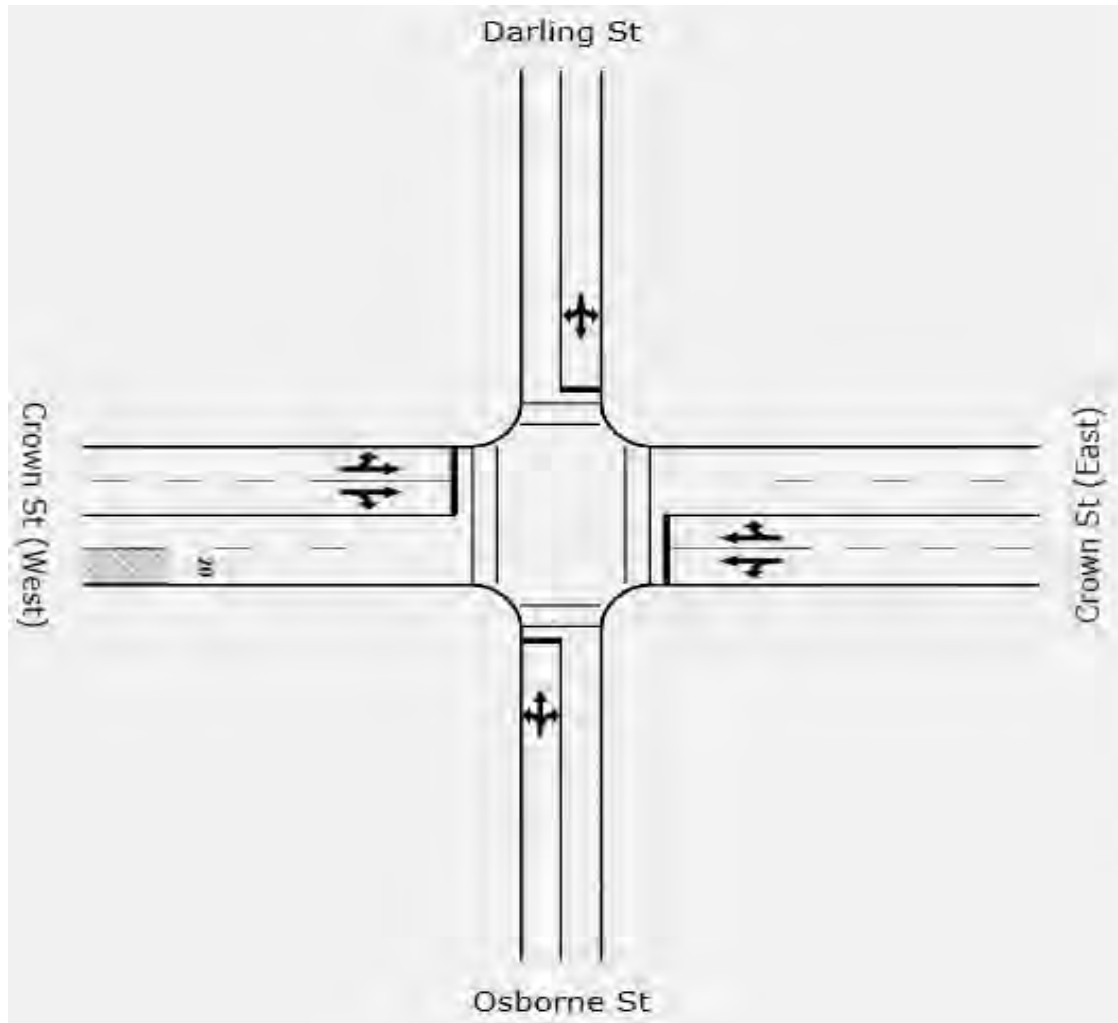
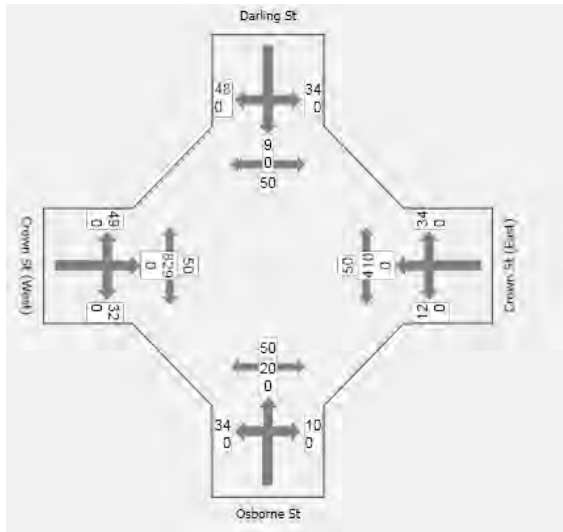


APPENDIX C

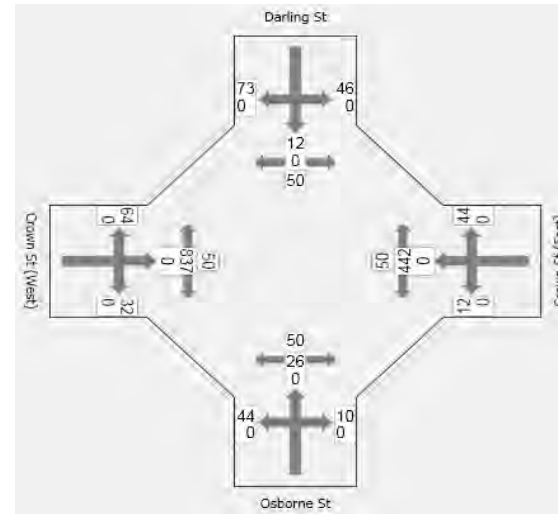
Layout



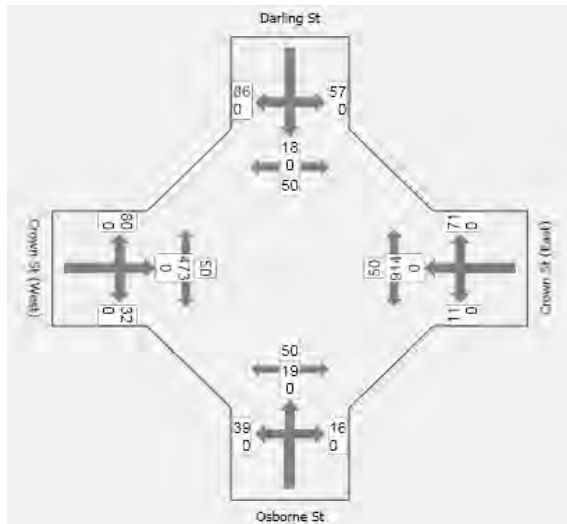
Volume Summary AM EX 12pc



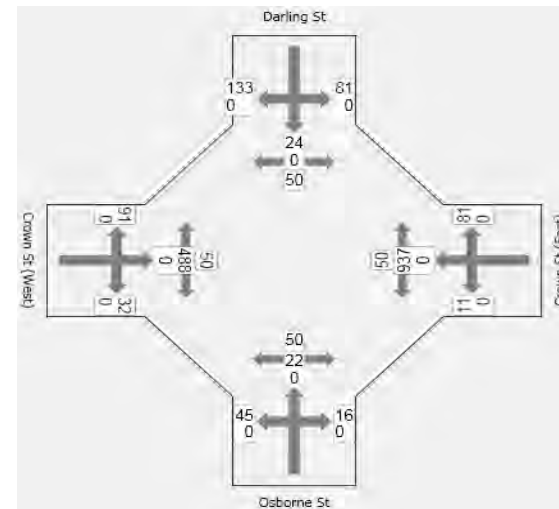
Volume Summary AM FU HOSP 12pc



Volume Summary PM EX 12pc



Volume Summary PM FU HOSP 12pc



MOVEMENT SUMMARY

Site: Crown St - Darling St - Osborne St AM
EX 12_pc growth

Crown St - Darling St - Osborne St AM EX
12_pc growth
Signals - Fixed Time Cycle Time = 65 seconds

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	FM %	Deq. Satn w/o	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Osborne St											
1	L	36	0.0	0.156	29.4	LOS C	2.5	17.3	0.82	0.77	33.7
2	T	21	0.0	0.156	21.2	LOS B	2.5	17.3	0.82	0.63	34.6
3	R	11	0.0	0.156	26.5	LOS C	2.5	17.3	0.82	0.77	33.6
Approach		67	0.0	0.155	26.5	LOS B	2.5	17.2	0.82	0.73	34.0
East: Crown St (East)											
4	L	13	0.0	0.106	9.0	LOS A	0.3	2.3	0.06	1.00	48.3
5	T	432	0.0	0.528	1.1	LOS A	1.3	12.8	0.10	0.08	57.7
6	R	36	0.0	0.530	9.4	LOS A	1.3	12.8	0.11	1.04	48.1
Approach		480	0.0	0.528	1.9	LOS A	1.3	12.2	0.10	0.18	56.6
North: Darling St											
7	L	36	0.0	0.250	30.1	LOS C	3.6	25.4	0.84	0.77	32.9
8	T	9	0.0	0.250	21.9	LOS B	3.6	25.4	0.84	0.67	33.7
9	R	51	0.0	0.251	30.2	LOS C	3.6	25.4	0.84	0.78	32.9
Approach		96	0.0	0.250	29.4	LOS C	3.6	25.4	0.84	0.77	33.0
West: Crown St (West)											
10	L	52	0.0	0.460	9.2	LOS A	2.2	15.4	0.10	1.01	48.2
11	T	873	0.0	0.461	1.0	LOS A	2.2	15.4	0.10	0.09	57.7
12	R	34	0.0	0.461	6.4	LOS A	2.0	13.8	0.10	1.06	48.1
Approach		958	0.0	0.461	1.8	LOS A	2.2	15.4	0.10	0.17	56.7
All Vehicles		1601	0.0	0.528	4.5	LOS A	3.6	25.4	0.17	0.23	62.9

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).

Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	8.4	LOS A	0.0	0.0	0.51	0.51
P2	Across E approach	53	26.3	LOS C	0.1	0.1	0.91	0.91
P5	Across N approach	53	2.4	LOS A	0.0	0.0	0.51	0.51
P7	Across W approach	53	26.3	LOS C	0.1	0.1	0.91	0.91
All Pedestrians		212	17.6				0.71	0.71

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).

Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

Processed: Monday, 11 July 2011 2:31:42 PM
SIDRA INTERSECTION 5.0.1 1427
Project: R:\consult\11032 - Sidra modelling Wollongong - URAP TTW\11032_modeling\11032 sidra\11032 EX 12pc.sip
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INTERSECTION

MOVEMENT SUMMARY

Site: Crown St - Darling St - Osborne St PM
EX 12_pc growth

Crown St - Darling St - Osborne St PM EX
12_pc growth
Signals - Fixed Time Cycle Time = 85 seconds

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn w/c	Average Delay sec	Level of Service	25% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Osborne St											
1	L	41	0.0	0.255	40.8	LOS C	4.0	28.2	0.39	0.78	28.5
2	T	20	0.0	0.255	32.8	LOS C	4.0	28.2	0.39	0.70	29.0
3	R	17	0.0	0.255	40.9	LOS C	4.0	28.2	0.39	0.78	28.5
Approach		78	0.0	0.255	33.5	LOS C	4.0	28.2	0.39	0.78	28.7
East: Crown St (East)											
4	L	12	0.0	0.151	9.0	LOS A	0.3	5.6	0.06	1.04	45.3
5	T	962	0.0	0.807	2.3	LOS A	10.2	71.6	0.20	0.20	54.9
6	R	75	0.0	0.805	11.4	LOS A	10.2	71.6	0.23	1.05	45.8
Approach		1048	0.0	0.807	3.3	LOS A	10.2	71.6	0.20	0.27	54.1
North: Darling St											
7	L	60	0.0	0.603	43.9	LOS D	8.4	59.1	0.97	0.32	27.3
8	T	19	0.0	0.603	35.7	LOS C	8.4	59.1	0.97	0.30	27.5
9	R	91	0.0	0.603	44.0	LOS D	8.4	59.1	0.97	0.32	27.2
Approach		169	0.0	0.603	43.0	LOS D	8.4	59.1	0.97	0.32	27.3
West: Crown St (West)											
10	L	84	0.0	0.329	9.1	LOS A	1.9	13.4	0.08	0.96	48.2
11	T	498	0.0	0.329	1.0	LOS A	1.9	13.4	0.08	0.07	57.9
12	R	34	0.0	0.329	9.3	LOS A	0.9	6.4	0.08	1.00	45.0
Approach		616	0.0	0.329	2.3	LOS A	1.9	13.4	0.08	0.24	55.7
All Vehicles		1912	0.0	0.607	3.0	LOS A	10.2	71.6	0.26	0.33	45.8

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	6.4	LOS A	0.0	0.0	0.39
P3	Across E approach	53	36.7	LOS D	0.1	0.1	0.93
P5	Across N approach	53	6.4	LOS A	0.0	0.0	0.39
P7	Across W approach	53	36.7	LOS D	0.1	0.1	0.93
All Pedestrians		212	21.5			0.66	0.65

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

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SIDRA INTERSECTION 5.0.1.1427
Project: R:\consult\11032 - Sidra modelling Wollongong - URAP TTW\11032_modeling\11032 sidra\11032 EX 12pc.sic
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INTERSECTION

PHASING SUMMARY

Site: Crown St - Darling St - Osborne St AM
EX 12_pc growth

Crown St - Darling St - Osborne St AM EX

12_pc growth

Signals - Fixed Time Cycle Time = 65 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)

Phase times determined by the program

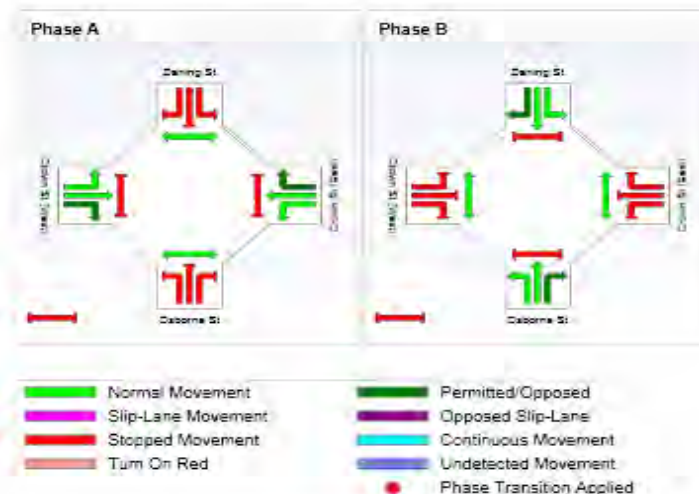
Sequence: Two-Phase

Input Sequence: A, B

Output Sequence: A, B

Phase Timing Results

Phase	A	B
Green Time (sec)	37	18
Yellow Time (sec)	4	4
All-Red Time (sec)	2	2
Phase Time (sec)	43	22
Phase Split	66 %	34 %



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SIDRA INTERSECTION 5.0.1.1427

Project: R:\consult\11032 - Sidra modelling Wollongong - URAP TTW\11032_modelling\11032 sidra\11032 EX

