Appendix J

Traffic

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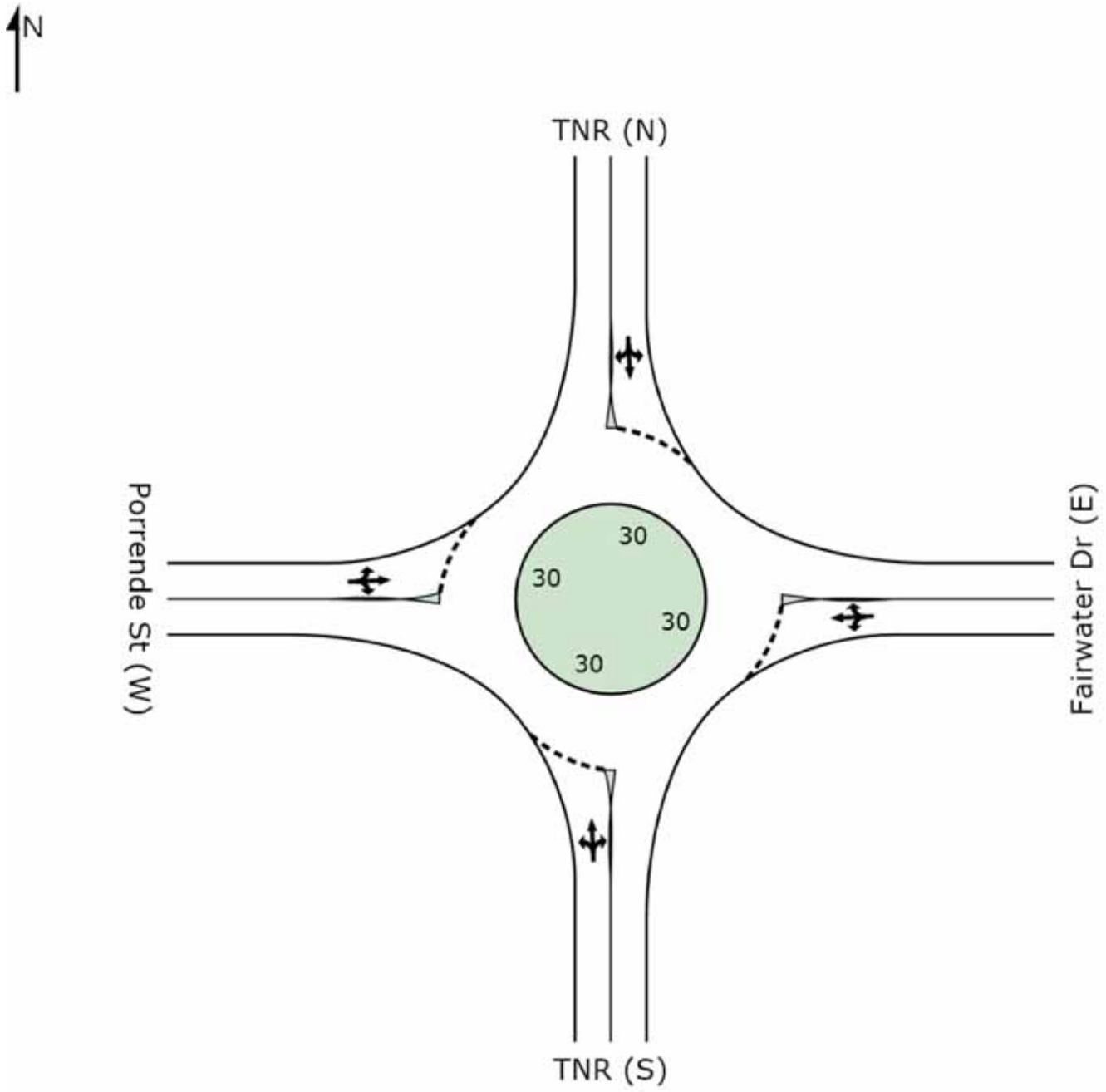
Appendix A SIDRA Results and Intersection Layouts

Appendix A1

2011 Existing SIDRA Results and Intersection Layout (AM and PM Peak)


N
TNR (N)
Porrende St (W)
Fairwater Dr (E)
TNR (S)
30
30
30
30

MOVEMENT SUMMARY

Site: 2011_Fairwater Drive_AM

TNR / Porrende St / Fairwater Dr
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	42	5.0	0.529	7.4	LOS A	4.3	31.6	0.61	0.63	48.5
2	T	488	8.0	0.529	6.2	LOS A	4.3	31.6	0.61	0.56	48.6
3	R	94	1.0	0.529	13.0	LOS A	4.3	31.6	0.61	0.81	46.2
Approach		624	6.7	0.529	7.3	LOS A	4.3	31.6	0.61	0.60	48.2
East: Fairwater Dr (E)											
4	L	109	7.0	0.321	9.5	LOS A	2.2	15.8	0.76	0.78	47.1
5	T	88	1.0	0.321	8.1	LOS A	2.2	15.8	0.76	0.75	47.0
6	R	72	3.0	0.321	15.1	LOS B	2.2	15.8	0.76	0.87	44.2
Approach		269	4.0	0.321	10.5	LOS A	2.2	15.8	0.76	0.79	46.2
North: TNR (N)											
7	L	53	14.0	0.510	7.0	LOS A	4.1	30.6	0.49	0.57	49.2
8	T	515	8.0	0.510	5.6	LOS A	4.1	30.6	0.49	0.49	49.5
9	R	83	13.0	0.510	12.6	LOS A	4.1	30.6	0.49	0.80	46.5
Approach		651	9.1	0.510	6.6	LOS A	4.1	30.6	0.49	0.54	49.1
West: Porrende St (W)											
10	L	153	7.0	0.284	9.7	LOS A	1.9	14.2	0.77	0.79	47.2
11	T	59	5.0	0.284	8.5	LOS A	1.9	14.2	0.77	0.75	47.1
12	R	11	20.0	0.284	15.7	LOS B	1.9	14.2	0.77	0.91	44.1
Approach		222	7.1	0.284	9.7	LOS A	1.9	14.2	0.77	0.79	47.0
All Vehicles		1766	7.2	0.529	7.8	LOS A	4.3	31.6	0.61	0.63	48.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2011_Fairwater Drive_PM

TNR / Porrende St / Fairwater Dr
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	57	4.0	0.671	8.3	LOS A	7.2	51.7	0.74	0.70	47.6
2	T	544	4.0	0.671	7.1	LOS A	7.2	51.7	0.74	0.67	47.4
3	R	204	1.0	0.671	14.0	LOS A	7.2	51.7	0.74	0.81	45.3
Approach		805	3.2	0.671	8.9	LOS A	7.2	51.7	0.74	0.71	46.9
East: Fairwater Dr (E)											
4	L	112	2.0	0.340	10.6	LOS A	2.6	18.4	0.91	0.87	46.4
5	T	75	0.0	0.340	9.3	LOS A	2.6	18.4	0.91	0.86	46.0
6	R	32	0.0	0.340	16.3	LOS B	2.6	18.4	0.91	0.91	43.5
Approach		218	1.0	0.340	11.0	LOS A	2.6	18.4	0.91	0.87	45.8
North: TNR (N)											
7	L	152	3.0	0.804	12.7	LOS A	13.0	93.4	0.93	0.94	44.9
8	T	589	4.0	0.804	11.5	LOS A	13.0	93.4	0.93	0.93	45.1
9	R	160	2.0	0.804	18.4	LOS B	13.0	93.4	0.93	0.97	42.1
Approach		901	3.5	0.804	12.9	LOS A	13.0	93.4	0.93	0.94	44.5
West: Porrende St (W)											
10	L	99	4.0	0.364	10.8	LOS A	2.7	19.4	0.89	0.87	46.7
11	T	119	1.0	0.364	9.5	LOS A	2.7	19.4	0.89	0.86	46.3
12	R	29	0.0	0.364	16.4	LOS B	2.7	19.4	0.89	0.92	43.5
Approach		247	2.1	0.364	10.8	LOS A	2.7	19.4	0.89	0.87	46.1
All Vehicles		2172	3.0	0.804	11.0	LOS A	13.0	93.4	0.85	0.84	45.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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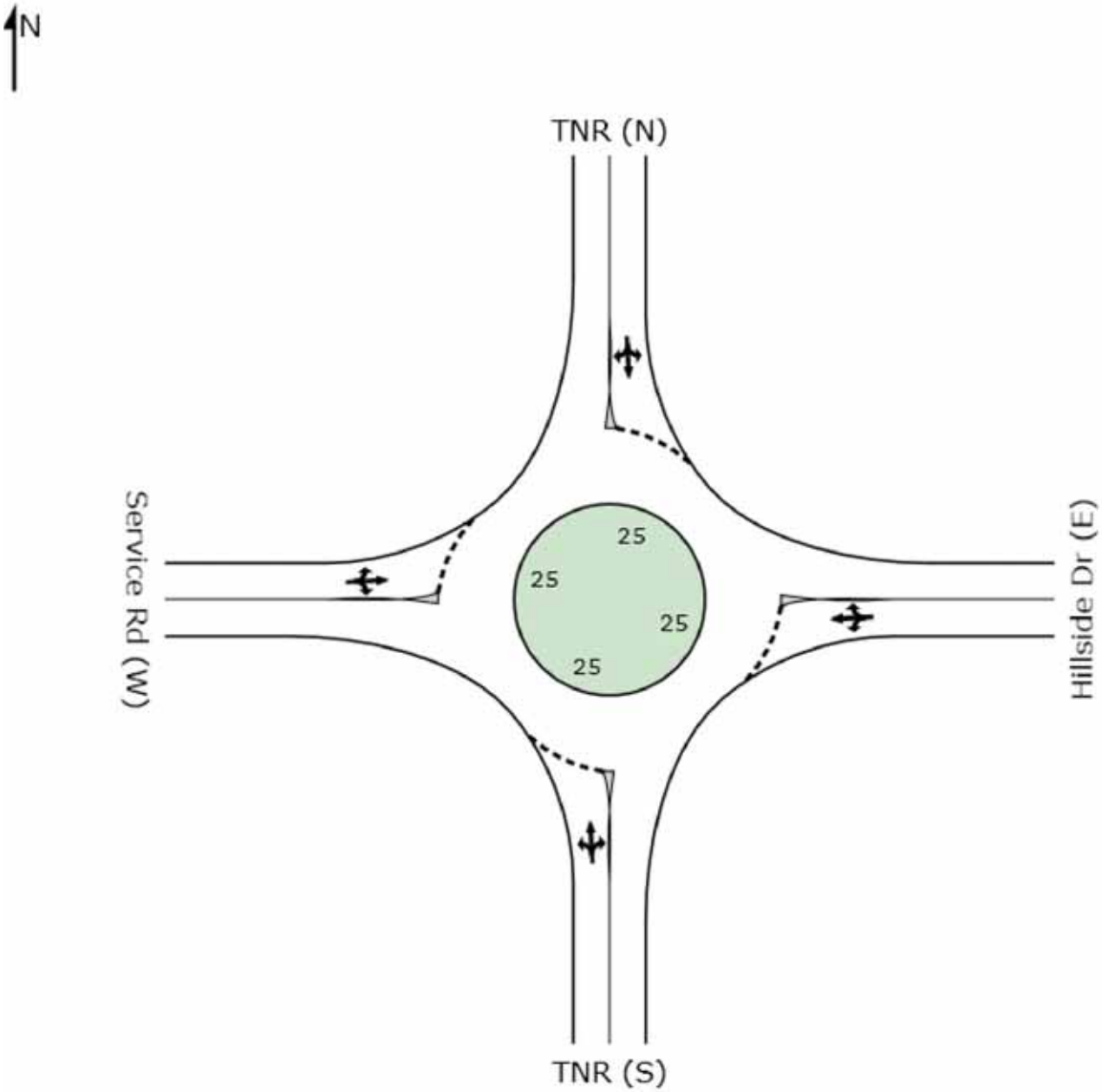
N
TNR (N)
Service Rd (W)
Hillside Dr (E)
TNR (S)
25
25
25
25

MOVEMENT SUMMARY

Site: 2011_Hillside Drive_AM

TNR / Hillside Dr / Service Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	5	0.0	0.513	6.4	LOS A	4.6	34.2	0.37	0.52	49.6
2	T	682	7.0	0.513	5.5	LOS A	4.6	34.2	0.37	0.44	50.1
3	R	42	8.0	0.513	11.9	LOS A	4.6	34.2	0.37	0.79	46.5
Approach		729	7.0	0.513	5.9	LOS A	4.6	34.2	0.37	0.46	49.9
East: Hillside Dr (E)											
4	L	122	3.0	0.222	9.4	LOS A	1.3	9.5	0.66	0.72	47.2
5	T	5	0.0	0.222	8.2	LOS A	1.3	9.5	0.66	0.68	47.2
6	R	69	2.0	0.222	14.6	LOS B	1.3	9.5	0.66	0.83	44.0
Approach		197	2.6	0.222	11.2	LOS A	1.3	9.5	0.66	0.76	46.0
North: TNR (N)											
7	L	26	8.0	0.405	6.4	LOS A	2.9	22.2	0.24	0.52	50.3
8	T	557	9.0	0.405	5.3	LOS A	2.9	22.2	0.24	0.42	51.1
9	R	5	0.0	0.405	11.5	LOS A	2.9	22.2	0.24	0.84	46.5
Approach		588	8.9	0.405	5.4	LOS A	2.9	22.2	0.24	0.43	51.0
West: Service Rd (W)											
10	L	5	0.0	0.022	10.5	LOS A	0.1	0.9	0.73	0.65	46.5
11	T	5	0.0	0.022	9.4	LOS A	0.1	0.9	0.73	0.62	46.9
12	R	5	0.0	0.022	15.7	LOS B	0.1	0.9	0.73	0.74	43.3
Approach		16	0.0	0.022	11.9	LOS A	0.1	0.9	0.73	0.67	45.5
All Vehicles		1531	7.1	0.513	6.4	LOS A	4.6	34.2	0.36	0.49	49.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2011_Hillside Drive_PM

TNR / Hillside Dr / Service Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	5	0.0	0.403	6.0	LOS A	3.3	24.0	0.17	0.50	50.7
2	T	532	6.0	0.403	5.0	LOS A	3.3	24.0	0.17	0.39	51.7
3	R	107	3.0	0.403	11.3	LOS A	3.3	24.0	0.17	0.83	46.5
Approach		644	5.5	0.403	6.1	LOS A	3.3	24.0	0.17	0.47	50.7
East: Hillside Dr (E)											
4	L	105	4.0	0.187	11.4	LOS A	1.2	8.9	0.81	0.81	45.7
5	T	5	0.0	0.187	10.2	LOS A	1.2	8.9	0.81	0.79	46.0
6	R	14	8.0	0.187	16.8	LOS B	1.2	8.9	0.81	0.88	42.7
Approach		124	4.3	0.187	12.0	LOS A	1.2	8.9	0.81	0.81	45.3
North: TNR (N)											
7	L	57	2.0	0.625	6.9	LOS A	5.9	42.8	0.47	0.56	49.1
8	T	815	5.0	0.625	5.9	LOS A	5.9	42.8	0.47	0.49	49.4
9	R	5	0.0	0.625	12.2	LOS A	5.9	42.8	0.47	0.78	46.5
Approach		877	4.8	0.625	6.0	LOS A	5.9	42.8	0.47	0.49	49.4
West: Service Rd (W)											
10	L	5	0.0	0.019	9.2	LOS A	0.1	0.7	0.62	0.61	47.7
11	T	5	0.0	0.019	8.1	LOS A	0.1	0.7	0.62	0.56	47.7
12	R	5	0.0	0.019	14.4	LOS A	0.1	0.7	0.62	0.74	44.3
Approach		16	0.0	0.019	10.6	LOS A	0.1	0.7	0.62	0.64	46.5
All Vehicles		1661	5.0	0.625	6.5	LOS A	5.9	42.8	0.38	0.51	49.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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N
TNR (N)
115
Cobbitty Rd (W)
115
115
115
TNR (S)

MOVEMENT SUMMARY

Site: 2011_Cobbitty Rd (W)_AM

TNR / Cobbitty Rd (W)
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	218	9.0	0.125	8.4	LOS A	0.0	0.0	0.00	0.67	49.0
2	T	533	6.0	0.284	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		751	6.9	0.284	2.5	NA	0.0	0.0	0.00	0.19	56.3
North: TNR (N)											
8	T	391	10.0	0.213	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
9	R	224	11.0	0.336	14.0	LOS A	1.8	13.5	0.65	0.93	43.5
Approach		615	10.4	0.336	5.1	NA	1.8	13.5	0.24	0.34	52.7
West: Cobbitty Rd (W)											
10	L	391	5.0	0.425	16.9	LOS B	3.8	27.6	0.76	0.93	51.7
12	R	187	5.0	0.480	24.3	LOS B	2.4	17.2	0.84	1.04	44.7
Approach		578	5.0	0.480	19.3	LOS B	3.8	27.6	0.78	0.97	49.2
All Vehicles		1943	7.4	0.480	8.3	NA	3.8	27.6	0.31	0.47	52.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2011_Cobbitty Rd (W)_PM

TNR / Cobbitty Rd (W)
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	146	4.0	0.081	8.3	LOS A	0.0	0.0	0.00	0.67	49.0
2	T	419	7.0	0.225	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		565	6.2	0.225	2.1	NA	0.0	0.0	0.00	0.17	56.7
North: TNR (N)											
8	T	755	4.0	0.397	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
9	R	308	3.0	0.346	11.7	LOS A	1.9	14.0	0.58	0.84	45.4
Approach		1063	3.7	0.397	3.4	NA	1.9	14.0	0.17	0.24	54.9
West: Cobbitty Rd (W)											
10	L	168	6.0	0.156	13.9	LOS A	1.0	7.1	0.60	0.73	55.3
12	R	128	8.0	0.538	34.7	LOS C	2.4	17.6	0.91	1.07	37.6
Approach		297	6.9	0.538	22.9	LOS B	2.4	17.6	0.74	0.88	46.0
All Vehicles		1925	4.9	0.538	6.0	NA	2.4	17.6	0.21	0.32	53.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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N
TNR (N)
Belmore Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2011_Belmore Rd_AM

TNR / Belmore Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	5	0.0	0.336	8.2	LOS A	0.0	0.0	0.00	1.09	49.0
2	T	625	6.0	0.336	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		631	5.9	0.336	0.1	NA	0.0	0.0	0.00	0.01	59.9
North: TNR (N)											
8	T	446	11.0	0.253	5.3	LOS A	3.1	23.6	0.76	0.00	47.9
9	R	5	0.0	0.253	13.8	LOS A	3.1	23.6	0.76	1.06	46.8
Approach		452	10.9	0.253	5.4	NA	3.1	23.6	0.76	0.01	47.9
West: Belmore Rd (W)											
10	L	5	0.0	0.024	17.5	LOS B	0.1	0.6	0.66	0.82	50.6
12	R	5	0.0	0.024	17.4	LOS B	0.1	0.6	0.66	0.90	51.1
Approach		11	0.0	0.024	17.5	LOS B	0.1	0.6	0.66	0.86	50.9
All Vehicles		1093	7.9	0.336	2.4	NA	3.1	23.6	0.32	0.02	54.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2011_Belmore Rd_PM

TNR / Belmore Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	5	0.0	0.300	8.2	LOS A	0.0	0.0	0.00	1.08	49.0
2	T	551	8.0	0.300	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		556	7.9	0.300	0.1	NA	0.0	0.0	0.00	0.01	59.9
North: TNR (N)											
8	T	789	4.0	0.422	6.6	LOS A	7.9	56.8	0.89	0.00	46.3
9	R	5	0.0	0.422	15.0	LOS B	7.9	56.8	0.89	1.13	46.2
Approach		795	4.0	0.422	6.6	NA	7.9	56.8	0.89	0.01	46.3
West: Belmore Rd (W)											
10	L	5	0.0	0.031	19.9	LOS B	0.1	0.7	0.71	0.82	48.3
12	R	5	0.0	0.031	19.7	LOS B	0.1	0.7	0.71	0.93	48.7
Approach		11	0.0	0.031	19.8	LOS B	0.1	0.7	0.71	0.87	48.5
All Vehicles		1361	5.6	0.422	4.0	NA	7.9	56.8	0.52	0.02	51.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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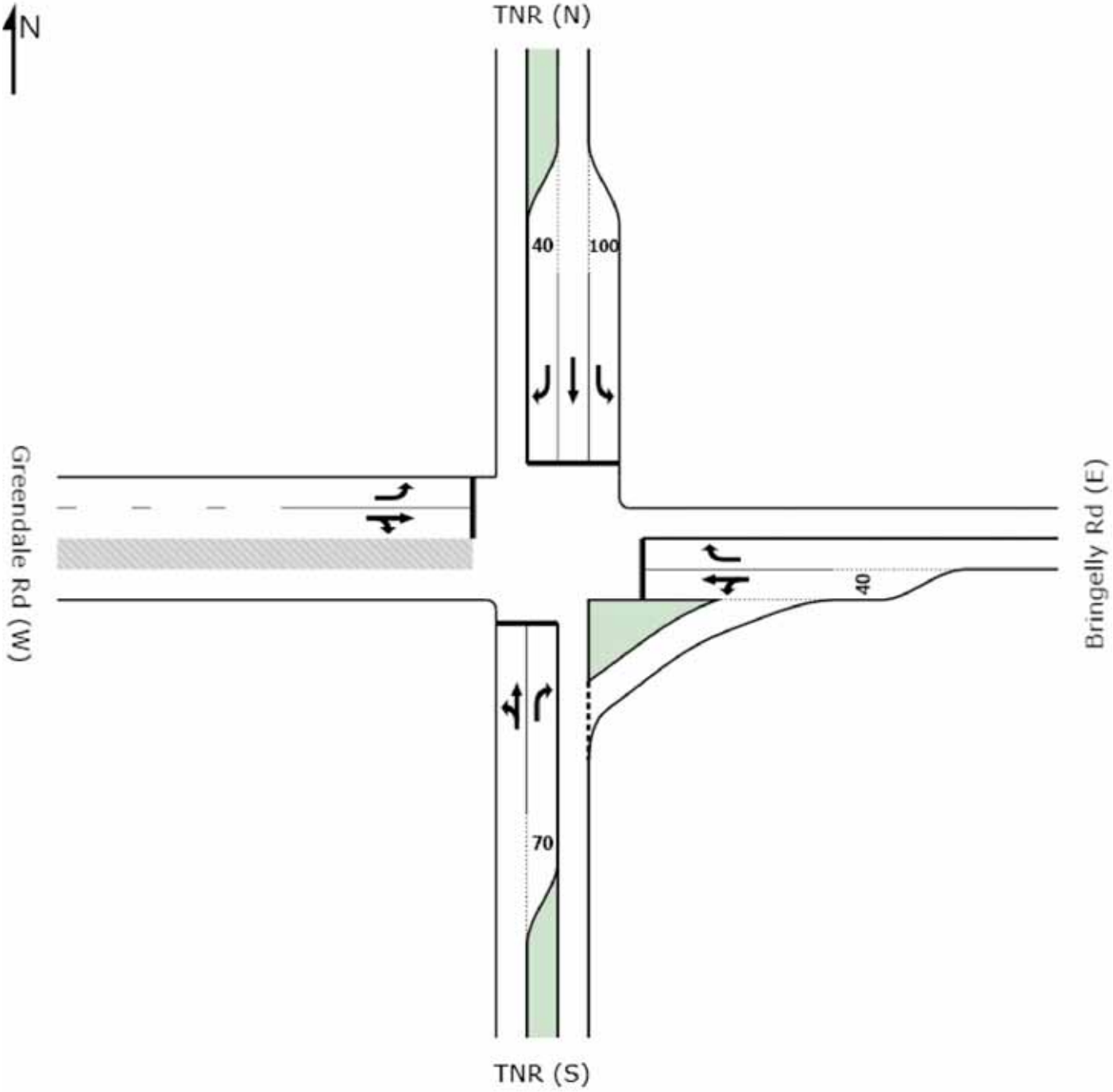
N
TNR (N)
40
100
Greendale Rd (W)
Bringelly Rd (E)
40
70
TNR (S)

MOVEMENT SUMMARY

Site: 2011_Bringelly Rd_AM

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 70 seconds (Optimum Cycle Time - Minimum Delay)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	23	14.0	0.577	17.3	LOS B	9.7	71.7	0.53	0.98	42.7
11	T	546	6.0	0.577	8.7	LOS A	9.7	71.7	0.53	0.48	46.3
12	R	42	8.0	0.119	21.3	LOS B	0.9	6.5	0.62	0.74	37.9
Approach		612	6.4	0.577	9.9	LOS A	9.7	71.7	0.54	0.51	45.5
East: Bringelly Rd (E)											
1	L	45	9.0	0.181	23.5	LOS B	1.5	10.7	0.82	0.75	37.2
2	T	21	0.0	0.181	15.4	LOS B	1.5	10.7	0.82	0.63	38.1
3	R	120	11.0	0.542	41.3	LOS C	4.1	31.4	0.98	0.79	28.2
Approach		186	9.3	0.542	34.0	LOS C	4.1	31.4	0.92	0.76	30.9
North: TNR (N)											
4	L	185	8.0	0.242	17.8	LOS B	3.3	24.9	0.56	0.76	40.4
5	T	380	12.0	0.397	7.7	LOS A	5.3	41.2	0.44	0.38	47.9
6	R	24	35.0	0.131	25.5	LOS B	0.6	5.2	0.68	0.74	35.8
Approach		589	11.7	0.397	11.6	LOS A	5.3	41.2	0.49	0.51	44.7
West: Greendale Rd (W)											
7	L	12	27.0	0.087	42.9	LOS D	0.4	3.4	0.95	0.68	27.7
8	T	65	5.0	0.571	36.2	LOS C	3.2	23.9	1.00	0.79	28.2
9	R	25	8.0	0.571	44.7	LOS D	3.2	23.9	1.00	0.79	28.0
Approach		102	8.2	0.571	39.1	LOS C	3.2	23.9	0.99	0.78	28.1
All Vehicles		1489	9.0	0.577	15.6	LOS B	9.7	71.7	0.60	0.56	41.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

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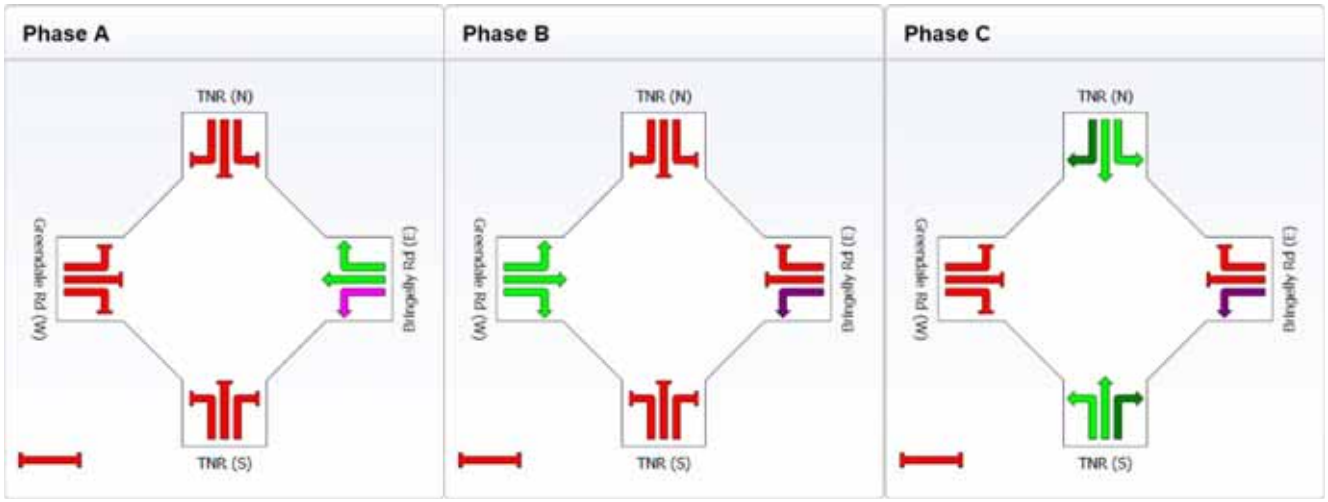
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 70 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	9	6	37
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	15	12	43
Phase Split	21 %	17 %	61 %



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MOVEMENT SUMMARY

Site: 2011_Bringelly Rd_PM

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 75 seconds (Optimum Cycle Time - Minimum Delay)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	22	5.0	0.461	17.3	LOS B	7.5	54.4	0.48	0.98	42.3
11	T	429	5.0	0.461	9.0	LOS A	7.5	54.4	0.48	0.42	46.2
12	R	35	3.0	0.162	29.2	LOS C	1.0	6.9	0.75	0.75	33.2
Approach		486	4.9	0.461	10.8	LOS A	7.5	54.4	0.50	0.47	44.8
East: Bringelly Rd (E)											
1	L	73	3.0	0.384	22.5	LOS B	2.5	17.9	0.88	0.79	38.0
2	T	54	4.0	0.384	14.6	LOS B	2.5	17.9	0.88	0.70	38.9
3	R	196	4.0	0.678	42.7	LOS D	7.2	52.5	0.99	0.85	27.6
Approach		322	3.8	0.678	33.5	LOS C	7.2	52.5	0.95	0.81	31.0
North: TNR (N)											
4	L	171	5.0	0.229	18.6	LOS B	3.3	24.1	0.56	0.76	39.8
5	T	673	4.0	0.681	10.6	LOS A	14.3	103.8	0.63	0.56	44.4
6	R	22	14.0	0.087	23.5	LOS B	0.5	3.9	0.63	0.73	36.7
Approach		865	4.5	0.681	12.5	LOS A	14.3	103.8	0.61	0.60	43.2
West: Greendale Rd (W)											
7	L	17	6.0	0.118	45.1	LOS D	0.6	4.5	0.96	0.69	26.8
8	T	33	3.0	0.367	37.9	LOS C	2.0	14.8	0.98	0.73	27.4
9	R	22	5.0	0.367	46.4	LOS D	2.0	14.8	0.98	0.75	27.2
Approach		72	4.3	0.367	42.2	LOS C	2.0	14.8	0.98	0.73	27.2
All Vehicles		1745	4.4	0.681	17.1	LOS B	14.3	103.8	0.66	0.61	39.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

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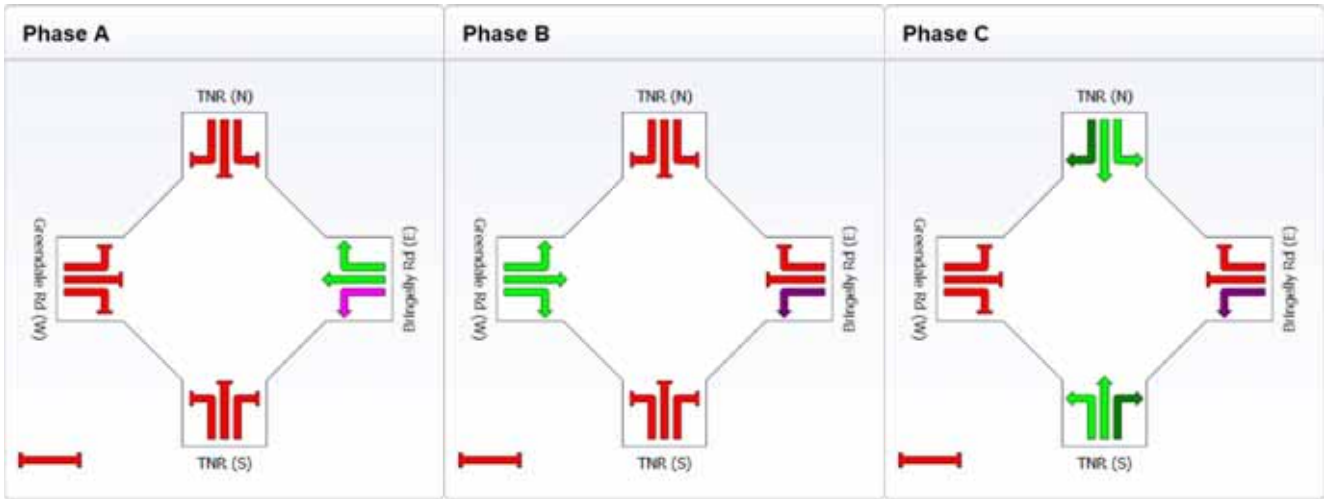
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 75 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	12	6	39
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	18	12	45
Phase Split	24 %	16 %	60 %



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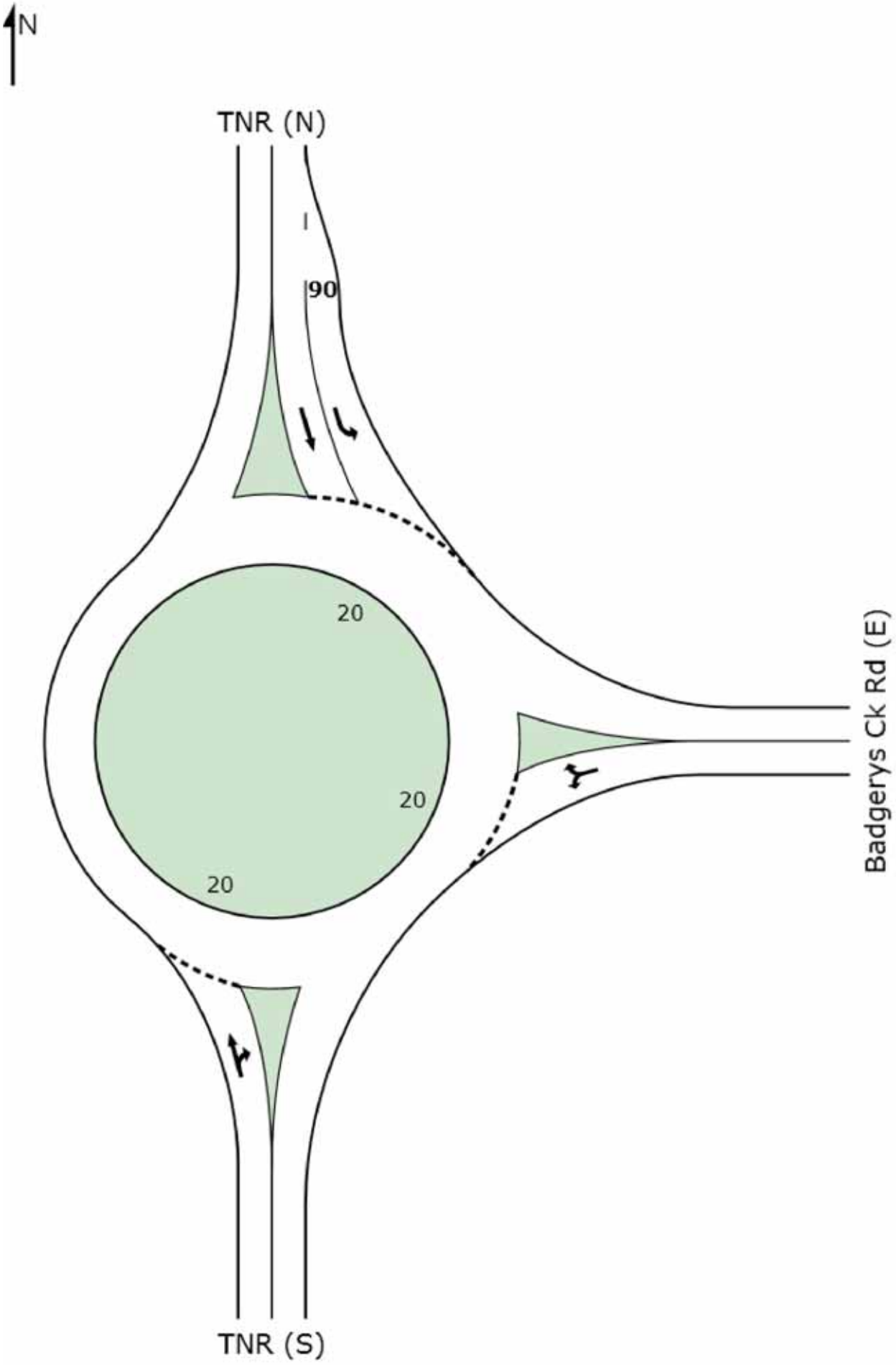
N
TNR (N)
90
20
20
20
Badgerys Ck Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2011_Badgerys Ck Rd_AM

TNR / Badgerys Ck Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	488	6.0	0.430	9.2	LOS A	3.7	26.9	0.07	0.54	61.2
3	R	237	5.0	0.430	14.8	LOS B	3.7	26.9	0.07	0.84	54.8
Approach		725	5.7	0.430	11.0	LOS A	3.7	26.9	0.07	0.64	58.9
East: Badgerys Ck Rd (E)											
4	L	94	21.0	0.134	10.2	LOS A	0.7	6.0	0.62	0.70	47.4
6	R	5	20.0	0.134	14.8	LOS B	0.7	6.0	0.62	0.81	44.1
Approach		99	20.9	0.134	10.4	LOS A	0.7	6.0	0.62	0.71	47.2
North: TNR (N)											
7	L	22	24.0	0.031	13.1	LOS A	0.1	1.2	0.43	0.65	57.1
8	T	471	8.0	0.351	10.4	LOS A	2.2	16.5	0.45	0.62	58.0
Approach		493	8.7	0.351	10.5	LOS A	2.2	16.5	0.45	0.63	58.0
All Vehicles		1317	8.0	0.430	10.8	LOS A	3.7	26.9	0.25	0.64	57.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2011_Badgerys Ck Rd_PM

TNR / Badgerys Ck Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	597	8.0	0.435	9.3	LOS A	3.8	28.1	0.17	0.54	60.3
3	R	77	8.0	0.435	15.0	LOS B	3.8	28.1	0.17	0.82	54.7
Approach		674	8.0	0.435	10.0	LOS A	3.8	28.1	0.17	0.57	59.6
East: Badgerys Ck Rd (E)											
4	L	298	4.0	0.370	10.2	LOS A	2.4	17.3	0.71	0.78	46.9
6	R	20	21.0	0.370	15.3	LOS B	2.4	17.3	0.71	0.90	43.8
Approach		318	5.1	0.370	10.6	LOS A	2.4	17.3	0.71	0.79	46.6
North: TNR (N)											
7	L	11	10.0	0.011	11.0	LOS A	0.0	0.4	0.24	0.60	58.4
8	T	555	5.0	0.347	9.5	LOS A	2.3	16.6	0.25	0.56	59.7
Approach		565	5.1	0.347	9.5	LOS A	2.3	16.6	0.25	0.56	59.6
All Vehicles		1557	6.3	0.435	9.9	LOS A	3.8	28.1	0.31	0.61	56.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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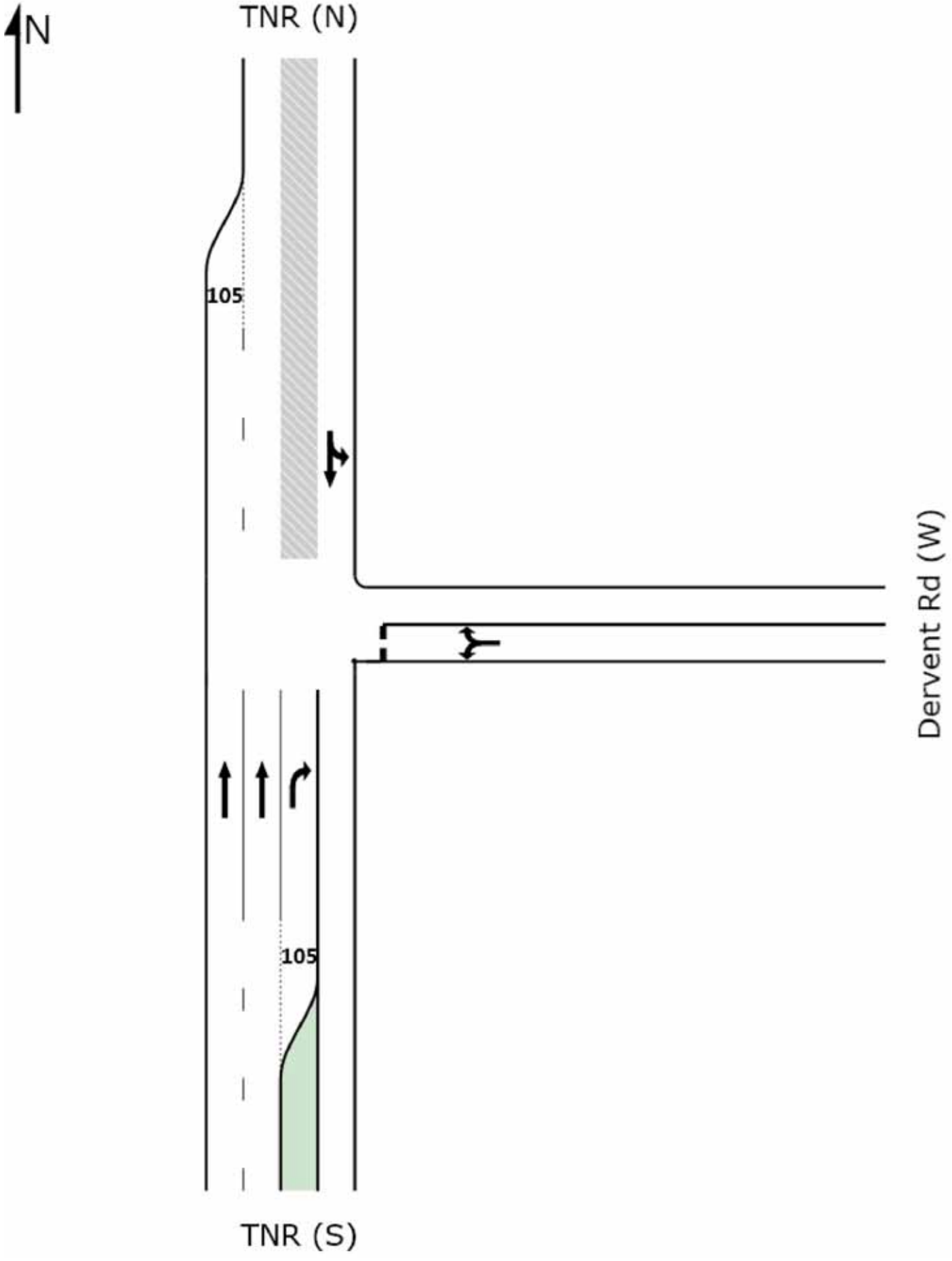
SIDRA INTERSECTION


N
TNR (N)
105
105
TNR (S)
Dervent Rd (W)

MOVEMENT SUMMARY

Site: 2011_Dervent Rd_AM

TNR / Dervent Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	500	7.0	0.173	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	4	25.0	0.007	15.8	LOS B	0.0	0.2	0.53	0.73	54.4
Approach		504	7.2	0.173	0.1	NA	0.0	0.2	0.00	0.01	79.7
East: Dervent Rd (W)											
4	L	21	15.0	0.083	21.5	LOS B	0.3	2.1	0.65	0.86	47.5
6	R	4	25.0	0.083	22.1	LOS B	0.3	2.1	0.65	0.92	47.9
Approach		25	16.7	0.083	21.6	LOS B	0.3	2.1	0.65	0.87	47.6
North: TNR (N)											
7	L	1	0.0	0.258	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	474	9.0	0.258	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		475	9.0	0.258	0.0	NA	0.0	0.0	0.00	0.00	79.9
All Vehicles		1004	8.3	0.258	0.6	NA	0.3	2.1	0.02	0.03	78.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2011_Dervent Rd_PM

TNR / Dervent Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	598	8.0	0.208	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	23	5.0	0.030	13.9	LOS A	0.1	0.8	0.52	0.78	55.2
Approach		621	7.9	0.208	0.5	NA	0.1	0.8	0.02	0.03	78.7
East: Dervent Rd (W)											
4	L	15	7.0	0.073	22.7	LOS B	0.2	1.7	0.71	0.87	46.1
6	R	5	0.0	0.073	22.2	LOS B	0.2	1.7	0.71	0.93	46.4
Approach		20	5.2	0.073	22.6	LOS B	0.2	1.7	0.71	0.89	46.2
North: TNR (N)											
7	L	3	0.0	0.291	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	546	5.0	0.291	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		549	5.0	0.291	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		1191	6.5	0.291	0.7	NA	0.2	1.7	0.02	0.03	78.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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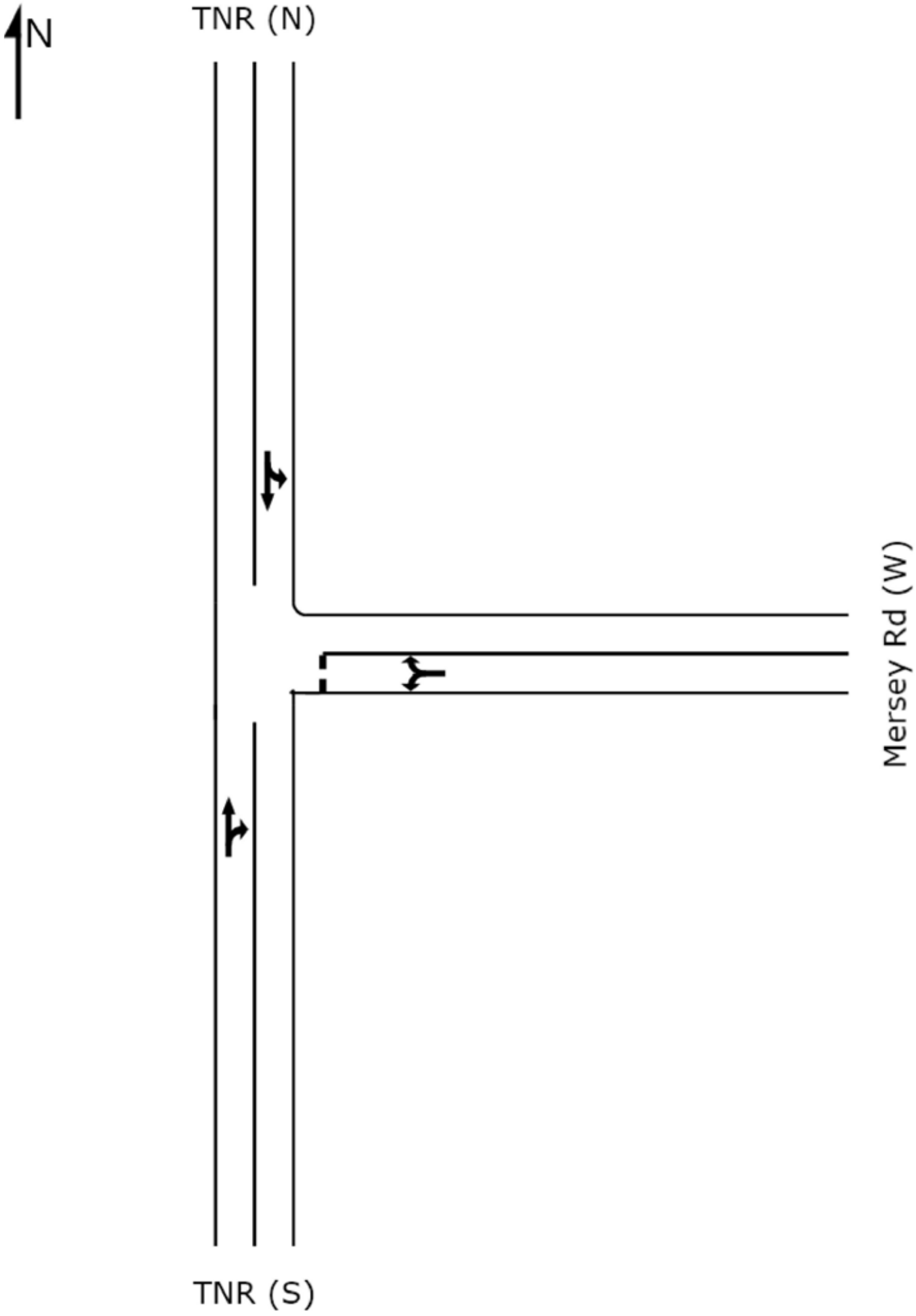
N
TNR (N)
Mersey Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2011_Mersey Rd_AM

TNR / Mersey Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	497	7.0	0.281	4.8	LOS A	3.6	26.8	0.77	0.00	58.8
3	R	9	22.0	0.281	16.8	LOS B	3.6	26.8	0.77	1.13	59.6
Approach		506	7.3	0.281	5.1	NA	3.6	26.8	0.77	0.02	58.8
East: Mersey Rd (W)											
4	L	16	20.0	0.088	23.2	LOS B	0.3	2.2	0.68	0.86	46.2
6	R	8	0.0	0.088	22.1	LOS B	0.3	2.2	0.68	0.93	46.6
Approach		24	13.0	0.088	22.8	LOS B	0.3	2.2	0.68	0.88	46.3
North: TNR (N)											
7	L	2	0.0	0.245	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	452	8.0	0.245	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		454	8.0	0.245	0.1	NA	0.0	0.0	0.00	0.01	79.9
All Vehicles		984	7.7	0.281	3.2	NA	3.6	26.8	0.41	0.04	66.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2011_Mersey Rd_PM

TNR / Mersey Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	579	7.0	0.340	7.6	LOS A	6.3	46.8	0.89	0.00	56.3
3	R	17	25.0	0.340	19.8	LOS B	6.3	46.8	0.89	1.12	56.8
Approach		596	7.5	0.340	7.9	NA	6.3	46.8	0.89	0.03	56.3
East: Mersey Rd (W)											
4	L	22	0.0	0.079	19.9	LOS B	0.3	1.8	0.65	0.85	48.3
6	R	4	0.0	0.079	19.7	LOS B	0.3	1.8	0.65	0.92	48.7
Approach		26	0.0	0.079	19.9	LOS B	0.3	1.8	0.65	0.86	48.4
North: TNR (N)											
7	L	9	11.0	0.282	11.4	LOS A	0.0	0.0	0.00	1.39	58.9
8	T	526	4.0	0.282	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		536	4.1	0.282	0.2	NA	0.0	0.0	0.00	0.02	79.5
All Vehicles		1158	5.8	0.340	4.6	NA	6.3	46.8	0.47	0.05	64.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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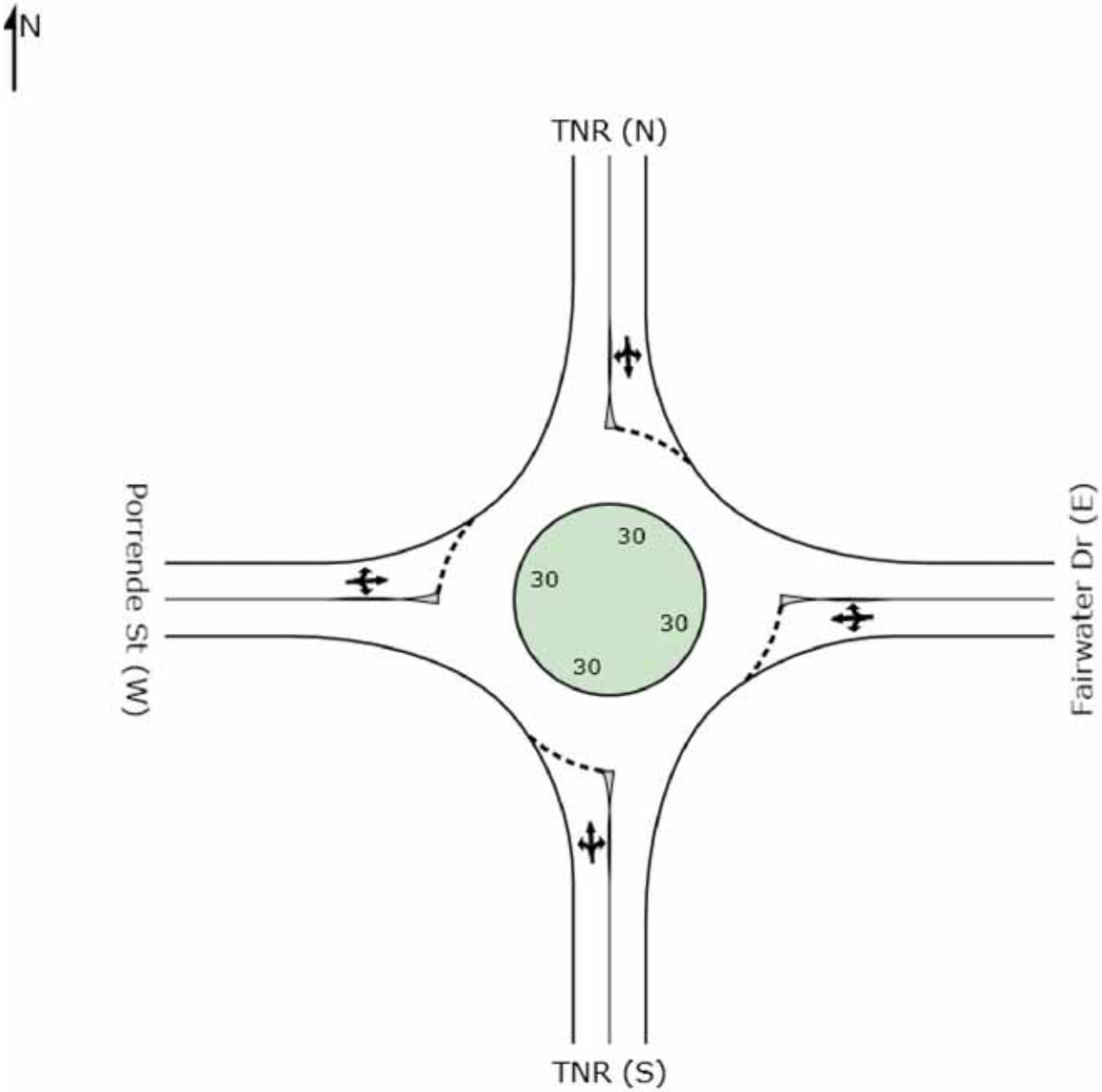
Appendix A2

2016 – *Do Nothing* – SIDRA Results and Intersection Layout (AM and PM Peak)


N
TNR (N)
Porrende St (W)
Fairwater Dr (E)
TNR (S)
30
30
30
30

MOVEMENT SUMMARY

Site: 2016_Fairwater Drive_AM

TNR / Porrende St / Fairwater Dr
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	42	5.0	0.756	13.1	LOS A	10.4	75.9	0.83	0.77	55.5
2	T	707	5.1	0.756	12.1	LOS A	10.4	75.9	0.83	0.75	55.2
3	R	165	5.1	0.756	19.3	LOS B	10.4	75.9	0.83	0.82	51.8
Approach		915	5.1	0.756	13.4	LOS A	10.4	75.9	0.83	0.76	54.5
East: Fairwater Dr (E)											
4	L	234	5.0	1.263	530.6	LOS F	131.3	957.5	1.00	5.62	3.9
5	T	94	4.5	1.263	529.3	LOS F	131.3	957.5	1.00	5.62	3.9
6	R	108	4.9	1.263	536.3	LOS F	131.3	957.5	1.00	5.62	4.1
Approach		436	4.8	1.263	531.7	LOS F	131.3	957.5	1.00	5.62	3.9
North: TNR (N)											
7	L	89	4.7	0.946	22.3	LOS B	32.2	235.0	1.00	0.96	47.0
8	T	1013	5.0	0.946	21.3	LOS B	32.2	235.0	1.00	0.96	47.2
9	R	96	5.5	0.946	28.5	LOS C	32.2	235.0	1.00	0.97	44.1
Approach		1198	5.0	0.946	22.0	LOS B	32.2	235.0	1.00	0.96	46.9
West: Porrende St (W)											
10	L	143	5.1	0.390	13.4	LOS A	3.1	22.7	0.98	0.96	44.1
11	T	47	4.4	0.390	12.2	LOS A	3.1	22.7	0.98	0.96	44.2
12	R	12	9.1	0.390	19.2	LOS B	3.1	22.7	0.98	0.98	41.5
Approach		202	5.2	0.390	13.5	LOS A	3.1	22.7	0.98	0.96	43.9
All Vehicles		2751	5.0	1.263	99.3	LOS F	131.3	957.5	0.94	1.63	18.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Fairwater Drive_PM

TNR / Porrende St / Fairwater Dr
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	57	5.6	1.105	211.7	LOS F	192.1	1402.6	1.00	4.42	10.1
2	T	947	5.0	1.105	210.6	LOS F	192.1	1402.6	1.00	4.42	10.2
3	R	332	5.1	1.105	217.8	LOS F	192.1	1402.6	1.00	4.42	10.5
Approach		1336	5.0	1.105	212.4	LOS F	192.1	1402.6	1.00	4.42	10.3
East: Fairwater Dr (E)											
4	L	187	5.1	0.637	18.9	LOS B	6.9	50.4	1.00	1.14	39.6
5	T	78	5.4	0.637	17.6	LOS B	6.9	50.4	1.00	1.14	39.7
6	R	67	4.7	0.637	24.6	LOS B	6.9	50.4	1.00	1.13	37.7
Approach		333	5.1	0.637	19.7	LOS B	6.9	50.4	1.00	1.14	39.2
North: TNR (N)											
7	L	191	5.0	1.355	658.2	LOS F	465.1	3397.0	1.00	10.65	3.6
8	T	981	5.0	1.355	657.2	LOS F	465.1	3397.0	1.00	10.65	3.6
9	R	182	5.2	1.355	664.4	LOS F	465.1	3397.0	1.00	10.65	3.7
Approach		1354	5.1	1.355	658.3	LOS F	465.1	3397.0	1.00	10.65	3.6
West: Porrende St (W)											
10	L	83	5.1	0.825	68.0	LOS E	11.9	86.9	1.00	1.44	21.0
11	T	129	4.9	0.825	66.7	LOS E	11.9	86.9	1.00	1.44	21.1
12	R	29	3.6	0.825	73.7	LOS F	11.9	86.9	1.00	1.44	21.2
Approach		242	4.8	0.825	68.0	LOS E	11.9	86.9	1.00	1.44	21.1
All Vehicles		3264	5.0	1.355	367.0	LOS F	465.1	3397.0	1.00	6.45	6.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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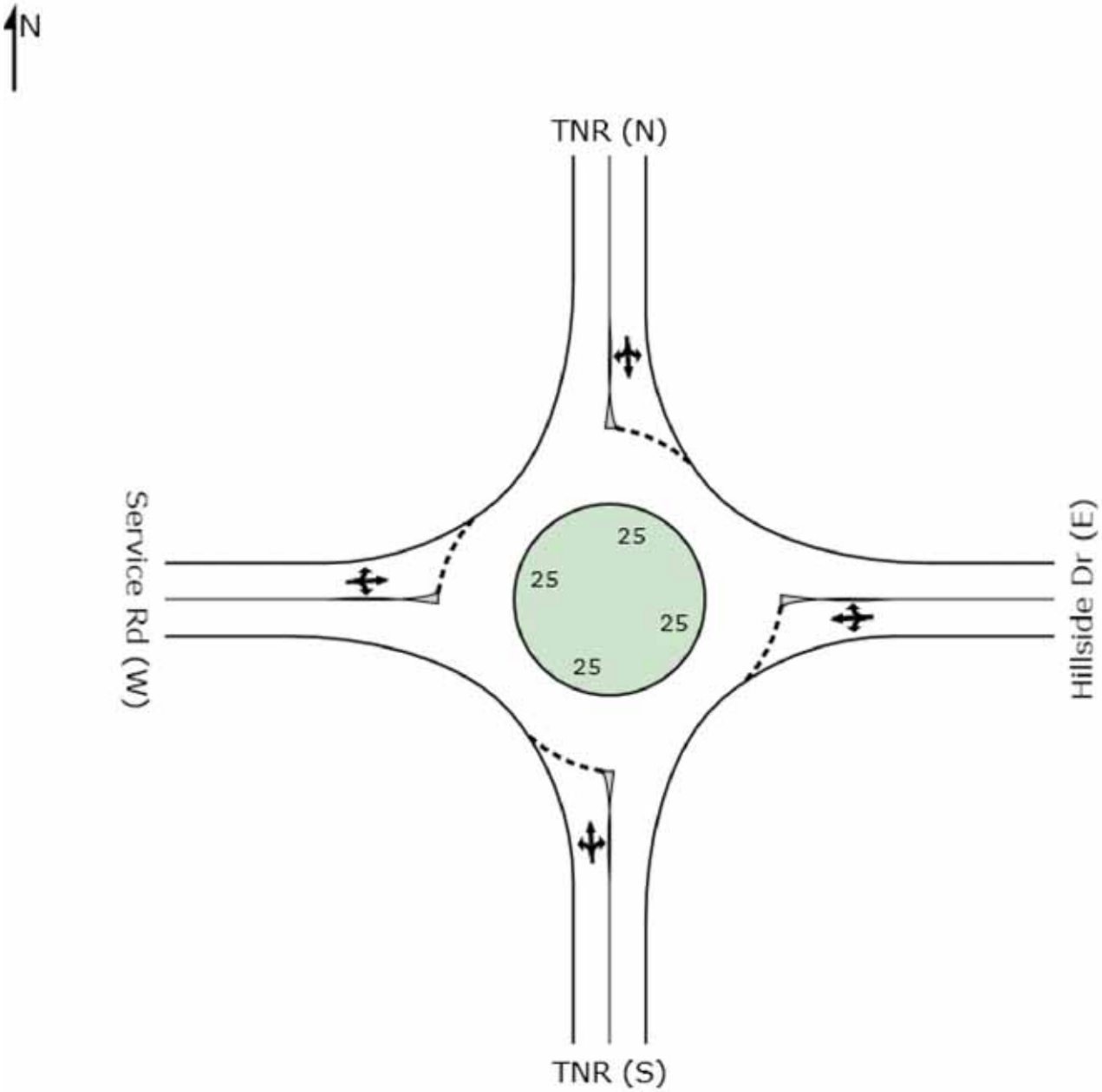
N
TNR (N)
Service Rd (W)
Hillside Dr (E)
TNR (S)
25
25
25
25

MOVEMENT SUMMARY

Site: 2016_Hillside Drive_AM

TNR / Hillside Dr / Service Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	17	6.3	0.764	12.3	LOS A	10.4	75.9	0.81	0.70	55.7
2	T	881	5.0	0.764	11.3	LOS A	10.4	75.9	0.81	0.68	55.4
3	R	60	5.3	0.764	17.8	LOS B	10.4	75.9	0.81	0.75	53.2
Approach		958	5.1	0.764	11.8	LOS A	10.4	75.9	0.81	0.68	55.3
East: Hillside Dr (E)											
4	L	195	4.9	0.726	31.7	LOS C	9.2	66.8	1.00	1.29	31.9
5	T	7	0.0	0.726	30.5	LOS C	9.2	66.8	1.00	1.29	32.0
6	R	139	5.3	0.726	37.0	LOS C	9.2	66.8	1.00	1.29	31.0
Approach		341	4.9	0.726	33.9	LOS C	9.2	66.8	1.00	1.29	31.5
North: TNR (N)											
7	L	79	5.3	0.766	10.9	LOS A	10.2	74.8	0.65	0.59	56.7
8	T	956	5.0	0.766	9.9	LOS A	10.2	74.8	0.65	0.56	56.7
9	R	47	4.4	0.766	16.4	LOS B	10.2	74.8	0.65	0.70	54.2
Approach		1082	5.0	0.766	10.3	LOS A	10.2	74.8	0.65	0.57	56.6
West: Service Rd (W)											
10	L	108	4.9	0.377	16.4	LOS B	2.9	21.4	1.00	1.00	41.2
11	T	7	0.0	0.377	15.2	LOS B	2.9	21.4	1.00	0.99	41.3
12	R	45	4.7	0.377	21.7	LOS B	2.9	21.4	1.00	0.99	39.1
Approach		161	4.6	0.377	17.8	LOS B	2.9	21.4	1.00	0.99	40.6
All Vehicles		2542	5.0	0.766	14.5	LOS A	10.4	75.9	0.78	0.73	50.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Hillside Drive_PM

TNR / Hillside Dr / Service Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	39	5.4	0.851	14.0	LOS A	15.6	113.9	0.92	0.72	54.8
2	T	906	5.0	0.851	13.0	LOS A	15.6	113.9	0.92	0.71	54.3
3	R	153	4.8	0.851	19.5	LOS B	15.6	113.9	0.92	0.75	51.5
Approach		1098	5.0	0.851	13.9	LOS A	15.6	113.9	0.92	0.72	53.9
East: Hillside Dr (E)											
4	L	159	5.3	0.804	56.4	LOS D	10.7	78.2	1.00	1.37	23.5
5	T	8	0.0	0.804	55.2	LOS D	10.7	78.2	1.00	1.37	23.5
6	R	77	5.5	0.804	61.7	LOS E	10.7	78.2	1.00	1.37	23.4
Approach		244	5.2	0.804	58.0	LOS E	10.7	78.2	1.00	1.37	23.4
North: TNR (N)											
7	L	174	4.8	1.123	239.3	LOS F	235.7	1720.3	1.00	4.28	9.1
8	T	1169	5.0	1.123	238.4	LOS F	235.7	1720.3	1.00	4.28	9.1
9	R	112	4.7	1.123	244.8	LOS F	235.7	1720.3	1.00	4.28	9.3
Approach		1455	5.0	1.123	239.0	LOS F	235.7	1720.3	1.00	4.28	9.1
West: Service Rd (W)											
10	L	63	5.0	0.271	16.7	LOS B	2.1	15.3	1.00	0.96	41.0
11	T	7	0.0	0.271	15.5	LOS B	2.1	15.3	1.00	0.96	41.1
12	R	25	4.2	0.271	22.0	LOS B	2.1	15.3	1.00	0.96	38.9
Approach		96	4.4	0.271	18.0	LOS B	2.1	15.3	1.00	0.96	40.4
All Vehicles		2893	5.0	1.123	131.0	LOS F	235.7	1720.3	0.97	2.57	15.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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N
TNR (N)
115
Cobbitty Rd (W)
115
115
115
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Cobbitty Rd (W)_AM

TNR / Cobbitty Rd (W)
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	278	4.9	0.155	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
2	T	849	5.0	0.450	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1127	4.9	0.450	2.7	NA	0.0	0.0	0.00	0.18	73.6
North: TNR (N)											
8	T	794	5.0	0.420	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
9	R	128	4.9	0.266	19.0	LOS B	1.1	8.3	0.73	0.95	49.5
Approach		922	5.0	0.420	2.7	NA	1.1	8.3	0.10	0.13	73.8
West: Cobbitty Rd (W)											
10	L	80	5.3	0.134	18.1	LOS B	0.7	5.0	0.75	0.89	50.4
12	R	288	5.1	2.501	2761.7	LOS F	223.9	1636.1	1.00	7.21	0.9
Approach		368	5.1	2.501	2166.0	LOS F	223.9	1636.1	0.94	5.84	1.1
All Vehicles		2418	5.0	2.501	332.3	NA	223.9	1636.1	0.18	1.02	6.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Cobbitty Rd (W)_PM

TNR / Cobbitty Rd (W)
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	223	5.2	0.125	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
2	T	822	5.0	0.435	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1045	5.0	0.435	2.4	NA	0.0	0.0	0.00	0.16	74.4
North: TNR (N)											
8	T	1236	5.0	0.654	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
9	R	186	5.1	0.349	19.0	LOS B	1.7	12.5	0.72	0.98	49.6
Approach		1422	5.0	0.654	2.5	NA	1.7	12.5	0.09	0.13	74.1
West: Cobbitty Rd (W)											
10	L	33	6.5	0.052	17.4	LOS B	0.3	1.9	0.72	0.81	51.3
12	R	219	4.8	3.649	4857.8	LOS F	207.9	1515.6	1.00	5.24	0.5
Approach		252	5.0	3.649	4230.0	LOS F	207.9	1515.6	0.96	4.67	0.6
All Vehicles		2719	5.0	3.649	393.6	NA	207.9	1515.6	0.14	0.56	5.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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N
TNR (N)
Belmore Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Belmore Rd_AM

TNR / Belmore Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	15	7.1	0.734	11.3	LOS A	0.0	0.0	0.00	1.38	58.9
2	T	1371	5.0	0.734	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1385	5.0	0.734	0.1	NA	0.0	0.0	0.00	0.01	79.7
North: TNR (N)											
8	T	546	5.0	0.513	94.8	LOS F	22.1	161.2	1.00	0.00	19.0
9	R	19	5.6	0.513	105.8	LOS F	22.1	161.2	1.00	1.13	18.8
Approach		565	5.0	0.513	95.1	NA	22.1	161.2	1.00	0.04	19.0
West: Belmore Rd (W)											
10	L	23	4.5	1.000[4]	420.0	LOS F	6.6	48.2	1.00	1.27	5.4
12	R	15	7.1	1.000[4]	420.0	LOS F	6.6	48.2	1.00	1.25	5.4
Approach		38	5.6	1.000	420.0	LOS F	6.6	48.2	1.00	1.26	5.4
All Vehicles		1988	5.0	1.000	35.1	NA	22.1	161.2	0.30	0.04	36.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

4 x = 1.00 due to minimum capacity

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MOVEMENT SUMMARY

Site: 2016_Belmore Rd_PM

TNR / Belmore Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	8	0.0	0.364	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
2	T	680	5.0	0.364	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		688	4.9	0.364	0.1	NA	0.0	0.0	0.00	0.02	79.7
North: TNR (N)											
8	T	1418	5.0	0.785	27.0	LOS B	27.3	199.6	1.00	0.00	39.5
9	R	21	5.0	0.785	38.1	LOS C	27.3	199.6	1.00	1.45	39.6
Approach		1439	5.0	0.785	27.2	NA	27.3	199.6	1.00	0.02	39.5
West: Belmore Rd (W)											
10	L	18	5.9	1.000[4]	455.3	LOS F	5.1	37.8	0.98	1.41	5.0
12	R	12	9.1	1.000[4]	455.4	LOS F	5.1	37.8	0.98	1.28	5.0
Approach		29	7.1	1.000	455.3	LOS F	5.1	37.8	0.98	1.36	5.0
All Vehicles		2157	5.0	1.000	24.4	NA	27.3	199.6	0.68	0.04	42.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

4 x = 1.00 due to minimum capacity

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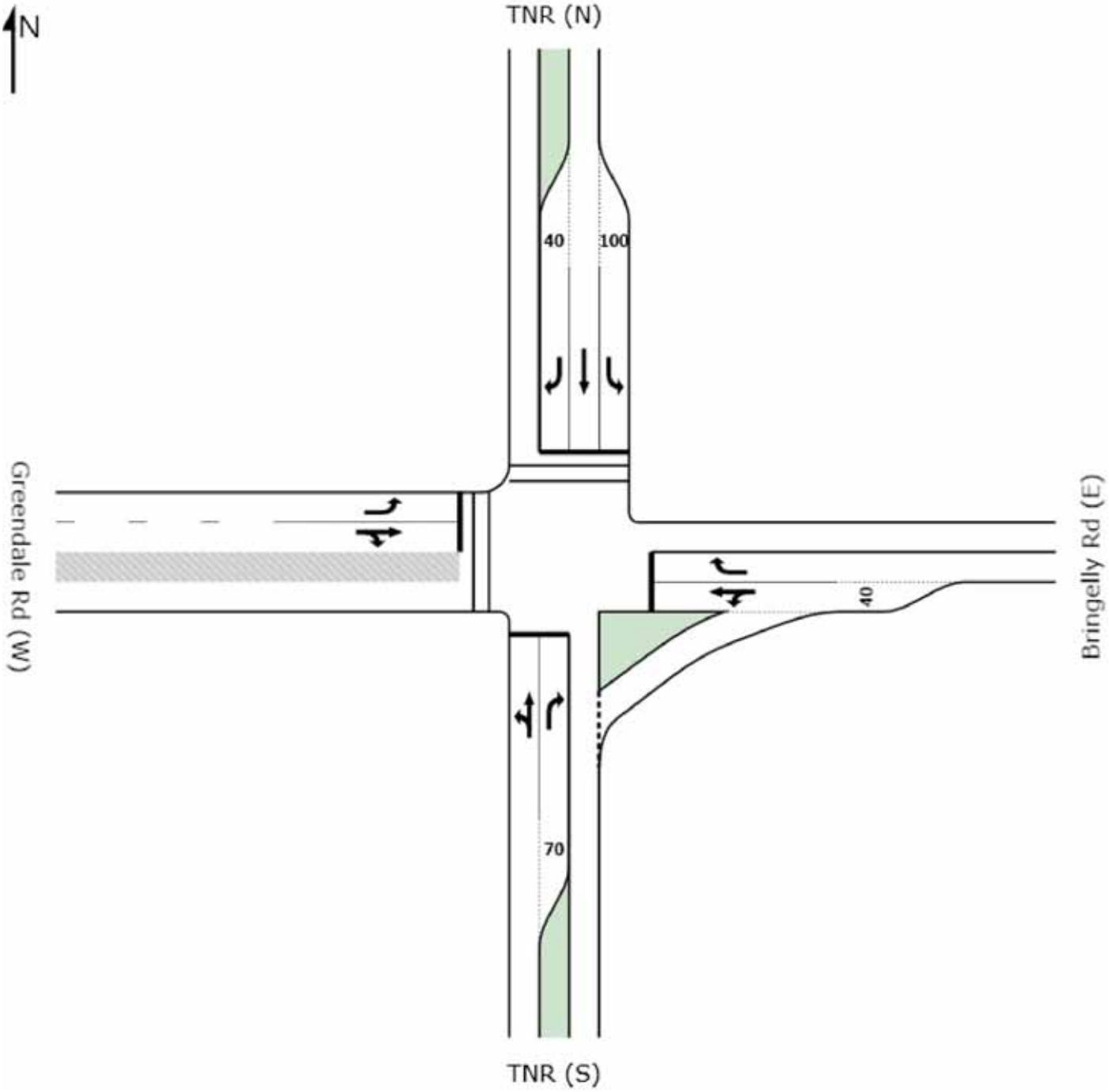
N
TNR (N)
40
100
Greendale Rd (W)
Bringelly Rd (E)
40
70
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Bringelly Rd_AM

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	42	5.0	0.895	27.7	LOS B	45.9	334.8	0.70	1.05	44.9
11	T	1033	5.0	0.895	16.5	LOS B	45.9	334.8	0.70	0.70	48.0
12	R	332	4.9	1.000[3]	35.1	LOS C	15.7	114.2	0.98	0.90	37.3
Approach		1407	5.0	1.000	21.3	LOS B	45.9	334.8	0.77	0.76	44.9
East: Bringelly Rd (E)											
1	L	104	5.1	0.813	63.8	LOS E	8.9	65.3	1.00	0.90	26.5
2	T	54	5.9	0.813	52.5	LOS D	8.9	65.3	1.00	0.90	26.9
3	R	119	5.3	0.997	124.5	LOS F	10.4	76.1	1.00	1.17	15.8
Approach		277	5.3	0.997	87.7	LOS F	10.4	76.1	1.00	1.02	20.6
North: TNR (N)											
4	L	212	5.0	0.312	20.3	LOS B	4.9	35.9	0.43	0.78	48.2
5	T	429	4.9	0.354	4.9	LOS A	5.1	37.3	0.22	0.20	67.2
6	R	22	4.8	0.198	44.1	LOS D	1.0	7.2	0.75	0.77	32.8
Approach		663	4.9	0.354	11.1	LOS A	5.1	37.3	0.31	0.40	58.0
West: Greendale Rd (W)											
7	L	22	4.8	0.087	59.9	LOS E	1.1	8.3	0.90	0.72	27.1
8	T	89	4.7	0.464	52.2	LOS D	6.7	49.2	0.97	0.77	27.7
9	R	33	6.5	0.464	63.4	LOS E	6.7	49.2	0.97	0.81	27.4
Approach		144	5.1	0.464	55.9	LOS D	6.7	49.2	0.96	0.77	27.6
All Vehicles		2492	5.0	1.000	27.9	LOS B	45.9	334.8	0.68	0.69	40.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across N approach	11	53.2	LOS E	0.0	0.0	0.94	0.94
P5	Across W approach	11	10.4	LOS B	0.0	0.0	0.42	0.42
All Pedestrians		22	31.8	LOS D			0.68	0.68

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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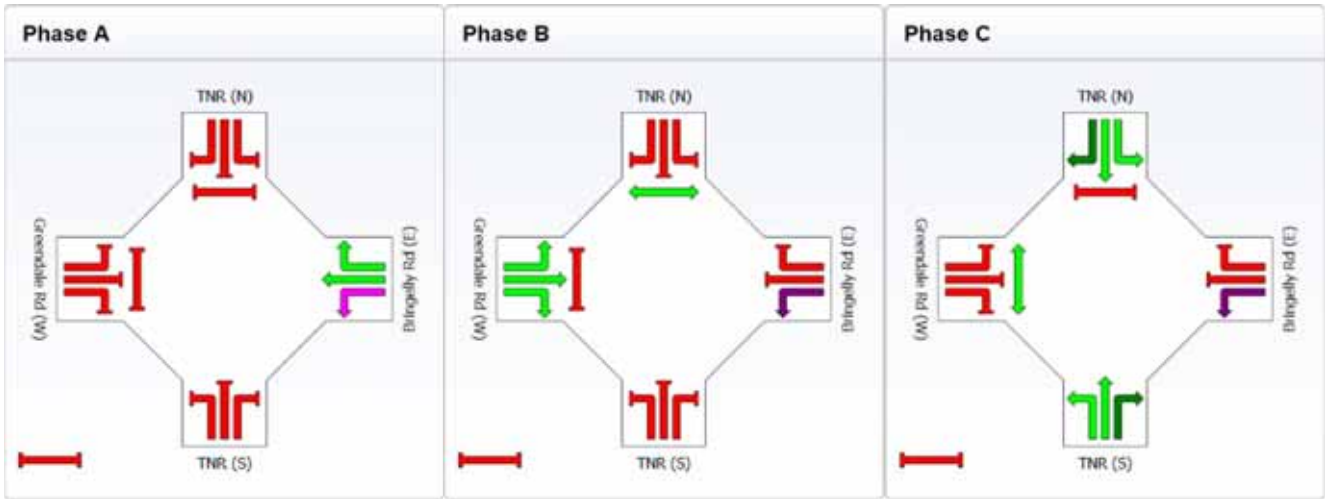
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	8	17	77
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	14	23	83
Phase Split	12 %	19 %	69 %



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MOVEMENT SUMMARY

Site: 2016_Bringelly Rd_PM

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 115 seconds (Optimum Cycle Time - Minimum Delay)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	27	3.8	0.832	45.8	LOS D	31.0	226.2	0.92	0.96	34.1
11	T	582	5.0	0.832	34.7	LOS C	31.0	226.2	0.92	0.87	34.8
12	R	81	4.8	1.185	417.3	LOS F	15.6	114.0	1.00	1.53	5.4
Approach		691	4.9	1.185	80.3	LOS F	31.0	226.2	0.93	0.95	21.4
East: Bringelly Rd (E)											
1	L	334	4.9	1.230	39.8	LOS C	12.8	93.2	1.00	0.92	35.3
2	T	77	5.5	1.230	28.6	LOS C	12.8	93.2	1.00	0.92	35.9
3	R	647	5.2	1.173	393.1	LOS F	124.5	910.3	1.00	2.12	5.8
Approach		1058	5.1	1.230	255.1	LOS F	124.5	910.3	1.00	1.66	8.6
North: TNR (N)											
4	L	184	5.1	0.382	36.5	LOS C	7.0	50.8	0.72	0.80	36.5
5	T	931	5.0	1.259	520.0	LOS F	218.8	1596.8	1.00	3.29	4.5
6	R	26	4.0	0.175	57.6	LOS E	1.3	9.6	0.89	0.75	27.7
Approach		1141	5.0	1.259	431.3	LOS F	218.8	1596.8	0.95	2.83	5.3
West: Greendale Rd (W)											
7	L	24	4.3	0.091	57.2	LOS E	1.2	8.6	0.90	0.73	27.9
8	T	77	5.5	0.435	49.2	LOS D	6.2	45.6	0.96	0.76	28.5
9	R	42	5.0	0.435	60.3	LOS E	6.2	45.6	0.96	0.81	28.1
Approach		143	5.1	0.435	53.8	LOS D	6.2	45.6	0.95	0.77	28.3
All Vehicles		2744	5.5	1.259	300.7	LOS F	218.8	1596.8	1.06	2.09	8.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across N approach	11	50.7	LOS E	0.0	0.0	0.94	0.94
P5	Across W approach	11	25.8	LOS C	0.0	0.0	0.67	0.67
All Pedestrians		22	38.2	LOS D			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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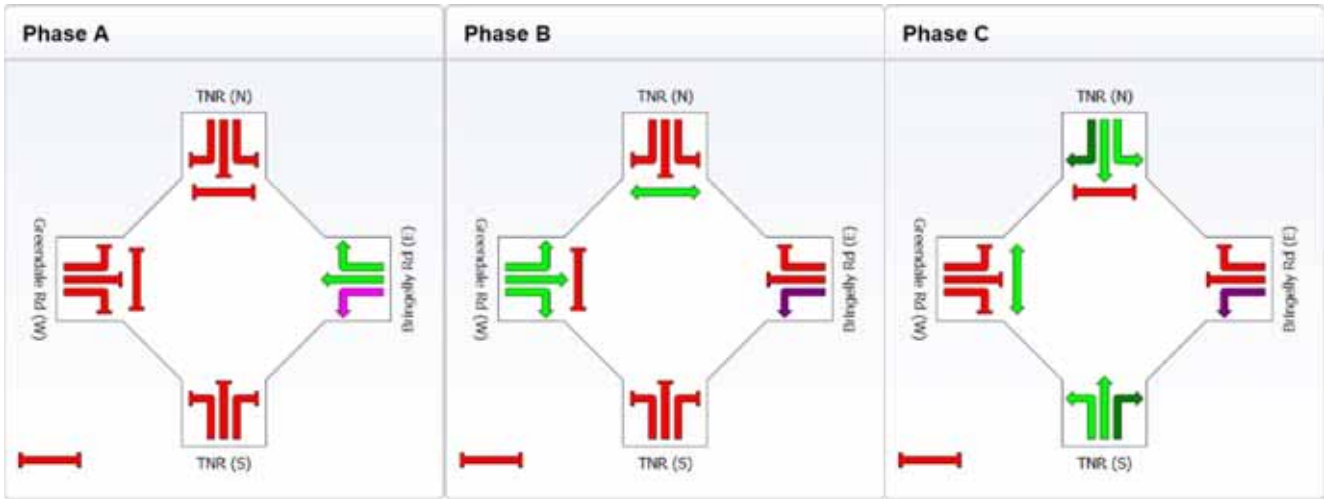
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 115 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	35	17	45
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	41	23	51
Phase Split	36 %	20 %	44 %



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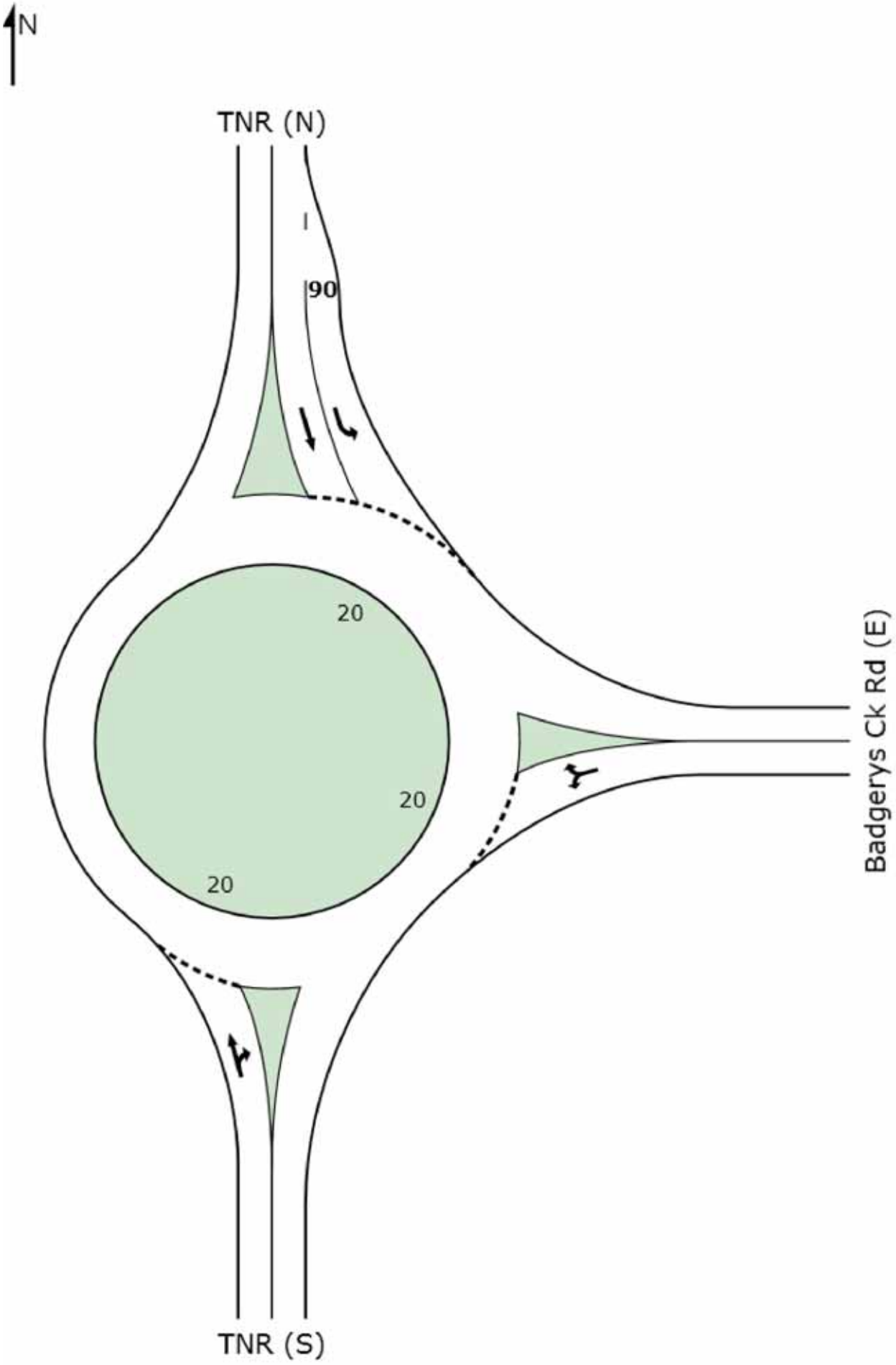
N
TNR (N)
90
20
20
20
Badgerys Ck Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Badgerys Ck Rd_AM

TNR / Badgerys Ck Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	694	5.0	0.606	9.1	LOS A	7.0	51.4	0.09	0.54	61.0
3	R	344	4.9	0.606	14.8	LOS B	7.0	51.4	0.09	0.82	54.7
Approach		1038	5.0	0.606	11.0	LOS A	7.0	51.4	0.09	0.63	58.7
East: Badgerys Ck Rd (E)											
4	L	117	5.4	0.146	9.4	LOS A	0.9	6.3	0.65	0.71	47.2
6	R	5	0.0	0.146	14.1	LOS A	0.9	6.3	0.65	0.81	44.4
Approach		122	5.2	0.146	9.6	LOS A	0.9	6.3	0.65	0.71	47.1
North: TNR (N)											
7	L	20	5.3	0.025	12.4	LOS A	0.1	0.8	0.47	0.65	56.8
8	T	535	4.9	0.418	10.9	LOS A	2.8	20.6	0.56	0.68	57.1
Approach		555	4.9	0.418	11.0	LOS A	2.8	20.6	0.56	0.68	57.1
All Vehicles		1715	5.0	0.606	10.9	LOS A	7.0	51.4	0.28	0.65	57.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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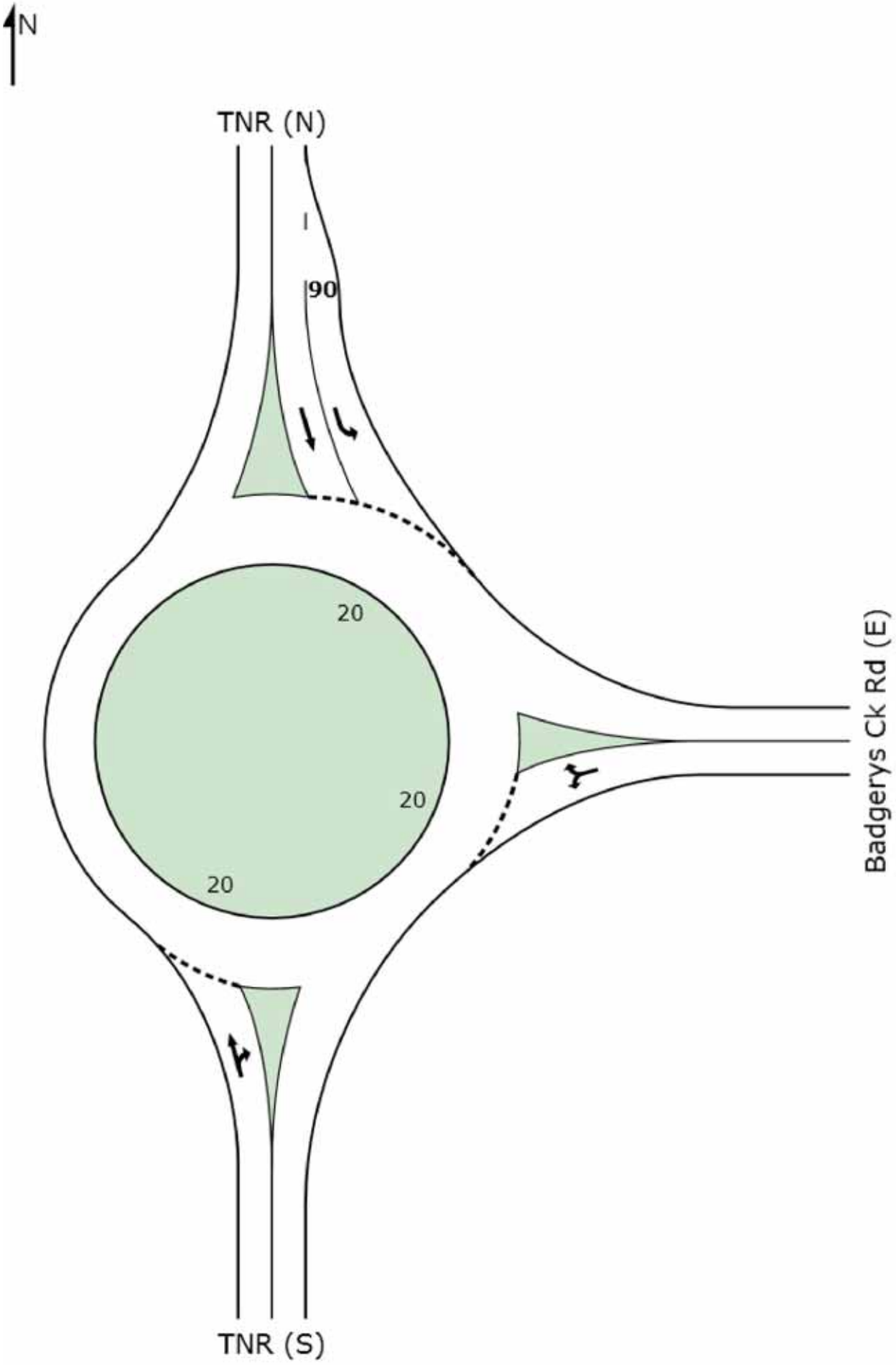
N
TNR (N)
90
20
20
20
Badgerys Ck Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Badgerys Ck Rd_PM

TNR / Badgerys Ck Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	632	5.0	0.450	9.2	LOS A	4.2	30.7	0.15	0.54	60.5
3	R	100	5.3	0.450	14.8	LOS B	4.2	30.7	0.15	0.82	54.7
Approach		732	5.0	0.450	10.0	LOS A	4.2	30.7	0.15	0.58	59.6
East: Badgerys Ck Rd (E)											
4	L	443	5.0	0.599	15.0	LOS B	5.8	42.4	0.89	1.02	42.6
6	R	17	6.3	0.599	19.7	LOS B	5.8	42.4	0.89	1.06	40.3
Approach		460	5.0	0.599	15.1	LOS B	5.8	42.4	0.89	1.03	42.5
North: TNR (N)											
7	L	6	0.0	0.006	10.6	LOS A	0.0	0.2	0.26	0.59	58.3
8	T	683	4.9	0.435	9.6	LOS A	3.1	22.8	0.32	0.56	59.1
Approach		689	4.9	0.435	9.6	LOS A	3.1	22.8	0.32	0.56	59.1
All Vehicles		1881	5.0	0.599	11.1	LOS A	5.8	42.4	0.39	0.68	54.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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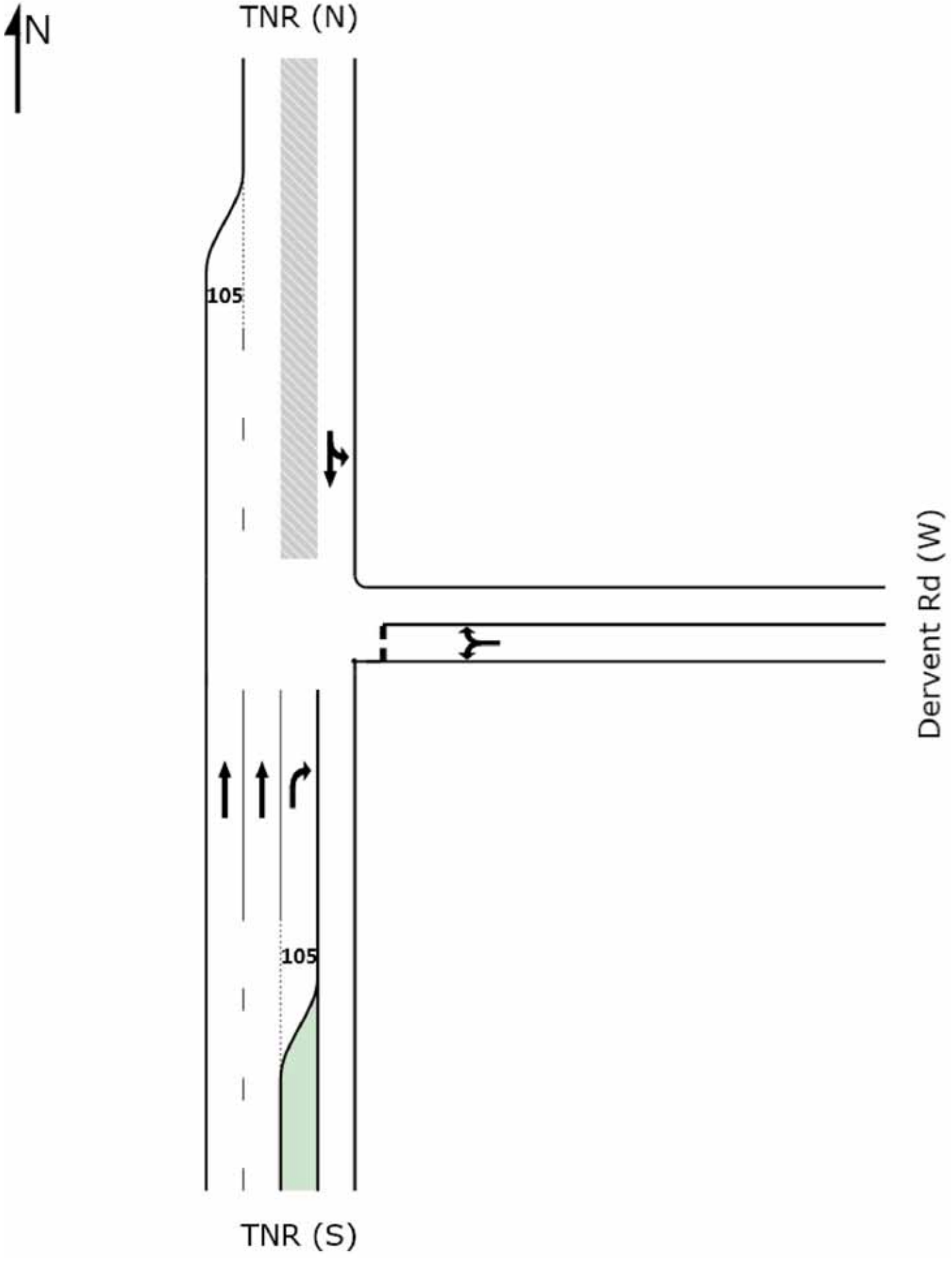
SIDRA INTERSECTION


