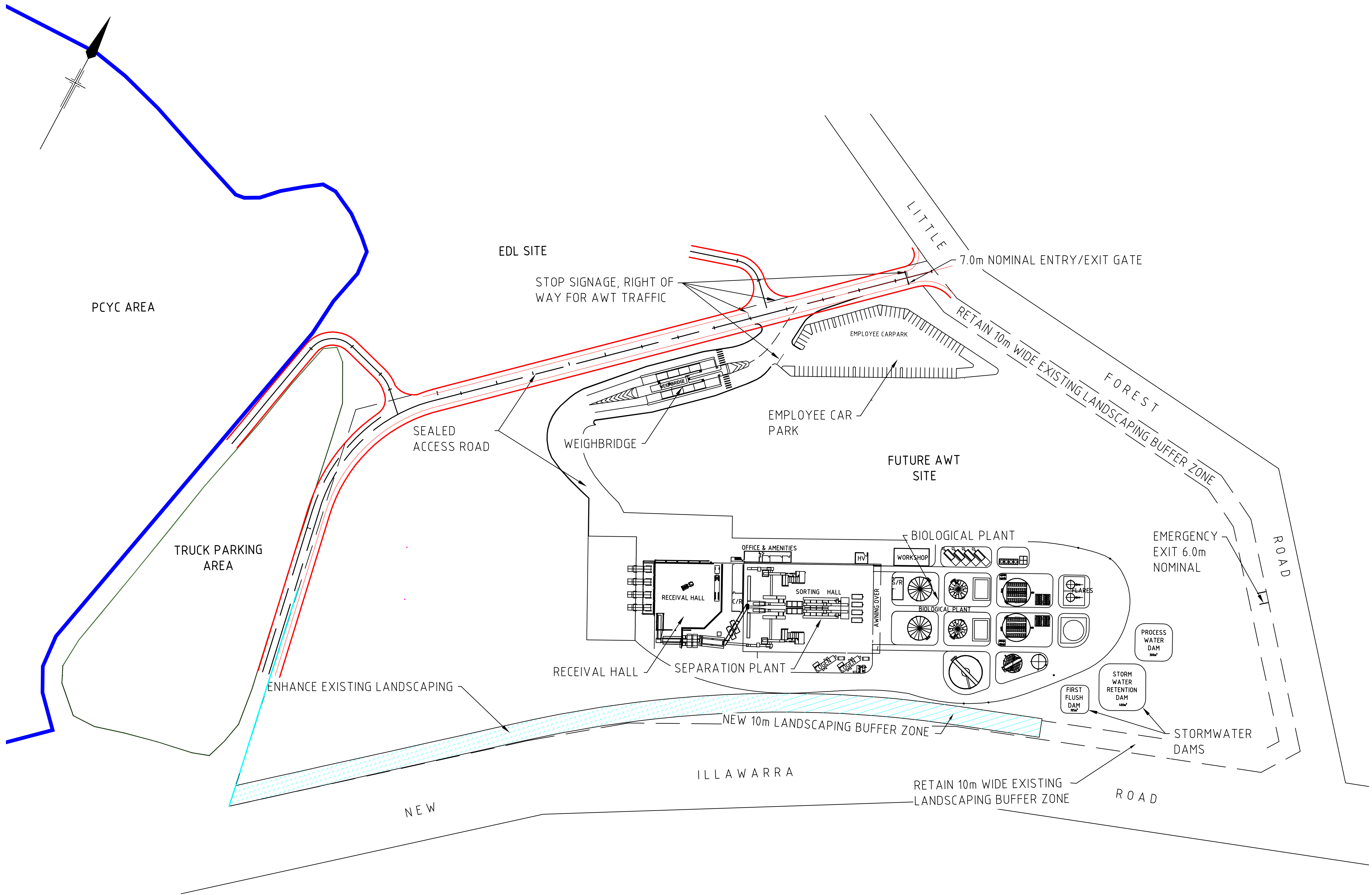
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Designed D. GAMBLE

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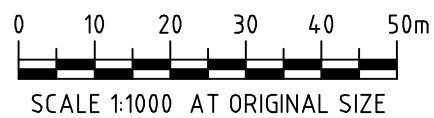
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Client	WSN ENVIRONMENTAL SOLUTIONS
Project	LUCAS HEIGHTS AWT FACILITY
Title	REVISED AWT SITE, TRUCK PARKING & PCYC AREA LOCATION PLAN & CONTOURS
Original Size	A1
Drawing No:	21-17777-SK101
Rev:	A



PRELIMINARY

A CLIENTS COMMENTS					
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing			Date
		Drawn	Checked	Approved	
					17.07.09



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Client	WSN ENVIRONMENTAL SOLUTIONS		
Project	LUCAS HEIGHTS AWT FACILITY		
Title	REVISED AWT SITE, TRUCK PARKING & PCYC AREA LOCATION PLAN		
Original Size	A1	Drawing No:	21-17777-SK102
Rev:	A		