12pc.ep

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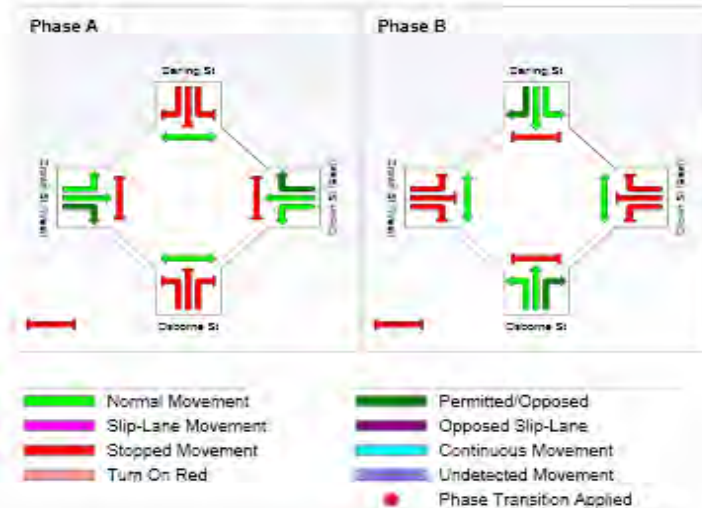
PHASING SUMMARY

Site: Crown St - Darling St - Osborne St PM
EX 12_pc growth

Crown St - Darling St - Osborne St PM EX
12_pc growth
Signals - Fixed Time Cycle Time = 85 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)
Phase times determined by the program
Sequence: Two-Phase
Input Sequence: A, B
Output Sequence: A, B

Phase Timing Results		
Phase	A	B
Green Time (sec)	57	18
Yellow Time (sec)	4	4
All-Red Time (sec)	2	2
Phase Time (sec)	63	22
Phase Split	74 %	26 %



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SIDRA INTERSECTION 5.0 v. 1427
Project: R:\consult\11032 - Sidra modelling Wollongong - URA\T TWM\11032_modelling\11032 sidra\11032 EX 12pc.sip
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INTERSECTION

MOVEMENT SUMMARY

Site: Crown St - Darling St - Osborne St AM FU
HOSP 12_pc growth

Crown St - Darling St - Osborne St AM FU HOSP
12_pc growth
Signals - Fixed Time Cycle Time = 65 seconds

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Dis. Sam. v/c	Average Delay sec	Level of Service	85% Back of Queue Vehicles' veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Osborne St											
1	L	46	0.0	0.193	29.8	LOS C	3.2	22.1	0.83	0.78	33.6
2	T	27	0.0	0.193	21.4	LOS B	3.2	22.1	0.83	0.65	34.5
3	R	11	0.0	0.193	29.7	LOS C	3.2	22.1	0.83	0.78	33.6
Approach		84	0.0	0.193	27.0	LOS B	3.2	22.1	0.83	0.74	33.9
East: Crown St (East)											
4	L	13	0.0	0.124	9.0	LOS A	0.4	2.8	0.06	1.01	48.3
5	T	485	0.0	0.620	1.1	LOS A	2.3	16.4	0.11	0.10	57.5
6	R	46	0.0	0.619	9.5	LOS A	2.3	16.4	0.13	1.03	48.0
Approach		524	0.0	0.620	2.0	LOS A	2.3	16.4	0.11	0.20	58.3
North: Darling St											
7	L	48	0.0	0.370	31.0	LOS C	5.2	35.2	0.87	0.79	32.5
8	T	13	0.0	0.372	22.8	LOS B	5.2	35.2	0.87	0.71	33.1
9	R	77	0.0	0.371	31.1	LOS C	5.2	35.2	0.87	0.80	32.4
Approach		138	0.0	0.371	30.3	LOS C	5.2	35.2	0.87	0.79	32.5
West: Crown St (West)											
10	L	67	0.0	0.475	9.2	LOS A	2.3	16.2	0.10	0.99	45.2
11	T	881	0.0	0.475	1.1	LOS A	2.3	16.2	0.10	0.09	57.7
12	R	34	0.0	0.475	9.4	LOS A	2.1	14.4	0.10	1.06	45.1
Approach		982	0.0	0.475	1.9	LOS A	2.3	16.2	0.10	0.18	58.5
All Vehicles		1728	0.0	0.620	5.4	LOS A	5.2	35.2	0.20	0.26	51.7

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	8.4	LOS A	0.0	0.0	0.51
P3	Across E approach	53	26.8	LOS C	0.1	0.1	0.91
P5	Across N approach	53	8.4	LOS A	0.0	0.0	0.51
P7	Across W approach	53	26.8	LOS C	0.1	0.1	0.91
All Pedestrians		212	17.6			0.71	0.71

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

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Project: R100sub11032 - Sidra modelling Votterongong - URS&P TFW11032_modelling\11032 sidra\11032 FU
HOSP 12pc.sip
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SIDRA
INTERSECTION

MOVEMENT SUMMARY

Site: Crown St - Darling St - Osborne St PM FU
HOSP 12_pc growth

Crown St - Darling St - Osborne St PM FU HOSP
12_pc growth
Signals - Fixed Time Cycle Time = 80 seconds

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Des. Satn w/c	Average Delay sec	Level of Service	85% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Osborne St											
1	L	47	0.0	0.277	38.4	LOS C	4.2	29.5	0.89	0.78	29.5
2	T	23	0.0	0.277	30.2	LOS C	4.2	29.5	0.89	0.70	30.0
3	R	17	0.0	0.277	35.5	LOS C	4.2	29.5	0.89	0.78	29.5
Approach		87	0.0	0.277	35.2	LOS C	4.2	29.5	0.89	0.76	29.6
East: Crown St (East)											
4	L	12	0.0	0.176	9.0	LOS A	0.8	5.7	0.06	1.04	45.3
5	T	986	0.0	0.885	7.0	LOS A	15.5	115.6	0.28	0.32	49.0
6	R	85	0.0	0.885	17.0	LOS B	15.5	115.6	0.34	1.10	41.9
Approach		1083	0.0	0.885	7.3	LOS A	15.5	115.6	0.28	0.39	45.4
North: Darling St											
7	L	85	0.0	0.883	52.4	LOS D	13.1	91.5	1.00	1.01	24.6
8	T	25	0.0	0.885	44.2	LOS D	13.1	91.5	1.00	1.01	24.7
9	R	140	0.0	0.883	52.5	LOS D	13.1	91.5	1.00	1.01	24.8
Approach		251	0.0	0.883	51.6	LOS D	13.1	91.5	1.00	1.01	24.6
West: Crown St (West)											
10	L	96	0.0	0.350	9.1	LOS A	1.9	13.4	0.08	0.95	45.2
11	T	514	0.0	0.350	1.0	LOS A	1.9	13.4	0.08	0.07	57.8
12	R	34	0.0	0.350	9.4	LOS A	0.9	5.6	0.08	1.01	45.0
Approach		643	0.0	0.350	2.7	LOS A	1.9	13.4	0.08	0.25	55.6
All Vehicles		2084	0.0	0.595	12.7	LOS A	15.5	115.6	0.33	0.44	43.9

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	6.5	LOS A	0.0	0.0	0.41
P3	Across E approach	53	24.2	LOS D	0.1	0.1	0.93
P5	Across N approach	53	6.5	LOS A	0.0	0.0	0.41
P7	Across W approach	53	24.2	LOS D	0.1	0.1	0.93
All Pedestrians		212	20.5			0.67	0.67

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

Processed: Monday, 11 July 2011 3:33:12 PM
SIDRA INTERSECTION S.O. 1.1427
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HOSP 12pc sp
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INTERSECTION

PHASING SUMMARY

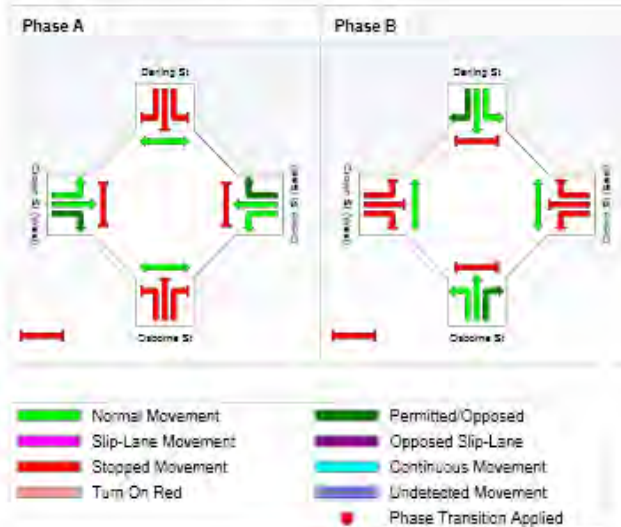
Site: Crown St - Darling St - Osborne St AM FU
HOSP 12_pc growth

Crown St - Darling St - Osborne St AM FU HOSP
12_pc growth
Signals - Fixed Time Cycle Time = 66 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)
Phase times determined by the program
Sequence: Two-Phase
Input Sequence: A, B
Output Sequence: A, B

Phase Timing Results

Phase	A	B
Green Time (sec)	37	16
Yellow Time (sec)	4	4
All-Red Time (sec)	2	2
Phase Time (sec)	43	22
Phase Split	66 %	34 %



Processed: Monday, 11 July 2011 2:32:11 PM
SIDRA INTERSECTION 5.0.1.1427
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HOSP 12pc.sip
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PHASING SUMMARY

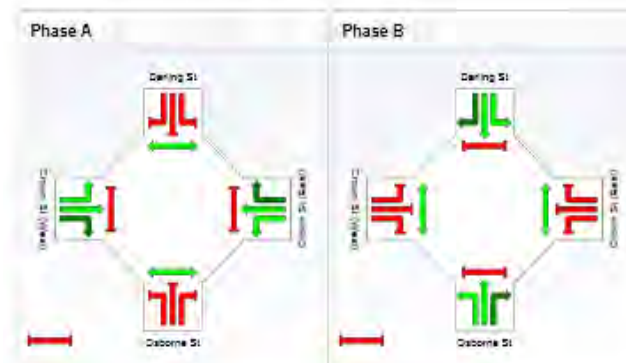
Site: Crown St - Darling St - Osborne St PM FU
HOSP 12_pc growth

Crown St - Darling St - Osborne St PM FU HOSP
12_pc growth
Signals - Fixed Time Cycle Time = 80 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)
Phase times determined by the program
Sequence: Two-Phase
Input Sequence: A, B
Output Sequence: A, B

Phase Timing Results

Phase	A	B
Green Time (sec)	52	15
Yellow Time (sec)	4	4
All-Red Time (sec)	2	2
Phase Time (sec)	58	22
Phase Split	73 %	28 %



- Normal Movement
- Slip-Lane Movement
- Stopped Movement
- Turn On Red
- Permitted/Opposed
- Opposed Slip-Lane
- Continuous Movement
- Undetected Movement
- Phase Transition Applied

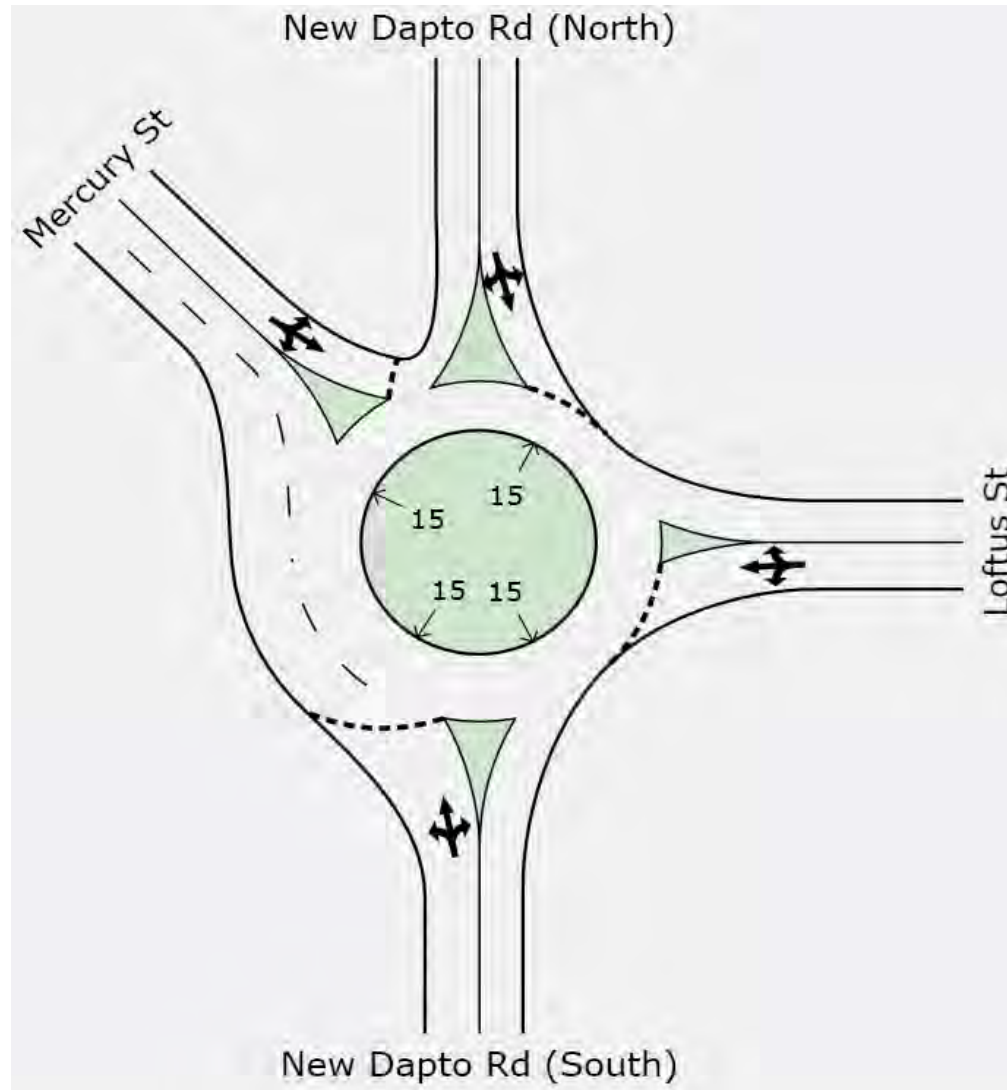
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HOSP 12pc.sip
O, TEF CONSULTING, ENTERPRISE

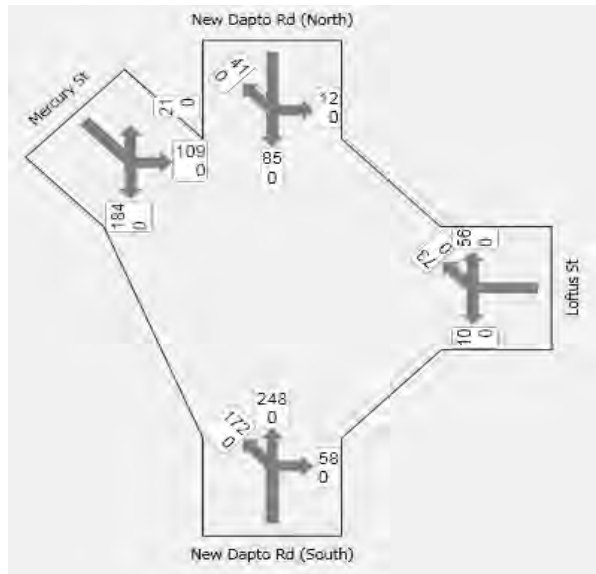
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INTERSECTION