N
TNR (N)
105
105
TNR (S)
Dervent Rd (W)

MOVEMENT SUMMARY

Site: 2016_Derwent Rd_AM

TNR / Dervent Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	694	5.0	0.237	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	5	0.0	0.007	13.4	LOS A	0.0	0.2	0.50	0.71	55.6
Approach		699	5.0	0.237	0.1	NA	0.0	0.2	0.00	0.01	79.7
East: Dervent Rd (W)											
4	L	23	4.5	0.080	19.8	LOS B	0.3	1.9	0.65	0.85	48.6
6	R	4	0.0	0.080	19.5	LOS B	0.3	1.9	0.65	0.92	49.0
Approach		27	3.8	0.080	19.8	LOS B	0.3	1.9	0.65	0.86	48.7
North: TNR (N)											
7	L	1	0.0	0.282	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	532	5.0	0.282	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		533	4.9	0.282	0.0	NA	0.0	0.0	0.00	0.00	79.9
All Vehicles		1259	4.9	0.282	0.5	NA	0.3	1.9	0.02	0.02	78.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Derwent Rd_PM

TNR / Dervent Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	625	5.1	0.214	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	23	4.5	0.037	15.2	LOS B	0.1	0.9	0.58	0.83	53.7
Approach		648	5.0	0.214	0.5	NA	0.1	0.9	0.02	0.03	78.7
East: Dervent Rd (W)											
4	L	17	6.3	0.102	26.3	LOS B	0.3	2.3	0.78	0.94	43.1
6	R	5	0.0	0.102	25.8	LOS B	0.3	2.3	0.78	0.95	43.5
Approach		22	4.8	0.102	26.2	LOS B	0.3	2.3	0.78	0.94	43.2
North: TNR (N)											
7	L	4	0.0	0.359	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	674	5.0	0.359	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		678	5.0	0.359	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		1348	5.0	0.359	0.7	NA	0.3	2.3	0.02	0.03	78.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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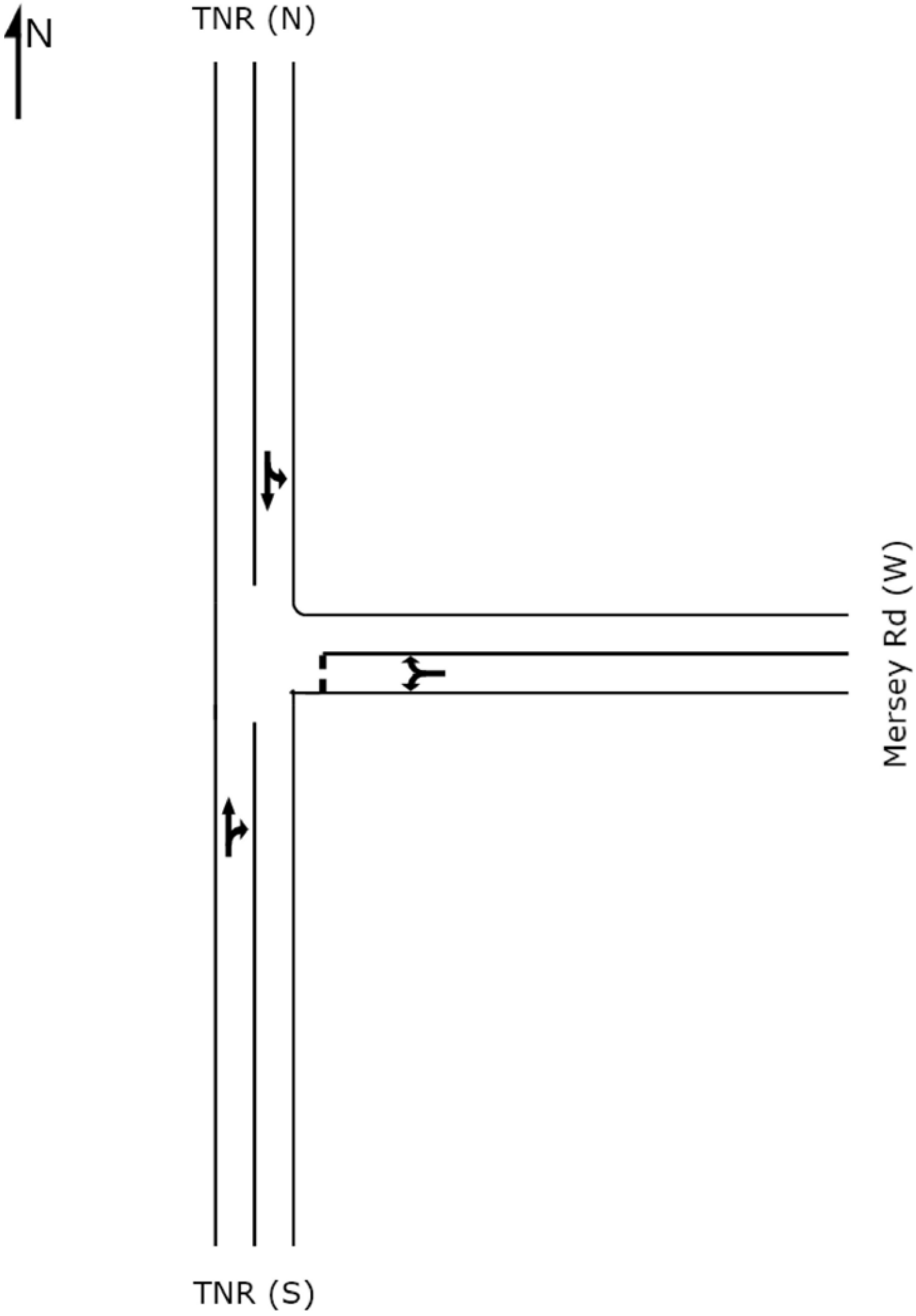
N
TNR (N)
Mersey Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Mersey Rd_AM

TNR / Mersey Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	687	5.1	0.380	5.6	LOS A	6.2	45.0	0.82	0.00	57.6
3	R	12	9.1	0.380	16.8	LOS B	6.2	45.0	0.82	1.15	59.1
Approach		699	5.1	0.380	5.8	NA	6.2	45.0	0.82	0.02	57.6
East: Mersey Rd (W)											
4	L	18	5.9	0.138	28.6	LOS C	0.4	3.0	0.77	0.91	41.4
6	R	8	0.0	0.138	28.2	LOS B	0.4	3.0	0.77	0.95	41.7
Approach		26	4.0	0.138	28.5	LOS C	0.4	3.0	0.77	0.92	41.5
North: TNR (N)											
7	L	2	0.0	0.274	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	515	4.9	0.274	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		517	4.9	0.274	0.0	NA	0.0	0.0	0.00	0.01	79.9
All Vehicles		1242	5.0	0.380	3.9	NA	6.2	45.0	0.48	0.03	64.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Mersey Rd_PM

TNR / Mersey Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	614	5.0	0.352	7.5	LOS A	6.2	44.9	0.87	0.00	56.6
3	R	17	6.3	0.352	18.6	LOS B	6.2	44.9	0.87	1.13	56.8
Approach		631	5.0	0.352	7.8	NA	6.2	44.9	0.87	0.03	56.6
East: Mersey Rd (W)											
4	L	24	4.3	0.117	24.3	LOS B	0.4	2.6	0.76	0.93	44.7
6	R	4	0.0	0.117	23.9	LOS B	0.4	2.6	0.76	0.94	45.0
Approach		28	3.7	0.117	24.2	LOS B	0.4	2.6	0.76	0.93	44.7
North: TNR (N)											
7	L	12	9.1	0.353	11.4	LOS A	0.0	0.0	0.00	1.38	58.9
8	T	654	5.0	0.353	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		665	5.1	0.353	0.2	NA	0.0	0.0	0.00	0.02	79.5
All Vehicles		1324	5.0	0.353	4.3	NA	6.2	44.9	0.43	0.05	65.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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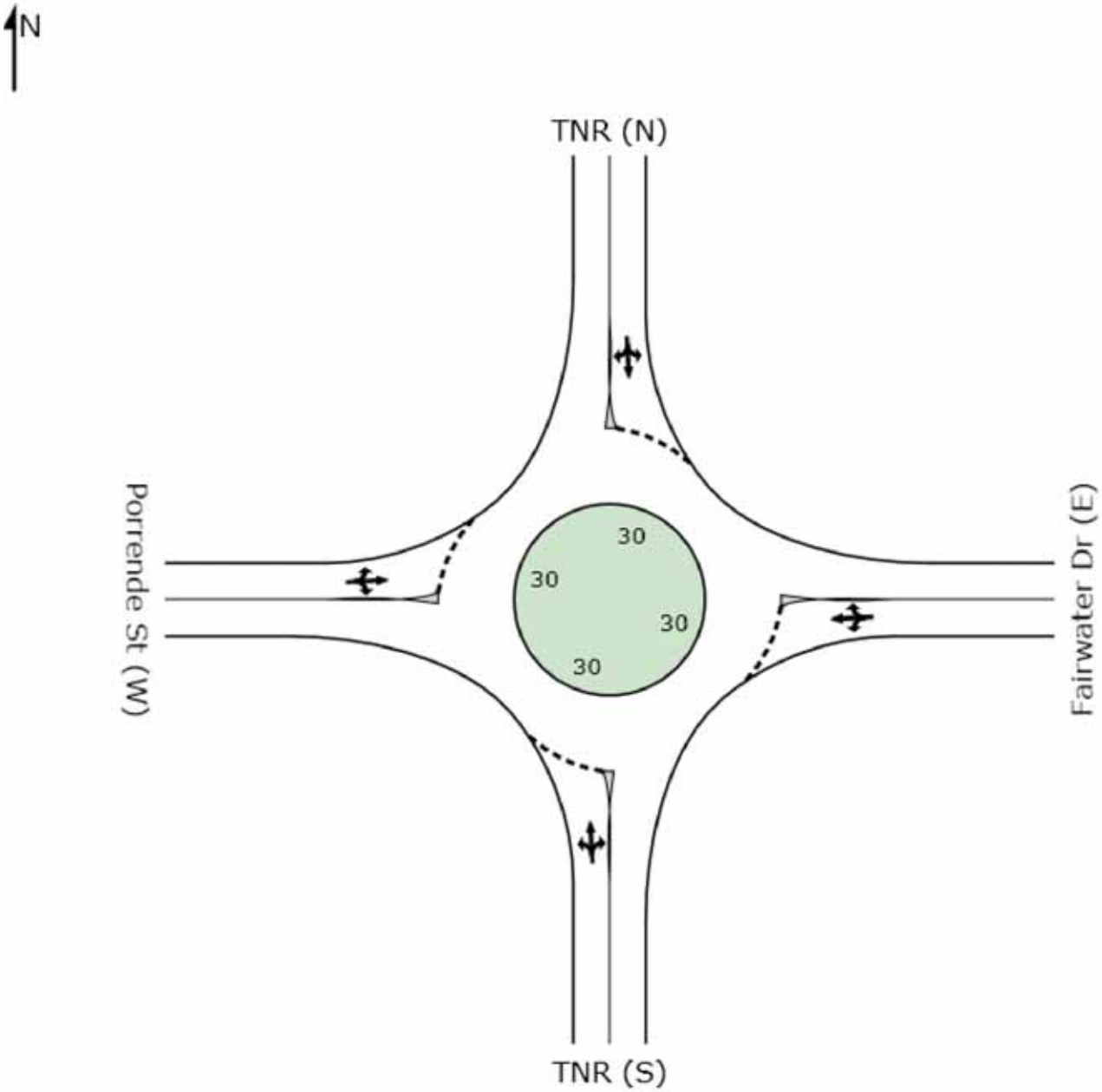
Appendix A3

2026 – *Do Nothing* – SIDRA Results and Intersection Layout (AM and PM Peak)


N
TNR (N)
Porrende St (W)
Fairwater Dr (E)
TNR (S)
30
30
30
30

MOVEMENT SUMMARY

Site: 2026_Fairwater Drive_AM

TNR / Porrende St / Fairwater Dr
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	42	5.0	0.914	18.7	LOS B	24.3	177.4	1.00	0.89	50.5
2	T	931	5.0	0.914	17.6	LOS B	24.3	177.4	1.00	0.89	50.7
3	R	173	4.9	0.914	24.8	LOS B	24.3	177.4	1.00	0.89	47.0
Approach		1145	5.0	0.914	18.7	LOS B	24.3	177.4	1.00	0.89	50.1
East: Fairwater Dr (E)											
4	L	225	5.1	1.473	904.6	LOS F	194.4	1419.3	1.00	7.01	2.3
5	T	93	4.5	1.473	903.4	LOS F	194.4	1419.3	1.00	7.02	2.3
6	R	123	5.1	1.473	910.4	LOS F	194.4	1419.3	1.00	7.01	2.5
Approach		441	5.0	1.473	906.0	LOS F	194.4	1419.3	1.00	7.02	2.4
North: TNR (N)											
7	L	156	4.7	1.781	1420.2	LOS F	1270.3	9271.4	1.00	16.20	1.7
8	T	1954	5.0	1.781	1419.1	LOS F	1270.3	9271.4	1.00	16.19	1.7
9	R	153	4.8	1.781	1426.3	LOS F	1270.3	9271.4	1.00	16.19	1.8
Approach		2262	5.0	1.781	1419.7	LOS F	1270.3	9271.4	1.00	16.19	1.7
West: Porrende St (W)											
10	L	184	5.1	0.804	56.5	LOS E	11.2	81.7	1.00	1.39	23.6
11	T	60	5.3	0.804	55.3	LOS D	11.2	81.7	1.00	1.39	23.7
12	R	12	9.1	0.804	62.3	LOS E	11.2	81.7	1.00	1.38	23.6
Approach		256	5.3	0.804	56.5	LOS E	11.2	81.7	1.00	1.39	23.6
All Vehicles		4104	5.0	1.781	888.6	LOS F	1270.3	9271.4	1.00	10.01	2.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Fairwater Drive_PM

TNR / Porrende St / Fairwater Dr
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	57	5.6	1.830	1509.1	LOS F	1179.4	8609.6	1.00	17.89	1.6
2	T	1682	5.0	1.830	1508.1	LOS F	1179.4	8609.6	1.00	17.91	1.6
3	R	304	4.8	1.830	1515.3	LOS F	1179.4	8609.6	1.00	17.91	1.7
Approach		2043	5.0	1.830	1509.2	LOS F	1179.4	8609.6	1.00	17.91	1.6
East: Fairwater Dr (E)											
4	L	133	4.8	0.912	72.1	LOS F	18.4	134.2	1.00	1.69	20.1
5	T	82	5.1	0.912	70.9	LOS F	18.4	134.2	1.00	1.69	20.2
6	R	136	5.4	0.912	77.9	LOS F	18.4	134.2	1.00	1.69	20.3
Approach		351	5.1	0.912	74.1	LOS F	18.4	134.2	1.00	1.69	20.2
North: TNR (N)											
7	L	238	4.9	1.483	884.7	LOS F	749.0	5466.5	1.00	12.77	2.7
8	T	1311	5.0	1.483	883.6	LOS F	749.0	5466.5	1.00	12.76	2.7
9	R	231	5.0	1.483	890.8	LOS F	749.0	5466.5	1.00	12.76	2.8
Approach		1779	5.0	1.483	884.7	LOS F	749.0	5466.5	1.00	12.76	2.7
West: Porrende St (W)											
10	L	203	5.2	1.154	368.4	LOS F	79.0	579.6	1.00	4.06	5.4
11	T	121	5.2	1.154	367.2	LOS F	79.0	579.6	1.00	4.06	5.4
12	R	29	10.7	1.154	374.3	LOS F	79.0	579.6	1.00	4.01	5.7
Approach		354	5.7	1.154	368.5	LOS F	79.0	579.6	1.00	4.06	5.4
All Vehicles		4526	5.0	1.830	1063.5	LOS F	1179.4	8609.6	1.00	13.55	2.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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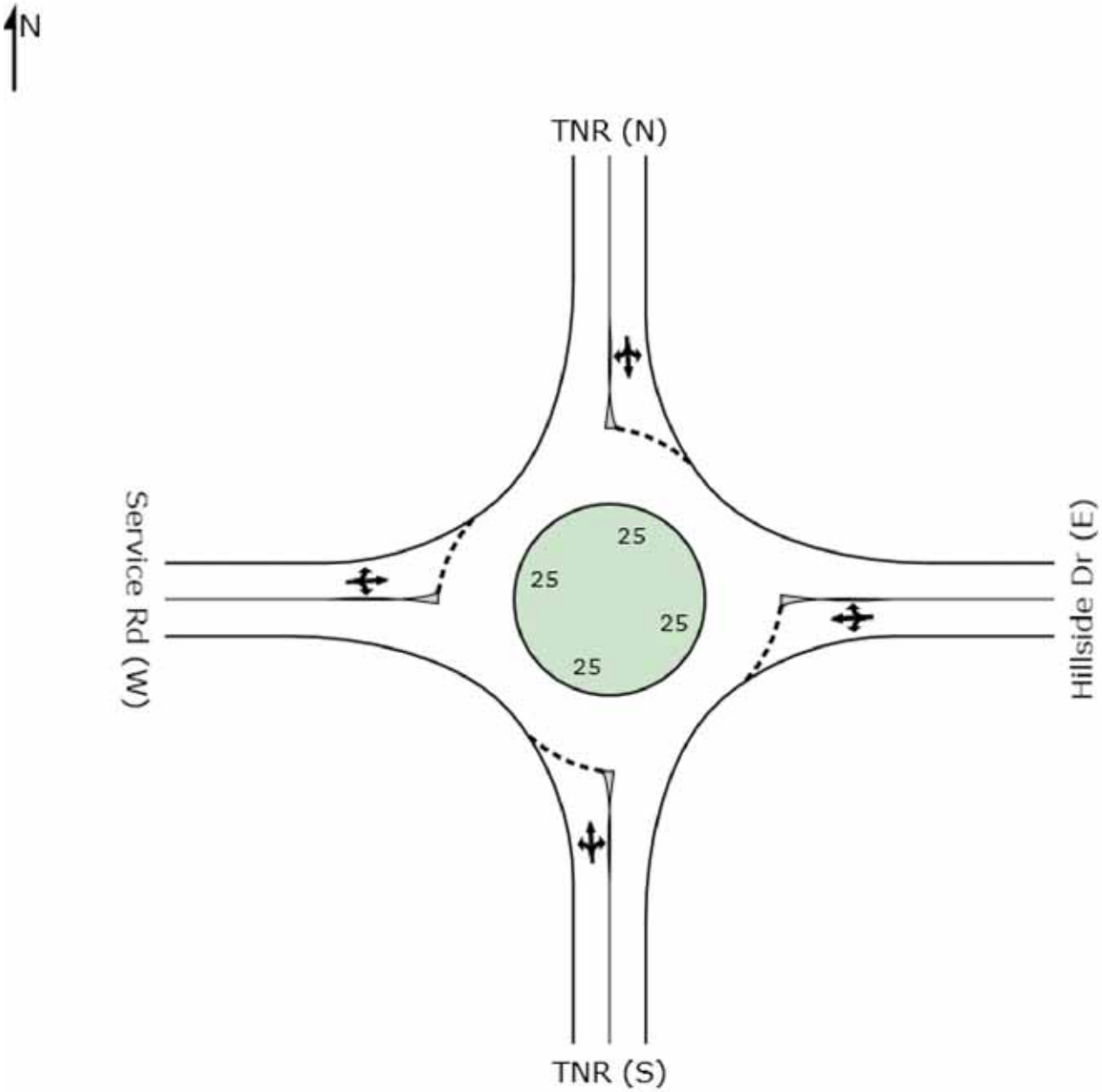
N
TNR (N)
Service Rd (W)
Hillside Dr (E)
TNR (S)
25
25
25
25

MOVEMENT SUMMARY

Site: 2026_Hillside Drive_AM

TNR / Hillside Dr / Service Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	16	6.7	0.895	12.3	LOS A	18.8	137.3	0.98	0.61	54.7
2	T	1163	5.0	0.895	11.3	LOS A	18.8	137.3	0.98	0.60	54.1
3	R	59	5.4	0.895	17.8	LOS B	18.8	137.3	0.98	0.61	53.6
Approach		1238	5.0	0.895	11.6	LOS A	18.8	137.3	0.98	0.61	54.1
East: Hillside Dr (E)											
4	L	213	5.0	2.159	2160.2	LOS F	284.8	2076.1	1.00	7.25	1.0
5	T	5	0.0	2.159	2159.0	LOS F	284.8	2076.1	1.00	7.25	1.0
6	R	176	4.8	2.159	2165.4	LOS F	284.8	2076.1	1.00	7.25	1.1
Approach		394	4.8	2.159	2162.5	LOS F	284.8	2076.1	1.00	7.25	1.0
North: TNR (N)											
7	L	153	4.8	1.522	952.9	LOS F	1007.0	7349.5	1.00	8.90	2.5
8	T	1999	5.0	1.522	951.9	LOS F	1007.0	7349.5	1.00	8.90	2.5
9	R	69	4.5	1.522	958.4	LOS F	1007.0	7349.5	1.00	8.90	2.6
Approach		2221	5.0	1.522	952.2	LOS F	1007.0	7349.5	1.00	8.90	2.5
West: Service Rd (W)											
10	L	123	5.1	0.733	61.2	LOS E	8.5	62.2	1.00	1.30	22.3
11	T	6	0.0	0.733	60.0	LOS E	8.5	62.2	1.00	1.30	22.4
12	R	49	4.3	0.733	66.4	LOS E	8.5	62.2	1.00	1.30	22.3
Approach		179	4.7	0.733	62.6	LOS E	8.5	62.2	1.00	1.30	22.3
All Vehicles		4032	5.0	2.159	742.1	LOS F	1007.0	7349.5	0.99	5.85	3.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Hillside Drive_PM

TNR / Hillside Dr / Service Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	26	8.0	1.609	1110.7	LOS F	979.7	7144.0	1.00	13.79	2.1
2	T	1823	4.8	1.609	1109.6	LOS F	979.7	7144.0	1.00	13.92	2.2
3	R	162	5.2	1.609	1116.1	LOS F	979.7	7144.0	1.00	13.91	2.2
Approach		2012	4.9	1.609	1110.2	LOS F	979.7	7144.0	1.00	13.92	2.2
East: Hillside Dr (E)											
4	L	163	5.2	1.371	740.0	LOS F	135.4	986.8	1.00	5.54	2.8
5	T	7	0.0	1.371	738.8	LOS F	135.4	986.8	1.00	5.55	2.8
6	R	180	4.7	1.371	745.2	LOS F	135.4	986.8	1.00	5.55	3.0
Approach		351	4.8	1.371	742.6	LOS F	135.4	986.8	1.00	5.54	2.9
North: TNR (N)											
7	L	237	4.9	1.412	754.6	LOS F	758.0	5530.5	1.00	8.71	3.1
8	T	1581	5.0	1.412	753.7	LOS F	758.0	5530.5	1.00	8.71	3.1
9	R	146	4.3	1.412	760.2	LOS F	758.0	5530.5	1.00	8.71	3.3
Approach		1964	4.9	1.412	754.3	LOS F	758.0	5530.5	1.00	8.71	3.1
West: Service Rd (W)											
10	L	80	5.3	0.562	45.3	LOS D	5.4	39.1	1.00	1.15	26.7
11	T	6	0.0	0.562	44.1	LOS D	5.4	39.1	1.00	1.15	26.8
12	R	35	3.0	0.562	50.5	LOS D	5.4	39.1	1.00	1.15	26.3
Approach		121	4.3	0.562	46.7	LOS D	5.4	39.1	1.00	1.15	26.6
All Vehicles		4447	4.9	1.609	895.1	LOS F	979.7	7144.0	1.00	10.61	2.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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N
TNR (N)
115
Cobbitty Rd (W)
115
115
115
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Cobbitty Rd (W)_AM

TNR / Cobbitty Rd (W)
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	300	4.9	0.167	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
2	T	1163	5.0	0.616	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1463	5.0	0.616	2.3	NA	0.0	0.0	0.00	0.15	74.6
North: TNR (N)											
8	T	1927	5.0	1.021	37.2	LOS C	49.8	363.9	1.00	0.00	34.1
9	R	153	4.8	0.496	28.9	LOS C	2.3	17.1	0.88	1.06	41.2
Approach		2080	5.0	1.021	36.6	NA	49.8	363.9	0.99	0.08	34.5
West: Cobbitty Rd (W)											
10	L	77	5.5	0.209	24.0	LOS B	1.0	7.2	0.83	0.96	45.0
12	R	296	5.0	4.930	7142.0	LOS F	304.3	2220.9	1.00	6.20	0.3
Approach		373	5.1	4.930	5674.2	LOS F	304.3	2220.9	0.96	5.12	0.4
All Vehicles		3916	5.0	4.930	560.3	NA	304.3	2220.9	0.62	0.58	4.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Cobbitty Rd (W)_PM

TNR / Cobbitty Rd (W)
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	187	5.1	0.105	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
2	T	1684	4.9	0.891	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1872	4.9	0.891	1.1	NA	0.0	0.0	0.00	0.07	77.3
North: TNR (N)											
8	T	1770	5.0	0.939	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
9	R	183	4.9	1.162	382.7	LOS F	39.0	284.5	1.00	3.17	5.9
Approach		1953	5.0	1.162	35.9	NA	39.0	284.5	0.09	0.30	37.2
West: Cobbitty Rd (W)											
10	L	47	4.4	0.290	44.5	LOS D	1.2	8.9	0.93	1.01	32.6
12	R	273	5.0	4.544	6445.6	LOS F	274.3	2002.8	1.00	6.17	0.4
Approach		320	4.9	4.544	5498.1	LOS F	274.3	2002.8	0.99	5.41	0.4
All Vehicles		4144	5.0	4.544	441.9	NA	274.3	2002.8	0.12	0.59	5.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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N
TNR (N)
Belmore Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Belmore Rd_AM

TNR / Belmore Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	17	6.3	0.969	11.2	LOS A	0.0	0.0	0.00	1.38	58.9
2	T	1813	5.0	0.969	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1829	5.0	0.969	0.1	NA	0.0	0.0	0.00	0.01	79.7
North: TNR (N)											
8	T	669	5.0	1.355	648.3	LOS F	291.1	2125.6	1.00	0.00	3.6
9	R	23	4.5	1.355	659.3	LOS F	291.1	2125.6	1.00	1.77	3.6
Approach		693	5.0	1.355	648.6	NA	291.1	2125.6	1.00	0.06	3.6
West: Belmore Rd (W)											
10	L	27	3.8	1.000[4]	400.1	LOS F	7.0	51.2	1.00	1.21	5.7
12	R	14	7.7	1.000[4]	400.2	LOS F	7.0	51.2	1.00	1.21	5.7
Approach		41	5.1	1.000	400.1	LOS F	7.0	51.2	1.00	1.21	5.7
All Vehicles		2563	5.0	1.355	181.8	NA	291.1	2125.6	0.29	0.04	11.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

4 x = 1.00 due to minimum capacity

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MOVEMENT SUMMARY

Site: 2026_Belmore Rd_PM

TNR / Belmore Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	15	7.1	0.428	11.3	LOS A	0.0	0.0	0.00	1.37	58.9
2	T	792	5.1	0.428	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		806	5.1	0.428	0.2	NA	0.0	0.0	0.00	0.02	79.5
North: TNR (N)											
8	T	1697	5.0	0.952	165.0	LOS F	63.3	462.1	1.00	0.00	12.4
9	R	26	4.0	0.952	176.0	LOS F	63.3	462.1	1.00	2.06	12.2
Approach		1723	5.0	0.952	165.2	NA	63.3	462.1	1.00	0.03	12.4
West: Belmore Rd (W)											
10	L	23	4.5	1.000[4]	318.4	LOS F	5.2	38.1	0.98	1.46	7.0
12	R	18	5.9	1.000[4]	318.4	LOS F	5.2	38.1	0.98	1.32	7.0
Approach		41	5.1	1.000	318.4	LOS F	5.2	38.1	0.98	1.40	7.0
All Vehicles		2571	5.0	1.000	115.9	NA	63.3	462.1	0.69	0.05	16.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

4 x = 1.00 due to minimum capacity

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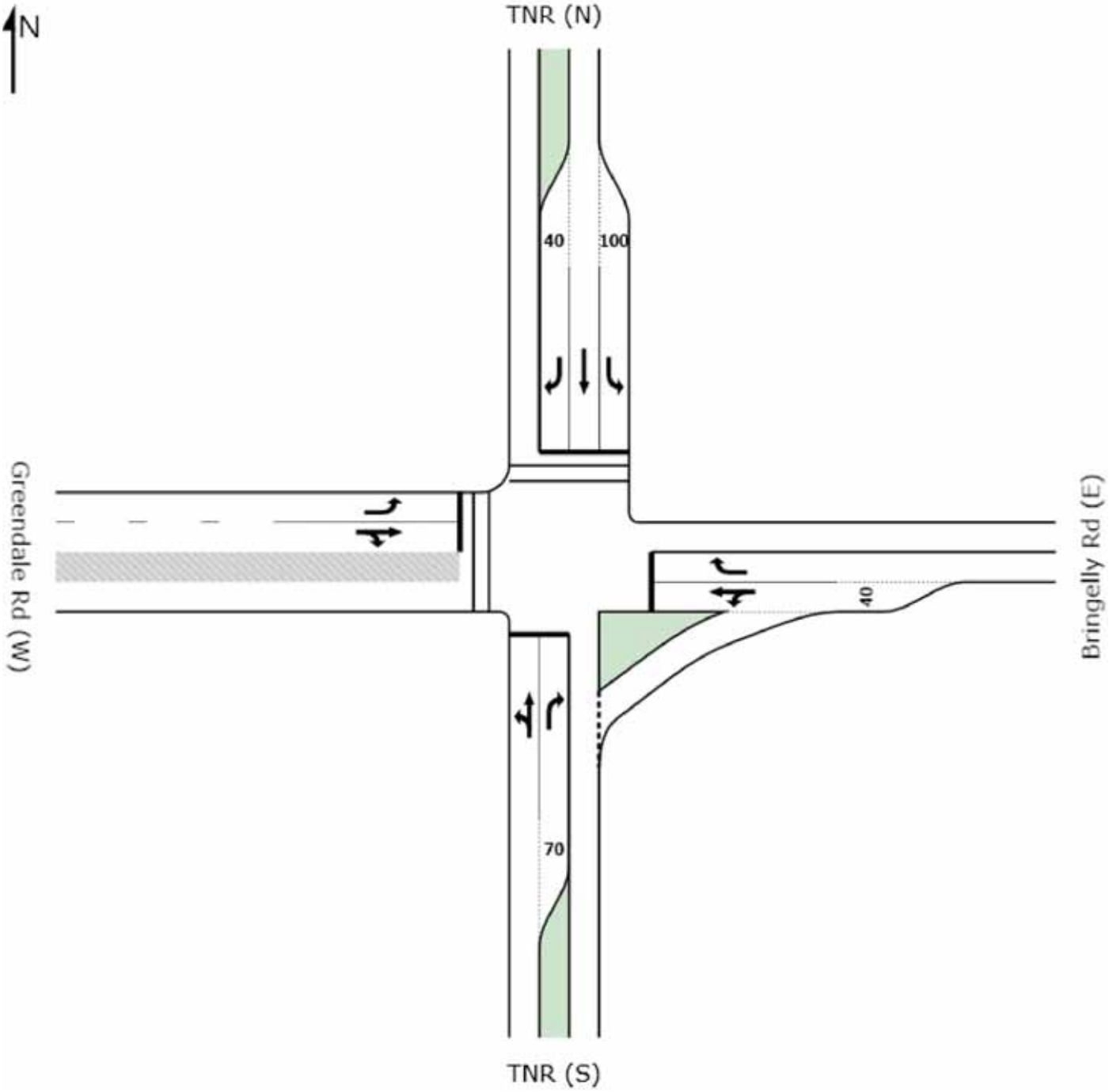
N
TNR (N)
40
100
Greendale Rd (W)
Bringelly Rd (E)
40
70
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Bringelly Rd_AM

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	203	5.2	1.434	834.2	LOS F	528.8	3860.8	1.00	3.92	2.8
11	T	1411	5.0	1.434	823.0	LOS F	528.8	3860.8	1.00	3.92	2.9
12	R	241	4.8	0.888	56.2	LOS D	15.7	114.2	0.82	0.92	28.2
Approach		1855	5.0	1.434	724.6	LOS F	528.8	3860.8	0.98	3.53	3.3
East: Bringelly Rd (E)											
1	L	91	4.7	1.000[3]	51.9	LOS D	9.0	65.4	0.98	0.81	30.7
2	T	84	5.0	1.000[3]	40.6	LOS C	9.0	65.4	0.98	0.80	31.3
3	R	350	5.1	1.413	836.5	LOS F	110.4	806.5	1.00	2.79	2.8
Approach		525	5.0	1.413	573.4	LOS F	110.4	806.5	0.99	2.13	4.1
North: TNR (N)											
4	L	174	4.8	0.303	24.2	LOS B	5.1	37.3	0.47	0.78	44.8
5	T	494	4.9	0.435	9.2	LOS A	10.1	73.9	0.33	0.30	59.5
6	R	23	4.5	0.410	90.1	LOS F	1.7	12.3	1.00	0.69	20.3
Approach		691	4.9	0.435	15.7	LOS B	10.1	73.9	0.39	0.43	52.0
West: Greendale Rd (W)											
7	L	23	4.5	0.095	68.6	LOS E	1.4	10.1	0.91	0.73	24.7
8	T	243	5.2	1.420	838.2	LOS F	113.9	831.7	1.00	2.82	2.8
9	R	115	4.6	1.420	849.3	LOS F	113.9	831.7	1.00	2.82	2.8
Approach		381	5.0	1.420	794.8	LOS F	113.9	831.7	0.99	2.69	3.0
All Vehicles		3388	5.1	1.434	578.0	LOS F	528.8	3860.8	0.88	2.65	4.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across N approach	11	61.3	LOS F	0.0	0.0	0.94	0.94
P5	Across W approach	11	14.2	LOS B	0.0	0.0	0.45	0.45
All Pedestrians		22	37.7	LOS D			0.69	0.69

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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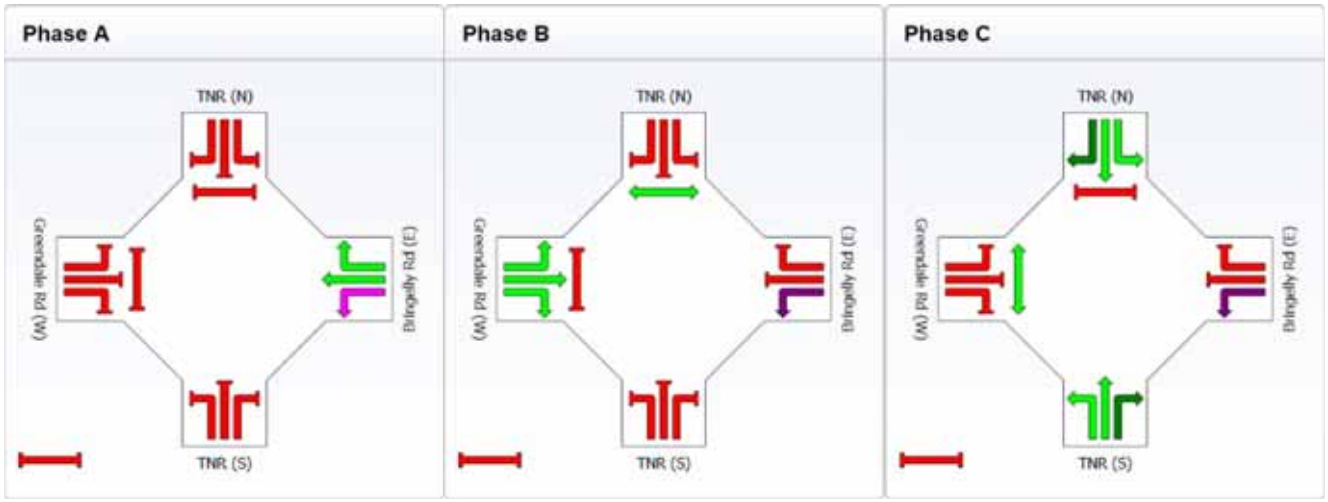
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	19	19	84
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	25	25	90
Phase Split	18 %	18 %	64 %



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MOVEMENT SUMMARY

Site: 2026_Bringelly Rd_PM

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 100 seconds (Optimum Cycle Time - Minimum Delay)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	106	5.0	0.802	31.7	LOS C	27.1	197.6	0.80	0.98	42.2
11	T	614	5.1	0.802	20.5	LOS B	27.1	197.6	0.80	0.75	44.0
12	R	92	5.2	1.162	367.0	LOS F	15.6	114.2	1.00	1.57	6.1
Approach		812	5.1	1.162	61.1	LOS E	27.1	197.6	0.83	0.87	26.0
East: Bringelly Rd (E)											
1	L	217	4.9	1.000[3]	45.9	LOS D	10.7	78.2	0.98	0.92	32.7
2	T	87	5.3	1.000[3]	34.7	LOS C	10.7	78.2	0.98	0.91	33.3
3	R	463	5.4	1.479	933.3	LOS F	148.6	1087.4	1.00	3.69	2.5
Approach		767	5.2	1.479	580.8	LOS F	148.6	1087.4	0.99	2.59	4.0
North: TNR (N)											
4	L	228	5.1	0.384	27.7	LOS B	6.6	48.1	0.63	0.80	42.1
5	T	1349	4.9	1.488	919.4	LOS F	439.3	3204.9	1.00	5.26	2.6
6	R	36	5.9	0.246	48.9	LOS D	1.6	11.4	0.87	0.77	30.8
Approach		1614	5.0	1.488	773.9	LOS F	439.3	3204.9	0.95	4.53	3.1
West: Greendale Rd (W)											
7	L	22	4.8	0.072	49.1	LOS D	0.9	6.7	0.87	0.72	30.7
8	T	171	4.9	1.084	225.8	LOS F	43.9	319.8	1.00	1.80	9.4
9	R	169	4.3	1.084	236.8	LOS F	43.9	319.8	1.00	1.80	9.2
Approach		362	4.7	1.084	220.2	LOS F	43.9	319.8	0.99	1.73	9.7
All Vehicles		3420	5.2	1.488	533.2	LOS F	439.3	3204.9	0.97	3.11	4.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across N approach	11	43.2	LOS E	0.0	0.0	0.93	0.93
P5	Across W approach	11	17.4	LOS B	0.0	0.0	0.59	0.59
All Pedestrians		22	30.3	LOS D			0.76	0.76

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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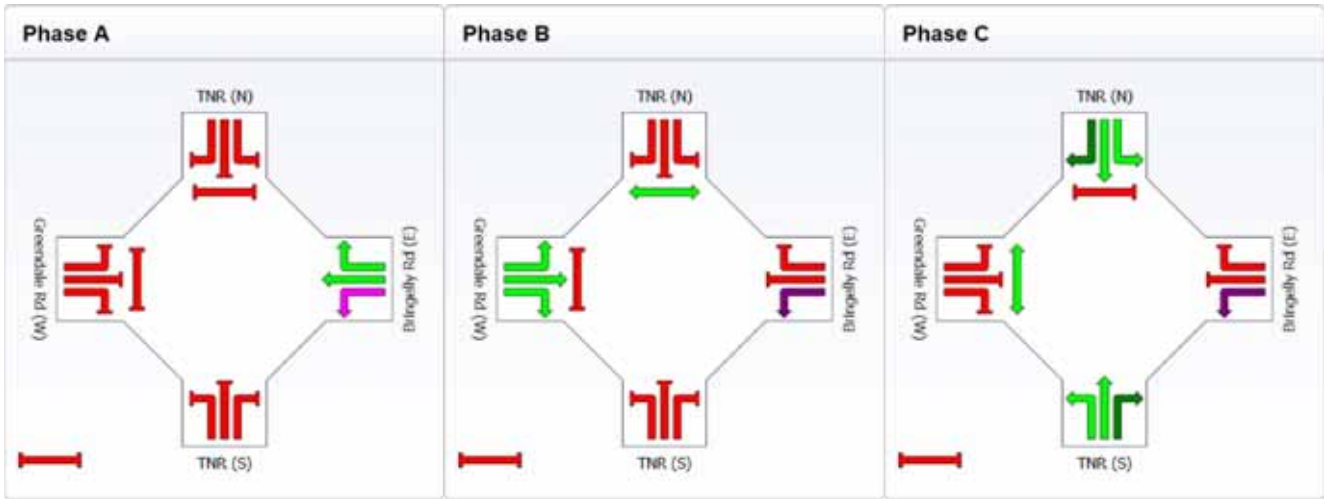
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 100 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	17	17	48
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	23	23	54
Phase Split	23 %	23 %	54 %



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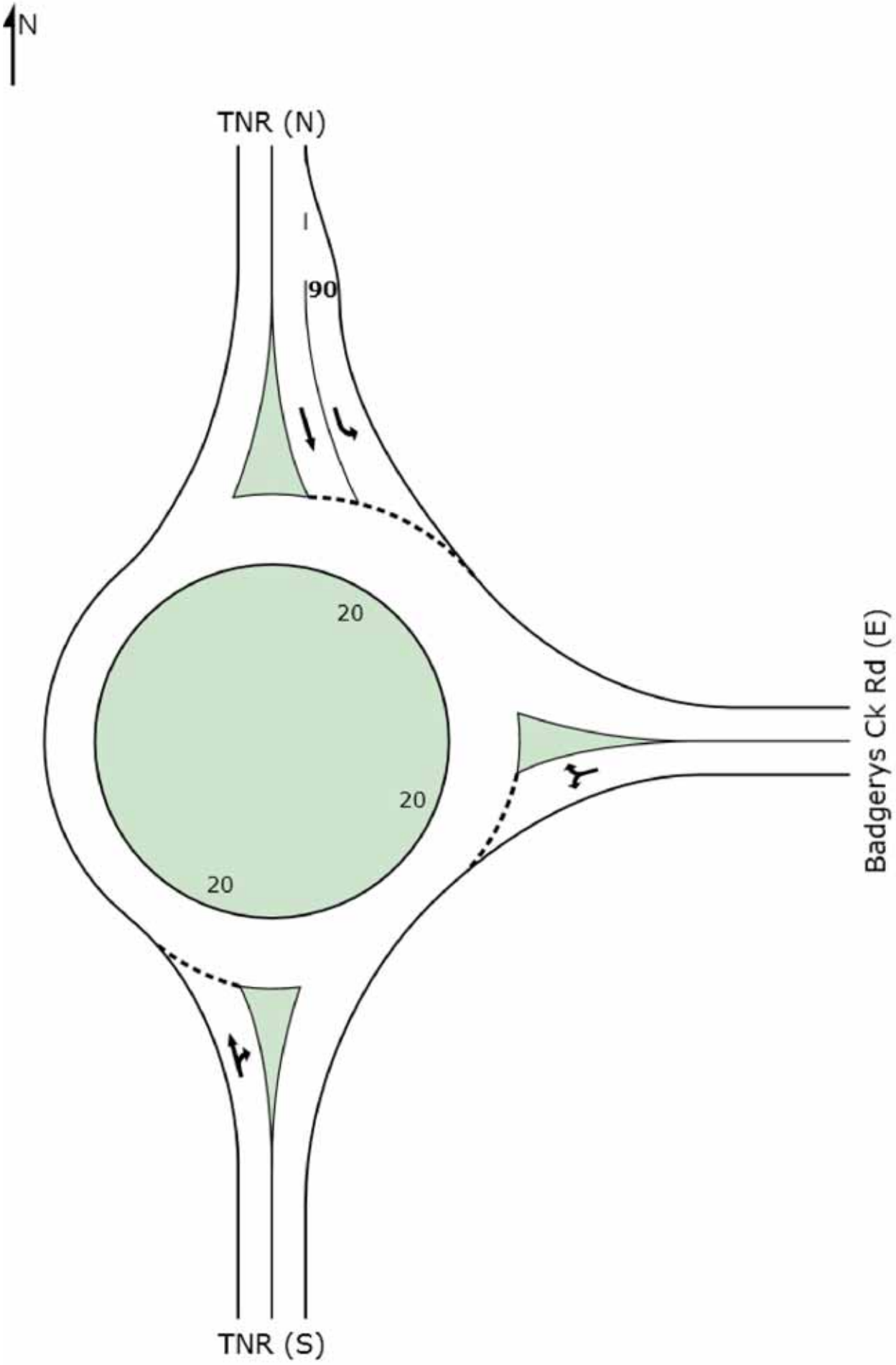
N
TNR (N)
90
20
20
20
Badgerys Ck Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Badgerys Ck Rd_AM

TNR / Badgerys Ck Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1039	5.0	0.990	16.2	LOS B	189.9	1386.5	1.00	0.26	51.8
3	R	623	5.1	0.990	21.8	LOS B	189.9	1386.5	1.00	0.26	48.6
Approach		1662	5.0	0.990	18.3	LOS B	189.9	1386.5	1.00	0.26	50.5
East: Badgerys Ck Rd (E)											
4	L	149	4.8	0.205	9.4	LOS A	1.4	9.8	0.71	0.74	46.9
6	R	15	0.0	0.205	14.1	LOS A	1.4	9.8	0.71	0.82	44.4
Approach		164	4.3	0.205	9.8	LOS A	1.4	9.8	0.71	0.74	46.6
North: TNR (N)											
7	L	25	8.3	0.047	14.8	LOS B	0.3	2.0	0.73	0.75	54.2
8	T	522	5.0	0.592	14.7	LOS B	6.4	46.5	0.96	0.93	54.1
Approach		547	5.2	0.592	14.7	LOS B	6.4	46.5	0.95	0.92	54.2
All Vehicles		2374	5.0	0.990	16.9	LOS B	189.9	1386.5	0.97	0.45	51.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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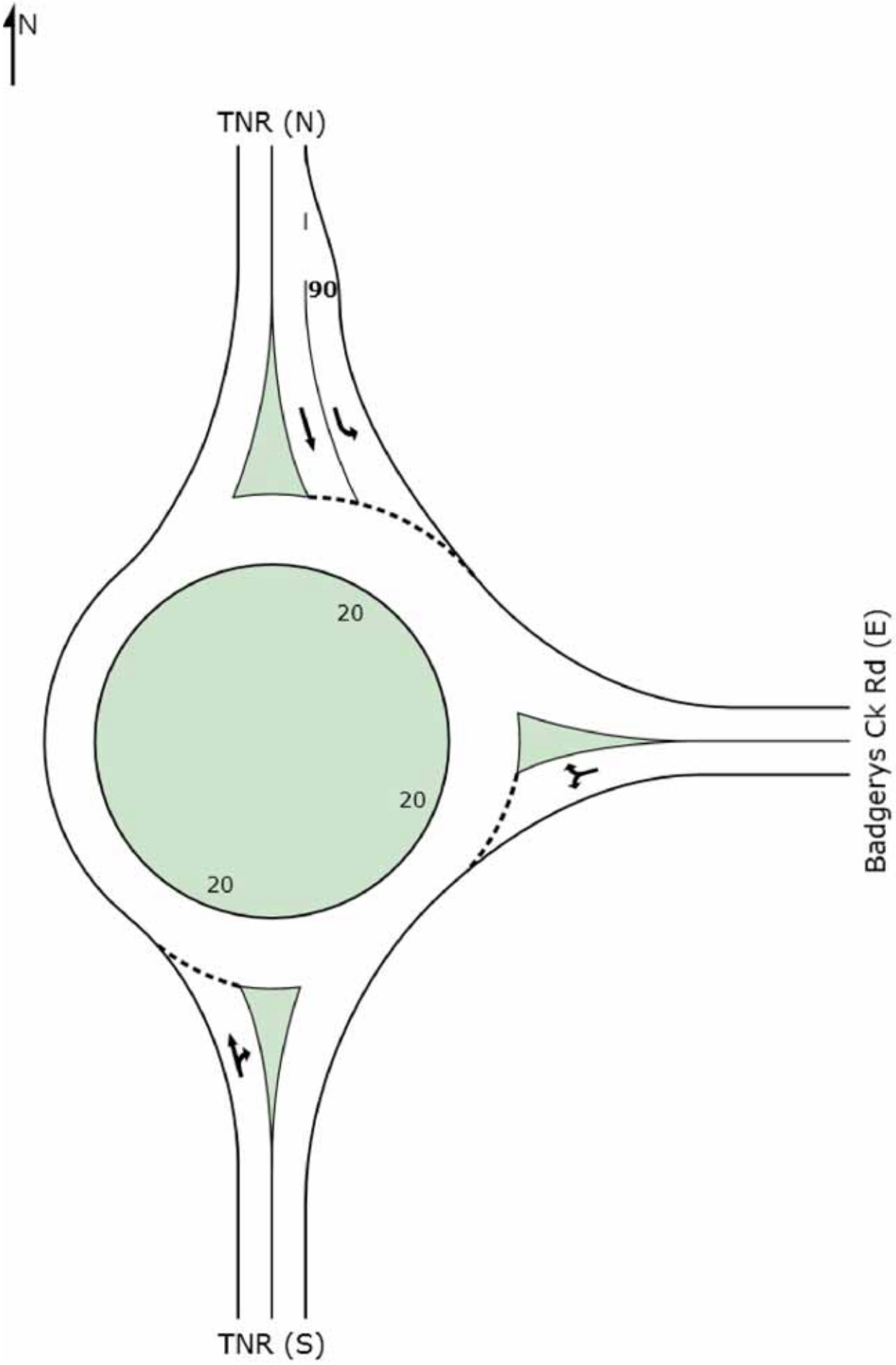
SIDRA INTERSECTION


N
TNR (N)
90
20
20
20
Badgerys Ck Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Badgerys Ck Rd_PM

TNR / Badgerys Ck Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	657	5.0	0.492	9.2	LOS A	5.0	36.8	0.17	0.53	60.3
3	R	144	5.1	0.492	14.8	LOS B	5.0	36.8	0.17	0.81	54.7
Approach		801	5.0	0.492	10.2	LOS A	5.0	36.8	0.17	0.58	59.2
East: Badgerys Ck Rd (E)											
4	L	693	5.0	1.247	483.0	LOS F	197.4	1441.1	1.00	8.09	4.2
6	R	22	4.8	1.247	487.7	LOS F	197.4	1441.1	1.00	8.09	4.4
Approach		715	5.0	1.247	483.2	LOS F	197.4	1441.1	1.00	8.09	4.2
North: TNR (N)											
7	L	12	9.1	0.013	11.4	LOS A	0.1	0.4	0.32	0.60	57.8
8	T	914	5.0	0.602	10.1	LOS A	5.4	39.3	0.48	0.59	57.8
Approach		925	5.0	0.602	10.1	LOS A	5.4	39.3	0.47	0.59	57.8
All Vehicles		2441	5.0	1.247	148.7	LOS F	197.4	1441.1	0.53	2.78	13.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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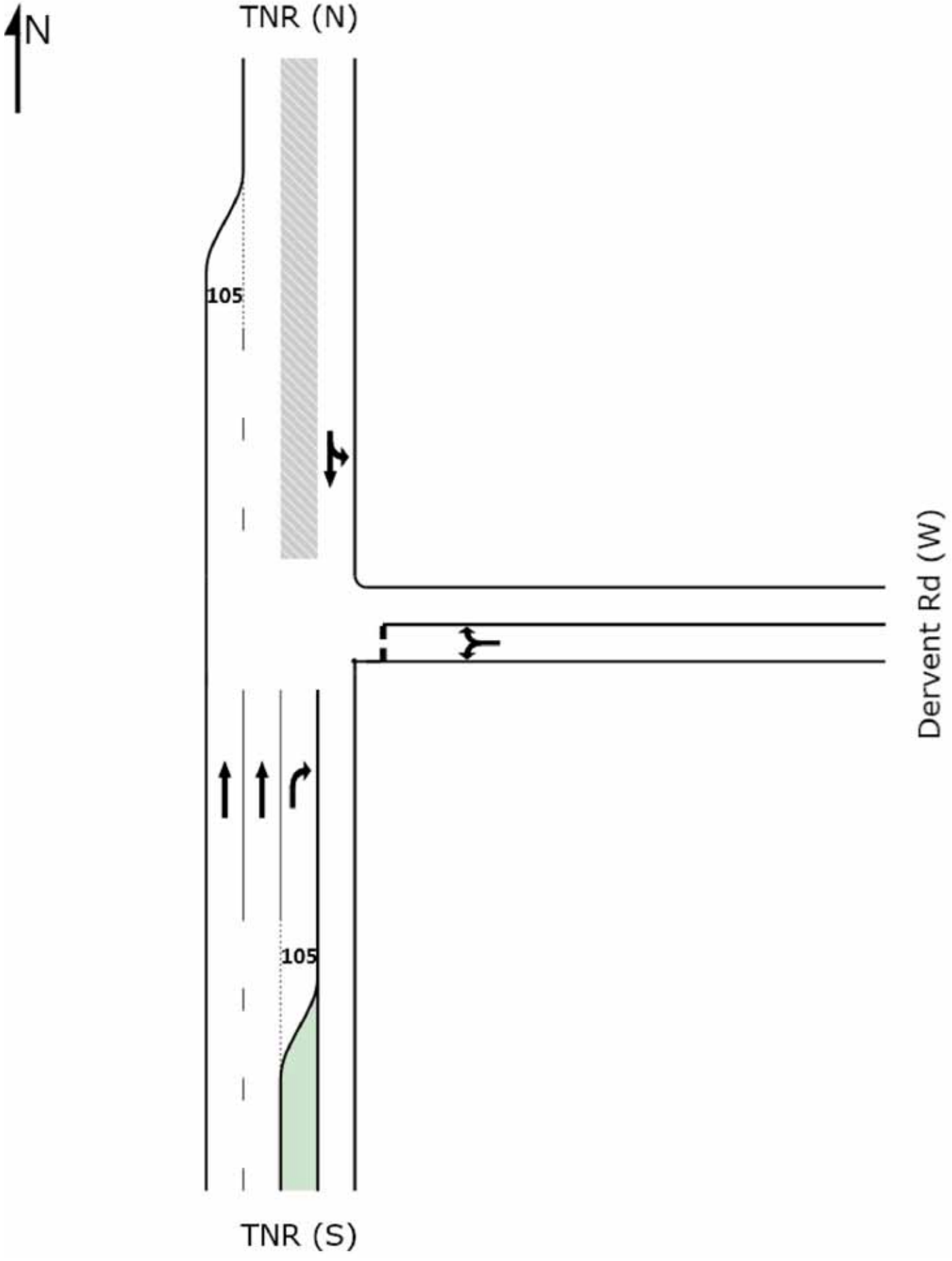
N
TNR (N)
105
105
TNR (S)
Dervent Rd (W)

MOVEMENT SUMMARY

Site: 2026_Derwent Rd_AM

TNR / Dervent Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	987	5.0	0.338	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	55	5.8	0.070	14.0	LOS A	0.3	1.9	0.52	0.81	55.3
Approach		1042	5.1	0.338	0.7	NA	0.3	1.9	0.03	0.04	78.2
East: Dervent Rd (W)											
4	L	28	3.7	0.161	26.6	LOS B	0.5	3.4	0.74	0.91	42.8
6	R	5	0.0	0.161	26.2	LOS B	0.5	3.4	0.74	0.94	43.2
Approach		34	3.1	0.161	26.5	LOS B	0.5	3.4	0.74	0.92	42.9
North: TNR (N)											
7	L	16	6.7	0.279	11.2	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	511	4.9	0.279	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		526	5.0	0.279	0.3	NA	0.0	0.0	0.00	0.04	79.2
All Vehicles		1602	5.0	0.338	1.1	NA	0.5	3.4	0.03	0.06	77.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Derwent Rd_PM

TNR / Dervent Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	633	5.0	0.216	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	33	6.5	0.077	18.4	LOS B	0.3	1.9	0.72	0.93	50.3
Approach		665	5.1	0.216	0.9	NA	0.3	1.9	0.04	0.05	77.8
East: Dervent Rd (W)											
4	L	55	5.8	0.545	51.9	LOS D	2.0	15.0	0.92	1.07	29.6
6	R	18	5.9	0.545	51.8	LOS D	2.0	15.0	0.92	1.06	29.8
Approach		73	5.8	0.545	51.9	LOS D	2.0	15.0	0.92	1.06	29.7
North: TNR (N)											
7	L	6	16.7	0.457	11.7	LOS A	0.0	0.0	0.00	1.44	58.9
8	T	856	4.9	0.457	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		862	5.0	0.457	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		1600	5.1	0.545	2.8	NA	2.0	15.0	0.06	0.07	73.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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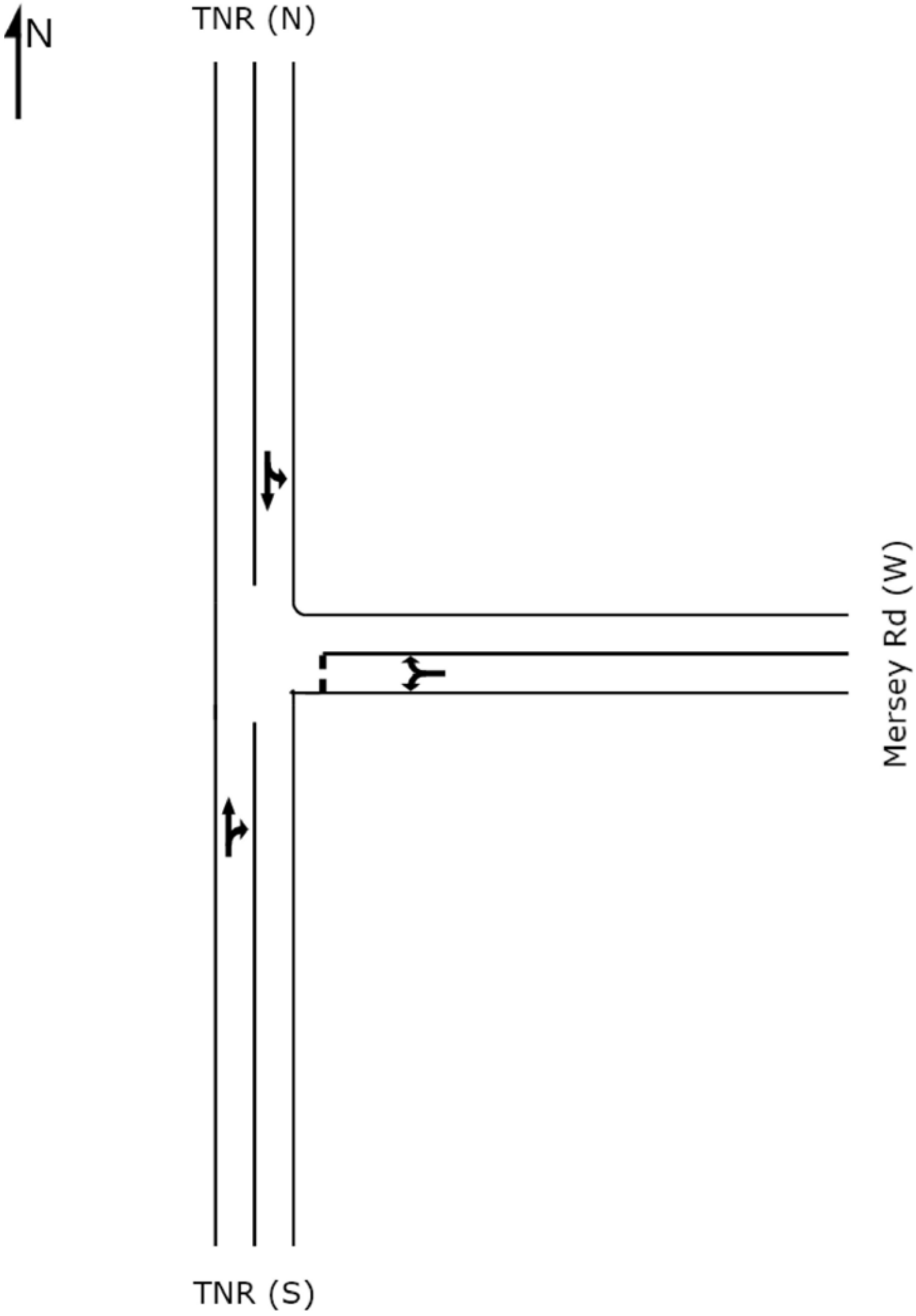
N
TNR (N)
Mersey Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Mersey Rd_AM

TNR / Mersey Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	923	5.0	0.563	7.9	LOS A	12.8	93.4	1.00	0.00	53.9
3	R	60	5.3	0.563	19.0	LOS B	12.8	93.4	1.00	1.16	57.0
Approach		983	5.0	0.563	8.6	NA	12.8	93.4	1.00	0.07	54.1
East: Mersey Rd (W)											
4	L	23	4.5	0.310	50.7	LOS D	1.0	6.9	0.86	1.00	30.1
6	R	9	0.0	0.310	50.3	LOS D	1.0	6.9	0.86	0.99	30.3
Approach		33	3.2	0.310	50.6	LOS D	1.0	6.9	0.86	1.00	30.1
North: TNR (N)											
7	L	17	6.3	0.267	11.2	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	486	5.0	0.267	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		503	5.0	0.267	0.4	NA	0.0	0.0	0.00	0.04	79.1
All Vehicles		1519	5.0	0.563	6.8	NA	12.8	93.4	0.67	0.08	59.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Mersey Rd_PM

TNR / Mersey Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	612	5.0	0.374	10.8	LOS A	7.5	54.8	1.00	0.00	53.0
3	R	25	4.2	0.374	21.8	LOS B	7.5	54.8	1.00	1.09	53.6
Approach		637	5.0	0.374	11.2	NA	7.5	54.8	1.00	0.04	53.1
East: Mersey Rd (W)											
4	L	61	5.2	0.546	50.1	LOS D	2.1	15.0	0.91	1.07	30.3
6	R	16	0.0	0.546	49.6	LOS D	2.1	15.0	0.91	1.06	30.5
Approach		77	4.1	0.546	50.0	LOS D	2.1	15.0	0.91	1.07	30.4
North: TNR (N)											
7	L	14	7.7	0.422	11.3	LOS A	0.0	0.0	0.00	1.37	58.9
8	T	782	5.0	0.422	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		796	5.0	0.422	0.2	NA	0.0	0.0	0.00	0.02	79.5
All Vehicles		1509	5.0	0.546	7.4	NA	7.5	54.8	0.47	0.09	61.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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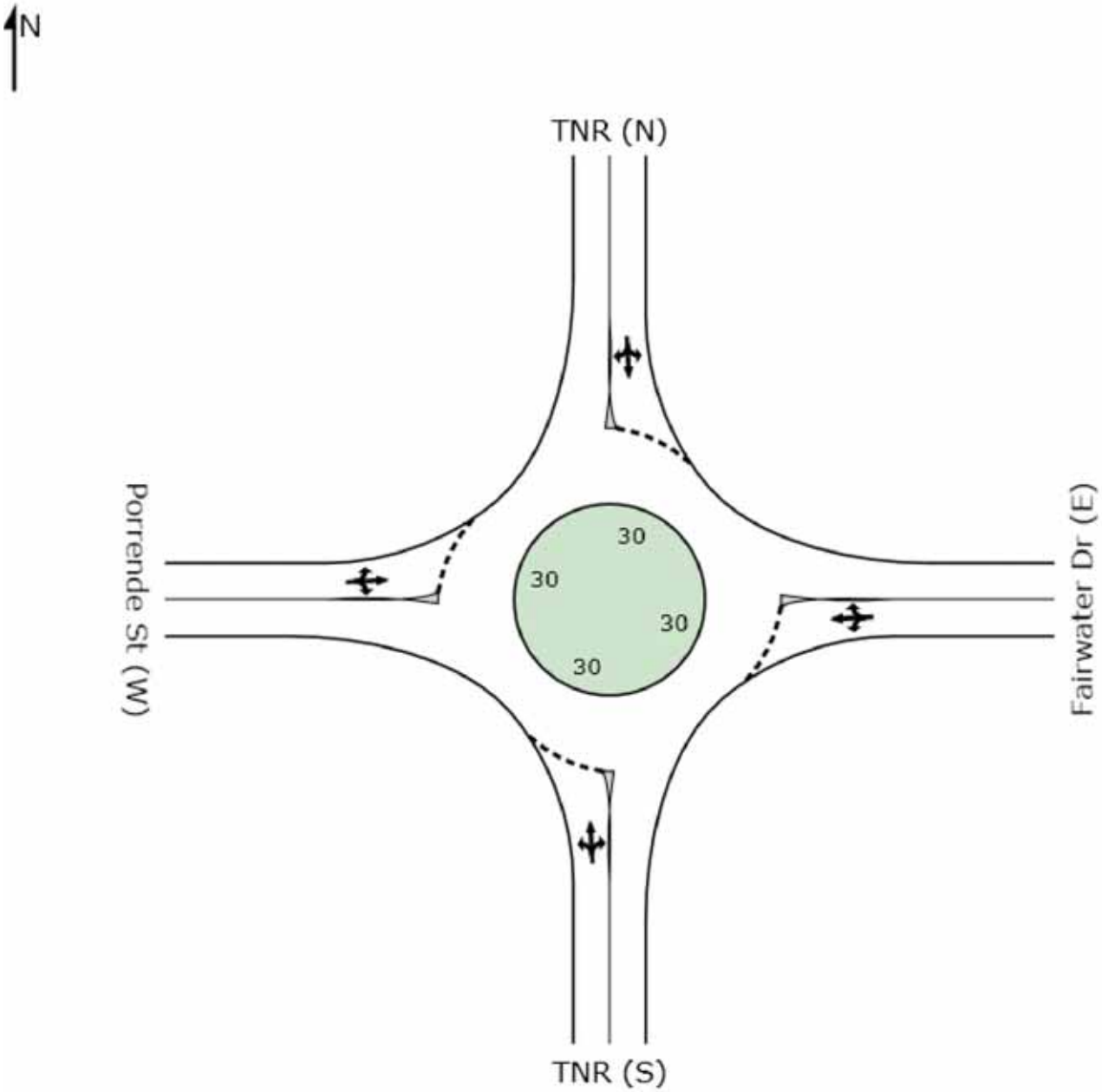
Appendix A4

2036 – *Do Nothing* – SIDRA Results and Intersection Layout (AM and PM Peak)


N
TNR (N)
Porrende St (W)
Fairwater Dr (E)
TNR (S)
30
30
30
30

MOVEMENT SUMMARY

Site: 2036_Fairwater Drive_AM

TNR / Porrende St / Fairwater Dr
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	42	5.0	1.012	61.0	LOS E	74.7	545.2	1.00	1.73	26.9
2	T	1048	5.0	1.012	59.9	LOS E	74.7	545.2	1.00	1.73	27.1
3	R	177	4.8	1.012	67.1	LOS E	74.7	545.2	1.00	1.73	26.6
Approach		1267	5.0	1.012	61.0	LOS E	74.7	545.2	1.00	1.73	27.0
East: Fairwater Dr (E)											
4	L	225	5.1	1.567	1071.4	LOS F	226.2	1651.5	1.00	7.62	2.0
5	T	103	5.1	1.567	1070.1	LOS F	226.2	1651.5	1.00	7.62	2.0
6	R	133	4.8	1.567	1077.1	LOS F	226.2	1651.5	1.00	7.62	2.1
Approach		461	5.0	1.567	1072.7	LOS F	226.2	1651.5	1.00	7.62	2.0
North: TNR (N)											
7	L	177	4.8	1.895	1625.1	LOS F	1470.2	10734.0	1.00	17.22	1.5
8	T	2097	5.0	1.895	1624.1	LOS F	1470.2	10734.0	1.00	17.21	1.5
9	R	161	5.2	1.895	1631.3	LOS F	1470.2	10734.0	1.00	17.20	1.6
Approach		2435	5.0	1.895	1624.7	LOS F	1470.2	10734.0	1.00	17.21	1.5
West: Porrende St (W)											
10	L	172	4.9	0.905	116.9	LOS F	16.6	121.2	1.00	1.71	14.3
11	T	48	4.3	0.905	115.6	LOS F	16.6	121.2	1.00	1.71	14.3
12	R	12	9.1	0.905	122.7	LOS F	16.6	121.2	1.00	1.70	14.7
Approach		232	5.0	0.905	116.9	LOS F	16.6	121.2	1.00	1.71	14.3
All Vehicles		4395	5.0	1.895	1036.4	LOS F	1470.2	10734.0	1.00	10.93	2.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Fairwater Drive_PM

TNR / Porrende St / Fairwater Dr
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	57	5.6	2.071	1942.2	LOS F	1518.7	11086.4	1.00	20.28	1.2
2	T	1946	5.0	2.071	1941.1	LOS F	1518.7	11086.4	1.00	20.31	1.2
3	R	312	5.1	2.071	1948.3	LOS F	1518.7	11086.4	1.00	20.31	1.3
Approach		2315	5.0	2.071	1942.1	LOS F	1518.7	11086.4	1.00	20.31	1.3
East: Fairwater Dr (E)											
4	L	160	5.3	1.005	135.9	LOS F	36.1	264.1	1.00	2.45	12.7
5	T	83	5.1	1.005	134.7	LOS F	36.1	264.1	1.00	2.45	12.7
6	R	148	5.0	1.005	141.6	LOS F	36.1	264.1	1.00	2.45	13.1
Approach		392	5.1	1.005	137.8	LOS F	36.1	264.1	1.00	2.45	12.8
North: TNR (N)											
7	L	258	4.9	1.447	820.2	LOS F	703.1	5131.4	1.00	12.12	2.9
8	T	1286	5.0	1.447	819.1	LOS F	703.1	5131.4	1.00	12.12	2.9
9	R	211	5.0	1.447	826.4	LOS F	703.1	5131.4	1.00	12.12	3.0
Approach		1755	5.0	1.447	820.1	LOS F	703.1	5131.4	1.00	12.12	2.9
West: Porrende St (W)											
10	L	199	4.8	1.223	481.2	LOS F	102.6	748.0	1.00	4.77	4.2
11	T	140	5.3	1.223	480.0	LOS F	102.6	748.0	1.00	4.77	4.2
12	R	29	3.6	1.223	486.9	LOS F	102.6	748.0	1.00	4.78	4.5
Approach		368	4.9	1.223	481.2	LOS F	102.6	748.0	1.00	4.77	4.3
All Vehicles		4829	5.0	2.071	1276.7	LOS F	1518.7	11086.4	1.00	14.70	1.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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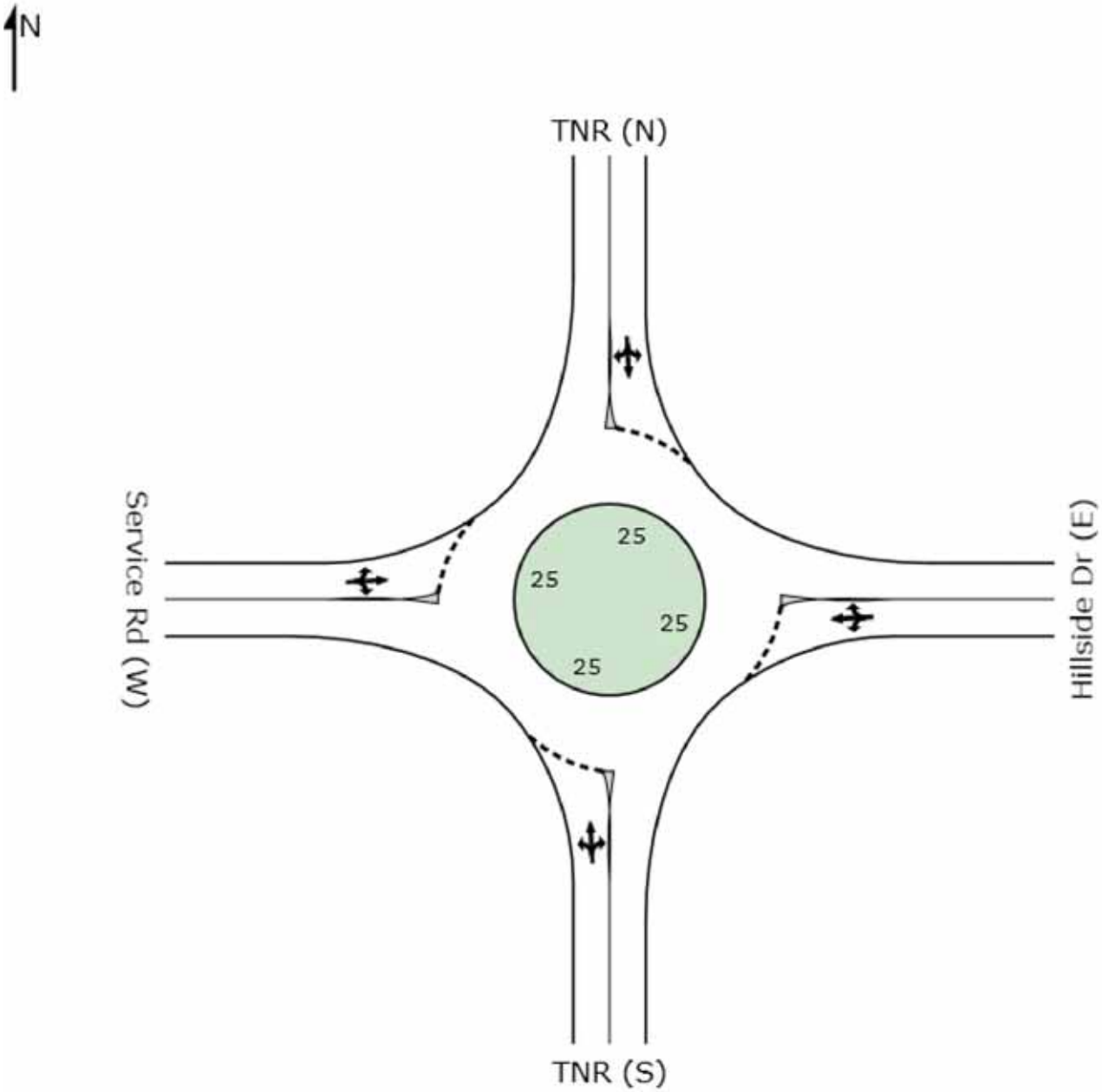
N
TNR (N)
Service Rd (W)
Hillside Dr (E)
TNR (S)
25
25
25
25

MOVEMENT SUMMARY

Site: 2036_Hillside Drive_AM

TNR / Hillside Dr / Service Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	17	6.3	0.999	36.5	LOS C	63.1	461.0	1.00	1.06	36.9
2	T	1279	5.0	0.999	35.5	LOS C	63.1	461.0	1.00	1.06	37.1
3	R	58	5.5	0.999	42.1	LOS C	63.1	461.0	1.00	1.06	35.6
Approach		1354	5.1	0.999	35.8	LOS C	63.1	461.0	1.00	1.06	37.0
East: Hillside Dr (E)											
4	L	192	4.9	2.217	2261.0	LOS F	304.9	2222.7	1.00	7.52	0.9
5	T	5	0.0	2.217	2259.8	LOS F	304.9	2222.7	1.00	7.53	1.0
6	R	217	4.9	2.217	2266.2	LOS F	304.9	2222.7	1.00	7.52	1.0
Approach		414	4.8	2.217	2263.7	LOS F	304.9	2222.7	1.00	7.52	1.0
North: TNR (N)											
7	L	211	5.0	1.678	1234.3	LOS F	1319.8	9634.7	1.00	9.80	1.9
8	T	2194	5.0	1.678	1233.4	LOS F	1319.8	9634.7	1.00	9.80	1.9
9	R	81	5.2	1.678	1239.9	LOS F	1319.8	9634.7	1.00	9.80	2.0
Approach		2485	5.0	1.678	1233.7	LOS F	1319.8	9634.7	1.00	9.80	1.9
West: Service Rd (W)											
10	L	142	5.2	1.124	406.2	LOS F	45.4	330.6	1.00	2.84	4.9
11	T	6	0.0	1.124	405.0	LOS F	45.4	330.6	1.00	2.85	4.9
12	R	48	4.3	1.124	411.4	LOS F	45.4	330.6	1.00	2.85	5.2
Approach		197	4.8	1.124	407.4	LOS F	45.4	330.6	1.00	2.84	5.0
All Vehicles		4449	5.0	2.217	928.5	LOS F	1319.8	9634.7	1.00	6.62	2.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Hillside Drive_PM

TNR / Hillside Dr / Service Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	41	5.1	1.822	1493.3	LOS F	1324.8	9671.1	1.00	16.52	1.6
2	T	2108	5.0	1.822	1492.3	LOS F	1324.8	9671.1	1.00	16.52	1.6
3	R	146	5.0	1.822	1498.8	LOS F	1324.8	9671.1	1.00	16.52	1.7
Approach		2296	5.0	1.822	1492.7	LOS F	1324.8	9671.1	1.00	16.52	1.6
East: Hillside Dr (E)											
4	L	186	5.1	1.571	1090.4	LOS F	194.7	1419.4	1.00	6.77	1.9
5	T	6	0.0	1.571	1089.2	LOS F	194.7	1419.4	1.00	6.78	1.9
6	R	198	4.8	1.571	1095.6	LOS F	194.7	1419.4	1.00	6.77	2.0
Approach		391	4.9	1.571	1093.0	LOS F	194.7	1419.4	1.00	6.77	2.0
North: TNR (N)											
7	L	280	4.9	1.361	662.8	LOS F	705.6	5149.7	1.00	6.64	3.5
8	T	1543	5.0	1.361	661.8	LOS F	705.6	5149.7	1.00	6.64	3.5
9	R	149	4.9	1.361	668.3	LOS F	705.6	5149.7	1.00	6.64	3.7
Approach		1973	5.0	1.361	662.5	LOS F	705.6	5149.7	1.00	6.64	3.6
West: Service Rd (W)											
10	L	102	5.2	0.617	52.3	LOS D	6.2	45.3	1.00	1.19	24.6
11	T	6	0.0	0.617	51.1	LOS D	6.2	45.3	1.00	1.19	24.7
12	R	24	4.3	0.617	57.5	LOS E	6.2	45.3	1.00	1.19	24.4
Approach		133	4.8	0.617	53.2	LOS D	6.2	45.3	1.00	1.19	24.6
All Vehicles		4792	5.0	1.822	1078.5	LOS F	1324.8	9671.1	1.00	11.24	2.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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N
TNR (N)
115
Cobbitty Rd (W)
115
115
115
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Cobbitty Rd (W)_AM

TNR / Cobbitty Rd (W)
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	303	4.9	0.169	11.1	LOS A	0.0	0.0	0.00	0.73	58.9
2	T	1334	5.0	0.706	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1637	5.0	0.706	2.1	NA	0.0	0.0	0.00	0.13	75.1
North: TNR (N)											
8	T	2177	5.0	1.152	274.4	LOS F	359.4	2623.1	1.00	0.00	8.0
9	R	253	5.0	1.075	222.4	LOS F	33.1	241.8	1.00	2.94	9.6
Approach		2429	5.0	1.152	269.0	NA	359.4	2623.1	1.00	0.31	8.2
West: Cobbitty Rd (W)											
10	L	71	4.5	0.251	29.5	LOS C	1.2	8.5	0.88	0.99	40.8
12	R	308	5.1	5.140	7517.8	LOS F	320.0	2337.9	1.00	6.37	0.3
Approach		379	5.0	5.140	6124.2	LOS F	320.0	2337.9	0.98	5.37	0.4
All Vehicles		4445	5.0	5.140	669.9	NA	359.4	2623.1	0.63	0.67	3.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Cobbitty Rd (W)_PM

TNR / Cobbitty Rd (W)
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	249	5.1	0.139	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
2	T	2160	5.0	1.144	258.9	LOS F	339.0	2475.2	1.00	0.00	8.5
Approach		2409	5.0	1.144	233.2	NA	339.0	2475.2	0.90	0.08	9.3
North: TNR (N)											
8	T	1961	5.0	1.044	80.0	LOS F	105.1	767.0	1.00	0.00	21.3
9	R	120	5.0	1.293	637.5	LOS F	39.2	285.8	1.00	3.03	3.6
Approach		2081	5.0	1.293	112.2	NA	105.1	767.0	1.00	0.18	16.8
West: Cobbitty Rd (W)											
10	L	56	5.7	0.580	94.7	LOS F	2.5	18.7	0.98	1.07	19.5
12	R	234	5.0	3.895	5276.8	LOS F	224.3	1637.1	1.00	5.98	0.5
Approach		289	5.1	3.895	4278.1	LOS F	224.3	1637.1	1.00	5.03	0.6
All Vehicles		4780	5.0	3.895	425.5	NA	339.0	2475.2	0.95	0.42	5.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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N
TNR (N)
Belmore Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Belmore Rd_AM

TNR / Belmore Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	37	5.7	1.239	442.2	LOS F	563.1	4110.8	1.00	0.00	5.2
2	T	2302	5.0	1.239	431.0	LOS F	563.1	4110.8	1.00	0.00	5.3
Approach		2339	5.0	1.239	431.2	NA	563.1	4110.8	1.00	0.00	5.3
North: TNR (N)											
8	T	987	5.0	2.365	2459.8	LOS F	823.0	6007.5	1.00	0.00	1.0
9	R	111	4.8	2.365	2470.9	LOS F	823.0	6007.5	1.00	5.02	1.0
Approach		1098	5.0	2.365	2460.9	NA	823.0	6007.5	1.00	0.51	1.0
West: Belmore Rd (W)											
10	L	141	5.2	3.105	3850.7	LOS F	163.5	1194.6	1.00	5.51	0.6
12	R	45	4.7	3.105	3850.6	LOS F	163.5	1194.6	1.00	5.42	0.6
Approach		186	5.1	3.105	3850.7	LOS F	163.5	1194.6	1.00	5.49	0.6
All Vehicles		3623	5.0	3.105	1222.1	NA	823.0	6007.5	1.00	0.44	2.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Belmore Rd_PM

TNR / Belmore Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	48	4.3	0.625	11.1	LOS A	0.0	0.0	0.00	1.32	58.9
2	T	1128	5.0	0.625	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1177	5.0	0.625	0.5	NA	0.0	0.0	0.00	0.05	78.9
North: TNR (N)											
8	T	2147	5.0	2.034	1864.3	LOS F	1501.3	10958.1	1.00	0.00	1.3
9	R	174	4.8	2.034	1875.3	LOS F	1501.3	10958.1	1.00	9.45	1.3
Approach		2321	5.0	2.034	1865.1	NA	1501.3	10958.1	1.00	0.71	1.3
West: Belmore Rd (W)											
10	L	154	4.8	2.096	2032.4	LOS F	133.6	974.0	1.00	6.59	1.2
12	R	43	4.9	2.096	2032.2	LOS F	133.6	974.0	1.00	5.35	1.2
Approach		197	4.8	2.096	2032.3	LOS F	133.6	974.0	1.00	6.31	1.2
All Vehicles		3695	5.0	2.096	1280.1	NA	1501.3	10958.1	0.68	0.80	1.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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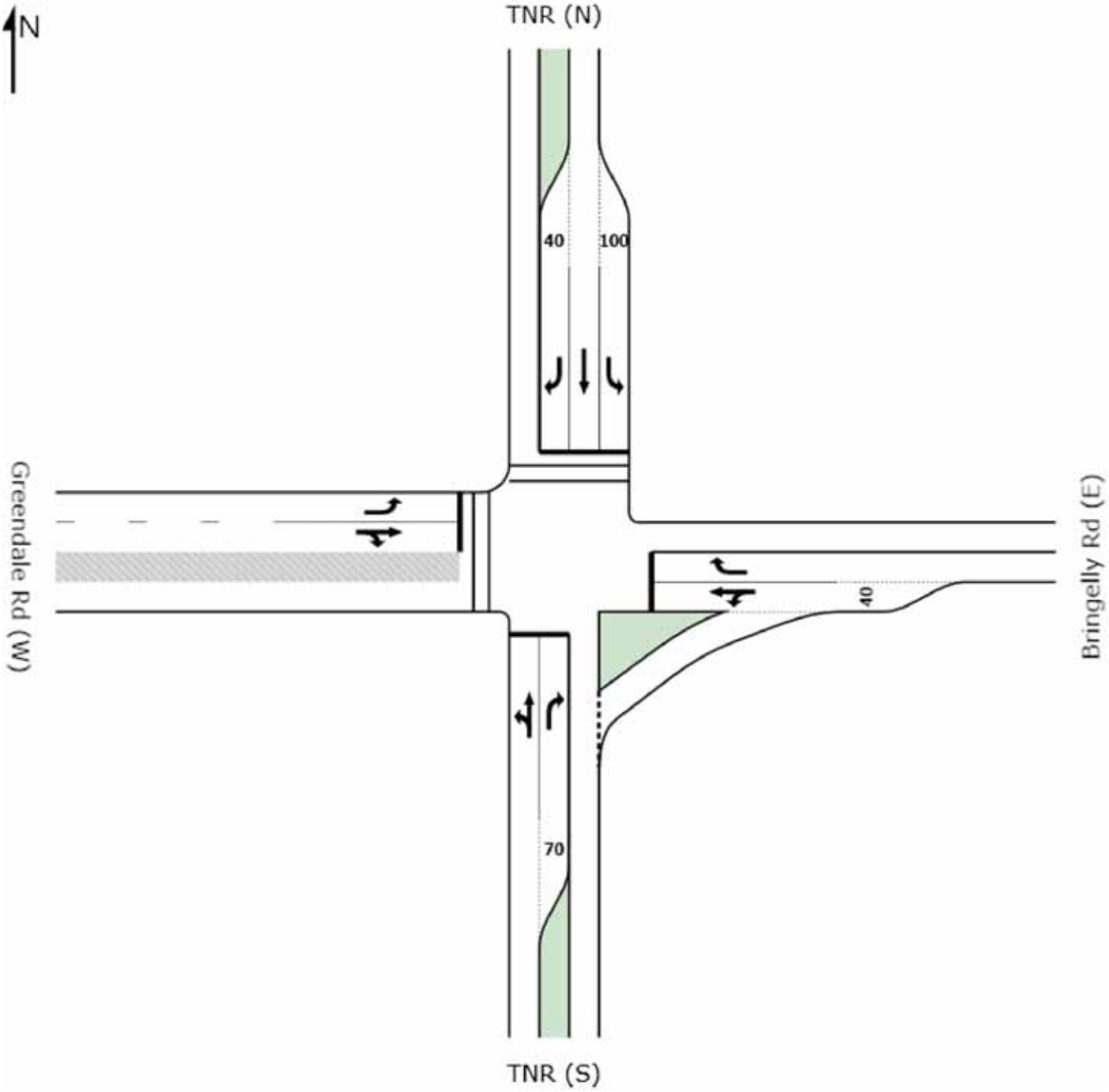
N
TNR (N)
40
100
Greendale Rd (W)
Bringelly Rd (E)
40
70
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Bringelly Rd_AM

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	360	5.0	2.256	2325.2	LOS F	1284.4	9376.2	1.00	6.15	1.0
11	T	2050	5.0	2.256	2314.0	LOS F	1284.4	9376.2	1.00	6.15	1.1
12	R	152	5.2	1.000[3]	118.4	LOS F	15.6	114.2	1.00	1.05	16.4
Approach		2562	5.0	2.256	2185.4	LOS F	1284.4	9376.2	1.00	5.85	1.1
East: Bringelly Rd (E)											
1	L	149	4.9	1.000[3]	43.8	LOS D	8.9	65.3	1.00	0.83	33.7
2	T	67	5.1	1.000[3]	32.5	LOS C	8.9	65.3	1.00	0.83	34.3
3	R	501	4.8	2.102	2077.9	LOS F	251.9	1838.4	1.00	4.15	1.2
Approach		956	5.0	2.102	1098.1	LOS F	251.9	1838.4	1.00	3.15	1.6
North: TNR (N)											
4	L	327	5.1	0.603	27.7	LOS B	11.5	83.9	0.56	0.80	42.1
5	T	728	5.1	0.675	14.1	LOS A	24.0	174.9	0.53	0.49	52.1
6	R	61	5.2	1.083	255.2	LOS F	8.8	64.5	1.00	1.21	8.5
Approach		1117	5.1	1.083	31.3	LOS C	24.0	174.9	0.57	0.62	38.8
West: Greendale Rd (W)											
7	L	72	4.4	0.232	65.4	LOS E	4.2	30.9	0.90	0.77	25.5
8	T	440	5.0	2.204	2250.9	LOS F	364.8	2662.5	1.00	4.73	1.1
9	R	260	4.9	2.204	2262.0	LOS F	364.8	2662.5	1.00	4.73	1.1
Approach		772	4.9	2.204	2051.8	LOS F	364.8	2662.5	0.99	4.36	1.2
All Vehicles		5168	5.2	2.256	1599.5	LOS F	1284.4	9376.2	0.90	4.12	1.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across N approach	11	56.7	LOS E	0.0	0.0	0.90	0.90
P5	Across W approach	11	16.0	LOS B	0.0	0.0	0.48	0.48
All Pedestrians		22	36.4	LOS D			0.69	0.69

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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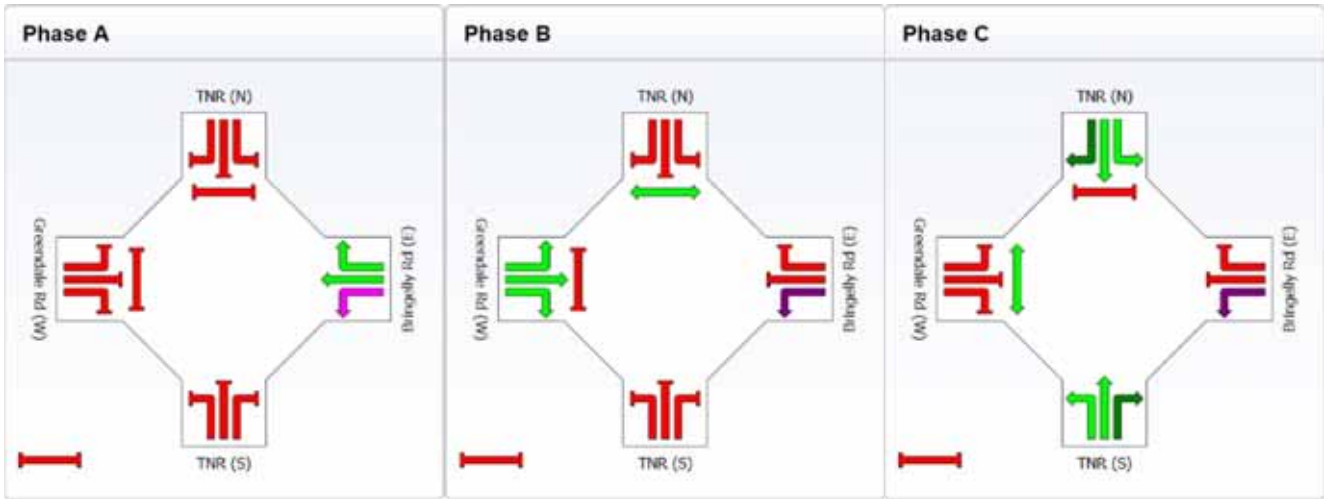
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
AM
Signals - Fixed Time Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	18	24	80
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	24	30	86
Phase Split	17 %	21 %	61 %