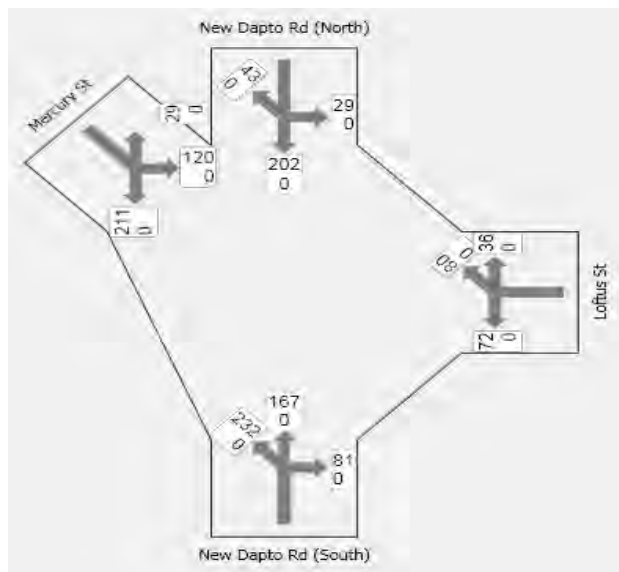
Layout



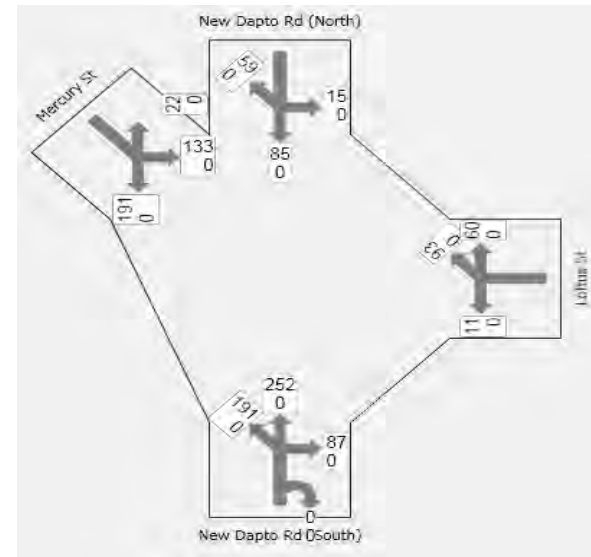
Volume Summary AM EX 12pc



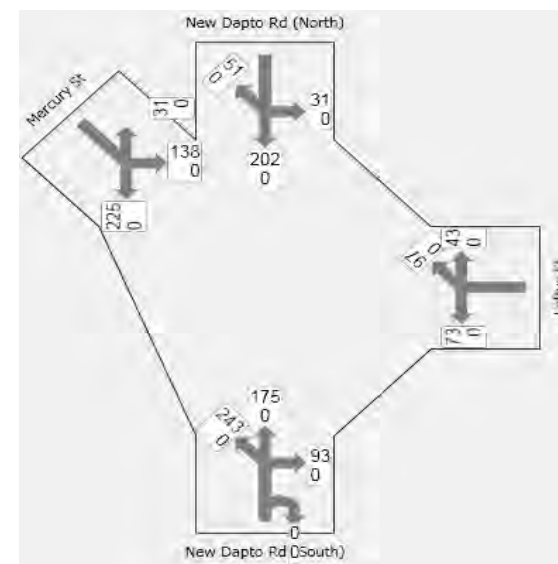
Volume Summary PM EX 12pc



Volume Summary AM FU HOSP 12pc



Volume Summary PM FU HOSP 12pc



MOVEMENT SUMMARY

Site: Loftus St - New Dapto Rd - Mercury St
AM EX 12_pc growth

Loftus St - New Dapto Rd - Mercury St AM EX
12_pc growth
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Saty w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: New Dapto Rd (South)											
1	L	181	0.0	0.407	8.8	LOS A	2.9	20.2	0.38	0.68	49.0
2	T	281	0.0	0.407	8.8	LOS A	2.9	20.2	0.38	0.68	49.0
3	R	61	0.0	0.407	11.8	LOS A	2.9	20.2	0.38	0.80	49.0
Approach		503	0.0	0.407	7.4	LOS A	2.9	20.2	0.38	0.69	48.8
East: Loftus St											
4	L	11	0.0	0.142	8.4	LOS A	0.9	8.2	0.46	0.62	47.8
5	T	77	0.0	0.142	11.5	LOS A	0.9	8.2	0.46	0.71	45.5
6	R	59	0.0	0.142	12.5	LOS A	0.9	8.2	0.46	0.72	44.8
Approach		148	0.0	0.142	11.7	LOS A	0.9	8.2	0.46	0.71	45.3
North: New Dapto Rd (North)											
7	L	13	0.0	0.158	9.2	LOS A	1.2	8.4	0.58	0.68	47.5
8	T	89	0.0	0.158	8.4	LOS A	1.2	8.4	0.58	0.64	47.5
9	R	43	0.0	0.158	14.3	LOS A	1.2	8.4	0.58	0.80	44.2
Approach		145	0.0	0.158	10.2	LOS A	1.2	8.4	0.58	0.69	48.4
North West: Mercury St											
27	L	22	0.0	0.345	9.9	LOS A	2.7	18.8	0.61	0.74	47.1
28	T	115	0.0	0.348	8.6	LOS A	2.7	18.8	0.61	0.68	47.0
29	R	194	0.0	0.348	12.8	LOS A	2.7	18.8	0.61	0.79	45.2
Approach		331	0.0	0.348	11.0	LOS A	2.7	18.8	0.61	0.75	45.9
All Vehicles		1125	0.0	0.407	9.4	LOS A	2.9	20.2	0.49	0.68	47.1

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).

Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

Roundabout Capacity Model: SIDRA Standard.

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SIDRA INTERSECTION 5.0.1.1427

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12pc.slp

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INTERSECTION

MOVEMENT SUMMARY

Site: Loftus St - New Dapto Rd - Mercury St
PM EX 12_pc growth

Loftus St - New Dapto Rd - Mercury St PM EX
12_pc growth
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	H/V %	Deg. Satn w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: New Dapto Rd (South)											
1	L	244	0.0	0.405	8.8	LOS A	2.9	20.5	0.38	0.55	49.0
2	T	176	0.0	0.405	8.8	LOS A	2.9	20.5	0.38	0.55	49.0
3	R	85	0.0	0.404	11.8	LOS A	2.9	20.5	0.38	0.79	45.0
Approach		505	0.0	0.405	7.6	LOS A	2.9	20.5	0.38	0.59	48.4
East: Loftus St											
4	L	78	0.0	0.217	9.4	LOS A	1.5	10.3	0.58	0.71	47.0
5	T	84	0.0	0.216	12.5	LOS A	1.5	10.3	0.58	0.78	45.0
6	R	38	0.0	0.217	13.5	LOS A	1.5	10.3	0.58	0.79	44.4
Approach		198	0.0	0.216	11.5	LOS A	1.5	10.3	0.58	0.76	45.6
North: New Dapto Rd (North)											
7	L	31	0.0	0.332	10.1	LOS A	2.8	19.4	0.69	0.75	47.1
8	T	213	0.0	0.333	9.3	LOS A	2.8	19.4	0.69	0.73	47.0
9	R	45	0.0	0.333	15.2	LOS B	2.8	19.4	0.69	0.88	43.6
Approach		288	0.0	0.333	10.3	LOS B	2.8	19.4	0.69	0.75	45.4
North West: Mercury St											
27	L	31	0.0	0.388	9.4	LOS A	2.9	20.6	0.56	0.70	47.2
28	T	128	0.0	0.389	8.0	LOS A	2.9	20.6	0.56	0.63	47.3
29	R	222	0.0	0.389	12.1	LOS A	2.9	20.6	0.56	0.75	45.8
Approach		379	0.0	0.389	10.5	LOS A	2.9	20.6	0.56	0.71	46.3
All Vehicles		1371	0.0	0.405	9.5	LOS A	2.9	20.6	0.52	0.68	47.0

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).

Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

Roundabout Capacity Model: SIDRA Standard

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MOVEMENT SUMMARY

Site: Loftus St - New Dapto Rd - Mercury St AM
FU HOSP 12_pc growth

Loftus St - New Dapto Rd - Mercury St AM FU HOSP
12_pc growth
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Seg Sam wc	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Efficient Stop Rate per veh	Average Speed km/h
South: New Dapto Rd (South)											
1	L	201	0.0	0.468	7.2	LOS A	3.5	24.7	0.46	0.59	48.5
2	T	265	0.0	0.468	7.2	LOS A	3.5	24.7	0.46	0.59	48.5
3	R	92	0.0	0.467	12.2	LOS A	3.5	24.7	0.46	0.81	45.9
Approach		558	0.0	0.468	8.0	LOS A	3.5	24.7	0.46	0.63	48.0
East: Loftus St											
4	L	12	0.0	0.170	8.6	LOS A	1.1	7.7	0.49	0.64	47.4
5	T	98	0.0	0.171	11.7	LOS A	1.1	7.7	0.49	0.72	45.4
6	R	63	0.0	0.171	12.7	LOS A	1.1	7.7	0.49	0.73	44.7
Approach		173	0.0	0.171	11.9	LOS A	1.1	7.7	0.49	0.72	45.3
North: New Dapto Rd (North)											
7	L	16	0.0	0.195	9.7	LOS A	1.5	10.6	0.64	0.71	47.1
8	T	89	0.0	0.195	9.9	LOS A	1.5	10.6	0.64	0.68	47.1
9	R	62	0.0	0.195	14.8	LOS B	1.5	10.6	0.64	0.82	43.7
Approach		167	0.0	0.195	11.2	LOS B	1.5	10.6	0.64	0.73	45.7
North West: Mercury St											
27	L	23	0.0	0.399	10.3	LOS A	3.2	22.5	0.67	0.77	45.9
28	T	140	0.0	0.397	8.9	LOS A	3.2	22.5	0.67	0.72	46.7
29	R	201	0.0	0.397	13.0	LOS A	3.2	22.5	0.67	0.82	44.9
Approach		364	0.0	0.398	11.2	LOS A	3.2	22.5	0.67	0.77	45.7
All Vehicles		1262	0.0	0.468	9.9	LOS A	3.5	24.7	0.65	0.70	45.8

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).

Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

Site: Loftus St - New Dapto Rd - Mercury St PM
FU HOSP 12_pc growth

Loftus St - New Dapto Rd - Mercury St PM FU HOSP
12_pc growth
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Des. Sat 1/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: New Dapto Rd (South)											
1	L	266	0.0	0.445	7.0	LOS A	3.4	23.5	0.43	0.58	46.6
2	T	184	0.0	0.445	7.0	LOS A	3.4	23.5	0.43	0.58	46.6
3	R	98	0.0	0.445	12.0	LOS A	3.4	23.5	0.43	0.80	45.9
Approach		538	0.0	0.445	7.9	LOS A	3.4	23.5	0.43	0.62	46.1
East: Loftus St											
4	L	77	0.0	0.250	9.6	LOS A	1.8	12.3	0.61	0.73	45.8
5	T	102	0.0	0.250	12.8	LOS A	1.8	12.3	0.61	0.80	44.8
6	R	45	0.0	0.250	15.7	LOS A	1.8	12.3	0.61	0.81	44.2
Approach		224	0.0	0.250	11.9	LOS A	1.8	12.3	0.61	0.78	45.3
North: New Dapto Rd (North)											
7	L	33	0.0	0.363	10.8	LOS A	3.1	21.5	0.73	0.79	46.7
8	T	213	0.0	0.363	9.7	LOS A	3.1	21.5	0.73	0.78	46.7
9	R	54	0.0	0.363	15.7	LOS B	3.1	21.5	0.73	0.87	43.3
Approach		299	0.0	0.363	10.9	LOS B	3.1	21.5	0.73	0.78	46.1
North West: Mercury St											
27	L	33	0.0	0.413	9.7	LOS A	3.4	24.1	0.61	0.73	47.0
28	T	145	0.0	0.413	8.3	LOS A	3.4	24.1	0.61	0.66	47.0
29	R	237	0.0	0.413	12.4	LOS A	3.4	24.1	0.61	0.78	45.4
Approach		415	0.0	0.413	10.7	LOS A	3.4	24.1	0.61	0.73	46.1
All Vehicles		1476	0.0	0.445	9.9	LOS A	3.4	24.1	0.67	0.71	46.7

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW)

Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW)

Approach LOS values are based on the worst delay for any vehicle movement.

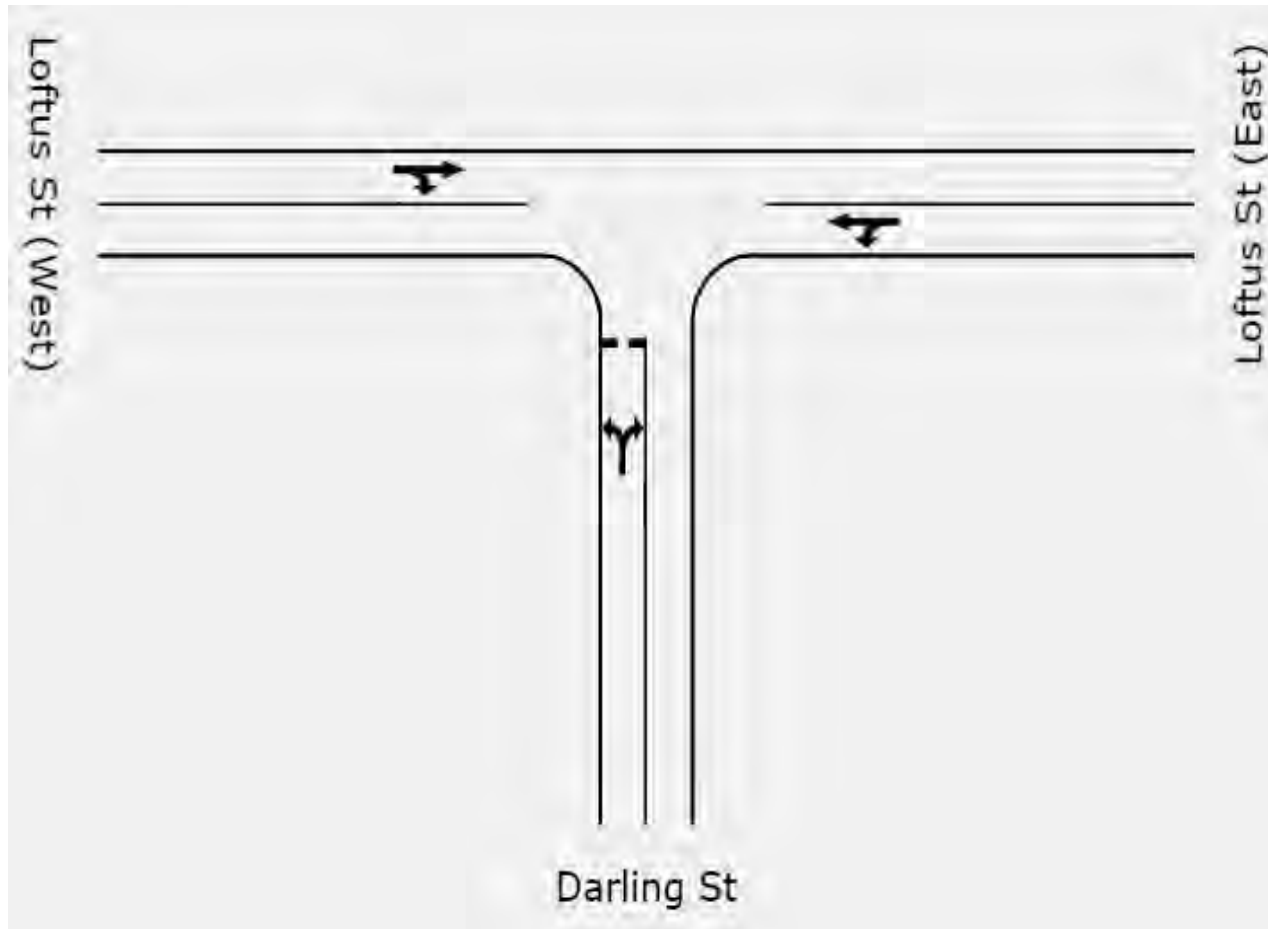
Roundabout Capacity Model: SIDRA Standard

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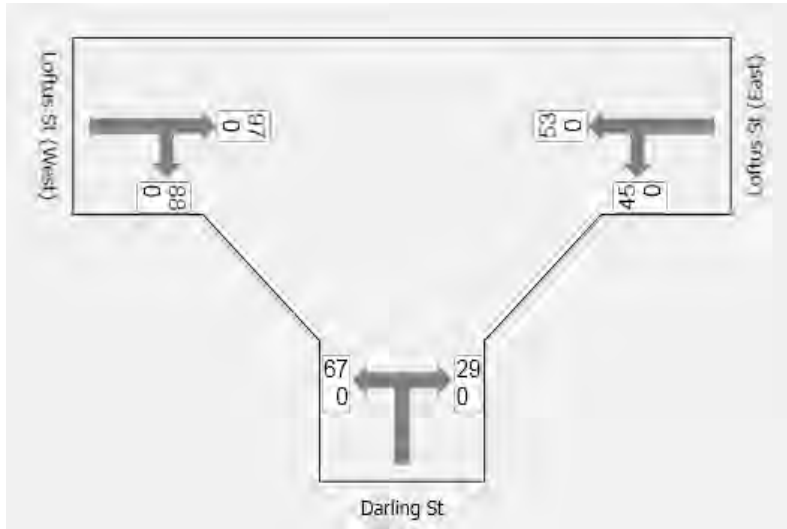
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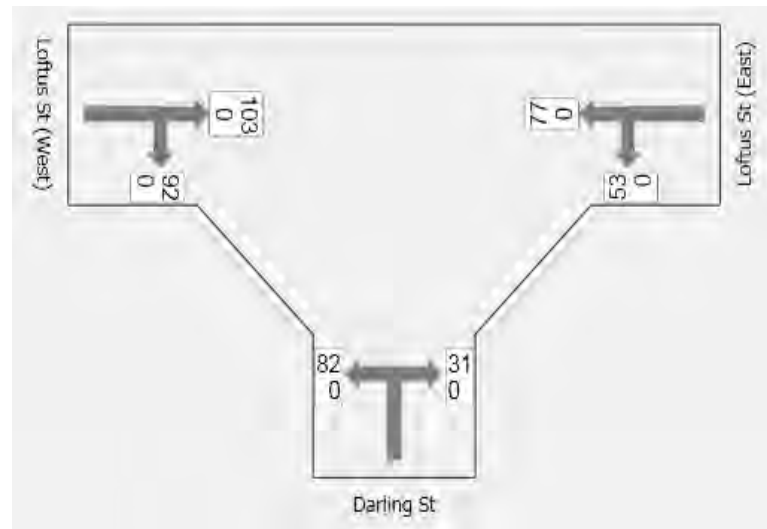
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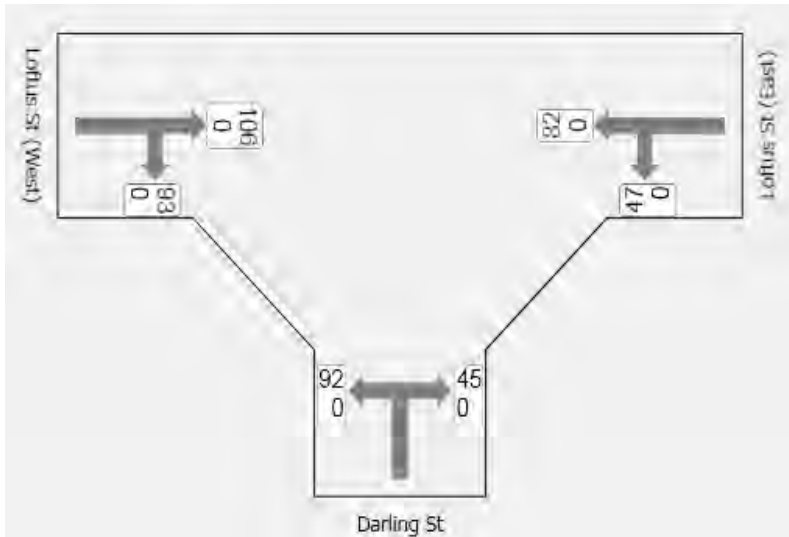
Volume Summary AM EX 12pc



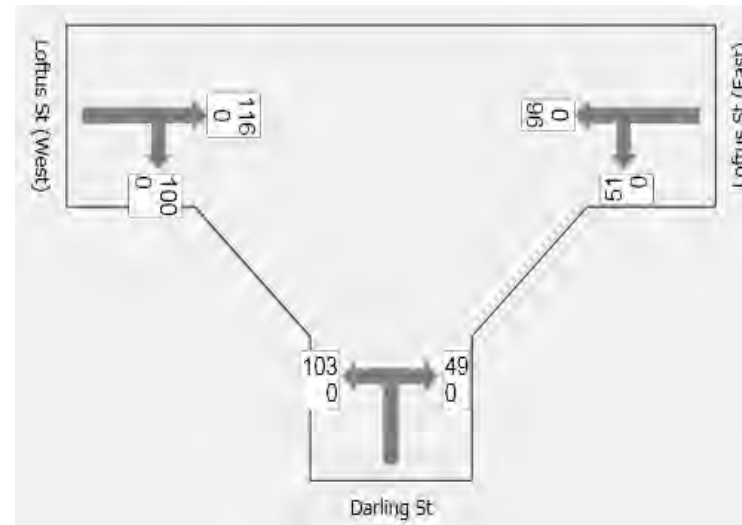
Volume Summary AM FU HOSP 12pc



Volume Summary PM EX 12pc



Volume Summary PM FU HOSP 12pc



MOVEMENT SUMMARY

Site: Loftus St - Darling St AM EX 12_pc growth

Loftus St - Darling St AM EX
12_pc growth
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deq. Satn w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Darling St											
1	L	71	0.0	0.115	9.4	LOS A	0.8	3.9	0.22	0.81	47.8
3	R	31	0.0	0.115	9.7	LOS A	0.8	3.9	0.22	0.74	47.4
Approach		101	0.0	0.115	9.5	LOS A	0.8	3.9	0.22	0.85	47.8
East: Loftus St (East)											
4	L	47	0.0	0.054	8.2	LOS A	0.0	0.0	0.00	0.84	49.0
5	T	56	0.0	0.054	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		103	0.0	0.054	3.8	LOS A	0.0	0.0	0.00	0.33	64.4
West: Loftus St (West)											
11	T	102	0.0	0.123	0.4	LOS A	0.8	5.6	0.23	0.00	55.0
12	R	93	0.0	0.123	8.9	LOS A	0.8	5.6	0.23	0.79	48.3
Approach		195	0.0	0.123	4.4	LOS A	0.8	5.6	0.23	0.33	51.8
All Vehicles		399	0.0	0.123	5.5	NA	0.8	5.6	0.17	0.45	51.2

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

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MOVEMENT SUMMARY

Site: Loftus St - Darling St PM EX 12_pc
growth

Loftus St - Darling St PM EX 12_pc growth
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/hr	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/hr
South: Darling St											
1	L	97	0.0	0.178	9.9	LOS A	0.9	8.2	0.29	0.62	47.1
3	R	47	0.0	0.178	10.2	LOS A	0.9	8.2	0.29	0.77	48.9
Approach		144	0.0	0.178	10.0	LOS A	0.9	8.2	0.29	0.67	47.0
East: Loftus St (East)											
4	L	48	0.0	0.071	8.2	LOS A	0.0	0.0	0.00	0.88	48.0
5	T	98	0.0	0.071	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		136	0.0	0.071	3.0	LOS A	0.0	0.0	0.00	0.32	55.5
West: Loftus St (West)											
11	T	112	0.0	0.135	0.6	LOS A	0.9	8.3	0.27	0.00	54.2
12	R	98	0.0	0.135	9.0	LOS A	0.9	8.3	0.27	0.79	48.3
Approach		209	0.0	0.135	4.5	LOS A	0.9	8.3	0.27	0.37	51.3
All Vehicles		499	0.0	0.178	5.7	NA	0.9	8.3	0.20	0.44	51.0

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).
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INTERSECTION

MOVEMENT SUMMARY

Site: Loftus St - Darling St AM FU HOSP 12_pc growth

Loftus St - Darling St AM FU HOSP
12_pc growth
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	FM %	Dec Satn w/c	Average Delay sec	Level of Service	85% Back of Queue Vehicles /veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Darling St											
1	L	88	0.0	0.139	9.8	LOS A	0.7	4.8	0.27	0.82	47.4
2	R	33	0.0	0.139	9.9	LOS A	0.7	4.8	0.27	0.78	47.2
Approach		119	0.0	0.139	9.7	LOS A	0.7	4.8	0.27	0.88	47.3
East: Loftus St (East)											
4	L	58	0.0	0.072	8.2	LOS A	0.0	0.0	0.00	0.88	48.0
5	T	81	0.0	0.072	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		137	0.0	0.072	3.3	LOS A	0.0	0.0	0.00	0.35	55.0
West: Loftus St (West)											
11	T	108	0.0	0.132	0.8	LOS A	0.9	6.2	0.27	0.00	54.1
12	R	97	0.0	0.132	9.0	LOS A	0.9	6.2	0.27	0.79	45.3
Approach		205	0.0	0.132	4.8	LOS A	0.9	6.2	0.27	0.37	51.2
All Vehicles		481	0.0	0.139	5.5	NA	0.9	6.2	0.19	0.44	51.2

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

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INTERSECTION

MOVEMENT SUMMARY

Site: Loftus St - Darling St PM FU HOSP 12_pc growth

Loftus St - Darling St PM FU HOSP
12_pc growth
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Sign. wt.	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Darling St											
1	L	108	0.0	0.202	10.2	LOS A	1.0	7.2	0.32	0.83	46.8
3	R	52	0.0	0.202	10.4	LOS A	1.0	7.2	0.32	0.79	46.8
Approach		160	0.0	0.202	10.3	LOS A	1.0	7.2	0.32	0.88	46.7
East: Loftus St (East)											
4	L	54	0.0	0.081	8.2	LOS A	0.0	0.0	0.00	0.89	49.0
5	T	101	0.0	0.081	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		155	0.0	0.081	2.8	LOS A	0.0	0.0	0.00	0.31	55.7
West: Loftus St (West)											
11	T	122	0.0	0.147	0.7	LOS A	1.0	7.0	0.29	0.00	53.7
12	R	105	0.0	0.147	9.1	LOS A	1.0	7.0	0.29	0.80	46.3
Approach		227	0.0	0.147	4.6	LOS A	1.0	7.0	0.29	0.37	51.1
All Vehicles		542	0.0	0.202	5.8	NA	1.0	7.2	0.22	0.44	50.9

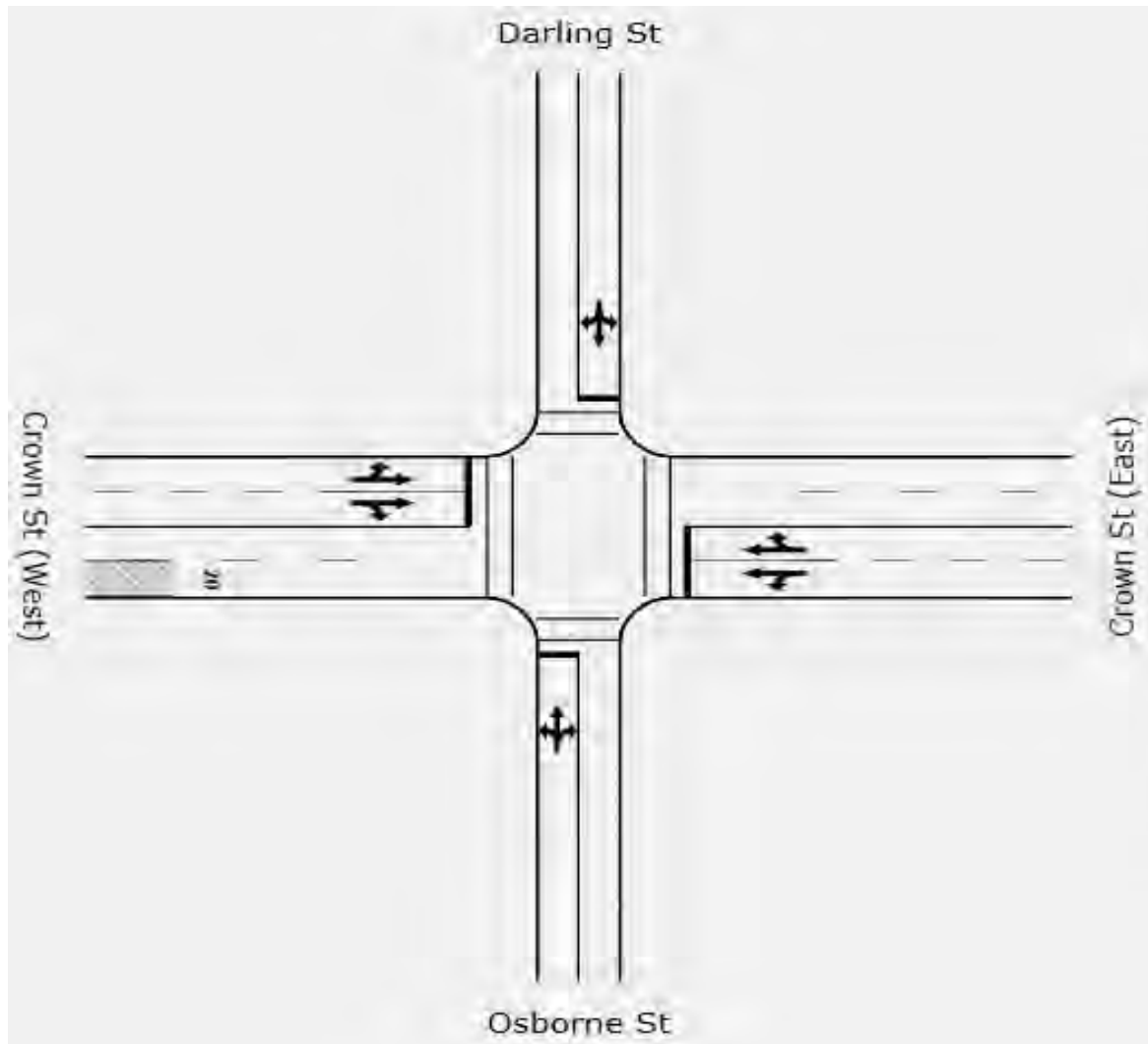
LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