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MOVEMENT SUMMARY

Site: 2036_Bringelly Rd_PM

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
10	L	240	4.8	2.005	1895.9	LOS F	608.6	4442.9	1.00	4.92	1.3
11	T	1001	5.0	2.005	1884.8	LOS F	608.6	4442.9	1.00	4.92	1.3
12	R	65	5.0	1.240	533.4	LOS F	15.6	114.2	1.00	1.45	4.3
Approach		1306	5.0	2.005	1819.3	LOS F	608.6	4442.9	1.00	4.75	1.3
East: Bringelly Rd (E)											
1	L	211	4.9	2.979	120.6	LOS F	38.6	281.6	1.00	1.01	16.6
2	T	418	5.0	2.979	109.4	LOS F	38.6	281.6	1.00	1.01	16.9
3	R	1061	4.8	1.353	721.3	LOS F	319.5	2332.2	1.00	3.25	3.3
Approach		1690	5.0	2.979	494.9	LOS F	319.5	2332.2	1.00	2.42	4.7
North: TNR (N)											
4	L	322	4.9	0.876	68.4	LOS E	22.4	163.2	0.87	0.90	24.7
5	T	1868	5.0	2.969	3626.3	LOS F	1160.6	8474.4	1.00	6.80	0.7
6	R	59	5.1	1.080	263.8	LOS F	8.9	65.3	1.00	1.22	8.3
Approach		2248	5.0	2.969	3029.0	LOS F	1160.6	8474.4	0.98	5.81	0.8
West: Greendale Rd (W)											
7	L	64	4.9	0.283	76.0	LOS F	4.3	31.5	0.95	0.77	22.9
8	T	314	5.0	2.835	3395.1	LOS F	401.1	2926.7	1.00	4.71	0.7
9	R	346	4.9	2.835	3406.2	LOS F	401.1	2926.7	1.00	4.71	0.7
Approach		724	4.9	2.835	3106.2	LOS F	401.1	2926.7	1.00	4.36	0.8
All Vehicles		5129	5.8	2.979	2392.7	LOS F	1160.6	8474.4	1.15	5.17	1.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across N approach	11	66.3	LOS F	0.0	0.0	0.94	0.94
P5	Across W approach	11	38.2	LOS D	0.0	0.0	0.71	0.71
All Pedestrians		22	52.2	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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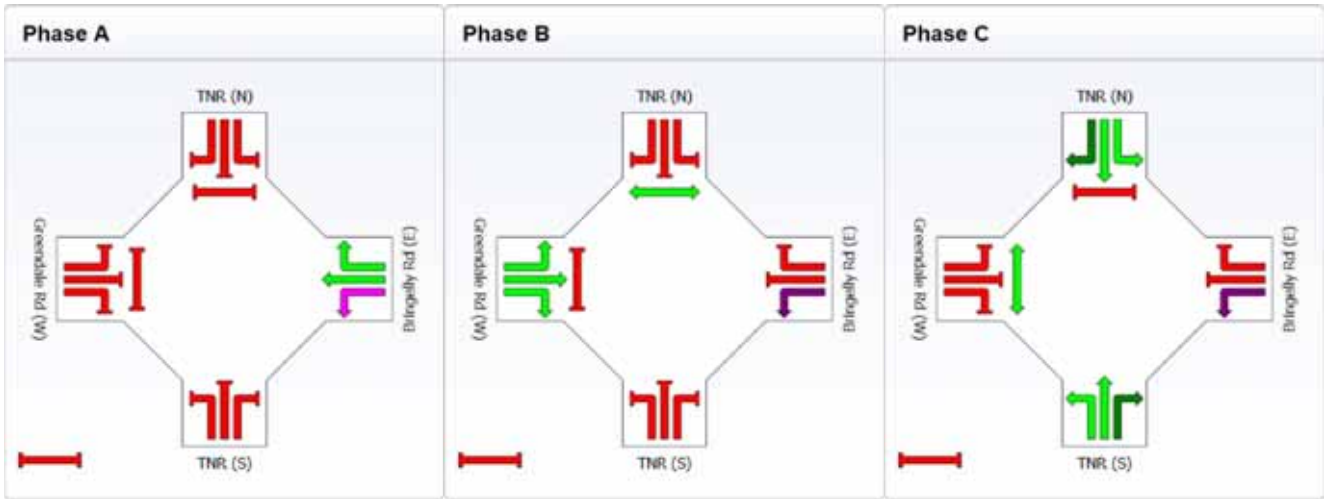
PHASING SUMMARY

TNR / Bringelly Rd / Greendale Rd
PM
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: SCATES
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	63	19	50
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	69	25	56
Phase Split	46 %	17 %	37 %



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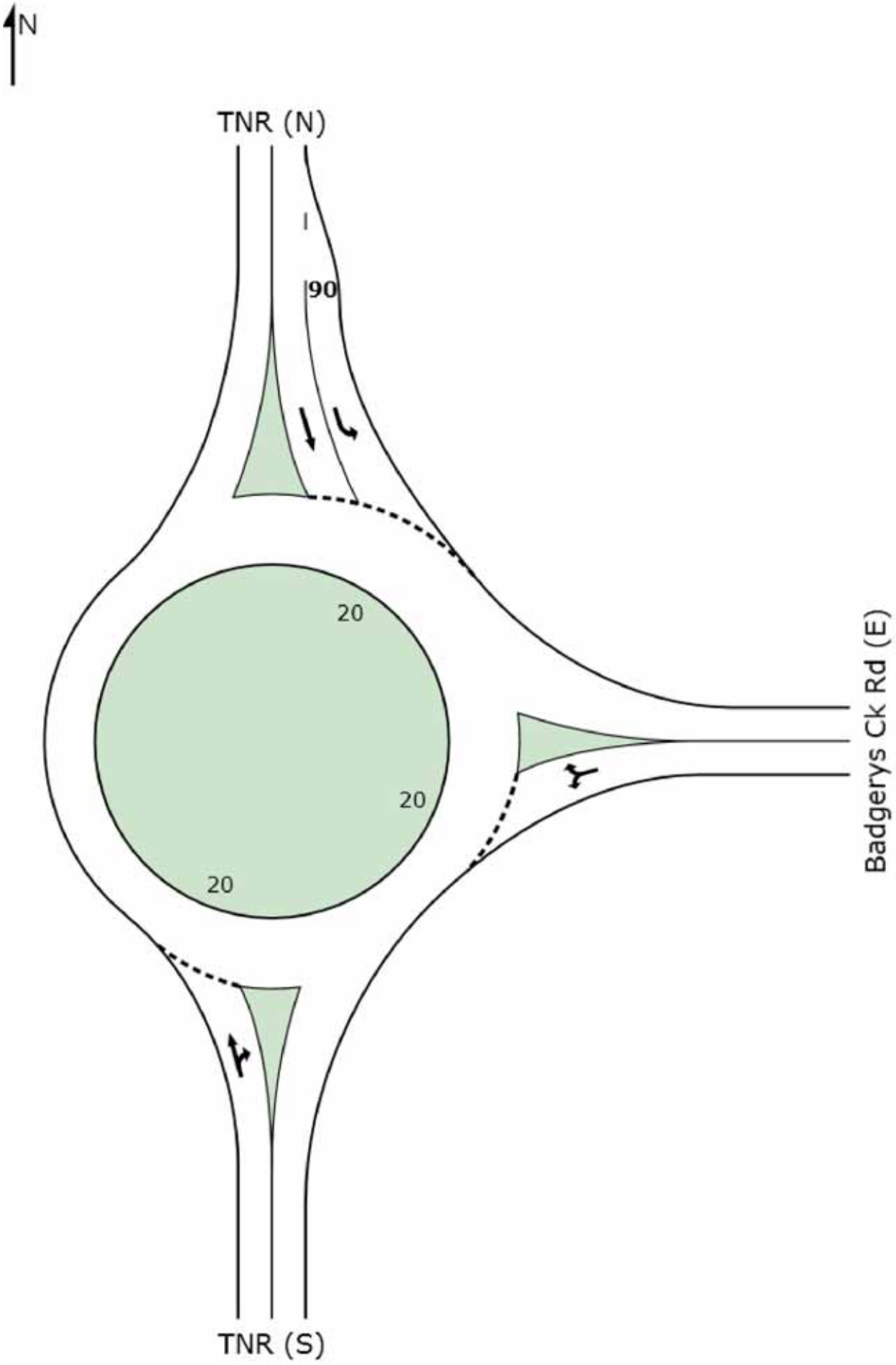
N
TNR (N)
90
20
20
20
Badgerys Ck Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Badgerys Ck Rd_AM

TNR / Badgerys Ck Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1206	5.1	1.351	644.2	LOS F	940.7	6868.5	1.00	1.73	3.6
3	R	1017	5.0	1.351	649.9	LOS F	940.7	6868.5	1.00	1.73	3.7
Approach		2223	5.0	1.351	646.8	LOS F	940.7	6868.5	1.00	1.73	3.7
East: Badgerys Ck Rd (E)											
4	L	413	5.1	0.576	12.4	LOS A	5.5	40.4	0.91	0.95	44.8
6	R	26	4.0	0.576	17.1	LOS B	5.5	40.4	0.91	0.98	42.2
Approach		439	5.0	0.576	12.7	LOS A	5.5	40.4	0.91	0.95	44.6
North: TNR (N)											
7	L	26	4.0	0.055	15.5	LOS B	0.3	2.5	0.81	0.78	53.1
8	T	557	4.9	0.749	21.8	LOS B	10.8	78.8	1.00	1.11	46.9
Approach		583	4.9	0.749	21.5	LOS B	10.8	78.8	0.99	1.10	47.1
All Vehicles		3245	5.0	1.351	448.7	LOS F	940.7	6868.5	0.99	1.51	5.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Badgerys Ck Rd_PM

TNR / Badgerys Ck Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	727	5.1	0.656	9.2	LOS A	9.3	67.6	0.17	0.51	60.2
3	R	375	5.1	0.656	14.8	LOS B	9.3	67.6	0.17	0.77	54.6
Approach		1102	5.1	0.656	11.1	LOS A	9.3	67.6	0.17	0.60	58.1
East: Badgerys Ck Rd (E)											
4	L	951	5.0	3.082	3778.4	LOS F	856.7	6255.3	1.00	14.32	0.6
6	R	34	6.3	3.082	3783.2	LOS F	856.7	6255.3	1.00	14.27	0.6
Approach		984	5.0	3.082	3778.6	LOS F	856.7	6255.3	1.00	14.32	0.6
North: TNR (N)											
7	L	26	4.0	0.033	12.6	LOS A	0.2	1.1	0.50	0.67	56.6
8	T	1114	5.0	0.880	19.3	LOS B	19.5	142.2	0.98	1.02	49.2
Approach		1140	5.0	0.880	19.1	LOS B	19.5	142.2	0.97	1.01	49.4
All Vehicles		3226	5.0	3.082	1163.2	LOS F	856.7	6255.3	0.71	4.93	2.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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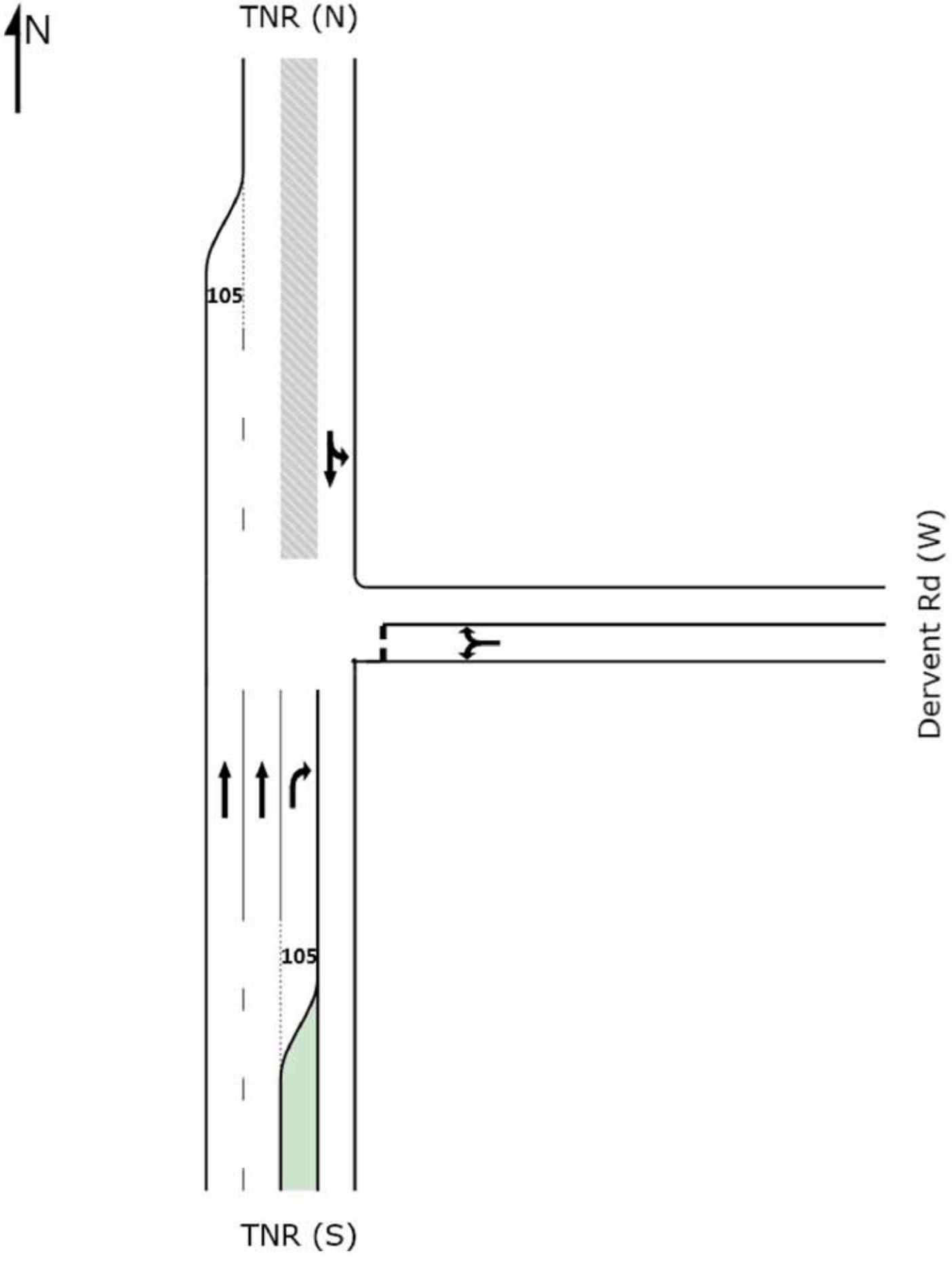
N
TNR (N)
105
105
TNR (S)
Dervent Rd (W)

MOVEMENT SUMMARY

Site: 2036_Derwent Rd_AM

TNR / Dervent Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1179	5.0	0.403	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	61	5.2	0.079	14.0	LOS A	0.3	2.1	0.52	0.81	55.2
Approach		1240	5.0	0.403	0.7	NA	0.3	2.1	0.03	0.04	78.3
East: Dervent Rd (W)											
4	L	20	5.3	0.189	36.9	LOS C	0.5	3.8	0.82	0.95	36.3
6	R	4	0.0	0.189	36.5	LOS C	0.5	3.8	0.82	0.96	36.5
Approach		24	4.3	0.189	36.8	LOS C	0.5	3.8	0.82	0.95	36.3
North: TNR (N)											
7	L	15	7.1	0.283	11.3	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	518	5.1	0.283	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		533	5.1	0.283	0.3	NA	0.0	0.0	0.00	0.04	79.2
All Vehicles		1797	5.0	0.403	1.1	NA	0.5	3.8	0.03	0.05	77.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Derwent Rd_PM

TNR / Dervent Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	674	5.0	0.230	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	24	4.3	0.079	21.8	LOS B	0.3	1.8	0.80	0.95	46.8
Approach		698	5.0	0.230	0.8	NA	0.3	1.8	0.03	0.03	78.1
East: Dervent Rd (W)											
4	L	60	5.3	0.790	101.4	LOS F	3.4	24.9	0.97	1.18	18.5
6	R	14	7.7	0.790	101.5	LOS F	3.4	24.9	0.97	1.16	18.6
Approach		74	5.7	0.790	101.5	LOS F	3.4	24.9	0.97	1.17	18.5
North: TNR (N)											
7	L	4	0.0	0.541	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	1017	5.0	0.541	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1021	4.9	0.541	0.0	NA	0.0	0.0	0.00	0.01	79.9
All Vehicles		1793	5.0	0.790	4.5	NA	3.4	24.9	0.05	0.06	69.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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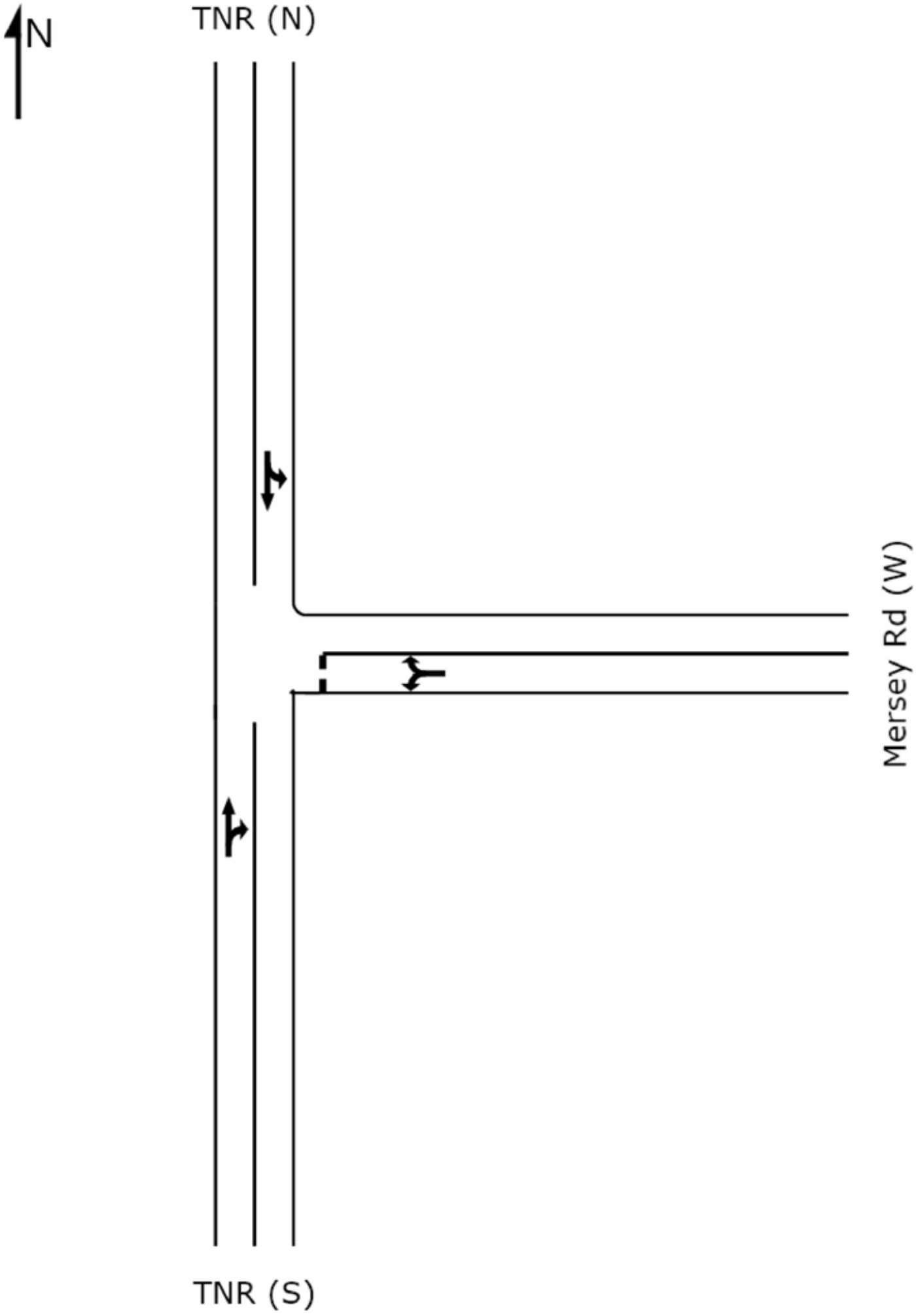
N
TNR (N)
Mersey Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Mersey Rd_AM

TNR / Mersey Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1103	5.0	0.681	15.7	LOS B	17.4	127.3	1.00	0.00	47.9
3	R	65	4.8	0.681	26.8	LOS B	17.4	127.3	1.00	1.29	48.2
Approach		1168	5.0	0.681	16.3	NA	17.4	127.3	1.00	0.07	47.9
East: Mersey Rd (W)											
4	L	17	6.3	1.000[4]	411.6	LOS F	6.1	44.5	0.98	1.50	5.5
6	R	20	5.3	1.000[4]	411.4	LOS F	6.1	44.5	0.98	1.33	5.5
Approach		37	5.7	1.000	411.5	LOS F	6.1	44.5	0.98	1.41	5.5
North: TNR (N)											
7	L	135	4.7	0.339	11.1	LOS A	0.0	0.0	0.00	1.14	58.9
8	T	498	5.1	0.339	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		633	5.0	0.339	2.4	NA	0.0	0.0	0.00	0.24	74.4
All Vehicles		1838	5.0	1.000	19.5	NA	17.4	127.3	0.66	0.16	46.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

4 x = 1.00 due to minimum capacity

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MOVEMENT SUMMARY

Site: 2036_Mersey Rd_PM

TNR / Mersey Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	652	5.0	0.395	15.8	LOS B	8.4	61.6	1.00	0.00	48.0
3	R	20	5.3	0.395	26.8	LOS B	8.4	61.6	1.00	1.09	48.4
Approach		672	5.0	0.395	16.1	NA	8.4	61.6	1.00	0.03	48.0
East: Mersey Rd (W)											
4	L	66	4.8	1.023	180.1	LOS F	18.1	132.5	1.00	2.39	11.6
6	R	119	5.3	1.023	180.0	LOS F	18.1	132.5	1.00	2.10	11.6
Approach		185	5.1	1.023	180.0	LOS F	18.1	132.5	1.00	2.20	11.6
North: TNR (N)											
7	L	36	5.9	0.514	11.2	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	933	5.0	0.514	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		968	5.0	0.514	0.4	NA	0.0	0.0	0.00	0.05	79.0
All Vehicles		1825	5.0	1.023	24.4	NA	18.1	132.5	0.47	0.26	43.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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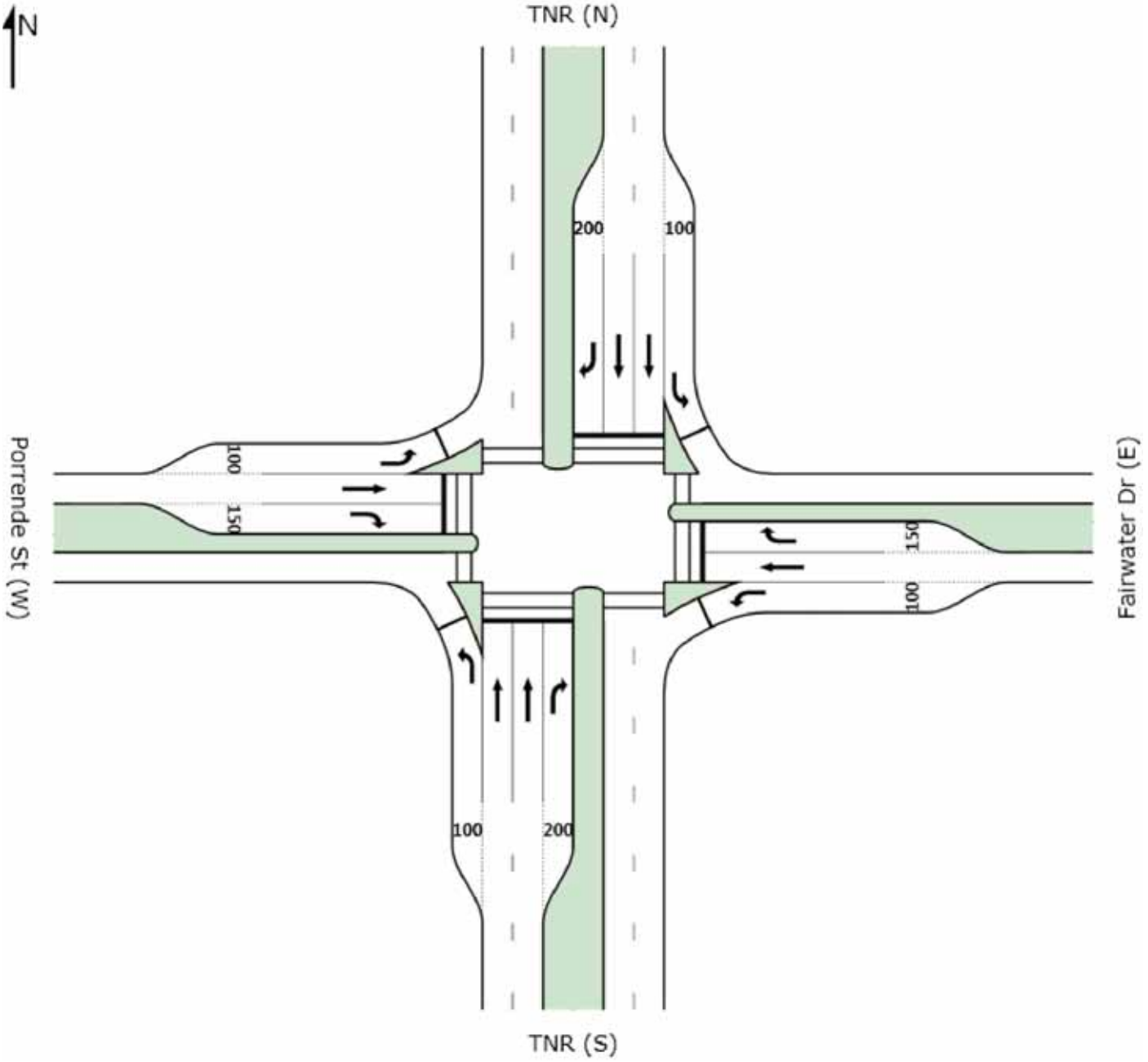
Appendix A5

2016 – *4-Lane* – SIDRA Results and Intersection Layout (AM and PM Peak)


N
TNR (N)
200
100
Porrende St (W)
100
150
Fairwater Dr (E)
150
100
100
200
TNR (S)

MOVEMENT SUMMARY

Site: 2016_FairewaterDr / PorrendeSt_AM

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	42	5.0	0.069	27.2	LOS B	1.1	7.7	0.37	0.72	42.6
2	T	707	5.1	0.456	30.5	LOS C	15.5	113.2	0.65	0.57	38.5
3	R	165	5.1	0.652	78.3	LOS F	11.4	83.5	0.98	0.82	22.5
Approach		915	5.1	0.652	39.0	LOS C	15.5	113.2	0.70	0.62	34.3
East: Fairwater Dr (E)											
4	L	234	5.0	0.470	33.6	LOS C	8.8	63.9	0.56	0.74	31.5
5	T	94	4.5	0.237	32.5	LOS C	3.9	28.0	0.81	0.64	30.4
6	R	108	4.9	0.690	47.7	LOS D	4.5	32.5	1.00	0.80	26.1
Approach		436	4.8	0.690	36.8	LOS C	8.8	63.9	0.72	0.73	29.7
North: TNR (N)											
7	L	89	4.7	0.117	20.7	LOS B	1.6	11.7	0.27	0.72	47.9
8	T	1013	5.0	0.652	33.9	LOS C	25.9	189.0	0.76	0.68	36.3
9	R	96	5.5	0.379	75.3	LOS F	6.2	45.6	0.92	0.78	23.1
Approach		1198	5.0	0.652	36.2	LOS C	25.9	189.0	0.74	0.69	35.4
West: Porrende St (W)											
10	L	143	5.1	0.335	42.6	LOS D	6.2	45.4	0.64	0.74	27.9
11	T	47	4.4	0.148	57.5	LOS E	2.8	20.3	0.84	0.64	22.5
12	R	12	9.1	0.141	85.6	LOS F	0.8	6.4	0.97	0.68	18.0
Approach		202	5.2	0.335	48.5	LOS D	6.2	45.4	0.70	0.71	25.7
All Vehicles		2751	5.0	0.690	38.1	LOS C	25.9	189.0	0.72	0.67	33.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	67.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
P5	Across N approach	10	67.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
All Pedestrians		40	49.9	LOS E			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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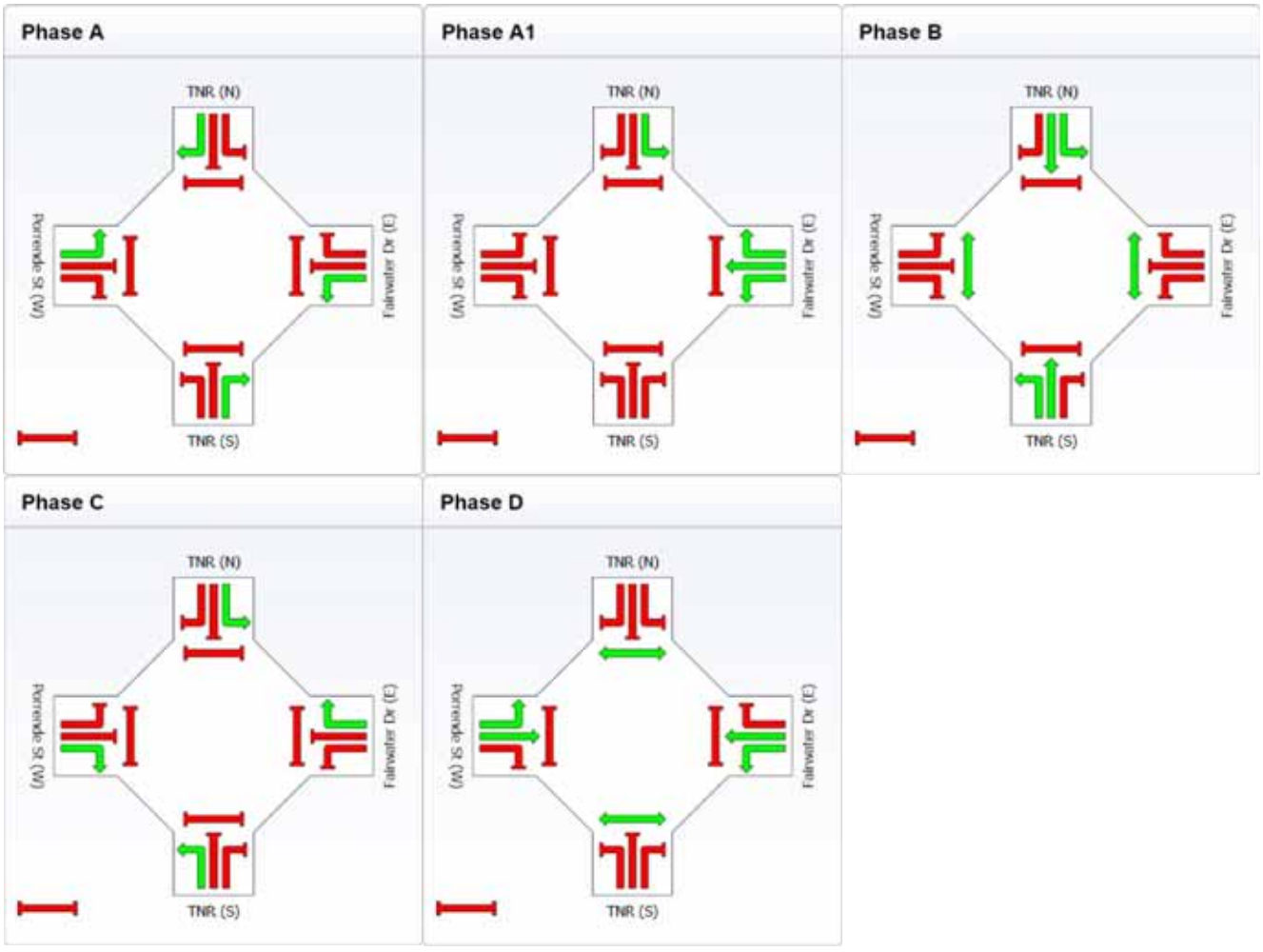
PHASING SUMMARY

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Split Phasing
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	21	6	61	7	25
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	27	12	67	13	31
Phase Split	18 %	8 %	45 %	9 %	21 %



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MOVEMENT SUMMARY

Site: 2016_FairewaterDr / PorrendeSt_PM

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	57	5.6	0.083	23.2	LOS B	1.2	8.7	0.31	0.72	45.8
2	T	947	5.0	0.556	27.2	LOS B	20.6	150.5	0.65	0.58	40.6
3	R	332	5.1	0.704	65.4	LOS E	21.0	153.2	0.92	0.85	25.5
Approach		1336	5.0	0.704	36.5	LOS C	21.0	153.2	0.70	0.65	35.6
East: Fairwater Dr (E)											
4	L	187	5.1	0.345	28.9	LOS C	6.0	44.0	0.48	0.71	33.7
5	T	78	5.4	0.256	59.7	LOS E	4.8	34.9	0.87	0.68	22.0
6	R	67	4.7	0.696	88.6	LOS F	5.2	37.6	1.00	0.80	17.6
Approach		333	5.1	0.696	48.2	LOS D	6.0	44.0	0.68	0.72	25.8
North: TNR (N)											
7	L	191	5.0	0.351	32.4	LOS C	6.1	44.8	0.48	0.76	39.1
8	T	981	5.0	0.701	40.0	LOS C	27.6	201.7	0.84	0.74	33.2
9	R	182	5.2	0.559	72.2	LOS F	11.8	86.3	0.93	0.82	23.8
Approach		1354	5.1	0.701	43.3	LOS D	27.6	201.7	0.80	0.75	32.2
West: Porrende St (W)											
10	L	83	5.1	0.180	36.8	LOS C	3.1	22.9	0.55	0.71	30.1
11	T	129	4.9	0.424	61.6	LOS E	8.3	60.3	0.91	0.73	21.6
12	R	29	3.6	0.302	85.2	LOS F	2.2	15.5	0.98	0.72	18.1
Approach		242	4.8	0.424	56.0	LOS D	8.3	60.3	0.80	0.72	23.3
All Vehicles		3264	5.0	0.704	41.9	LOS C	27.6	201.7	0.75	0.71	31.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	36.8	LOS D	0.0	0.0	0.70	0.70
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	36.8	LOS D	0.0	0.0	0.70	0.70
All Pedestrians		40	52.5	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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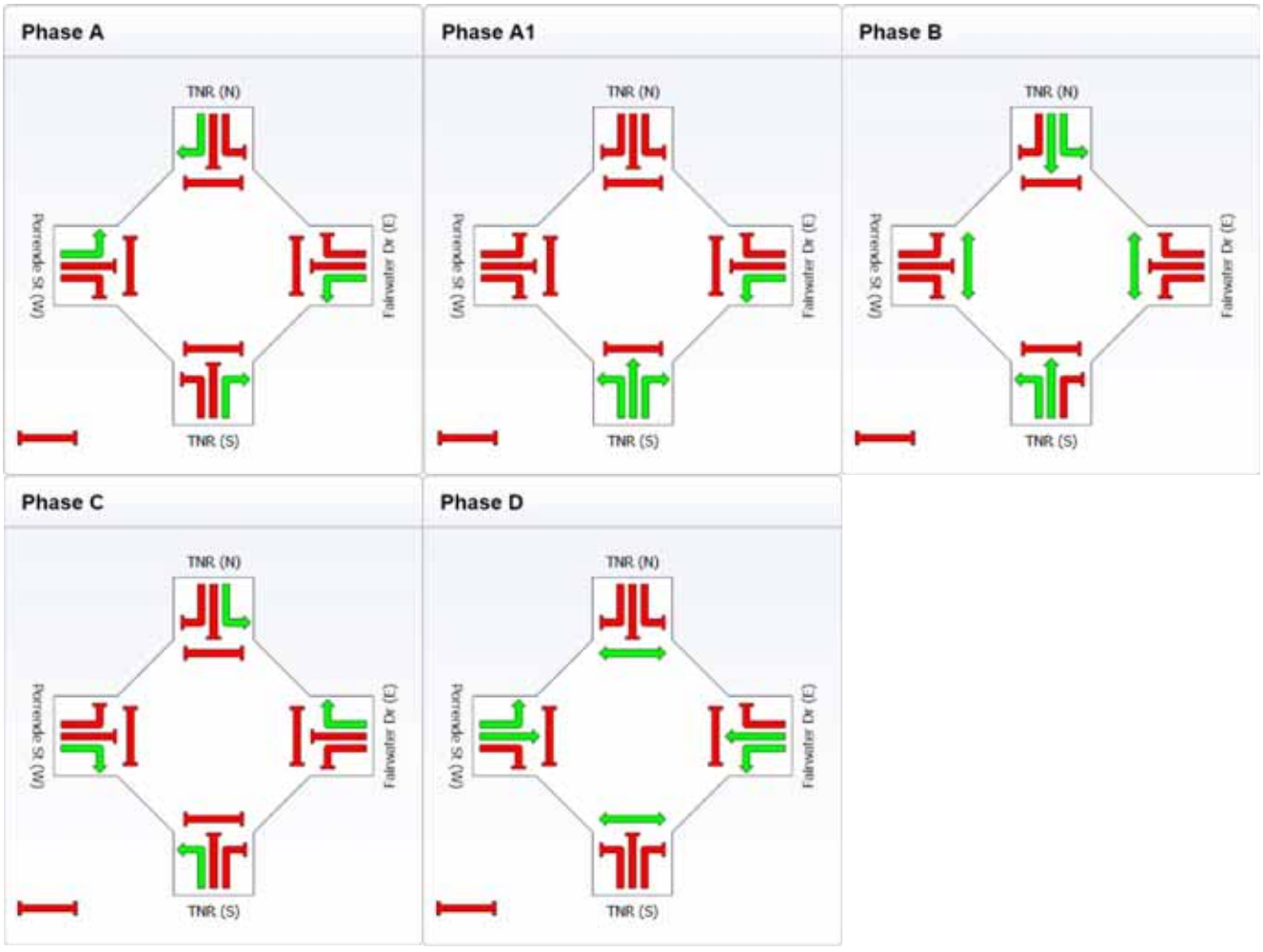
PHASING SUMMARY

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 4
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	27	6	55	8	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	33	12	61	14	30
Phase Split	22 %	8 %	41 %	9 %	20 %



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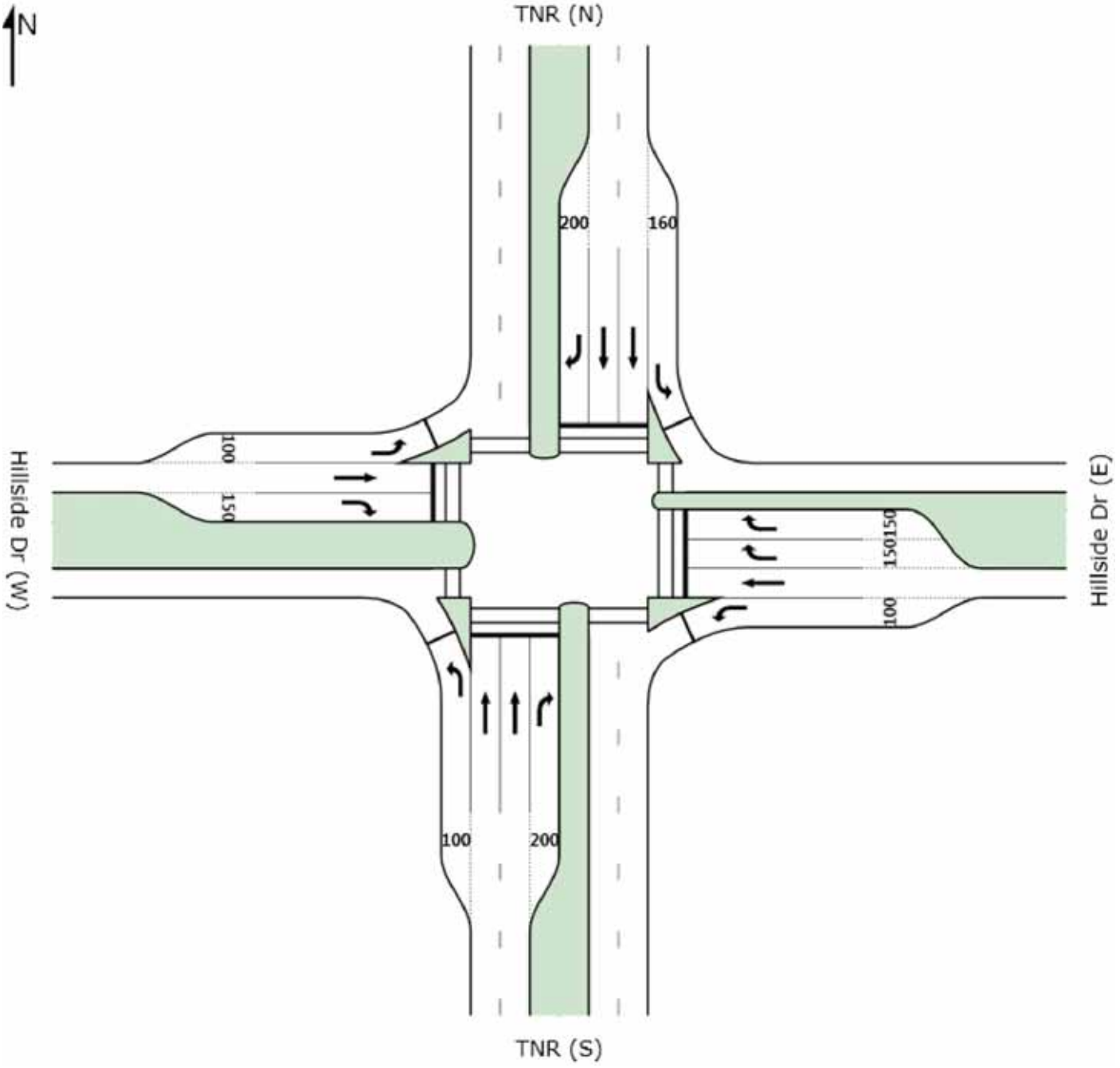
N
TNR (N)
200
160
Hillside Dr (W)
100
150
Hillside Dr (E)
150150
100
100
200
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Hillside Dr_AM

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	17	6.3	0.012	12.3	LOS A	0.1	0.4	0.05	0.69	57.5
2	T	881	5.0	0.474	21.3	LOS B	16.0	117.1	0.55	0.48	45.3
3	R	60	5.3	0.498	87.4	LOS F	4.4	32.1	0.99	0.76	20.8
Approach		958	5.1	0.498	25.3	LOS B	16.0	117.1	0.56	0.50	42.3
East: Hillside Dr (E)											
4	L	195	4.9	0.460	43.7	LOS D	8.8	64.4	0.67	0.76	27.5
5	T	7	0.0	0.019	36.0	LOS C	0.3	2.2	0.76	0.51	29.1
6	R	139	5.3	0.443	47.7	LOS D	3.2	23.1	0.97	0.75	26.1
Approach		341	4.9	0.460	45.2	LOS D	8.8	64.4	0.79	0.75	26.9
North: TNR (N)											
7	L	79	5.3	0.067	15.4	LOS B	0.8	5.6	0.14	0.70	53.5
8	T	956	5.0	0.514	21.9	LOS B	18.1	132.0	0.57	0.51	44.7
9	R	47	4.4	0.391	86.6	LOS F	3.4	24.8	0.98	0.75	20.9
Approach		1082	5.0	0.514	24.3	LOS B	18.1	132.0	0.55	0.53	43.1
West: Hillside Dr (W)											
10	L	108	4.9	0.291	53.5	LOS D	5.5	40.2	0.74	0.75	24.5
11	T	7	0.0	0.023	56.5	LOS D	0.4	2.9	0.81	0.55	22.8
12	R	45	4.7	0.534	88.1	LOS F	3.4	24.9	1.00	0.74	17.6
Approach		161	4.6	0.534	63.3	LOS E	5.5	40.2	0.82	0.74	22.0
All Vehicles		2542	5.0	0.534	30.0	LOS C	18.1	132.0	0.61	0.56	38.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	26.4	LOS C	0.0	0.0	0.59	0.59
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	25.2	LOS C	0.0	0.0	0.58	0.58
All Pedestrians		40	47.0	LOS E			0.77	0.77

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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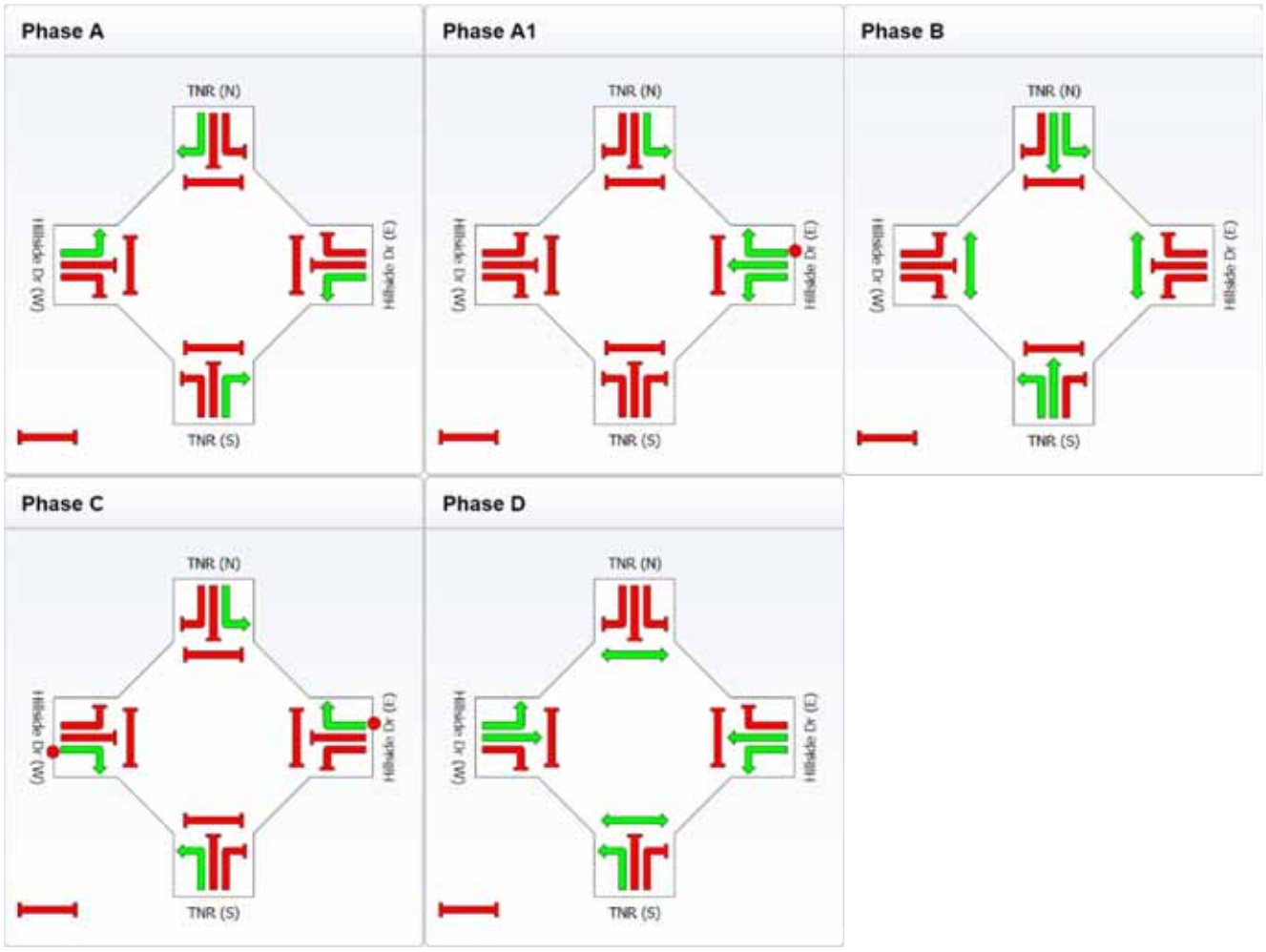
PHASING SUMMARY

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Two-Phase
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	10	6	73	7	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	16	12	79	13	30
Phase Split	11 %	8 %	53 %	9 %	20 %



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MOVEMENT SUMMARY

Site: 2016_Hillside Dr_PM

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	39	5.4	0.060	24.8	LOS B	0.9	6.4	0.33	0.71	44.5
2	T	906	5.0	0.540	27.7	LOS B	19.7	144.0	0.65	0.58	40.2
3	R	153	4.8	0.701	82.0	LOS F	10.9	79.8	1.00	0.83	21.8
Approach		1098	5.0	0.701	35.2	LOS C	19.7	144.0	0.69	0.62	36.2
East: Hillside Dr (E)											
4	L	159	5.3	0.335	35.7	LOS C	6.0	44.2	0.56	0.73	30.5
5	T	8	0.0	0.021	32.2	LOS C	0.3	2.4	0.76	0.52	30.6
6	R	77	5.5	0.266	46.1	LOS D	1.6	11.5	0.95	0.73	26.6
Approach		244	5.2	0.335	38.8	LOS C	6.0	44.2	0.69	0.72	29.2
North: TNR (N)											
7	L	174	4.8	0.167	19.2	LOS B	2.8	20.7	0.24	0.73	49.4
8	T	1169	5.0	0.697	30.5	LOS C	29.5	215.2	0.75	0.68	38.2
9	R	112	4.7	0.512	79.4	LOS F	7.6	55.6	0.96	0.79	22.3
Approach		1455	5.0	0.697	32.9	LOS C	29.5	215.2	0.71	0.69	37.2
West: Hillside Dr (W)											
10	L	63	5.0	0.153	44.5	LOS D	2.7	20.0	0.63	0.71	27.2
11	T	7	0.0	0.023	56.5	LOS D	0.4	2.9	0.81	0.55	22.8
12	R	25	4.2	0.347	88.5	LOS F	1.9	13.8	1.00	0.71	17.6
Approach		96	4.4	0.347	57.0	LOS E	2.7	20.0	0.74	0.70	23.5
All Vehicles		2893	5.0	0.701	35.1	LOS C	29.5	215.2	0.70	0.67	35.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	30.7	LOS D	0.0	0.0	0.64	0.64
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	29.5	LOS C	0.0	0.0	0.63	0.63
All Pedestrians		40	49.1	LOS E			0.79	0.79

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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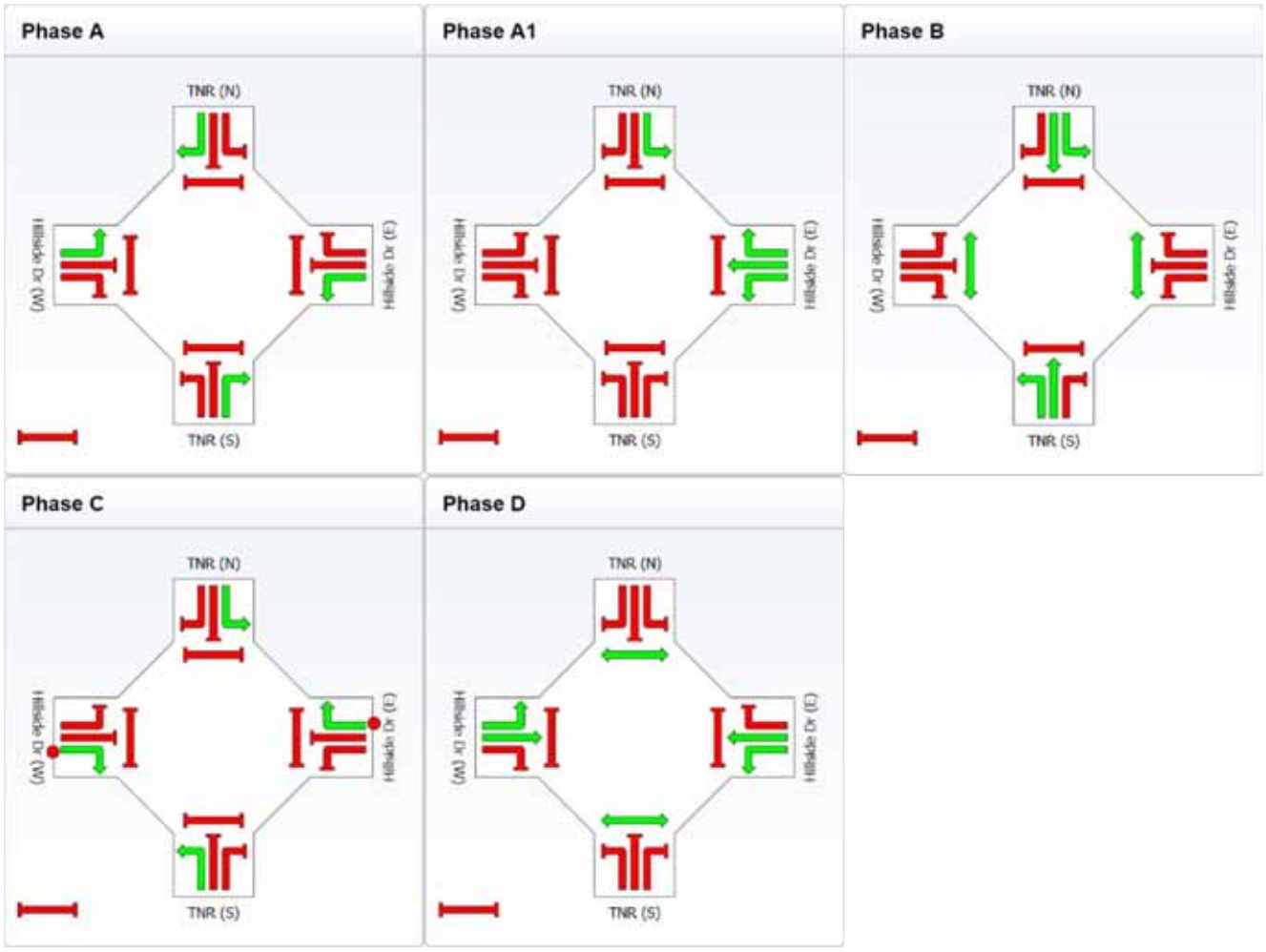
PHASING SUMMARY

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Two-Phase
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	18	6	66	6	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	24	12	72	12	30
Phase Split	16 %	8 %	48 %	8 %	20 %



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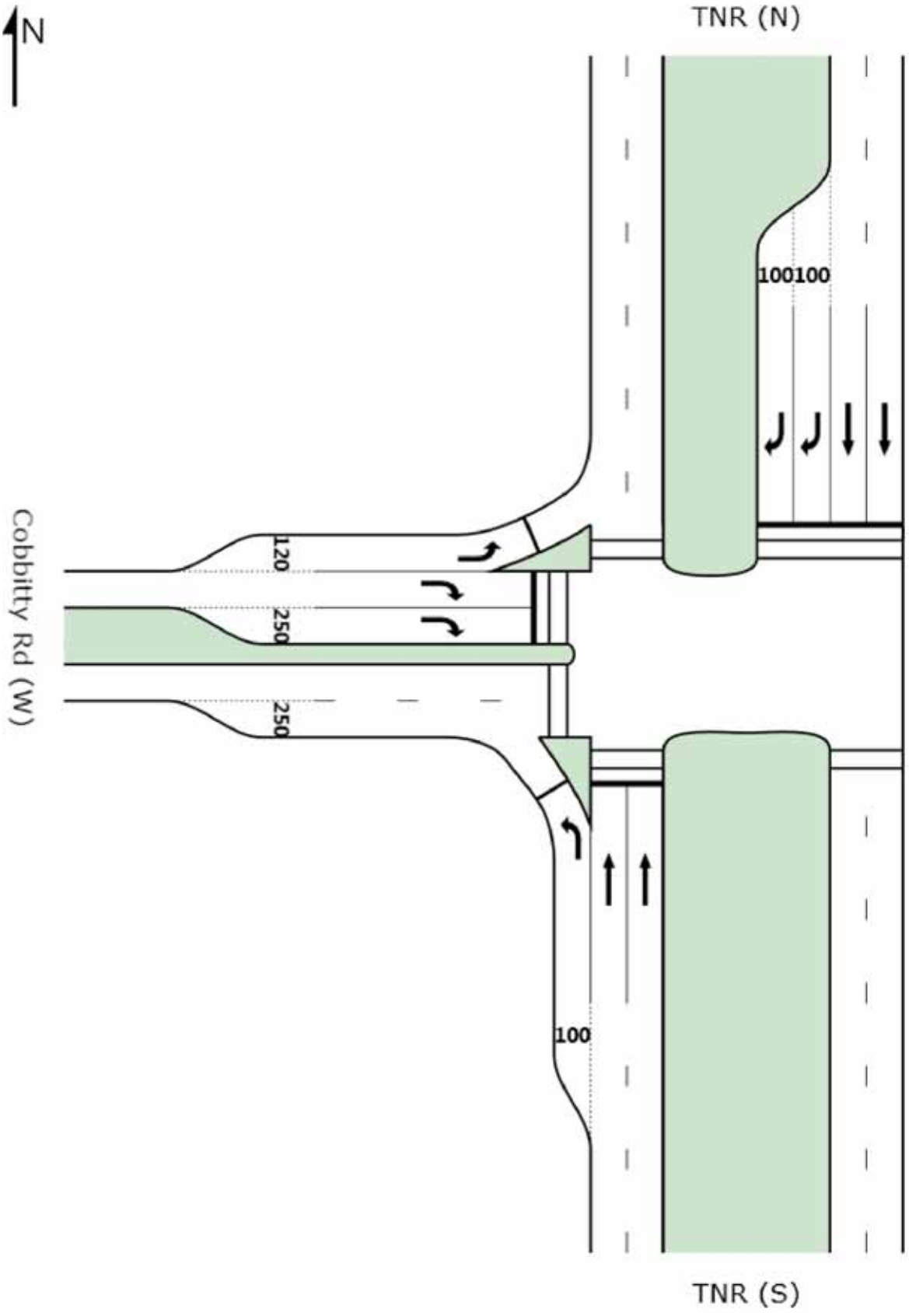
N
TNR (N)
100100
Cobbitty Rd (W)
120
250
250
100
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Cobbitty Road (West) _AM

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	278	4.9	0.367	21.4	LOS B	5.7	41.3	0.31	0.74	47.3
2	T	849	5.0	0.384	11.1	LOS A	9.8	71.4	0.35	0.31	56.8
Approach		1127	4.9	0.384	13.7	LOS A	9.8	71.4	0.34	0.41	54.1
North: TNR (N)											
8	T	794	5.0	0.292	1.6	LOS A	2.0	14.2	0.07	0.07	75.2
9	R	128	4.9	0.380	82.1	LOS F	4.4	32.4	0.96	0.76	21.8
Approach		922	5.0	0.380	12.8	LOS A	4.4	32.4	0.20	0.16	56.3
West: Cobbitty Rd (W)											
10	L	80	5.3	0.214	64.3	LOS E	4.5	32.9	0.81	0.77	26.0
12	R	288	5.1	0.385	66.6	LOS E	8.6	62.6	0.86	0.80	25.3
Approach		368	5.1	0.385	66.1	LOS E	8.6	62.6	0.85	0.79	25.4
All Vehicles		2418	5.0	0.385	21.3	LOS B	9.8	71.4	0.36	0.38	46.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	62.6	LOS F	0.0	0.0	0.91	0.91
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	18.8	LOS B	0.0	0.0	0.50	0.50
All Pedestrians		30	49.8	LOS E			0.79	0.79

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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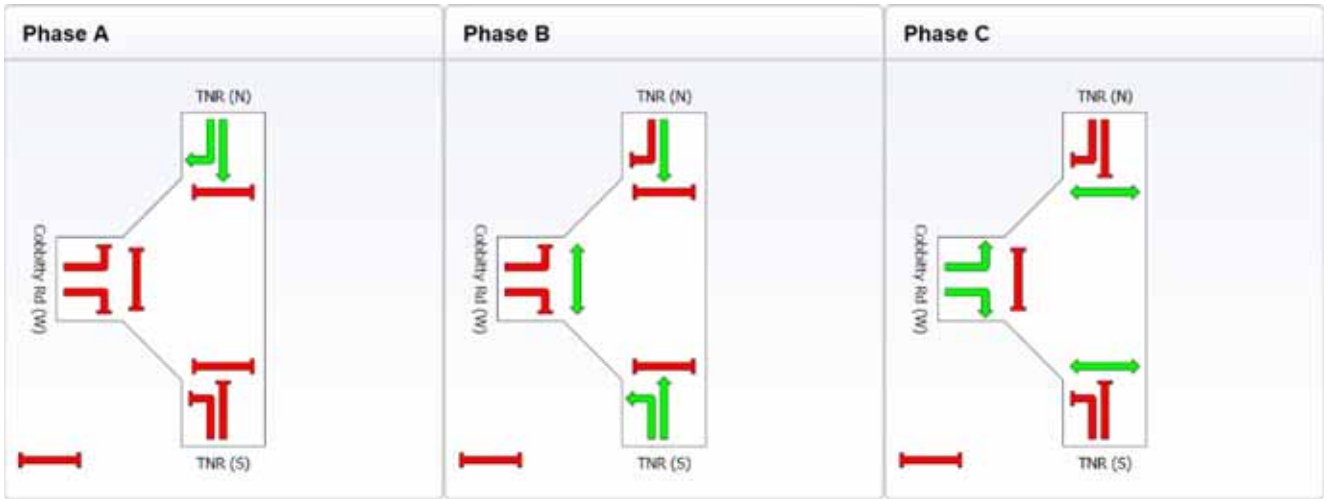
PHASING SUMMARY

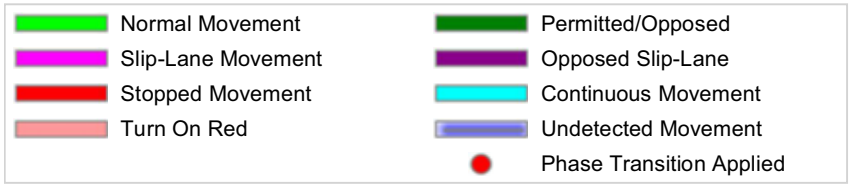
Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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)	14	87	31
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	20	93	37
Phase Split	13 %	62 %	25 %





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MOVEMENT SUMMARY

Site: 2016_Cobbitty Road (West) _PM

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	223	5.2	0.333	24.6	LOS B	5.3	39.1	0.36	0.74	44.7
2	T	822	5.0	0.399	14.9	LOS B	11.6	84.4	0.42	0.37	51.9
Approach		1045	5.0	0.399	17.0	LOS B	11.6	84.4	0.41	0.45	50.2
North: TNR (N)											
8	T	1236	5.0	0.454	1.9	LOS A	3.9	28.3	0.10	0.09	74.4
9	R	186	5.1	0.386	76.2	LOS F	6.1	44.7	0.93	0.78	23.0
Approach		1422	5.0	0.454	11.6	LOS A	6.1	44.7	0.20	0.18	57.7
West: Cobbitty Rd (W)											
10	L	33	6.5	0.088	62.6	LOS E	1.8	13.0	0.77	0.73	26.4
12	R	219	4.8	0.292	65.3	LOS E	6.3	46.0	0.83	0.78	25.6
Approach		252	5.0	0.292	65.0	LOS E	6.3	46.0	0.82	0.78	25.7
All Vehicles		2719	5.0	0.454	18.6	LOS B	11.6	84.4	0.34	0.34	49.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	62.6	LOS F	0.0	0.0	0.91	0.91
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	21.9	LOS C	0.0	0.0	0.54	0.54
All Pedestrians		30	50.9	LOS E			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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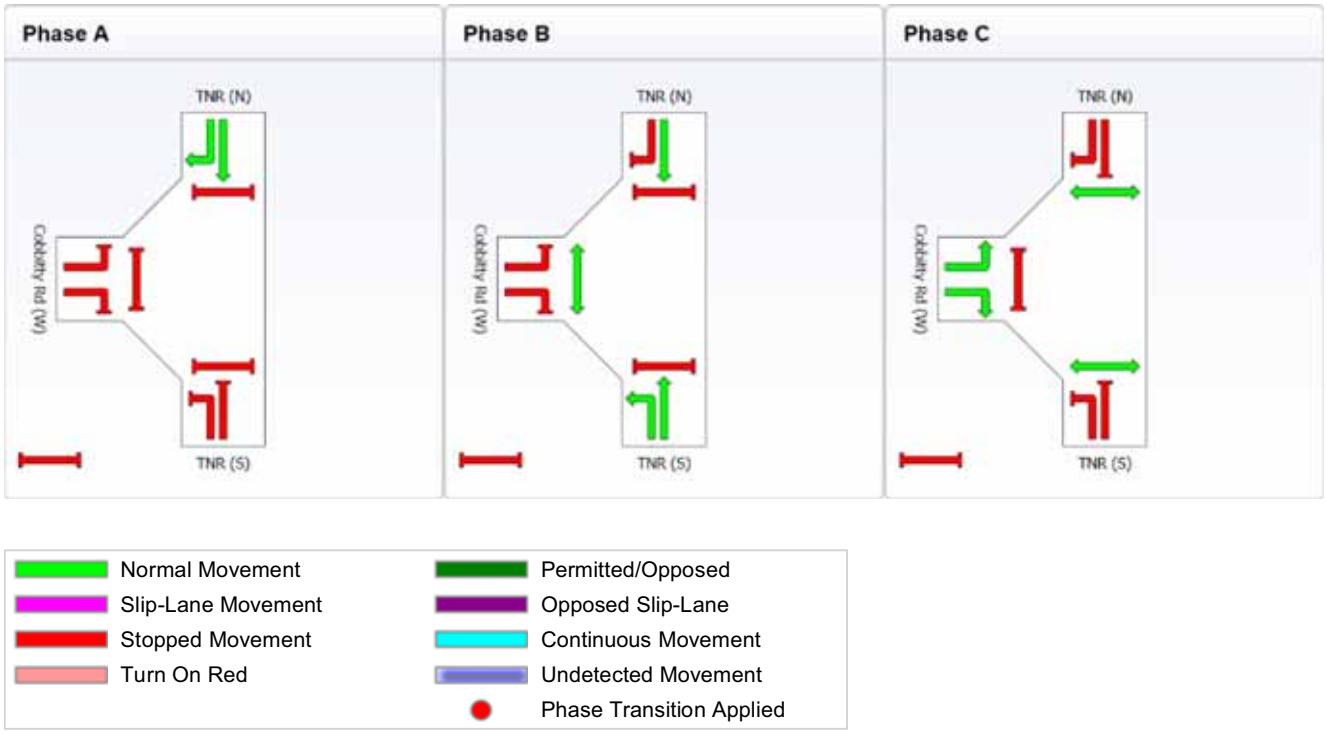
PHASING SUMMARY

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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)	20	81	31
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	26	87	37
Phase Split	17 %	58 %	25 %



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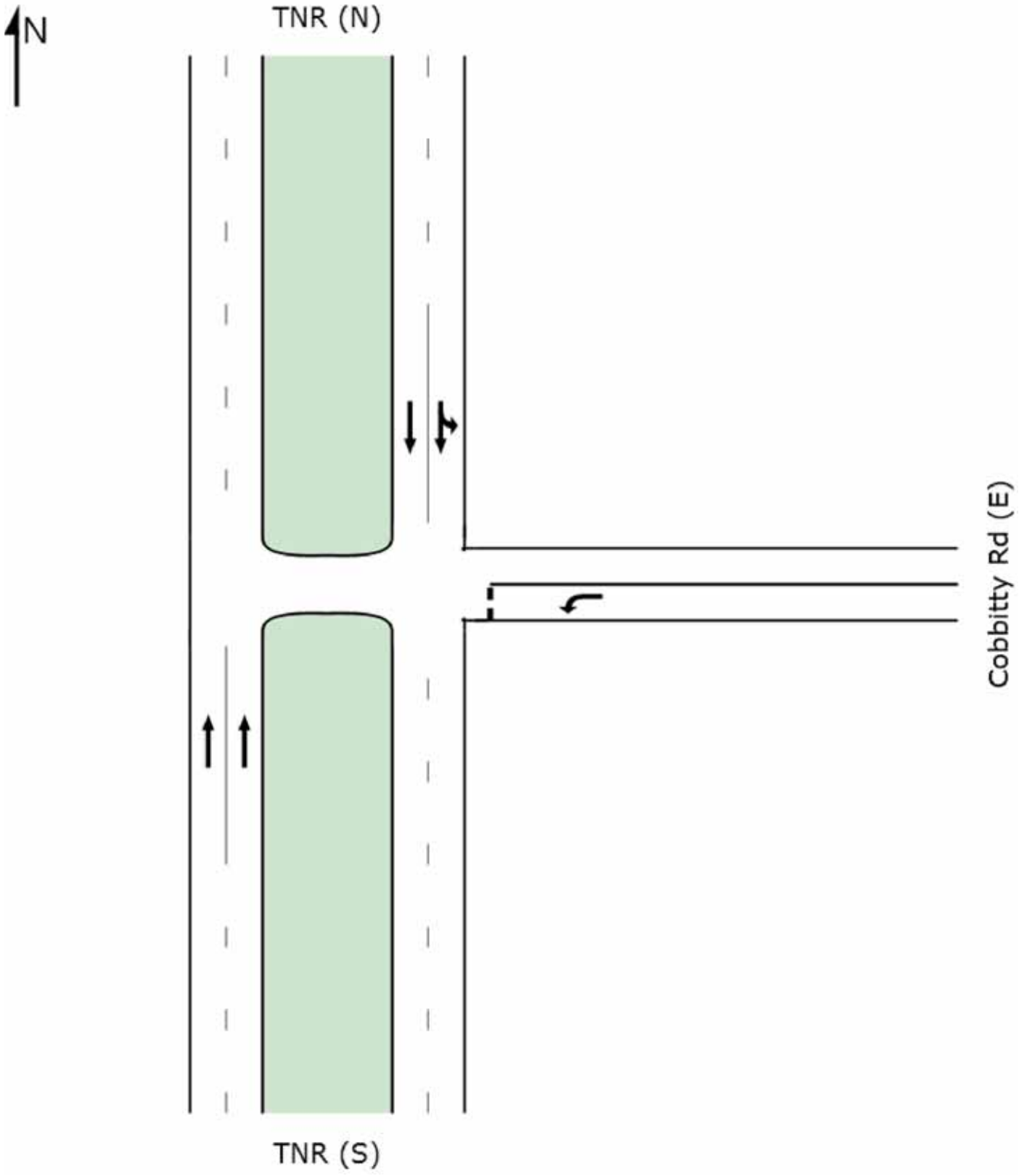
N
TNR (N)
Cobbitty Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Cobbitty Road (East) _AM

Cobbitty Road (East)
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	928	5.0	0.246	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		928	5.0	0.246	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Cobbitty Rd (E)											
4	L	136	4.7	0.116	14.8	LOS B	0.9	6.7	0.67	0.73	54.1
Approach		136	4.7	0.116	14.8	LOS B	0.9	6.7	0.67	0.73	54.1
North: TNR (N)											
7	L	203	5.2	0.265	11.2	LOS A	0.0	0.0	0.00	0.99	58.9
8	T	786	5.0	0.265	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		989	5.0	0.265	2.3	NA	0.0	0.0	0.00	0.20	74.6
All Vehicles		2054	5.0	0.265	2.1	NA	0.9	6.7	0.04	0.15	75.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Cobbitty Road (East) _PM

Cobbitty Road (East)
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	855	5.0	0.226	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		855	5.0	0.226	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Cobbitty Rd (E)											
4	L	212	5.0	0.270	19.0	LOS B	2.1	15.3	0.82	0.91	49.5
Approach		212	5.0	0.270	19.0	LOS B	2.1	15.3	0.82	0.91	49.5
North: TNR (N)											
7	L	38	5.6	0.330	11.2	LOS A	0.0	0.0	0.00	1.30	58.9
8	T	1208	5.0	0.330	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1246	5.0	0.330	0.3	NA	0.0	0.0	0.00	0.04	79.2
All Vehicles		2313	5.0	0.330	1.9	NA	2.1	15.3	0.07	0.10	75.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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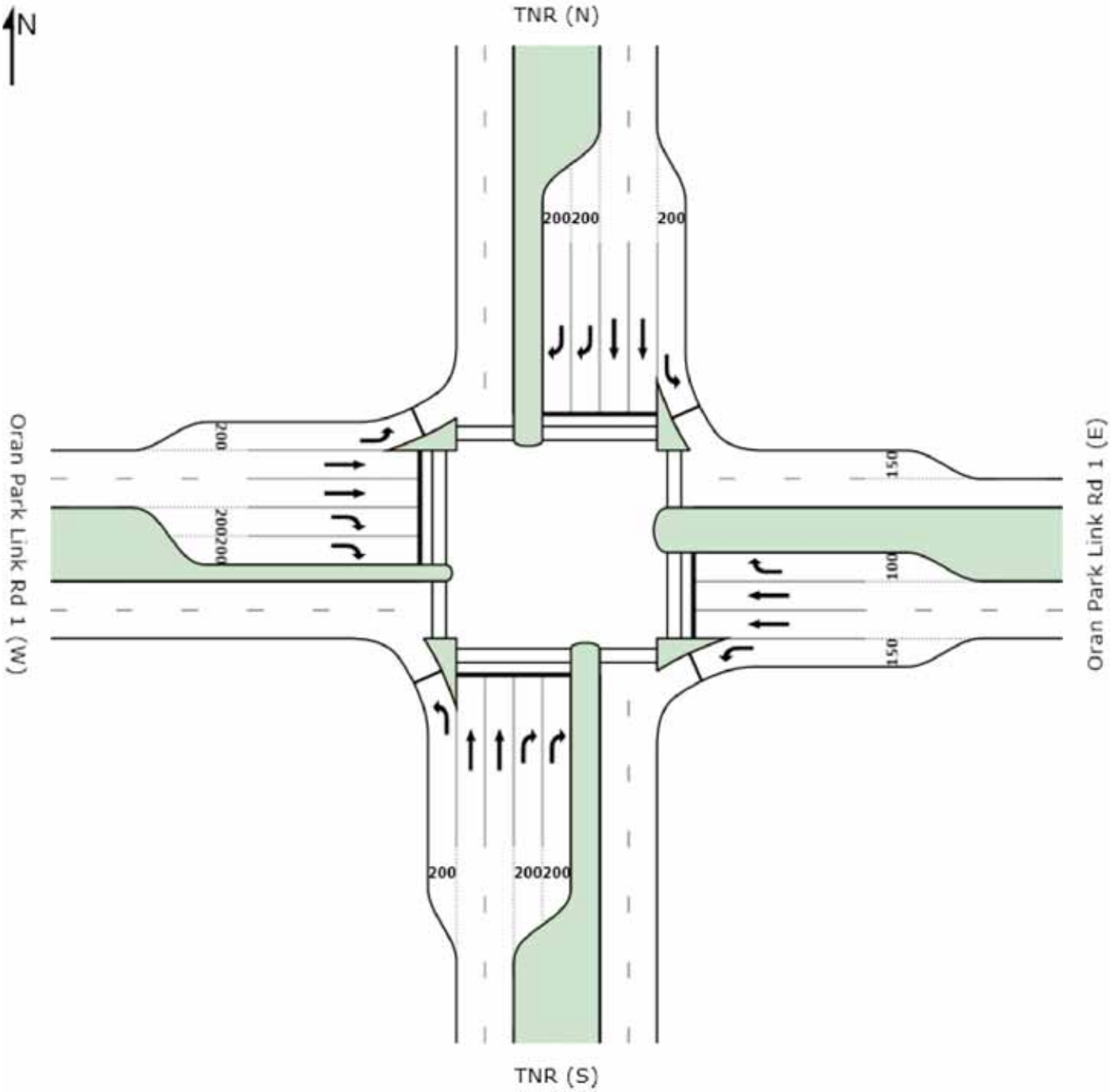
N
TNR (N)
200200
200
Oran Park Link Rd 1 (W)
200
200200
150
100
150
Oran Park Link Rd 1 (E)
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Oran Park Link Rd 1_AM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	33	6.5	0.033	21.4	LOS B	0.6	4.4	0.27	0.71	47.3
2	T	738	5.0	0.460	28.9	LOS C	15.7	115.0	0.64	0.56	39.5
3	R	159	5.3	0.321	73.4	LOS F	5.4	39.5	0.90	0.77	23.6
Approach		929	5.1	0.460	36.3	LOS C	15.7	115.0	0.67	0.60	35.7
East: Oran Park Link Rd 1 (E)											
4	L	182	5.2	0.313	41.5	LOS C	7.9	57.7	0.64	0.75	28.3
5	T	54	5.9	0.082	55.7	LOS D	1.5	11.3	0.81	0.60	23.0
6	R	20	0.0	0.266	87.5	LOS F	1.5	10.5	0.99	0.70	17.8
Approach		256	5.0	0.313	48.1	LOS D	7.9	57.7	0.70	0.71	25.8
North: TNR (N)											
7	L	63	0.0	0.067	26.6	LOS B	1.6	11.0	0.37	0.73	42.9
8	T	576	5.0	0.359	27.4	LOS B	11.4	83.2	0.59	0.51	40.6
9	R	128	4.9	0.242	72.7	LOS F	4.0	29.2	0.88	0.76	23.8
Approach		767	4.5	0.359	34.9	LOS C	11.4	83.2	0.62	0.57	36.5
West: Oran Park Link Rd 1 (W)											
10	L	346	4.9	0.457	36.5	LOS C	14.7	107.5	0.63	0.77	30.2
11	T	31	3.4	0.036	47.0	LOS D	0.8	5.8	0.72	0.51	25.4
12	R	151	4.9	0.415	77.8	LOS F	5.2	37.9	0.96	0.77	19.3
Approach		527	4.8	0.457	48.9	LOS D	14.7	107.5	0.73	0.76	25.8
All Vehicles		2480	4.8	0.460	39.8	LOS C	15.7	115.0	0.67	0.63	32.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P3	Across E approach	10	34.7	LOS D	0.0	0.0	0.68	0.68
P5	Across N approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P7	Across W approach	10	36.8	LOS D	0.0	0.0	0.70	0.70
All Pedestrians		40	52.4	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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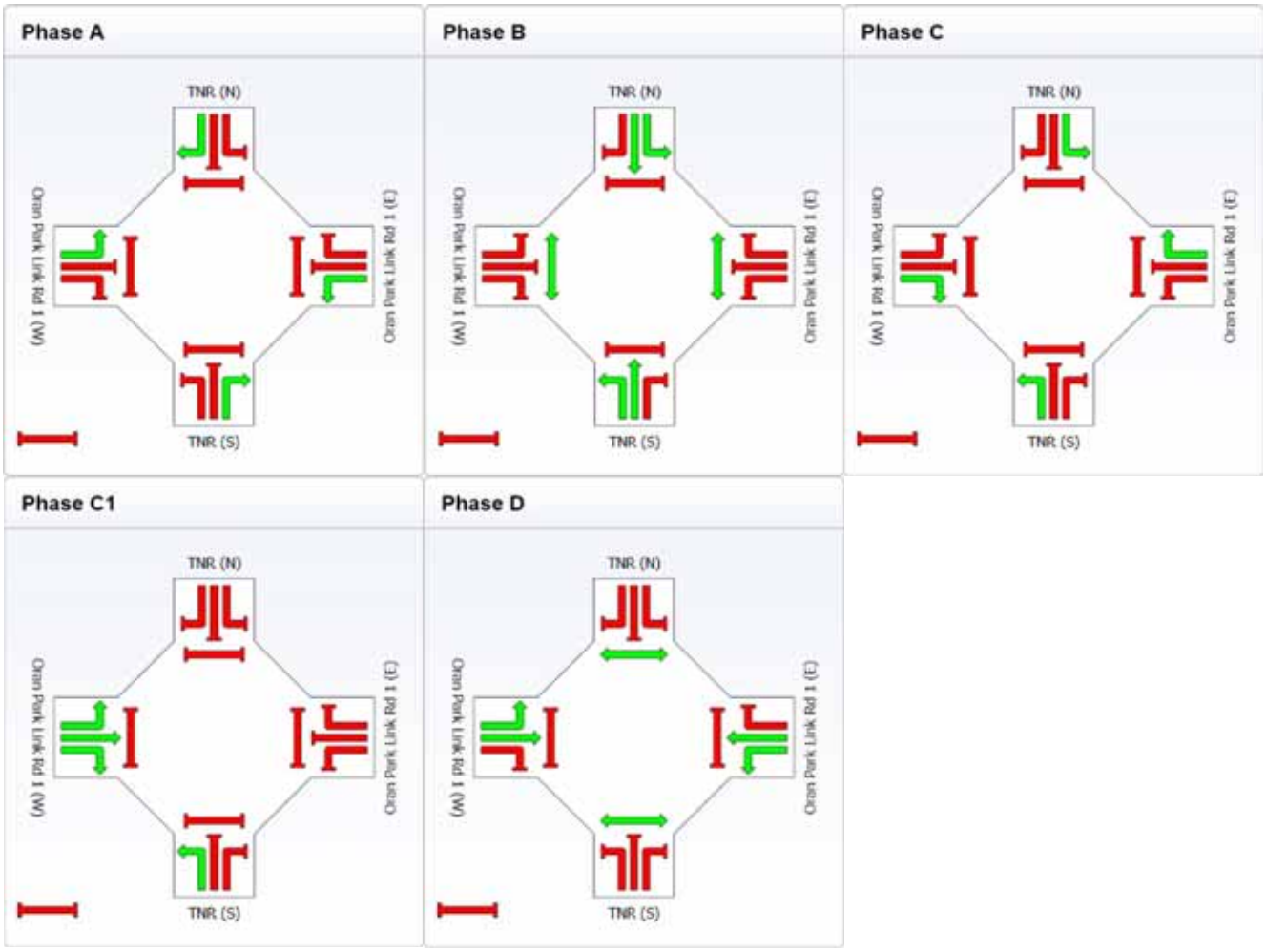
PHASING SUMMARY

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	22	63	6	3	26
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	28	69	12	9	32
Phase Split	19 %	46 %	8 %	6 %	21 %



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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MOVEMENT SUMMARY

Site: 2016_Oran Park Link Rd 1_PM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	23	4.5	0.026	27.6	LOS B	0.6	4.3	0.37	0.71	42.3
2	T	607	5.0	0.391	29.5	LOS C	12.7	92.8	0.62	0.54	39.2
3	R	224	5.2	0.497	77.1	LOS F	8.1	58.9	0.94	0.79	22.8
Approach		855	5.0	0.497	41.9	LOS C	12.7	92.8	0.70	0.61	33.1
East: Oran Park Link Rd 1 (E)											
4	L	152	5.1	0.262	41.8	LOS C	6.5	47.5	0.63	0.74	28.2
5	T	34	6.3	0.049	54.3	LOS D	0.9	6.9	0.80	0.57	23.4
6	R	16	0.0	0.105	44.2	LOS D	0.6	4.1	0.93	0.69	27.3
Approach		201	4.9	0.262	44.1	LOS D	6.5	47.5	0.68	0.71	27.2
North: TNR (N)											
7	L	104	0.0	0.098	21.2	LOS B	2.0	13.7	0.28	0.72	47.4
8	T	946	5.0	0.510	21.8	LOS B	17.8	130.2	0.56	0.50	44.8
9	R	223	5.2	0.289	64.4	LOS E	6.4	46.5	0.82	0.78	25.9
Approach		1274	4.6	0.510	29.2	LOS C	17.8	130.2	0.59	0.57	39.9
West: Oran Park Link Rd 1 (W)											
10	L	204	5.2	0.319	43.0	LOS D	9.2	67.1	0.66	0.76	27.7
11	T	48	4.3	0.074	54.6	LOS D	1.4	10.4	0.80	0.59	23.3
12	R	31	3.4	0.208	87.3	LOS F	1.1	8.2	0.99	0.69	17.8
Approach		283	4.8	0.319	49.8	LOS D	9.2	67.1	0.72	0.72	25.4
All Vehicles		2613	4.8	0.510	36.8	LOS C	17.8	130.2	0.64	0.61	34.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	36.1	LOS D	0.0	0.0	0.69	0.69
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	38.2	LOS D	0.0	0.0	0.71	0.71
All Pedestrians		40	52.6	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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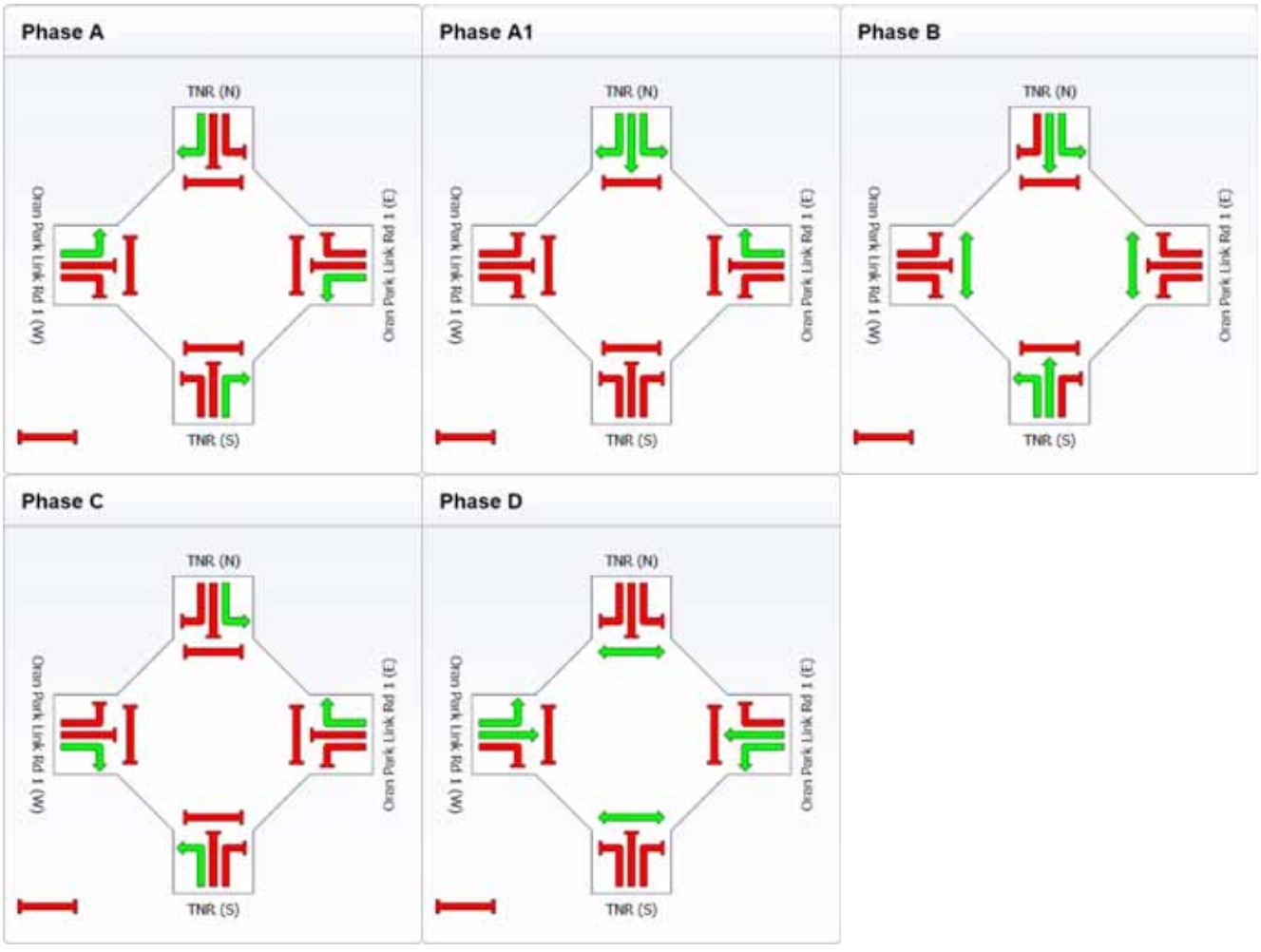
PHASING SUMMARY

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	20	6	61	6	27
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	26	12	67	12	33
Phase Split	17 %	8 %	45 %	8 %	22 %



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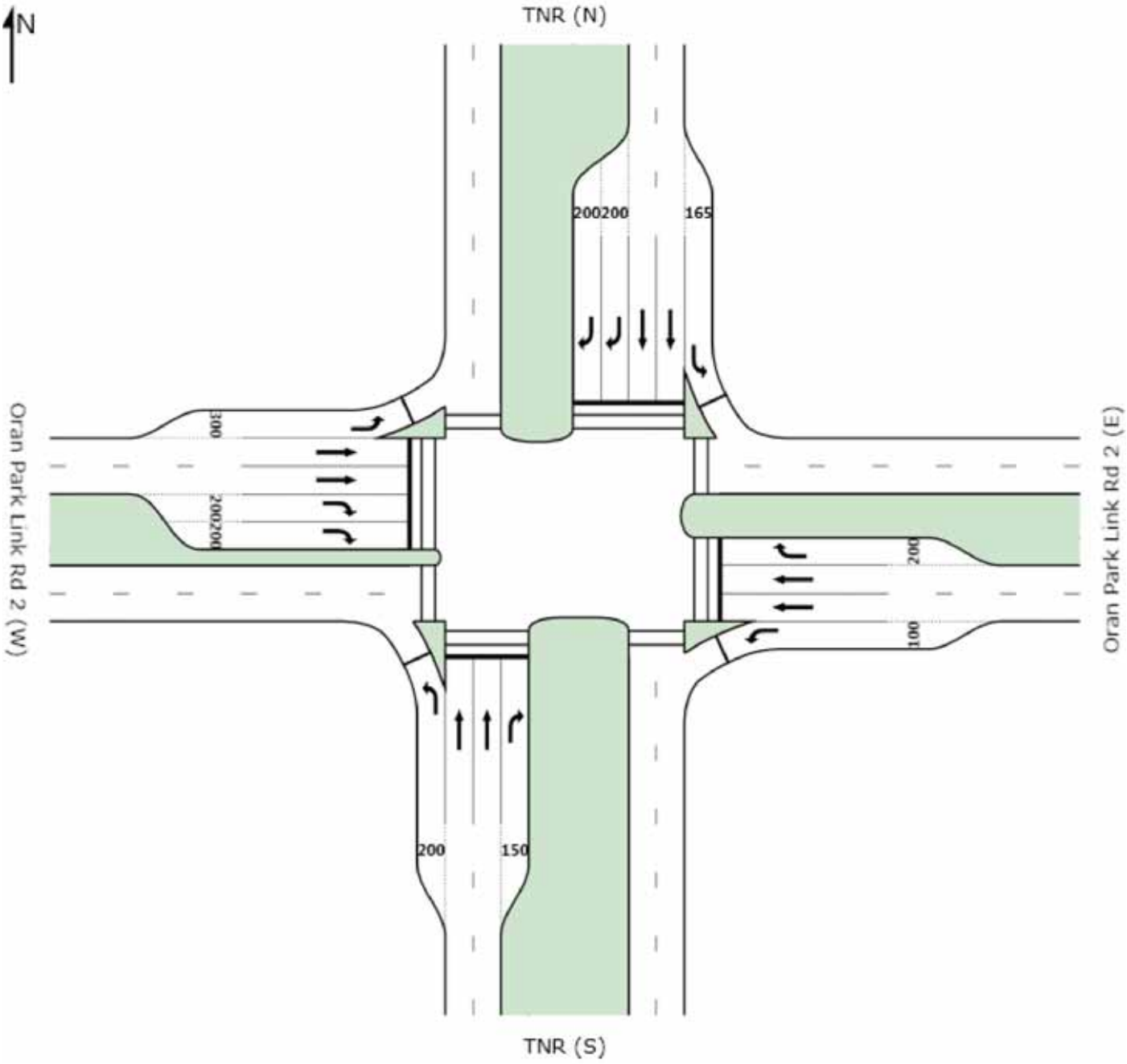
N
TNR (N)
200200
165
Oran Park Link Rd 2 (W)
Oran Park Link Rd 2 (E)
200
100
200
150
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Oran Park Link Rd 2_AM

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	138	5.3	0.122	16.8	LOS B	1.7	12.5	0.18	0.71	52.0
2	T	854	5.0	0.533	30.1	LOS C	19.3	140.8	0.67	0.59	38.7
3	R	95	0.0	0.194	57.2	LOS E	4.8	33.7	0.74	0.77	28.0
Approach		1086	4.6	0.533	30.7	LOS C	19.3	140.8	0.62	0.62	38.7
East: Oran Park Link Rd 2 (E)											
4	L	18	0.0	0.027	22.1	LOS B	0.4	2.9	0.34	0.65	37.5
5	T	56	5.7	0.071	51.0	LOS D	1.5	11.0	0.77	0.57	24.2
6	R	168	5.1	0.537	68.9	LOS E	10.9	79.9	0.93	0.80	21.0
Approach		242	4.9	0.537	61.3	LOS E	10.9	79.9	0.85	0.74	22.4
North: TNR (N)											
7	L	43	0.0	0.059	35.4	LOS C	1.4	10.0	0.48	0.73	37.2
8	T	394	5.1	0.516	57.8	LOS E	12.3	89.8	0.90	0.75	26.7
9	R	46	4.5	0.319	91.6	LOS F	1.7	12.7	0.99	0.71	20.2
Approach		483	4.6	0.516	59.0	LOS E	12.3	89.8	0.87	0.74	26.6
West: Oran Park Link Rd 2 (W)											
10	L	238	4.9	0.458	54.5	LOS D	13.0	94.5	0.80	0.80	24.3
11	T	40	5.3	0.051	50.7	LOS D	1.1	7.8	0.76	0.55	24.3
12	R	332	5.1	0.528	69.0	LOS E	10.7	78.4	0.92	0.80	20.9
Approach		609	5.0	0.528	62.1	LOS E	13.0	94.5	0.86	0.78	22.3
All Vehicles		2421	4.7	0.537	47.3	LOS D	19.3	140.8	0.75	0.70	29.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	60.8	LOS F	0.0	0.0	0.90	0.90
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	63.5	LOS F	0.0	0.0	0.92	0.92
All Pedestrians		40	64.4	LOS F			0.93	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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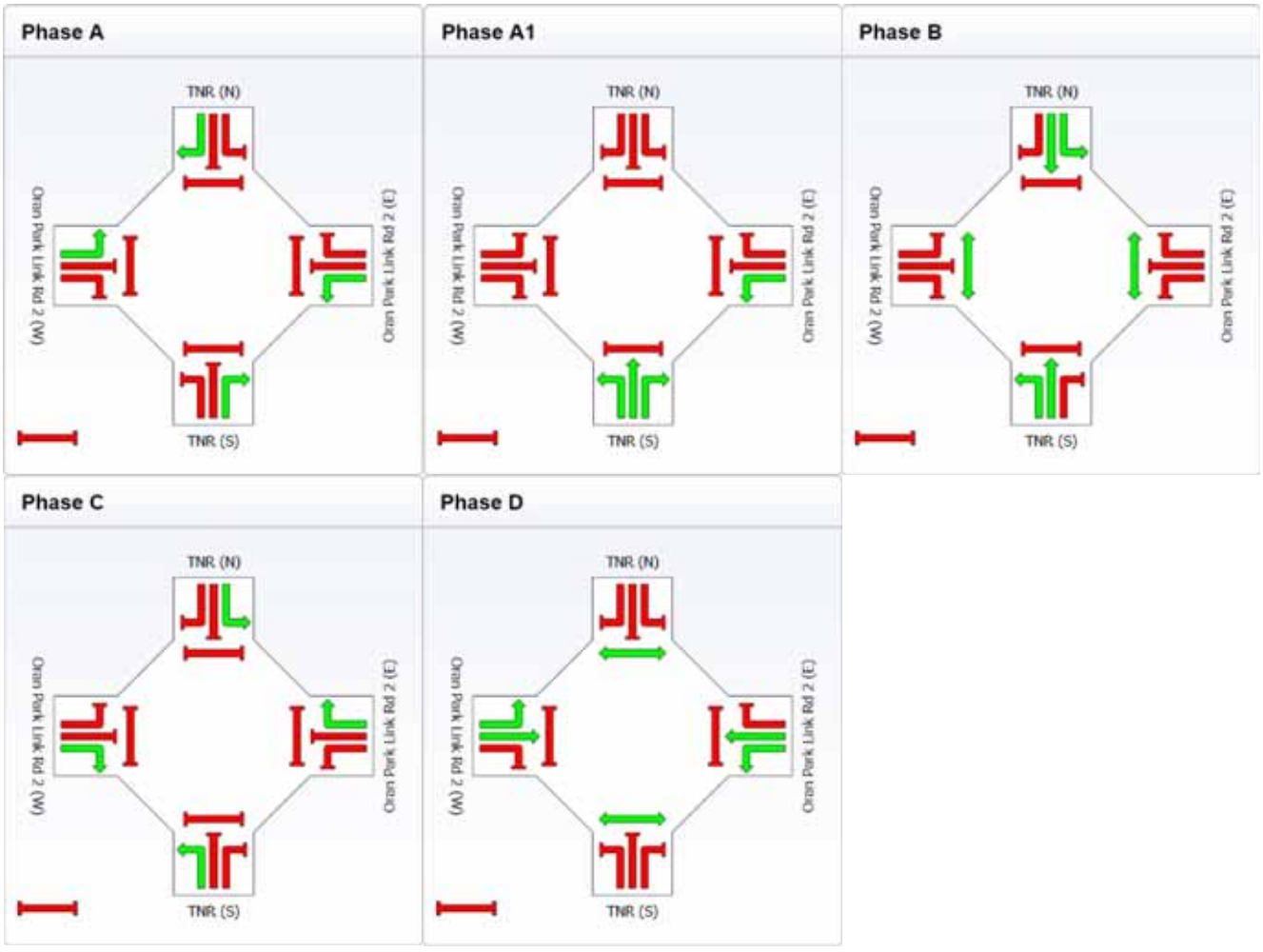
PHASING SUMMARY