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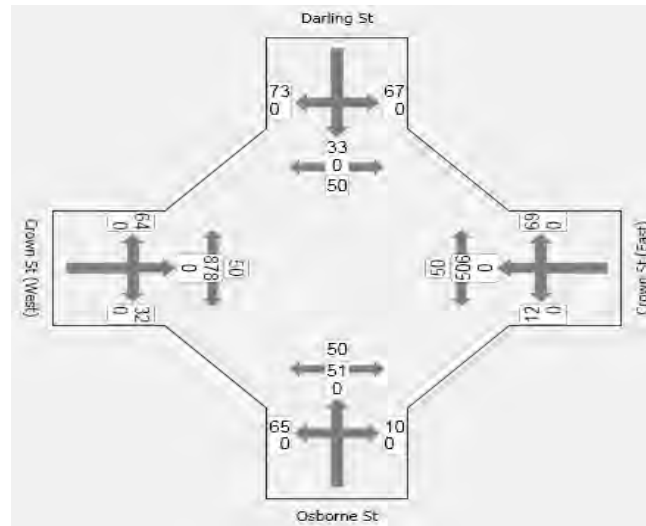
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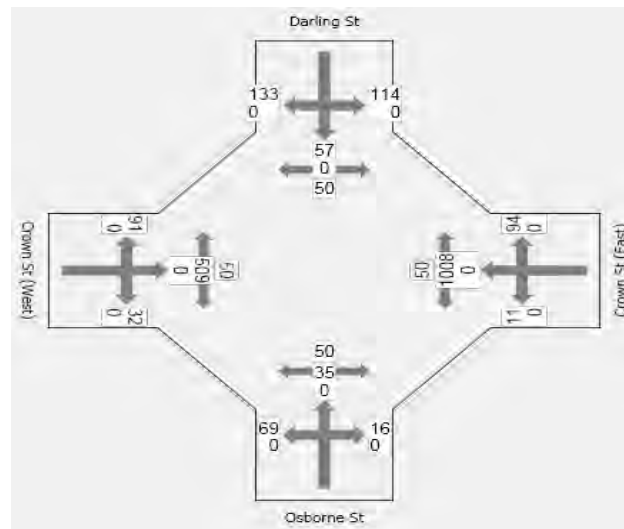
Layout



Volume Summary AM FU HOSP+OTH 12pc



Volume Summary PM FU HOSP+OTH 12pc



MOVEMENT SUMMARY

Crown St - Darling St - Osborne St AM FU HOS
P+OTH
12_pc growth
Signals - Fixed Time Cycle Time = 85 seconds

Site: Crown St - Darling St - Osborne St AM FU
HOSP+OTH 12_pc growth

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Seg. Satn v/c	Average Delay sec	Level of Service	85% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Osborne St											
1	L	52	0.0	0.301	30.3	LOS C	4.9	34.2	0.88	0.80	33.4
2	T	54	0.0	0.302	22.1	LOS B	4.9	34.2	0.88	0.69	34.1
3	R	11	0.0	0.302	30.4	LOS C	4.9	34.2	0.88	0.80	33.4
Approach		133	0.0	0.302	27.0	LOS B	4.9	34.2	0.88	0.75	33.7
East: Crown St (East)											
4	L	13	0.0	0.188	9.0	LOS A	0.8	3.9	0.06	1.03	48.3
5	T	633	0.0	0.841	5.7	LOS A	7.3	51.2	0.20	0.25	60.8
6	R	73	0.0	0.841	16.3	LOS B	7.3	51.2	0.27	1.08	42.2
Approach		618	0.0	0.842	7.0	LOS A	7.3	51.2	0.21	0.38	49.6
North: Darling St											
7	L	71	0.0	0.504	31.9	LOS C	6.8	47.6	0.91	0.81	32.2
8	T	35	0.0	0.504	23.8	LOS B	6.8	47.6	0.91	0.75	32.7
9	R	77	0.0	0.503	32.1	LOS C	6.8	47.6	0.91	0.82	32.2
Approach		182	0.0	0.503	30.4	LOS C	6.8	47.6	0.91	0.80	32.3
West: Crown St (West)											
10	L	67	0.0	0.499	9.3	LOS A	2.5	17.7	0.10	0.99	48.2
11	T	924	0.0	0.499	1.1	LOS A	2.5	17.7	0.10	0.09	57.6
12	R	34	0.0	0.499	8.4	LOS A	2.2	15.5	0.10	1.06	45.1
Approach		1025	0.0	0.499	1.9	LOS A	2.5	17.7	0.10	0.18	55.5
All Vehicles		1858	0.0	0.842	7.9	LOS A	7.3	51.2	0.26	0.34	48.7

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued
P1	Across S approach	53	8.4	LOS A	0.0	0.0	0.51
P2	Across E approach	53	28.8	LOS C	0.1	0.1	0.91
P5	Across N approach	53	8.4	LOS A	0.0	0.0	0.51
P7	Across W approach	53	28.8	LOS C	0.1	0.1	0.91
All Pedestrians		212	17.6				0.71

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

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SIDRA INTERSECTION 5 0.1.1427
Project: R:\consult\11032 - Sidra modelling Wollongong - URA\11032 modelling\11032 sidra\11032 FU HOSP+OTH 12pc.sib

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MOVEMENT SUMMARY

Site: Crown St - Darling St - Osborne St PM FU
HOSP+OTH 12_pc growth

Crown St - Darling St - Osborne St PM FU HOSP+OTH
12_pc growth
Signals - Fixed Time Cycle Time = 90 seconds

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Seg Sat v/c	Average Delay sec	Level of Service	85% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Osborne St											
1	L	73	0.0	0.372	40.3	LOS C	6.3	44.4	0.55	0.50	28.8
2	T	97	0.0	0.372	32.1	LOS C	6.3	44.4	0.55	0.72	29.3
3	R	17	0.0	0.372	40.4	LOS C	6.3	44.4	0.55	0.51	28.8
Approach		128	0.0	0.373	37.9	LOS C	6.3	44.4	0.55	0.73	28.9
East: Crown St (East)											
4	L	12	0.0	0.201	9.2	LOS A	1.0	7.2	0.07	1.04	48.2
5	T	1051	0.0	1.006	35.9	LOS C	63.3	443.1	0.76	1.02	28.9
6	R	99	0.0	1.006	54.2	LOS C	63.3	443.1	1.00	1.29	25.1
Approach		1172	0.0	1.006	37.2	LOS C	63.3	443.1	0.80	1.04	28.7
North: Darling St											
7	L	120	0.0	0.997	24.9	LOS F	23.5	154.7	1.00	1.27	15.7
8	T	60	0.0	0.997	36.7	LOS F	23.5	154.7	1.00	1.27	15.7
9	R	140	0.0	0.998	25.0	LOS F	23.5	154.7	1.00	1.27	15.8
Approach		320	0.0	0.998	23.4	LOS F	23.5	154.7	1.00	1.27	15.7
West: Crown St (West)											
10	L	98	0.0	0.437	9.4	LOS A	2.9	20.4	0.09	0.97	45.0
11	T	636	0.0	0.437	4.8	LOS A	5.3	37.4	0.20	0.17	51.8
12	R	34	0.0	0.437	29.5	LOS C	5.3	37.4	0.56	0.57	34.2
Approach		665	0.0	0.437	6.7	LOS A	5.3	37.4	0.21	0.32	49.9
All Vehicles		2282	0.0	1.006	36.2	LOS C	63.3	443.1	0.65	0.95	29.4

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued
P1	Across S approach	53	8.0	LOS A	0.1	0.1	0.42
P2	Across E approach	53	34.7	LOS D	0.1	0.1	0.88
P5	Across N approach	53	8.0	LOS A	0.1	0.1	0.42
P7	Across W approach	53	34.7	LOS D	0.1	0.1	0.88
All Pedestrians		212	21.3				0.65

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

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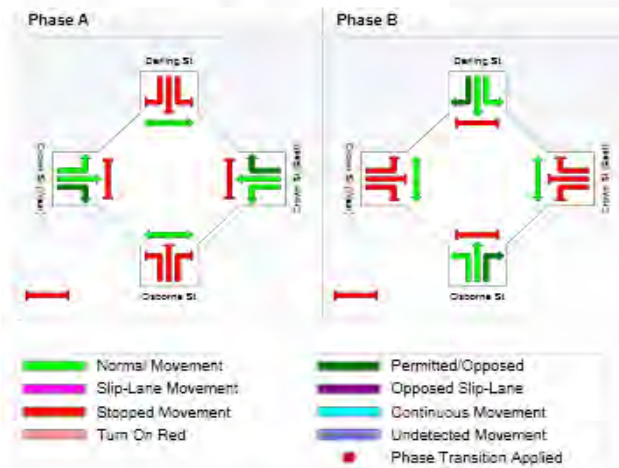
PHASING SUMMARY

Crown St - Darling St - Osborne St AM FU HOS
P+OTH
12_pc growth
Signals - Fixed Time Cycle Time = 66 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)
Phase times determined by the program
Sequence: Two-Phase
Input Sequence: A, B
Output Sequence: A, B

Phase Timing Results

Phase	A	B
Green Time (sec)	37	15
Yellow Time (sec)	4	4
All-Red Time (sec)	2	2
Phase Time (sec)	43	22
Phase Split	65 %	34 %



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HOSP OTH 12pc.ap
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Site: Crown St - Darling St - Osborne St AM FU
HOSP+OTH 12_pc growth

SIDRA
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PHASING SUMMARY

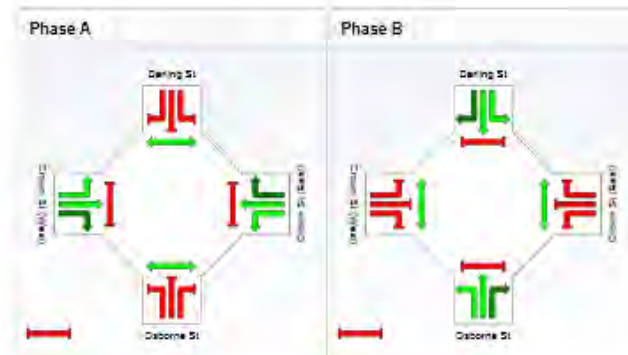
Site: Crown St - Darling St - Osborne St PM FU
HOSP+OTH 12_pc growth

Crown St - Darling St - Osborne St PM FU HOSP+OTH
12_pc growth
Signals - Fixed Time Cycle Time = 90 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)
Phase times determined by the program
Sequence: Two-Phase
Input Sequence: A, B
Output Sequence: A, B

Phase Timing Results

Phase	A	B
Green Time (sec)	57	21
Yellow Time (sec)	4	4
All-Red Time (sec)	2	2
Phase Time (sec)	63	27
Phase Split	70 %	30 %



Normal Movement	Permitted/Opposed
Slip-Lane Movement	Opposed Slip-Lane
Stopped Movement	Continuous Movement
Turn On Red	Undetected Movement
	Phase Transition Applied

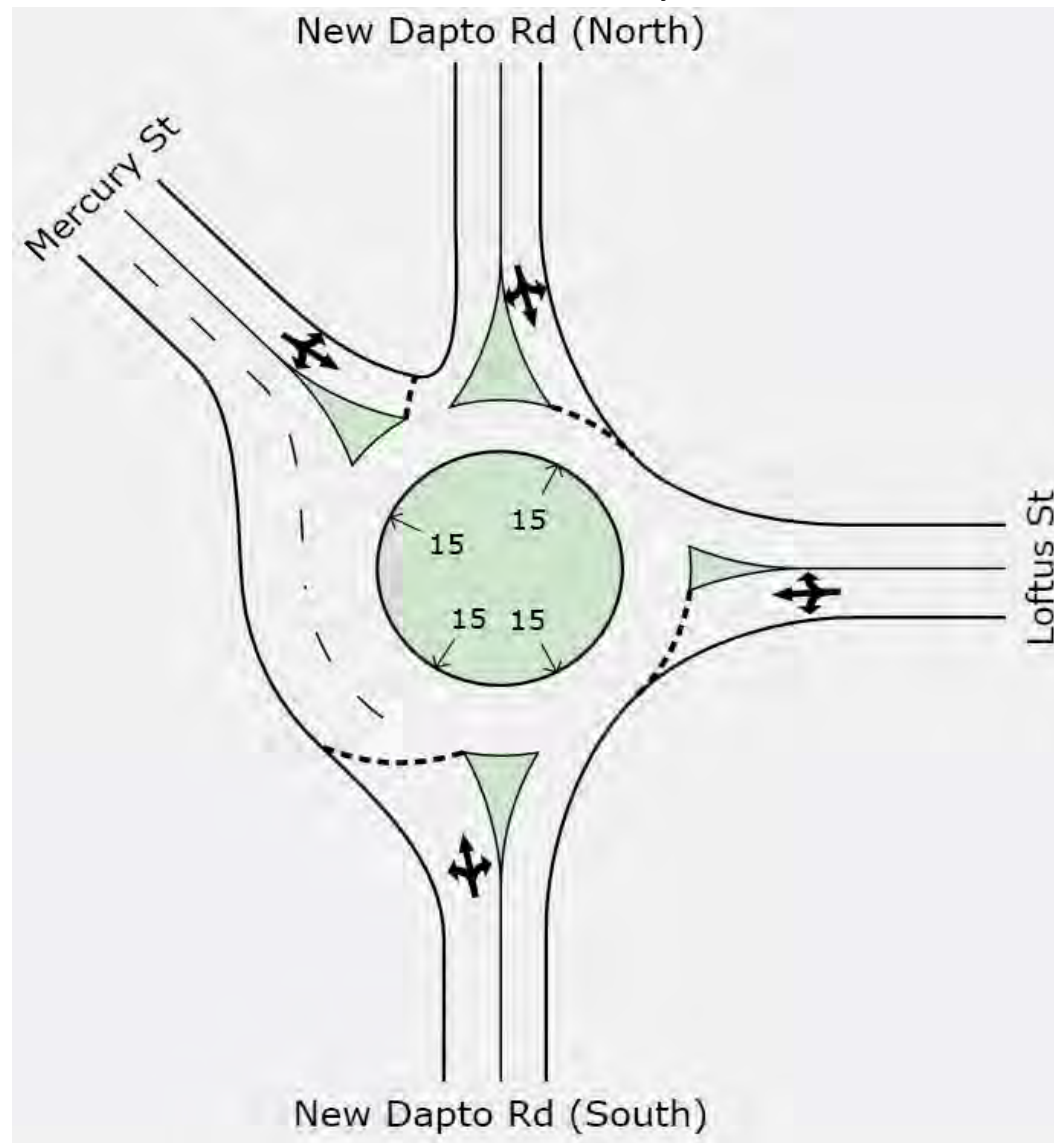
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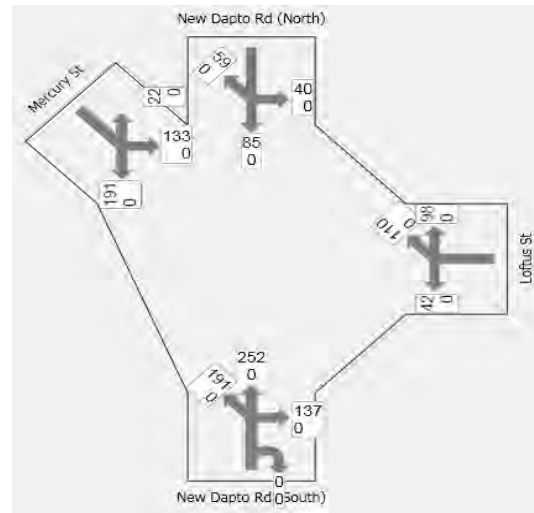
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HOSP OTH 12pc.sip
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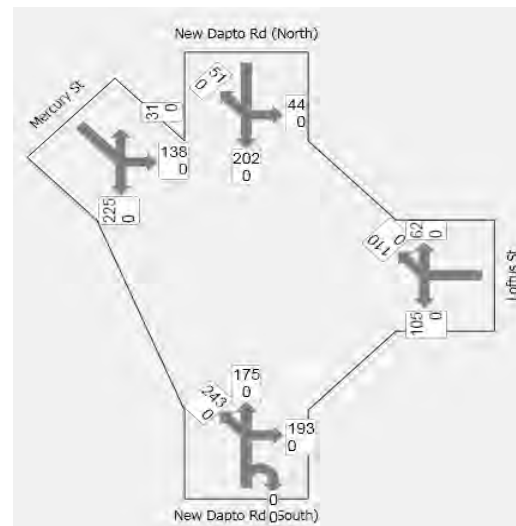
Layout



Volume Summary AM FU HOSP+OTH 12pc



Volume Summary PM FU HOSP+OTH 12pc



MOVEMENT SUMMARY

Site: Loftus St - New Dapto Rd - Mercury St AM
FU HOSP+OTH 12_pc growth

Loftus St - New Dapto Rd - Mercury St AM FU HOSP+OTH
12_pc growth
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HM %	Seg Sam v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: New Dapto Rd (South)											
1	L	201	0.0	0.539	7.6	LOS A	4.4	31.0	0.56	0.65	47.8
2	T	265	0.0	0.539	7.6	LOS A	4.4	31.0	0.56	0.65	47.8
3	R	144	0.0	0.538	12.6	LOS A	4.4	31.0	0.56	0.81	45.8
Approach		511	0.0	0.539	8.8	LOS A	4.4	31.0	0.56	0.69	47.2
East: Loftus St											
4	L	44	0.0	0.262	8.7	LOS A	1.8	12.7	0.52	0.67	47.2
5	T	118	0.0	0.262	11.9	LOS A	1.8	12.7	0.52	0.75	45.3
6	R	103	0.0	0.262	12.6	LOS A	1.8	12.7	0.52	0.78	44.7
Approach		263	0.0	0.262	11.7	LOS A	1.8	12.7	0.52	0.74	45.4
North: New Dapto Rd (North)											
7	L	42	0.0	0.237	10.2	LOS A	1.9	13.2	0.69	0.75	46.8
8	T	69	0.0	0.237	8.4	LOS A	1.9	13.2	0.69	0.72	45.8
9	R	62	0.0	0.237	15.3	LOS B	1.9	13.2	0.69	0.84	43.3
Approach		194	0.0	0.237	11.5	LOS B	1.9	13.2	0.69	0.76	45.8
North West: Mercury St											
27	L	23	0.0	0.429	11.1	LOS A	3.6	25.5	0.74	0.82	45.1
28	T	140	0.0	0.432	9.7	LOS A	3.6	25.5	0.74	0.78	46.2
29	R	201	0.0	0.432	13.8	LOS A	3.6	25.5	0.74	0.88	44.2
Approach		364	0.0	0.433	12.1	LOS A	3.6	25.5	0.74	0.83	45.1
All Vehicles		1432	0.0	0.539	10.5	LOS A	4.4	31.0	0.62	0.74	46.1

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW)

Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

Roundabout Capacity Model: SIDRA Standard.

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SIDRA INTERSECTION 5.0.1.1427

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HOSP OTH 12pc slp

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MOVEMENT SUMMARY

Site: Loftus St - New Dapto Rd - Mercury St PM
FU HOSP+OTH 12_pc growth

Loftus St - New Dapto Rd - Mercury St PM FU HOSP+OTH
12_pc growth
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	rtv %	Leg. Sat v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: New Dapto Rd (South)											
1	L	255	0.0	0.545	7.3	LOS A	4.6	32.5	0.53	0.61	47.9
2	T	184	0.0	0.545	7.3	LOS A	4.6	32.5	0.53	0.61	47.9
3	R	203	0.0	0.546	12.3	LOS A	4.6	32.5	0.53	0.79	45.6
Approach		643	0.0	0.546	8.9	LOS A	4.6	32.5	0.53	0.67	47.1
East: Loftus St											
4	L	111	0.0	0.328	8.8	LOS A	2.4	17.0	0.65	0.75	46.7
5	T	116	0.0	0.328	12.9	LOS A	2.4	17.0	0.65	0.82	44.7
6	R	85	0.0	0.328	13.9	LOS A	2.4	17.0	0.65	0.82	44.0
Approach		292	0.0	0.328	12.0	LOS A	2.4	17.0	0.65	0.79	45.2
North: New Dapto Rd (North)											
7	L	46	0.0	0.421	11.5	LOS A	3.7	25.9	0.81	0.85	45.6
8	T	213	0.0	0.419	10.9	LOS A	3.7	25.9	0.81	0.84	45.8
9	R	54	0.0	0.419	16.9	LOS B	3.7	25.9	0.81	0.91	42.4
Approach		313	0.0	0.419	12.1	LOS B	3.7	25.9	0.81	0.85	45.1
North West: Mercury St											
27	L	33	0.0	0.468	10.9	LOS A	4.1	28.8	0.73	0.81	46.3
28	T	145	0.0	0.467	9.5	LOS A	4.1	28.8	0.73	0.77	46.3
29	R	237	0.0	0.467	13.6	LOS A	4.1	28.8	0.73	0.85	44.3
Approach		415	0.0	0.468	11.9	LOS A	4.1	28.8	0.73	0.82	45.1
All Vehicles		1852	0.0	0.546	10.8	LOS A	4.6	32.5	0.65	0.76	45.9

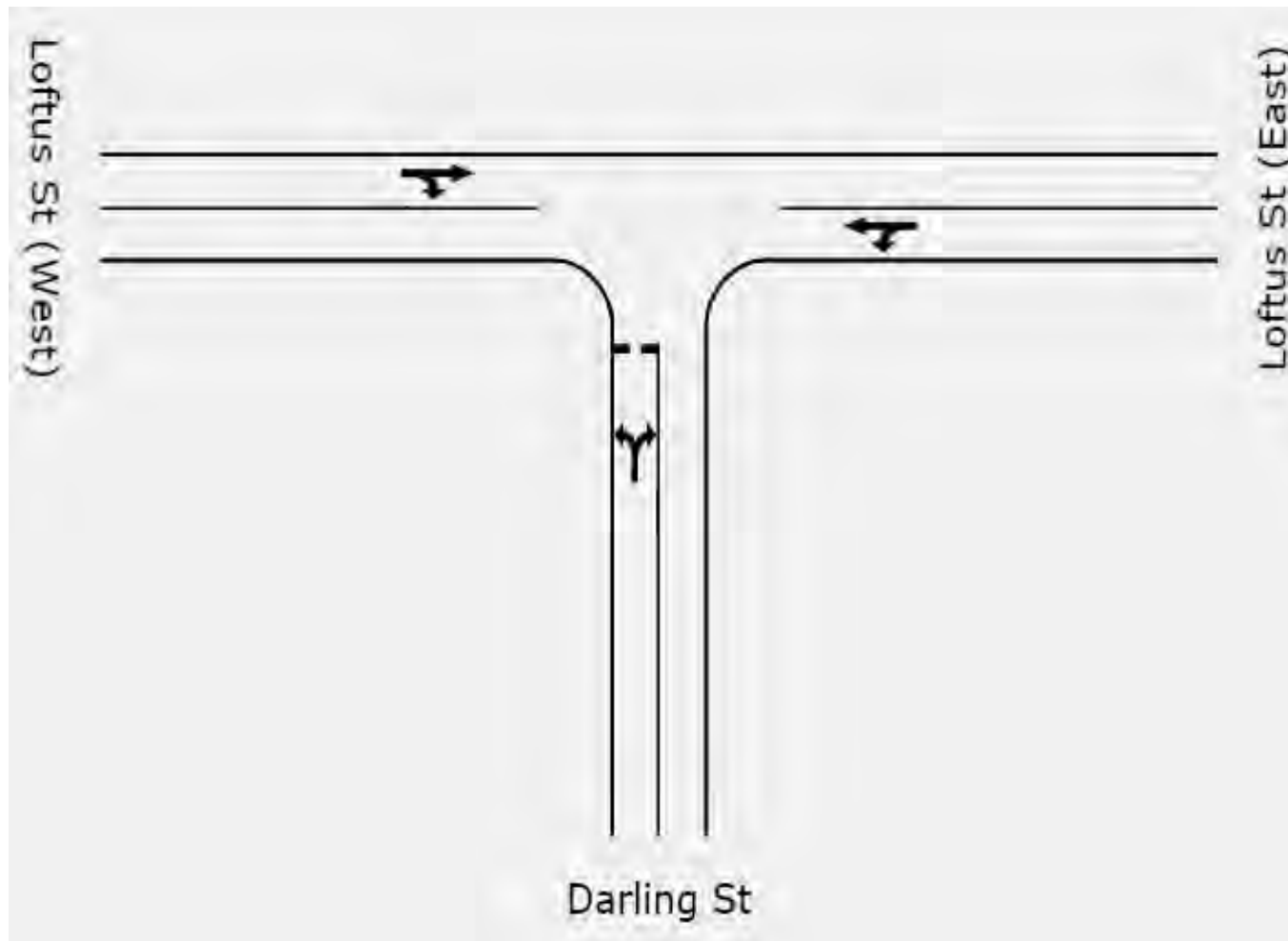
Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

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SIDRA INTERSECTION 5.0.1.1427
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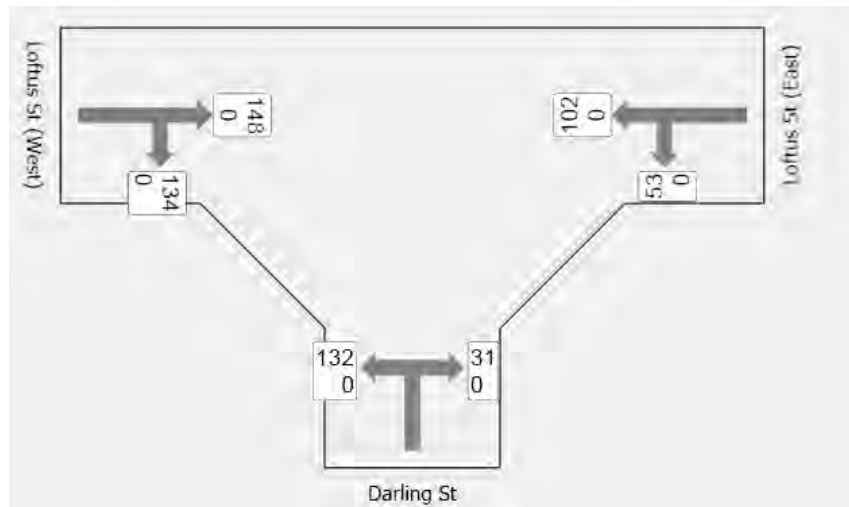
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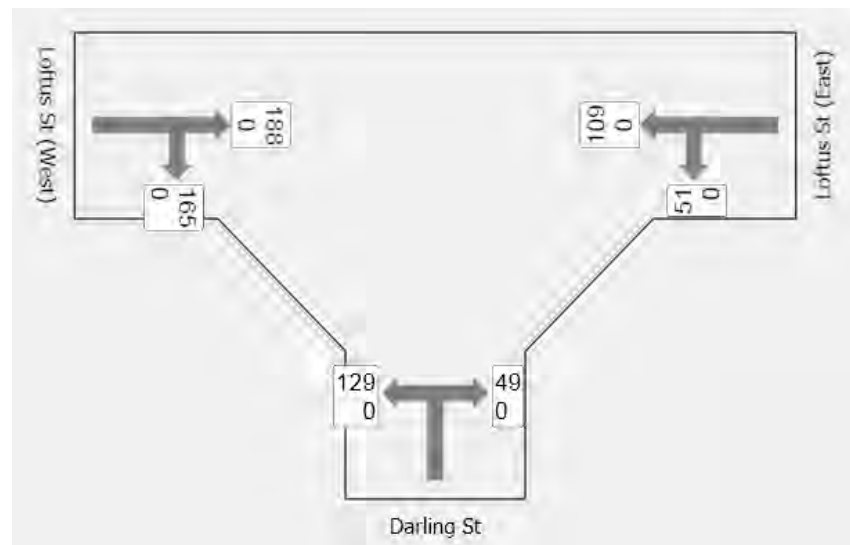
Layout



Volume Summary AM FU HOSP+OTH 12pc



Volume Summary PM FU HOSP+OTH 12pc



MOVEMENT SUMMARY

Site: Loftus St - Darling St AM FU HOSP+OTH
12_pc growth

Loftus St - Darling St AM FU HOSP+OTH
12_pc growth
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Dep. Satn Wt	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Darling St											
1	L	139	0.0	0.205	10.0	LOS A	1.0	7.3	0.31	0.84	47.0
3	R	33	0.0	0.205	10.2	LOS A	1.0	7.3	0.31	0.81	45.8
Approach		172	0.0	0.205	10.0	LOS A	1.0	7.3	0.31	0.87	47.0
East: Loftus St (East)											
4	L	58	0.0	0.085	8.2	LOS A	0.0	0.0	0.00	0.89	49.0
5	T	107	0.0	0.085	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		165	0.0	0.085	2.8	LOS A	0.0	0.0	0.00	0.30	55.7
West: Loftus St (West)											
11	T	156	0.0	0.194	0.8	LOS A	1.4	9.7	0.32	0.00	53.2
12	R	141	0.0	0.195	9.2	LOS A	1.4	9.7	0.32	0.79	48.2
Approach		297	0.0	0.195	4.3	LOS A	1.4	9.7	0.32	0.38	50.7
All Vehicles		632	0.0	0.205	5.7	NA	1.4	9.7	0.23	0.44	50.8

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

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SIDRA INTERSECTION 5.0.1.1427
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SIDRA
INTERSECTION

MOVEMENT SUMMARY

Site: Loftus St - Darling St PM FU HOSP+OTH
12_pc growth

Loftus St - Darling St PM FU HOSP+OTH
12_pc growth
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Dep. Satn w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Darling St											
1	L	136	0.0	0.263	11.1	LOS A	1.3	9.4	0.38	0.64	45.9
3	R	52	0.0	0.262	11.3	LOS A	1.3	9.4	0.38	0.32	45.7
Approach		187	0.0	0.262	11.2	LOS A	1.3	9.4	0.38	0.69	45.9
East: Loftus St (East)											
4	L	54	0.0	0.088	8.2	LOS A	0.0	0.0	0.00	0.90	49.0
5	T	115	0.0	0.088	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		169	0.0	0.088	2.6	LOS A	0.0	0.0	0.00	0.29	55.0
West: Loftus St (West)											
11	T	188	0.0	0.243	0.9	LOS A	1.8	12.6	0.34	0.00	52.8
12	R	174	0.0	0.243	9.3	LOS A	1.8	12.6	0.34	0.79	48.2
Approach		372	0.0	0.243	4.8	LOS A	1.8	12.6	0.34	0.37	50.8
All Vehicles		727	0.0	0.262	5.9	NA	1.8	12.6	0.27	0.43	50.4

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).