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	27	30	26	31
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	33	36	32	37
Phase Split	8 %	22 %	24 %	21 %	25 %



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MOVEMENT SUMMARY

Site: 2016_Oran Park Link Rd 2_PM

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	258	4.9	0.278	26.8	LOS B	7.0	51.1	0.41	0.76	42.9
2	T	499	5.0	0.356	34.1	LOS C	11.1	81.3	0.66	0.56	36.5
3	R	55	0.0	0.486	88.2	LOS F	4.0	28.2	1.00	0.75	20.7
Approach		812	4.6	0.486	35.4	LOS C	11.1	81.3	0.60	0.64	36.3
East: Oran Park Link Rd 2 (E)											
4	L	8	0.0	0.020	44.8	LOS D	0.4	2.5	0.61	0.66	27.1
5	T	83	4.7	0.105	51.5	LOS D	2.3	16.4	0.78	0.59	24.1
6	R	37	5.7	0.180	73.3	LOS F	2.4	17.5	0.91	0.73	20.2
Approach		128	4.7	0.180	57.3	LOS E	2.4	17.5	0.80	0.63	23.0
North: TNR (N)											
7	L	105	0.0	0.092	17.8	LOS B	1.5	10.3	0.21	0.72	50.7
8	T	948	5.0	0.540	25.4	LOS B	19.7	144.0	0.62	0.55	41.9
9	R	201	5.2	0.362	73.1	LOS F	6.4	46.7	0.90	0.78	23.8
Approach		1255	4.6	0.540	32.4	LOS C	19.7	144.0	0.63	0.60	37.9
West: Oran Park Link Rd 2 (W)											
10	L	67	4.7	0.093	34.1	LOS C	2.4	17.2	0.52	0.70	31.2
11	T	42	5.0	0.053	50.7	LOS D	1.1	8.2	0.76	0.55	24.3
12	R	219	4.8	0.532	76.9	LOS F	7.6	55.3	0.97	0.79	19.5
Approach		328	4.8	0.532	64.7	LOS E	7.6	55.3	0.85	0.74	21.7
All Vehicles		2523	4.6	0.540	38.8	LOS C	19.7	144.0	0.66	0.63	33.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	40.3	LOS E	0.0	0.0	0.73	0.73
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	42.6	LOS E	0.0	0.0	0.75	0.75
All Pedestrians		40	54.1	LOS E			0.84	0.84

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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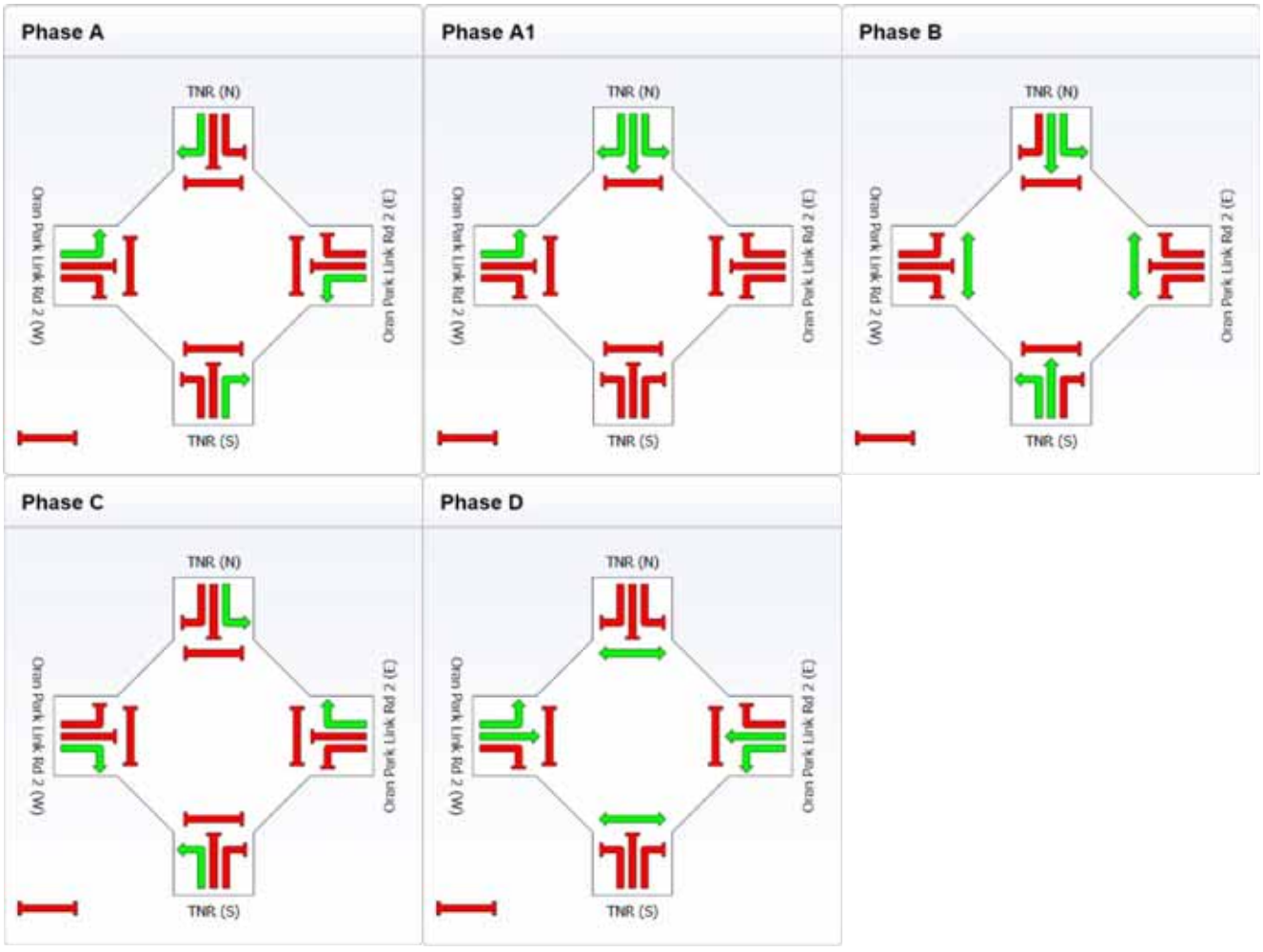
PHASING SUMMARY

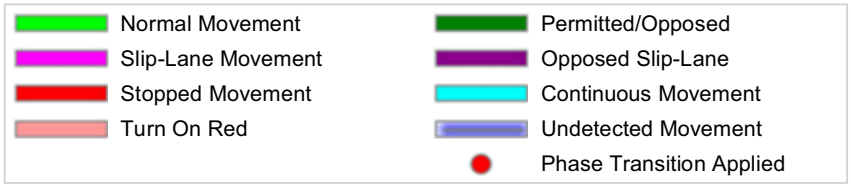
Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	9	8	55	17	31
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	15	14	61	23	37
Phase Split	10 %	9 %	41 %	15 %	25 %





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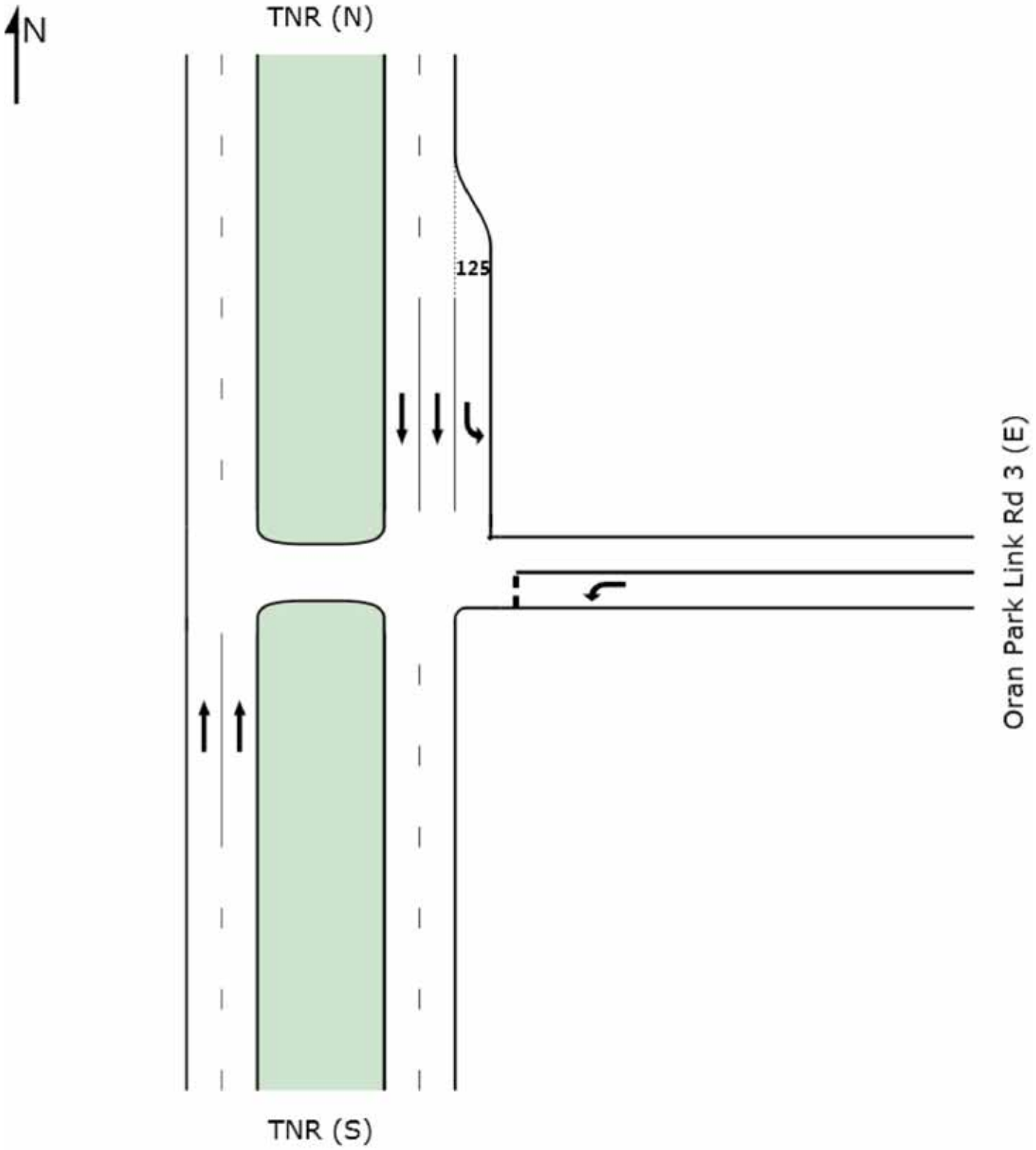
N
TNR (N)
125
Oran Park Link Rd 3 (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Oran Park Link Rd 3_AM

Oran Park Link Road 3
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1372	5.0	0.363	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1372	5.0	0.363	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Oran Park Link Rd 3 (E)											
4	L	1	0.0	0.001	10.2	LOS A	0.0	0.0	0.43	0.60	46.8
Approach		1	0.0	0.001	10.2	LOS A	0.0	0.0	0.43	0.60	46.8
North: TNR (N)											
7	L	80	5.3	0.045	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
8	T	482	5.0	0.128	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		562	5.1	0.128	1.6	NA	0.0	0.0	0.00	0.10	76.2
All Vehicles		1935	5.0	0.363	0.5	NA	0.0	0.0	0.00	0.03	78.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Oran Park Link Rd 3_PM

Oran Park Link Road 3
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	657	5.0	0.174	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		657	5.0	0.174	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Oran Park Link Rd 3 (E)											
4	L	1	0.0	0.003	18.0	LOS B	0.0	0.1	0.74	0.76	40.1
Approach		1	0.0	0.003	18.0	LOS B	0.0	0.1	0.74	0.76	40.1
North: TNR (N)											
7	L	186	5.1	0.104	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
8	T	1252	5.0	0.331	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1438	5.0	0.331	1.4	NA	0.0	0.0	0.00	0.09	76.5
All Vehicles		2096	5.0	0.331	1.0	NA	0.0	0.1	0.00	0.07	77.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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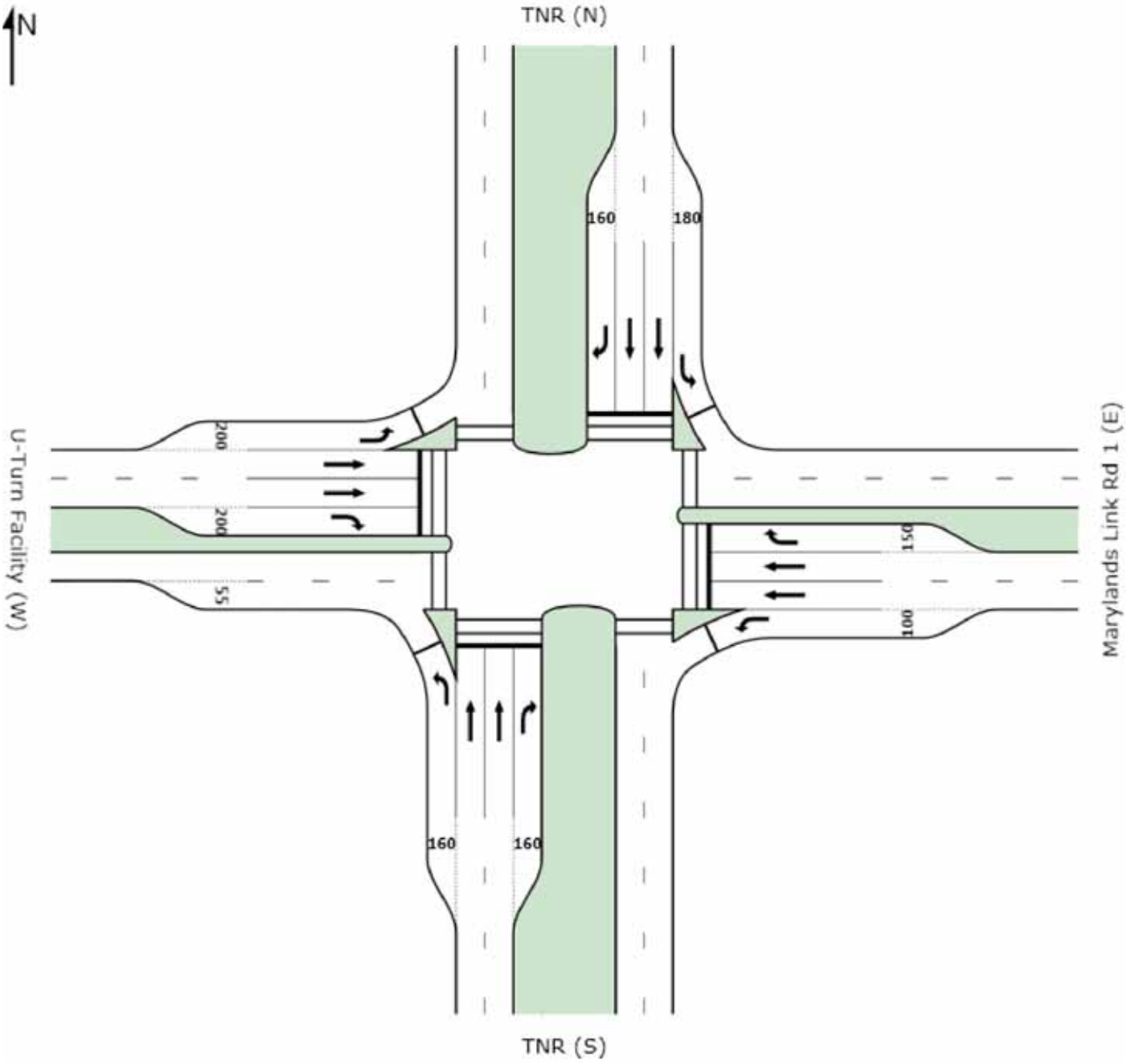
N
TNR (N)
160
180
200
200
55
150
100
U-Turn Facility (W)
Marylands Link Rd 1 (E)
160
160
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Marylands Link Rd 1_AM

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	4	0.0	0.003	15.0	LOS B	0.0	0.3	0.13	0.69	53.8
2	T	1228	5.0	0.561	13.5	LOS A	18.2	132.6	0.45	0.41	53.3
3	R	138	0.0	0.334	64.0	LOS E	7.9	55.2	0.83	0.79	26.0
Approach		1371	4.5	0.561	18.6	LOS B	18.2	132.6	0.48	0.45	48.3
East: Marylands Link Rd 1 (E)											
4	L	1	0.0	0.002	27.5	LOS B	0.0	0.2	0.41	0.61	34.4
5	T	1	0.0	0.002	51.9	LOS D	0.0	0.3	0.77	0.45	24.0
6	R	15	7.1	0.206	87.4	LOS F	1.1	8.1	0.99	0.69	17.9
Approach		17	6.3	0.206	81.4	LOS F	1.1	8.1	0.94	0.67	18.7
North: TNR (N)											
7	L	56	0.0	0.065	29.1	LOS C	1.5	10.7	0.40	0.73	41.1
8	T	502	4.9	0.334	30.3	LOS C	10.4	76.0	0.61	0.52	38.7
9	R	2	0.0	0.028	88.2	LOS F	0.2	1.1	0.97	0.62	20.7
Approach		560	4.4	0.334	30.4	LOS C	10.4	76.0	0.60	0.55	38.8
West: U-Turn Facility (W)											
10	L	3	0.0	0.006	49.8	LOS D	0.1	1.0	0.66	0.64	25.5
11	T	1	0.0	0.001	51.9	LOS D	0.0	0.2	0.76	0.44	24.0
12	R	2	0.0	0.028	84.7	LOS F	0.2	1.1	0.97	0.61	18.2
Approach		6	0.0	0.028	61.8	LOS E	0.2	1.1	0.78	0.60	22.3
All Vehicles		1954	4.5	0.561	22.6	LOS B	18.2	132.6	0.52	0.48	44.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	37.5	LOS D	0.0	0.0	0.71	0.71
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	37.5	LOS D	0.0	0.0	0.71	0.71
All Pedestrians		40	52.8	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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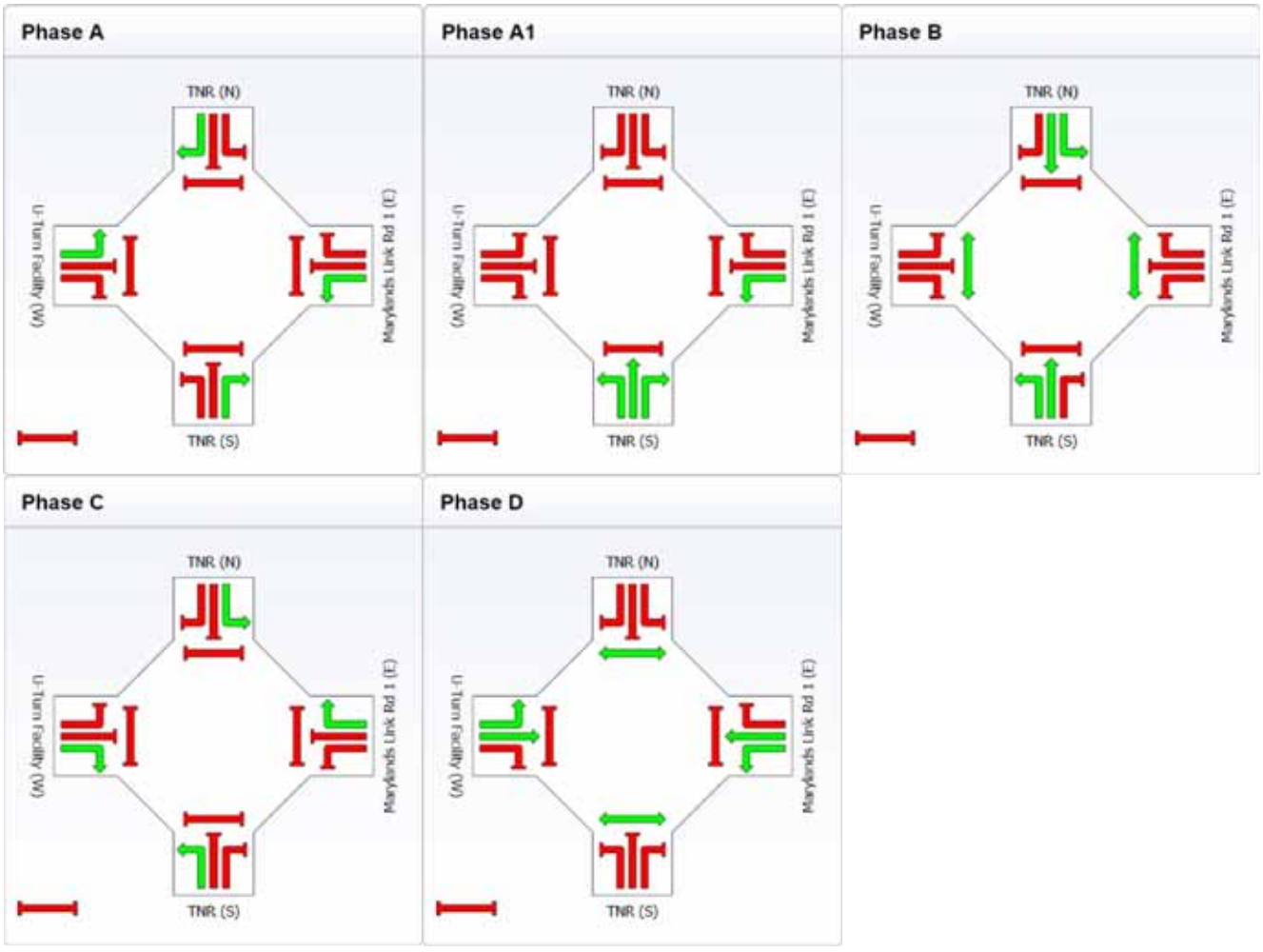
PHASING SUMMARY

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	21	59	6	28
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	27	65	12	34
Phase Split	8 %	18 %	43 %	8 %	23 %



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MOVEMENT SUMMARY

Site: 2016_Marylands Link Rd 1_PM

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	1	0.0	0.001	15.0	LOS B	0.0	0.1	0.13	0.68	53.8
2	T	589	5.0	0.269	10.8	LOS A	6.2	45.6	0.32	0.28	57.4
3	R	66	0.0	0.589	89.0	LOS F	4.9	34.6	1.00	0.77	20.6
Approach		657	4.5	0.589	18.7	LOS B	6.2	45.6	0.39	0.33	48.7
East: Marylands Link Rd 1 (E)											
4	L	2	0.0	0.005	47.3	LOS D	0.1	0.6	0.63	0.62	26.3
5	T	1	0.0	0.002	51.9	LOS D	0.0	0.3	0.77	0.45	24.0
6	R	37	5.7	0.511	89.3	LOS F	2.8	20.7	1.00	0.73	17.6
Approach		40	5.3	0.511	86.1	LOS F	2.8	20.7	0.97	0.72	18.0
North: TNR (N)											
7	L	146	0.0	0.123	16.6	LOS B	1.8	12.6	0.18	0.72	51.9
8	T	1287	5.0	0.610	16.1	LOS B	22.0	160.6	0.52	0.47	50.2
9	R	4	0.0	0.056	88.8	LOS F	0.3	2.1	0.97	0.64	20.6
Approach		1438	4.5	0.610	16.3	LOS B	22.0	160.6	0.48	0.49	50.1
West: U-Turn Facility (W)											
10	L	4	0.0	0.008	49.9	LOS D	0.2	1.4	0.66	0.64	25.5
11	T	1	0.0	0.001	51.9	LOS D	0.0	0.2	0.76	0.44	24.0
12	R	5	0.0	0.070	85.6	LOS F	0.4	2.7	0.97	0.65	18.1
Approach		11	0.0	0.070	67.9	LOS E	0.4	2.7	0.83	0.62	21.1
All Vehicles		2145	4.5	0.610	18.6	LOS B	22.0	160.6	0.46	0.45	48.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	22.4	LOS C	0.0	0.0	0.55	0.55
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	22.4	LOS C	0.0	0.0	0.55	0.55
All Pedestrians		40	45.3	LOS E			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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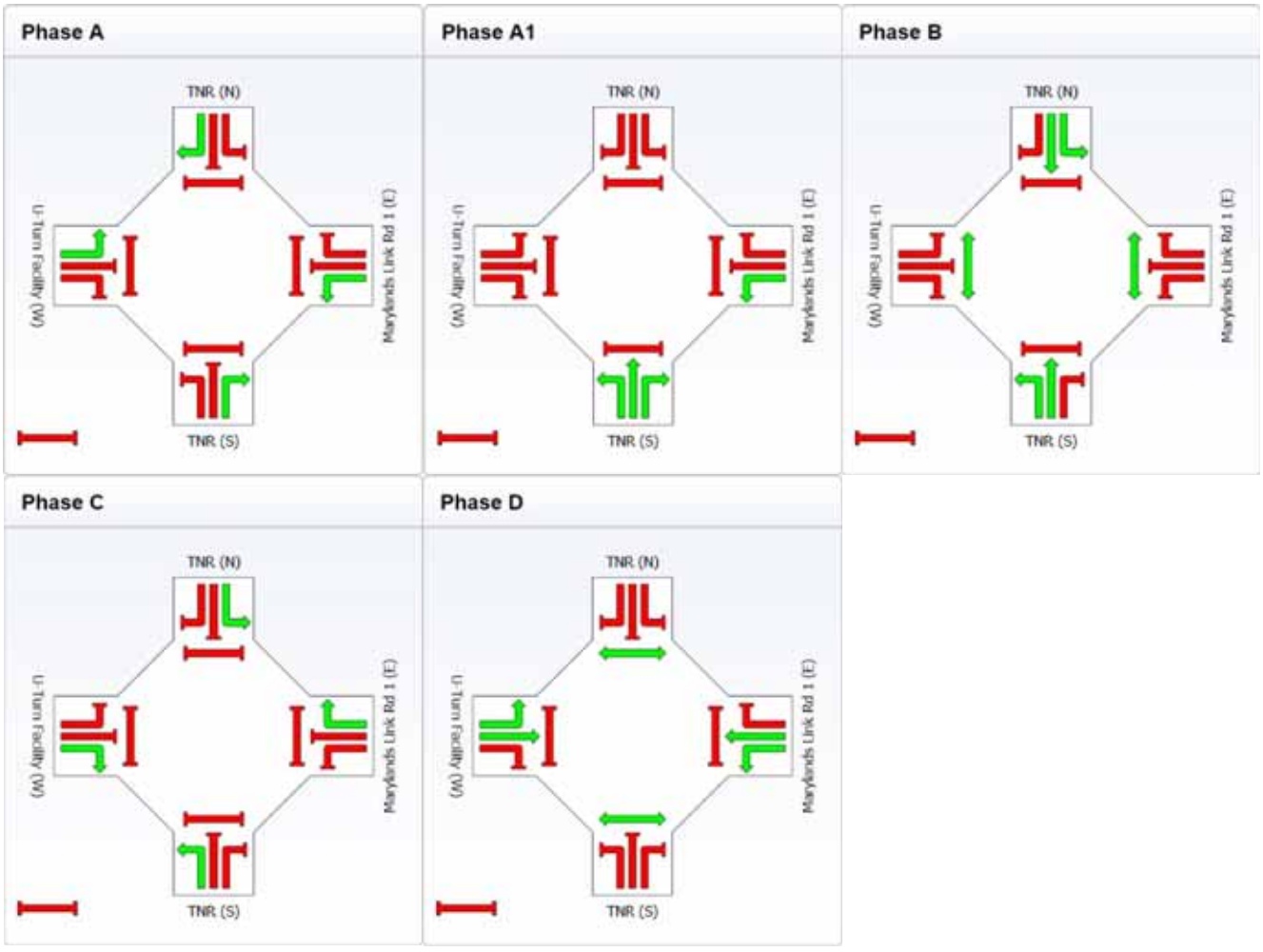
PHASING SUMMARY

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	0	83	6	28
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	3	89	12	34
Phase Split	8 %	2 %	59 %	8 %	23 %



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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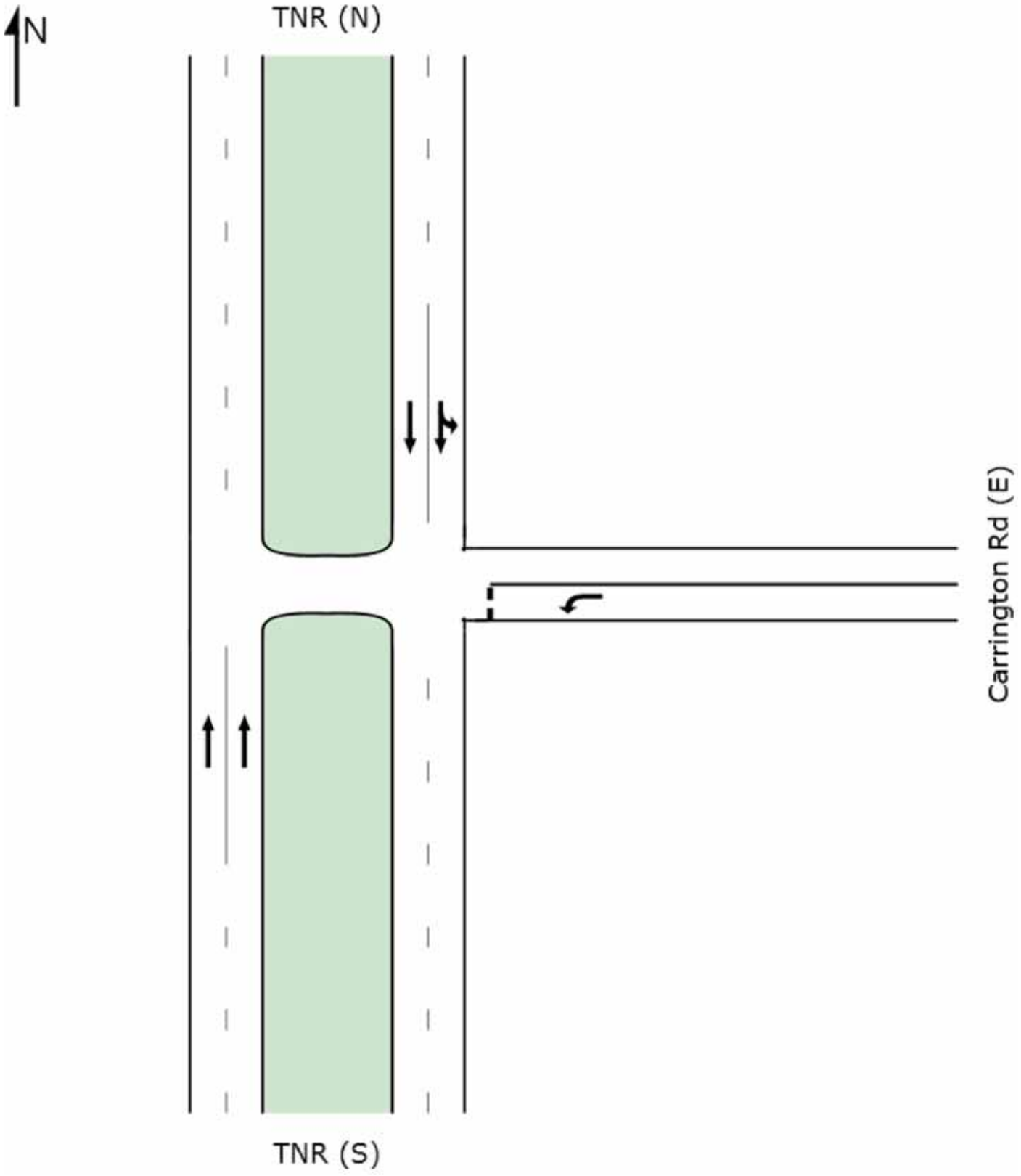
N
TNR (N)
Carrington Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Carrington Rd_AM

Carrington Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1393	5.0	0.369	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1393	5.0	0.369	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Carrington Rd (E)											
4	L	9	0.0	0.013	10.7	LOS A	0.0	0.3	0.47	0.67	46.3
Approach		9	0.0	0.013	10.7	LOS A	0.0	0.3	0.47	0.67	46.3
North: TNR (N)											
7	L	15	7.1	0.150	11.3	LOS A	0.0	0.0	0.00	1.32	58.9
8	T	553	5.0	0.150	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		567	5.0	0.150	0.3	NA	0.0	0.0	0.00	0.03	79.3
All Vehicles		1969	5.0	0.369	0.1	NA	0.0	0.3	0.00	0.01	79.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Carrington Rd_PM

Carrington Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	709	5.0	0.188	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		709	5.0	0.188	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Carrington Rd (E)											
4	L	16	6.7	0.070	23.5	LOS B	0.2	1.7	0.82	0.94	36.5
Approach		16	6.7	0.070	23.5	LOS B	0.2	1.7	0.82	0.94	36.5
North: TNR (N)											
7	L	8	0.0	0.381	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	1429	5.0	0.381	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1438	5.0	0.381	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		2163	5.0	0.381	0.2	NA	0.2	1.7	0.01	0.01	79.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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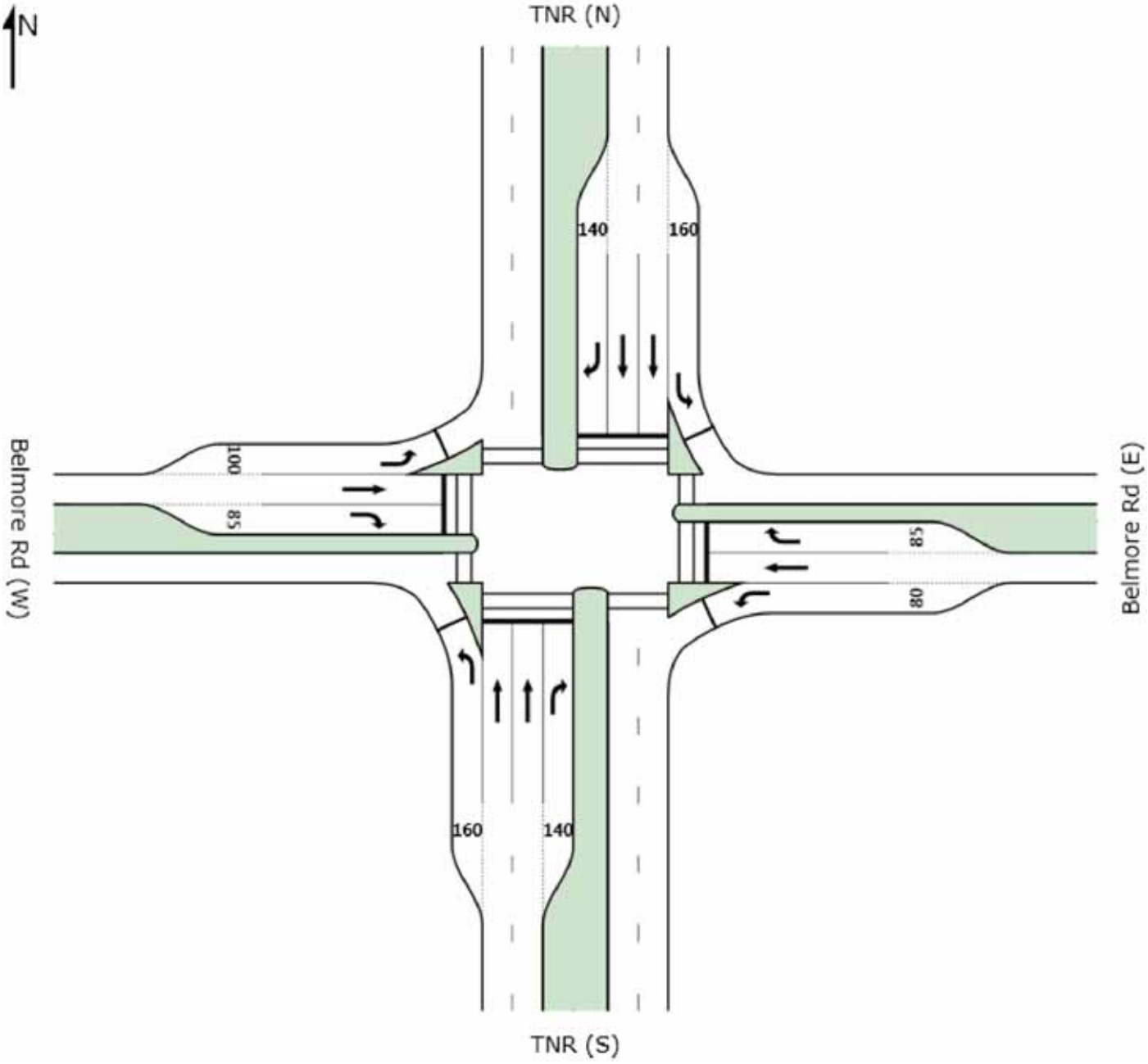
N
TNR (N)
140
160
Belmore Rd (W)
100
85
85
80
Belmore Rd (E)
160
140
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Belmore Rd_AM

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	15	7.1	0.012	14.0	LOS A	0.1	0.7	0.10	0.69	55.3
2	T	1371	5.0	0.605	11.4	LOS A	19.0	138.8	0.42	0.38	55.9
3	R	11	0.0	0.142	90.0	LOS F	0.8	5.4	0.98	0.68	20.3
Approach		1396	5.0	0.605	12.0	LOS A	19.0	138.8	0.42	0.39	55.2
East: Belmore Rd (E)											
4	L	11	0.0	0.140	86.4	LOS F	0.8	5.4	0.98	0.67	17.9
5	T	11	0.0	0.033	56.7	LOS E	0.6	4.2	0.82	0.57	22.7
6	R	18	5.9	0.248	87.9	LOS F	1.3	9.8	0.99	0.70	17.7
Approach		39	2.7	0.248	79.1	LOS F	1.3	9.8	0.94	0.66	18.9
North: TNR (N)											
7	L	11	0.0	0.008	13.7	LOS A	0.1	0.5	0.10	0.69	55.3
8	T	546	5.0	0.239	8.4	LOS A	4.8	35.1	0.26	0.23	61.0
9	R	19	5.6	0.262	91.4	LOS F	1.4	10.4	0.99	0.70	20.1
Approach		576	4.9	0.262	11.3	LOS A	4.8	35.1	0.29	0.25	57.1
West: Belmore Rd (W)											
10	L	23	4.5	0.064	54.2	LOS D	1.2	8.4	0.72	0.69	24.3
11	T	11	0.0	0.033	56.7	LOS E	0.6	4.2	0.82	0.57	22.7
12	R	15	7.1	0.206	87.6	LOS F	1.1	8.1	0.99	0.69	17.7
Approach		48	4.3	0.206	64.9	LOS E	1.2	8.4	0.82	0.67	21.6
All Vehicles		2059	4.9	0.605	14.3	LOS A	19.0	138.8	0.40	0.36	52.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	16.3	LOS B	0.0	0.0	0.47	0.47
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	16.3	LOS B	0.0	0.0	0.47	0.47
All Pedestrians		40	42.2	LOS E			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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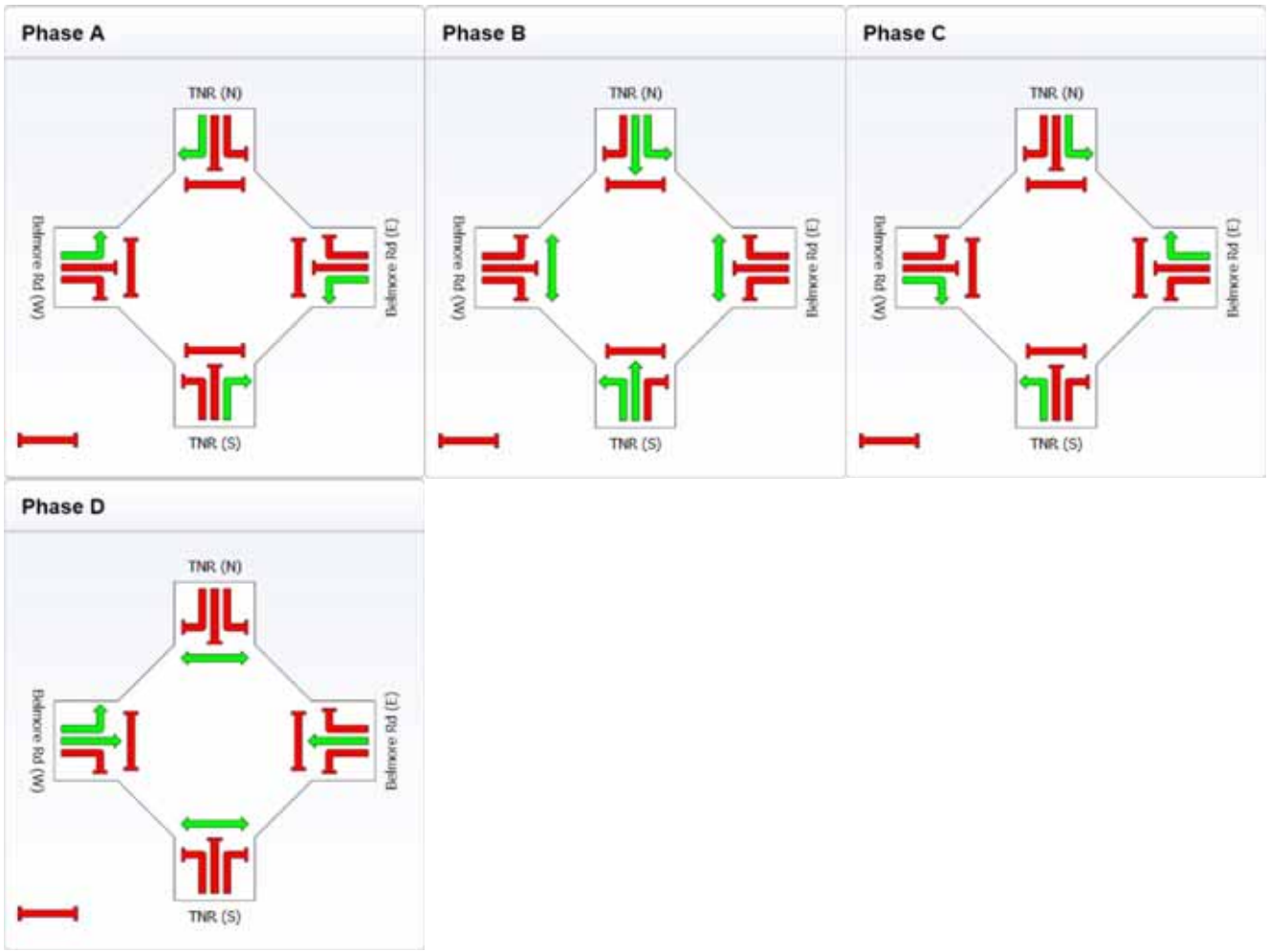
PHASING SUMMARY

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	6	90	6	24
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	12	96	12	30
Phase Split	8 %	64 %	8 %	20 %



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MOVEMENT SUMMARY

Site: 2016_Belmore Rd_PM

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	11	0.0	0.008	13.7	LOS A	0.1	0.5	0.10	0.69	55.3
2	T	680	5.0	0.300	8.8	LOS A	6.4	46.6	0.28	0.25	60.3
3	R	19	5.6	0.265	91.4	LOS F	1.4	10.4	0.99	0.70	20.1
Approach		709	4.9	0.300	11.1	LOS A	6.4	46.6	0.30	0.27	57.2
East: Belmore Rd (E)											
4	L	11	0.0	0.033	53.5	LOS D	0.5	3.6	0.71	0.67	24.5
5	T	11	0.0	0.033	56.7	LOS E	0.6	4.2	0.82	0.57	22.7
6	R	11	0.0	0.140	86.6	LOS F	0.8	5.4	0.98	0.67	17.8
Approach		32	0.0	0.140	65.6	LOS E	0.8	5.4	0.84	0.64	21.3
North: TNR (N)											
7	L	18	5.9	0.015	13.9	LOS A	0.1	0.9	0.10	0.69	55.3
8	T	1418	5.0	0.619	11.6	LOS A	20.1	146.8	0.43	0.39	55.7
9	R	21	5.0	0.291	91.5	LOS F	1.6	11.5	0.99	0.70	20.1
Approach		1457	5.0	0.619	12.7	LOS A	20.1	146.8	0.43	0.40	54.3
West: Belmore Rd (W)											
10	L	18	5.9	0.050	54.0	LOS D	0.9	6.5	0.71	0.69	24.4
11	T	11	0.0	0.033	56.7	LOS E	0.6	4.2	0.82	0.57	22.7
12	R	12	9.1	0.164	87.4	LOS F	0.9	6.5	0.98	0.68	17.8
Approach		40	5.3	0.164	64.4	LOS E	0.9	6.5	0.82	0.65	21.6
All Vehicles		2238	4.9	0.619	13.9	LOS A	20.1	146.8	0.40	0.37	52.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	16.3	LOS B	0.0	0.0	0.47	0.47
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	16.3	LOS B	0.0	0.0	0.47	0.47
All Pedestrians		40	42.2	LOS E			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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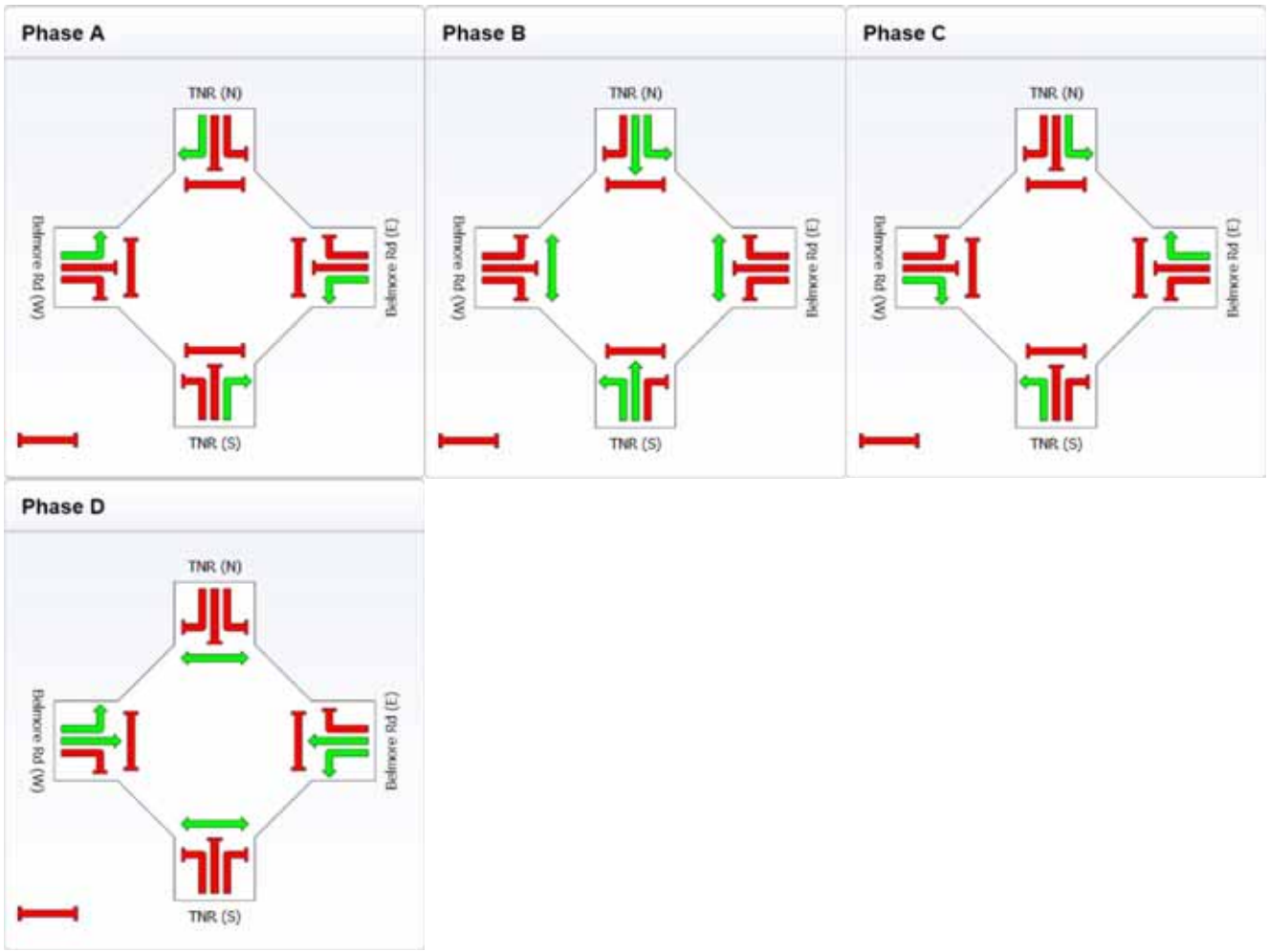
PHASING SUMMARY

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	6	90	6	24
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	12	96	12	30
Phase Split	8 %	64 %	8 %	20 %



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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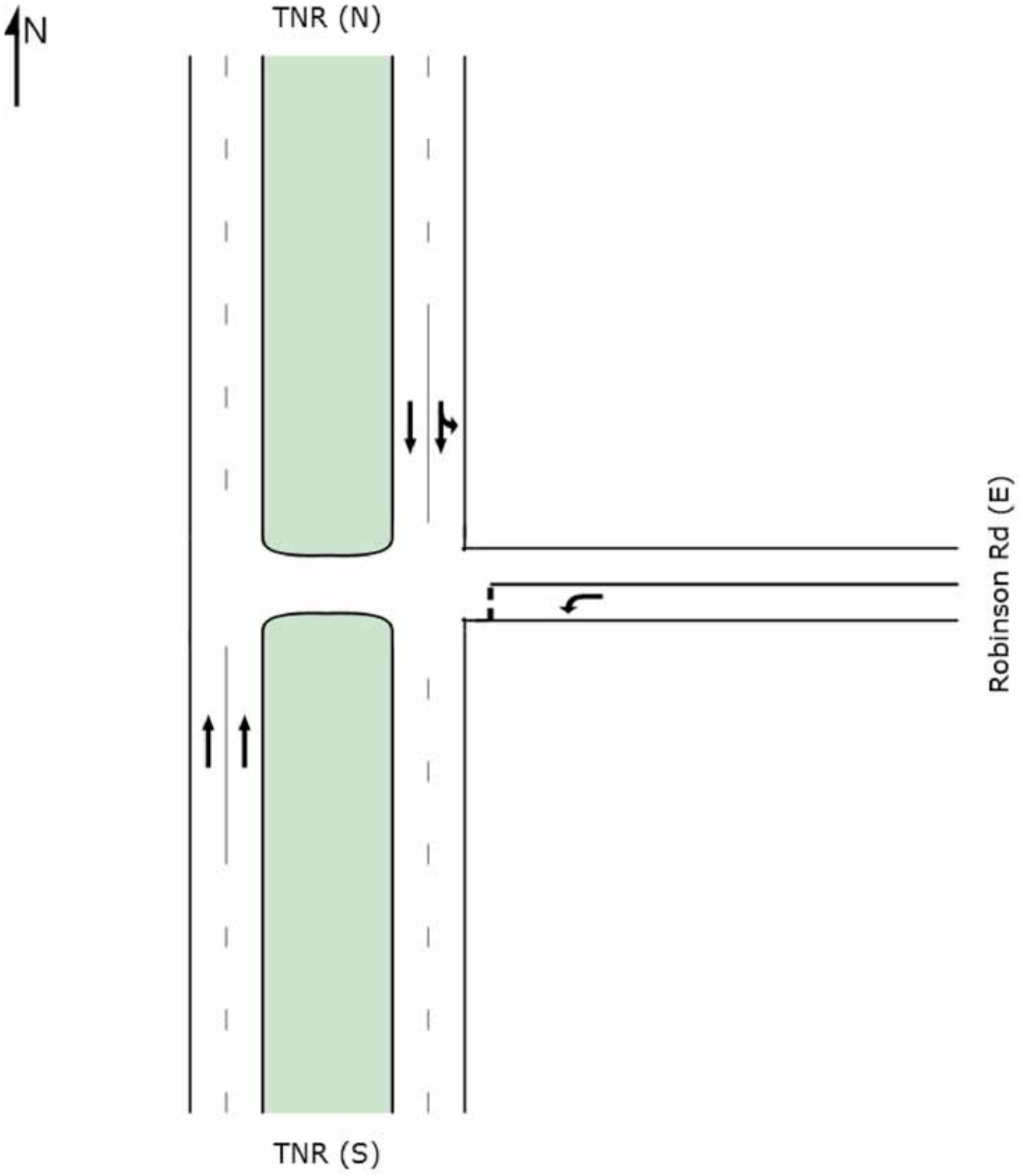
N
TNR (N)
Robinson Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Robinson Rd_AM

Robinson Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1412	5.0	0.374	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1412	5.0	0.374	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Robinson Rd (E)											
4	L	13	8.3	0.018	11.3	LOS A	0.1	0.5	0.48	0.69	46.0
Approach		13	8.3	0.018	11.3	LOS A	0.1	0.5	0.48	0.69	46.0
North: TNR (N)											
7	L	2	0.0	0.150	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	563	5.0	0.150	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		565	5.0	0.150	0.0	NA	0.0	0.0	0.00	0.01	79.9
All Vehicles		1989	5.0	0.374	0.1	NA	0.1	0.5	0.00	0.01	79.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Robinson Rd_PM

Robinson Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	708	5.1	0.188	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		708	5.1	0.188	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Robinson Rd (E)											
4	L	18	5.9	0.079	23.5	LOS B	0.3	1.9	0.82	0.94	36.5
Approach		18	5.9	0.079	23.5	LOS B	0.3	1.9	0.82	0.94	36.5
North: TNR (N)											
7	L	2	0.0	0.381	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	1439	5.0	0.381	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1441	5.0	0.381	0.0	NA	0.0	0.0	0.00	0.00	80.0
All Vehicles		2167	5.0	0.381	0.2	NA	0.3	1.9	0.01	0.01	79.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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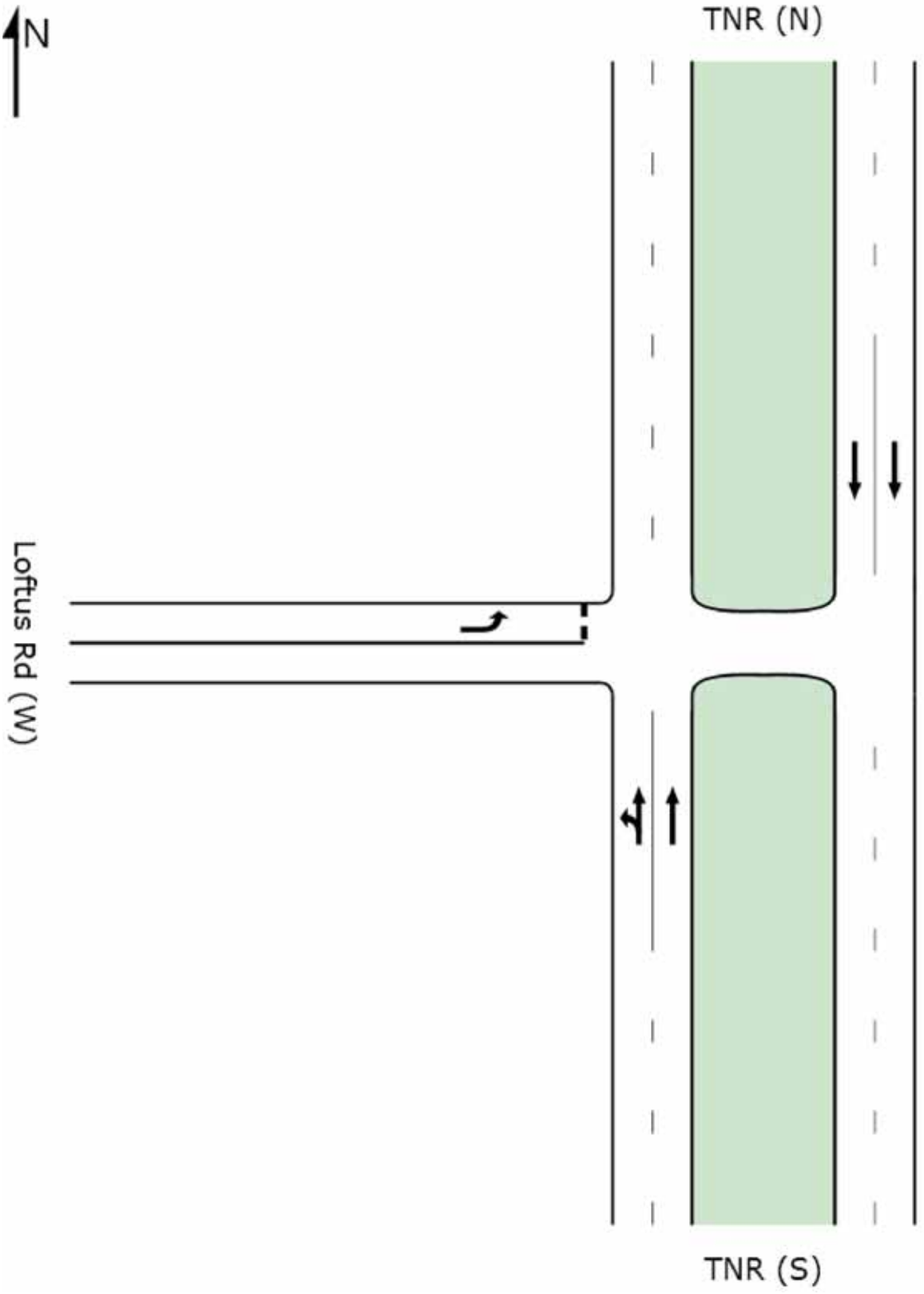
N
TNR (N)
Loftus Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Loftus Rd_AM

Loftus Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	16	6.7	0.374	11.2	LOS A	0.0	0.0	0.00	1.36	58.9
2	T	1396	5.0	0.374	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1412	5.0	0.374	0.1	NA	0.0	0.0	0.00	0.02	79.7
North: TNR (N)											
8	T	566	5.0	0.150	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		566	5.0	0.150	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Loftus Rd (W)											
10	L	13	8.3	0.055	23.2	LOS B	0.2	1.3	0.81	0.94	36.8
Approach		13	8.3	0.055	23.2	LOS B	0.2	1.3	0.81	0.94	36.8
All Vehicles		1991	5.0	0.374	0.2	NA	0.2	1.3	0.01	0.02	79.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Loftus Rd_PM

Loftus Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	27	3.8	0.187	11.1	LOS A	0.0	0.0	0.00	1.27	58.9
2	T	679	5.0	0.187	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		706	4.9	0.187	0.4	NA	0.0	0.0	0.00	0.05	78.9
North: TNR (N)											
8	T	1443	5.0	0.382	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1443	5.0	0.382	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Loftus Rd (W)											
10	L	13	8.3	0.021	12.2	LOS A	0.1	0.6	0.52	0.72	45.2
Approach		13	8.3	0.021	12.2	LOS A	0.1	0.6	0.52	0.72	45.2
All Vehicles		2162	5.0	0.382	0.2	NA	0.1	0.6	0.00	0.02	79.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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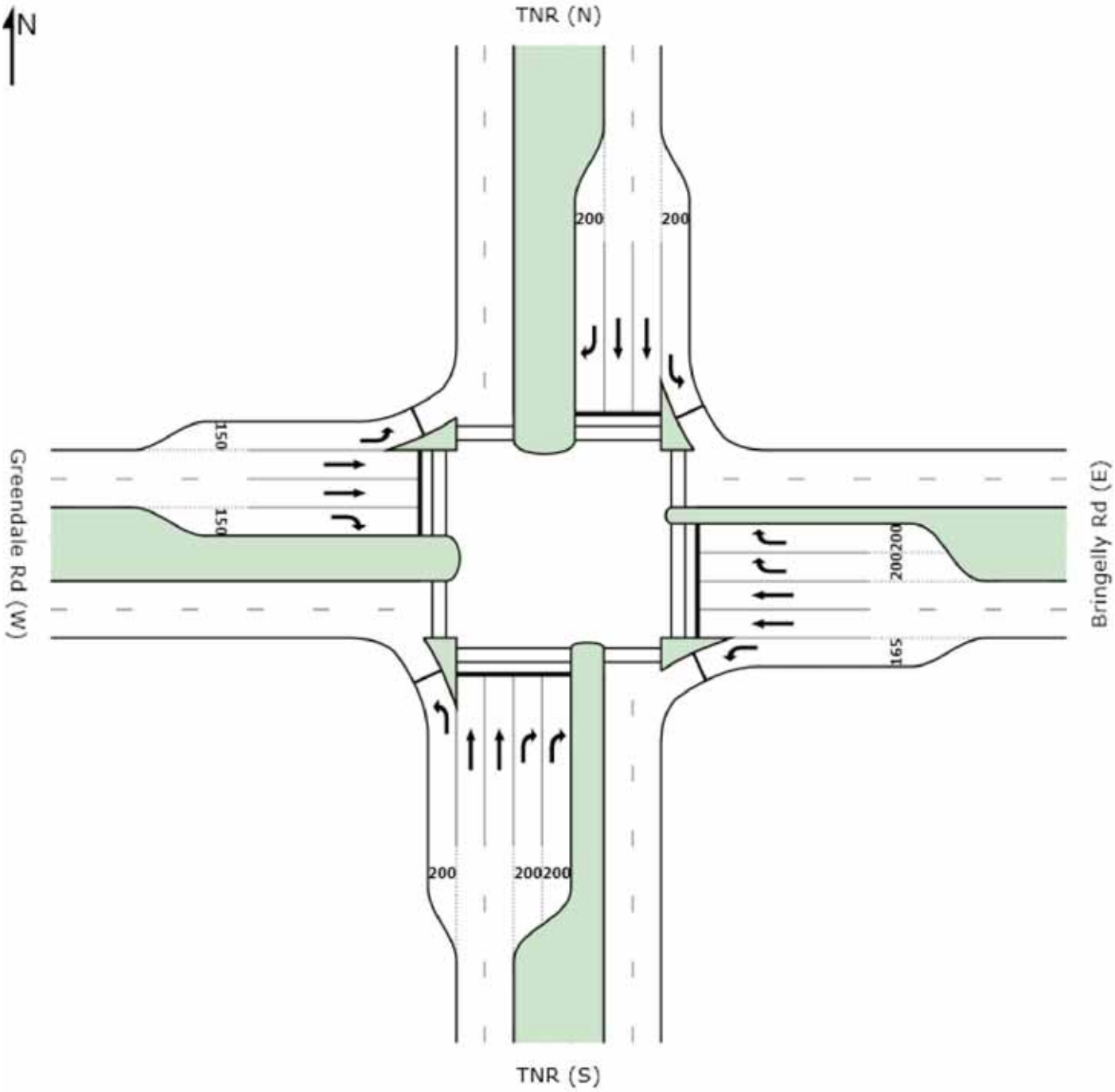
N
TNR (N)
200
200
150
150
Greendale Rd (W)
200200
165
Bringelly Rd (E)
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Bringelly Rd / Greendale Rd_AM

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	42	5.0	0.035	14.6	LOS B	0.3	2.5	0.12	0.70	54.4
2	T	897	5.0	0.430	14.6	LOS B	12.7	92.6	0.43	0.38	52.2
3	R	468	4.9	0.412	53.5	LOS D	12.0	87.2	0.75	0.81	29.3
Approach		1407	5.0	0.430	27.5	LOS B	12.7	92.6	0.52	0.53	41.5
East: Bringelly Rd (E)											
4	L	104	5.1	0.119	24.7	LOS B	2.4	17.5	0.34	0.73	44.5
5	T	54	5.9	0.082	55.7	LOS D	1.5	11.3	0.81	0.60	27.5
6	R	119	5.3	0.411	84.5	LOS F	4.2	30.9	0.97	0.76	21.3
Approach		277	5.3	0.411	56.4	LOS D	4.2	30.9	0.70	0.72	28.1
North: TNR (N)											
7	L	212	5.0	0.297	41.1	LOS C	8.6	62.7	0.60	0.78	34.4
8	T	429	4.9	0.411	47.7	LOS D	11.7	85.1	0.79	0.67	30.2
9	R	22	4.8	0.305	91.6	LOS F	1.7	12.1	0.99	0.71	20.1
Approach		663	4.9	0.411	47.0	LOS D	11.7	85.1	0.74	0.70	30.9
West: Greendale Rd (W)											
10	L	22	4.8	0.048	56.0	LOS D	1.1	7.8	0.70	0.72	28.4
11	T	89	4.7	0.135	56.4	LOS D	2.6	18.9	0.83	0.63	27.3
12	R	33	6.5	0.227	83.0	LOS F	2.3	16.7	0.95	0.73	21.7
Approach		144	5.1	0.227	62.3	LOS E	2.6	18.9	0.84	0.66	25.9
All Vehicles		2492	5.0	0.430	38.0	LOS C	12.7	92.6	0.62	0.61	35.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P3	Across E approach	10	53.8	LOS E	0.0	0.0	0.85	0.85
P5	Across N approach	10	66.3	LOS F	0.0	0.0	0.94	0.94
P7	Across W approach	10	51.3	LOS E	0.0	0.0	0.83	0.83
All Pedestrians		40	60.1	LOS F			0.89	0.89

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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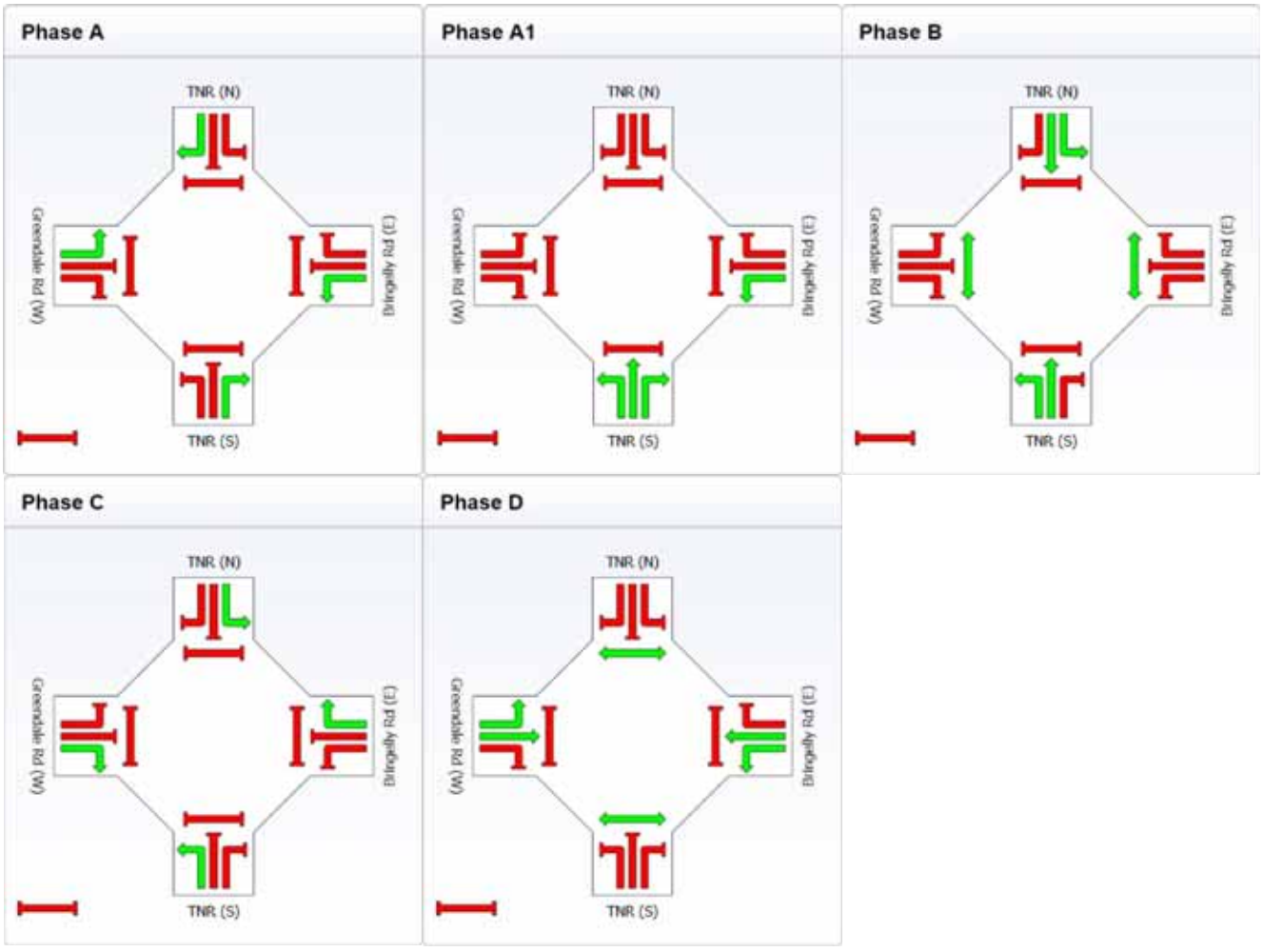
PHASING SUMMARY

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	35	41	12	26
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	41	47	18	32
Phase Split	8 %	27 %	31 %	12 %	21 %



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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MOVEMENT SUMMARY

Site: 2016_Bringelly Rd / Greendale Rd_PM

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	27	3.8	0.021	12.0	LOS A	0.1	0.5	0.06	0.69	57.8
2	T	486	5.0	0.228	11.6	LOS A	5.3	38.7	0.33	0.28	56.3
3	R	177	4.8	0.198	59.0	LOS E	4.6	33.6	0.75	0.77	27.5
Approach		691	4.9	0.228	23.7	LOS B	5.3	38.7	0.43	0.42	44.5
East: Bringelly Rd (E)											
4	L	469	4.9	0.651	36.1	LOS C	19.5	142.4	0.62	0.81	36.9
5	T	77	5.5	0.112	55.2	LOS D	2.2	16.0	0.81	0.61	27.6
6	R	223	5.2	0.402	73.7	LOS F	7.2	52.4	0.91	0.79	23.6
Approach		769	5.1	0.651	48.9	LOS D	19.5	142.4	0.72	0.79	30.8
North: TNR (N)											
7	L	184	5.1	0.180	21.9	LOS B	3.7	27.2	0.30	0.73	46.9
8	T	931	5.0	0.653	38.2	LOS C	25.0	182.8	0.80	0.71	34.1
9	R	26	4.0	0.240	86.7	LOS F	1.9	13.6	0.97	0.72	20.9
Approach		1141	5.0	0.653	36.7	LOS C	25.0	182.8	0.72	0.71	35.1
West: Greendale Rd (W)											
10	L	24	4.3	0.080	67.8	LOS E	1.4	10.2	0.82	0.72	25.0
11	T	77	5.5	0.303	74.5	LOS F	2.7	20.0	0.97	0.72	22.6
12	R	42	5.0	0.581	93.4	LOS F	3.2	23.7	1.00	0.75	19.9
Approach		143	5.1	0.581	78.9	LOS F	3.2	23.7	0.95	0.73	22.1
All Vehicles		2744	5.0	0.653	39.0	LOS C	25.0	182.8	0.66	0.66	34.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	74.0	LOS F	0.0	0.0	0.99	0.99
P3	Across E approach	10	41.8	LOS E	0.0	0.0	0.75	0.75
P5	Across N approach	10	74.0	LOS F	0.0	0.0	0.99	0.99
P7	Across W approach	10	39.6	LOS D	0.0	0.0	0.73	0.73
All Pedestrians		40	57.4	LOS E			0.86	0.86

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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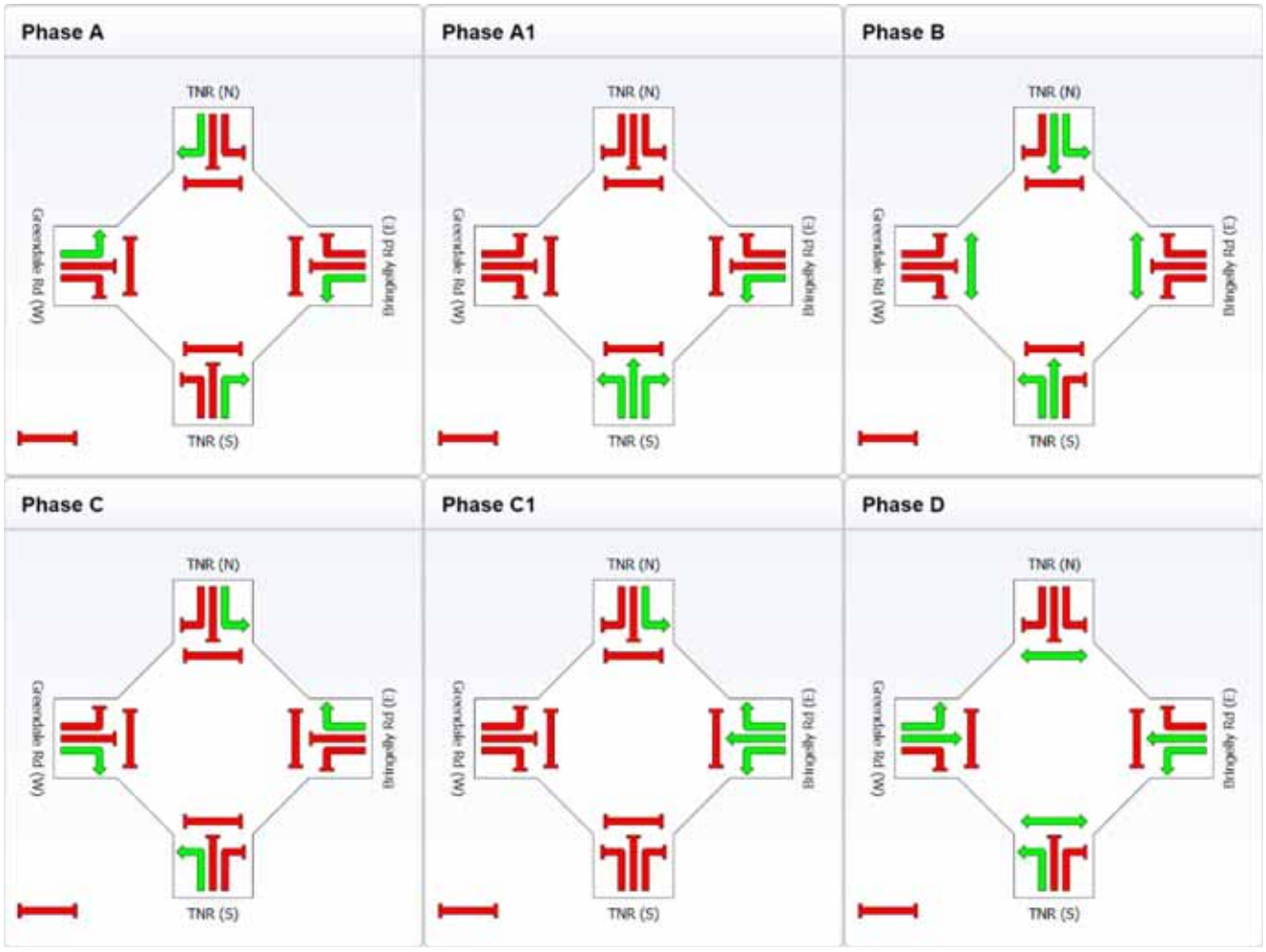
PHASING SUMMARY

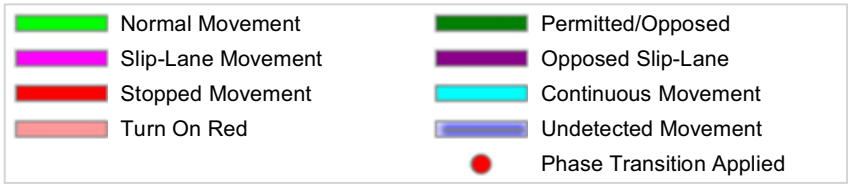
Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	9	22	56	6	11	10
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	15	28	62	12	17	16
Phase Split	10 %	19 %	41 %	8 %	11 %	11 %





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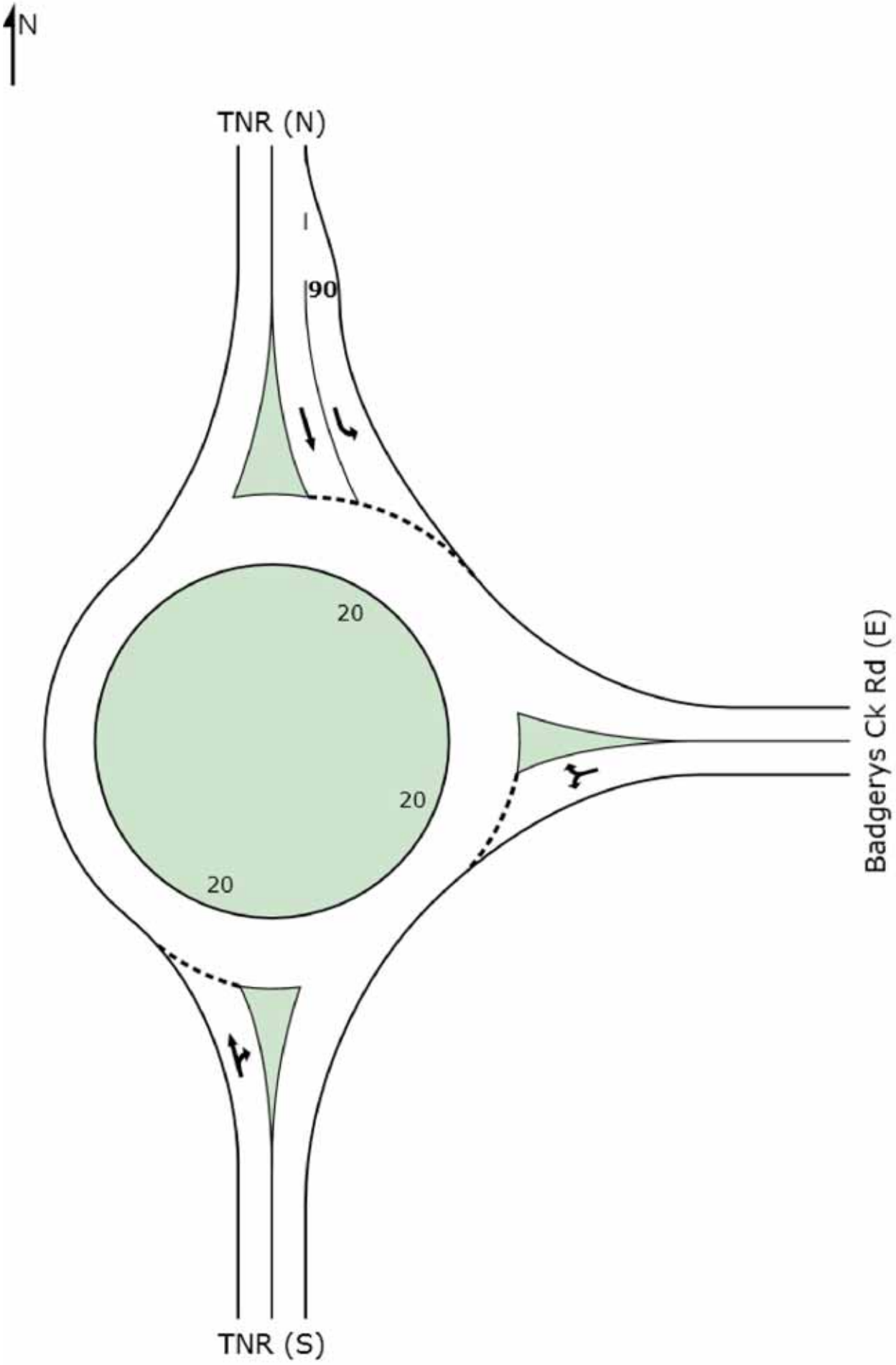
N
TNR (N)
90
20
20
20
Badgerys Ck Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Badgerys Ck Rd_AM

TNR / Badgerys Ck Rd
AM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	694	5.0	0.619	9.2	LOS A	7.3	53.4	0.15	0.52	60.5
3	R	344	4.9	0.619	14.8	LOS B	7.3	53.4	0.15	0.79	54.6
Approach		1038	5.0	0.619	11.1	LOS A	7.3	53.4	0.15	0.61	58.3
East: Badgerys Ck Rd (E)											
4	L	111	5.4	0.146	9.4	LOS A	0.9	6.3	0.65	0.71	47.2
6	R	12	0.0	0.146	14.1	LOS A	0.9	6.3	0.65	0.81	44.4
Approach		122	4.9	0.146	9.9	LOS A	0.9	6.3	0.65	0.72	46.9
North: TNR (N)											
7	L	20	5.3	0.025	12.4	LOS A	0.1	0.8	0.48	0.65	56.8
8	T	535	4.9	0.420	10.9	LOS A	2.9	21.0	0.57	0.68	57.0
Approach		555	4.9	0.420	11.0	LOS A	2.9	21.0	0.57	0.68	57.0
All Vehicles		1715	5.0	0.619	10.9	LOS A	7.3	53.4	0.32	0.64	57.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Badgerys Ck Rd_PM

TNR / Badgerys Ck Rd
PM
Roundabout

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	632	5.0	0.450	9.2	LOS A	4.2	30.7	0.15	0.54	60.5
3	R	100	5.3	0.450	14.8	LOS B	4.2	30.7	0.15	0.82	54.7
Approach		732	5.0	0.450	10.0	LOS A	4.2	30.7	0.15	0.58	59.6
East: Badgerys Ck Rd (E)											
4	L	443	5.0	0.599	15.0	LOS B	5.8	42.4	0.89	1.02	42.6
6	R	17	6.3	0.599	19.7	LOS B	5.8	42.4	0.89	1.06	40.3
Approach		460	5.0	0.599	15.1	LOS B	5.8	42.4	0.89	1.03	42.5
North: TNR (N)											
7	L	6	0.0	0.006	10.6	LOS A	0.0	0.2	0.26	0.59	58.3
8	T	683	4.9	0.435	9.6	LOS A	3.1	22.8	0.32	0.56	59.1
Approach		689	4.9	0.435	9.6	LOS A	3.1	22.8	0.32	0.56	59.1
All Vehicles		1881	5.0	0.599	11.1	LOS A	5.8	42.4	0.39	0.68	54.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

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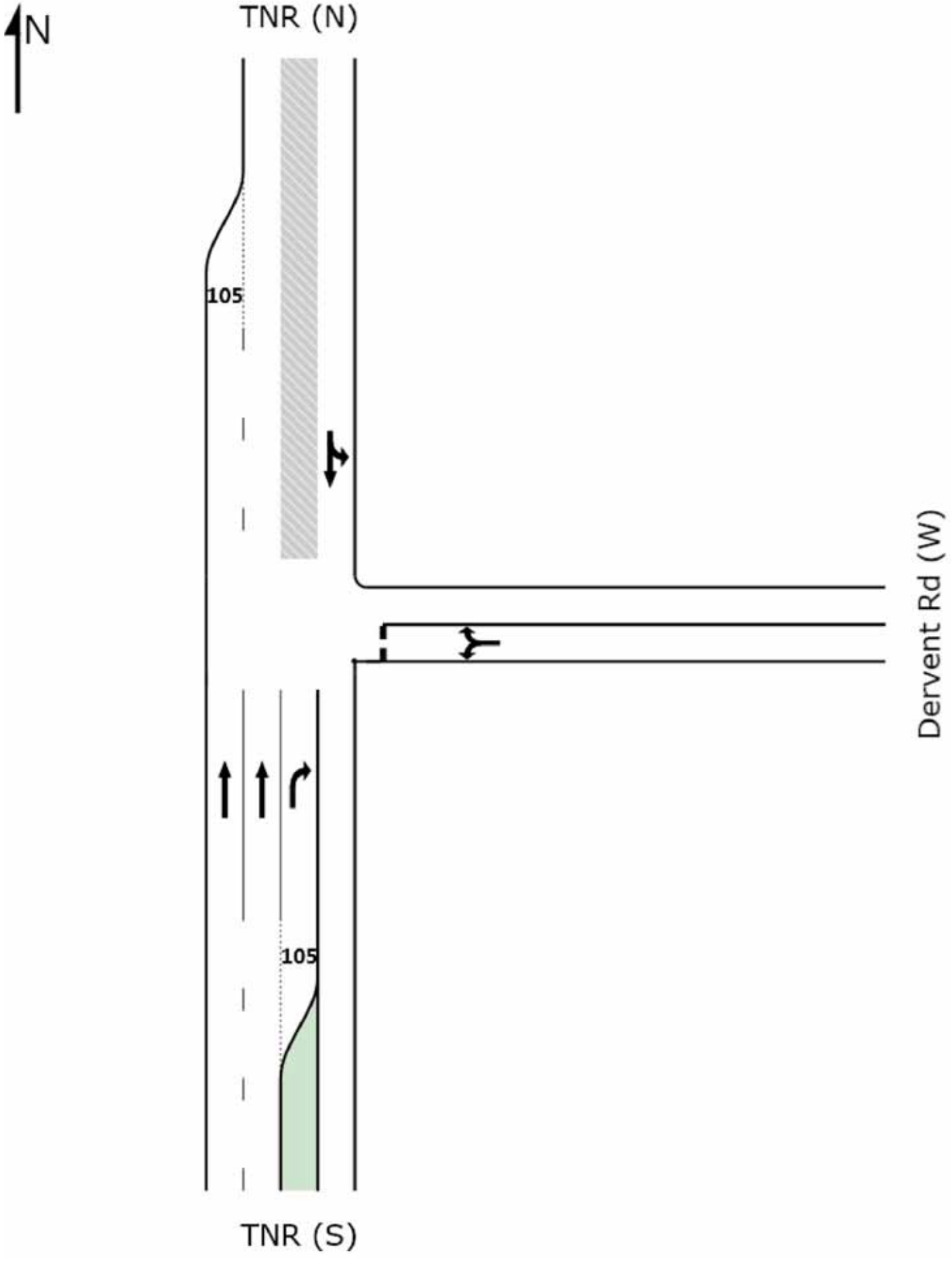
N
TNR (N)
105
105
TNR (S)
Dervent Rd (W)

MOVEMENT SUMMARY

Site: 2016_Derwent Rd_AM

TNR / Dervent Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	694	5.0	0.237	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	5	0.0	0.007	13.4	LOS A	0.0	0.2	0.50	0.71	55.6
Approach		699	5.0	0.237	0.1	NA	0.0	0.2	0.00	0.01	79.7
East: Dervent Rd (W)											
4	L	23	4.5	0.080	19.8	LOS B	0.3	1.9	0.65	0.85	48.6
6	R	4	0.0	0.080	19.5	LOS B	0.3	1.9	0.65	0.92	49.0
Approach		27	3.8	0.080	19.8	LOS B	0.3	1.9	0.65	0.86	48.7
North: TNR (N)											
7	L	1	0.0	0.282	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	532	5.0	0.282	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		533	4.9	0.282	0.0	NA	0.0	0.0	0.00	0.00	79.9
All Vehicles		1259	4.9	0.282	0.5	NA	0.3	1.9	0.02	0.02	78.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Derwent Rd_PM

TNR / Dervent Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	625	5.1	0.214	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	23	4.5	0.037	15.2	LOS B	0.1	0.9	0.58	0.83	53.7
Approach		648	5.0	0.214	0.5	NA	0.1	0.9	0.02	0.03	78.7
East: Dervent Rd (W)											
4	L	17	6.3	0.102	26.3	LOS B	0.3	2.3	0.78	0.94	43.1
6	R	5	0.0	0.102	25.8	LOS B	0.3	2.3	0.78	0.95	43.5
Approach		22	4.8	0.102	26.2	LOS B	0.3	2.3	0.78	0.94	43.2
North: TNR (N)											
7	L	4	0.0	0.359	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	674	5.0	0.359	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		678	5.0	0.359	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		1348	5.0	0.359	0.7	NA	0.3	2.3	0.02	0.03	78.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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N
TNR (N)
Avon Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Avon Rd_AM

Avon Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	1	0.0	0.185	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
2	T	698	5.0	0.185	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		699	5.0	0.185	0.0	NA	0.0	0.0	0.00	0.00	80.0
North: TNR (N)											
8	T	533	4.9	0.141	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		533	4.9	0.141	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Avon Rd (E)											
10	L	1	0.0	0.002	11.6	LOS A	0.0	0.0	0.52	0.63	45.5
Approach		1	0.0	0.002	11.6	LOS A	0.0	0.0	0.52	0.63	45.5
All Vehicles		1233	5.0	0.185	0.0	NA	0.0	0.0	0.00	0.00	79.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Avon Rd_PM

Avon Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	1	0.0	0.167	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
2	T	631	5.0	0.167	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		632	5.0	0.167	0.0	NA	0.0	0.0	0.00	0.00	80.0
North: TNR (N)											
8	T	678	5.0	0.179	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		678	5.0	0.179	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Avon Rd (E)											
10	L	1	0.0	0.002	11.1	LOS A	0.0	0.0	0.50	0.62	45.9
Approach		1	0.0	0.002	11.1	LOS A	0.0	0.0	0.50	0.62	45.9
All Vehicles		1311	5.0	0.179	0.0	NA	0.0	0.0	0.00	0.00	79.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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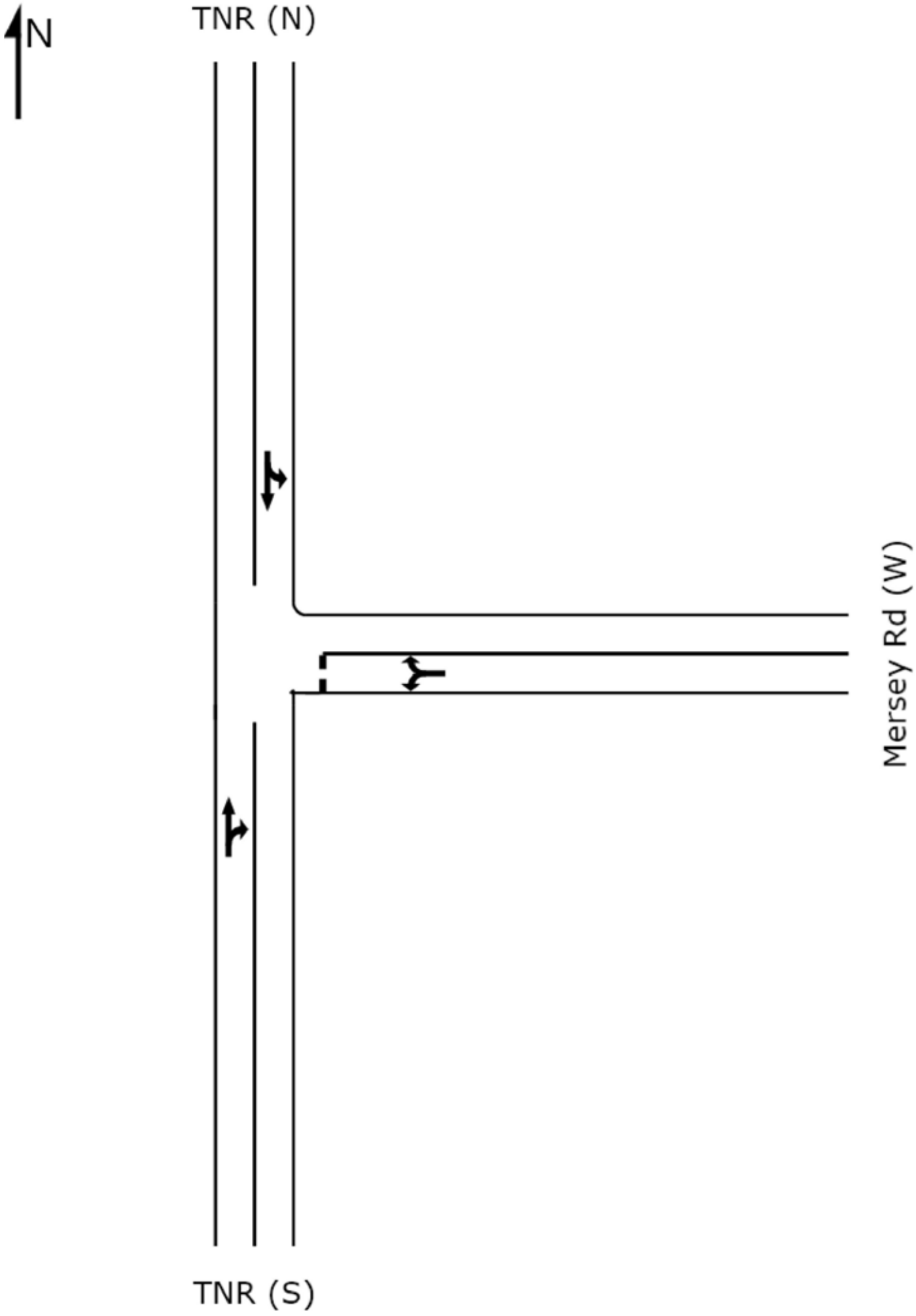
N
TNR (N)
Mersey Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2016_Mersey Rd_AM