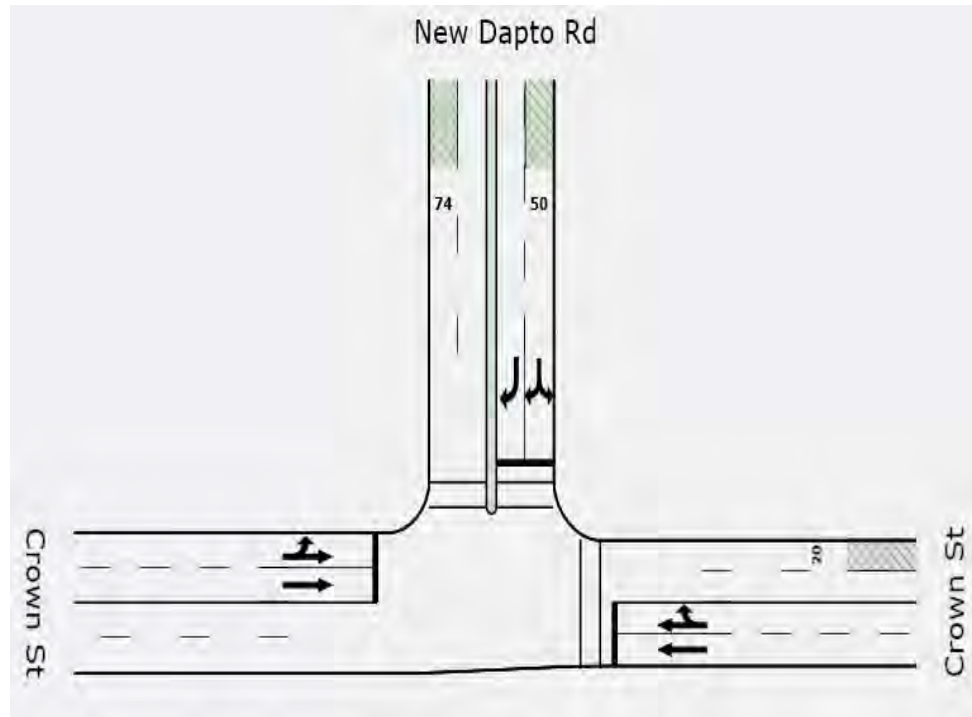
Approach LOS values are based on the worst delay for any vehicle movement.

Processed: Mohdai, 11 July 2011 2:16:59 PM
SIDRA INTERSECTION 5.0.1 1427
Project: R:\consult\11032 - Sidra modelling Wollongong - LRAIP TTW\11032_modelling\11032 sidra\11032 FU
HOSP OTH 12pc.sip
Q, TEF CONSULTING, ENTERPRISE

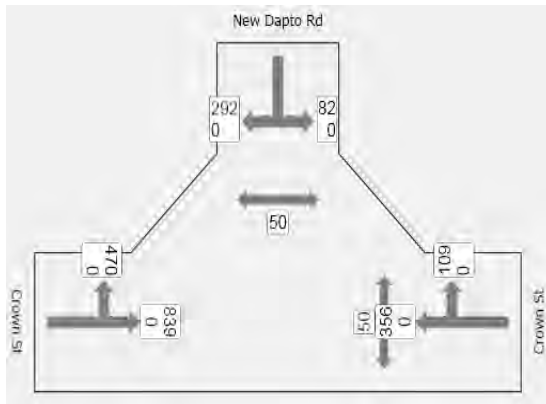
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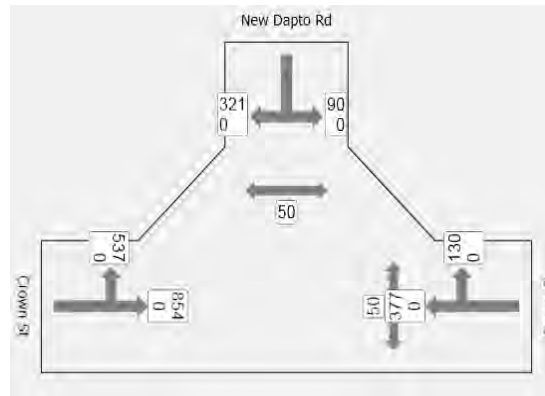
Layout



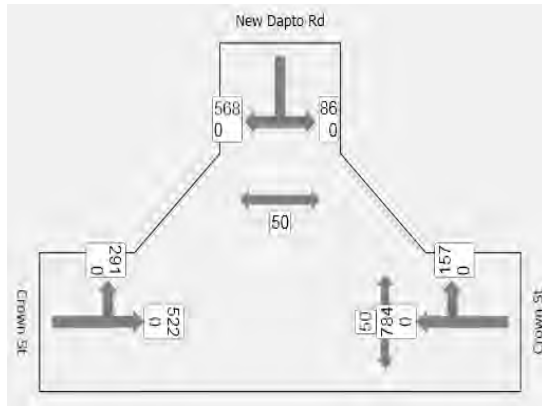
Volume Summary AM EX 12pc



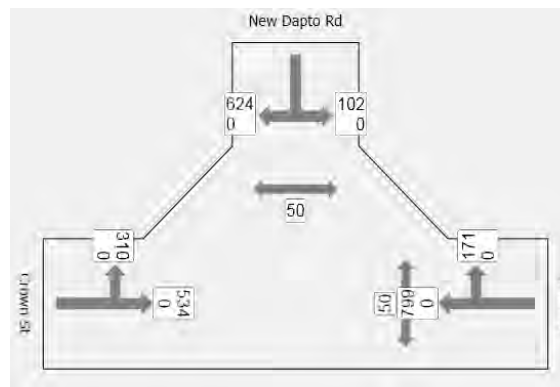
Volume Summary AM FU HOSP 12pc



Volume Summary PM EX 12pc



Volume Summary PM FU HOSP 12pc



MOVEMENT SUMMARY

Site: Crown St - New Dapto Rd AM EX 12_pc growth

Crown St - New Dapto St AM EX
12_pc growth
Signals - Fixed Time Cycle Time = 70 seconds

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/s	HV %	Dep. Sat. sat	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Crown St											
5	T	375	0.0	0.312	0.8	LOS A	1.4	9.7	0.06	0.07	58.2
6	R	115	0.0	0.394	31.7	LOS C	4.5	31.3	0.37	0.75	31.9
Approach		489	0.0	0.394	8.1	LOS A	4.5	31.3	0.26	0.23	45.8
North: New Dapto Rd											
7	L	88	0.0	0.872	52.8	LOS D	5.5	38.3	1.00	0.99	24.4
9	R	307	0.0	0.872	47.9	LOS D	13.4	93.9	1.00	1.00	25.8
Approach		394	0.0	0.871	49.0	LOS D	13.4	93.9	1.00	1.00	25.5
West: Crown St											
10	L	495	0.0	0.598	15.0	LOS B	9.2	64.2	0.47	0.77	42.5
11	T	583	0.0	1.017	52.3	LOS D	51.0	357.0	1.00	1.43	23.6
Approach		1378	0.0	1.017	39.2	LOS C	51.0	357.0	0.51	1.19	28.0
All Vehicles		2251	0.0	1.017	34.2	LOS C	51.0	357.0	0.72	0.56	30.3

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/s	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued
P3	Across E approach	53	29.3	LOS C	0.1	0.1	0.91
P5	Across N approach	53	16.5	LOS B	0.1	0.1	0.89
All Pedestrians		106	22.9				0.90

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

Processed: Monday, 11 July 2011 2:31:44 PM
SIDRA INTERSECTION 5.0.1 1427
Project: R:\consult\11032 - Sidra modeling Wollongong - U\RAP TTV\11032_modeling\11032 sidra\11032 EX 12pc.sid
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INTERSECTION

MOVEMENT SUMMARY

Site: Crown St - New Dapto Rd PM EX 12_pc
growth

Crown St - New Dapto St PM EX
12_pc growth
Signals - Fixed Time Cycle Time = 90 seconds

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Des Sat ratio	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Crown St											
5	T	825	0.0	0.558	4.3	LOS A	10.6	74.0	0.23	0.22	51.3
6	R	165	0.0	0.558	25.5	LOS B	10.6	74.0	0.67	0.66	35.1
Approach		991	0.0	0.558	8.2	LOS A	10.6	74.0	0.31	0.34	47.9
North: New Dapto Rd											
7	L	91	0.0	0.903	49.1	LOS D	13.2	92.4	1.00	0.86	25.6
9	R	568	0.0	0.904	67.5	LOS E	27.1	189.7	1.00	1.03	21.0
Approach		659	0.0	0.904	65.0	LOS E	27.1	189.7	1.00	1.01	21.6
West: Crown St											
10	L	306	0.0	0.964	26.9	LOS C	11.2	78.1	0.74	0.30	33.4
11	T	649	0.0	0.964	42.7	LOS D	30.4	212.7	1.00	1.12	25.4
Approach		955	0.0	0.964	37.3	LOS C	30.4	212.7	0.91	1.01	28.6
All Vehicles		2532	0.0	0.964	33.6	LOS C	30.4	212.7	0.70	0.75	30.7

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW)
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Queue Distance m	Prop. Queued
P3	Across E approach	53	31.3	LOS D	0.1	0.1	0.83
P5	Across N approach	53	29.6	LOS C	0.1	0.1	0.81
All Pedestrians		106	30.4				0.82

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM)
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

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SIDRA INTERSECTION v 0.1.1427
Project: R:\consult\11032 - Sidra modelling Wollongong - URAP TTW\11032_modelling\11032 sidra\11032 EX 12pc.sip
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INTERSECTION

PHASING SUMMARY

Site: Crown St - New Dapto Rd AM EX 12_pc growth

Crown St - New Dapto St AM EX
12_pc growth

Signals - Fixed Time Cycle Time = 70 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)

Phase times determined by the program

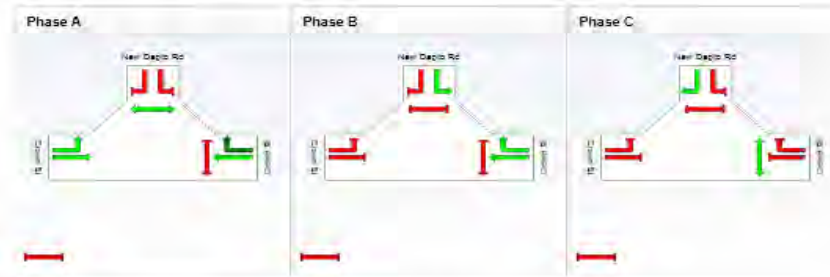
Sequence: Two-Phase

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	32	7	13
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	38	13	19
Phase Split	54 %	19 %	27 %



Processed: Monday, 11 July 2011 2:31:44 PM
SIDRA INTERSECTION 5.0.1.1421
Project: R:\consult\11032 - Sidra modelling Wollongong - URP\TTW11032_modelling\11032 sidra\11032 EX 12pc.sip
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INTERSECTION

PHASING SUMMARY

Site: Crown St - New Dapto Rd PM EX 12_pc
growth

Crown St - New Dapto St PM EX
12_pc growth

Signals - Fixed Time Cycle Time = 90 seconds

Cycle Time Option: Optimum Cycle Time (Minimum Delay)

Phase times determined by the program

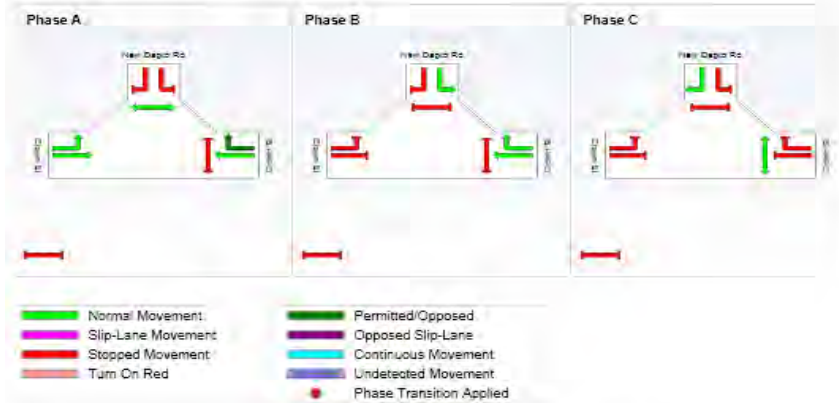
Sequence: Two-Phase

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	27	23	22
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	33	29	28
Phase Split	37 %	32 %	31 %



Processed: Monday, 11 July 2011 2:31:45 PM

SIDRA INTERSECTION 5.0.1.1427

Project: R:\consult\11032 - Sidra modelling Wollongong - URA\TTW\11032_modelling\11032 sidra\11032 EX

12pc.spc

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INTERSECTION

MOVEMENT SUMMARY

Site: Crown St - New Dapto Rd AM FU HOSP
12_pc growth Impr

Crown St - New Dapto Rd AM FU HOSP
12_pc growth
Improved
Signals - Fixed Time Cycle Time = 100 seconds (Practical Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Seg. Sat v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Crown St											
5	T	397	0.0	0.322	1.1	LOS A	2.1	14.5	0.08	0.07	57.8
6	R	137	0.0	0.607	26.4	LOS B	6.4	45.1	0.74	0.83	34.7
Approach		534	0.0	0.608	7.6	LOS A	6.4	45.1	0.25	0.26	49.4
North: New Dapto Rd											
7	L	95	0.0	0.313	32.8	LOS C	4.5	31.4	0.73	0.75	31.5
9	R	338	0.0	0.844	56.2	LOS D	18.9	132.6	1.00	0.94	23.5
Approach		433	0.0	0.844	51.0	LOS D	18.9	132.6	0.94	0.90	24.9
West: Crown St											
10	L	565	0.0	0.579	11.8	LOS A	7.3	51.4	0.22	0.72	45.3
11	T	899	0.0	0.876	8.8	LOS A	24.4	170.6	0.51	0.52	46.4
Approach		1464	0.0	0.876	9.9	LOS A	24.4	170.6	0.40	0.59	46.0
All Vehicles		2431	0.0	0.876	16.6	LOS B	24.4	170.6	0.46	0.58	40.5

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued
P3	Across E approach	53	26.1	LOS D	0.1	0.1	0.85
P5	Across N approach	53	15.7	LOS B	0.1	0.1	0.56
All Pedestrians		106	25.9				0.71

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

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Project: S:\consult\11032 - Sidra modelling Wollongong - URaP TTW\11032_modelling\11032 sidra\11032 FU
HOSP 12pc.sip
0: TEF CONSULTING, ENTERPRISE

SIDRA
INTERSECTION

MOVEMENT SUMMARY

Site: Crown St - New Dapto Rd PM FU HOSP
12_pc growth impr

Crown St - New Dapto St PM FU HOSP
12_pc growth
Improved
Signals - Actuated Cycle Time = 95 seconds

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Crown St											
5	T	841	0.0	0.784	10.2	LOS A	17.1	119.8	0.54	0.51	44.6
6	R	180	0.0	0.784	43.2	LOS D	12.9	90.1	0.93	0.99	27.8
Approach		1021	0.0	0.784	16.0	LOS B	17.1	119.8	0.61	0.59	40.3
North: New Dapto Rd											
7	L	107	0.0	0.762	31.4	LOS C	10.1	70.9	0.74	0.79	32.1
9	R	657	0.0	0.761	36.6	LOS C	21.8	152.3	0.63	0.85	29.8
Approach		764	0.0	0.760	35.8	LOS C	21.8	152.3	0.66	0.84	30.1
West: Crown St											
10	L	326	0.0	0.591	30.6	LOS C	12.3	86.4	0.73	0.81	32.6
11	T	562	0.0	0.969	35.2	LOS C	29.9	209.0	1.00	1.00	29.0
Approach		888	0.0	0.969	33.5	LOS C	29.9	209.0	0.90	0.93	30.2
All Vehicles		2674	0.0	0.969	27.5	LOS B	29.9	209.0	0.78	0.78	33.4

Level of Service (Aver. Int. Delay): LOS B - Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian Distance m		Effective Stop Rate per ped
P3	Across E approach	53	41.7	LOS E	0.1	0.1	0.94
P5	Across N approach	53	41.7	LOS E	0.1	0.1	0.94
All Pedestrians		106	41.7				0.94

Level of Service (Aver. Int. Delay): LOS E - Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