TNR / Mersey Rd
AM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	687	5.1	0.380	5.6	LOS A	6.2	45.0	0.82	0.00	57.6
3	R	12	9.1	0.380	16.8	LOS B	6.2	45.0	0.82	1.15	59.1
Approach		699	5.1	0.380	5.8	NA	6.2	45.0	0.82	0.02	57.6
East: Mersey Rd (W)											
4	L	18	5.9	0.138	28.6	LOS C	0.4	3.0	0.77	0.91	41.4
6	R	8	0.0	0.138	28.2	LOS B	0.4	3.0	0.77	0.95	41.7
Approach		26	4.0	0.138	28.5	LOS C	0.4	3.0	0.77	0.92	41.5
North: TNR (N)											
7	L	2	0.0	0.274	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	515	4.9	0.274	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		517	4.9	0.274	0.0	NA	0.0	0.0	0.00	0.01	79.9
All Vehicles		1242	5.0	0.380	3.9	NA	6.2	45.0	0.48	0.03	64.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2016_Mersey Rd_PM

TNR / Mersey Rd
PM
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	614	5.0	0.352	7.5	LOS A	6.2	44.9	0.87	0.00	56.6
3	R	17	6.3	0.352	18.6	LOS B	6.2	44.9	0.87	1.13	56.8
Approach		631	5.0	0.352	7.8	NA	6.2	44.9	0.87	0.03	56.6
East: Mersey Rd (W)											
4	L	24	4.3	0.117	24.3	LOS B	0.4	2.6	0.76	0.93	44.7
6	R	4	0.0	0.117	23.9	LOS B	0.4	2.6	0.76	0.94	45.0
Approach		28	3.7	0.117	24.2	LOS B	0.4	2.6	0.76	0.93	44.7
North: TNR (N)											
7	L	12	9.1	0.353	11.4	LOS A	0.0	0.0	0.00	1.38	58.9
8	T	654	5.0	0.353	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		665	5.1	0.353	0.2	NA	0.0	0.0	0.00	0.02	79.5
All Vehicles		1324	5.0	0.353	4.3	NA	6.2	44.9	0.43	0.05	65.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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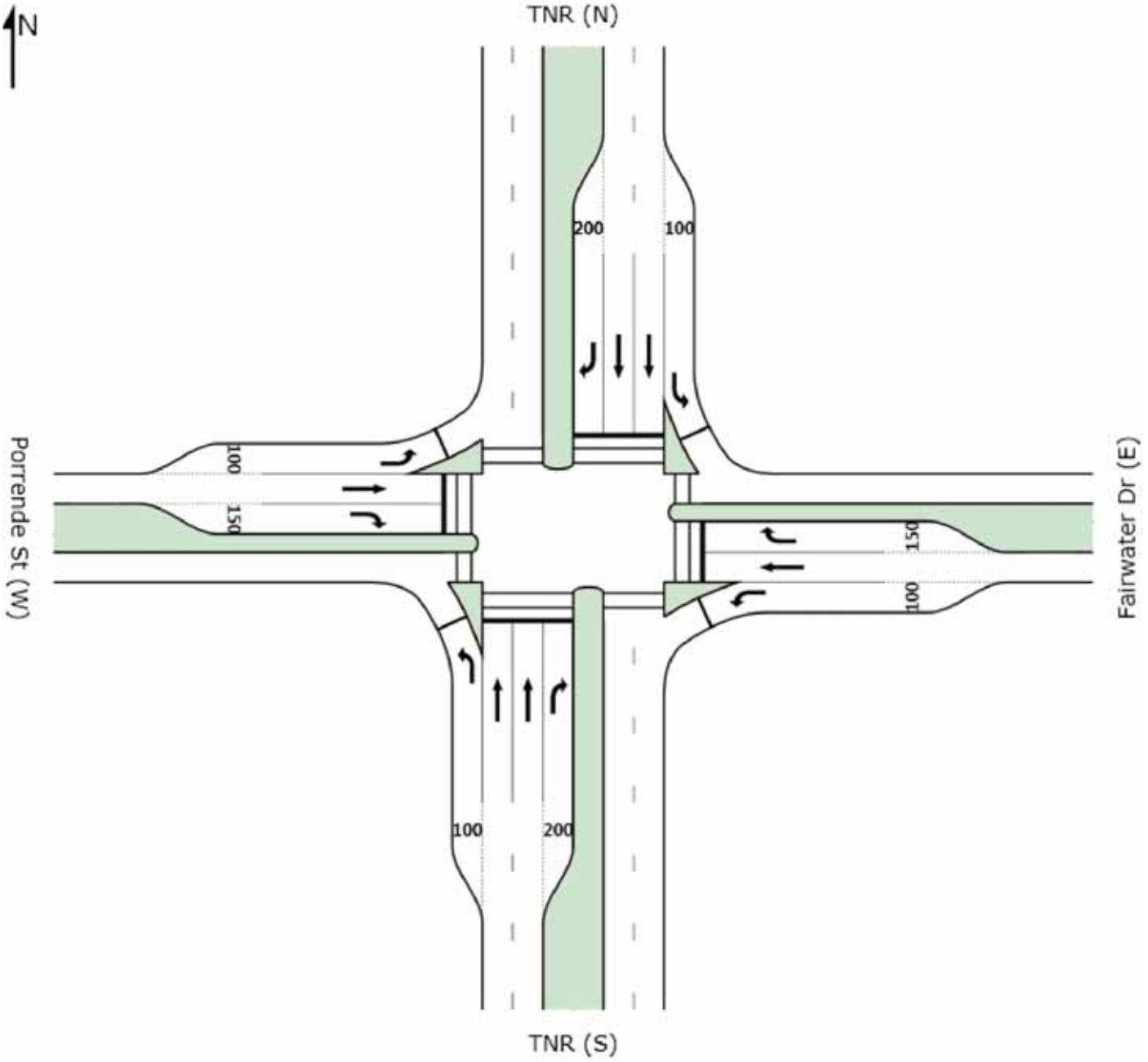
Appendix A6

2026 – *4-Lane* – SIDRA Results and Intersection Layout (AM and PM Peak)


N
TNR (N)
200
100
Porrende St (W)
100
150
Fairwater Dr (E)
150
100
100
200
TNR (S)

MOVEMENT SUMMARY

Site: 2026_FairewaterDr / PorrendeSt_AM

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	40	5.0	0.047	19.4	LOS B	0.6	4.6	0.23	0.70	49.2
2	T	884	5.0	0.397	18.2	LOS B	14.0	102.2	0.48	0.42	48.3
3	R	164	4.9	0.786	86.4	LOS F	12.2	89.2	1.00	0.85	20.9
Approach		1088	5.0	0.786	28.5	LOS B	14.0	102.2	0.55	0.50	40.5
East: Fairwater Dr (E)											
4	L	214	5.1	0.502	45.4	LOS D	9.9	72.5	0.68	0.76	26.9
5	T	88	4.5	0.207	54.3	LOS D	5.0	36.5	0.82	0.65	23.3
6	R	117	5.1	0.766	86.0	LOS F	8.8	64.6	1.00	0.84	17.9
Approach		419	5.0	0.766	58.6	LOS E	9.9	72.5	0.80	0.76	23.0
North: TNR (N)											
7	L	148	4.7	0.154	17.6	LOS B	2.0	14.6	0.20	0.72	51.1
8	T	1856	5.0	0.835	25.2	LOS B	49.5	361.3	0.81	0.75	41.4
9	R	145	4.8	0.695	84.0	LOS F	10.5	76.4	1.00	0.82	21.4
Approach		2149	5.0	0.835	28.7	LOS C	49.5	361.3	0.78	0.75	39.5
West: Porrende St (W)											
10	L	175	5.1	0.434	49.7	LOS D	8.5	62.4	0.72	0.76	25.6
11	T	57	5.3	0.163	58.3	LOS E	3.4	24.8	0.85	0.65	22.3
12	R	11	9.1	0.136	86.5	LOS F	0.8	6.1	0.98	0.67	17.9
Approach		243	5.3	0.434	53.3	LOS D	8.5	62.4	0.76	0.73	24.3
All Vehicles		3899	5.0	0.835	33.4	LOS C	49.5	361.3	0.72	0.68	36.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	23.5	LOS C	0.0	0.0	0.56	0.56
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	23.5	LOS C	0.0	0.0	0.56	0.56
All Pedestrians		40	45.8	LOS E			0.76	0.76

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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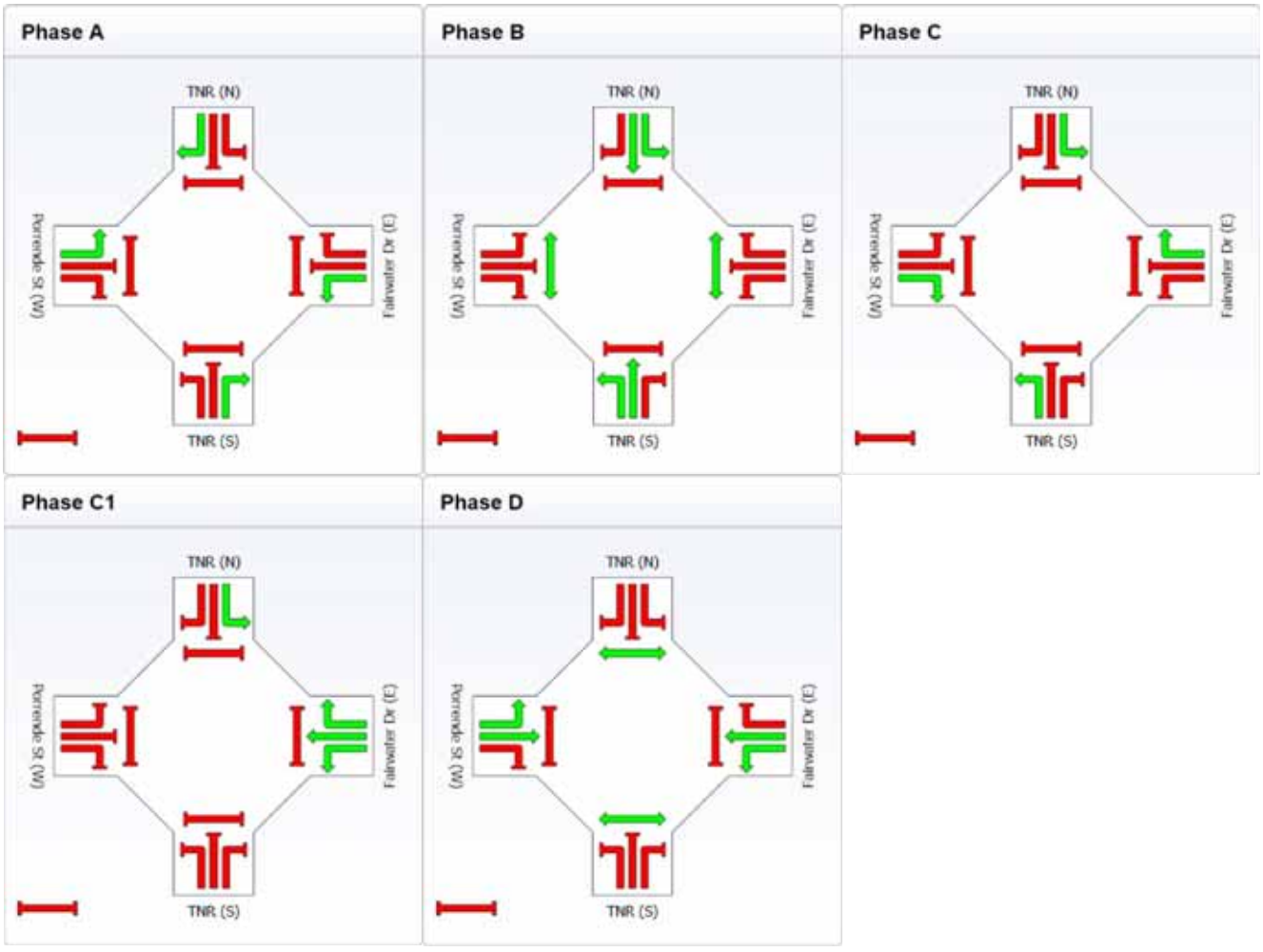
PHASING SUMMARY

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Split Phasing (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	15	76	6	0	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	21	82	12	5	30
Phase Split	14 %	55 %	8 %	3 %	20 %



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MOVEMENT SUMMARY

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	54	5.0	0.063	19.5	LOS B	0.9	6.3	0.24	0.71	49.1
2	T	1598	5.0	0.780	28.8	LOS C	42.1	307.3	0.80	0.73	39.1
3	R	289	4.9	0.693	71.4	LOS F	19.1	139.1	0.96	0.84	24.0
Approach		1941	5.0	0.780	34.9	LOS C	42.1	307.3	0.80	0.74	36.0
East: Fairwater Dr (E)											
4	L	126	5.1	0.291	43.6	LOS D	5.5	40.0	0.64	0.73	27.5
5	T	78	4.5	0.222	59.0	LOS E	4.7	34.2	0.86	0.67	22.2
6	R	129	5.1	0.775	85.3	LOS F	9.7	71.0	1.00	0.85	18.1
Approach		333	5.0	0.775	63.4	LOS E	9.7	71.0	0.83	0.76	21.9
North: TNR (N)											
7	L	226	4.7	0.338	26.1	LOS B	5.8	42.1	0.38	0.75	43.4
8	T	1245	5.0	0.709	35.7	LOS C	33.6	245.5	0.81	0.73	35.3
9	R	219	4.8	0.787	82.3	LOS F	16.0	116.5	1.00	0.86	21.7
Approach		1690	4.9	0.787	40.5	LOS C	33.6	245.5	0.78	0.75	33.4
West: Porrende St (W)											
10	L	193	5.1	0.451	45.0	LOS D	8.8	64.4	0.67	0.75	27.1
11	T	115	5.3	0.328	60.2	LOS E	7.1	52.2	0.89	0.71	21.9
12	R	28	9.1	0.173	78.8	LOS F	1.9	14.4	0.94	0.72	19.1
Approach		336	5.5	0.451	53.0	LOS D	8.8	64.4	0.77	0.73	24.3
All Vehicles		4300	5.0	0.787	40.7	LOS C	42.1	307.3	0.79	0.74	32.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	33.3	LOS D	0.0	0.0	0.67	0.67
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	27.0	LOS C	0.0	0.0	0.60	0.60
All Pedestrians		40	49.2	LOS E			0.79	0.79

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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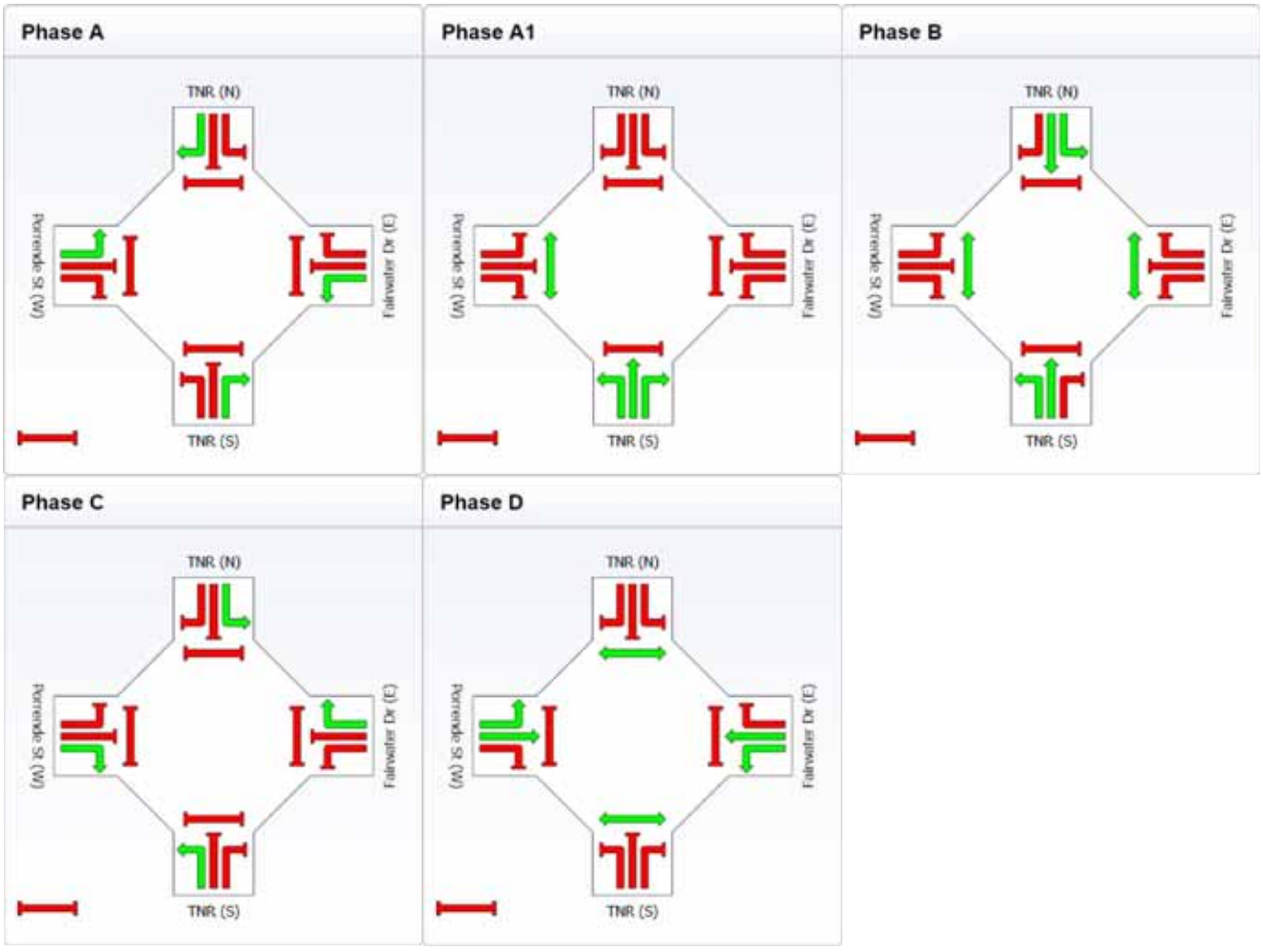
PHASING SUMMARY

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 4 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	20	4	60	12	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	26	10	66	18	30
Phase Split	17 %	7 %	44 %	12 %	20 %



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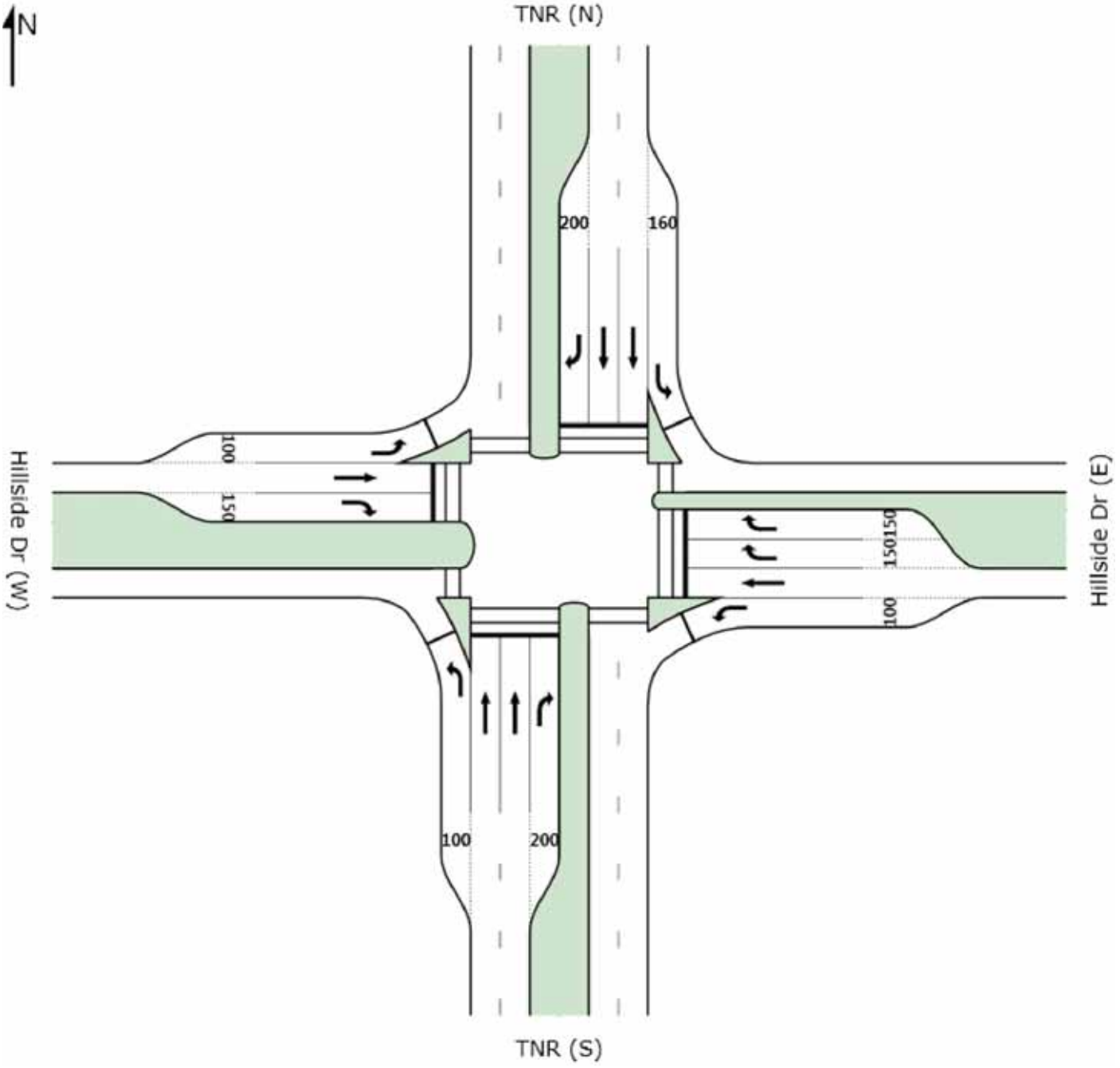
N
TNR (N)
200
160
Hillside Dr (W)
100
150
Hillside Dr (E)
150150
100
100
200
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Hillside Dr_AM

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	15	6.7	0.012	12.9	LOS A	0.1	0.5	0.11	0.69	56.6
2	T	1105	5.0	0.490	18.6	LOS B	18.8	136.9	0.51	0.46	47.8
3	R	56	5.4	0.674	93.6	LOS F	4.3	31.7	1.00	0.77	19.8
Approach		1176	5.0	0.674	22.1	LOS B	18.8	136.9	0.53	0.48	44.9
East: Hillside Dr (E)											
4	L	202	5.0	0.560	59.0	LOS E	11.5	83.7	0.83	0.79	23.1
5	T	5	0.0	0.009	45.4	LOS D	0.2	1.7	0.70	0.47	25.9
6	R	167	4.8	0.462	76.2	LOS F	5.8	42.3	0.97	0.76	19.5
Approach		374	4.8	0.560	66.5	LOS E	11.5	83.7	0.89	0.77	21.4
North: TNR (N)											
7	L	145	4.8	0.140	18.1	LOS B	2.1	15.6	0.31	0.73	50.6
8	T	1899	5.0	0.843	24.6	LOS B	50.7	370.5	0.81	0.75	41.8
9	R	66	4.5	0.789	95.3	LOS F	5.2	37.8	1.00	0.82	19.4
Approach		2110	5.0	0.843	26.4	LOS B	50.7	370.5	0.78	0.75	40.9
West: Hillside Dr (W)											
10	L	117	5.1	0.365	68.3	LOS E	7.3	53.4	0.89	0.78	21.1
11	T	6	0.0	0.017	56.1	LOS D	0.3	2.4	0.81	0.54	22.9
12	R	47	4.3	0.481	87.1	LOS F	3.5	25.5	1.00	0.74	17.8
Approach		170	4.7	0.481	73.0	LOS F	7.3	53.4	0.92	0.76	20.1
All Vehicles		3830	5.0	0.843	31.1	LOS C	50.7	370.5	0.72	0.67	37.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	24.1	LOS C	0.0	0.0	0.57	0.57
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	23.0	LOS C	0.0	0.0	0.55	0.55
All Pedestrians		40	45.8	LOS E			0.76	0.76

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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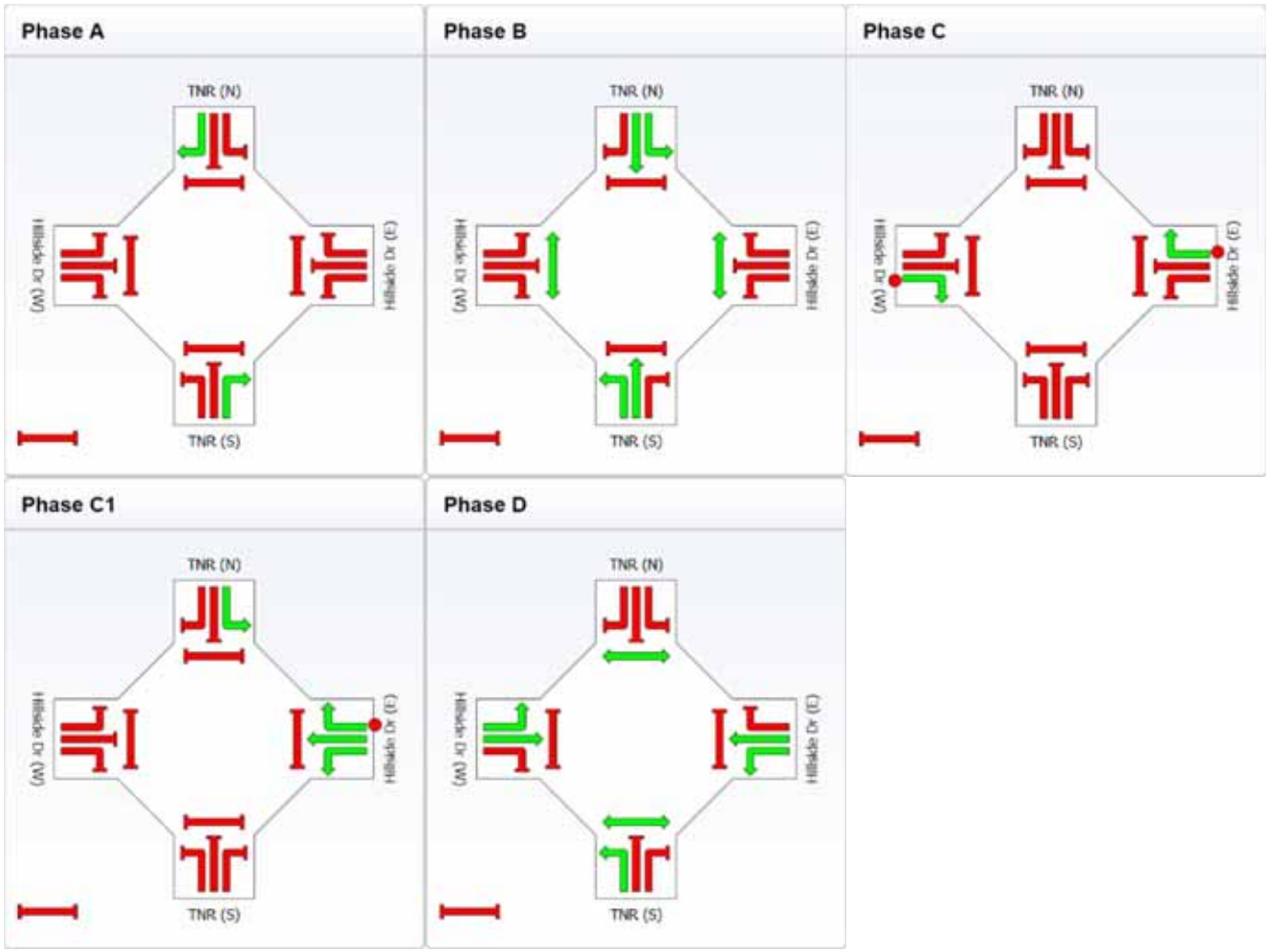
PHASING SUMMARY

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Two-Phase
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	6	77	7	6	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	83	13	12	30
Phase Split	8 %	55 %	9 %	8 %	20 %



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MOVEMENT SUMMARY

Site: 2026_Hillside Dr_PM

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	25	6.7	0.043	29.6	LOS C	0.7	5.0	0.40	0.71	40.9
2	T	1732	5.0	0.845	30.3	LOS C	49.6	361.8	0.86	0.79	38.0
3	R	154	5.4	0.855	91.3	LOS F	12.0	87.6	1.00	0.89	20.1
Approach		1911	5.0	0.855	35.2	LOS C	49.6	361.8	0.87	0.80	35.5
East: Hillside Dr (E)											
4	L	155	5.0	0.426	57.6	LOS E	8.5	62.0	0.80	0.77	23.4
5	T	7	0.0	0.013	45.5	LOS D	0.3	2.4	0.70	0.48	25.9
6	R	171	4.8	0.473	76.3	LOS F	6.0	43.4	0.98	0.76	19.5
Approach		333	4.8	0.473	67.0	LOS E	8.5	62.0	0.89	0.76	21.3
North: TNR (N)											
7	L	225	4.8	0.244	21.4	LOS B	4.5	33.0	0.40	0.75	47.4
8	T	1502	5.0	0.733	27.9	LOS B	37.4	273.3	0.75	0.68	39.8
9	R	139	4.5	0.767	87.5	LOS F	10.4	75.6	1.00	0.84	20.7
Approach		1866	4.9	0.767	31.5	LOS C	37.4	273.3	0.73	0.70	38.0
West: Hillside Dr (W)											
10	L	76	5.1	0.235	66.8	LOS E	4.6	33.6	0.87	0.75	21.4
11	T	6	0.0	0.017	56.1	LOS D	0.3	2.4	0.81	0.54	22.9
12	R	33	4.3	0.338	86.2	LOS F	2.4	17.6	0.99	0.72	17.9
Approach		115	4.6	0.338	71.8	LOS F	4.6	33.6	0.90	0.73	20.3
All Vehicles		4225	5.0	0.855	37.1	LOS C	49.6	361.8	0.81	0.75	34.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	28.2	LOS C	0.0	0.0	0.61	0.61
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	27.0	LOS C	0.0	0.0	0.60	0.60
All Pedestrians		40	47.9	LOS E			0.78	0.78

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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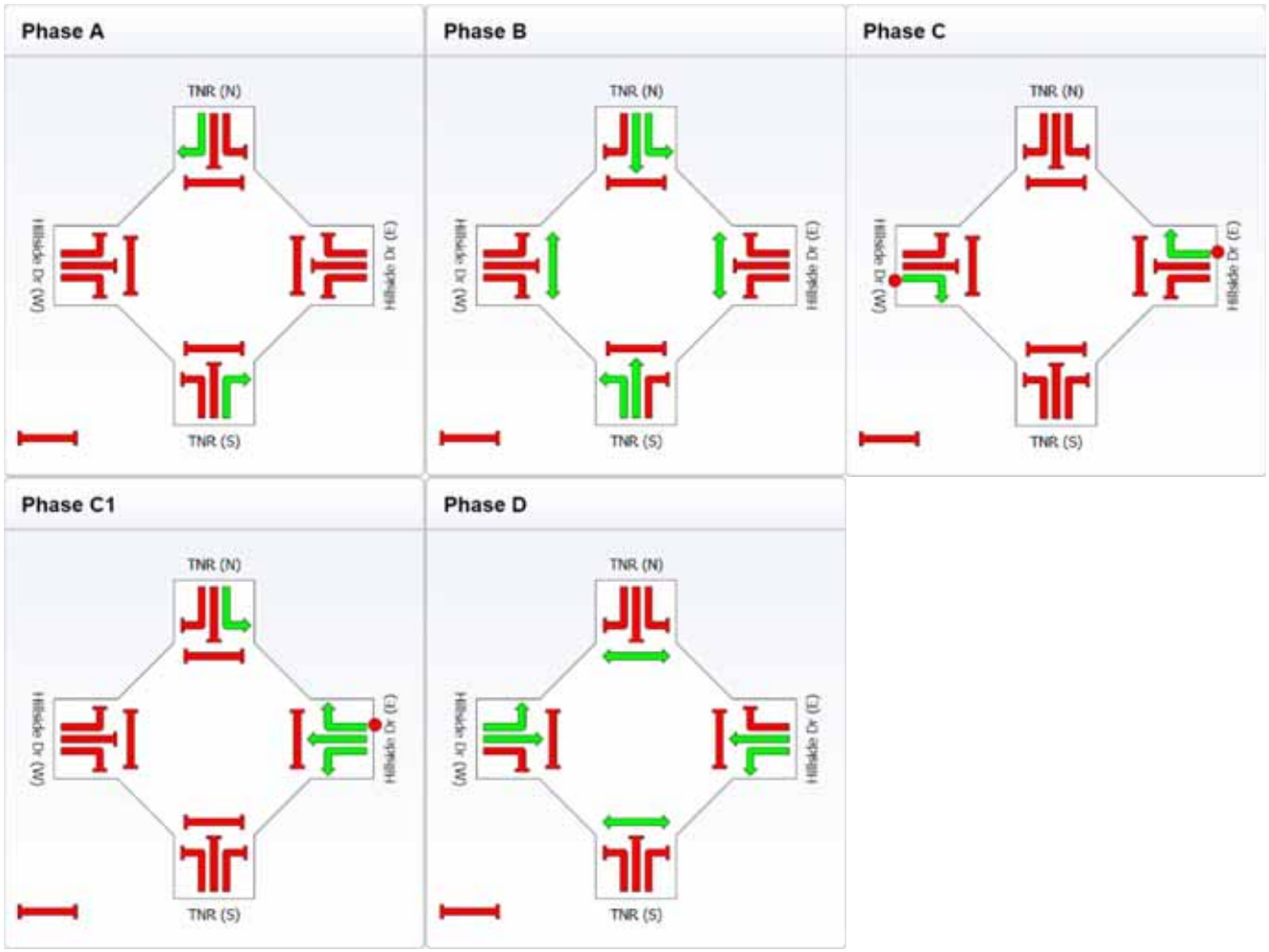
PHASING SUMMARY

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Two-Phase
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	13	70	7	6	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	19	76	13	12	30
Phase Split	13 %	51 %	9 %	8 %	20 %



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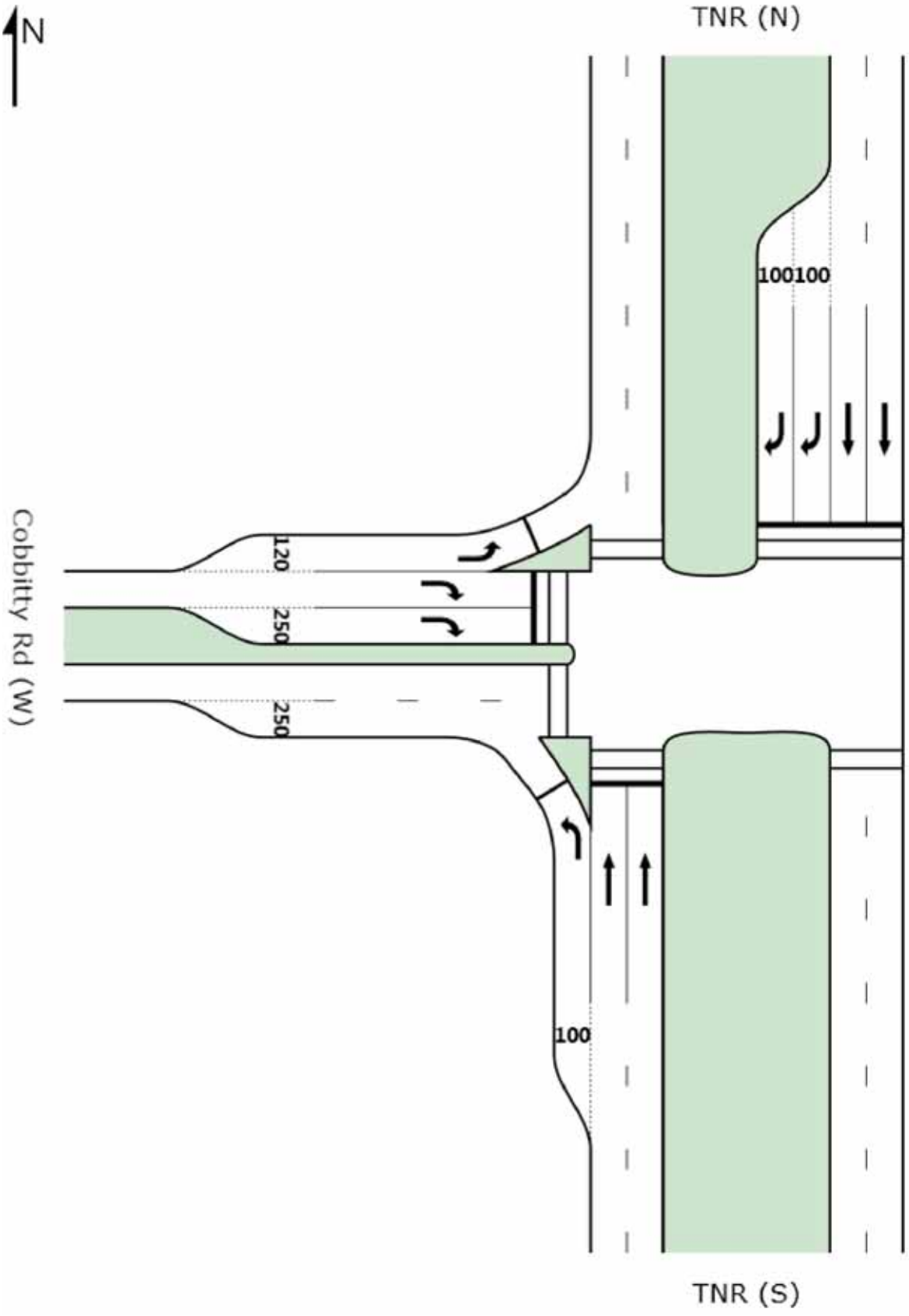
N
TNR (N)
100100
Cobbitty Rd (W)
120
250
250
100
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Cobbitty Road (West) _AM

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	300	4.9	0.389	21.0	LOS B	6.0	43.7	0.30	0.74	47.7
2	T	1163	5.0	0.519	11.8	LOS A	15.3	111.5	0.40	0.36	55.7
Approach		1463	5.0	0.519	13.7	LOS A	15.3	111.5	0.38	0.44	53.8
North: TNR (N)											
8	T	1927	5.0	0.708	2.6	LOS A	10.5	76.7	0.17	0.16	72.1
9	R	153	4.8	0.485	84.0	LOS F	5.4	39.5	0.98	0.77	21.4
Approach		2080	5.0	0.708	8.6	LOS A	10.5	76.7	0.23	0.20	61.6
West: Cobbitty Rd (W)											
10	L	77	5.5	0.206	64.2	LOS E	4.3	31.6	0.81	0.77	26.0
12	R	296	5.0	0.395	66.7	LOS E	8.8	64.4	0.86	0.80	25.3
Approach		373	5.1	0.395	66.2	LOS E	8.8	64.4	0.85	0.79	25.4
All Vehicles		3916	5.0	0.708	16.0	LOS B	15.3	111.5	0.34	0.35	51.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	62.6	LOS F	0.0	0.0	0.91	0.91
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	18.3	LOS B	0.0	0.0	0.49	0.49
All Pedestrians		30	49.7	LOS E			0.79	0.79

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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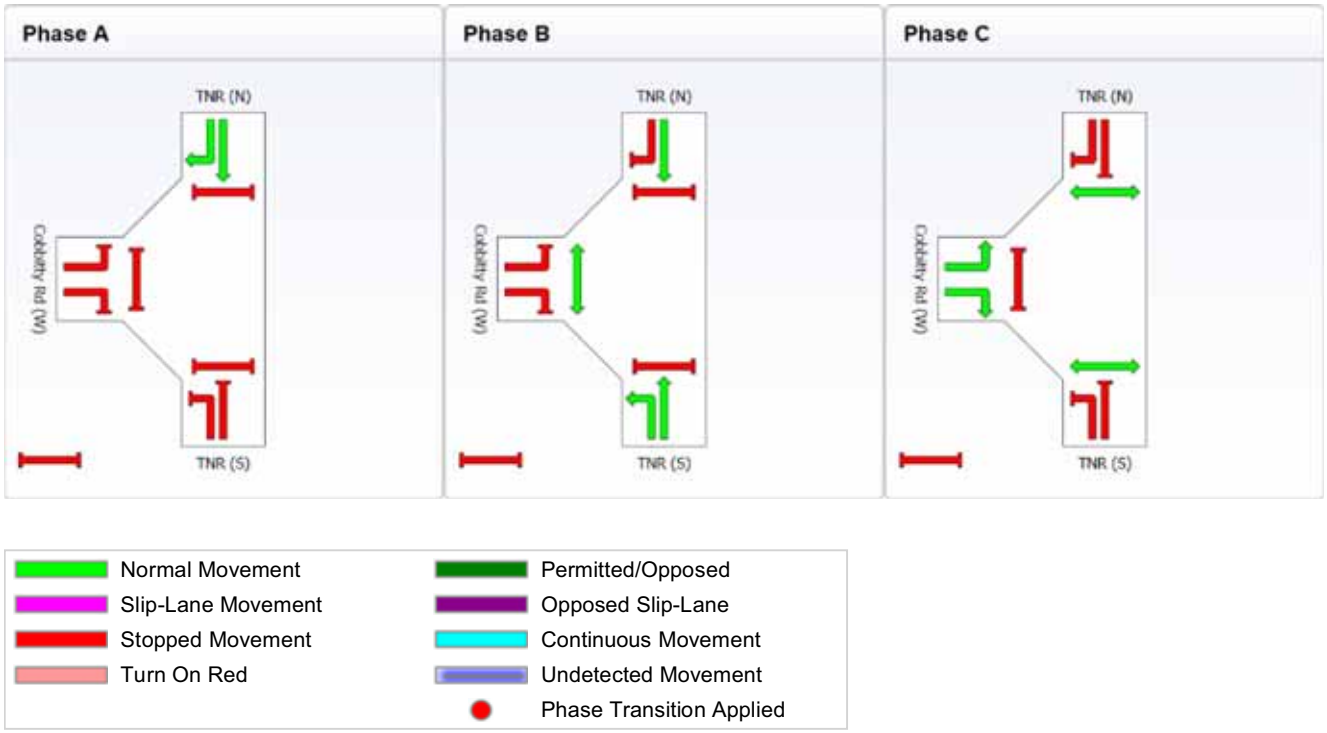
PHASING SUMMARY

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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)	13	88	31
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	19	94	37
Phase Split	13 %	63 %	25 %



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MOVEMENT SUMMARY

Site: 2026_Cobbitty Road (West) _PM

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	187	4.9	0.244	20.8	LOS B	3.5	25.6	0.28	0.73	47.9
2	T	1684	5.0	0.761	15.5	LOS B	33.3	242.7	0.60	0.55	50.4
Approach		1872	5.0	0.761	16.0	LOS B	33.3	242.7	0.57	0.57	50.1
North: TNR (N)											
8	T	1693	5.0	0.622	2.3	LOS A	7.4	53.8	0.13	0.12	73.1
9	R	260	4.8	0.768	87.4	LOS F	9.8	71.1	1.00	0.84	20.8
Approach		1953	5.0	0.768	13.7	LOS A	9.8	71.1	0.25	0.22	54.9
West: Cobbitty Rd (W)											
10	L	47	5.5	0.127	63.1	LOS E	2.6	19.0	0.78	0.75	26.3
12	R	273	5.0	0.364	66.3	LOS E	8.0	58.7	0.85	0.80	25.4
Approach		320	5.1	0.364	65.8	LOS E	8.0	58.7	0.84	0.79	25.5
All Vehicles		4144	5.0	0.768	18.8	LOS B	33.3	242.7	0.44	0.42	48.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	62.6	LOS F	0.0	0.0	0.91	0.91
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	18.8	LOS B	0.0	0.0	0.50	0.50
All Pedestrians		30	49.8	LOS E			0.79	0.79

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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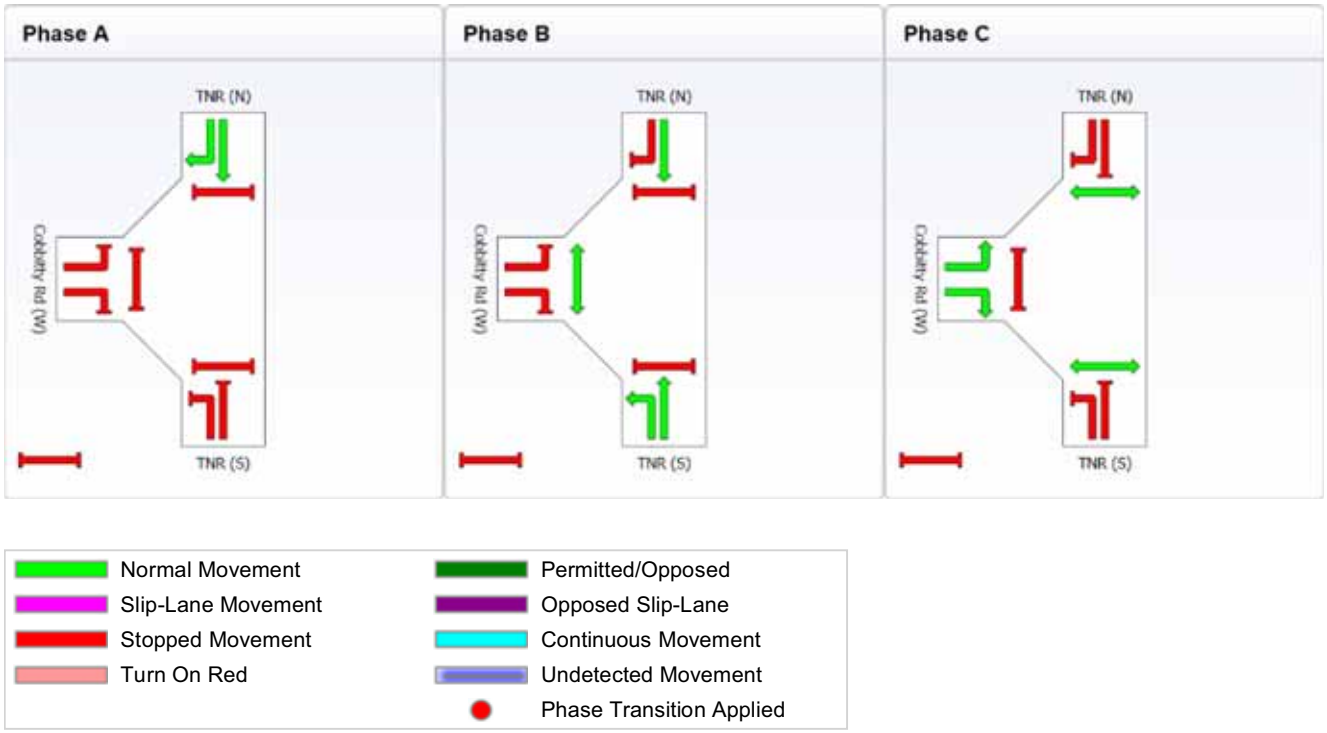
PHASING SUMMARY

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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)	14	87	31
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	20	93	37
Phase Split	13 %	62 %	25 %



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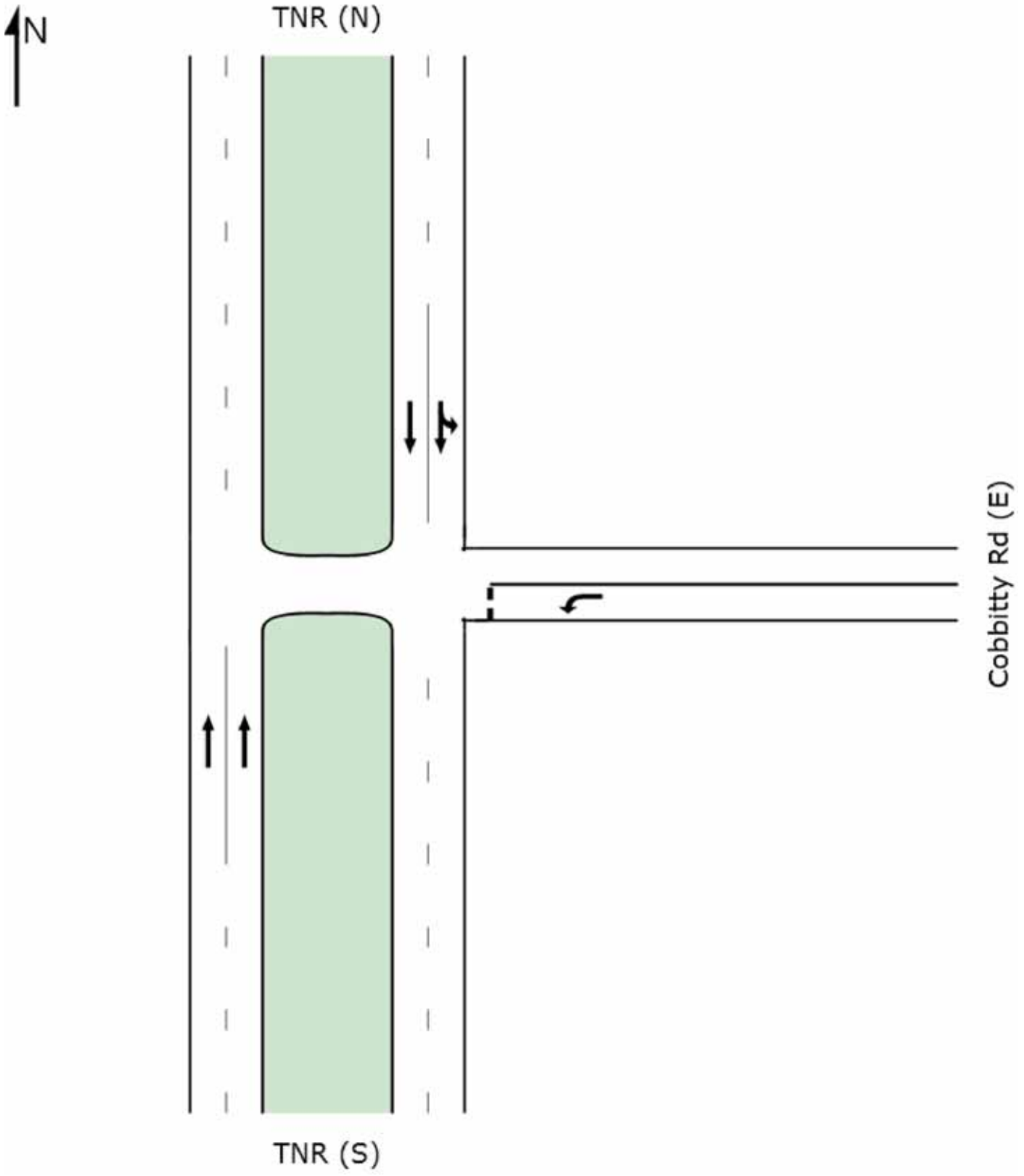
N
TNR (N)
Cobbitty Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Cobbitty Road (East) _AM

Cobbitty Road (East)
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1240	5.0	0.328	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1240	5.0	0.328	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Cobbitty Rd (E)											
4	L	154	4.8	0.440	37.7	LOS C	3.5	25.3	0.92	1.07	35.9
Approach		154	4.8	0.440	37.7	LOS C	3.5	25.3	0.92	1.07	35.9
North: TNR (N)											
7	L	298	4.9	0.593	11.2	LOS A	0.0	0.0	0.00	1.09	58.9
8	T	1927	5.0	0.593	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2225	5.0	0.593	1.5	NA	0.0	0.0	0.00	0.15	76.4
All Vehicles		3619	5.0	0.593	2.5	NA	3.5	25.3	0.04	0.14	74.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Cobbitty Road (East) _PM

Cobbitty Road (East)
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1943	5.0	0.514	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1943	5.0	0.514	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Cobbitty Rd (E)											
4	L	345	4.9	0.677	39.2	LOS C	9.2	67.2	0.95	1.30	35.1
Approach		345	4.9	0.677	39.2	LOS C	9.2	67.2	0.95	1.30	35.1
North: TNR (N)											
7	L	64	4.9	0.443	11.2	LOS A	0.0	0.0	0.00	1.28	58.9
8	T	1607	5.0	0.443	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1672	5.0	0.443	0.4	NA	0.0	0.0	0.00	0.05	78.9
All Vehicles		3960	5.0	0.677	3.6	NA	9.2	67.2	0.08	0.13	71.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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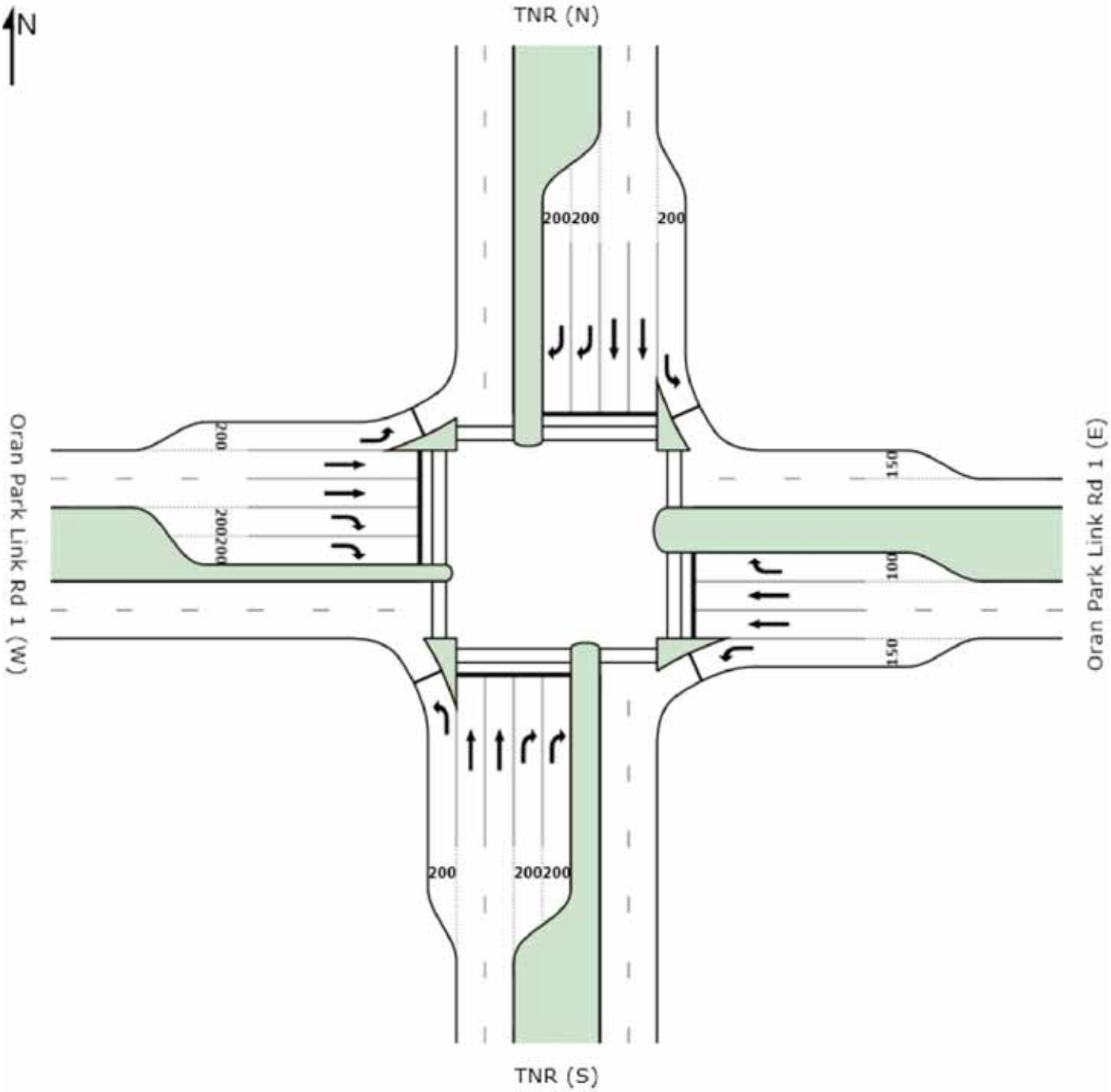
N
TNR (N)
200200
200
Oran Park Link Rd 1 (W)
200
200200
150
100
150
Oran Park Link Rd 1 (E)
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Oran Park Link Rd 1_AM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	89	4.5	0.088	21.8	LOS B	1.7	12.5	0.29	0.72	47.0
2	T	754	5.0	0.511	33.9	LOS C	17.9	130.7	0.70	0.62	36.4
3	R	335	5.1	0.674	77.3	LOS F	12.4	90.7	0.97	0.82	22.7
Approach		1178	5.0	0.674	45.3	LOS D	17.9	130.7	0.75	0.68	31.6
East: Oran Park Link Rd 1 (E)											
4	L	430	5.0	0.777	48.8	LOS D	24.1	176.2	0.82	0.84	25.9
5	T	200	5.0	0.302	58.4	LOS E	6.1	44.3	0.87	0.69	22.3
6	R	47	0.0	0.198	71.4	LOS F	3.0	20.9	0.90	0.74	20.4
Approach		677	4.7	0.777	53.2	LOS D	24.1	176.2	0.84	0.79	24.3
North: TNR (N)											
7	L	127	0.0	0.122	22.4	LOS B	2.6	18.2	0.31	0.73	46.3
8	T	1148	5.0	0.778	39.0	LOS C	33.6	245.3	0.87	0.78	33.6
9	R	357	5.0	0.672	77.9	LOS F	12.4	90.2	0.98	0.82	22.7
Approach		1632	4.6	0.778	46.2	LOS D	33.6	245.3	0.85	0.79	31.0
West: Oran Park Link Rd 1 (W)											
10	L	311	5.1	0.469	43.5	LOS D	14.9	109.0	0.71	0.79	27.6
11	T	109	4.6	0.167	55.8	LOS D	3.3	24.2	0.83	0.63	23.0
12	R	365	4.9	0.755	78.3	LOS F	13.2	96.5	1.00	0.86	19.2
Approach		785	5.0	0.755	61.4	LOS E	14.9	109.0	0.86	0.80	22.4
All Vehicles		4272	4.8	0.778	49.9	LOS D	33.6	245.3	0.82	0.76	28.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P3	Across E approach	10	38.2	LOS D	0.0	0.0	0.71	0.71
P5	Across N approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P7	Across W approach	10	40.3	LOS E	0.0	0.0	0.73	0.73
All Pedestrians		40	54.2	LOS E			0.84	0.84

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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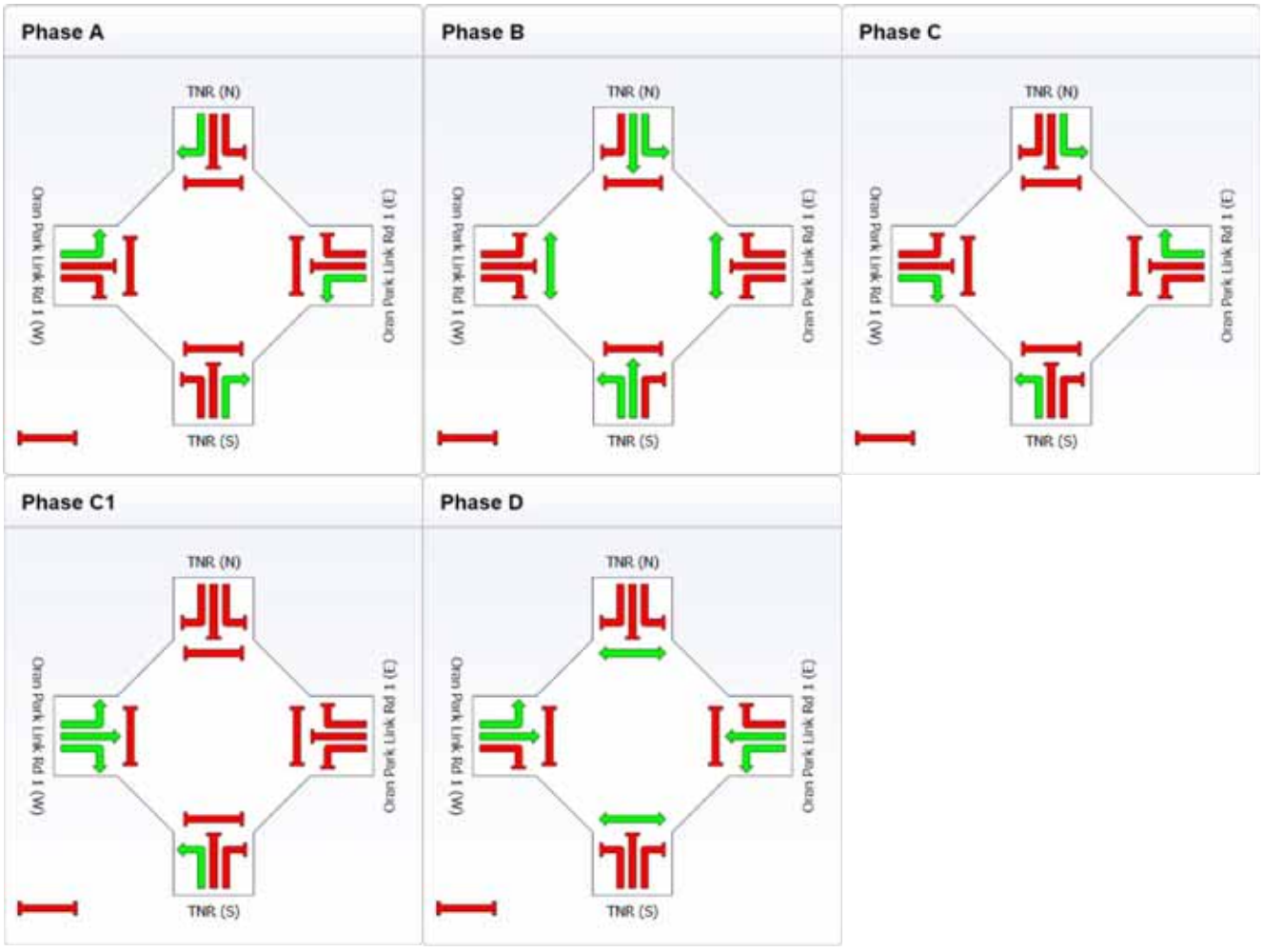
PHASING SUMMARY

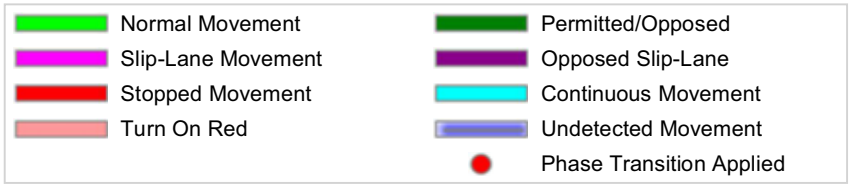
Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	22	58	19	0	26
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	28	64	25	1	32
Phase Split	19 %	43 %	17 %	1 %	21 %





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MOVEMENT SUMMARY

Site: 2026_Oran Park Link Rd 1_PM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	117	4.5	0.111	19.9	LOS B	2.0	14.4	0.25	0.72	48.7
2	T	1188	5.0	0.640	23.9	LOS B	25.6	187.3	0.65	0.59	42.9
3	R	541	5.1	0.705	68.3	LOS E	18.8	137.7	0.93	0.84	24.8
Approach		1846	5.0	0.705	36.6	LOS C	25.6	187.3	0.71	0.67	35.7
East: Oran Park Link Rd 1 (E)											
4	L	292	5.0	0.432	32.0	LOS C	10.8	79.0	0.55	0.74	32.2
5	T	242	5.0	0.352	58.2	LOS E	7.4	53.9	0.87	0.70	22.4
6	R	32	0.0	0.284	83.3	LOS F	2.3	16.1	0.98	0.72	18.4
Approach		566	4.7	0.432	46.1	LOS D	10.8	79.0	0.71	0.73	26.2
North: TNR (N)											
7	L	111	0.0	0.125	29.8	LOS C	3.2	22.2	0.42	0.74	40.7
8	T	1004	5.0	0.705	39.2	LOS C	28.1	205.2	0.83	0.74	33.5
9	R	259	5.0	0.631	81.5	LOS F	9.1	66.8	0.99	0.80	21.9
Approach		1374	4.6	0.705	46.4	LOS D	28.1	205.2	0.83	0.75	30.9
West: Oran Park Link Rd 1 (W)											
10	L	360	5.1	0.597	50.3	LOS D	19.8	144.5	0.81	0.82	25.4
11	T	161	4.6	0.247	56.7	LOS E	5.0	36.6	0.84	0.66	22.7
12	R	152	4.9	0.699	87.3	LOS F	5.8	42.2	1.00	0.81	17.8
Approach		673	5.0	0.699	60.2	LOS E	19.8	144.5	0.86	0.78	22.6
All Vehicles		4459	4.9	0.705	44.4	LOS D	28.1	205.2	0.77	0.72	30.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	39.6	LOS D	0.0	0.0	0.73	0.73
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	41.8	LOS E	0.0	0.0	0.75	0.75
All Pedestrians		40	54.4	LOS E			0.85	0.85

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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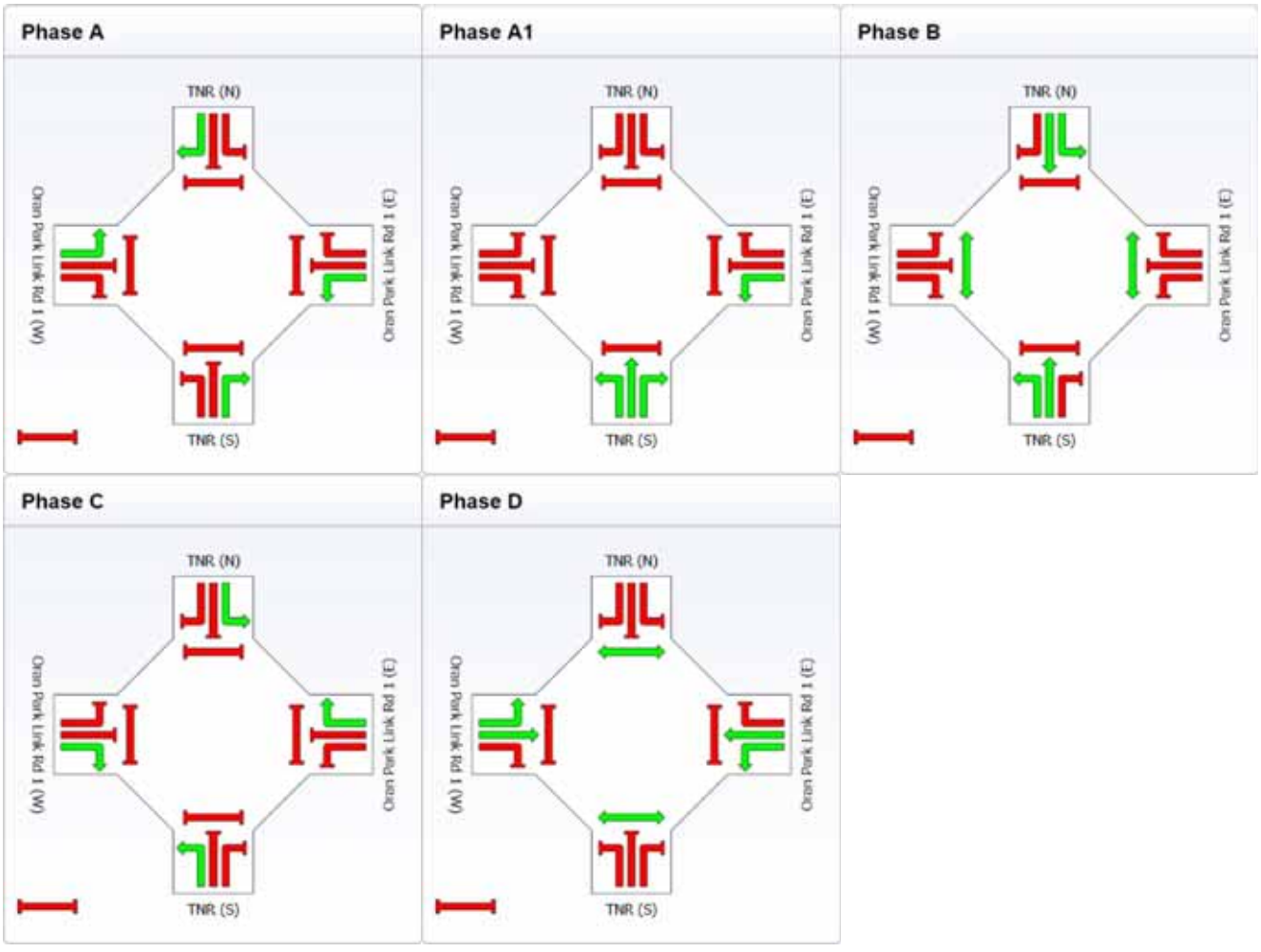
PHASING SUMMARY

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	17	11	56	9	27
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	23	17	62	15	33
Phase Split	15 %	11 %	41 %	10 %	22 %



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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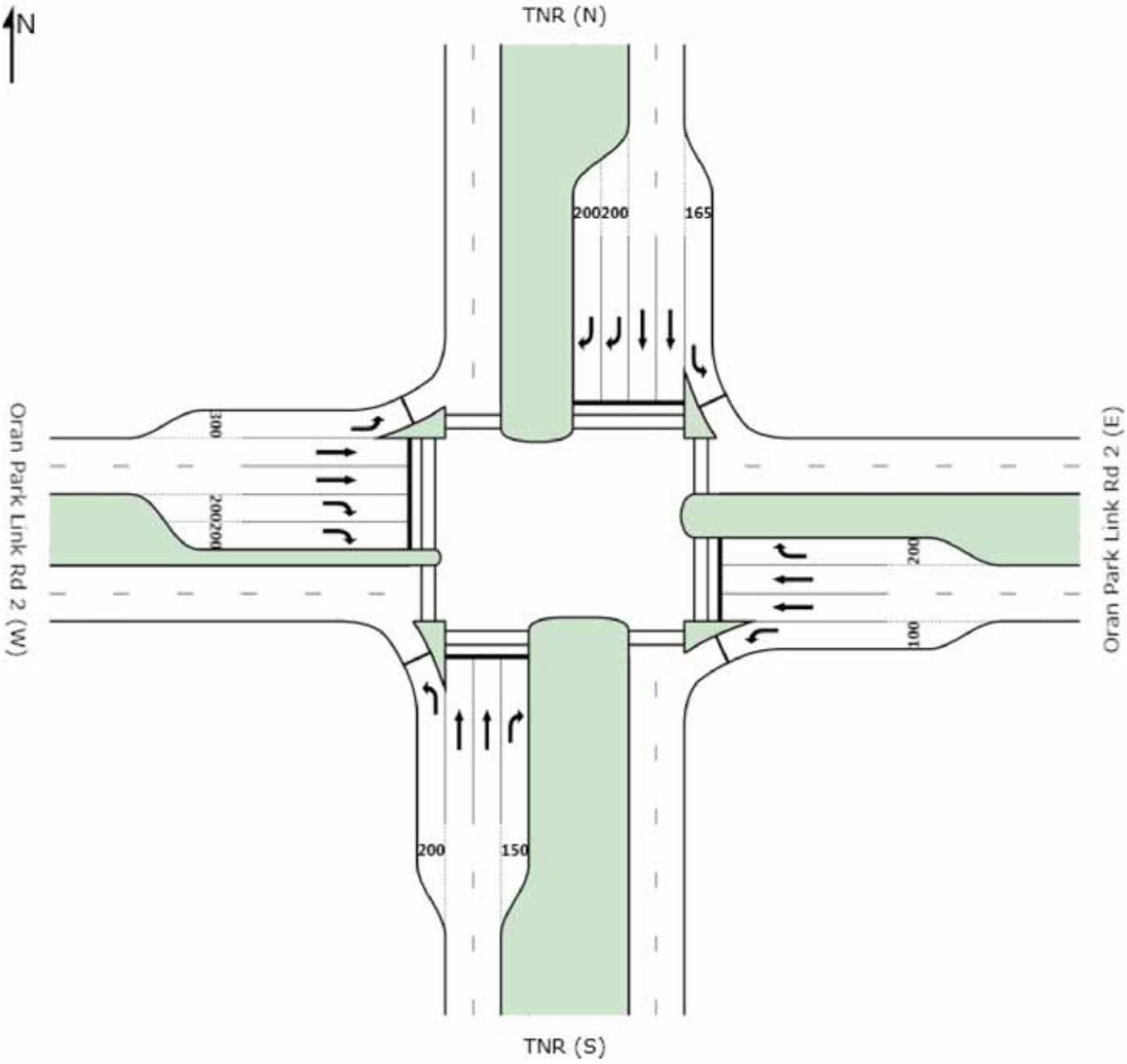
N
TNR (N)
200200
165
Oran Park Link Rd 2 (W)
Oran Park Link Rd 2 (E)
200
100
200
150
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Oran Park Link Rd 2_AM

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	214	5.1	0.233	27.0	LOS B	5.7	42.0	0.40	0.75	42.7
2	T	766	4.9	0.752	54.6	LOS D	24.7	180.5	0.94	0.82	27.7
3	R	84	0.0	0.671	88.9	LOS F	6.3	44.0	1.00	0.80	20.6
Approach		1064	4.6	0.752	51.7	LOS D	24.7	180.5	0.84	0.81	28.9
East: Oran Park Link Rd 2 (E)											
4	L	24	0.0	0.055	42.5	LOS C	1.0	6.9	0.60	0.68	27.9
5	T	234	4.9	0.278	52.1	LOS D	6.6	47.9	0.81	0.65	23.9
6	R	214	4.9	0.479	42.1	LOS C	7.6	55.2	0.84	0.83	28.1
Approach		472	4.6	0.479	47.1	LOS D	7.6	55.2	0.81	0.73	25.9
North: TNR (N)											
7	L	106	0.0	0.098	19.2	LOS B	1.7	11.9	0.24	0.72	49.3
8	T	958	5.0	0.724	43.2	LOS D	28.1	204.9	0.87	0.77	31.8
9	R	202	5.0	0.380	74.2	LOS F	6.5	47.5	0.91	0.78	23.5
Approach		1266	4.6	0.724	46.1	LOS D	28.1	204.9	0.82	0.77	31.0
West: Oran Park Link Rd 2 (W)											
10	L	458	5.0	0.774	55.1	LOS D	28.6	208.7	0.91	0.86	24.1
11	T	344	4.9	0.410	53.9	LOS D	10.1	73.7	0.85	0.70	23.4
12	R	567	4.9	0.757	69.6	LOS E	19.5	142.0	0.97	0.86	20.8
Approach		1369	5.0	0.774	60.8	LOS E	28.6	208.7	0.92	0.82	22.5
All Vehicles		4171	4.7	0.774	52.5	LOS D	28.6	208.7	0.86	0.79	26.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	63.5	LOS F	0.0	0.0	0.92	0.92
P3	Across E approach	10	52.1	LOS E	0.0	0.0	0.83	0.83
P5	Across N approach	10	66.3	LOS F	0.0	0.0	0.94	0.94
P7	Across W approach	10	54.6	LOS E	0.0	0.0	0.85	0.85
All Pedestrians		40	59.1	LOS E			0.89	0.89

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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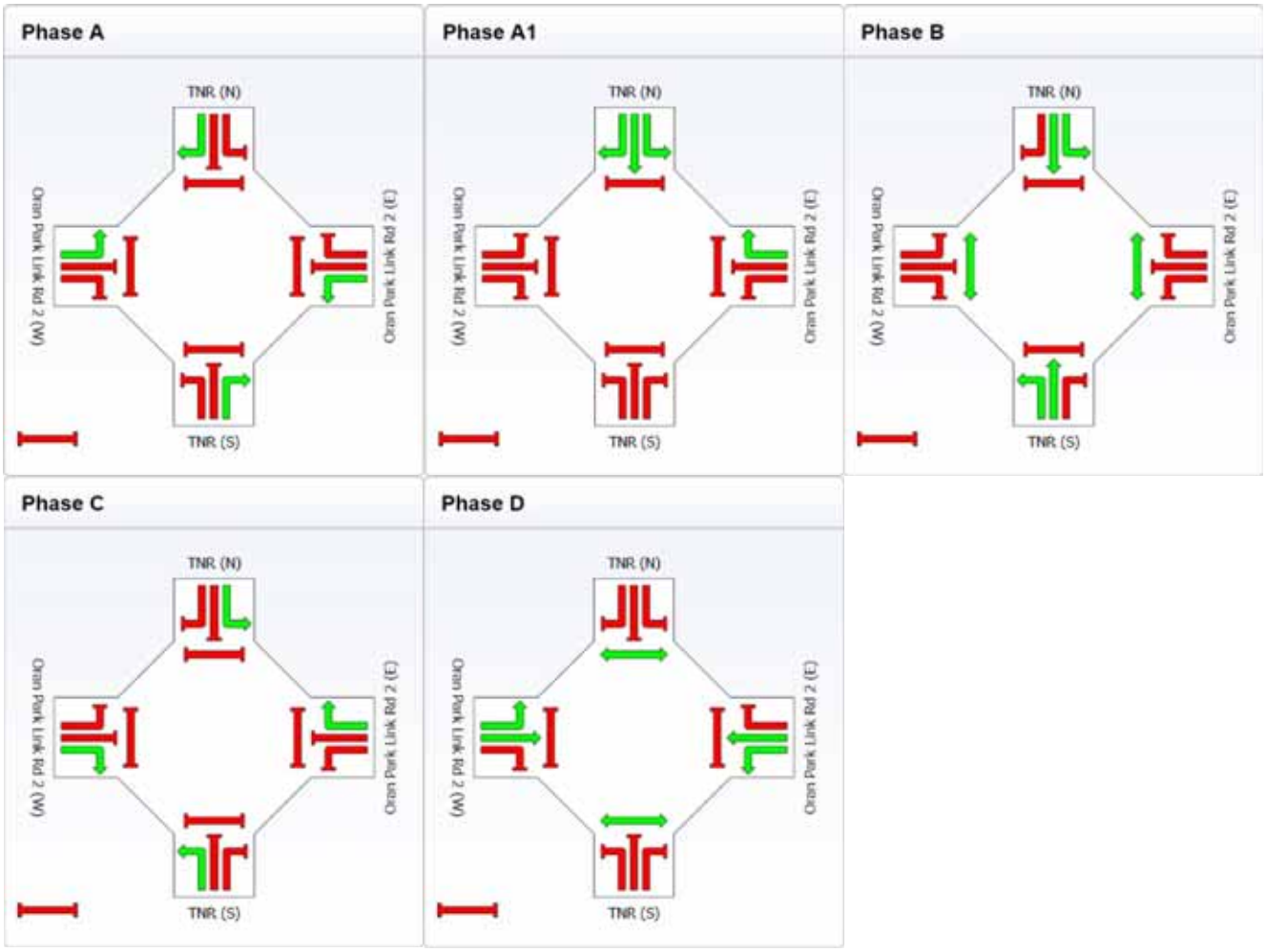
PHASING SUMMARY

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	10	6	40	31	33
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	16	12	46	37	39
Phase Split	11 %	8 %	31 %	25 %	26 %



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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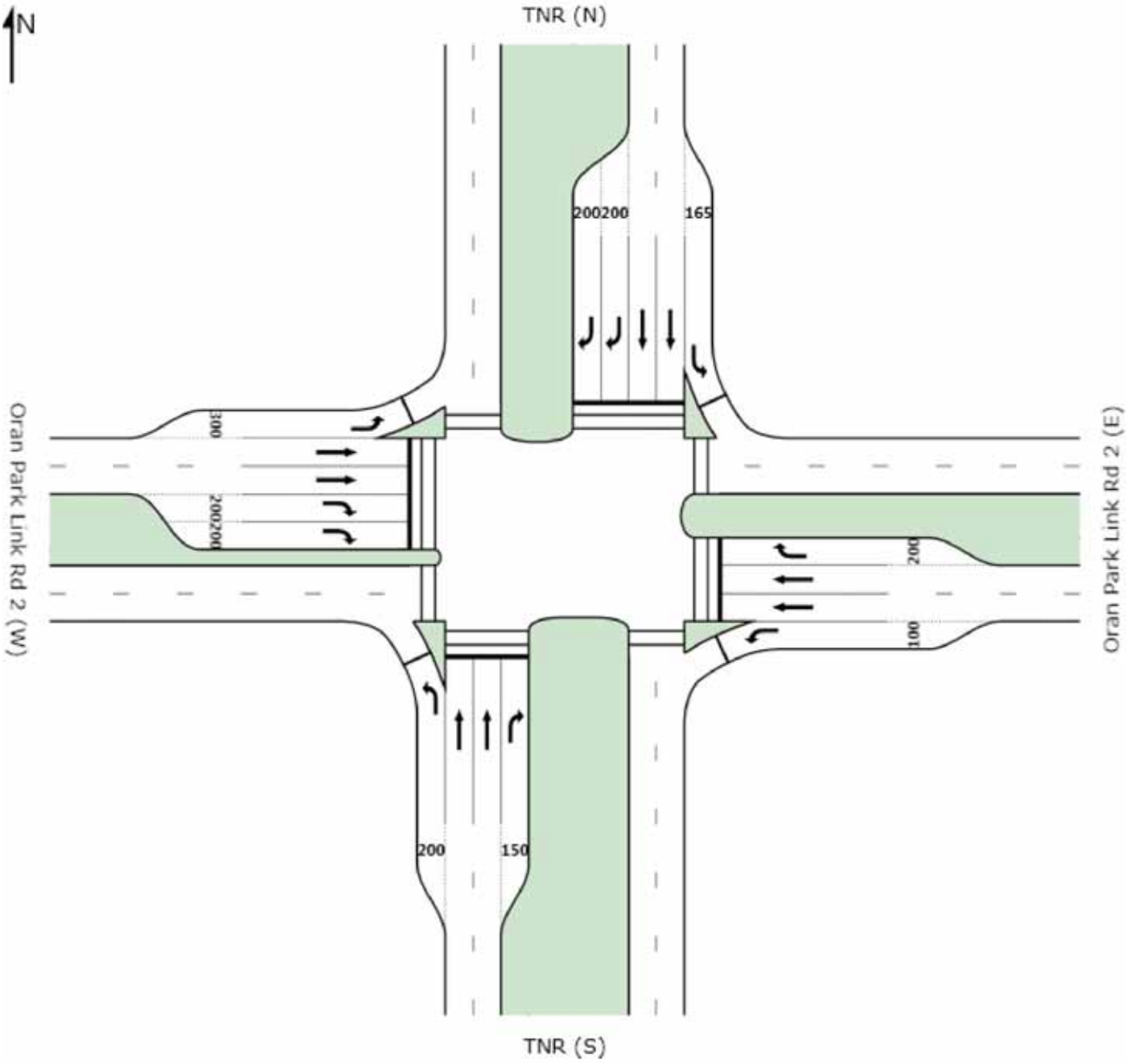
N
TNR (N)
200200
165
Oran Park Link Rd 2 (W)
Oran Park Link Rd 2 (E)
200
100
200
150
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Oran Park Link Rd 2_PM

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	436	5.1	0.491	29.7	LOS C	14.6	106.9	0.50	0.79	40.8
2	T	1003	4.9	0.758	43.9	LOS D	30.1	219.7	0.89	0.79	31.5
3	R	111	0.0	0.739	88.1	LOS F	8.3	58.3	1.00	0.83	20.7
Approach		1550	4.6	0.758	43.0	LOS D	30.1	219.7	0.79	0.79	32.3
East: Oran Park Link Rd 2 (E)											
4	L	41	0.0	0.094	42.9	LOS D	1.7	12.0	0.61	0.70	27.7
5	T	379	4.9	0.480	56.5	LOS E	11.6	84.6	0.88	0.73	22.7
6	R	134	4.9	0.584	75.4	LOS F	9.2	67.4	0.97	0.80	19.8
Approach		554	4.5	0.584	60.1	LOS E	11.6	84.6	0.88	0.75	22.2
North: TNR (N)											
7	L	103	0.0	0.095	19.2	LOS B	1.6	11.5	0.24	0.72	49.3
8	T	933	5.0	0.573	29.9	LOS C	21.5	156.9	0.69	0.61	38.8
9	R	438	5.0	0.755	78.6	LOS F	15.6	113.6	0.99	0.86	22.6
Approach		1474	4.6	0.755	43.6	LOS D	21.5	156.9	0.75	0.69	32.4
West: Oran Park Link Rd 2 (W)											
10	L	243	5.0	0.330	36.3	LOS C	9.8	71.2	0.59	0.75	30.3
11	T	263	4.9	0.279	32.9	LOS C	5.6	40.8	0.78	0.63	30.3
12	R	339	4.9	0.738	78.5	LOS F	12.3	89.5	1.00	0.85	19.2
Approach		845	5.0	0.738	52.2	LOS D	12.3	89.5	0.81	0.75	24.6
All Vehicles		4423	4.7	0.758	47.1	LOS D	30.1	219.7	0.79	0.74	29.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	42.6	LOS E	0.0	0.0	0.75	0.75
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	44.9	LOS E	0.0	0.0	0.77	0.77
All Pedestrians		40	55.2	LOS E			0.85	0.85

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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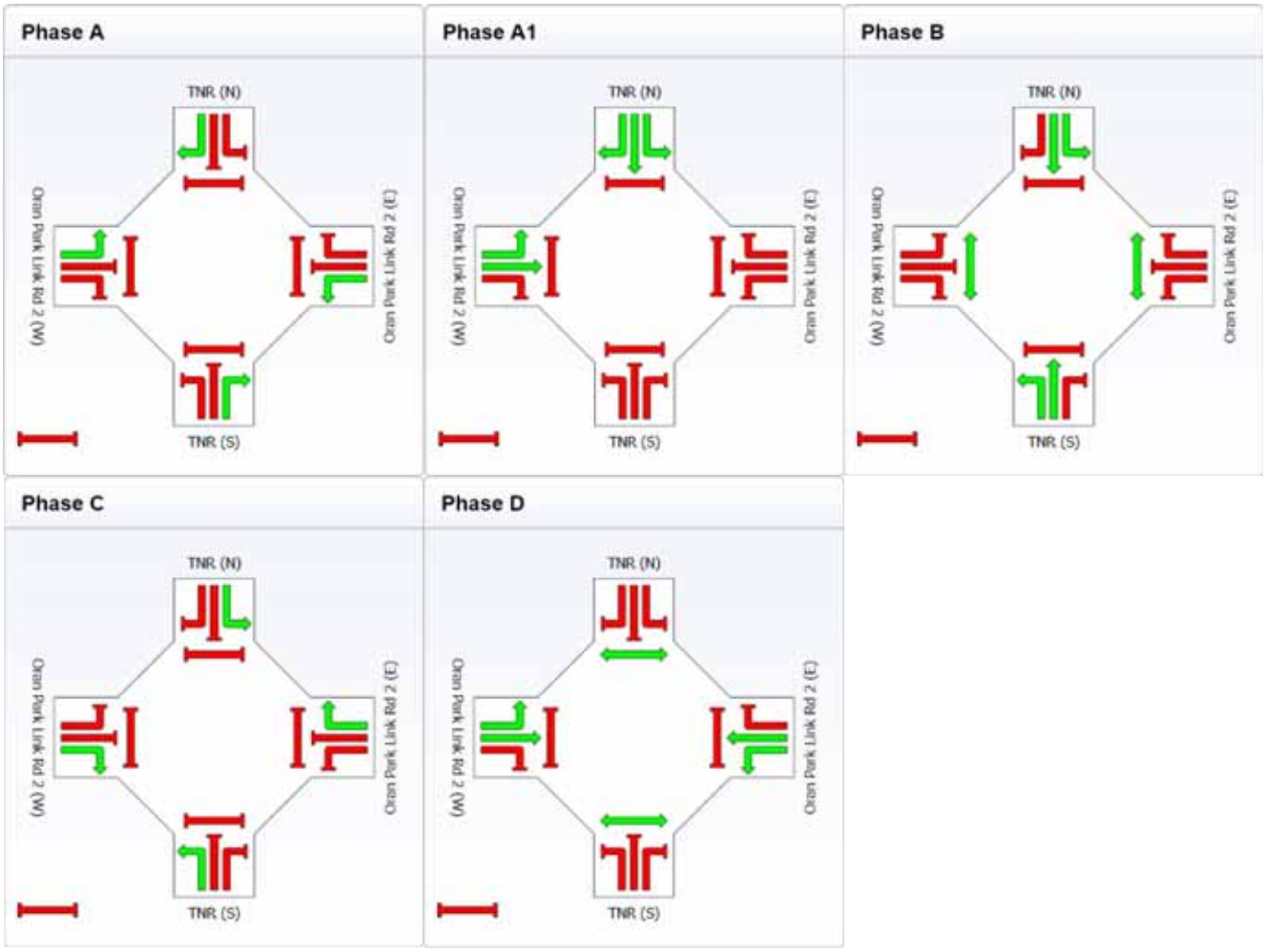
PHASING SUMMARY

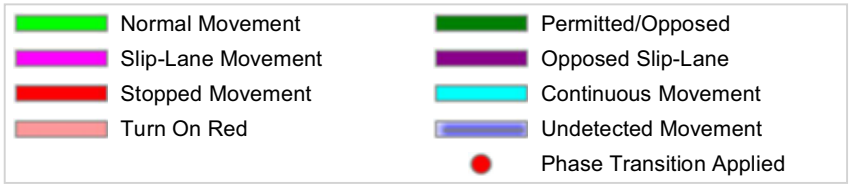
Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	12	6	52	19	31
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	18	12	58	25	37
Phase Split	12 %	8 %	39 %	17 %	25 %





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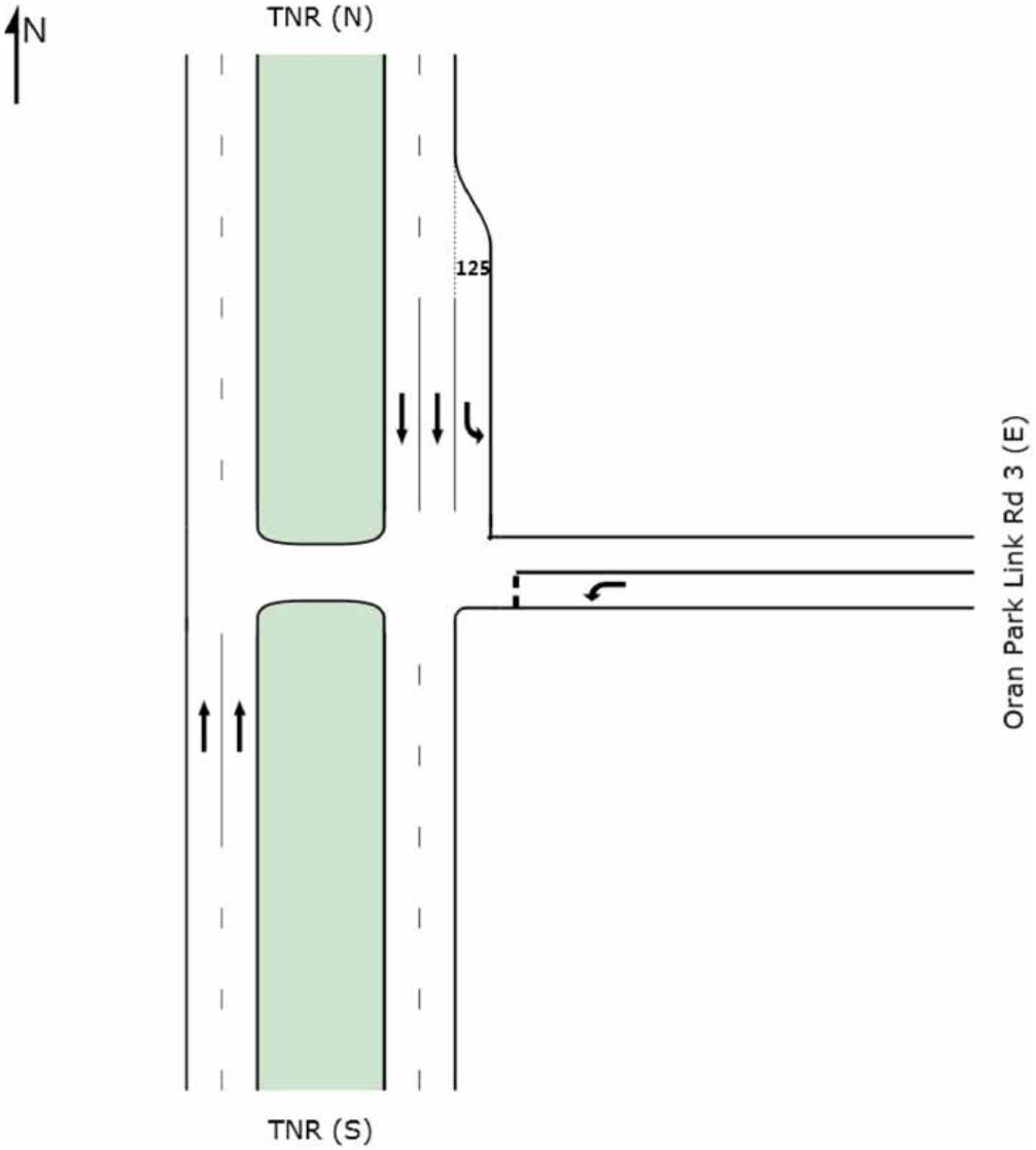
N
TNR (N)
125
Oran Park Link Rd 3 (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Oran Park Link Rd 3_AM