Processed: Wednesday, 13 July 2011 12:21:52 PM
SIDRA INTERSECTION 5 0.5.1510
Project: S:\consult\11032 - Sidra modelling Wollongong - URAP TTW\11032_modelling\11032 sidra\11032 FU
HOSP 12pc.sip
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INTERSECTION

PHASING SUMMARY

Site: Crown St - New Dapto Rd AM FU HOSP
12_pc growth Impr

Crown St - New Dapto St AM FU HOSP

12_pc growth

Improved

Signals - Fixed Time Cycle Time = 100 seconds (Practical Cycle Time)

Phase times determined by the program

Green Split Priority for Coordinated Movements applies

Sequence: Two-Phase

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	54	6	22
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	60	12	28
Phase Split	60 %	12 %	28 %

MINIMUM GREEN 20 SEC FOR RHT

ALLOW LHT IN PHASE C



Processed: Wednesday, 13 July 2011 12:06:37 PM
SIDRA INTERSECTION 5.0.5.1510
Project: S:\consult\11032 - Sidra modelling Wollongong - URA\11032 modelling\11032 sidra\11032 FU HOSP 12pc.sip
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INTERSECTION

PHASING SUMMARY

Site: Crown St - New Dapto Rd PM FU HOSP
12_pc growth Impr

Crown St - New Dapto St PM FU HOSP

12_pc growth

Improved

Signals - Actuated Cycle Time = 95 seconds

Phase times determined by the program

Green Split Priority for Coordinated Movements applies

Sequence: Two-Phase

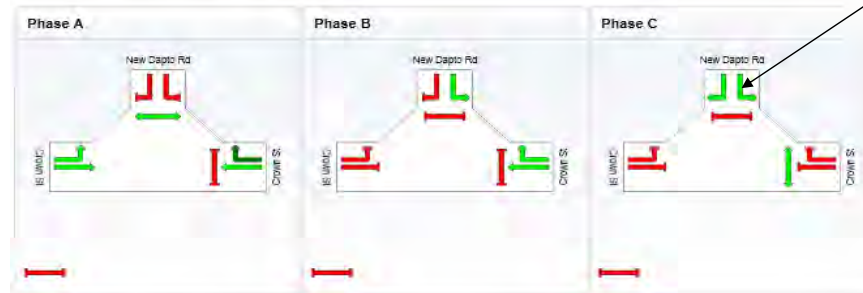
Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	29	13	35
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	35	19	41
Phase Split	37 %	20 %	43 %

ALLOW LHT IN PHASE C

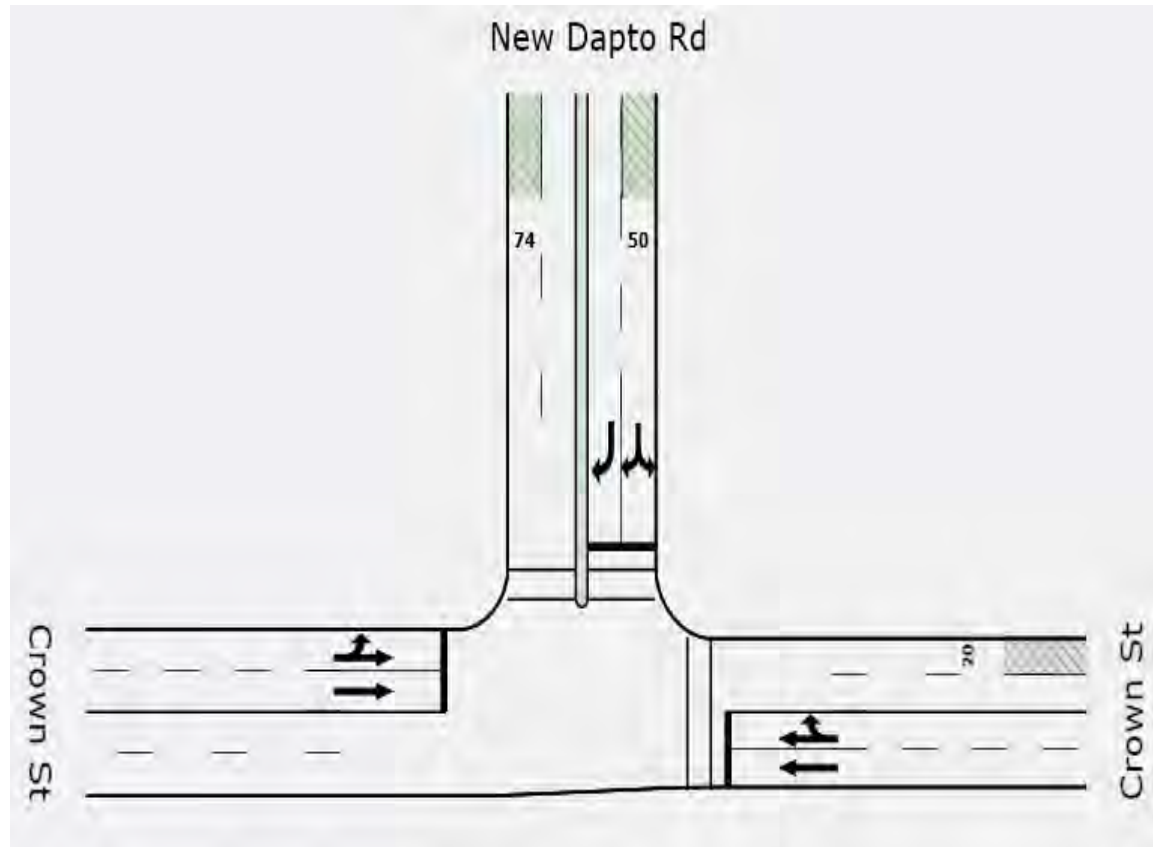


ACTUATED SIGNAL DATA		
	Major Movement	Minor Movement
Maximum Green Time	50.0 sec	30.0 sec
Gap Setting	2.5 sec	2.0 sec
Effective Detection Zone Length	4.5 m	4.5 m
Help		OK

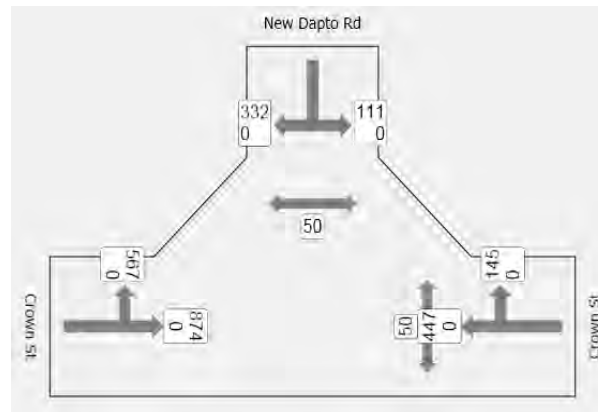
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SIDRA INTERSECTION 5.0.5.1510
Project: S:\consult\11032 - Sidra modelling Wollongong - URA\11032_modelling\11032 sidra\11032 FU HOSP 12pc.sip
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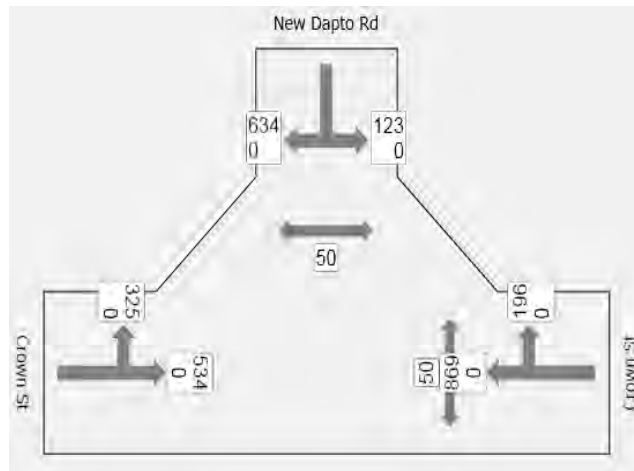
Layout



Volume Summary AM FU HOSP+OTH 12pc



Volume Summary PM FU HOSP+OTH 12pc



MOVEMENT SUMMARY

Site: Crown St - New Dapto Rd AM FU HOSP
+OTH 12_pc growth Impr

Crown St - New Dapto St AM FU HOSP+OTH
12_pc growth

Improved

Signals - Fixed Time Cycle Time = 110 seconds (Practical Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Seg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Crown St											
5	T	471	0.0	0.379	1.3	LOS A	2.8	19.9	0.08	0.07	57.5
6	R	153	0.0	0.692	26.6	LOS B	7.5	52.8	0.71	0.87	34.5
Approach		623	0.0	0.692	7.6	LOS A	7.5	52.8	0.24	0.27	49.4
North: New Dapto Rd											
7	L	117	0.0	0.700	46.2	LOS D	9.8	68.9	0.86	0.83	26.4
9	R	349	0.0	0.701	50.7	LOS D	16.0	112.1	0.96	0.85	25.0
Approach		466	0.0	0.701	49.6	LOS D	16.0	112.1	0.93	0.85	25.3
West: Crown St											
10	L	597	0.0	0.595	11.1	LOS A	6.9	48.5	0.18	0.71	45.9
11	T	820	0.0	0.873	7.2	LOS A	22.6	158.4	0.43	0.43	48.4
Approach		1517	0.0	0.873	8.6	LOS A	22.6	158.4	0.33	0.54	47.4
All Vehicles		2606	0.0	0.873	15.8	LOS B	22.6	158.4	0.42	0.53	41.4

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).

Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on average delay for all vehicle movements.



Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued
P3	Across E approach	53	36.5	LOS D	0.1	0.1	0.84
P5	Across N approach	53	15.8	LOS B	0.1	0.1	0.54
All Pedestrians		106	27.1				0.69

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).

Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

Processed: Wednesday, 13 July 2011 12:35:03 PM

SIDRA INTERSECTION 5.0.5.1510

Project: S:\consult\11032 - Sidra modelling Wollongong - URaP TTM\11032_modelling\11032 sidra\11032 FU

HOSP OTH 12pc.ap

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INTERSECTION

MOVEMENT SUMMARY

Site: Crown St - New Dapto Rd PM FU HOSP
+OTH 12_pc growth impr

Crown St - New Dapto St PM FU HOSP+OTH
12_pc growth
Improved

Signals - Fixed Time Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deq Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East Crown St											
5	T	915	0.0	0.857	10.1	LOS A	19.9	139.2	0.57	0.58	44.7
6	R	206	0.0	0.857	39.5	LOS C	12.3	85.8	0.98	1.03	29.1
Approach		1121	0.0	0.857	15.5	LOS B	19.9	139.2	0.65	0.67	40.7
North New Dapto Rd											
7	L	129	0.0	0.835	40.4	LOS C	13.1	91.8	0.83	0.93	28.4
9	R	667	0.0	0.836	41.5	LOS C	21.5	150.2	0.95	0.94	26.0
Approach		797	0.0	0.836	41.3	LOS C	21.5	150.2	0.93	0.94	26.0
West Crown St											
10	L	342	0.0	0.540	22.7	LOS B	9.9	69.5	0.65	0.79	36.9
11	T	562	0.0	0.845	20.2	LOS B	20.7	144.9	0.88	0.84	36.6
Approach		904	0.0	0.845	21.1	LOS B	20.7	144.9	0.79	0.82	36.7
All Vehicles		2822	0.0	0.857	24.6	LOS B	21.5	150.2	0.77	0.80	35.0

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).

Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	23.3	LOS C	0.1	0.76	0.76
P5	Across N approach	53	24.0	LOS C	0.1	0.76	0.76
All Pedestrians		106	23.6			0.77	0.77

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).

Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).



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SIDRA INTERSECTION 5.0.5.1510
Project: S:\consult\11032 - Sidra modelling Weillongong - URaP TTW\11032_modelling\11032 sidra\11032 FU HOSP OTH 12pc.sip
D. TEF CONSULTING ENTERPRISE

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PHASING SUMMARY

Crown St - New Dapto St AM FU HOSP+OTH

12_pc growth

Improved

Signals - Fixed Time Cycle Time = 110 seconds (Practical Cycle Time)

Phase times determined by the program

Green Split Priority for Coordinated Movements applies

Sequence: Two-Phase

Input Sequence: A, B, C

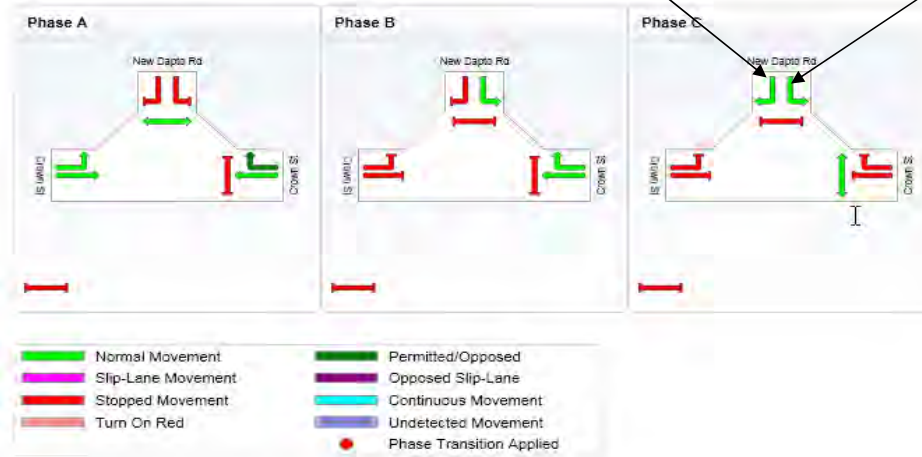
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	61	6	25
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	67	12	31
Phase Split	61 %	11 %	28 %

MINIMUM GREEN 20 SEC FOR RHT

ALLOW LHT IN PHASE C



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SIDRA INTERSECTION 5.0.5.1510

Project: S:\consult\11032 - Sidra modelling Wollongong - UraP TTW\11032_modelling\11032 sidra\11032 FU

HOSP OTH 12pc.sip

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PHASING SUMMARY

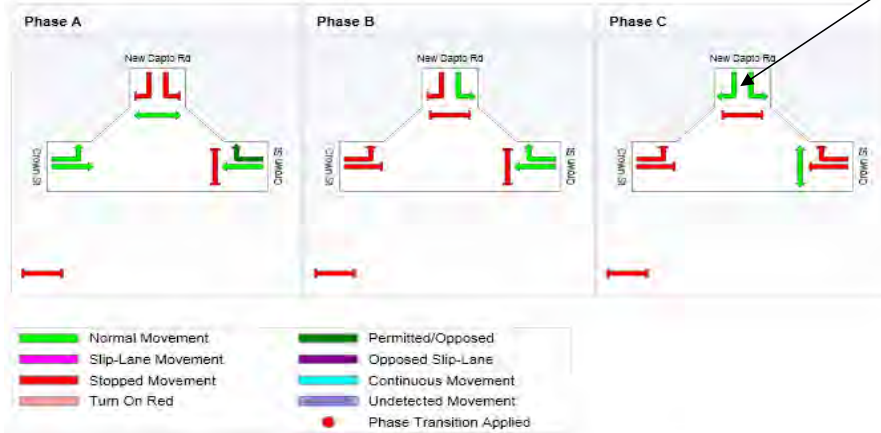
Crown St - New Dapto St PM FU HOSP+OTH
12_pc growth
Improved

Signals - Fixed Time Cycle Time = 90 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Three-Phase
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	28	8	26
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	34	14	32
Phase Split	43 %	18 %	40 %



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SIDRA INTERSECTION 5.0.5.1510
Project: S:\consult\11032 - Sidra modelling\Wellongong - URA\11032_modelling\11032 sidra\11032 FU
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