Oran Park Link Road 3
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1613	5.0	0.427	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1613	5.0	0.427	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Oran Park Link Rd 3 (E)											
4	L	11	0.0	0.038	20.1	LOS B	0.1	0.9	0.78	0.93	38.6
Approach		11	0.0	0.038	20.1	LOS B	0.1	0.9	0.78	0.93	38.6
North: TNR (N)											
7	L	215	4.9	0.120	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
8	T	1332	5.0	0.352	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1546	5.0	0.352	1.5	NA	0.0	0.0	0.00	0.10	76.3
All Vehicles		3169	5.0	0.427	0.8	NA	0.1	0.9	0.00	0.05	77.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Oran Park Link Rd 3_PM

Oran Park Link Road 3
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1566	5.0	0.415	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1566	5.0	0.415	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Oran Park Link Rd 3 (E)											
4	L	11	0.0	0.054	25.9	LOS B	0.2	1.2	0.85	0.95	35.0
Approach		11	0.0	0.054	25.9	LOS B	0.2	1.2	0.85	0.95	35.0
North: TNR (N)											
7	L	306	5.2	0.171	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
8	T	1551	5.0	0.411	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1857	5.0	0.411	1.8	NA	0.0	0.0	0.00	0.12	75.6
All Vehicles		3434	5.0	0.415	1.1	NA	0.2	1.2	0.00	0.07	77.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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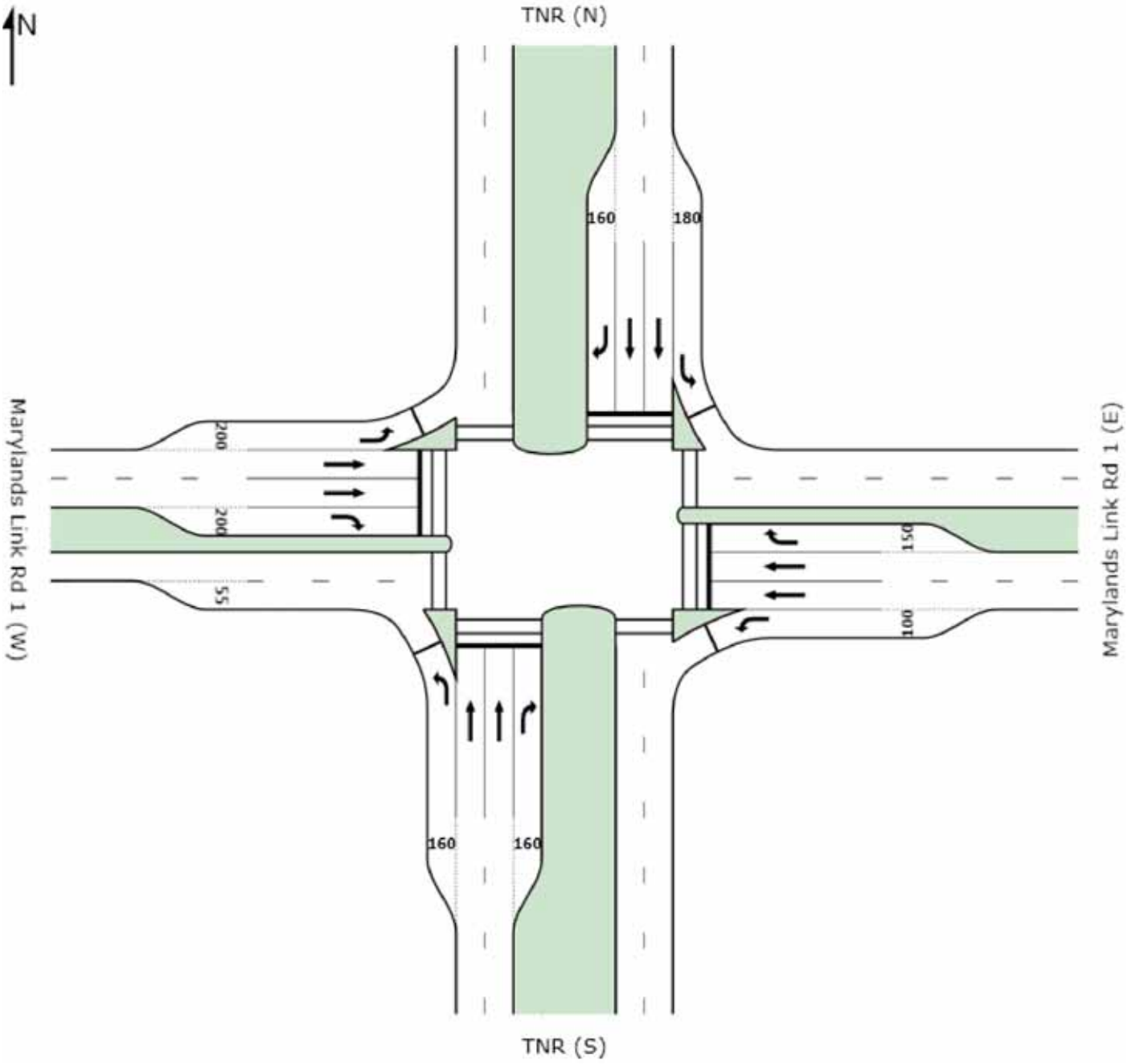
N
TNR (N)
160
180
Marylands Link Rd 1 (W)
200
200
55
150
100
Marylands Link Rd 1 (E)
160
160
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Marylands Link Rd 1_AM

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	88	4.8	0.078	17.0	LOS B	1.1	8.0	0.19	0.71	51.7
2	T	1471	5.0	0.876	39.2	LOS C	48.2	351.5	0.92	0.88	33.4
3	R	54	5.9	0.447	87.1	LOS F	3.9	28.7	0.99	0.75	20.9
Approach		1613	5.0	0.876	39.6	LOS C	48.2	351.5	0.88	0.87	33.3
East: Marylands Link Rd 1 (E)											
4	L	63	5.0	0.160	48.5	LOS D	2.9	21.2	0.67	0.72	26.0
5	T	43	4.9	0.085	53.6	LOS D	1.7	12.3	0.79	0.58	23.5
6	R	125	5.0	0.472	71.7	LOS F	8.2	60.2	0.93	0.79	20.4
Approach		232	5.0	0.472	62.0	LOS E	8.2	60.2	0.83	0.73	22.3
North: TNR (N)											
7	L	75	5.6	0.066	17.0	LOS B	0.9	6.8	0.18	0.71	51.7
8	T	1261	5.0	0.751	31.6	LOS C	33.6	245.3	0.80	0.72	37.4
9	R	103	5.1	0.855	94.6	LOS F	8.2	59.7	1.00	0.89	19.7
Approach		1439	5.0	0.855	35.4	LOS C	33.6	245.3	0.78	0.73	35.7
West: Marylands Link Rd 1 (W)											
10	L	237	4.9	0.445	53.3	LOS D	12.7	92.6	0.78	0.79	24.6
11	T	16	6.7	0.022	52.8	LOS D	0.4	3.2	0.78	0.53	23.7
12	R	223	5.2	0.841	81.0	LOS F	16.9	123.5	1.00	0.91	18.8
Approach		476	5.1	0.841	66.3	LOS E	16.9	123.5	0.89	0.84	21.5
All Vehicles		3759	5.0	0.876	42.7	LOS D	48.2	351.5	0.84	0.80	31.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
All Pedestrians		40	50.4	LOS E			0.81	0.81

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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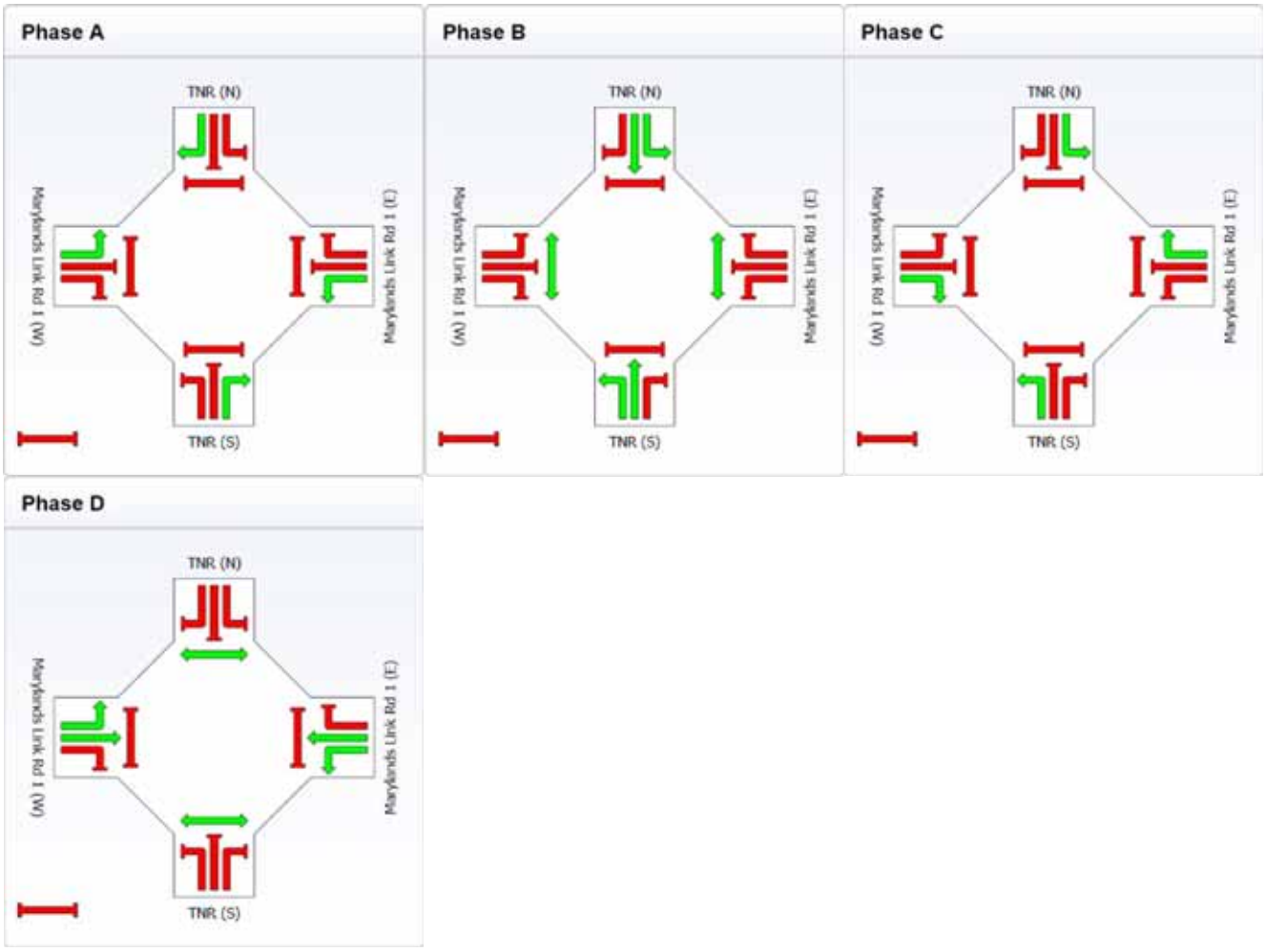
PHASING SUMMARY

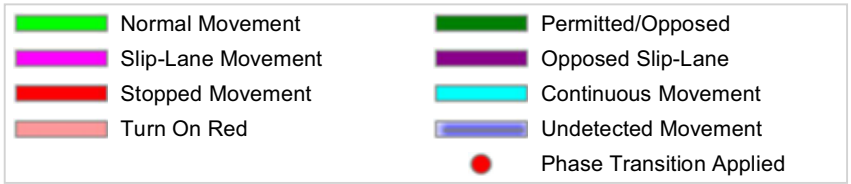
Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	10	66	22	28
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	16	72	28	34
Phase Split	11 %	48 %	19 %	23 %





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MOVEMENT SUMMARY

Site: 2026_Marylands Link Rd 1_PM

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	156	4.8	0.170	22.8	LOS B	3.3	24.0	0.31	0.73	46.1
2	T	1334	5.0	0.846	39.5	LOS C	41.9	306.2	0.91	0.85	33.3
3	R	77	5.9	0.800	94.2	LOS F	6.0	44.4	1.00	0.84	19.7
Approach		1566	5.0	0.846	40.5	LOS C	41.9	306.2	0.85	0.83	33.1
East: Marylands Link Rd 1 (E)											
4	L	55	5.0	0.142	50.2	LOS D	2.6	18.8	0.68	0.72	25.4
5	T	79	4.9	0.156	54.5	LOS D	3.2	23.1	0.81	0.61	23.3
6	R	83	5.0	0.459	78.1	LOS F	5.8	42.2	0.97	0.77	19.3
Approach		217	5.0	0.459	62.5	LOS E	5.8	42.2	0.84	0.70	22.0
North: TNR (N)											
7	L	18	5.6	0.016	16.0	LOS B	0.2	1.4	0.15	0.69	52.8
8	T	1649	5.0	0.864	29.1	LOS C	48.4	353.2	0.85	0.80	38.8
9	R	218	5.1	0.860	86.9	LOS F	16.8	122.8	1.00	0.91	21.0
Approach		1885	5.0	0.864	35.6	LOS C	48.4	353.2	0.86	0.81	35.4
West: Marylands Link Rd 1 (W)											
10	L	126	4.9	0.190	39.4	LOS C	5.1	37.4	0.60	0.73	29.0
11	T	18	6.7	0.025	52.9	LOS D	0.5	3.6	0.78	0.54	23.7
12	R	151	5.2	0.832	85.7	LOS F	11.6	84.7	1.00	0.90	18.1
Approach		295	5.1	0.832	63.9	LOS E	11.6	84.7	0.81	0.81	22.0
All Vehicles		3963	5.0	0.864	41.1	LOS C	48.4	353.2	0.85	0.82	32.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	35.4	LOS D	0.0	0.0	0.69	0.69
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	35.4	LOS D	0.0	0.0	0.69	0.69
All Pedestrians		40	51.8	LOS E			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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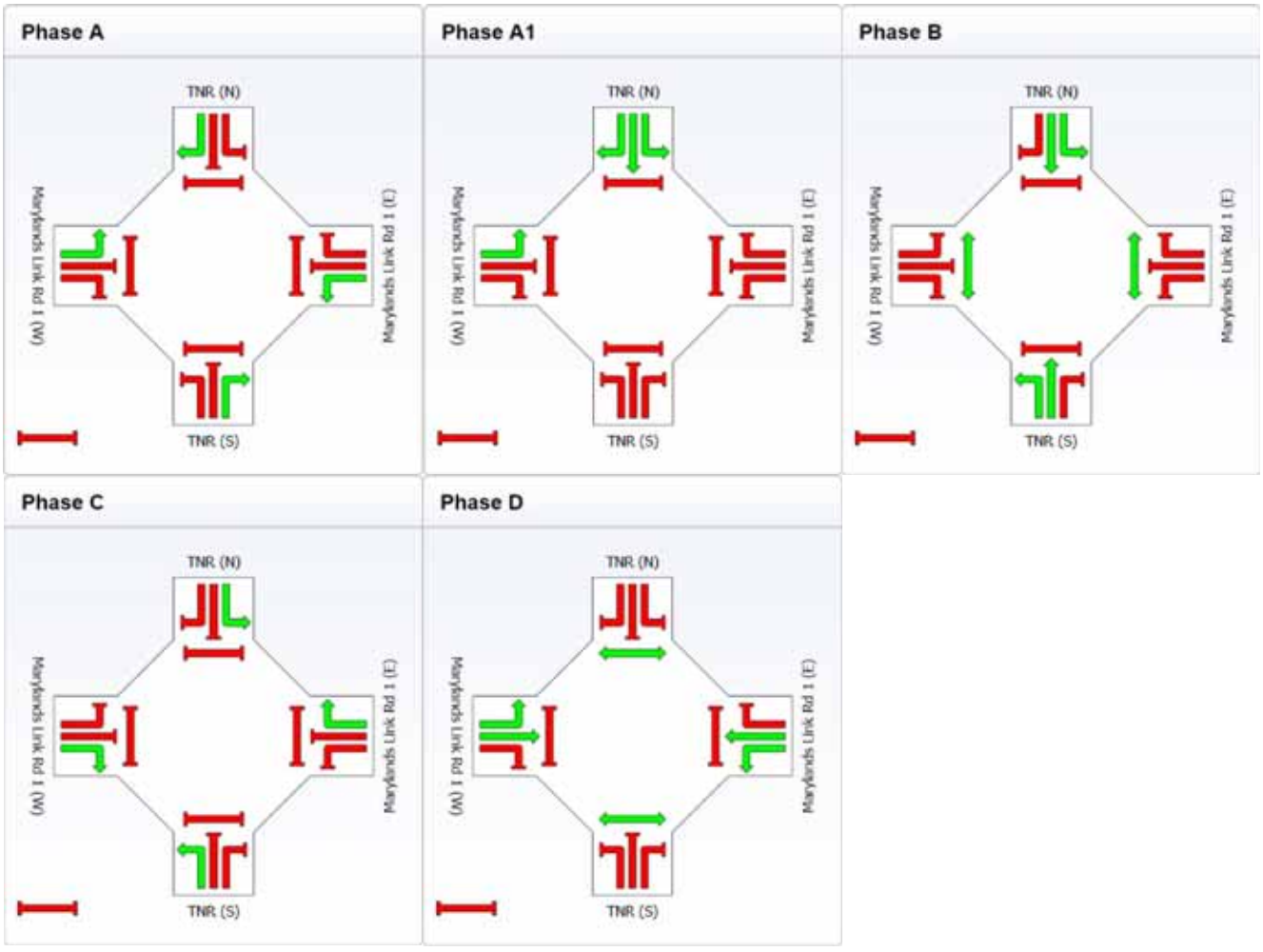
PHASING SUMMARY

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	8	7	62	15	28
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	14	13	68	21	34
Phase Split	9 %	9 %	45 %	14 %	23 %



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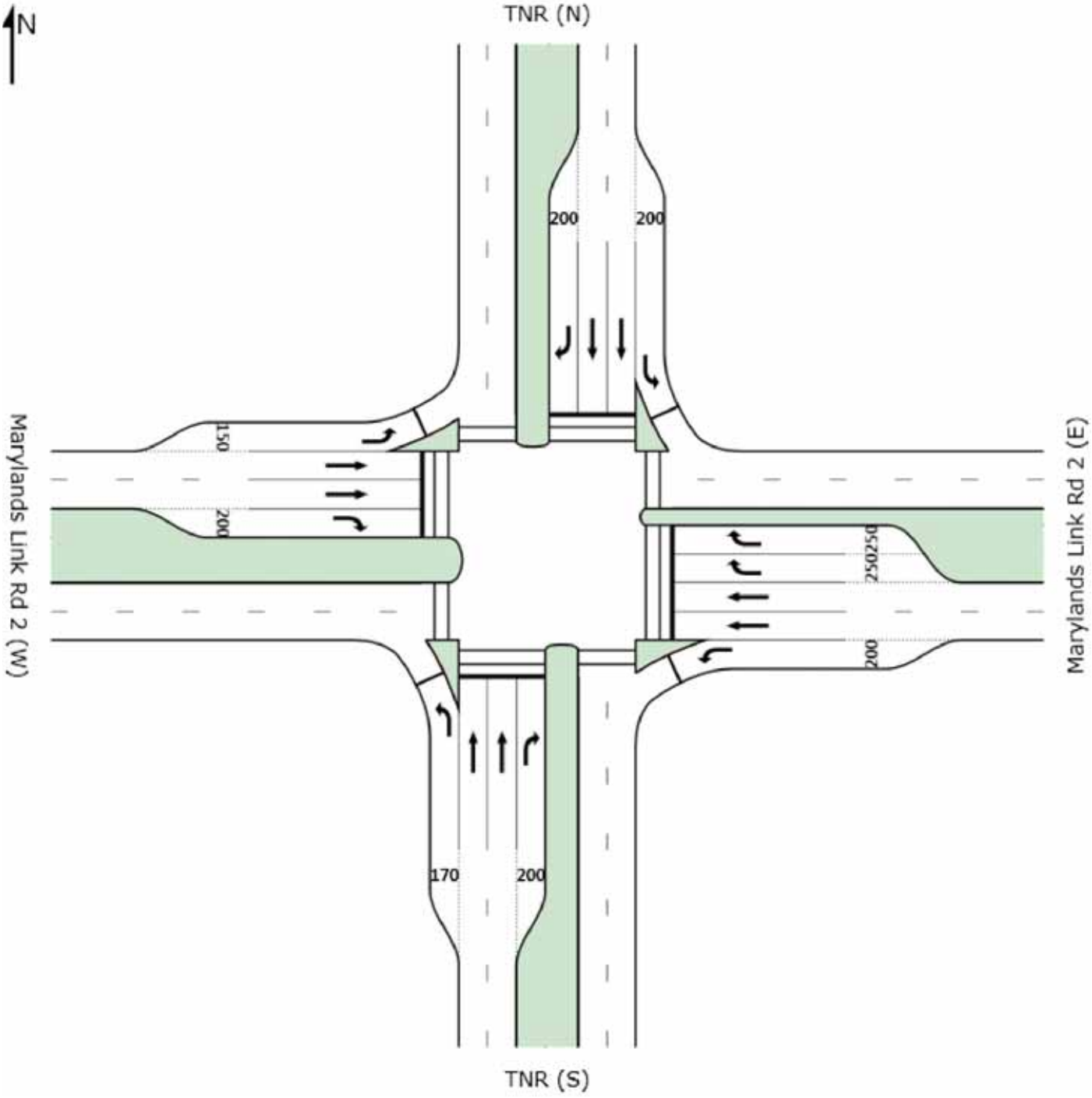
N
TNR (N)
200
200
Marylands Link Rd 2 (W)
150
200
250250
200
Marylands Link Rd 2 (E)
170
200
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Marylands Link Rd 2_AM

Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	95	5.3	0.080	15.1	LOS B	0.9	6.4	0.14	0.70	53.9
2	T	1581	5.0	0.807	23.9	LOS B	40.1	292.5	0.76	0.70	42.5
3	R	65	4.6	0.596	89.4	LOS F	4.9	35.3	1.00	0.77	20.5
Approach		1741	5.0	0.807	25.9	LOS B	40.1	292.5	0.74	0.71	41.3
East: Marylands Link Rd 2 (E)											
4	L	74	5.4	0.158	53.3	LOS D	3.7	27.1	0.73	0.74	24.6
5	T	45	4.4	0.073	57.4	LOS E	1.3	9.5	0.83	0.60	22.6
6	R	238	5.0	0.616	78.8	LOS F	8.4	61.6	0.99	0.80	19.1
Approach		357	5.0	0.616	70.8	LOS F	8.4	61.6	0.91	0.76	20.4
North: TNR (N)											
7	L	240	5.0	0.201	15.5	LOS B	2.5	18.2	0.16	0.71	53.4
8	T	1134	5.0	0.579	19.9	LOS B	21.3	155.4	0.56	0.51	46.4
9	R	84	4.8	0.771	92.3	LOS F	6.5	47.3	1.00	0.83	20.0
Approach		1458	5.0	0.771	23.3	LOS B	21.3	155.4	0.52	0.56	44.0
West: Marylands Link Rd 2 (W)											
10	L	211	5.2	0.449	57.6	LOS E	11.9	87.1	0.82	0.80	23.5
11	T	82	4.9	0.134	58.2	LOS E	2.4	17.7	0.84	0.63	22.4
12	R	158	5.1	0.818	84.3	LOS F	12.0	87.8	1.00	0.89	18.2
Approach		451	5.1	0.818	67.0	LOS E	12.0	87.8	0.89	0.80	21.2
All Vehicles		4007	5.0	0.818	33.6	LOS C	40.1	292.5	0.69	0.67	35.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	27.6	LOS C	0.0	0.0	0.61	0.61
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	25.8	LOS C	0.0	0.0	0.59	0.59
All Pedestrians		40	47.4	LOS E			0.78	0.78

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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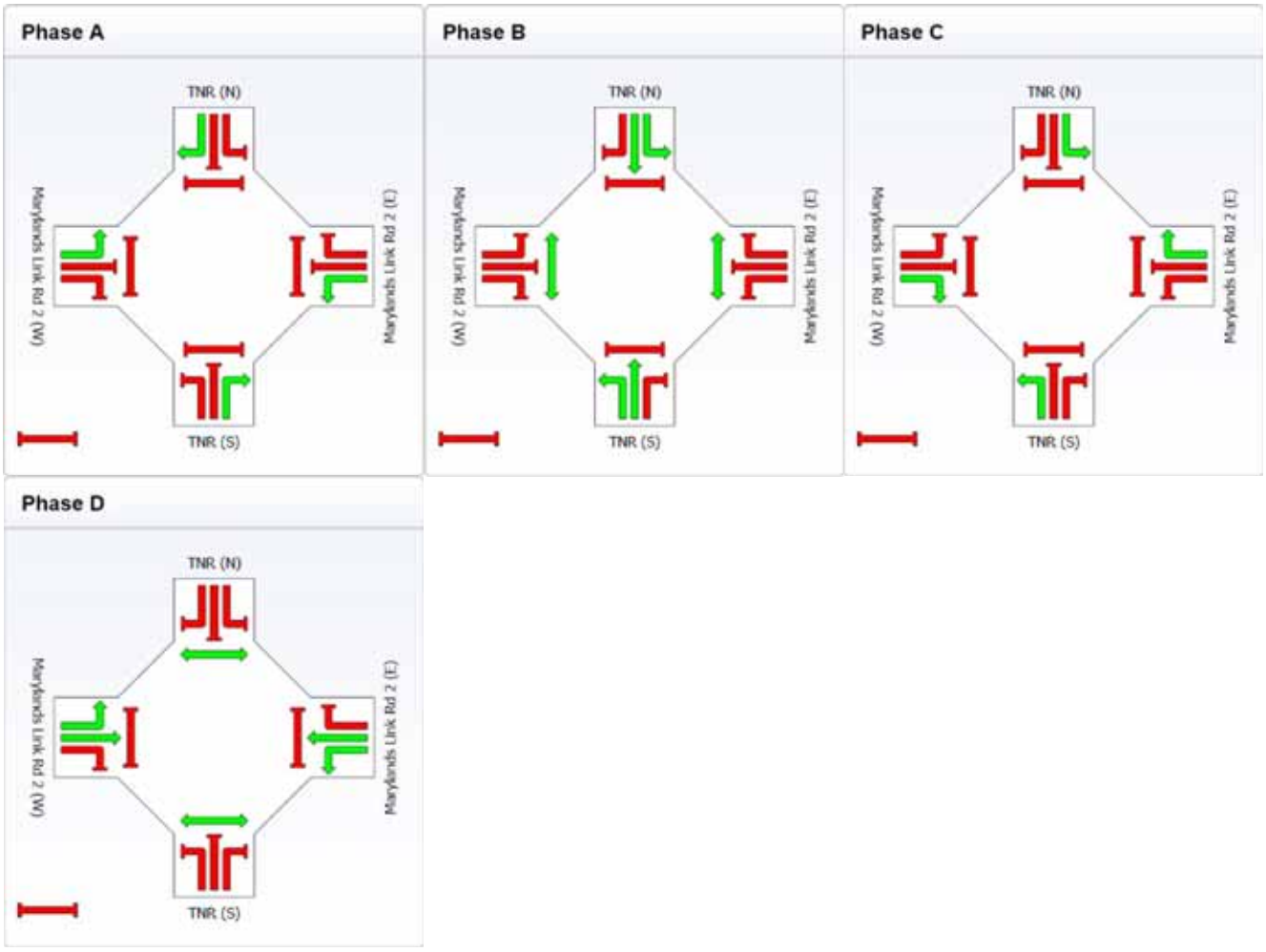
PHASING SUMMARY

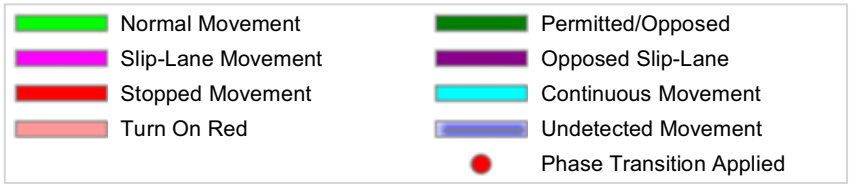
Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	9	77	16	24
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	15	83	22	30
Phase Split	10 %	55 %	15 %	20 %





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MOVEMENT SUMMARY

Site: 2026_Marylands Link Rd 2_PM

Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	160	5.3	0.162	21.2	LOS B	3.0	22.3	0.28	0.73	47.5
2	T	1218	5.0	0.725	31.1	LOS C	31.6	230.7	0.78	0.70	37.8
3	R	89	4.6	0.735	90.3	LOS F	6.8	49.3	1.00	0.82	20.3
Approach		1467	5.0	0.735	33.6	LOS C	31.6	230.7	0.74	0.71	36.7
East: Marylands Link Rd 2 (E)											
4	L	68	5.4	0.141	52.3	LOS D	3.3	24.5	0.71	0.73	24.9
5	T	80	4.4	0.131	58.2	LOS E	2.4	17.2	0.84	0.63	22.4
6	R	261	5.0	0.772	84.1	LOS F	9.8	71.7	1.00	0.86	18.3
Approach		409	5.0	0.772	73.7	LOS F	9.8	71.7	0.92	0.79	19.8
North: TNR (N)											
7	L	220	5.0	0.186	15.8	LOS B	2.4	17.6	0.16	0.72	53.0
8	T	1599	5.0	0.806	23.1	LOS B	39.9	291.7	0.75	0.69	43.1
9	R	191	4.8	0.718	79.0	LOS F	13.5	98.2	0.99	0.84	22.4
Approach		2010	5.0	0.806	27.6	LOS B	39.9	291.7	0.71	0.71	40.4
West: Marylands Link Rd 2 (W)											
10	L	103	5.2	0.179	41.7	LOS C	4.3	31.6	0.61	0.73	28.2
11	T	53	4.9	0.087	57.6	LOS E	1.5	11.3	0.83	0.61	22.5
12	R	124	5.1	0.734	83.0	LOS F	9.2	67.2	1.00	0.84	18.4
Approach		280	5.1	0.734	63.0	LOS E	9.2	67.2	0.83	0.75	22.0
All Vehicles		4166	5.0	0.806	36.6	LOS C	39.9	291.7	0.75	0.72	34.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	34.7	LOS D	0.0	0.0	0.68	0.68
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
All Pedestrians		40	50.9	LOS E			0.81	0.81

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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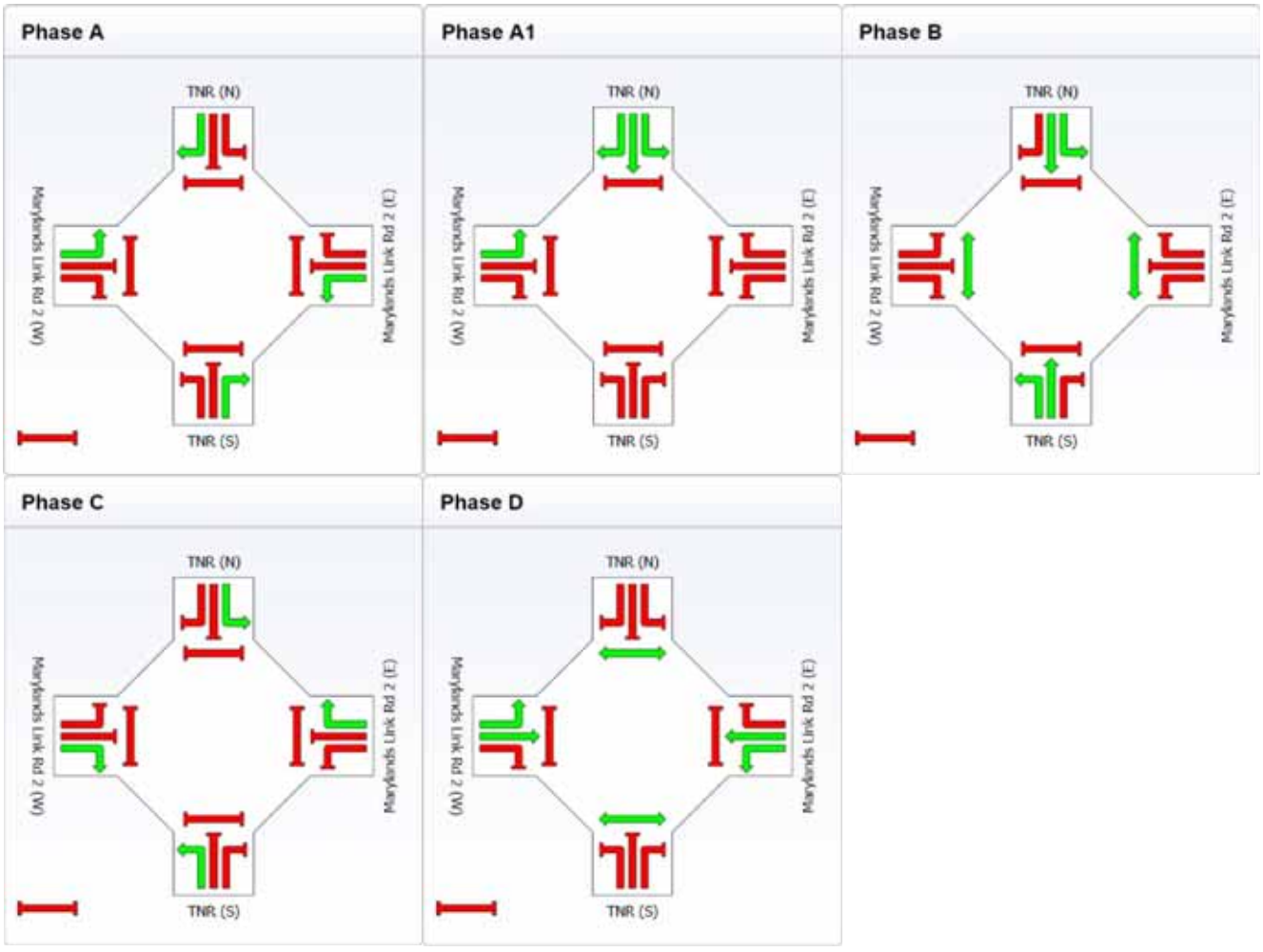
PHASING SUMMARY

Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	10	6	66	14	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	16	12	72	20	30
Phase Split	11 %	8 %	48 %	13 %	20 %



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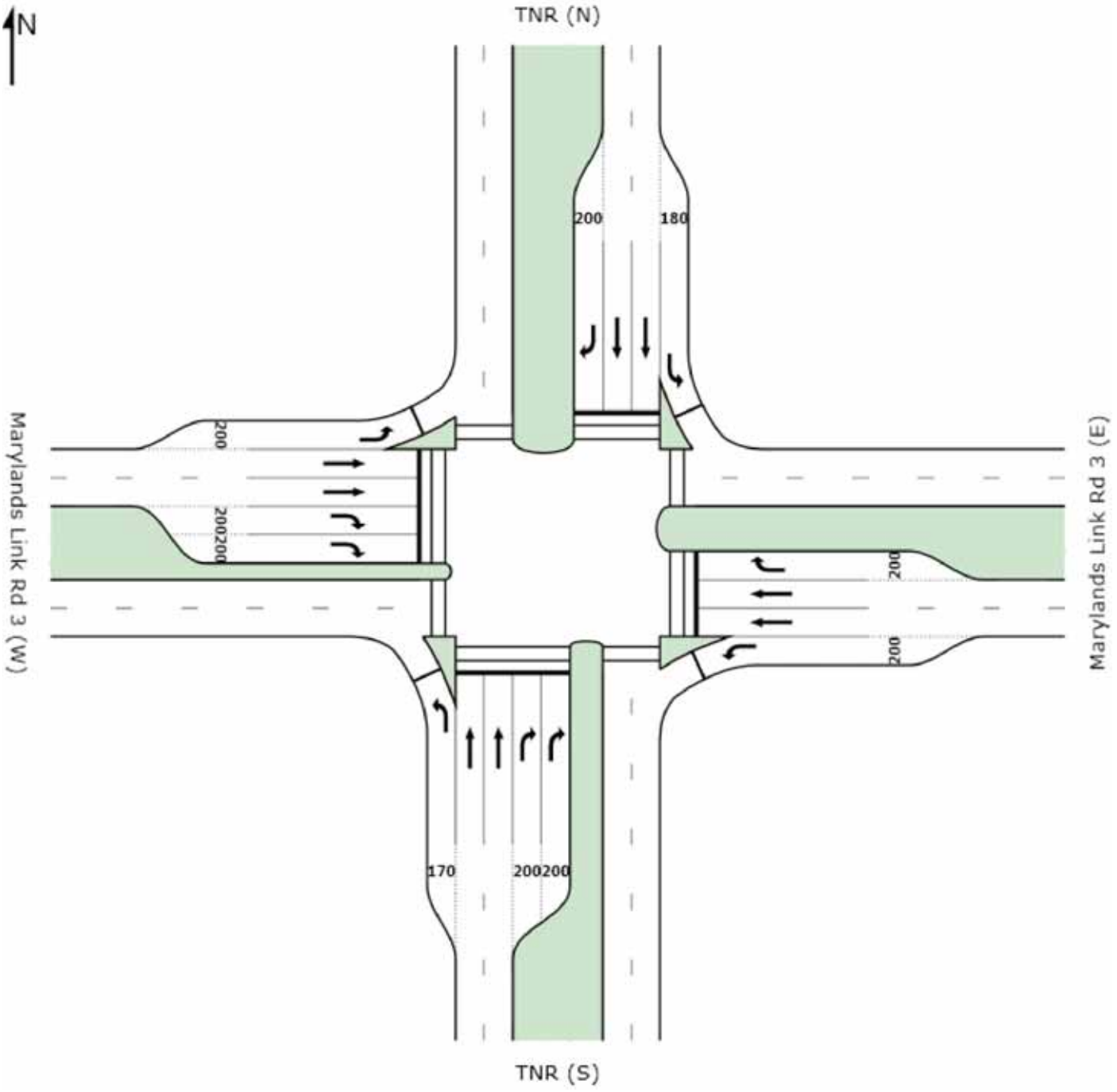
N
TNR (N)
200
180
Marylands Link Rd 3 (W)
200
200200
Marylands Link Rd 3 (E)
200
200
170
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Marylands Link Rd 3_AM

Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	256	5.1	0.216	15.9	LOS B	2.9	21.2	0.17	0.72	52.9
2	T	1268	5.0	0.733	29.6	LOS C	32.4	236.8	0.77	0.69	38.7
3	R	505	5.0	0.653	69.6	LOS E	16.3	119.1	0.93	0.84	24.5
Approach		2029	5.0	0.733	37.8	LOS C	32.4	236.8	0.73	0.73	34.9
East: Marylands Link Rd 3 (E)											
4	L	314	5.1	0.403	34.1	LOS C	12.4	90.7	0.59	0.76	31.2
5	T	99	5.1	0.144	55.6	LOS D	2.8	20.8	0.82	0.63	23.0
6	R	144	4.9	0.496	70.4	LOS E	9.4	68.4	0.93	0.80	20.6
Approach		557	5.0	0.496	47.3	LOS D	12.4	90.7	0.72	0.75	26.1
North: TNR (N)											
7	L	47	4.3	0.055	27.9	LOS B	1.2	8.8	0.38	0.72	42.1
8	T	719	5.0	0.657	50.2	LOS D	21.6	157.7	0.88	0.76	29.2
9	R	55	5.5	0.653	92.7	LOS F	4.2	31.0	1.00	0.77	20.0
Approach		821	5.0	0.657	51.7	LOS D	21.6	157.7	0.86	0.76	28.8
West: Marylands Link Rd 3 (W)											
10	L	167	4.8	0.345	55.2	LOS D	8.9	65.1	0.78	0.78	24.1
11	T	249	4.8	0.362	58.3	LOS E	7.6	55.5	0.88	0.71	22.3
12	R	425	4.9	0.733	74.3	LOS F	14.9	108.9	0.99	0.85	19.9
Approach		841	4.9	0.733	65.8	LOS E	14.9	108.9	0.91	0.79	21.3
All Vehicles		4248	5.0	0.733	47.3	LOS D	32.4	236.8	0.79	0.75	29.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	49.6	LOS E	0.0	0.0	0.81	0.81
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	52.1	LOS E	0.0	0.0	0.83	0.83
All Pedestrians		40	58.8	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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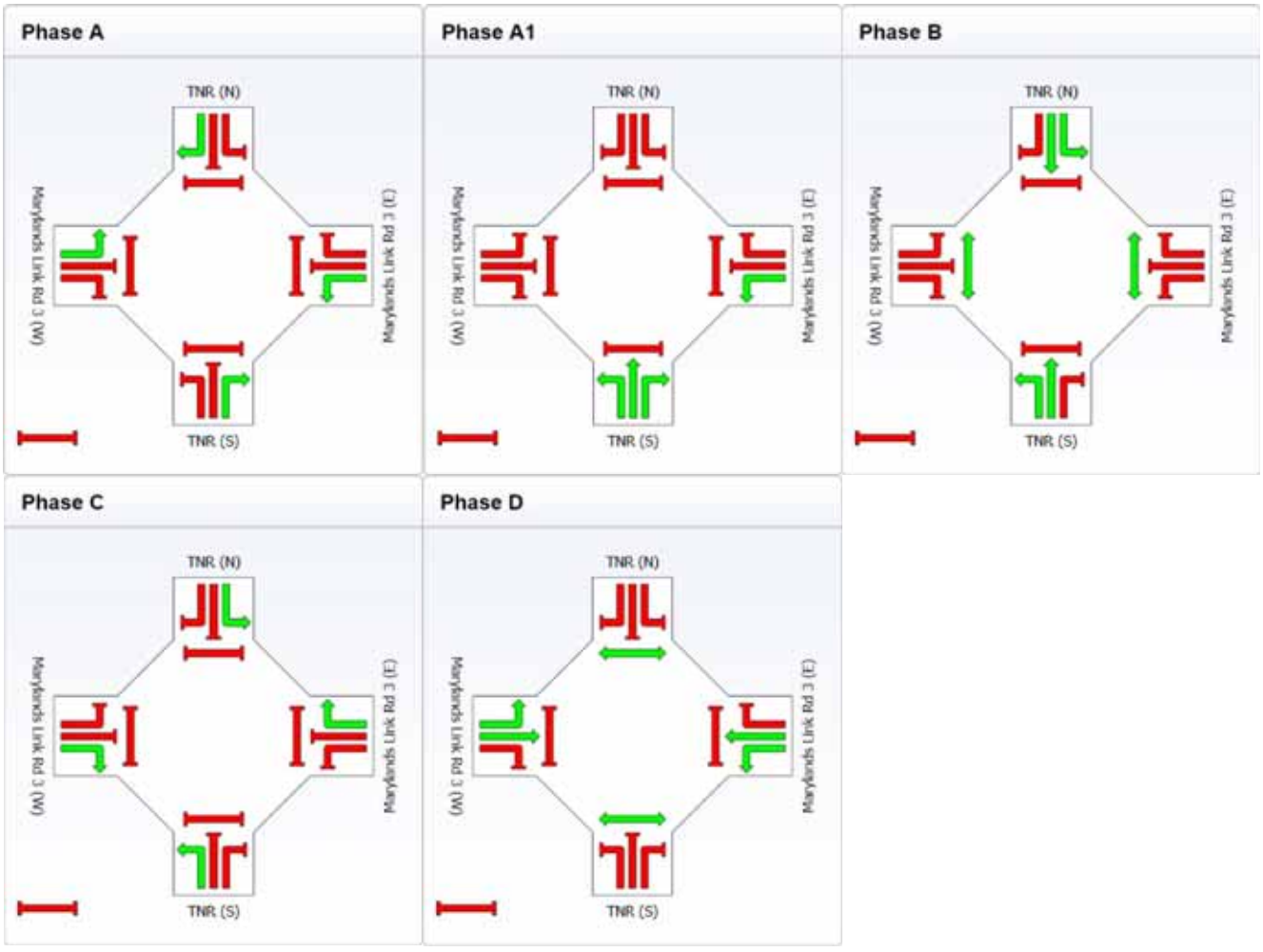
PHASING SUMMARY

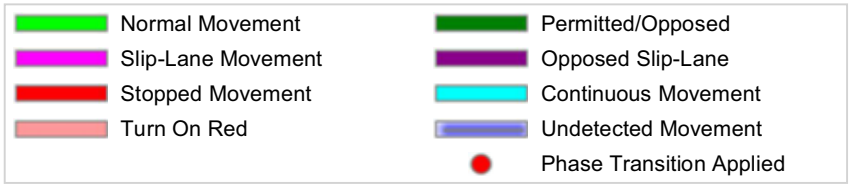
Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	7	19	43	24	27
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	13	25	49	30	33
Phase Split	9 %	17 %	33 %	20 %	22 %





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MOVEMENT SUMMARY

Site: 2026_Marylands Link Rd 3_PM

Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	426	5.1	0.454	23.8	LOS B	10.9	79.4	0.38	0.76	45.3
2	T	768	5.0	0.487	30.1	LOS C	17.0	123.9	0.66	0.58	38.7
3	R	387	5.0	0.801	83.7	LOS F	14.4	104.8	1.00	0.87	21.5
Approach		1581	5.0	0.801	41.6	LOS C	17.0	123.9	0.67	0.70	33.5
East: Marylands Link Rd 3 (E)											
4	L	484	5.1	0.757	50.7	LOS D	28.9	211.0	0.88	0.85	25.3
5	T	223	5.1	0.325	57.8	LOS E	6.7	49.3	0.87	0.69	22.4
6	R	54	4.9	0.263	74.4	LOS F	3.6	25.9	0.92	0.75	19.8
Approach		761	5.1	0.757	54.5	LOS D	28.9	211.0	0.88	0.80	24.0
North: TNR (N)											
7	L	129	4.3	0.128	21.5	LOS B	2.5	18.0	0.29	0.73	47.2
8	T	1303	5.0	0.826	37.8	LOS C	39.5	288.1	0.89	0.82	34.1
9	R	151	5.5	0.627	78.8	LOS F	10.4	76.5	0.98	0.81	22.5
Approach		1583	5.0	0.826	40.3	LOS C	39.5	288.1	0.85	0.81	33.2
West: Marylands Link Rd 3 (W)											
10	L	62	4.8	0.097	39.9	LOS C	2.5	18.0	0.58	0.71	28.9
11	T	129	4.8	0.188	56.1	LOS D	3.8	27.4	0.83	0.65	22.9
12	R	322	4.9	0.784	81.8	LOS F	12.0	87.5	1.00	0.87	18.7
Approach		513	4.9	0.784	70.3	LOS E	12.0	87.5	0.91	0.79	20.5
All Vehicles		4438	5.0	0.826	46.7	LOS D	39.5	288.1	0.80	0.77	29.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	35.4	LOS D	0.0	0.0	0.69	0.69
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	37.5	LOS D	0.0	0.0	0.71	0.71
All Pedestrians		40	51.6	LOS E			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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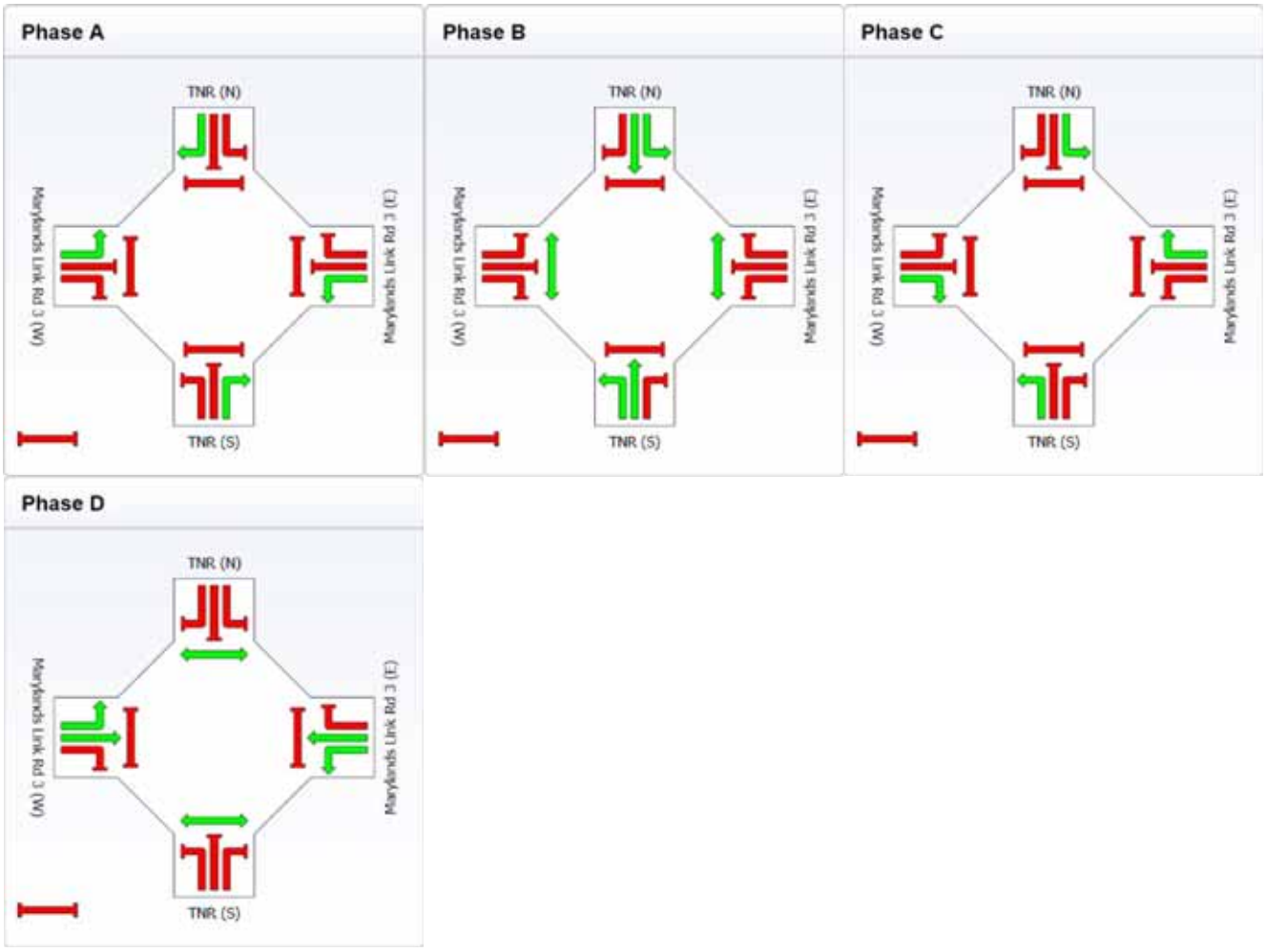
PHASING SUMMARY

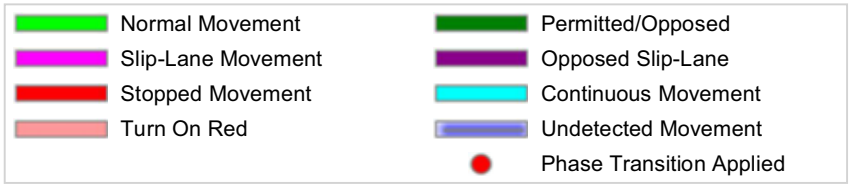
Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	20	62	17	27
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	26	68	23	33
Phase Split	17 %	45 %	15 %	22 %





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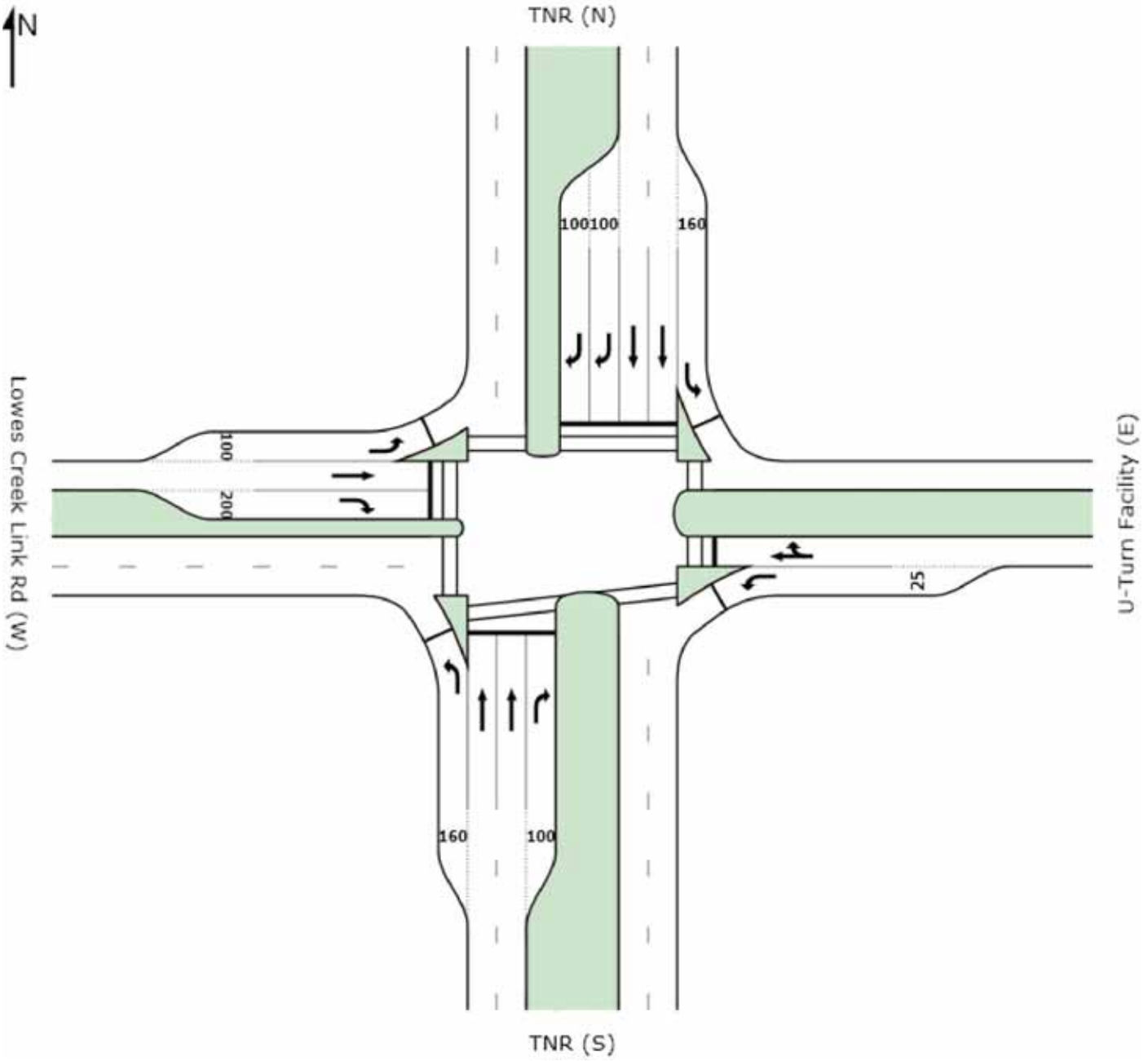
N
TNR (N)
100
100
160
Lowes Creek Link Rd (W)
100
200
25
U-Turn Facility (E)
160
100
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Lowes Creek Link Rd_AM

Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	136	4.7	0.117	15.9	LOS B	1.5	10.8	0.16	0.71	52.9
2	T	1527	5.0	0.870	35.6	LOS C	48.2	351.7	0.90	0.85	35.1
3	R	1	0.0	0.011	84.5	LOS F	0.1	0.5	0.95	0.60	21.2
Approach		1664	5.0	0.870	34.0	LOS C	48.2	351.7	0.84	0.84	36.1
East: U-Turn Facility (E)											
4	L	1	0.0	0.009	48.8	LOS D	0.0	0.3	0.65	0.60	25.8
5	T	1	0.0	0.044	81.4	LOS F	0.2	1.1	0.98	0.60	17.7
6	R	1	0.0	0.044	89.0	LOS F	0.2	1.1	0.98	0.61	17.8
Approach		3	0.0	0.044	73.1	LOS F	0.2	1.1	0.87	0.60	19.8
North: TNR (N)											
7	L	1	0.0	0.001	15.4	LOS B	0.0	0.1	0.14	0.68	53.4
8	T	637	5.0	0.363	22.8	LOS B	11.4	82.9	0.53	0.46	44.1
9	R	85	4.9	0.441	89.5	LOS F	3.2	23.1	1.00	0.74	20.4
Approach		723	4.9	0.441	30.7	LOS C	11.4	82.9	0.59	0.50	38.9
West: Lowes Creek Link Rd (W)											
10	L	315	5.0	0.877	70.2	LOS E	21.6	158.0	0.88	0.92	20.7
11	T	1	0.0	0.003	52.9	LOS D	0.1	0.4	0.78	0.47	23.7
12	R	228	5.1	0.860	82.8	LOS F	17.6	128.4	1.00	0.92	18.5
Approach		544	5.0	0.877	75.4	LOS F	21.6	158.0	0.93	0.92	19.7
All Vehicles		2935	5.0	0.877	40.9	LOS C	48.2	351.7	0.79	0.77	32.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	25.8	LOS C	0.0	0.0	0.59	0.59
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	28.8	LOS C	0.0	0.0	0.62	0.62
All Pedestrians		40	47.0	LOS E			0.77	0.77

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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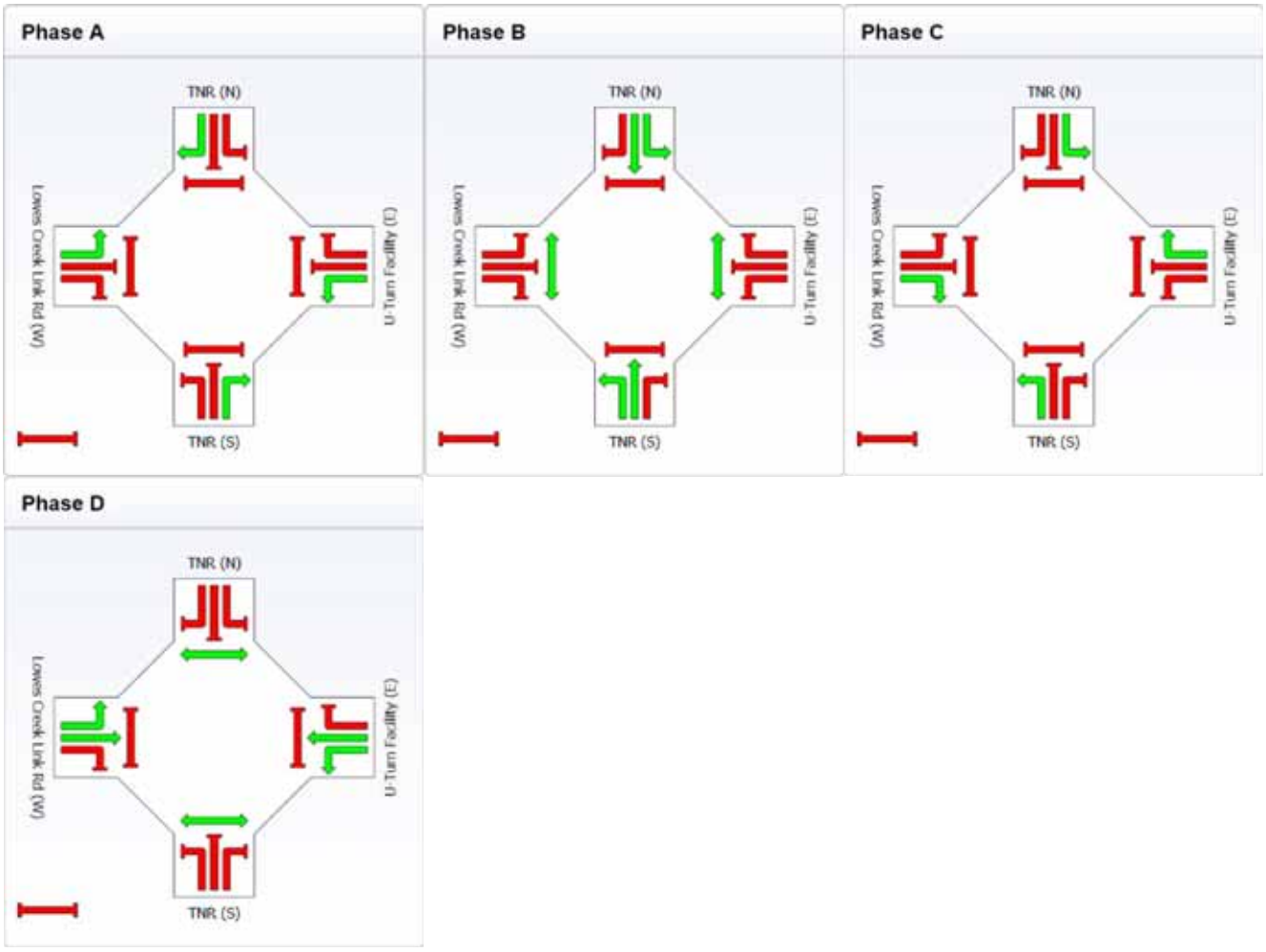
PHASING SUMMARY

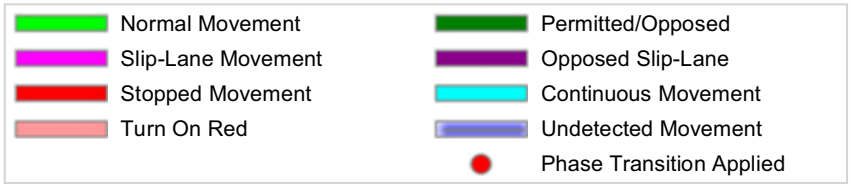
Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	8	69	22	27
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	14	75	28	33
Phase Split	9 %	50 %	19 %	22 %





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MOVEMENT SUMMARY

Site: 2026_Lowes Creek Link Rd_PM

Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	224	4.7	0.315	34.5	LOS C	7.8	56.9	0.52	0.77	37.8
2	T	707	5.0	0.632	48.8	LOS D	20.8	152.0	0.86	0.75	29.7
3	R	1	0.0	0.014	87.6	LOS F	0.1	0.5	0.96	0.59	20.7
Approach		933	4.9	0.632	45.4	LOS D	20.8	152.0	0.78	0.75	31.3
East: U-Turn Facility (E)											
4	L	1	0.0	0.009	51.2	LOS D	0.0	0.3	0.68	0.60	25.1
5	T	1	0.0	0.054	79.8	LOS F	0.2	1.6	0.98	0.61	17.9
6	R	2	0.0	0.054	87.4	LOS F	0.2	1.6	0.98	0.63	17.9
Approach		4	0.0	0.054	76.4	LOS F	0.2	1.6	0.90	0.62	19.3
North: TNR (N)											
7	L	2	0.0	0.002	14.3	LOS A	0.0	0.1	0.11	0.68	54.6
8	T	1499	5.0	0.830	16.1	LOS B	27.0	196.9	0.83	0.76	48.6
9	R	276	4.9	0.346	41.8	LOS C	5.4	39.4	0.83	0.79	33.9
Approach		1777	4.9	0.830	20.1	LOS B	27.0	196.9	0.83	0.76	45.6
West: Lowes Creek Link Rd (W)											
10	L	120	5.0	0.211	26.5	LOS B	3.5	25.3	0.43	0.69	35.0
11	T	1	0.0	0.003	53.8	LOS D	0.1	0.4	0.79	0.47	23.5
12	R	167	5.1	0.816	83.4	LOS F	12.7	92.5	1.00	0.89	18.4
Approach		288	5.0	0.816	59.6	LOS E	12.7	92.5	0.76	0.80	22.9
All Vehicles		3002	4.9	0.830	31.8	LOS C	27.0	196.9	0.81	0.76	37.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	66.3	LOS F	0.0	0.0	0.94	0.94
P3	Across E approach	10	42.6	LOS E	0.0	0.0	0.75	0.75
P5	Across N approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P7	Across W approach	10	46.4	LOS E	0.0	0.0	0.79	0.79
All Pedestrians		40	56.1	LOS E			0.86	0.86

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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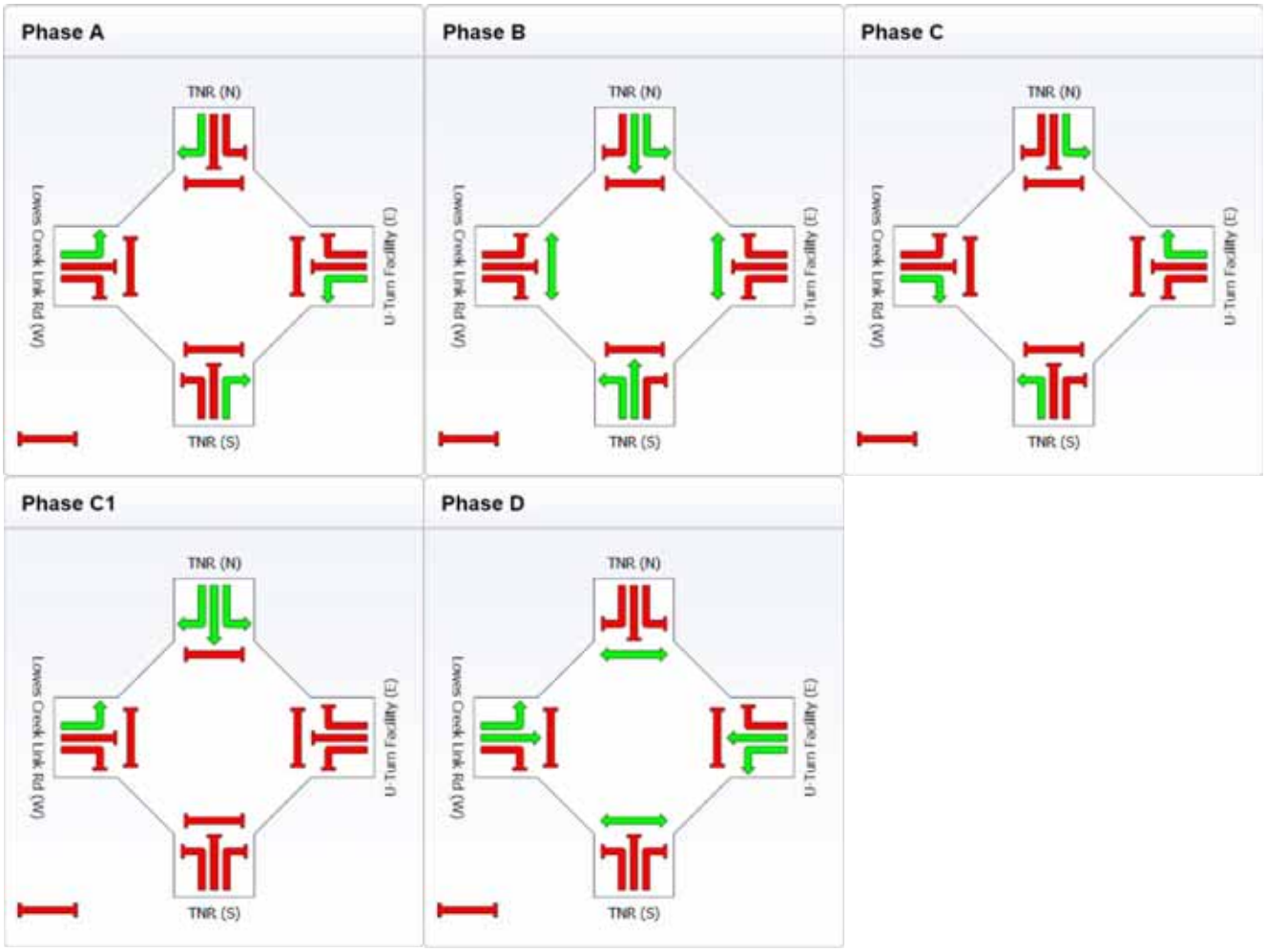
PHASING SUMMARY

Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	6	44	17	27	26
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	50	23	33	32
Phase Split	8 %	33 %	15 %	22 %	21 %



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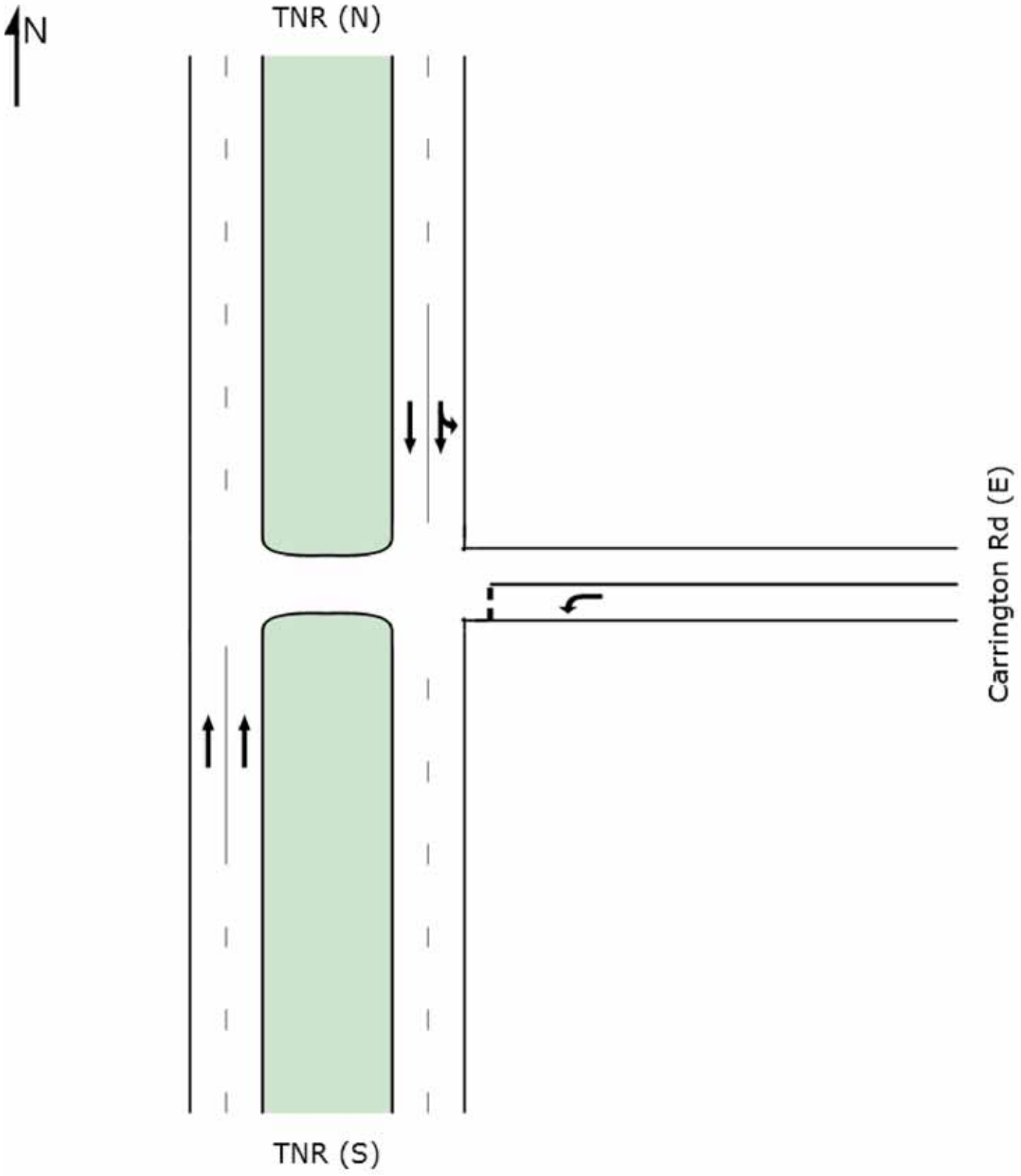
N
TNR (N)
Carrington Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Carrington Rd_AM

Carrington Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1843	5.0	0.488	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1843	5.0	0.488	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Carrington Rd (E)											
4	L	51	4.2	0.079	12.0	LOS A	0.3	2.1	0.53	0.78	45.2
Approach		51	4.2	0.079	12.0	LOS A	0.3	2.1	0.53	0.78	45.2
North: TNR (N)											
7	L	19	5.6	0.183	11.2	LOS A	0.0	0.0	0.00	1.31	58.9
8	T	672	5.0	0.183	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		691	5.0	0.183	0.3	NA	0.0	0.0	0.00	0.04	79.2
All Vehicles		2584	5.0	0.488	0.3	NA	0.3	2.1	0.01	0.02	78.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Carrington Rd_PM

Carrington Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	828	5.0	0.219	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		828	5.0	0.219	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Carrington Rd (E)											
4	L	68	4.6	0.470	42.8	LOS D	1.7	12.5	0.93	1.05	27.6
Approach		68	4.6	0.470	42.8	LOS D	1.7	12.5	0.93	1.05	27.6
North: TNR (N)											
7	L	20	5.3	0.458	11.2	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	1708	5.0	0.458	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1728	5.0	0.458	0.1	NA	0.0	0.0	0.00	0.02	79.7
All Vehicles		2625	5.0	0.470	1.2	NA	1.7	12.5	0.02	0.04	76.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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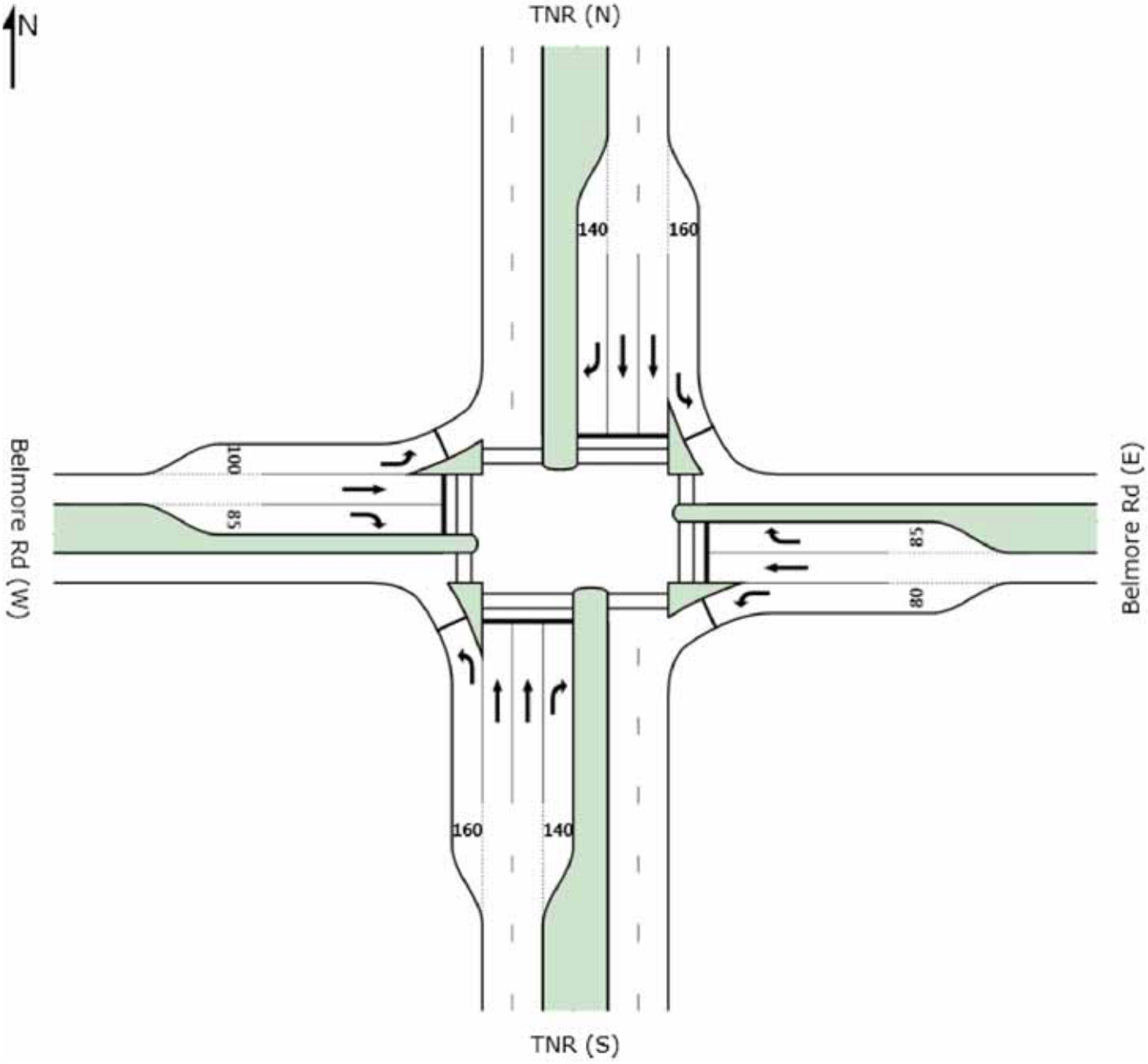
N
TNR (N)
140
160
Belmore Rd (W)
100
85
85
80
Belmore Rd (E)
160
140
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Belmore Rd_AM

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	17	6.3	0.014	13.9	LOS A	0.1	0.8	0.10	0.69	55.3
2	T	1813	5.0	0.800	14.0	LOS A	36.1	263.3	0.60	0.56	51.9
3	R	13	8.3	0.180	90.9	LOS F	0.9	7.0	0.98	0.68	20.2
Approach		1842	5.0	0.800	14.5	LOS B	36.1	263.3	0.60	0.56	51.4
East: Belmore Rd (E)											
4	L	8	0.0	0.112	86.2	LOS F	0.6	4.3	0.98	0.66	18.0
5	T	5	0.0	0.017	56.3	LOS D	0.3	2.1	0.81	0.54	22.8
6	R	16	5.3	0.218	87.6	LOS F	1.2	8.6	0.99	0.69	17.7
Approach		29	2.8	0.218	81.6	LOS F	1.2	8.6	0.95	0.66	18.5
North: TNR (N)											
7	L	12	9.1	0.010	14.0	LOS A	0.1	0.6	0.10	0.69	55.3
8	T	669	5.0	0.292	8.8	LOS A	6.2	45.5	0.28	0.25	60.4
9	R	23	4.5	0.319	91.7	LOS F	1.7	12.7	0.99	0.71	20.0
Approach		704	5.1	0.319	11.6	LOS A	6.2	45.5	0.30	0.27	56.6
West: Belmore Rd (W)											
10	L	23	3.8	0.063	54.2	LOS D	1.2	8.4	0.72	0.69	24.3
11	T	5	0.0	0.017	56.3	LOS D	0.3	2.1	0.81	0.54	22.8
12	R	14	7.7	0.192	87.5	LOS F	1.0	7.6	0.98	0.69	17.7
Approach		42	4.6	0.192	65.3	LOS E	1.2	8.4	0.82	0.67	21.6
All Vehicles		2618	5.0	0.800	15.3	LOS B	36.1	263.3	0.53	0.49	50.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	16.3	LOS B	0.0	0.0	0.47	0.47
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	16.3	LOS B	0.0	0.0	0.47	0.47
All Pedestrians		40	42.2	LOS E			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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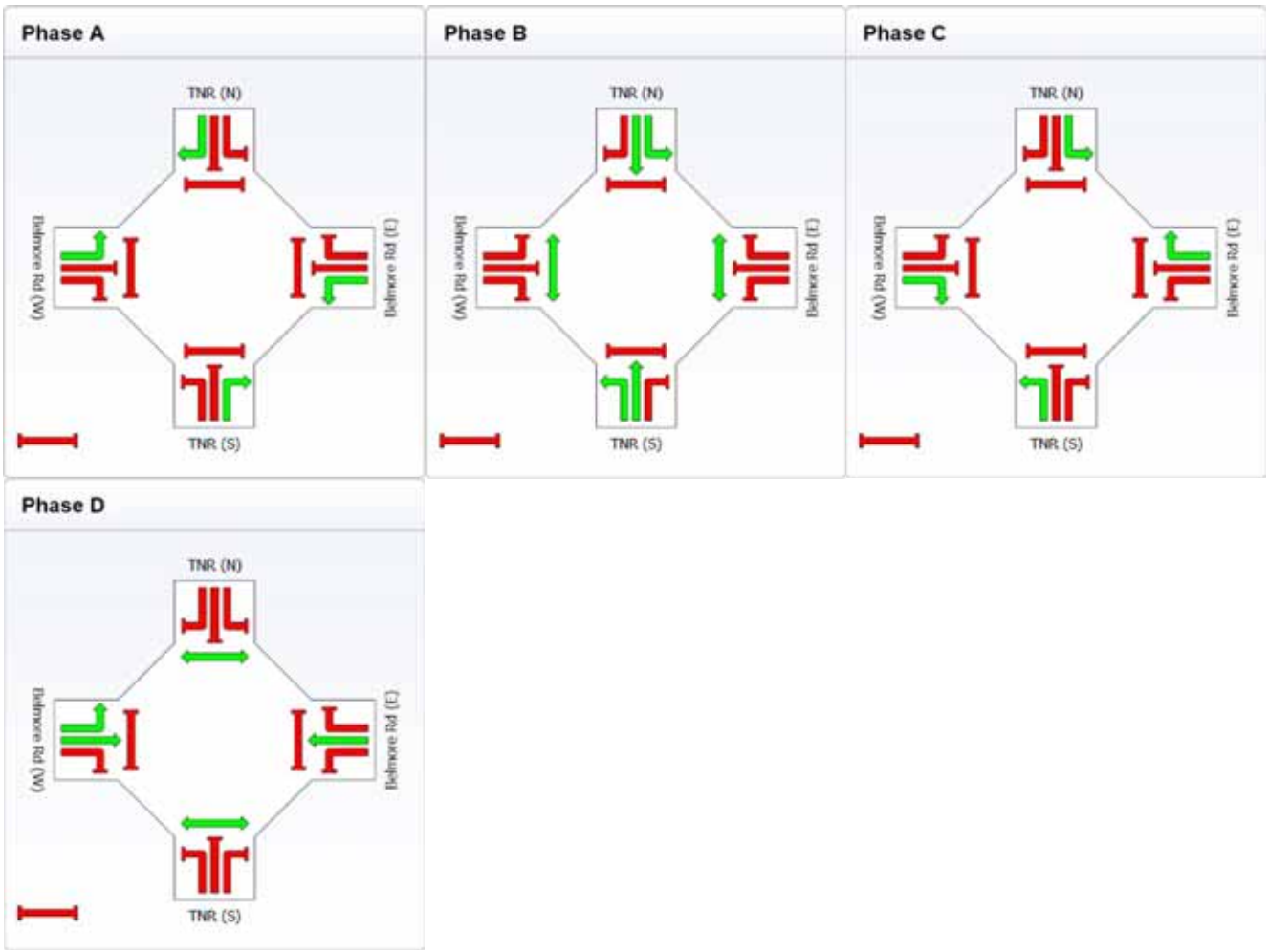
PHASING SUMMARY

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	6	90	6	24
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	12	96	12	30
Phase Split	8 %	64 %	8 %	20 %



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MOVEMENT SUMMARY

Site: 2026_Belmore Rd_PM

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	15	6.3	0.014	18.5	LOS B	0.2	1.6	0.21	0.70	50.2
2	T	792	5.0	0.403	16.9	LOS B	12.1	88.1	0.46	0.40	49.6
3	R	23	8.3	0.330	92.0	LOS F	1.7	13.1	1.00	0.71	20.0
Approach		829	5.1	0.403	19.1	LOS B	12.1	88.1	0.47	0.42	47.7
East: Belmore Rd (E)											
4	L	13	0.0	0.040	53.6	LOS D	0.6	4.4	0.71	0.67	24.5
5	T	5	0.0	0.017	56.3	LOS D	0.3	2.1	0.81	0.54	22.8
6	R	9	5.3	0.065	47.5	LOS D	0.4	3.1	0.92	0.67	26.2
Approach		27	1.8	0.065	52.0	LOS D	0.6	4.4	0.80	0.65	24.7
North: TNR (N)											
7	L	21	9.1	0.018	14.1	LOS A	0.1	1.1	0.10	0.69	55.3
8	T	1697	5.0	0.741	13.1	LOS A	29.9	218.2	0.53	0.50	53.3
9	R	26	4.5	0.121	75.3	LOS F	1.7	12.1	0.89	0.73	23.1
Approach		1744	5.1	0.741	14.1	LOS A	29.9	218.2	0.53	0.50	52.3
West: Belmore Rd (W)											
10	L	21	3.8	0.058	54.1	LOS D	1.0	7.6	0.72	0.69	24.3
11	T	5	0.0	0.017	56.3	LOS D	0.3	2.1	0.81	0.54	22.8
12	R	16	7.7	0.222	87.8	LOS F	1.2	8.8	0.99	0.69	17.7
Approach		42	4.8	0.222	67.0	LOS E	1.2	8.8	0.83	0.67	21.2
All Vehicles		2643	5.0	0.741	16.9	LOS B	29.9	218.2	0.52	0.48	49.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	22.4	LOS C	0.0	0.0	0.55	0.55
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	22.4	LOS C	0.0	0.0	0.55	0.55
All Pedestrians		40	45.3	LOS E			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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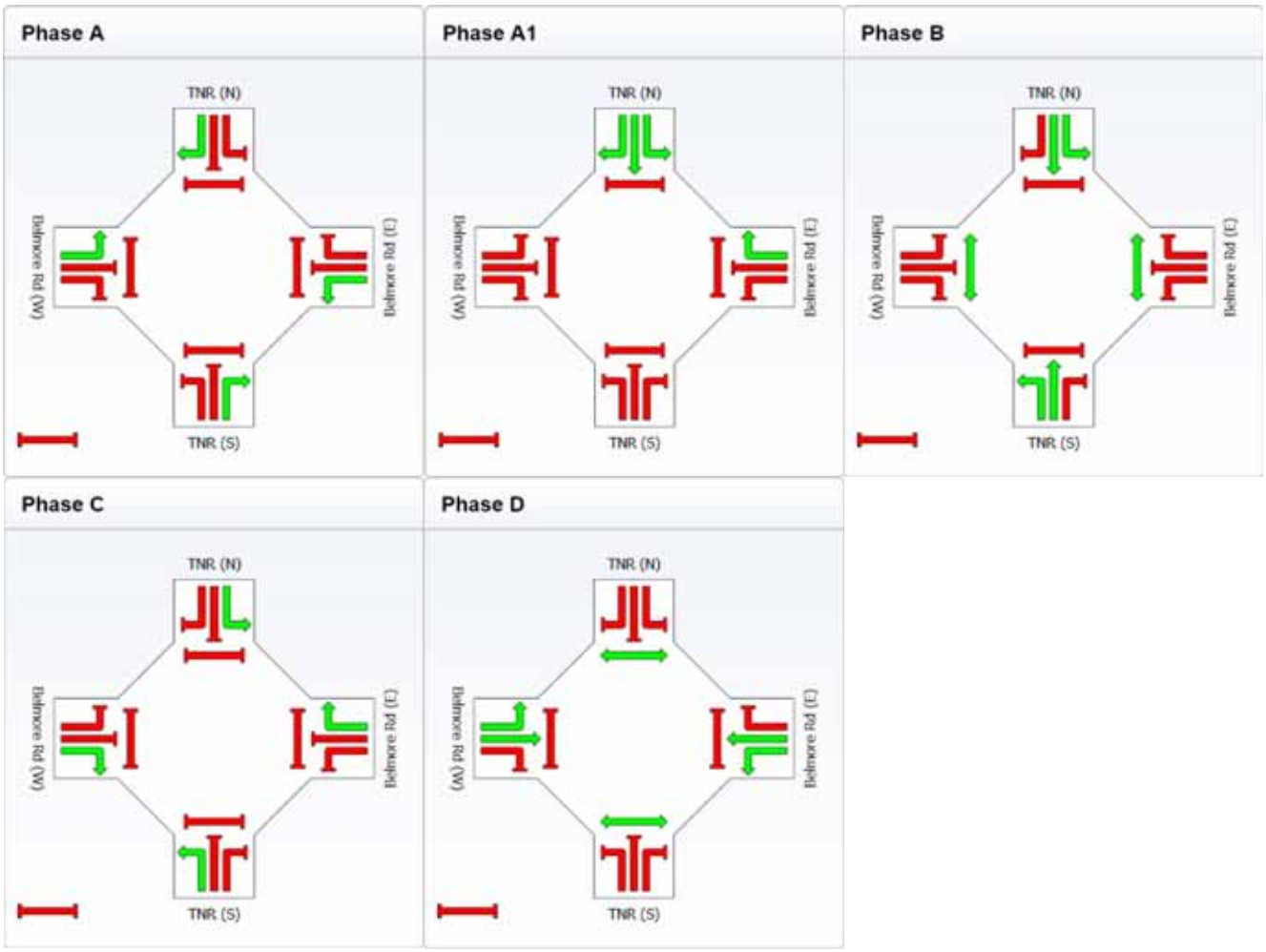
PHASING SUMMARY

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	6	78	6	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	12	84	12	30
Phase Split	8 %	8 %	56 %	8 %	20 %



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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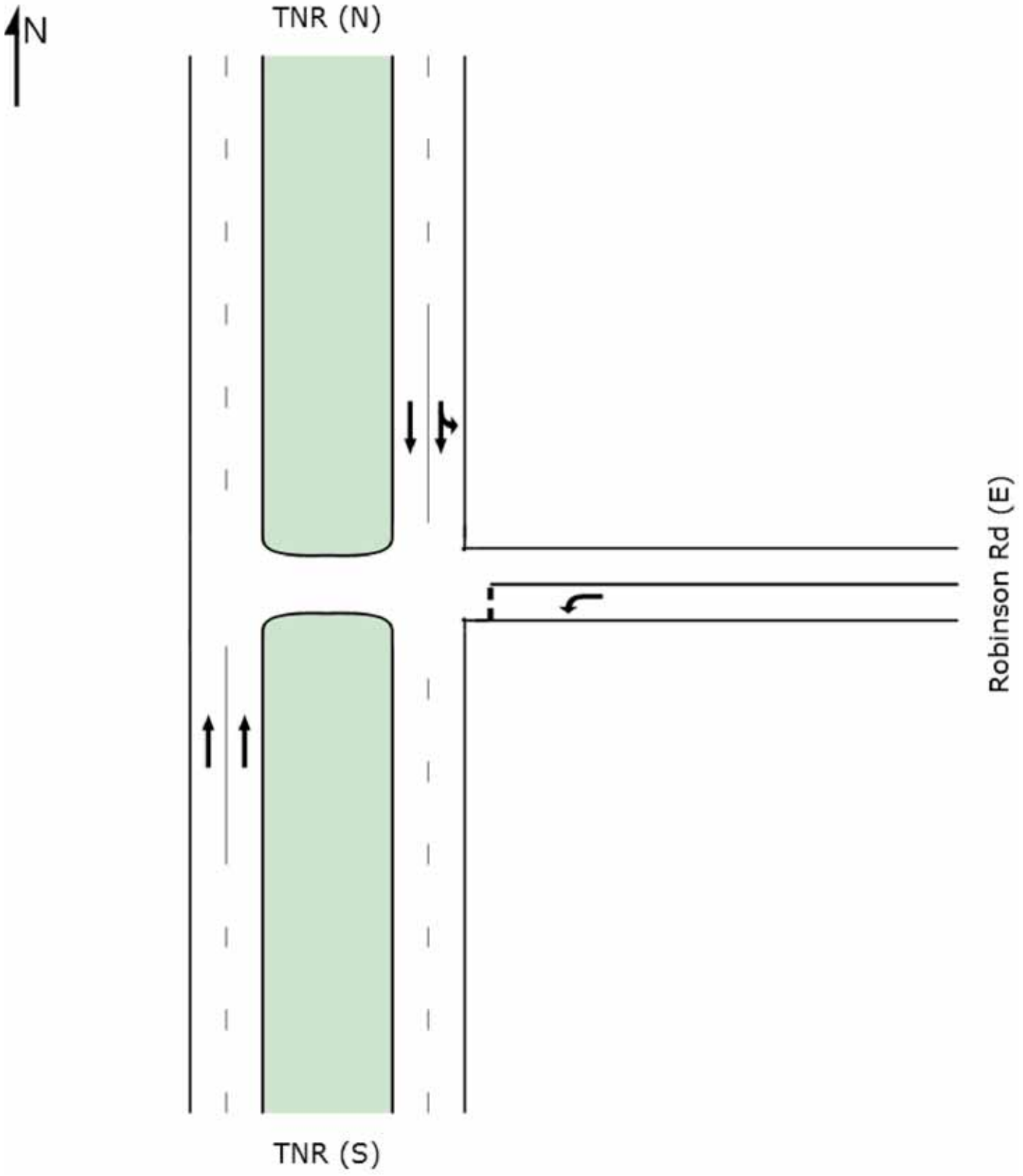
N
TNR (N)
Robinson Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Robinson Rd_AM

Robinson Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1861	5.0	0.493	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1861	5.0	0.493	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Robinson Rd (E)											
4	L	6	0.0	0.010	11.7	LOS A	0.0	0.3	0.52	0.70	45.3
Approach		6	0.0	0.010	11.7	LOS A	0.0	0.3	0.52	0.70	45.3
North: TNR (N)											
7	L	3	0.0	0.185	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	697	5.0	0.185	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		700	5.0	0.185	0.0	NA	0.0	0.0	0.00	0.01	79.9
All Vehicles		2567	5.0	0.493	0.0	NA	0.0	0.3	0.00	0.00	79.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Robinson Rd_PM

Robinson Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	825	5.0	0.218	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		825	5.0	0.218	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Robinson Rd (E)											
4	L	13	8.3	0.100	36.3	LOS C	0.3	2.2	0.90	0.97	30.1
Approach		13	8.3	0.100	36.3	LOS C	0.3	2.2	0.90	0.97	30.1
North: TNR (N)											
7	L	3	0.0	0.459	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	1732	5.0	0.459	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1735	5.0	0.459	0.0	NA	0.0	0.0	0.00	0.00	79.9
All Vehicles		2573	5.0	0.459	0.2	NA	0.3	2.2	0.00	0.01	79.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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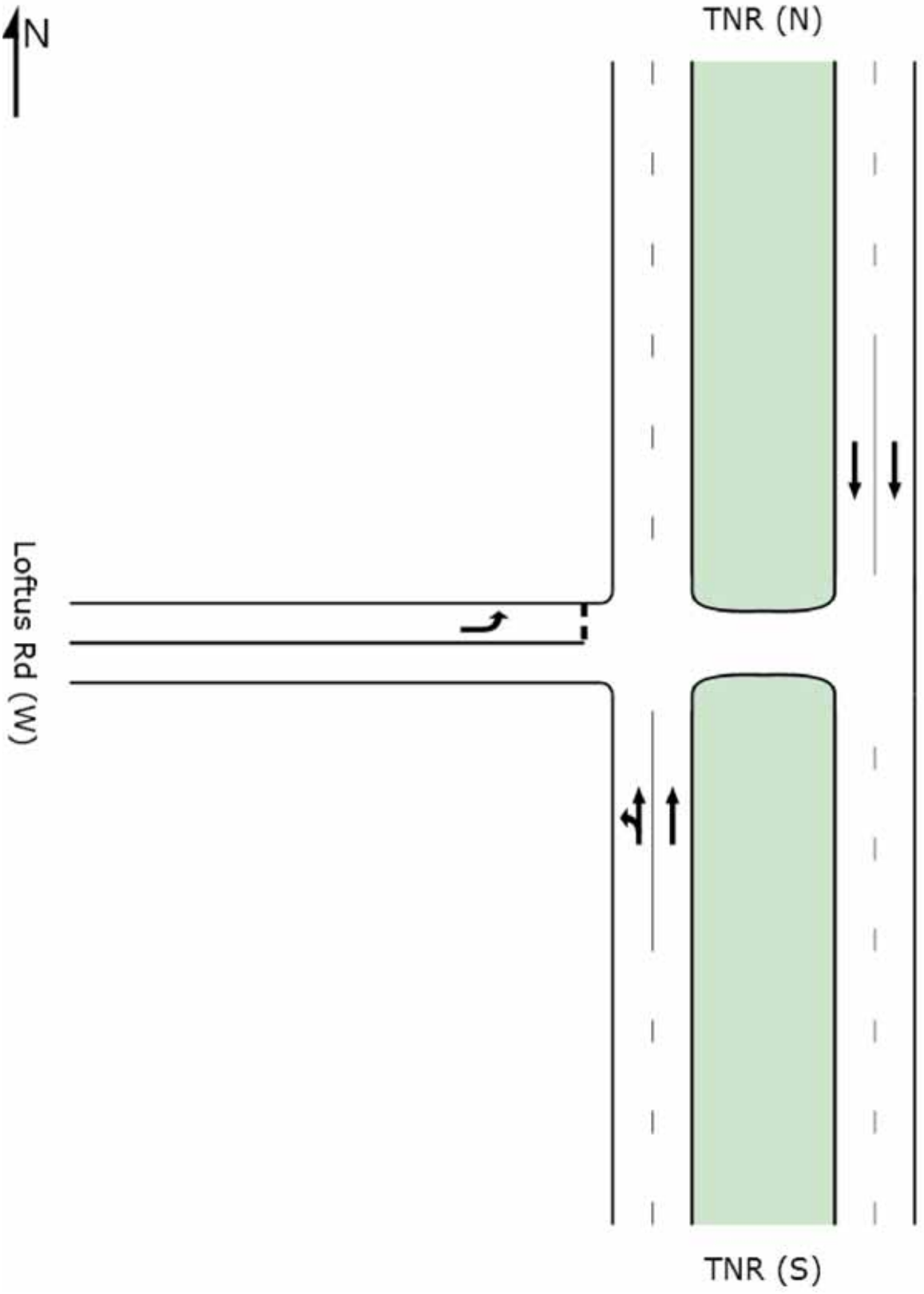
N
TNR (N)
Loftus Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Loftus Rd_AM

Loftus Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	23	4.5	0.493	11.1	LOS A	0.0	0.0	0.00	1.34	58.9
2	T	1838	5.0	0.493	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1861	5.0	0.493	0.1	NA	0.0	0.0	0.00	0.02	79.7
North: TNR (N)											
8	T	700	5.0	0.185	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		700	5.0	0.185	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Loftus Rd (W)											
10	L	17	6.3	0.154	41.2	LOS C	0.5	3.4	0.92	0.98	28.1
Approach		17	6.3	0.154	41.2	LOS C	0.5	3.4	0.92	0.98	28.1
All Vehicles		2578	5.0	0.493	0.4	NA	0.5	3.4	0.01	0.02	78.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Loftus Rd_PM

Loftus Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	36	5.9	0.219	11.2	LOS A	0.0	0.0	0.00	1.27	58.9
2	T	791	5.1	0.219	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		826	5.1	0.219	0.5	NA	0.0	0.0	0.00	0.06	78.8
North: TNR (N)											
8	T	1736	5.0	0.459	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1736	5.0	0.459	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Loftus Rd (W)											
10	L	20	5.3	0.036	12.8	LOS A	0.1	0.9	0.56	0.77	44.4
Approach		20	5.3	0.036	12.8	LOS A	0.1	0.9	0.56	0.77	44.4
All Vehicles		2582	5.0	0.459	0.3	NA	0.1	0.9	0.00	0.02	79.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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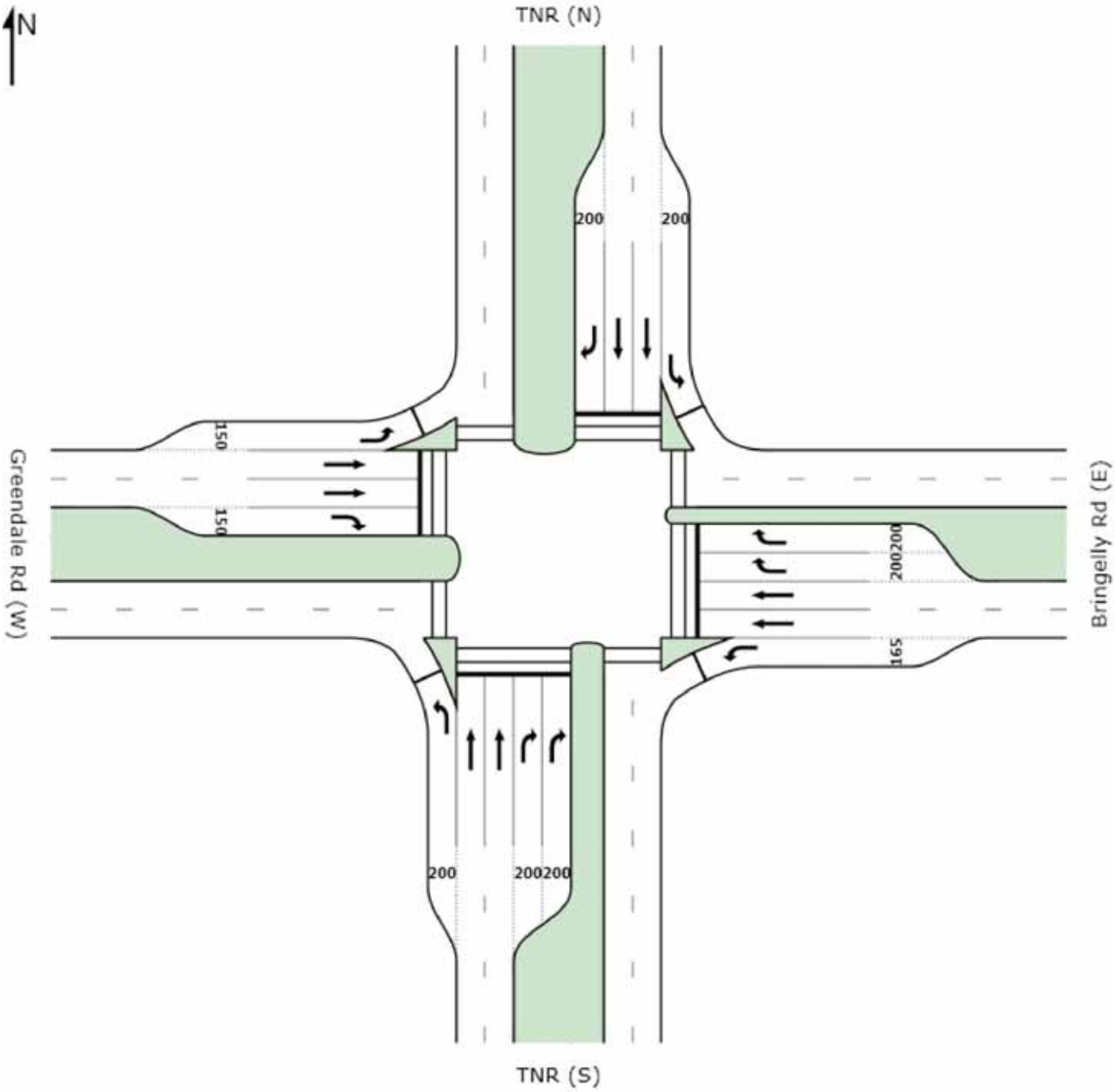
N
TNR (N)
200
200
150
150
Greendale Rd (W)
200200
165
Bringelly Rd (E)
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Bringelly Rd / Greendale Rd_AM

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	203	5.2	0.170	15.4	LOS B	2.0	14.9	0.15	0.71	53.6
2	T	1411	5.0	0.702	20.4	LOS B	29.7	217.1	0.64	0.58	45.7
3	R	241	4.8	0.181	42.9	LOS D	4.9	35.4	0.59	0.77	33.5
Approach		1855	5.0	0.702	22.8	LOS B	29.7	217.1	0.58	0.62	44.3
East: Bringelly Rd (E)											
4	L	91	4.7	0.088	19.7	LOS B	1.5	10.9	0.25	0.72	48.9
5	T	146	5.0	0.213	56.4	LOS D	4.3	31.3	0.84	0.65	27.2
6	R	225	5.1	0.667	85.1	LOS F	8.2	59.9	1.00	0.81	21.2
Approach		462	5.0	0.667	63.2	LOS E	8.2	59.9	0.80	0.74	25.9
North: TNR (N)											
7	L	174	4.8	0.287	48.8	LOS D	8.0	58.3	0.68	0.79	31.0
8	T	494	4.9	0.646	59.6	LOS E	16.1	117.4	0.94	0.79	26.2
9	R	23	4.5	0.319	91.7	LOS F	1.7	12.7	0.99	0.71	20.1
Approach		691	4.9	0.646	58.0	LOS E	16.1	117.4	0.88	0.79	27.0
West: Greendale Rd (W)											
10	L	23	4.5	0.049	55.2	LOS D	1.1	8.1	0.69	0.72	28.7
11	T	243	5.2	0.354	58.2	LOS E	7.4	54.2	0.87	0.70	26.7
12	R	115	4.6	0.677	85.2	LOS F	8.4	60.9	1.00	0.81	21.3
Approach		381	5.0	0.677	66.1	LOS E	8.4	60.9	0.90	0.74	24.9
All Vehicles		3388	5.0	0.702	40.3	LOS C	29.7	217.1	0.71	0.68	33.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	63.5	LOS F	0.0	0.0	0.92	0.92
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	60.8	LOS F	0.0	0.0	0.90	0.90
All Pedestrians		40	64.4	LOS F			0.93	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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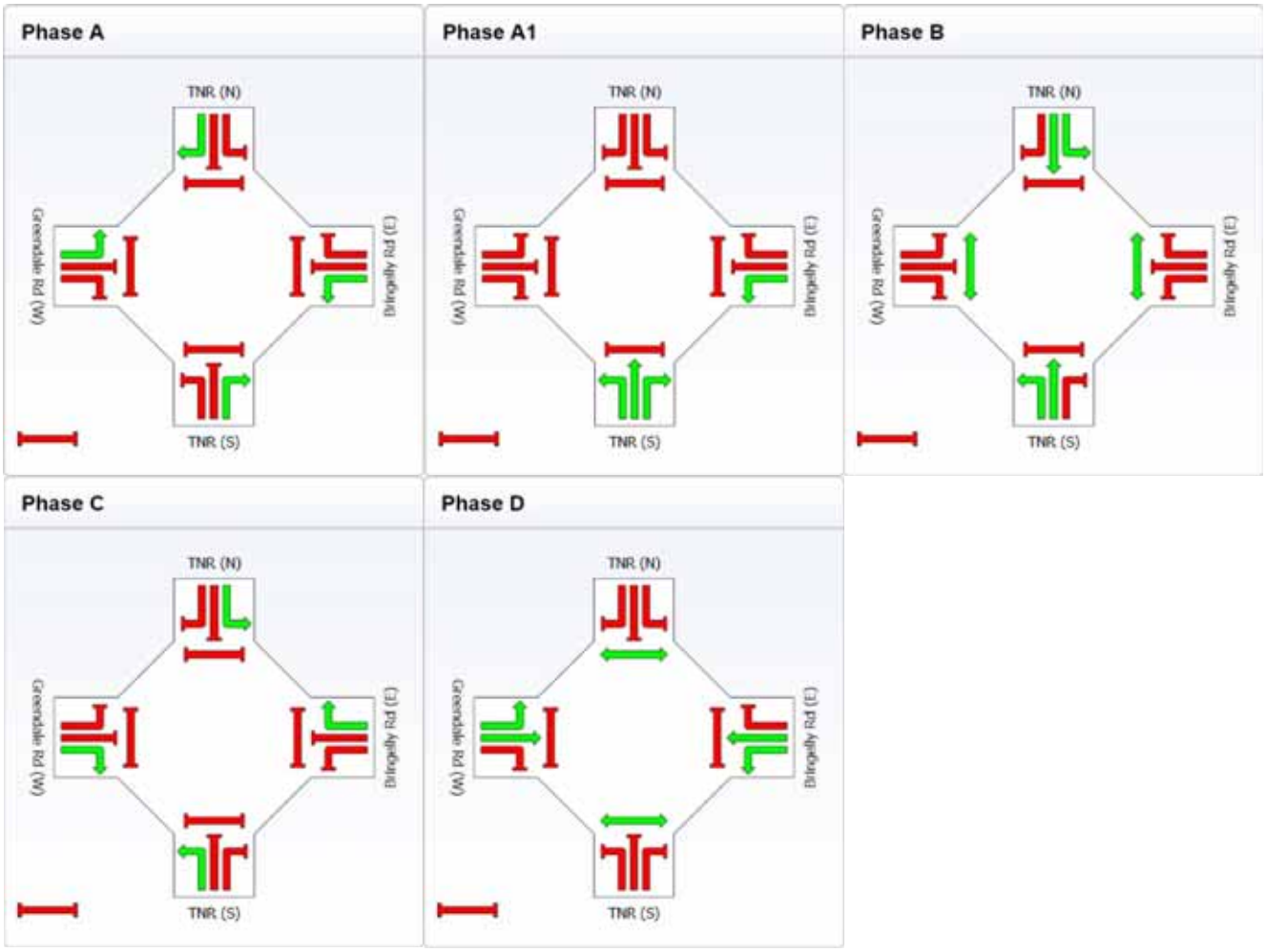
PHASING SUMMARY

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	43	30	14	27
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	49	36	20	33
Phase Split	8 %	33 %	24 %	13 %	22 %



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MOVEMENT SUMMARY

Site: 2026_Bringelly Rd / Greendale Rd_PM

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	106	5.2	0.071	11.7	LOS A	0.3	2.2	0.06	0.69	58.1
2	T	583	5.0	0.314	19.3	LOS B	9.2	67.2	0.47	0.41	47.3
3	R	122	4.8	0.721	93.6	LOS F	4.7	34.6	1.00	0.80	19.8
Approach		812	5.0	0.721	29.5	LOS C	9.2	67.2	0.50	0.50	40.0
East: Bringelly Rd (E)											
4	L	217	4.7	0.448	60.3	LOS E	12.1	88.2	0.81	0.81	27.1
5	T	220	5.0	0.320	57.8	LOS E	6.6	48.5	0.87	0.69	26.8
6	R	196	5.1	0.427	77.6	LOS F	6.5	47.8	0.94	0.78	22.7
Approach		633	4.9	0.448	64.8	LOS E	12.1	88.2	0.87	0.76	25.5
North: TNR (N)											
7	L	228	4.8	0.193	15.8	LOS B	2.5	18.4	0.17	0.72	53.0
8	T	1349	4.9	0.726	25.4	LOS B	32.2	235.1	0.72	0.65	41.5
9	R	36	4.5	0.422	90.8	LOS F	2.7	19.5	1.00	0.73	20.2
Approach		1614	4.9	0.726	25.5	LOS B	32.2	235.1	0.65	0.66	41.9
West: Greendale Rd (W)											
10	L	22	4.5	0.046	54.4	LOS D	1.0	7.6	0.68	0.72	29.0
11	T	171	5.2	0.249	56.9	LOS E	5.0	36.9	0.85	0.67	27.1
12	R	169	4.6	0.736	82.1	LOS F	12.2	89.1	1.00	0.84	21.9
Approach		362	4.9	0.736	68.5	LOS E	12.2	89.1	0.91	0.75	24.5
All Vehicles		3420	4.9	0.736	38.3	LOS C	32.2	235.1	0.68	0.65	34.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	30.1	LOS D	0.0	0.0	0.63	0.63
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	28.2	LOS C	0.0	0.0	0.61	0.61
All Pedestrians		40	47.9	LOS E			0.78	0.78

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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N
TNR (N)
Thames Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Thames Rd_AM

Thames Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	1	0.0	0.439	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
2	T	1657	5.0	0.439	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1658	5.0	0.439	0.0	NA	0.0	0.0	0.00	0.00	80.0
North: TNR (N)											
8	T	691	5.0	0.183	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		691	5.0	0.183	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Thames Rd (E)											
10	L	3	0.0	0.020	29.1	LOS C	0.1	0.4	0.87	0.96	33.3
Approach		3	0.0	0.020	29.1	LOS C	0.1	0.4	0.87	0.96	33.3
All Vehicles		2352	5.0	0.439	0.0	NA	0.1	0.4	0.00	0.00	79.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Thames Rd_PM

Thames Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	2	0.0	0.212	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
2	T	799	5.0	0.212	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		801	5.0	0.212	0.0	NA	0.0	0.0	0.00	0.00	79.9
North: TNR (N)											
8	T	1614	5.0	0.427	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1614	5.0	0.427	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Thames Rd (E)											
10	L	3	0.0	0.006	12.5	LOS A	0.0	0.1	0.55	0.69	44.6
Approach		3	0.0	0.006	12.5	LOS A	0.0	0.1	0.55	0.69	44.6
All Vehicles		2418	5.0	0.427	0.0	NA	0.0	0.1	0.00	0.00	79.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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N
TNR (N)
Solway Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Solway Rd_AM

Solway Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	1	0.0	0.440	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
2	T	1659	5.0	0.440	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1660	5.0	0.440	0.0	NA	0.0	0.0	0.00	0.00	80.0
North: TNR (N)											
8	T	673	5.0	0.178	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		673	5.0	0.178	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Solway Rd (W)											
10	L	3	0.0	0.020	29.2	LOS C	0.1	0.4	0.87	0.96	33.2
Approach		3	0.0	0.020	29.2	LOS C	0.1	0.4	0.87	0.96	33.2
All Vehicles		2336	5.0	0.440	0.0	NA	0.1	0.4	0.00	0.00	79.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Solway Rd_PM

Solway Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	2	0.0	0.212	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
2	T	800	5.0	0.212	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		802	5.0	0.212	0.0	NA	0.0	0.0	0.00	0.00	79.9
North: TNR (N)											
8	T	1597	5.0	0.423	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1597	5.0	0.423	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Solway Rd (W)											
10	L	3	0.0	0.006	12.5	LOS A	0.0	0.1	0.55	0.70	44.6
Approach		3	0.0	0.006	12.5	LOS A	0.0	0.1	0.55	0.70	44.6
All Vehicles		2402	5.0	0.423	0.0	NA	0.0	0.1	0.00	0.00	79.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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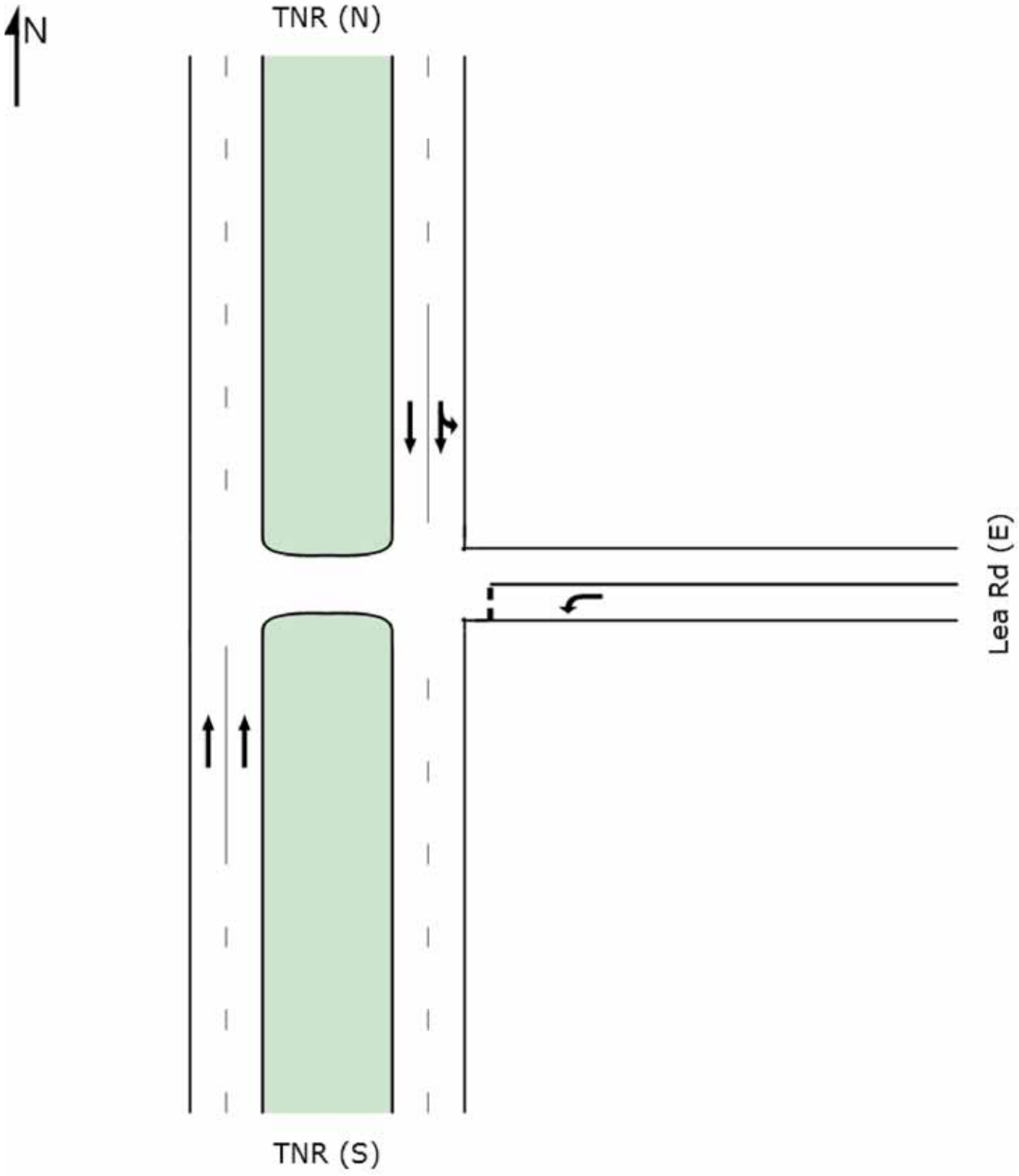
N
TNR (N)
Lea Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Lea Rd_AM

Lea Rd
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1659	5.0	0.439	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1659	5.0	0.439	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Lea Rd (E)											
4	L	19	5.6	0.030	11.9	LOS A	0.1	0.8	0.52	0.74	45.3
Approach		19	5.6	0.030	11.9	LOS A	0.1	0.8	0.52	0.74	45.3
North: TNR (N)											
7	L	6	0.0	0.180	10.9	LOS A	0.0	0.0	0.00	1.33	58.9
8	T	673	5.0	0.180	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		679	5.0	0.180	0.1	NA	0.0	0.0	0.00	0.01	79.7
All Vehicles		2357	5.0	0.439	0.1	NA	0.1	0.8	0.00	0.01	79.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Lea Rd_PM

Lea Rd
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	825	5.0	0.218	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		825	5.0	0.218	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Lea Rd (E)											
4	L	13	8.3	0.100	36.3	LOS C	0.3	2.2	0.90	0.97	30.1
Approach		13	8.3	0.100	36.3	LOS C	0.3	2.2	0.90	0.97	30.1
North: TNR (N)											
7	L	3	0.0	0.459	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	1732	5.0	0.459	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1735	5.0	0.459	0.0	NA	0.0	0.0	0.00	0.00	79.9
All Vehicles		2573	5.0	0.459	0.2	NA	0.3	2.2	0.00	0.01	79.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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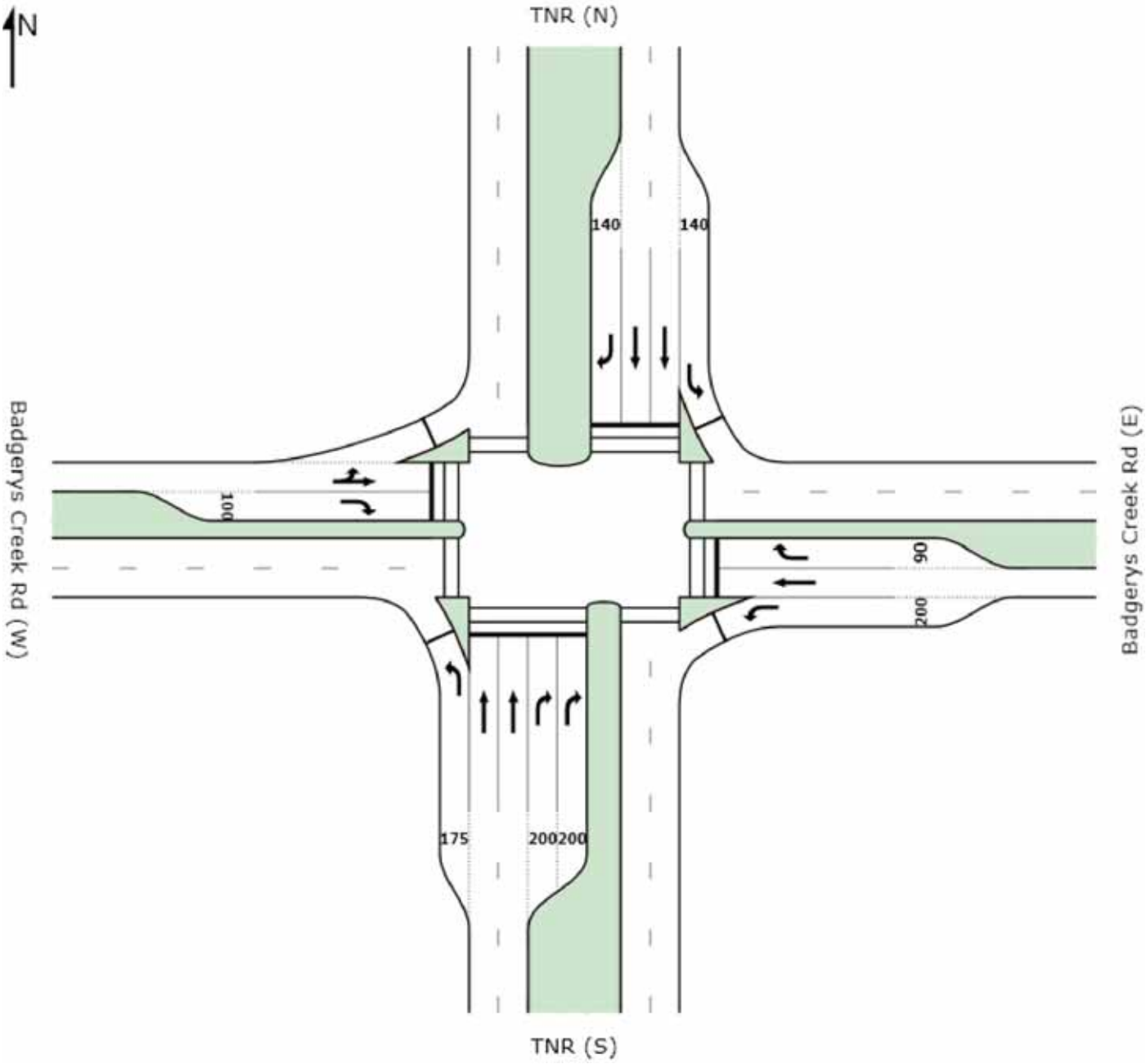
N
TNR (N)
140
140
Badgerys Creek Rd (W)
100
90
200
Badgerys Creek Rd (E)
175
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Badgerys Creek Rd_AM

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	11	0.0	0.009	14.7	LOS B	0.1	0.6	0.13	0.69	54.1
2	T	1035	5.0	0.474	11.9	LOS A	13.3	96.8	0.39	0.35	55.5
3	R	623	5.1	0.504	50.4	LOS D	15.8	115.7	0.75	0.82	30.3
Approach		1668	5.0	0.504	26.3	LOS B	15.8	115.7	0.52	0.53	42.4
East: Badgerys Creek Rd (E)											
4	L	155	5.0	0.151	18.1	LOS B	3.0	22.2	0.29	0.67	40.3
5	T	11	0.0	0.030	53.8	LOS D	0.6	4.1	0.79	0.55	23.5
6	R	9	4.8	0.131	86.7	LOS F	0.7	5.1	0.98	0.67	17.9
Approach		175	4.7	0.151	24.0	LOS B	3.0	22.2	0.36	0.66	36.3
North: TNR (N)											
7	L	25	9.1	0.046	42.8	LOS D	1.0	7.3	0.56	0.72	33.6
8	T	522	5.0	0.500	49.1	LOS D	14.8	107.8	0.83	0.70	29.6
9	R	11	0.0	0.140	89.9	LOS F	0.8	5.4	0.98	0.68	20.3
Approach		558	5.0	0.500	49.6	LOS D	14.8	107.8	0.82	0.70	29.5
West: Badgerys Creek Rd (W)											
10	L	11	0.0	0.057	60.1	LOS E	1.1	8.0	0.78	0.72	23.1
11	T	11	0.0	0.057	52.6	LOS D	1.1	8.0	0.78	0.57	23.4
12	R	11	0.0	0.140	86.5	LOS F	0.8	5.4	0.98	0.67	17.9
Approach		32	0.0	0.140	66.4	LOS E	1.1	8.0	0.85	0.65	21.2
All Vehicles		2433	4.9	0.504	32.0	LOS C	15.8	115.7	0.58	0.58	37.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	48.8	LOS E	0.0	0.0	0.81	0.81
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	48.8	LOS E	0.0	0.0	0.81	0.81
All Pedestrians		40	57.8	LOS E			0.87	0.87

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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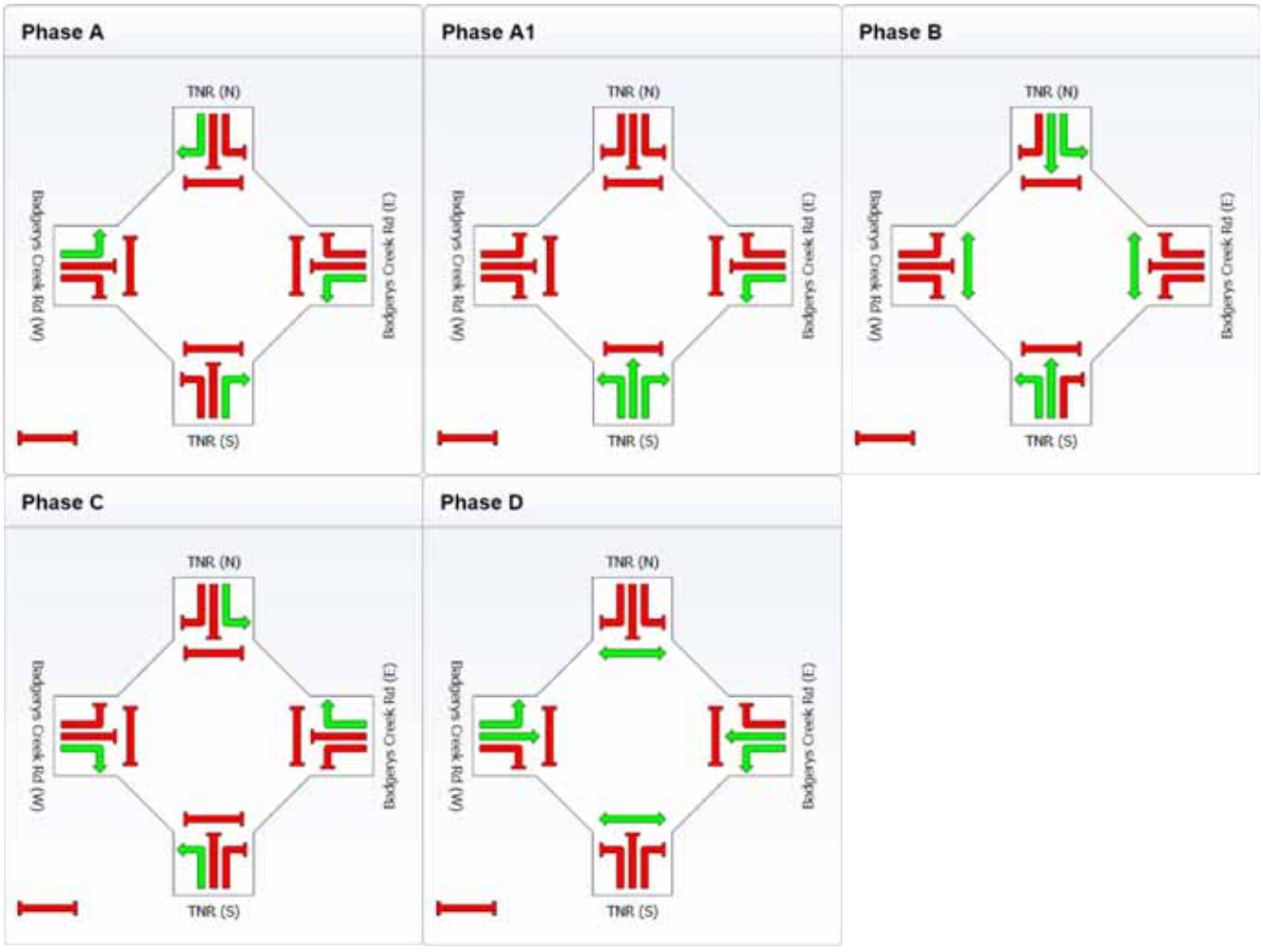
PHASING SUMMARY

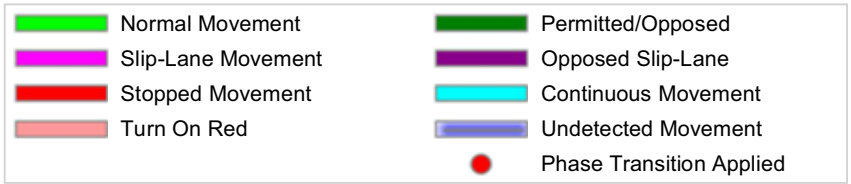
Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	40	41	6	27
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	46	47	12	33
Phase Split	8 %	31 %	31 %	8 %	22 %





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MOVEMENT SUMMARY

Site: 2026_Badgerys Creek Rd_PM

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	11	0.0	0.009	14.7	LOS B	0.1	0.6	0.13	0.69	54.1
2	T	654	5.0	0.263	4.5	LOS A	3.6	26.6	0.17	0.15	68.4
3	R	144	5.1	0.112	42.8	LOS D	2.8	20.8	0.58	0.76	33.4
Approach		808	4.9	0.263	11.4	LOS A	3.6	26.6	0.24	0.26	57.6
East: Badgerys Creek Rd (E)											
4	L	693	5.0	0.700	22.5	LOS B	23.0	167.8	0.53	0.77	37.4
5	T	5	0.0	0.015	53.5	LOS D	0.3	2.0	0.78	0.52	23.6
6	R	22	4.8	0.086	64.0	LOS E	1.3	9.3	0.81	0.71	21.9
Approach		720	5.0	0.700	24.0	LOS B	23.0	167.8	0.54	0.76	36.4
North: TNR (N)											
7	L	12	9.1	0.022	44.2	LOS D	0.5	3.4	0.57	0.70	33.0
8	T	914	5.0	0.704	43.6	LOS D	26.6	194.2	0.86	0.76	31.6
9	R	11	0.0	0.140	89.9	LOS F	0.8	5.4	0.98	0.68	20.3
Approach		936	4.9	0.704	44.2	LOS D	26.6	194.2	0.86	0.76	31.4
West: Badgerys Creek Rd (W)											
10	L	11	0.0	0.057	60.1	LOS E	1.1	8.0	0.78	0.72	23.1
11	T	11	0.0	0.057	52.6	LOS D	1.1	8.0	0.78	0.57	23.4
12	R	11	0.0	0.199	91.1	LOS F	0.8	5.7	1.00	0.66	17.3
Approach		32	0.0	0.199	67.9	LOS E	1.1	8.0	0.85	0.65	20.9
All Vehicles		2496	4.9	0.704	28.0	LOS B	26.6	194.2	0.57	0.60	38.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	41.1	LOS E	0.0	0.0	0.74	0.74
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	41.1	LOS E	0.0	0.0	0.74	0.74
All Pedestrians		40	53.9	LOS E			0.84	0.84

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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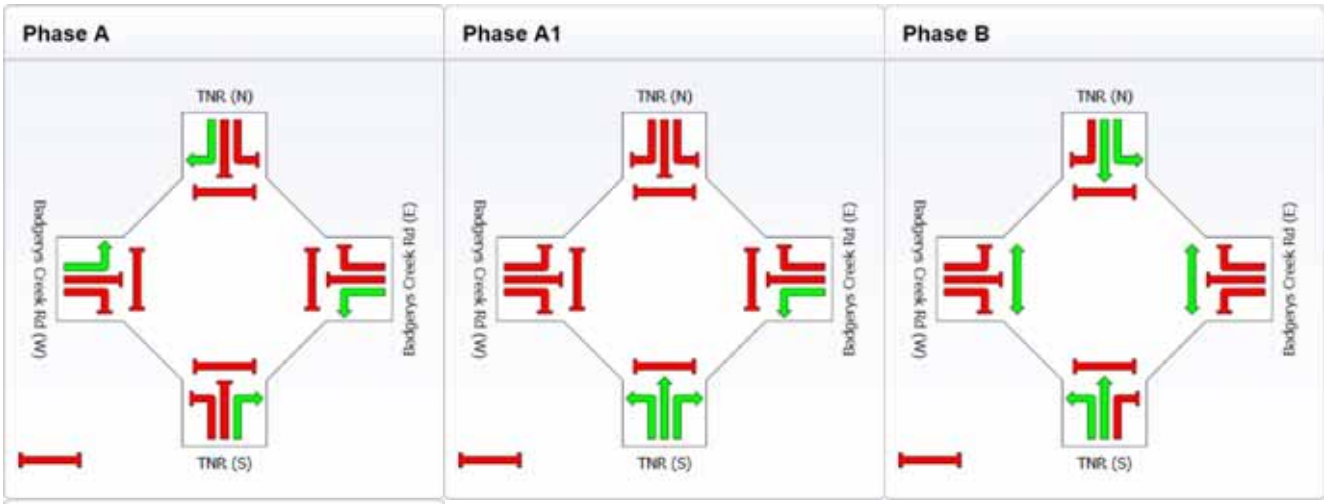
PHASING SUMMARY

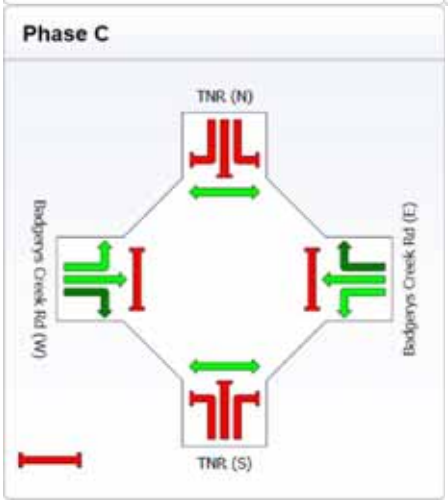
Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Split Phasing
Input Sequence: A, A1, B, C
Output Sequence: A, A1, B, C

Phase Timing Results

Phase	A	A1	B	C
Green Time (sec)	6	42	51	27
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	12	48	57	33
Phase Split	8 %	32 %	38 %	22 %





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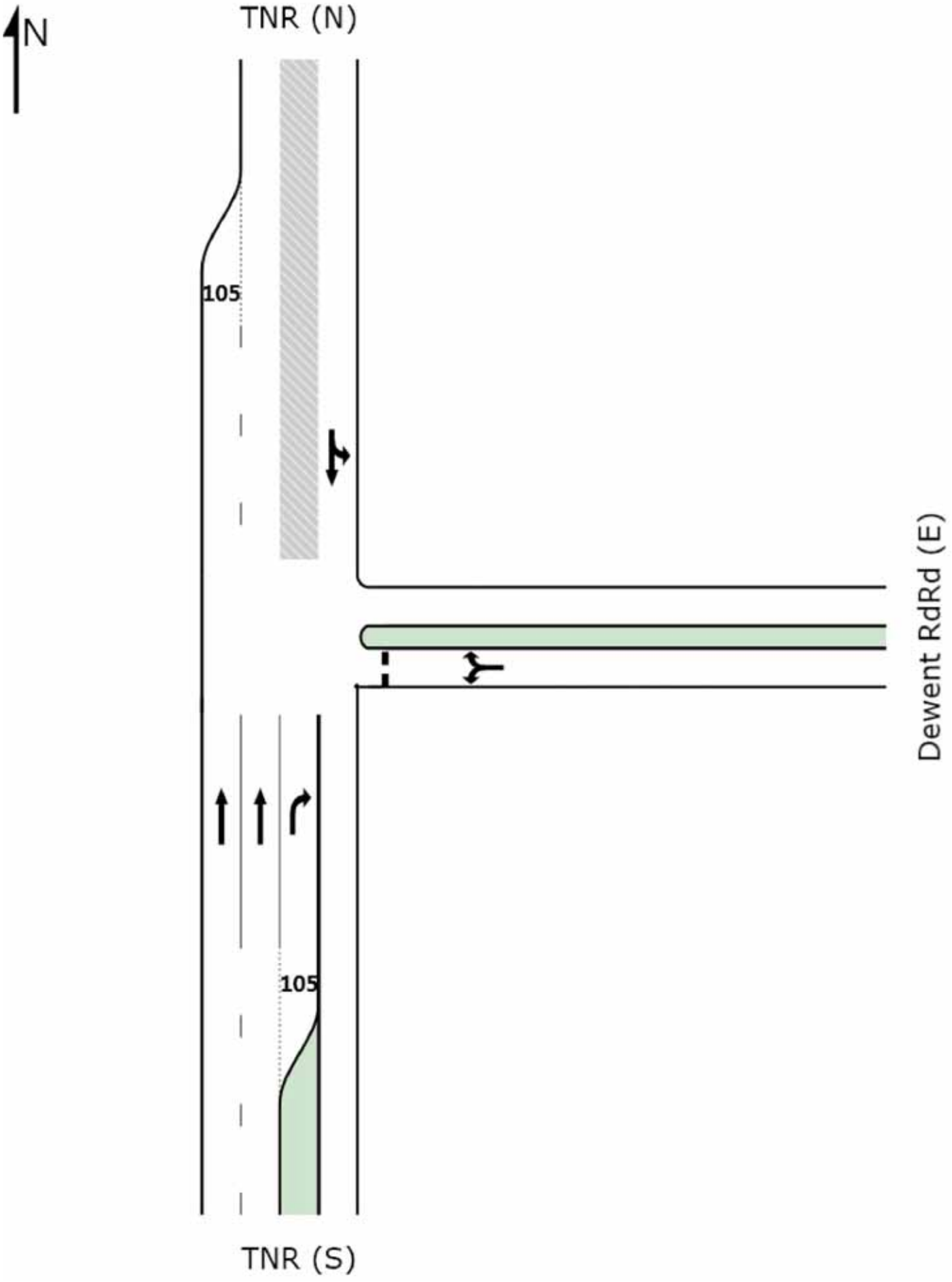
N
TNR (N)
105
Dewent RdRd (E)
105
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Derwent Rd_AM

Derwent Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	987	5.0	0.335	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	55	5.1	0.070	13.9	LOS A	0.3	1.9	0.52	0.80	55.2
Approach		1042	5.0	0.335	0.7	NA	0.3	1.9	0.03	0.04	78.2
East: Dewent RdRd (E)											
4	L	28	5.0	0.162	24.0	LOS B	0.5	3.5	0.74	0.90	36.2
6	R	5	4.8	0.162	24.1	LOS B	0.5	3.5	0.74	0.92	36.2
Approach		34	5.0	0.162	24.0	LOS B	0.5	3.5	0.74	0.90	36.2
North: TNR (N)											
7	L	16	9.1	0.279	11.4	LOS A	0.0	0.0	0.00	1.36	58.9
8	T	511	5.0	0.279	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		526	5.1	0.279	0.3	NA	0.0	0.0	0.00	0.04	79.2
All Vehicles		1602	5.0	0.335	1.1	NA	0.5	3.5	0.03	0.06	76.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Derwent Rd_PM

Derwent Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	633	5.0	0.215	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
3	R	33	5.1	0.075	18.1	LOS B	0.2	1.8	0.71	0.92	50.4
Approach		665	5.0	0.215	0.9	NA	0.2	1.8	0.03	0.05	77.8
East: Dewent RdRd (E)											
4	L	55	5.0	0.531	47.2	LOS D	2.0	14.4	0.92	1.08	26.1
6	R	18	4.8	0.531	47.3	LOS D	2.0	14.4	0.92	1.07	26.1
Approach		73	5.0	0.531	47.2	LOS D	2.0	14.4	0.92	1.08	26.1
North: TNR (N)											
7	L	6	9.1	0.457	11.4	LOS A	0.0	0.0	0.00	1.39	58.9
8	T	856	5.0	0.457	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		862	5.0	0.457	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		1600	5.0	0.531	2.6	NA	2.0	14.4	0.06	0.07	73.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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N
TNR (N)
Avon Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Avon Rd_AM

Avon Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	4	0.0	0.526	10.9	LOS A	0.0	0.0	0.00	1.35	58.9
2	T	988	5.0	0.526	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		993	5.0	0.526	0.0	NA	0.0	0.0	0.00	0.01	79.9
North: TNR (N)											
8	T	527	5.0	0.282	12.4	LOS A	6.8	49.6	0.98	0.00	51.6
9	R	1	0.0	0.282	23.2	LOS B	6.8	49.6	0.98	1.05	51.9
Approach		528	5.0	0.282	12.5	NA	6.8	49.6	0.98	0.00	51.6
West: Avon Rd (E)											
10	L	1	0.0	0.023	44.9	LOS D	0.1	0.5	0.90	0.92	26.7
12	R	1	0.0	0.023	47.5	LOS D	0.1	0.5	0.90	0.98	31.3
Approach		2	0.0	0.023	46.2	LOS D	0.1	0.5	0.90	0.95	29.0
All Vehicles		1523	5.0	0.526	4.4	NA	6.8	49.6	0.34	0.01	67.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Avon Rd_PM

Avon Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	6	0.0	0.345	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
2	T	644	5.1	0.345	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		651	5.0	0.345	0.1	NA	0.0	0.0	0.00	0.01	79.7
North: TNR (N)											
8	T	862	5.0	0.458	8.2	LOS A	11.0	80.3	0.98	0.00	54.8
9	R	1	0.0	0.458	19.0	LOS B	11.0	80.3	0.98	1.13	57.0
Approach		863	5.0	0.458	8.3	NA	11.0	80.3	0.98	0.00	54.8
West: Avon Rd (E)											
10	L	1	0.0	0.025	47.7	LOS D	0.1	0.5	0.88	0.79	25.9
12	R	1	0.0	0.025	50.3	LOS D	0.1	0.5	0.88	0.97	30.2
Approach		2	0.0	0.025	49.0	LOS D	0.1	0.5	0.88	0.88	28.0
All Vehicles		1516	5.0	0.458	4.8	NA	11.0	80.3	0.56	0.01	63.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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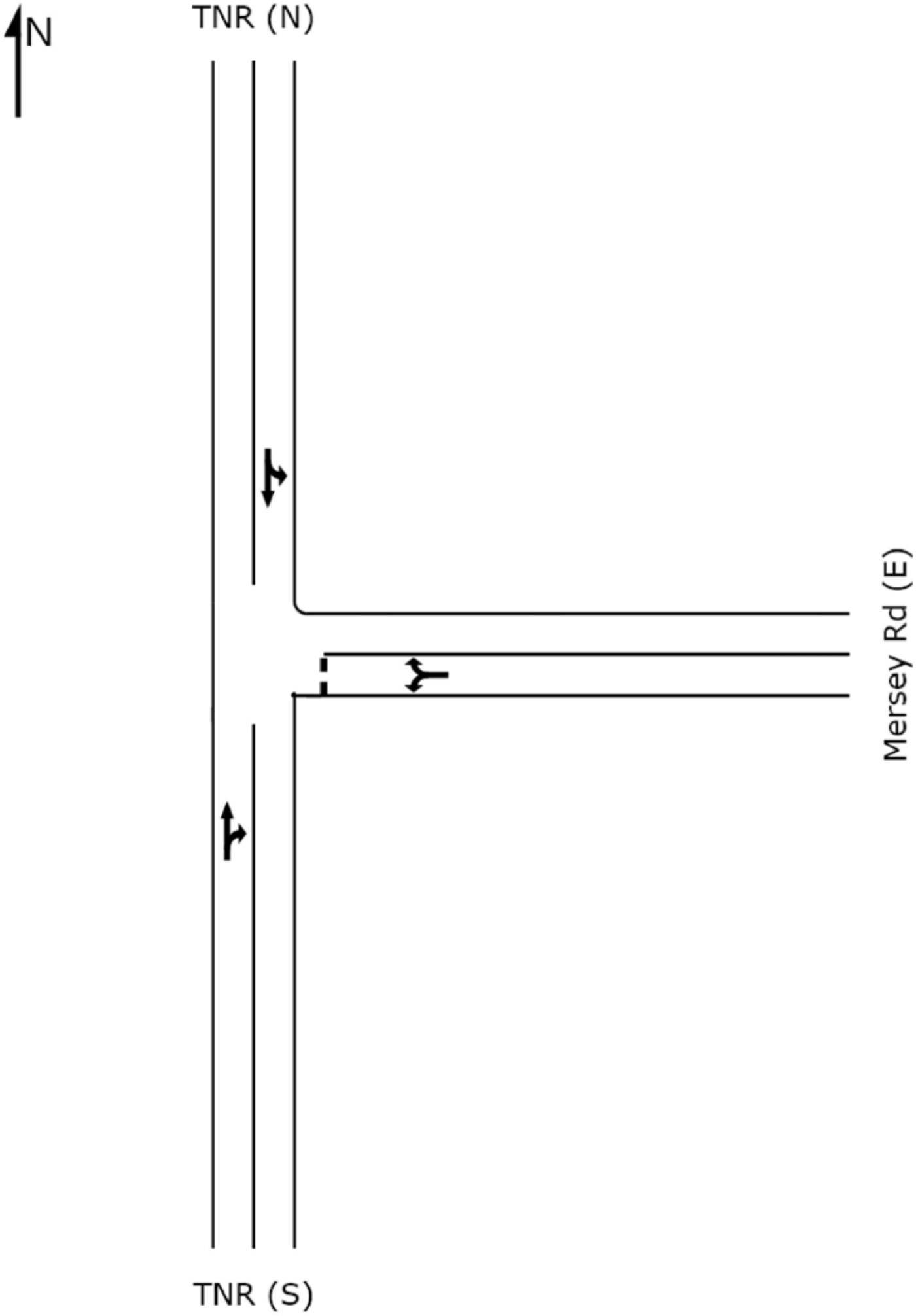
N
TNR (N)
Mersey Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2026_Mersey Rd_AM

Mersey Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	923	5.0	0.563	7.9	LOS A	12.8	93.4	1.00	0.00	53.9
3	R	60	5.3	0.563	19.0	LOS B	12.8	93.4	1.00	1.16	56.9
Approach		983	5.0	0.563	8.6	NA	12.8	93.4	1.00	0.07	54.1
East: Mersey Rd (E)											
4	L	23	4.5	0.310	47.8	LOS D	1.0	6.9	0.86	1.00	25.9
6	R	9	0.0	0.310	47.9	LOS D	1.0	6.9	0.86	0.99	25.8
Approach		33	3.2	0.310	47.9	LOS D	1.0	6.9	0.86	1.00	25.9
North: TNR (N)											
7	L	17	6.3	0.267	11.2	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	486	5.0	0.267	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		503	5.0	0.267	0.4	NA	0.0	0.0	0.00	0.04	79.1
All Vehicles		1519	5.0	0.563	6.7	NA	12.8	93.4	0.67	0.08	59.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2026_Mersey Rd_PM

Mersey Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	612	5.0	0.374	10.9	LOS A	7.6	55.2	1.00	0.00	52.9
3	R	25	5.3	0.374	22.0	LOS B	7.6	55.2	1.00	1.09	53.4
Approach		637	5.0	0.374	11.3	NA	7.6	55.2	1.00	0.04	52.9
East: Mersey Rd (E)											
4	L	61	4.5	0.546	47.1	LOS D	2.1	15.0	0.91	1.09	26.1
6	R	16	0.0	0.546	47.2	LOS D	2.1	15.0	0.91	1.07	26.1
Approach		77	3.6	0.546	47.1	LOS D	2.1	15.0	0.91	1.09	26.1
North: TNR (N)											
7	L	14	6.3	0.422	11.2	LOS A	0.0	0.0	0.00	1.36	58.9
8	T	782	5.0	0.422	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		796	5.0	0.422	0.2	NA	0.0	0.0	0.00	0.02	79.5
All Vehicles		1509	4.9	0.546	7.3	NA	7.6	55.2	0.47	0.09	60.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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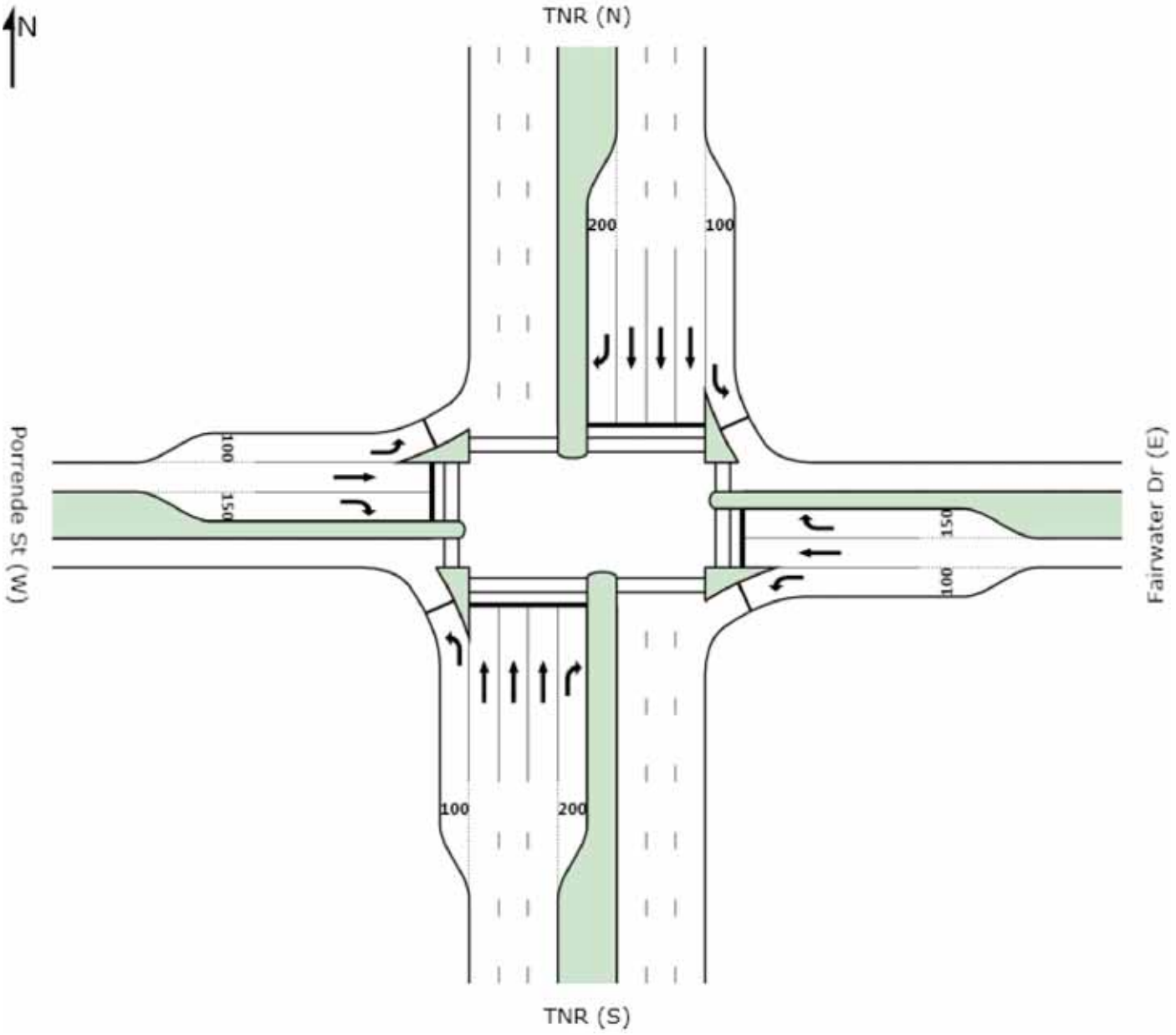
Appendix A7

2036 – *6-Lane* – SIDRA Results and Intersection Layout (AM and PM Peak)


N
TNR (N)
200
100
Porrende St (W)
100
150
Fairwater Dr (E)
150
100
100
200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_FairewaterDr / PorrendeSt_AM

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	42	5.0	0.072	30.4	LOS C	1.2	8.7	0.42	0.72	40.4
2	T	1048	5.0	0.419	33.2	LOS C	15.7	114.8	0.67	0.58	36.9
3	R	177	4.8	0.706	81.5	LOS F	12.6	91.8	1.00	0.83	21.9
Approach		1267	5.0	0.706	39.8	LOS C	15.7	114.8	0.71	0.62	33.8
East: Fairwater Dr (E)											
4	L	225	5.1	0.460	36.2	LOS C	8.8	64.4	0.58	0.74	30.3
5	T	103	5.1	0.196	48.3	LOS D	5.4	39.5	0.76	0.61	25.0
6	R	133	4.8	0.733	83.1	LOS F	9.8	71.5	1.00	0.83	18.4
Approach		461	5.0	0.733	52.4	LOS D	9.8	71.5	0.74	0.74	24.6
North: TNR (N)											
7	L	177	4.8	0.226	21.6	LOS B	3.5	25.2	0.29	0.73	47.1
8	T	2097	5.0	0.724	31.0	LOS C	36.1	263.4	0.78	0.70	37.9
9	R	161	5.2	0.430	70.2	LOS E	10.0	73.2	0.89	0.80	24.3
Approach		2435	5.0	0.724	32.9	LOS C	36.1	263.4	0.75	0.71	37.1
West: Porrende St (W)											
10	L	172	4.9	0.336	33.7	LOS C	6.2	45.2	0.54	0.72	31.4
11	T	48	4.3	0.114	53.1	LOS D	2.7	19.5	0.80	0.60	23.6
12	R	12	9.1	0.143	86.4	LOS F	0.8	6.4	0.98	0.68	18.0
Approach		232	5.0	0.336	40.4	LOS C	6.2	45.2	0.61	0.69	28.4
All Vehicles		4395	5.0	0.733	37.3	LOS C	36.1	263.4	0.73	0.69	34.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	35.4	LOS D	0.0	0.0	0.69	0.69
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	35.4	LOS D	0.0	0.0	0.69	0.69
All Pedestrians		40	51.8	LOS E			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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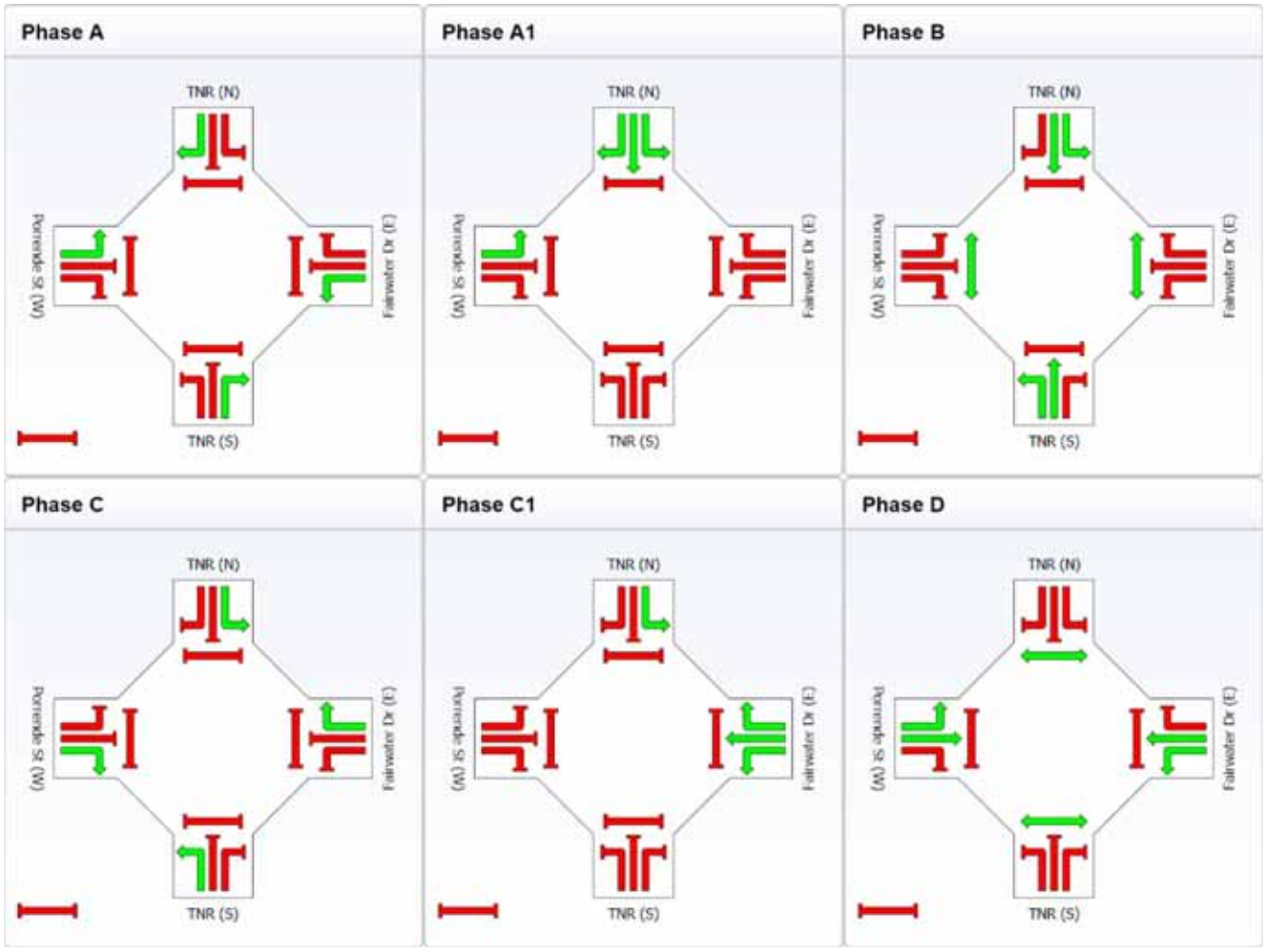
PHASING SUMMARY

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Split Phasing
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	18	3	57	6	1	29
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	24	9	63	12	7	35
Phase Split	16 %	6 %	42 %	8 %	5 %	23 %



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MOVEMENT SUMMARY

Site: 2036_FairewaterDr / PorrendeSt_PM

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	57	5.6	0.077	22.6	LOS B	1.1	8.3	0.30	0.71	46.3
2	T	1946	5.0	0.727	35.2	LOS C	35.3	257.4	0.82	0.73	35.5
3	R	312	5.1	0.623	65.9	LOS E	19.3	141.0	0.90	0.84	25.4
Approach		2315	5.0	0.727	39.0	LOS C	35.3	257.4	0.81	0.75	33.9
East: Fairwater Dr (E)											
4	L	160	5.3	0.343	38.7	LOS C	6.4	47.0	0.59	0.73	29.3
5	T	83	5.1	0.196	54.2	LOS D	4.7	34.5	0.82	0.64	23.3
6	R	148	5.0	0.712	80.8	LOS F	10.8	78.7	1.00	0.83	18.8
Approach		392	5.1	0.712	58.0	LOS E	10.8	78.7	0.80	0.75	23.2
North: TNR (N)											
7	L	258	4.9	0.474	34.4	LOS C	8.9	65.2	0.52	0.77	37.9
8	T	1286	5.0	0.637	46.8	LOS D	24.8	181.0	0.86	0.75	30.4
9	R	211	5.0	0.722	79.4	LOS F	14.8	108.2	0.99	0.84	22.3
Approach		1755	5.0	0.722	48.9	LOS D	24.8	181.0	0.82	0.76	30.0
West: Porrende St (W)											
10	L	199	4.8	0.427	39.3	LOS C	8.2	59.9	0.61	0.74	29.1
11	T	140	5.3	0.331	55.9	LOS D	8.3	60.6	0.86	0.69	22.9
12	R	29	3.6	0.140	74.8	LOS F	1.9	13.9	0.92	0.72	19.8
Approach		368	4.9	0.427	48.5	LOS D	8.3	60.6	0.73	0.72	25.5
All Vehicles		4829	5.0	0.727	44.9	LOS D	35.3	257.4	0.81	0.75	30.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	43.3	LOS E	0.0	0.0	0.76	0.76
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
All Pedestrians		40	53.1	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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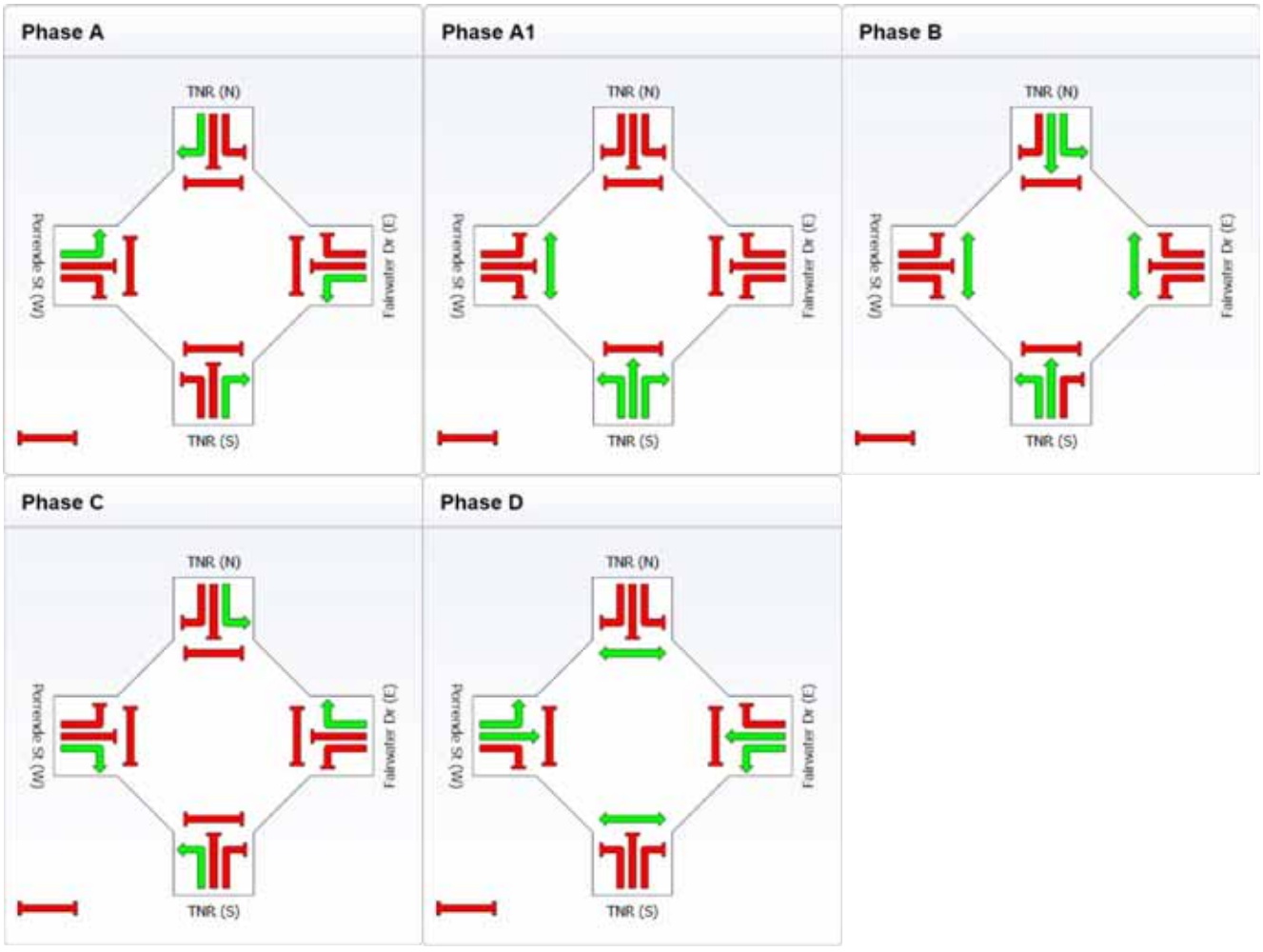
PHASING SUMMARY

Fairwater Drive / Porrende Street
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 4
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	21	9	46	15	29
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	27	15	52	21	35
Phase Split	18 %	10 %	35 %	14 %	23 %



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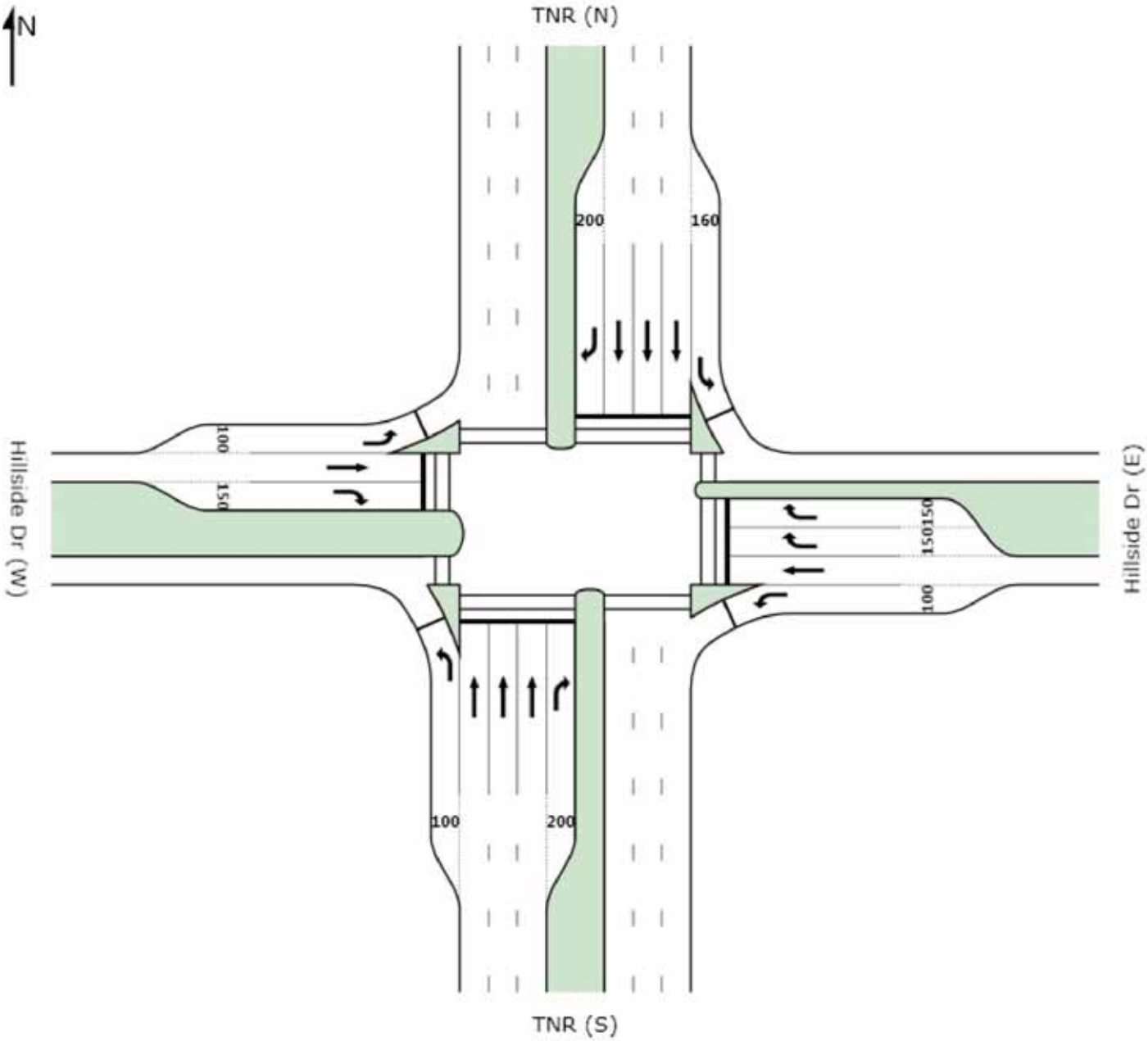
N
TNR (N)
200
160
Hillside Dr (W)
100
150
150150
100
Hillside Dr (E)
100
200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Hillside Dr_AM

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	17	6.3	0.017	16.1	LOS B	0.2	1.2	0.26	0.69	52.7
2	T	1279	5.0	0.520	35.7	LOS C	20.8	151.8	0.73	0.64	35.5
3	R	58	5.5	0.697	93.8	LOS F	4.5	32.9	1.00	0.78	19.8
Approach		1354	5.1	0.697	37.9	LOS C	20.8	151.8	0.73	0.64	34.5
East: Hillside Dr (E)											
4	L	192	4.9	0.494	53.2	LOS D	9.9	72.2	0.76	0.77	24.6
5	T	5	0.0	0.008	40.6	LOS C	0.2	1.6	0.65	0.43	27.5
6	R	217	4.9	0.459	71.6	LOS F	7.2	52.6	0.95	0.77	20.4
Approach		414	4.8	0.494	62.7	LOS E	9.9	72.2	0.86	0.77	22.2
North: TNR (N)											
7	L	211	5.0	0.229	21.2	LOS B	4.1	29.9	0.41	0.75	47.5
8	T	2194	5.0	0.735	29.5	LOS C	37.4	272.8	0.77	0.70	38.7
9	R	81	5.2	0.325	77.1	LOS F	5.3	38.9	0.93	0.77	22.8
Approach		2485	5.0	0.735	30.4	LOS C	37.4	272.8	0.74	0.71	38.5
West: Hillside Dr (W)											
10	L	142	5.2	0.345	45.2	LOS D	6.6	48.5	0.80	0.76	27.0
11	T	6	0.0	0.014	51.5	LOS D	0.3	2.4	0.77	0.51	24.1
12	R	48	4.3	0.347	82.2	LOS F	3.4	25.0	0.98	0.74	18.6
Approach		197	4.8	0.347	54.5	LOS D	6.6	48.5	0.84	0.75	24.2
All Vehicles		4449	5.0	0.735	36.7	LOS C	37.4	272.8	0.76	0.69	34.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	37.5	LOS D	0.0	0.0	0.71	0.71
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	36.1	LOS D	0.0	0.0	0.69	0.69
All Pedestrians		40	52.5	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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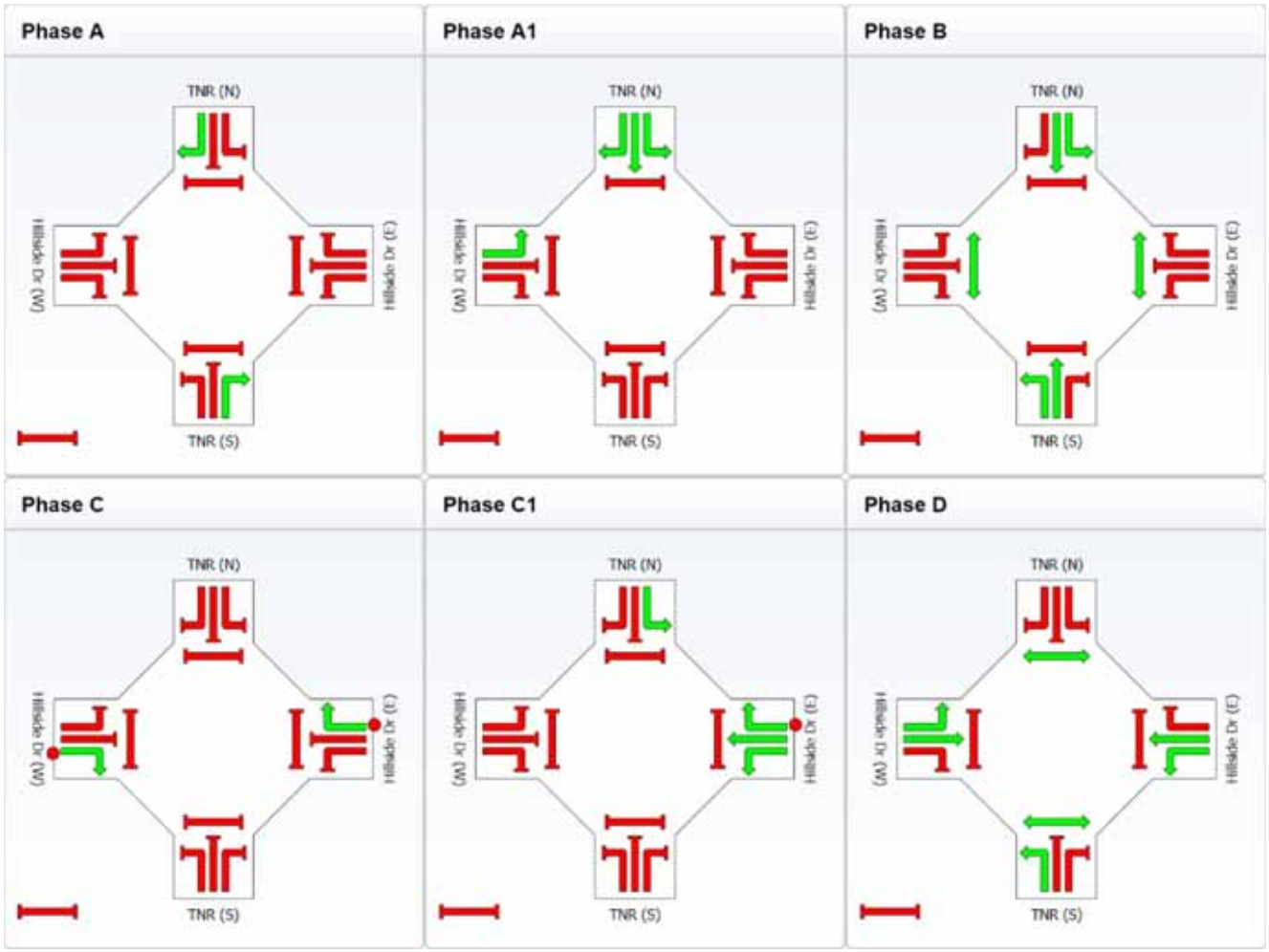
PHASING SUMMARY

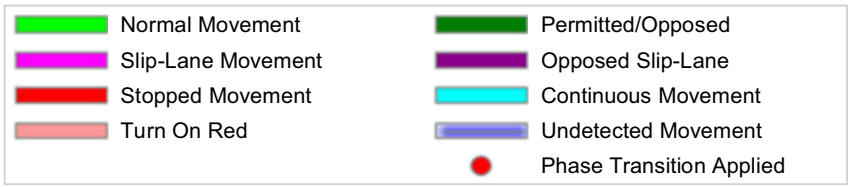
Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Two-Phase
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	6	6	56	10	7	29
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	12	12	62	16	13	35
Phase Split	8 %	8 %	41 %	11 %	9 %	23 %





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MOVEMENT SUMMARY

Site: 2036_Hillside Dr_PM

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	41	5.1	0.078	34.7	LOS C	1.3	9.6	0.47	0.72	37.7
2	T	2108	5.0	0.762	34.3	LOS C	38.8	283.3	0.83	0.75	36.0
3	R	146	5.0	0.753	86.2	LOS F	10.8	79.1	1.00	0.83	21.0
Approach		2296	5.0	0.762	37.6	LOS C	38.8	283.3	0.83	0.76	34.4
East: Hillside Dr (E)											
4	L	186	5.1	0.480	53.1	LOS D	9.6	70.1	0.75	0.77	24.6
5	T	6	0.0	0.010	40.7	LOS C	0.3	2.0	0.65	0.44	27.5
6	R	198	4.8	0.508	75.7	LOS F	6.9	50.2	0.98	0.77	19.6
Approach		391	4.9	0.508	64.3	LOS E	9.6	70.1	0.86	0.76	21.9
North: TNR (N)											
7	L	280	4.9	0.329	24.8	LOS B	7.0	51.4	0.49	0.77	44.4
8	T	1543	5.0	0.558	30.4	LOS C	23.6	172.5	0.69	0.61	38.5
9	R	149	4.9	0.768	86.7	LOS F	11.1	81.1	1.00	0.84	20.9
Approach		1973	5.0	0.768	33.8	LOS C	23.6	172.5	0.68	0.65	36.9
West: Hillside Dr (W)											
10	L	102	5.2	0.301	62.7	LOS E	5.9	43.2	0.83	0.76	22.3
11	T	6	0.0	0.014	51.5	LOS D	0.3	2.4	0.77	0.51	24.1
12	R	24	4.3	0.248	85.5	LOS F	1.8	12.8	0.98	0.71	18.1
Approach		133	4.8	0.301	66.3	LOS E	5.9	43.2	0.86	0.74	21.4
All Vehicles		4792	5.0	0.768	39.0	LOS C	38.8	283.3	0.78	0.71	33.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	31.4	LOS D	0.0	0.0	0.65	0.65
All Pedestrians		40	50.1	LOS E			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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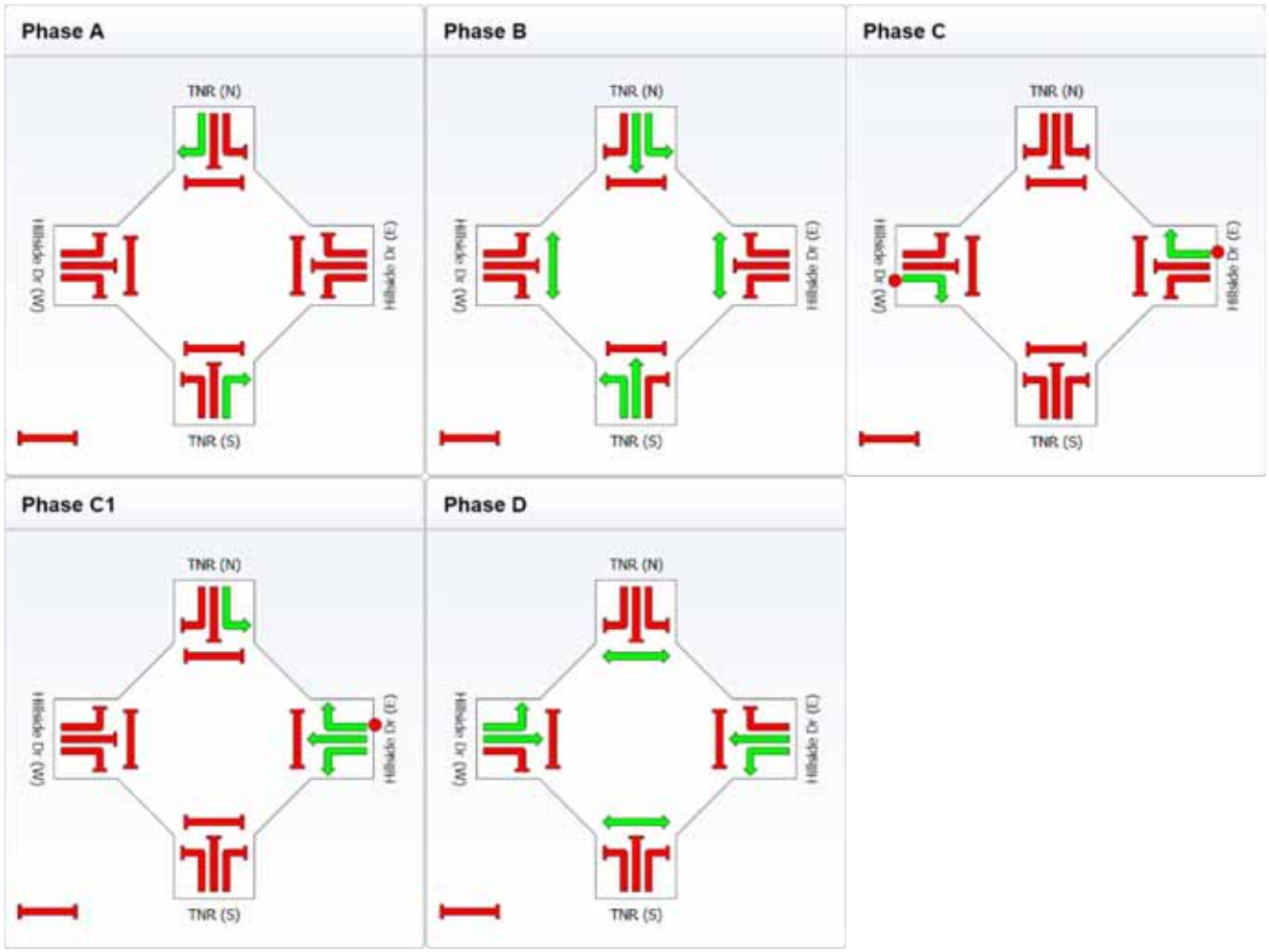
PHASING SUMMARY

Hillside Drive
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Two-Phase
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	14	63	7	7	29
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	20	69	13	13	35
Phase Split	13 %	46 %	9 %	9 %	23 %



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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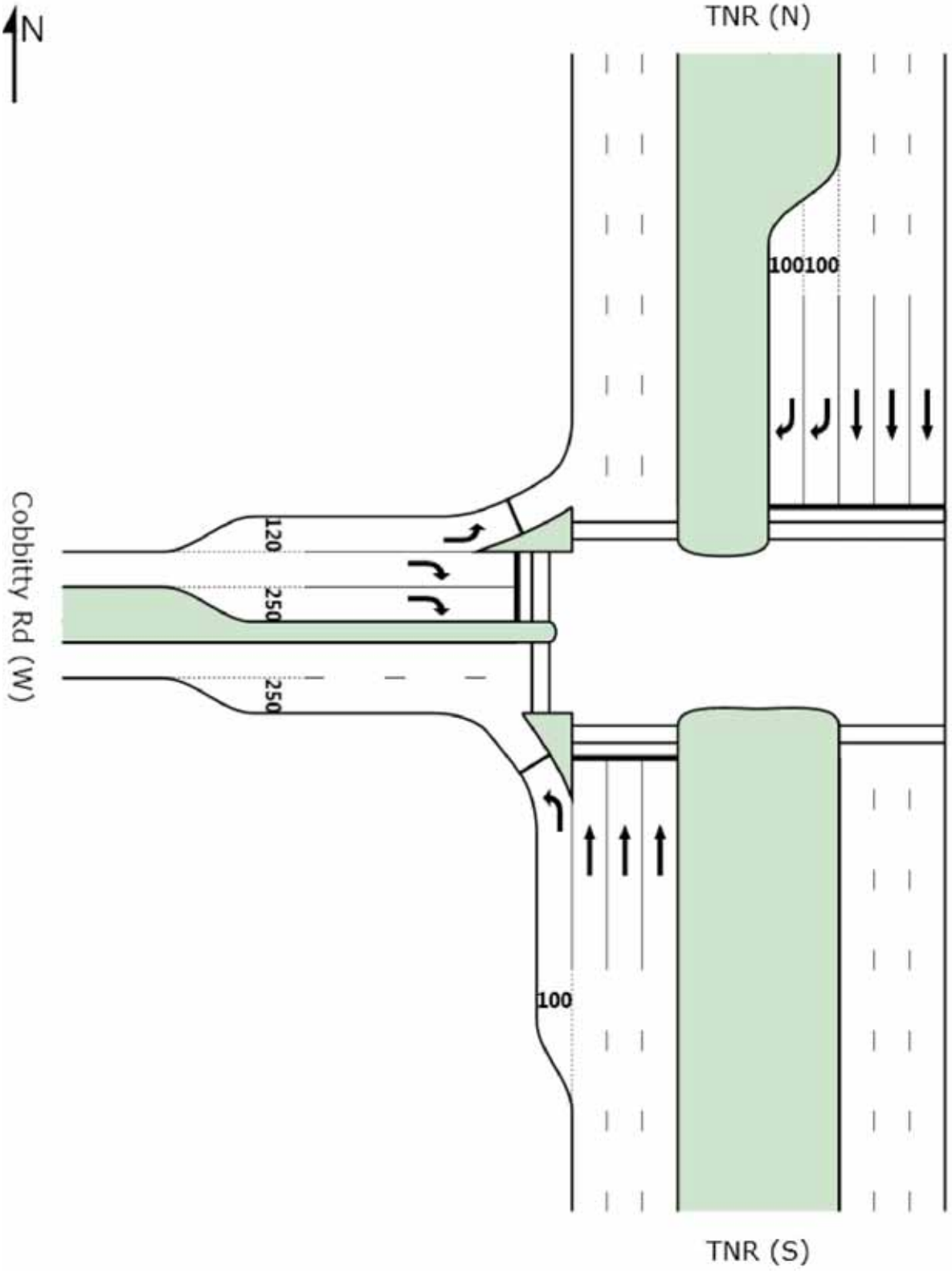
N
TNR (N)
100100
Cobbitty Rd (W)
120
250
250
100
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Cobbitty Road (West) _AM

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	303	4.9	0.514	29.4	LOS C	9.3	68.0	0.46	0.77	41.0
2	T	1334	5.0	0.466	19.8	LOS B	15.4	112.6	0.52	0.46	46.7
Approach		1637	5.0	0.514	21.6	LOS B	15.4	112.6	0.51	0.52	45.5
North: TNR (N)											
8	T	2177	5.0	0.565	4.9	LOS A	10.8	78.5	0.23	0.21	67.2
9	R	253	5.0	0.523	77.6	LOS F	8.5	62.3	0.95	0.80	22.8
Approach		2429	5.0	0.565	12.5	LOS A	10.8	78.5	0.30	0.27	55.9
West: Cobbitty Rd (W)											
10	L	71	4.5	0.168	58.4	LOS E	3.6	26.3	0.74	0.76	27.7
12	R	308	5.1	0.345	61.1	LOS E	8.5	62.2	0.80	0.80	26.9
Approach		379	5.0	0.345	60.6	LOS E	8.5	62.2	0.79	0.79	27.0
All Vehicles		4445	5.0	0.565	19.9	LOS B	15.4	112.6	0.42	0.41	47.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	62.6	LOS F	0.0	0.0	0.91	0.91
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	25.2	LOS C	0.0	0.0	0.58	0.58
All Pedestrians		30	52.0	LOS E			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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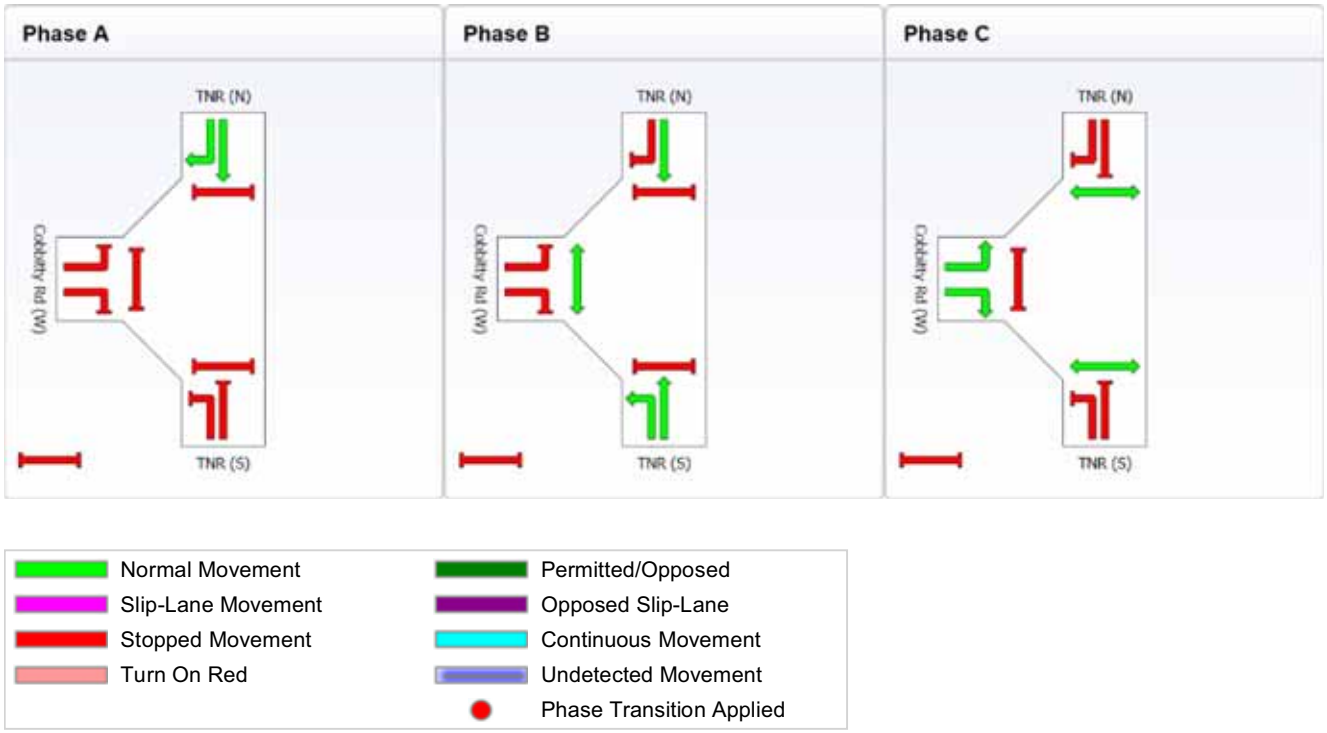
PHASING SUMMARY

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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)	20	75	37
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	26	81	43
Phase Split	17 %	54 %	29 %



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MOVEMENT SUMMARY

Site: 2036_Cobbitty Road (West) _PM

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	249	5.1	0.412	28.1	LOS B	7.1	51.9	0.42	0.76	42.0
2	T	2160	5.0	0.745	23.5	LOS B	33.8	246.8	0.71	0.65	43.0
Approach		2409	5.0	0.745	23.9	LOS B	33.8	246.8	0.68	0.66	42.9
North: TNR (N)											
8	T	1741	5.0	0.452	4.3	LOS A	7.1	52.1	0.19	0.17	68.5
9	R	340	5.0	0.741	82.2	LOS F	12.3	89.8	1.00	0.84	21.8
Approach		2081	5.0	0.741	17.1	LOS B	12.3	89.8	0.32	0.28	50.9
West: Cobbitty Rd (W)											
10	L	56	5.7	0.134	58.0	LOS E	2.8	20.8	0.73	0.75	27.8
12	R	234	5.0	0.261	59.9	LOS E	6.2	45.6	0.77	0.78	27.2
Approach		289	5.1	0.261	59.5	LOS E	6.2	45.6	0.77	0.78	27.3
All Vehicles		4780	5.0	0.745	23.1	LOS B	33.8	246.8	0.53	0.50	44.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	62.6	LOS F	0.0	0.0	0.91	0.91
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	24.7	LOS C	0.0	0.0	0.57	0.57
All Pedestrians		30	51.8	LOS E			0.81	0.81

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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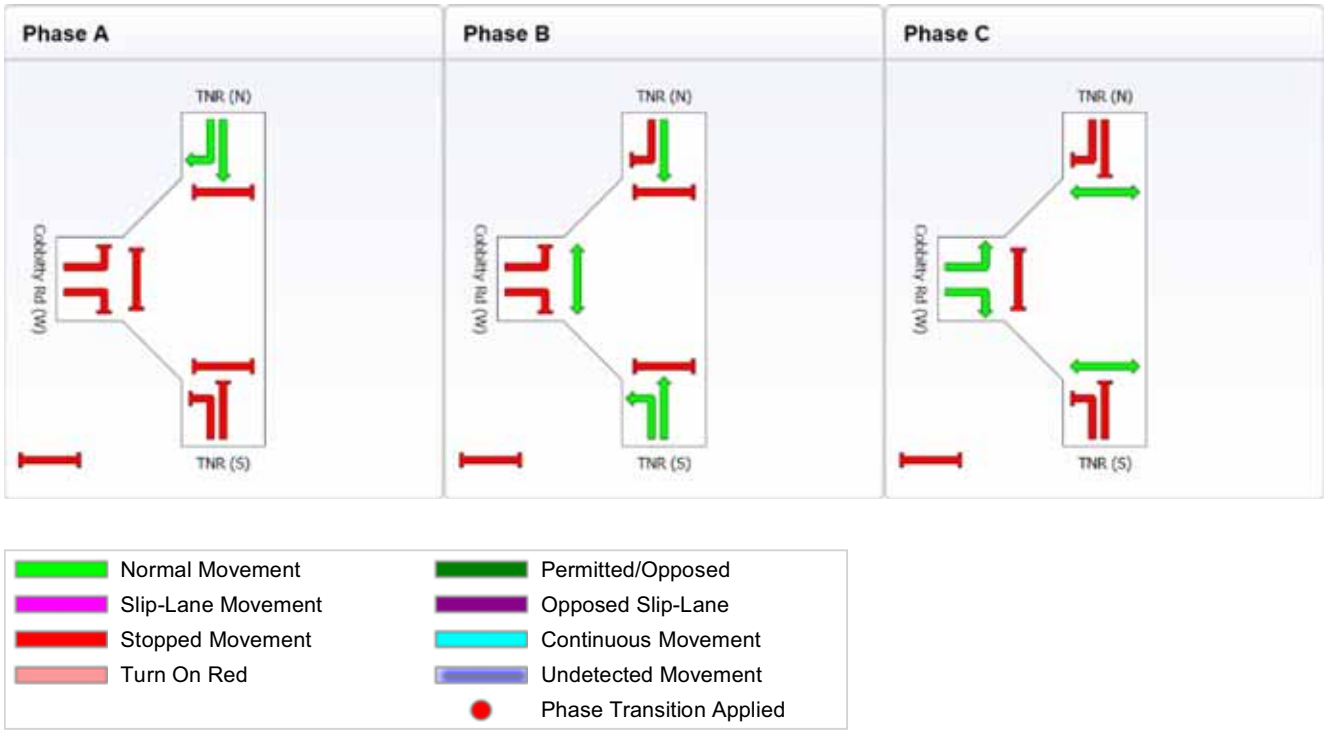
PHASING SUMMARY

Cobbitty Road (West)
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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)	19	76	37
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	25	82	43
Phase Split	17 %	55 %	29 %



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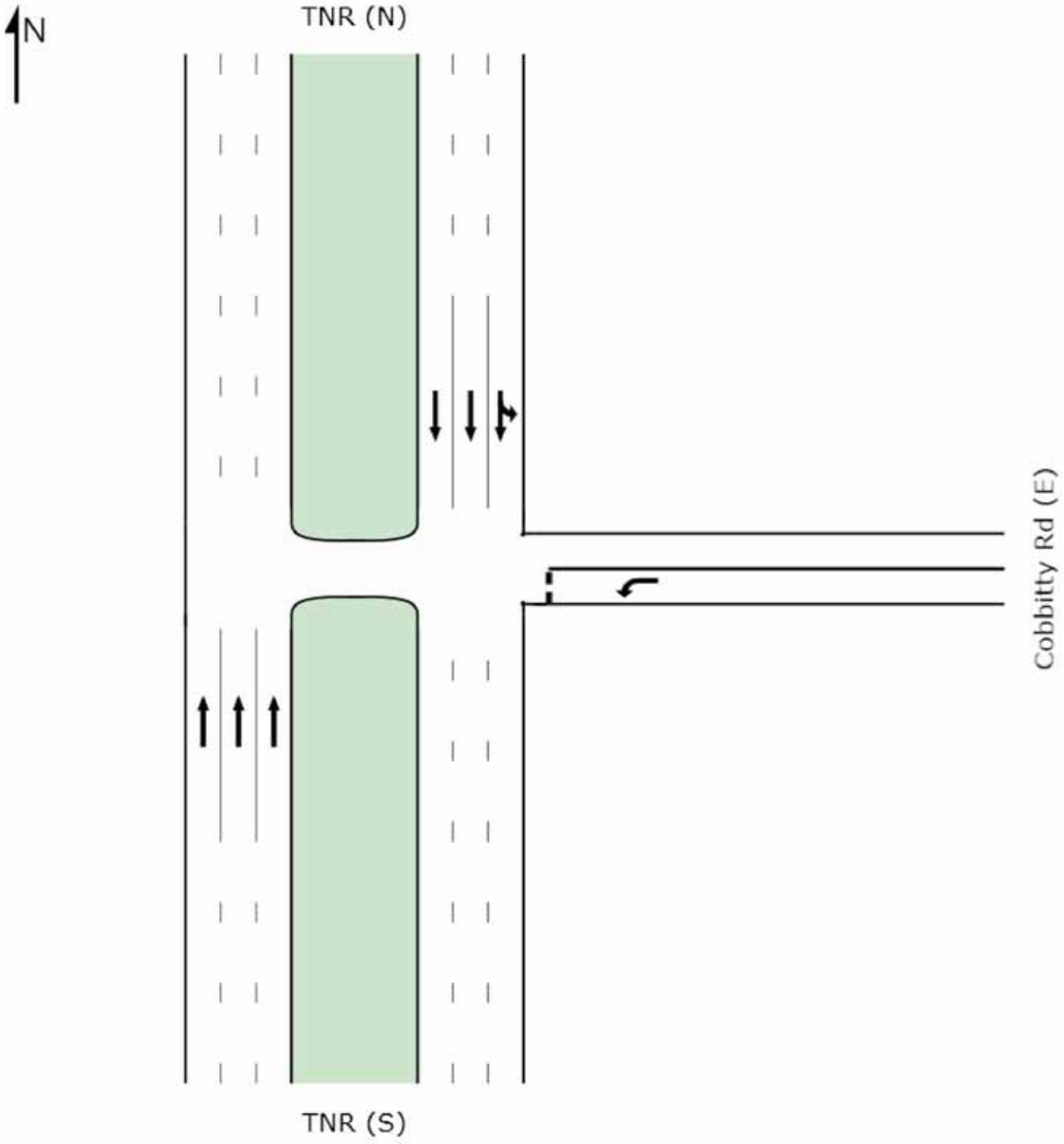
N
TNR (N)
Cobbitty Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Cobbitty Road (East) _AM

Cobbitty Road (East)
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1405	5.0	0.248	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1405	5.0	0.248	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Cobbitty Rd (E)											
4	L	371	5.1	0.815	55.4	LOS D	13.9	101.4	0.99	1.54	28.5
Approach		371	5.1	0.815	55.4	LOS D	13.9	101.4	0.99	1.54	28.5
North: TNR (N)											
7	L	445	5.0	0.446	11.2	LOS A	0.0	0.0	0.00	0.91	58.9
8	T	2060	5.0	0.446	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2505	5.0	0.446	2.0	NA	0.0	0.0	0.00	0.16	75.3
All Vehicles		4281	5.0	0.815	6.0	NA	13.9	101.4	0.09	0.23	67.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Cobbitty Road (East) _PM

Cobbitty Road (East)
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	2215	5.0	0.391	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2215	5.0	0.391	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Cobbitty Rd (E)											
4	L	528	5.0	0.762	36.0	LOS C	15.0	109.5	0.99	1.48	36.8
Approach		528	5.0	0.762	36.0	LOS C	15.0	109.5	0.99	1.48	36.8
North: TNR (N)											
7	L	186	5.1	0.309	11.2	LOS A	0.0	0.0	0.00	1.05	58.9
8	T	1553	5.0	0.309	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1739	5.0	0.309	1.2	NA	0.0	0.0	0.00	0.11	77.1
All Vehicles		4482	5.0	0.762	4.7	NA	15.0	109.5	0.12	0.22	69.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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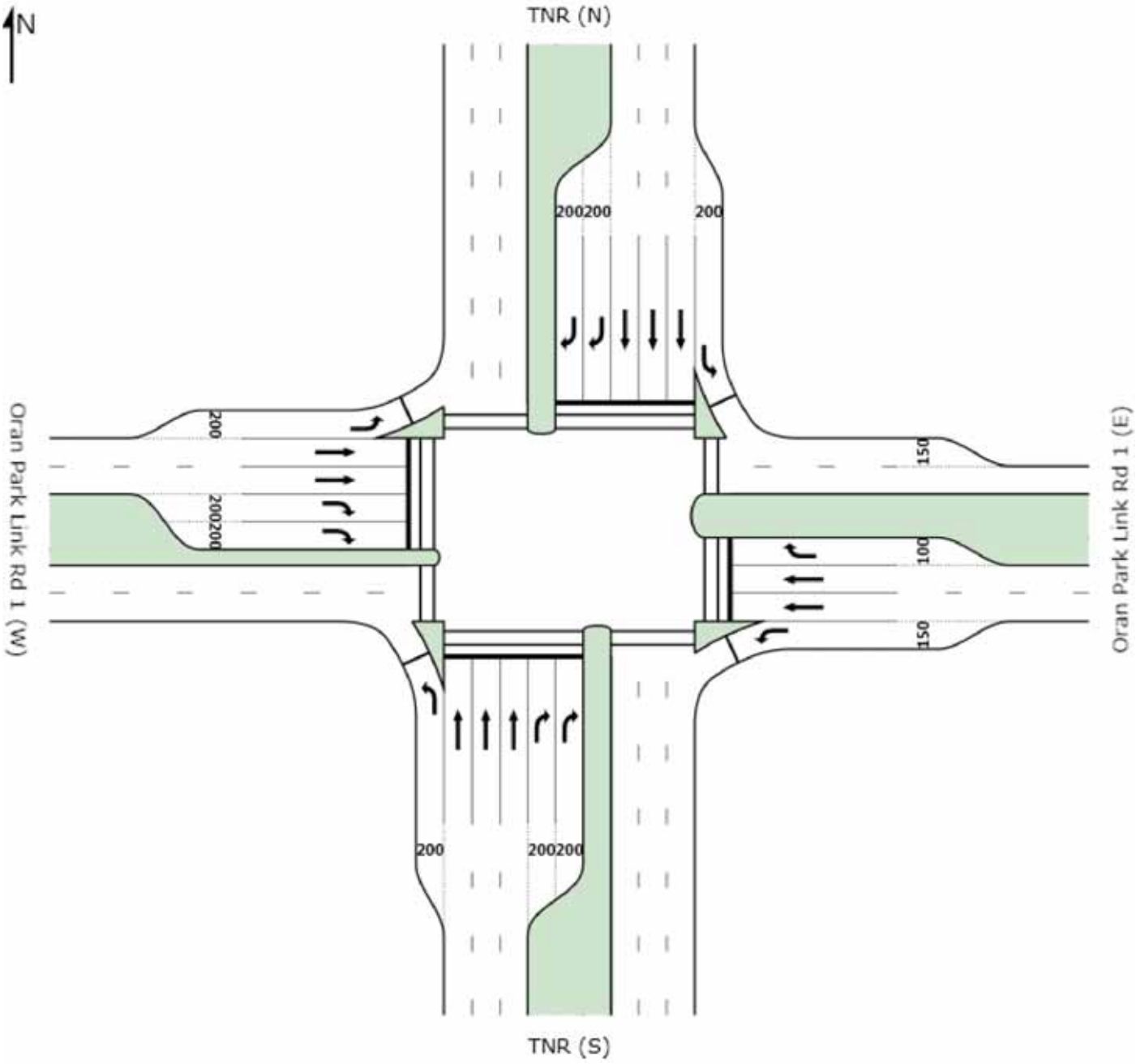
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TNR (N)
200200
200
Oran Park Link Rd 1 (W)
200
200200
150
100
150
Oran Park Link Rd 1 (E)
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 1_AM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	101	5.2	0.128	33.5	LOS C	3.2	23.6	0.47	0.75	38.4
2	T	932	5.0	0.678	55.7	LOS D	19.7	144.0	0.93	0.79	27.3
3	R	372	5.1	0.743	78.7	LOS F	14.1	102.9	0.99	0.83	22.5
Approach		1404	5.0	0.743	60.2	LOS E	19.7	144.0	0.91	0.80	26.4
East: Oran Park Link Rd 1 (E)											
4	L	399	5.0	0.663	40.6	LOS C	19.0	139.0	0.71	0.80	28.6
5	T	245	5.2	0.302	53.3	LOS D	7.0	51.2	0.82	0.67	23.6
6	R	44	0.0	0.252	47.0	LOS D	2.0	14.2	0.94	0.73	26.4
Approach		688	4.7	0.663	45.5	LOS D	19.0	139.0	0.76	0.75	26.5
North: TNR (N)											
7	L	153	0.0	0.197	37.1	LOS C	5.5	38.6	0.53	0.76	36.3
8	T	1378	5.0	0.752	47.3	LOS D	28.2	205.8	0.91	0.80	30.1
9	R	545	5.0	0.664	68.2	LOS E	17.5	127.6	0.93	0.84	24.9
Approach		2076	4.7	0.752	52.1	LOS D	28.2	205.8	0.88	0.81	28.9
West: Oran Park Link Rd 1 (W)											
10	L	376	5.0	0.422	26.1	LOS B	12.1	88.4	0.48	0.74	35.2
11	T	174	4.8	0.147	37.3	LOS C	4.0	28.8	0.64	0.51	28.7
12	R	427	4.9	0.737	74.3	LOS F	15.0	109.8	0.99	0.85	20.0
Approach		977	5.0	0.737	49.2	LOS D	15.0	109.8	0.73	0.75	25.6
All Vehicles		5145	4.8	0.752	52.9	LOS D	28.2	205.8	0.85	0.79	27.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	55.5	LOS E	0.0	0.0	0.86	0.86
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	58.1	LOS E	0.0	0.0	0.88	0.88
All Pedestrians		40	62.5	LOS F			0.91	0.91

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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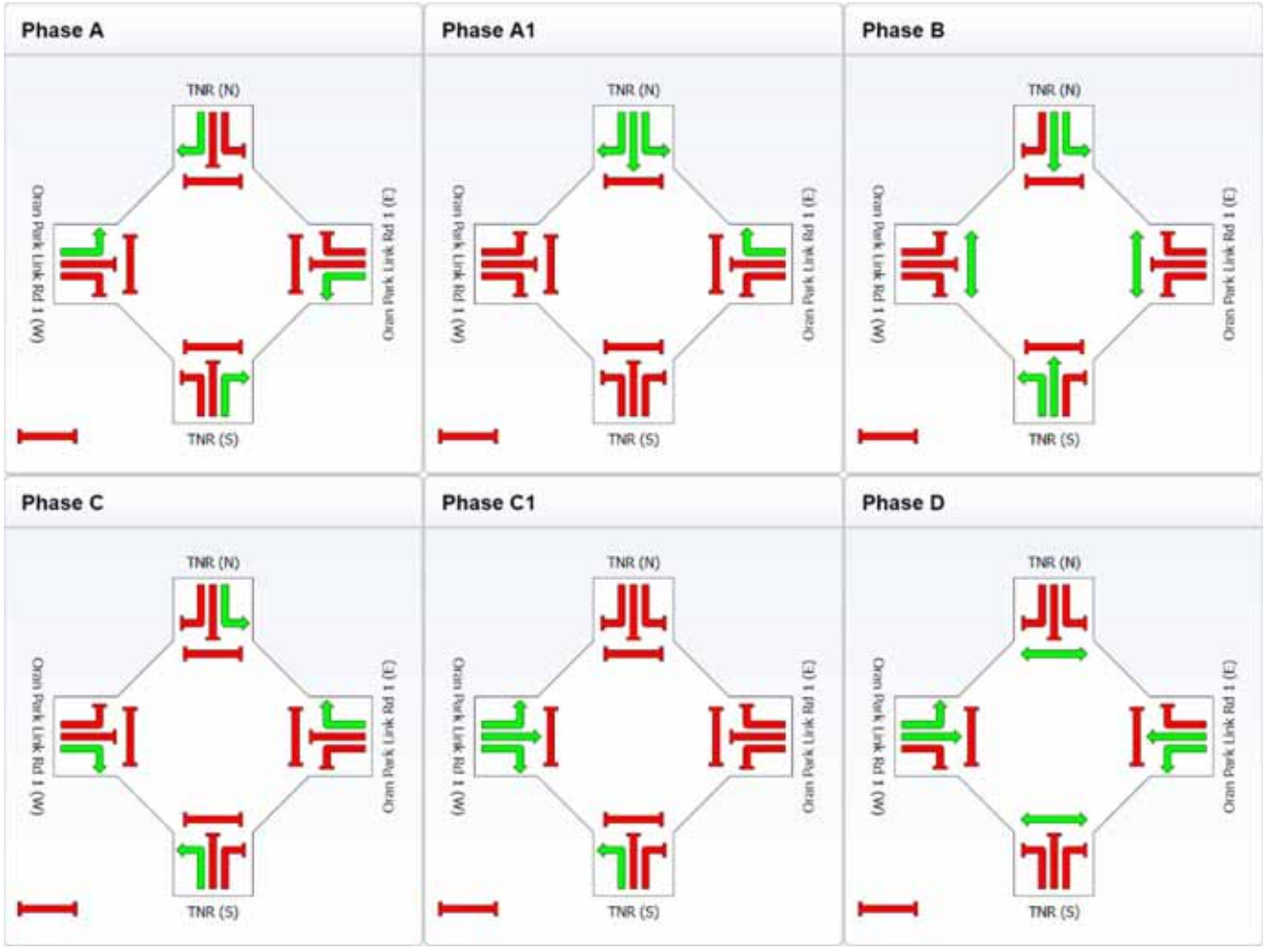
PHASING SUMMARY

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	22	6	36	8	10	32
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	28	12	42	14	16	38
Phase Split	19 %	8 %	28 %	9 %	11 %	25 %



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MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 1_PM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	171	4.9	0.201	30.7	LOS C	5.2	37.7	0.45	0.76	40.2
2	T	1477	5.0	0.841	54.7	LOS D	33.9	247.3	0.97	0.90	27.6
3	R	567	5.0	0.860	78.3	LOS F	22.8	166.2	0.99	0.89	22.6
Approach		2215	5.0	0.860	58.9	LOS E	33.9	247.3	0.93	0.88	26.7
East: Oran Park Link Rd 1 (E)											
4	L	252	4.8	0.369	31.4	LOS C	9.0	65.4	0.53	0.74	32.5
5	T	273	5.1	0.335	53.7	LOS D	7.9	57.6	0.83	0.68	23.5
6	R	28	0.0	0.379	88.1	LOS F	2.1	15.0	1.00	0.72	17.7
Approach		553	4.7	0.379	45.3	LOS D	9.0	65.4	0.70	0.71	26.4
North: TNR (N)											
7	L	122	0.0	0.168	40.0	LOS C	4.6	32.5	0.56	0.76	34.8
8	T	1108	5.0	0.631	46.9	LOS D	21.4	156.1	0.85	0.74	30.4
9	R	442	5.0	0.631	71.5	LOS F	14.5	105.5	0.94	0.83	24.1
Approach		1673	4.6	0.631	52.9	LOS D	21.4	156.1	0.85	0.77	28.7
West: Oran Park Link Rd 1 (W)											
10	L	547	5.0	0.599	25.3	LOS B	19.0	138.9	0.52	0.76	35.7
11	T	217	4.9	0.226	25.4	LOS B	3.7	26.7	0.74	0.59	33.9
12	R	246	5.1	0.785	50.2	LOS D	5.7	41.6	1.00	0.84	25.5
Approach		1011	5.0	0.785	31.4	LOS C	19.0	138.9	0.69	0.74	32.2
All Vehicles		5451	4.8	0.860	50.6	LOS D	33.9	247.3	0.84	0.80	28.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	47.2	LOS E	0.0	0.0	0.79	0.79
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	49.6	LOS E	0.0	0.0	0.81	0.81
All Pedestrians		40	58.3	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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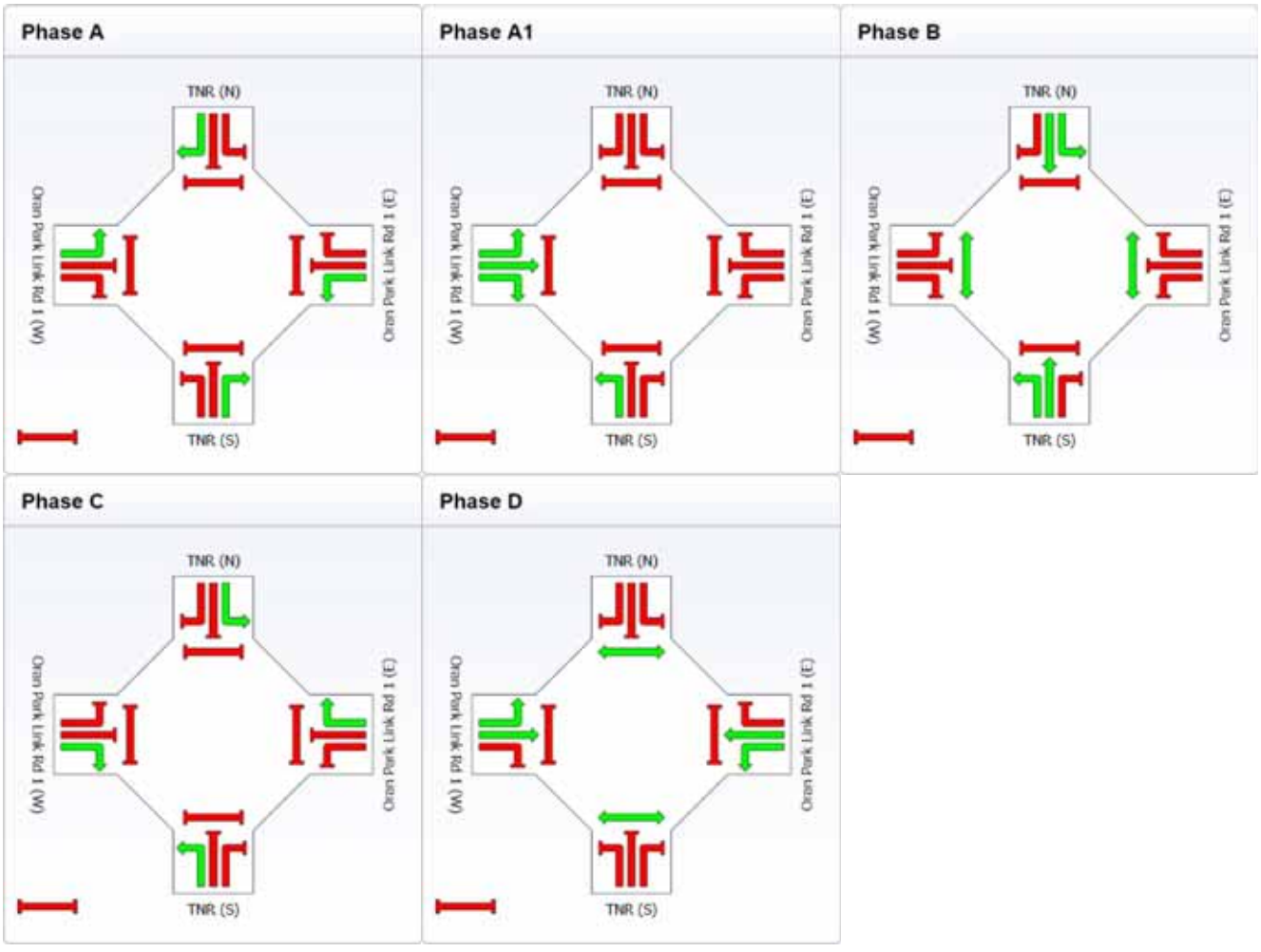
PHASING SUMMARY

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	29	7	46	6	32
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	35	13	52	12	38
Phase Split	23 %	9 %	35 %	8 %	25 %



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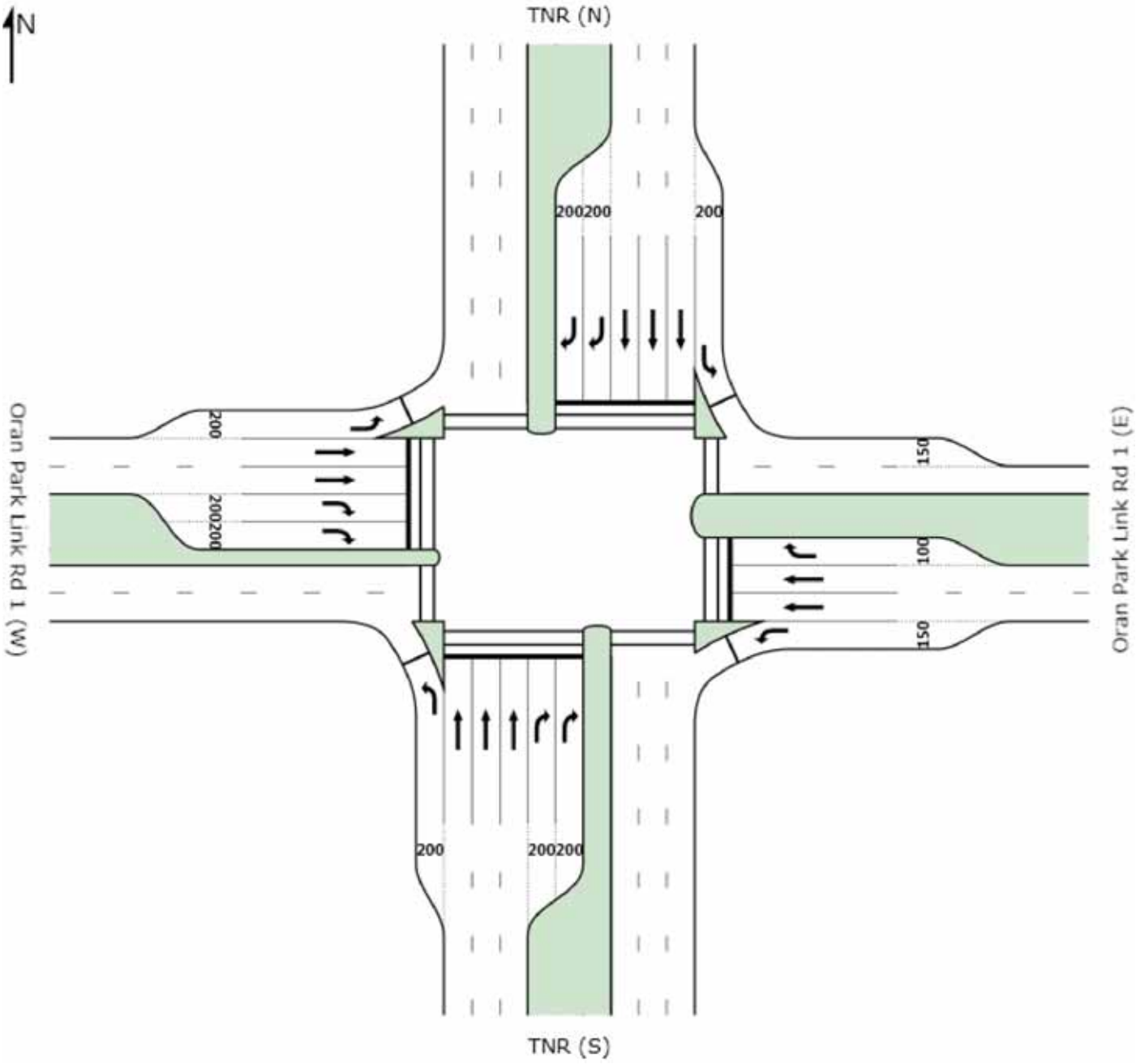
N
TNR (N)
200200
200
Oran Park Link Rd 1 (W)
200
200200
150
100
150
Oran Park Link Rd 1 (E)
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 1_AM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	101	5.2	0.128	33.5	LOS C	3.2	23.6	0.47	0.75	38.4
2	T	932	5.0	0.678	55.7	LOS D	19.7	144.0	0.93	0.79	27.3
3	R	372	5.1	0.743	78.7	LOS F	14.1	102.9	0.99	0.83	22.5
Approach		1404	5.0	0.743	60.2	LOS E	19.7	144.0	0.91	0.80	26.4
East: Oran Park Link Rd 1 (E)											
4	L	399	5.0	0.663	40.6	LOS C	19.0	139.0	0.71	0.80	28.6
5	T	245	5.2	0.302	53.3	LOS D	7.0	51.2	0.82	0.67	23.6
6	R	44	0.0	0.252	47.0	LOS D	2.0	14.2	0.94	0.73	26.4
Approach		688	4.7	0.663	45.5	LOS D	19.0	139.0	0.76	0.75	26.5
North: TNR (N)											
7	L	153	0.0	0.197	37.1	LOS C	5.5	38.6	0.53	0.76	36.3
8	T	1378	5.0	0.752	47.3	LOS D	28.2	205.8	0.91	0.80	30.1
9	R	545	5.0	0.664	68.2	LOS E	17.5	127.6	0.93	0.84	24.9
Approach		2076	4.7	0.752	52.1	LOS D	28.2	205.8	0.88	0.81	28.9
West: Oran Park Link Rd 1 (W)											
10	L	376	5.0	0.422	26.1	LOS B	12.1	88.4	0.48	0.74	35.2
11	T	174	4.8	0.147	37.3	LOS C	4.0	28.8	0.64	0.51	28.7
12	R	427	4.9	0.737	74.3	LOS F	15.0	109.8	0.99	0.85	20.0
Approach		977	5.0	0.737	49.2	LOS D	15.0	109.8	0.73	0.75	25.6
All Vehicles		5145	4.8	0.752	52.9	LOS D	28.2	205.8	0.85	0.79	27.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	55.5	LOS E	0.0	0.0	0.86	0.86
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	58.1	LOS E	0.0	0.0	0.88	0.88
All Pedestrians		40	62.5	LOS F			0.91	0.91

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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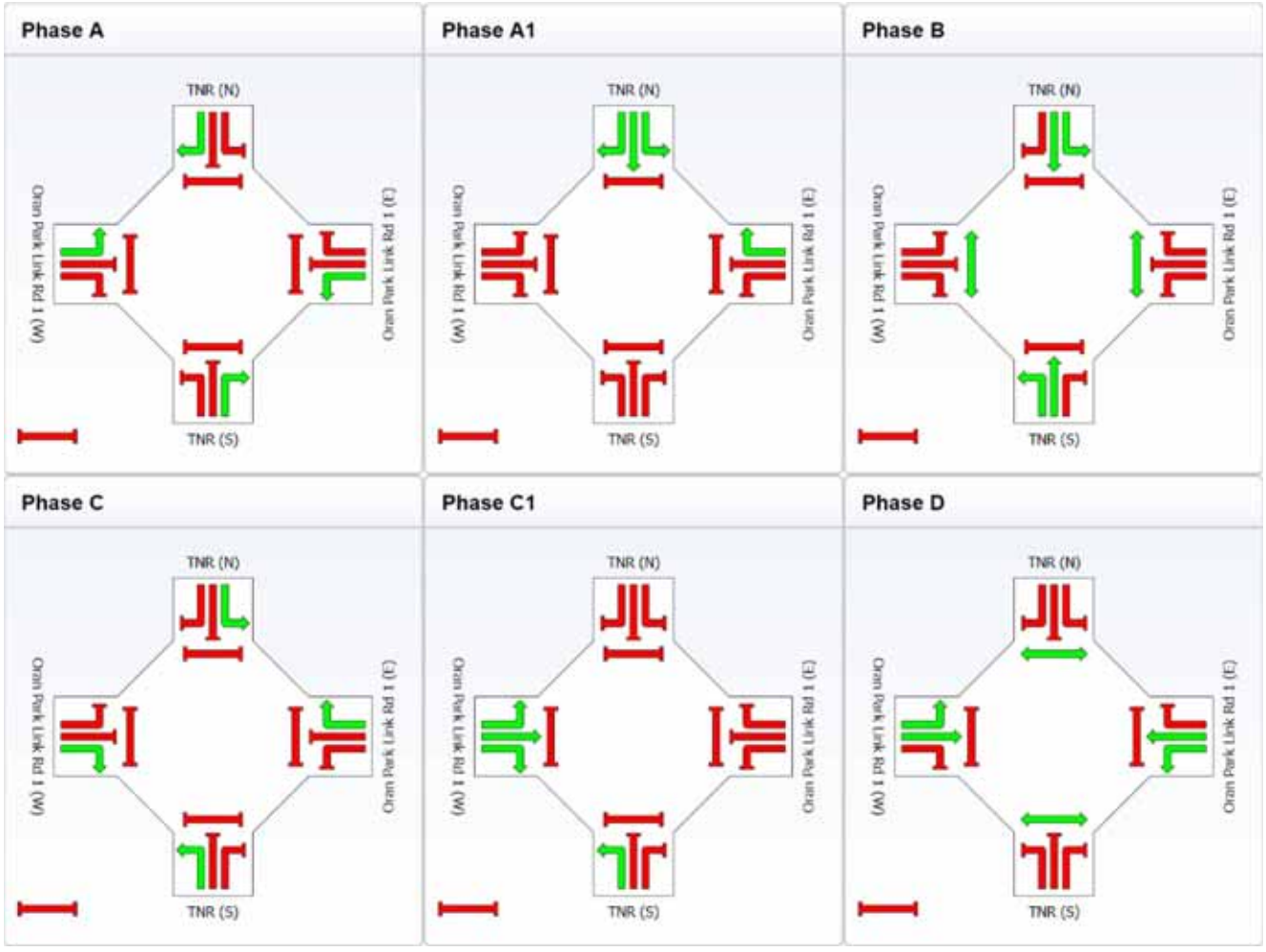
PHASING SUMMARY

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	22	6	36	8	10	32
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	28	12	42	14	16	38
Phase Split	19 %	8 %	28 %	9 %	11 %	25 %



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MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 1_PM

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	171	4.9	0.201	30.7	LOS C	5.2	37.7	0.45	0.76	40.2
2	T	1477	5.0	0.841	54.7	LOS D	33.9	247.3	0.97	0.90	27.6
3	R	567	5.0	0.860	78.3	LOS F	22.8	166.2	0.99	0.89	22.6
Approach		2215	5.0	0.860	58.9	LOS E	33.9	247.3	0.93	0.88	26.7
East: Oran Park Link Rd 1 (E)											
4	L	252	4.8	0.369	31.4	LOS C	9.0	65.4	0.53	0.74	32.5
5	T	273	5.1	0.335	53.7	LOS D	7.9	57.6	0.83	0.68	23.5
6	R	28	0.0	0.379	88.1	LOS F	2.1	15.0	1.00	0.72	17.7
Approach		553	4.7	0.379	45.3	LOS D	9.0	65.4	0.70	0.71	26.4
North: TNR (N)											
7	L	122	0.0	0.168	40.0	LOS C	4.6	32.5	0.56	0.76	34.8
8	T	1108	5.0	0.631	46.9	LOS D	21.4	156.1	0.85	0.74	30.4
9	R	442	5.0	0.631	71.5	LOS F	14.5	105.5	0.94	0.83	24.1
Approach		1673	4.6	0.631	52.9	LOS D	21.4	156.1	0.85	0.77	28.7
West: Oran Park Link Rd 1 (W)											
10	L	547	5.0	0.599	25.3	LOS B	19.0	138.9	0.52	0.76	35.7
11	T	217	4.9	0.226	25.4	LOS B	3.7	26.7	0.74	0.59	33.9
12	R	246	5.1	0.785	50.2	LOS D	5.7	41.6	1.00	0.84	25.5
Approach		1011	5.0	0.785	31.4	LOS C	19.0	138.9	0.69	0.74	32.2
All Vehicles		5451	4.8	0.860	50.6	LOS D	33.9	247.3	0.84	0.80	28.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	47.2	LOS E	0.0	0.0	0.79	0.79
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	49.6	LOS E	0.0	0.0	0.81	0.81
All Pedestrians		40	58.3	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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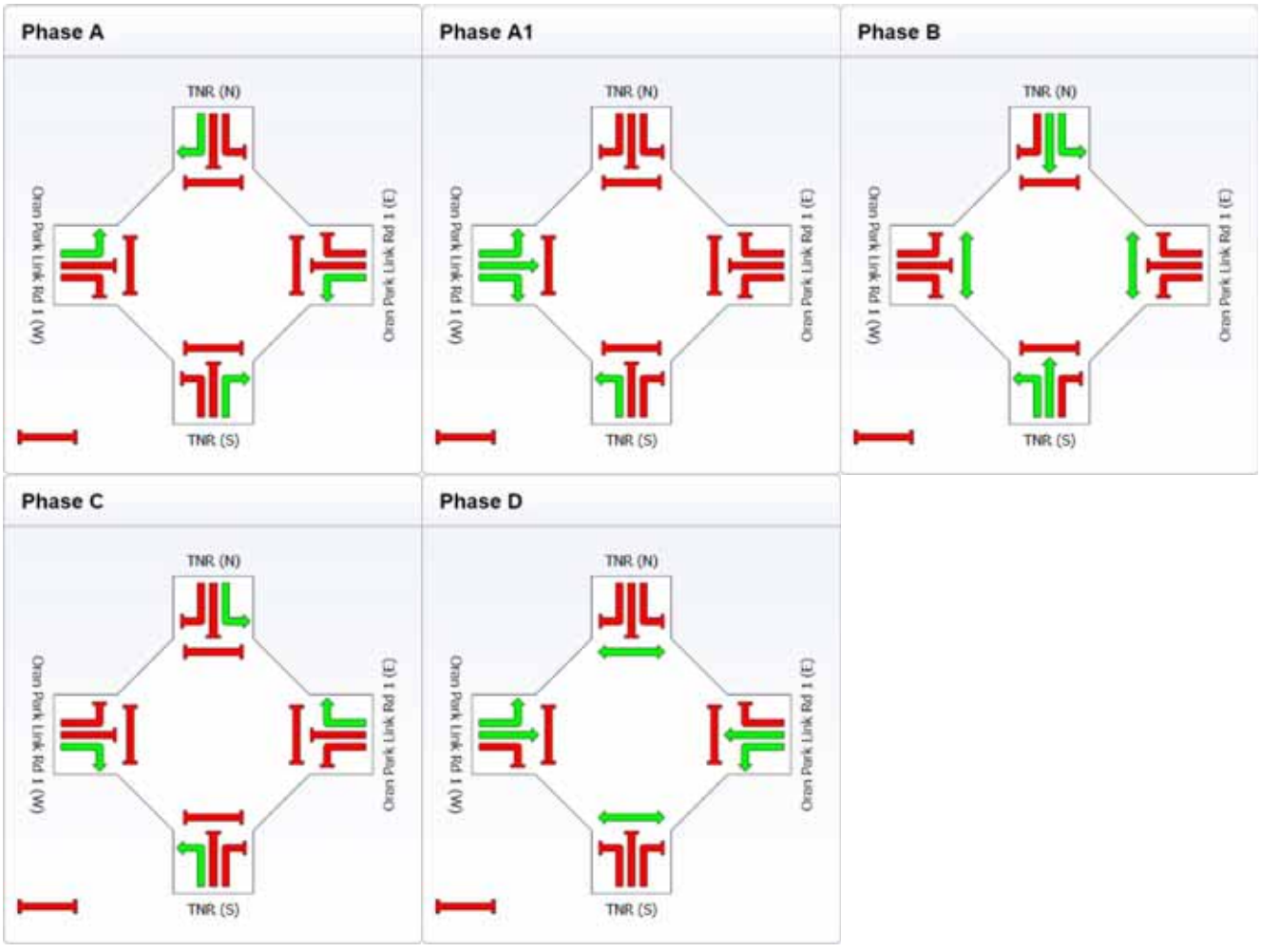
PHASING SUMMARY

Oran Park Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	29	7	46	6	32
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	35	13	52	12	38
Phase Split	23 %	9 %	35 %	8 %	25 %



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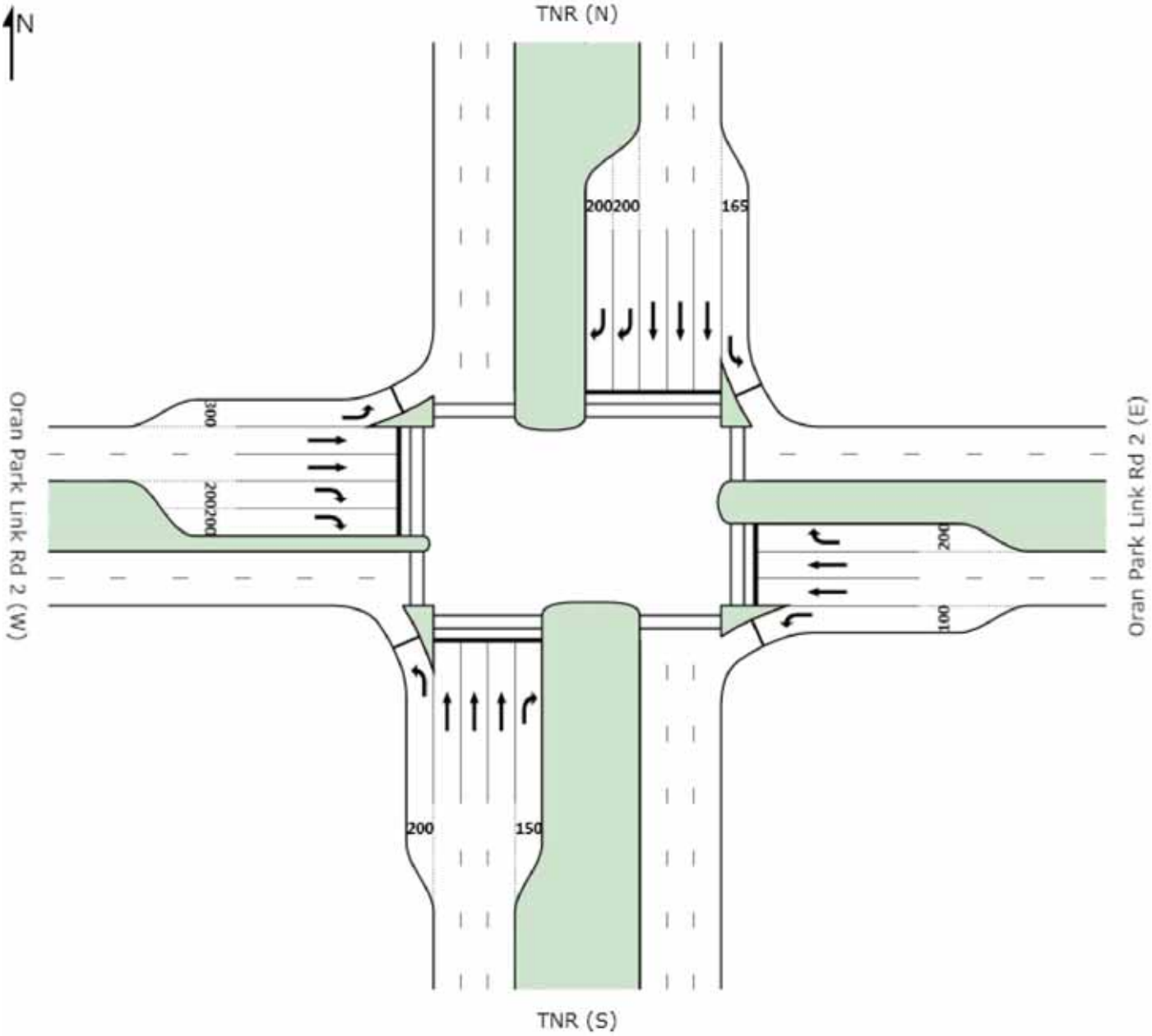
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TNR (N)
200200
165
Oran Park Link Rd 2 (W)
300
200200
Oran Park Link Rd 2 (E)
200
100
200
150
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 2_AM

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	216	4.9	0.238	27.7	LOS B	6.0	43.5	0.41	0.76	42.2
2	T	985	5.0	0.645	52.3	LOS D	20.0	146.3	0.89	0.77	28.4
3	R	108	0.0	0.788	90.4	LOS F	8.3	58.1	1.00	0.85	20.4
Approach		1309	4.6	0.788	51.4	LOS D	20.0	146.3	0.82	0.77	29.0
East: Oran Park Link Rd 2 (E)											
4	L	29	0.0	0.063	38.2	LOS C	1.1	7.8	0.55	0.68	29.5
5	T	271	4.9	0.287	49.0	LOS D	7.3	53.2	0.78	0.64	24.8
6	R	235	4.9	0.648	67.1	LOS E	15.3	111.9	0.94	0.82	21.4
Approach		535	4.7	0.648	56.4	LOS D	15.3	111.9	0.84	0.72	23.4
North: TNR (N)											
7	L	152	4.9	0.160	22.2	LOS B	3.1	22.5	0.30	0.73	46.6
8	T	1563	5.0	0.853	54.0	LOS D	36.2	264.0	0.97	0.91	27.8
9	R	277	4.9	0.603	79.3	LOS F	9.6	69.9	0.97	0.80	22.5
Approach		1992	5.0	0.853	55.1	LOS D	36.2	264.0	0.92	0.88	27.7
West: Oran Park Link Rd 2 (W)											
10	L	485	5.0	0.648	40.7	LOS C	24.5	178.8	0.75	0.82	28.6
11	T	443	5.0	0.471	51.7	LOS D	12.8	93.7	0.84	0.71	24.0
12	R	616	5.0	0.849	75.9	LOS F	22.9	167.3	1.00	0.92	19.7
Approach		1544	5.0	0.849	57.9	LOS E	24.5	178.8	0.88	0.83	23.1
All Vehicles		5380	4.8	0.853	55.1	LOS D	36.2	264.0	0.88	0.82	26.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	52.1	LOS E	0.0	0.0	0.83	0.83
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	54.6	LOS E	0.0	0.0	0.85	0.85
All Pedestrians		40	60.0	LOS F			0.89	0.89

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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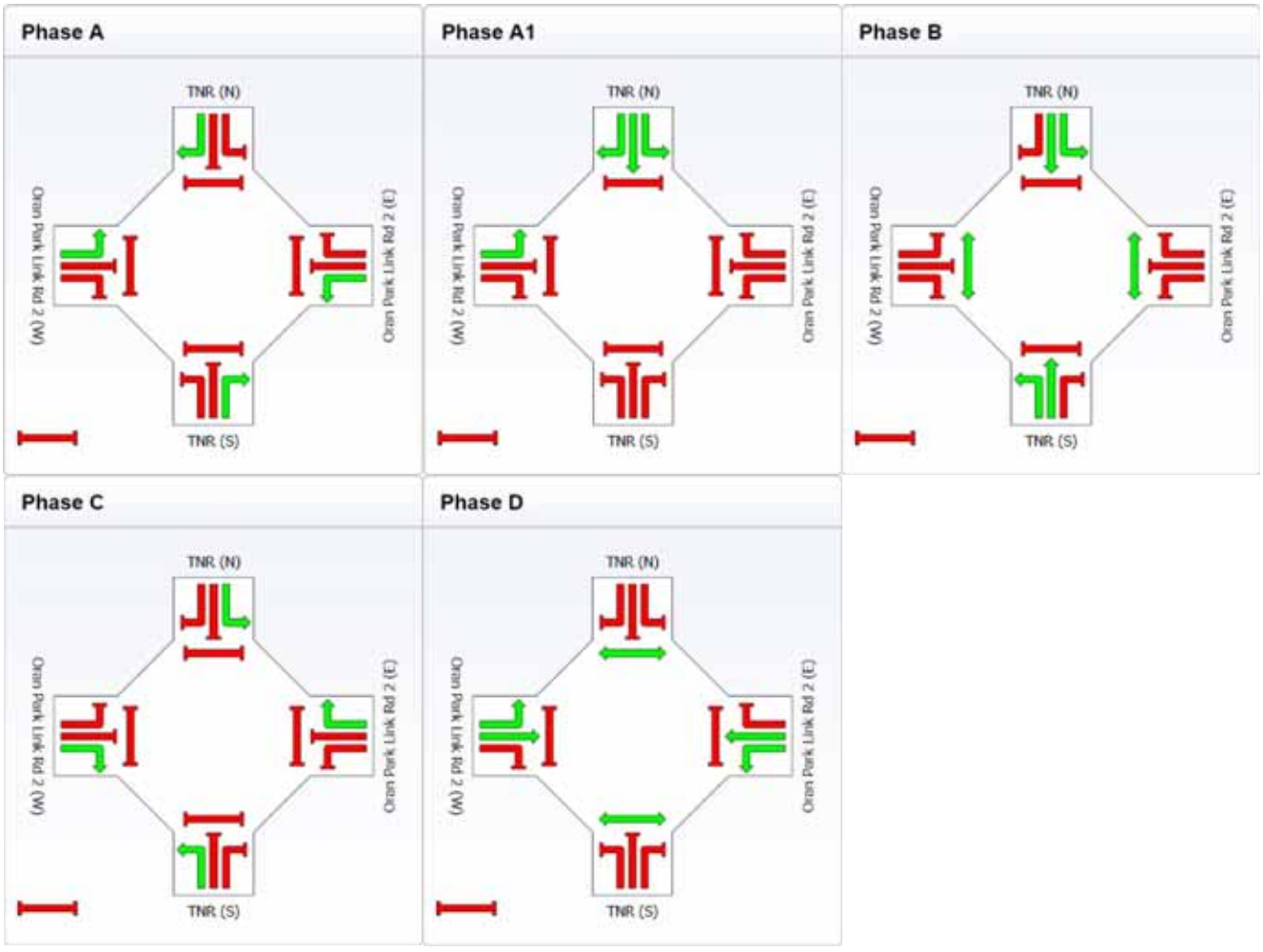
PHASING SUMMARY

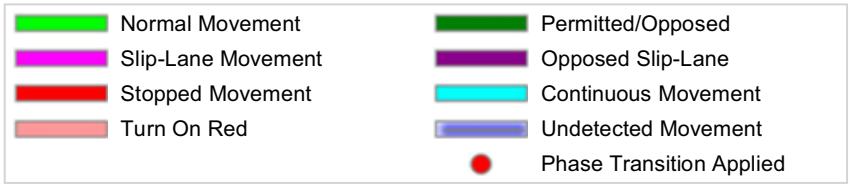
Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	11	2	40	30	37
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	17	8	46	36	43
Phase Split	11 %	5 %	31 %	24 %	29 %





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MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 2_PM

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	449	4.9	0.558	35.8	LOS C	18.4	134.0	0.61	0.81	37.1
2	T	1419	5.0	0.826	54.5	LOS D	32.1	234.1	0.96	0.88	27.7
3	R	157	0.0	0.660	79.9	LOS F	11.0	77.0	0.99	0.82	22.3
Approach		2025	4.6	0.826	52.3	LOS D	32.1	234.1	0.89	0.86	28.7
East: Oran Park Link Rd 2 (E)											
4	L	52	0.0	0.099	32.1	LOS C	1.7	12.0	0.49	0.69	32.1
5	T	474	5.0	0.503	52.2	LOS D	13.9	101.5	0.85	0.72	23.8
6	R	182	5.2	0.795	80.4	LOS F	13.5	98.9	1.00	0.88	19.0
Approach		707	4.7	0.795	58.0	LOS E	13.9	101.5	0.87	0.76	22.8
North: TNR (N)											
7	L	226	5.1	0.275	27.8	LOS B	6.3	46.1	0.42	0.76	42.1
8	T	1322	5.0	0.679	43.2	LOS D	25.2	184.3	0.85	0.75	31.8
9	R	499	5.1	0.827	81.3	LOS F	18.5	135.1	1.00	0.89	22.1
Approach		2047	5.0	0.827	50.8	LOS D	25.2	184.3	0.84	0.78	29.5
West: Oran Park Link Rd 2 (W)											
10	L	335	5.0	0.408	31.9	LOS C	12.6	92.3	0.56	0.75	32.2
11	T	309	5.1	0.329	49.6	LOS D	8.5	61.9	0.80	0.65	24.6
12	R	352	5.1	0.766	79.4	LOS F	12.9	94.1	1.00	0.86	19.1
Approach		996	5.1	0.766	54.1	LOS D	12.9	94.1	0.79	0.76	24.1
All Vehicles		5776	4.9	0.827	52.8	LOS D	32.1	234.1	0.85	0.80	27.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	48.0	LOS E	0.0	0.0	0.80	0.80
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	50.4	LOS E	0.0	0.0	0.82	0.82
All Pedestrians		40	58.0	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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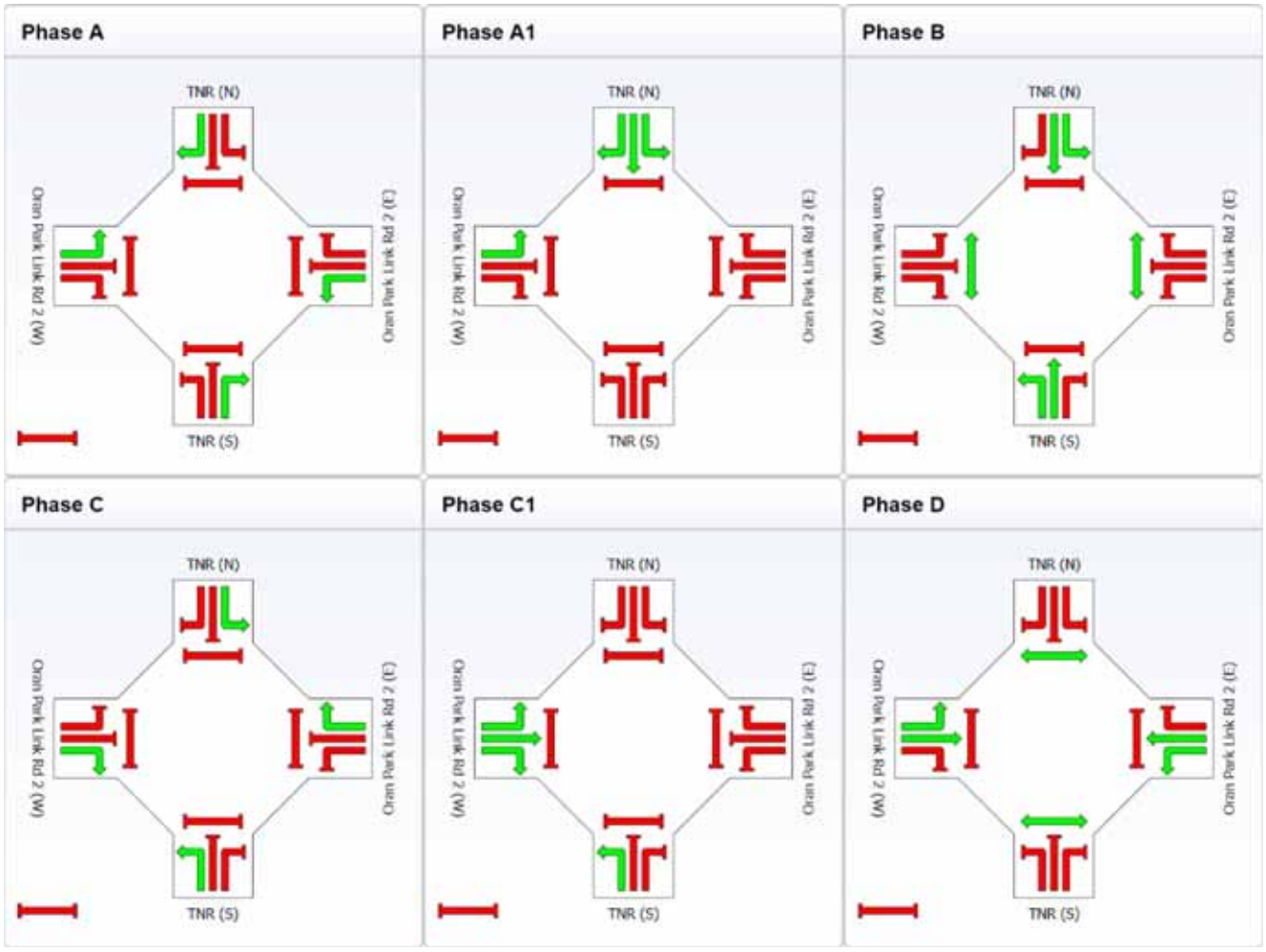
PHASING SUMMARY

Oran Park Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	19	0	45	19	0	37
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	25	6	51	25	0	43
Phase Split	17 %	4 %	34 %	17 %	0 %	29 %



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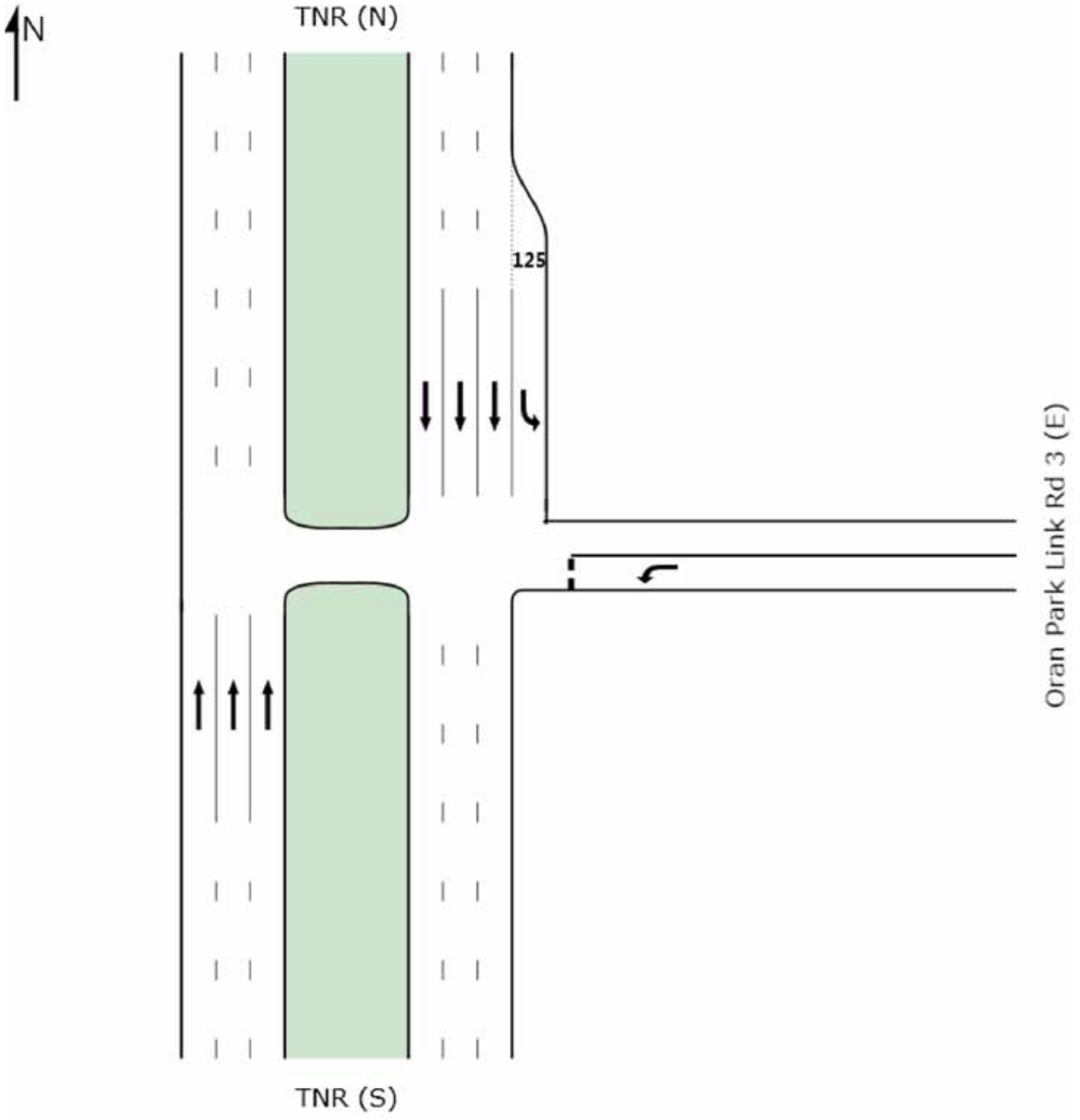
N
TNR (N)
125
Oran Park Link Rd 3 (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 3_AM

Oran Park Link Road 3
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1813	5.0	0.320	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1813	5.0	0.320	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
East: Oran Park Link Rd 3 (E)											
4	L	1	0.0	0.007	30.8	LOS C	0.0	0.2	0.88	0.92	32.4
Approach		1	0.0	0.007	30.8	LOS C	0.0	0.2	0.88	0.92	32.4
North: TNR (N)											
7	L	102	5.2	0.057	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
8	T	1993	5.0	0.352	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2095	5.0	0.352	0.5	LOS A	0.0	0.0	0.00	0.04	78.7
All Vehicles		3908	5.0	0.352	0.3	NA	0.0	0.2	0.00	0.02	79.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Oran Park Link Rd 3_PM

Oran Park Link Road 3
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	2091	5.0	0.369	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2091	5.0	0.369	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Oran Park Link Rd 3 (E)											
4	L	1	0.0	0.008	32.6	LOS C	0.0	0.2	0.89	0.93	31.6
Approach		1	0.0	0.008	32.6	LOS C	0.0	0.2	0.89	0.93	31.6
North: TNR (N)											
7	L	81	5.2	0.045	11.2	LOS A	0.0	0.0	0.00	0.73	58.9
8	T	2046	5.0	0.361	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2127	5.0	0.361	0.4	NA	0.0	0.0	0.00	0.03	78.9
All Vehicles		4219	5.0	0.369	0.2	NA	0.0	0.2	0.00	0.01	79.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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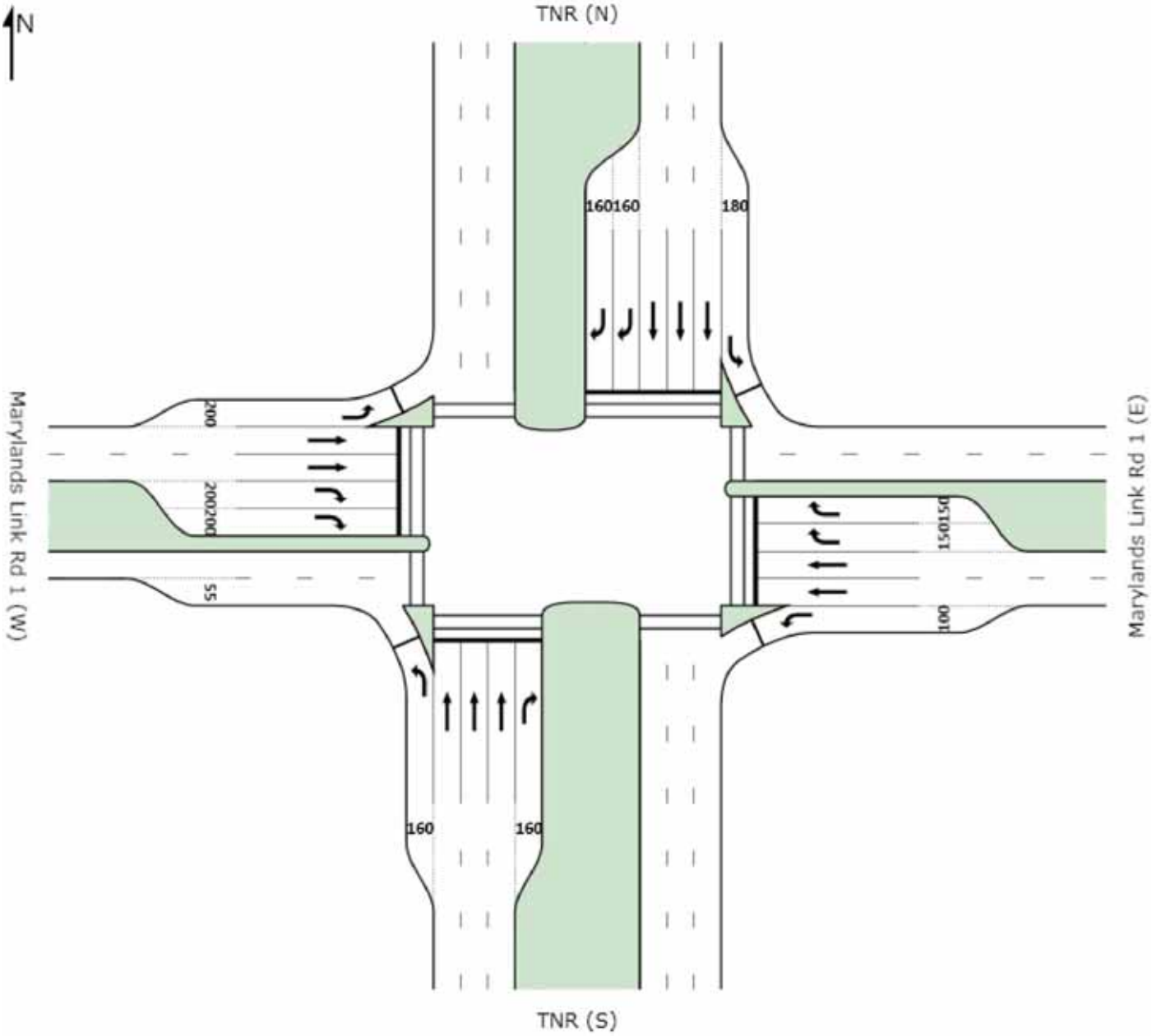
N
TNR (N)
160160
180
Marylands Link Rd 1 (W)
200
200200
55
150150
100
Marylands Link Rd 1 (E)
160
160
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Marylands Link Rd 1_AM

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	113	4.7	0.134	26.0	LOS B	2.8	20.1	0.36	0.73	43.5
2	T	1638	5.0	0.766	40.5	LOS C	32.1	234.4	0.87	0.78	32.9
3	R	62	5.1	0.643	91.1	LOS F	4.7	34.5	1.00	0.78	20.3
Approach		1813	5.0	0.766	41.3	LOS C	32.1	234.4	0.85	0.78	32.7
East: Marylands Link Rd 1 (E)											
4	L	82	5.1	0.192	42.2	LOS C	3.4	25.1	0.61	0.72	28.0
5	T	47	4.4	0.068	45.7	LOS D	1.6	11.6	0.71	0.52	25.8
6	R	197	4.8	0.543	78.6	LOS F	6.9	50.5	0.98	0.78	19.3
Approach		326	4.8	0.543	64.6	LOS E	6.9	50.5	0.85	0.73	21.8
North: TNR (N)											
7	L	121	5.2	0.117	20.4	LOS B	2.1	15.7	0.26	0.72	48.3
8	T	1740	5.0	0.691	30.4	LOS C	29.1	212.2	0.75	0.67	38.3
9	R	239	4.8	0.765	81.9	LOS F	12.3	89.3	0.98	0.83	22.0
Approach		2100	5.0	0.765	35.7	LOS C	29.1	212.2	0.75	0.69	35.7
West: Marylands Link Rd 1 (W)											
10	L	455	5.1	0.630	40.9	LOS C	22.6	165.3	0.74	0.81	28.5
11	T	24	4.3	0.026	45.2	LOS D	0.6	4.3	0.70	0.49	26.0
12	R	271	5.1	0.747	82.1	LOS F	10.0	73.2	1.00	0.85	18.7
Approach		749	5.1	0.747	55.9	LOS D	22.6	165.3	0.83	0.82	23.9
All Vehicles		4988	5.0	0.766	42.7	LOS D	32.1	234.4	0.80	0.75	31.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	41.8	LOS E	0.0	0.0	0.75	0.75
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	41.8	LOS E	0.0	0.0	0.75	0.75
All Pedestrians		40	54.3	LOS E			0.85	0.85

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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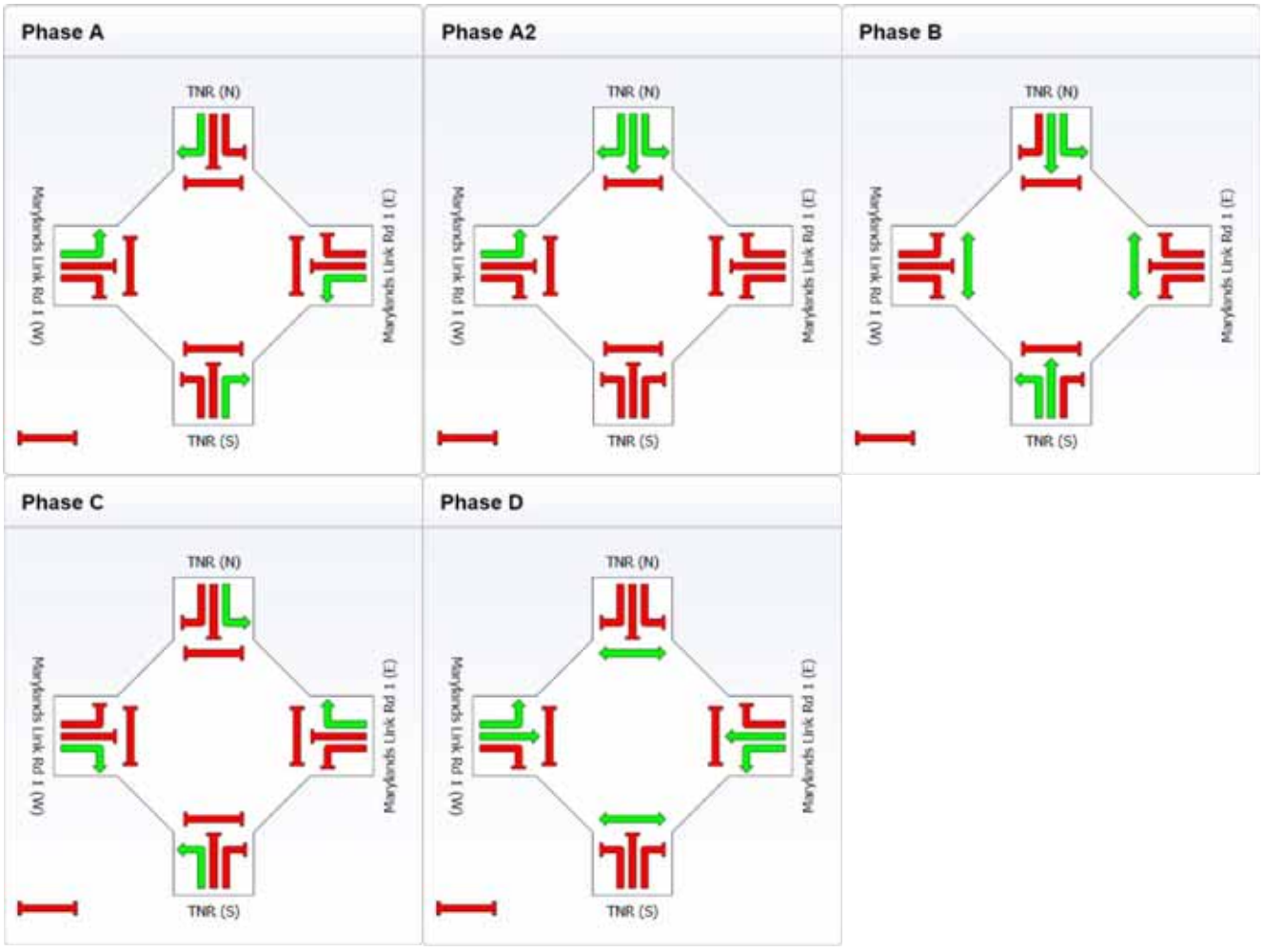
PHASING SUMMARY

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A2, B, C, C1, D
Output Sequence: A, A2, B, C, D

Phase Timing Results

Phase	A	A2	B	C	D
Green Time (sec)	8	4	56	15	37
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	14	10	62	21	43
Phase Split	9 %	7 %	41 %	14 %	29 %



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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MOVEMENT SUMMARY

Site: 2036_Marylands Link Rd 1_PM

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	204	5.2	0.294	35.8	LOS C	7.3	53.3	0.53	0.77	37.1
2	T	1796	5.0	0.818	47.8	LOS D	38.4	280.0	0.94	0.85	29.9
3	R	89	4.7	0.672	88.0	LOS F	6.7	48.5	1.00	0.80	20.8
Approach		2089	5.0	0.818	48.3	LOS D	38.4	280.0	0.90	0.84	29.9
East: Marylands Link Rd 1 (E)											
4	L	63	5.0	0.142	39.1	LOS C	2.5	18.0	0.57	0.70	29.2
5	T	88	4.8	0.128	46.4	LOS D	3.0	22.2	0.73	0.56	25.6
6	R	138	5.3	0.636	86.0	LOS F	5.2	38.0	1.00	0.79	18.1
Approach		289	5.1	0.636	63.7	LOS E	5.2	38.0	0.82	0.70	21.9
North: TNR (N)											
7	L	195	4.9	0.198	22.5	LOS B	4.1	30.0	0.32	0.74	46.3
8	T	1886	5.0	0.716	28.5	LOS B	31.2	228.1	0.75	0.67	39.5
9	R	429	4.9	0.826	74.4	LOS F	21.8	158.9	0.96	0.86	23.6
Approach		2511	5.0	0.826	35.9	LOS C	31.2	228.1	0.75	0.71	35.8
West: Marylands Link Rd 1 (W)											
10	L	281	4.9	0.323	27.1	LOS B	8.9	65.1	0.47	0.73	34.7
11	T	27	3.8	0.029	45.2	LOS D	0.7	4.8	0.70	0.50	26.0
12	R	180	5.3	0.829	90.5	LOS F	7.1	51.9	1.00	0.89	17.5
Approach		488	5.0	0.829	51.5	LOS D	8.9	65.1	0.68	0.77	25.1
All Vehicles		5378	5.0	0.829	43.6	LOS D	38.4	280.0	0.81	0.77	31.3

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	46.4	LOS E	0.0	0.0	0.79	0.79
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	46.4	LOS E	0.0	0.0	0.79	0.79
All Pedestrians		40	56.6	LOS E			0.86	0.86

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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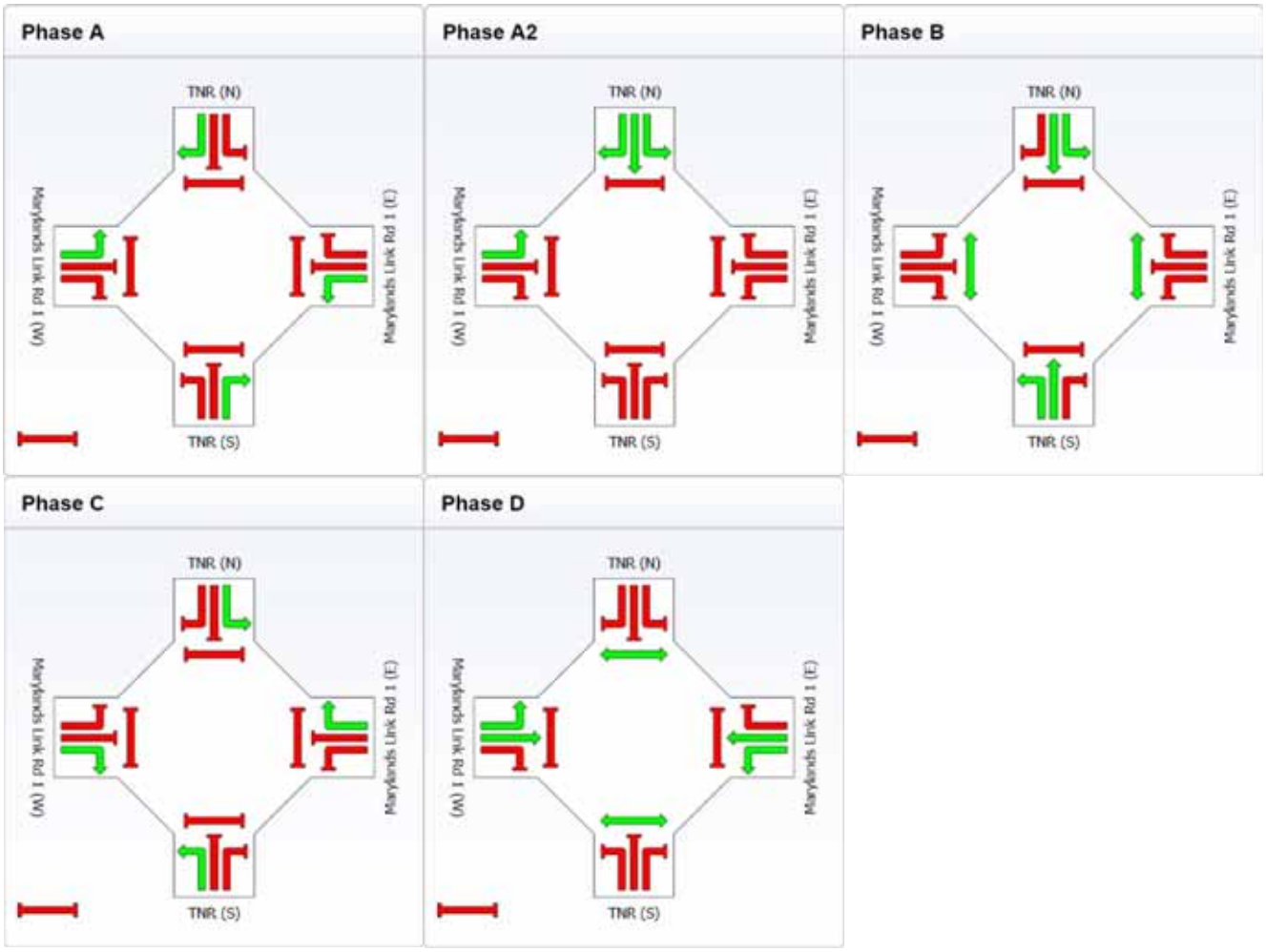
PHASING SUMMARY

Marylands Link Road 1
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, A2, B, C, C1, D
Output Sequence: A, A2, B, C, D

Phase Timing Results

Phase	A	A2	B	C	D
Green Time (sec)	11	13	50	9	37
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	17	19	56	15	43
Phase Split	11 %	13 %	37 %	10 %	29 %



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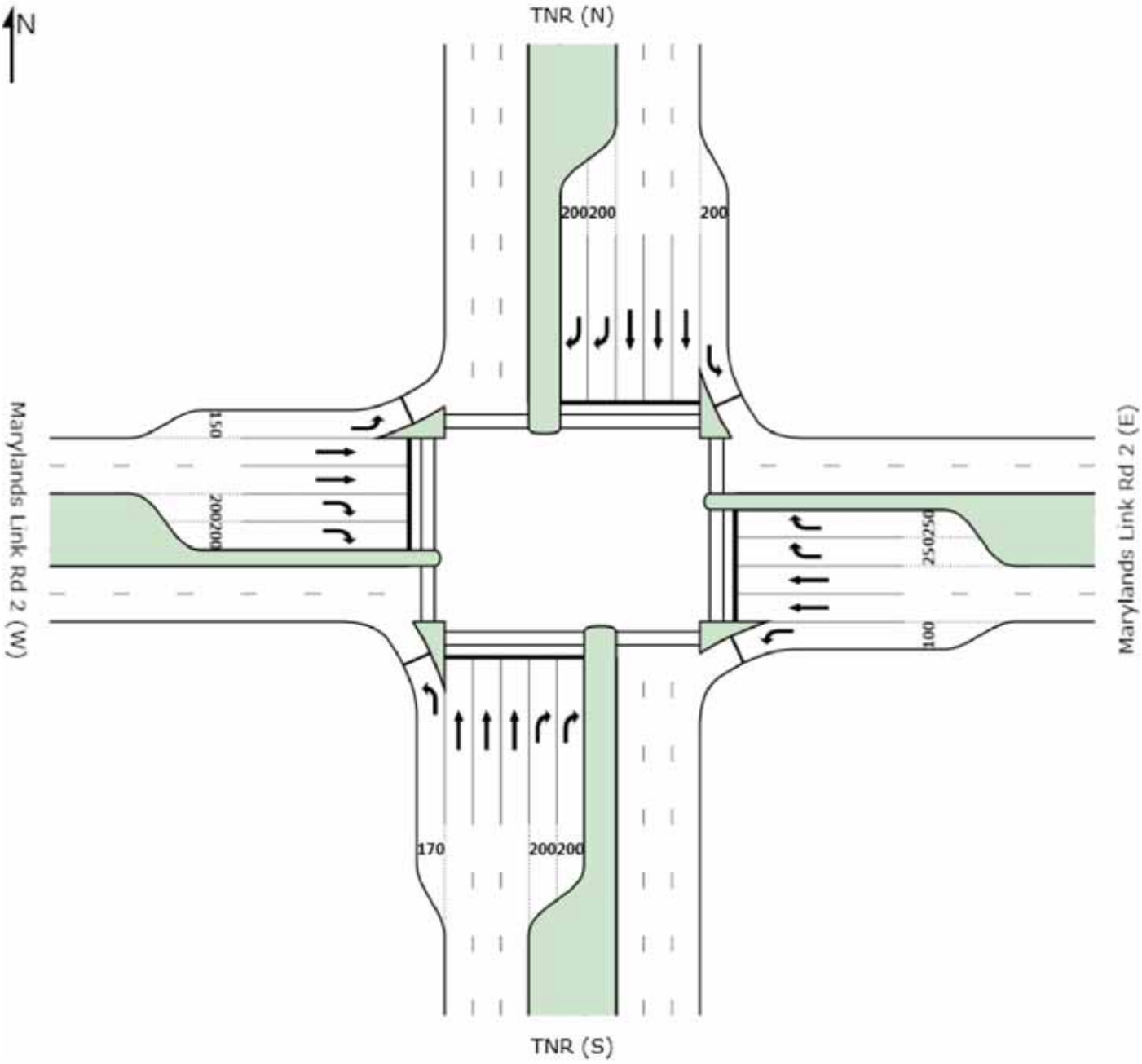
N
TNR (N)
200200
200
Marylands Link Rd 2 (W)
150
200200
250250
100
Marylands Link Rd 2 (E)
170
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Marylands Link Rd 2_AM

Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	132	4.8	0.123	19.0	LOS B	2.1	15.1	0.24	0.72	49.6
2	T	1971	5.0	0.820	36.3	LOS C	39.0	284.6	0.88	0.80	34.8
3	R	188	5.0	0.780	91.5	LOS F	7.3	53.0	1.00	0.84	20.2
Approach		2291	5.0	0.820	39.8	LOS C	39.0	284.6	0.85	0.80	33.4
East: Marylands Link Rd 2 (E)											
4	L	163	5.2	0.404	47.0	LOS D	7.7	56.2	0.69	0.75	26.4
5	T	99	5.3	0.122	50.9	LOS D	2.7	19.5	0.77	0.59	24.3
6	R	406	4.9	0.801	79.2	LOS F	15.0	109.5	1.00	0.88	19.1
Approach		668	5.0	0.801	67.2	LOS E	15.0	109.5	0.89	0.81	21.2
North: TNR (N)											
7	L	471	4.9	0.433	21.0	LOS B	10.3	75.2	0.33	0.76	47.7
8	T	1709	5.0	0.711	33.3	LOS C	30.1	219.5	0.79	0.71	36.6
9	R	168	5.0	0.697	89.6	LOS F	6.4	46.4	1.00	0.81	20.5
Approach		2348	5.0	0.711	34.9	LOS C	30.1	219.5	0.71	0.72	36.2
West: Marylands Link Rd 2 (W)											
10	L	342	4.9	0.649	52.0	LOS D	19.1	139.0	0.82	0.82	24.9
11	T	180	5.3	0.221	52.2	LOS D	5.0	36.6	0.80	0.64	23.9
12	R	227	5.1	0.448	72.3	LOS F	7.5	54.8	0.93	0.79	20.3
Approach		749	5.1	0.649	58.2	LOS E	19.1	139.0	0.85	0.76	23.1
All Vehicles		6057	5.0	0.820	43.2	LOS D	39.0	284.6	0.80	0.77	31.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P3	Across E approach	10	36.8	LOS D	0.0	0.0	0.70	0.70
P5	Across N approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P7	Across W approach	10	36.8	LOS D	0.0	0.0	0.70	0.70
All Pedestrians		40	52.9	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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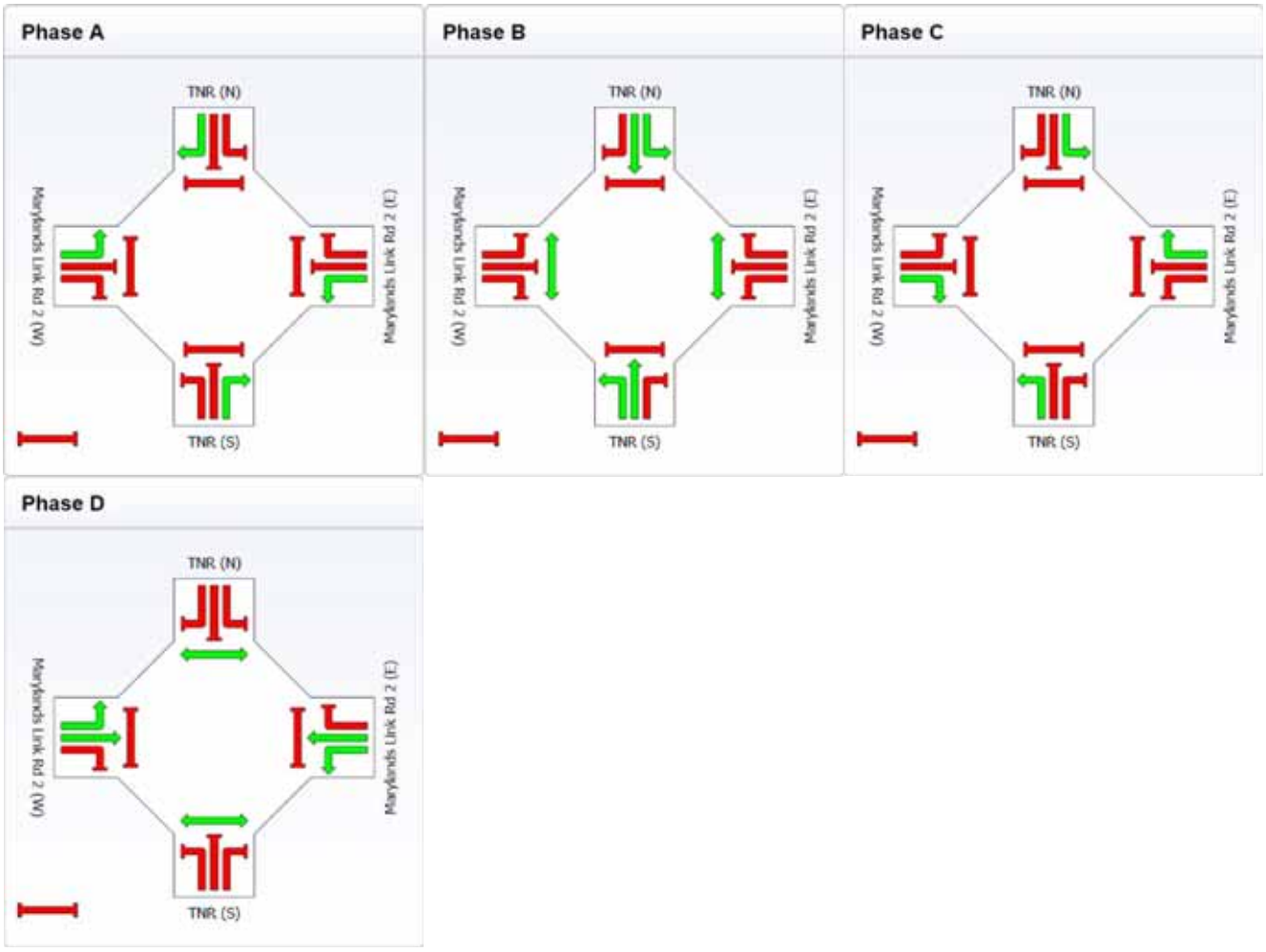
PHASING SUMMARY

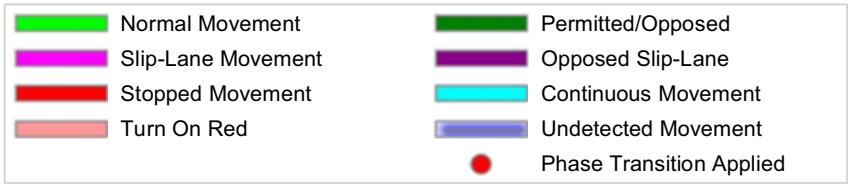
Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	10	63	21	32
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	16	69	27	38
Phase Split	11 %	46 %	18 %	25 %





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MOVEMENT SUMMARY

Site: 2036_Marylands Link Rd 2_PM

Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	226	5.1	0.222	22.0	LOS B	4.6	33.9	0.31	0.74	46.8
2	T	1805	5.0	0.741	38.1	LOS C	34.0	248.5	0.85	0.76	34.0
3	R	185	5.1	0.498	82.7	LOS F	6.5	47.5	0.98	0.78	21.8
Approach		2217	5.0	0.741	40.2	LOS C	34.0	248.5	0.80	0.76	33.4
East: Marylands Link Rd 2 (E)											
4	L	192	4.9	0.434	42.2	LOS C	8.4	61.0	0.64	0.75	28.0
5	T	174	4.8	0.188	50.8	LOS D	4.7	34.3	0.79	0.62	24.3
6	R	492	4.9	0.880	84.4	LOS F	19.2	139.9	1.00	0.94	18.3
Approach		857	4.9	0.880	68.2	LOS E	19.2	139.9	0.88	0.83	21.0
North: TNR (N)											
7	L	423	5.0	0.394	23.4	LOS B	10.3	75.2	0.37	0.76	45.6
8	T	2148	5.0	0.882	46.6	LOS D	49.2	359.3	0.96	0.92	30.3
9	R	323	4.9	0.868	91.7	LOS F	12.7	92.3	1.00	0.91	20.2
Approach		2895	5.0	0.882	48.3	LOS D	49.2	359.3	0.88	0.89	30.1
West: Marylands Link Rd 2 (W)											
10	L	198	4.8	0.332	42.3	LOS C	8.7	63.3	0.65	0.75	28.0
11	T	121	5.2	0.131	50.0	LOS D	3.2	23.5	0.77	0.59	24.5
12	R	169	5.0	0.304	70.4	LOS E	5.4	39.4	0.90	0.76	20.7
Approach		488	5.0	0.332	54.0	LOS D	8.7	63.3	0.77	0.72	24.2
All Vehicles		6457	5.0	0.882	48.6	LOS D	49.2	359.3	0.84	0.83	29.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	40.3	LOS E	0.0	0.0	0.73	0.73
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	40.3	LOS E	0.0	0.0	0.73	0.73
All Pedestrians		40	54.2	LOS E			0.84	0.84

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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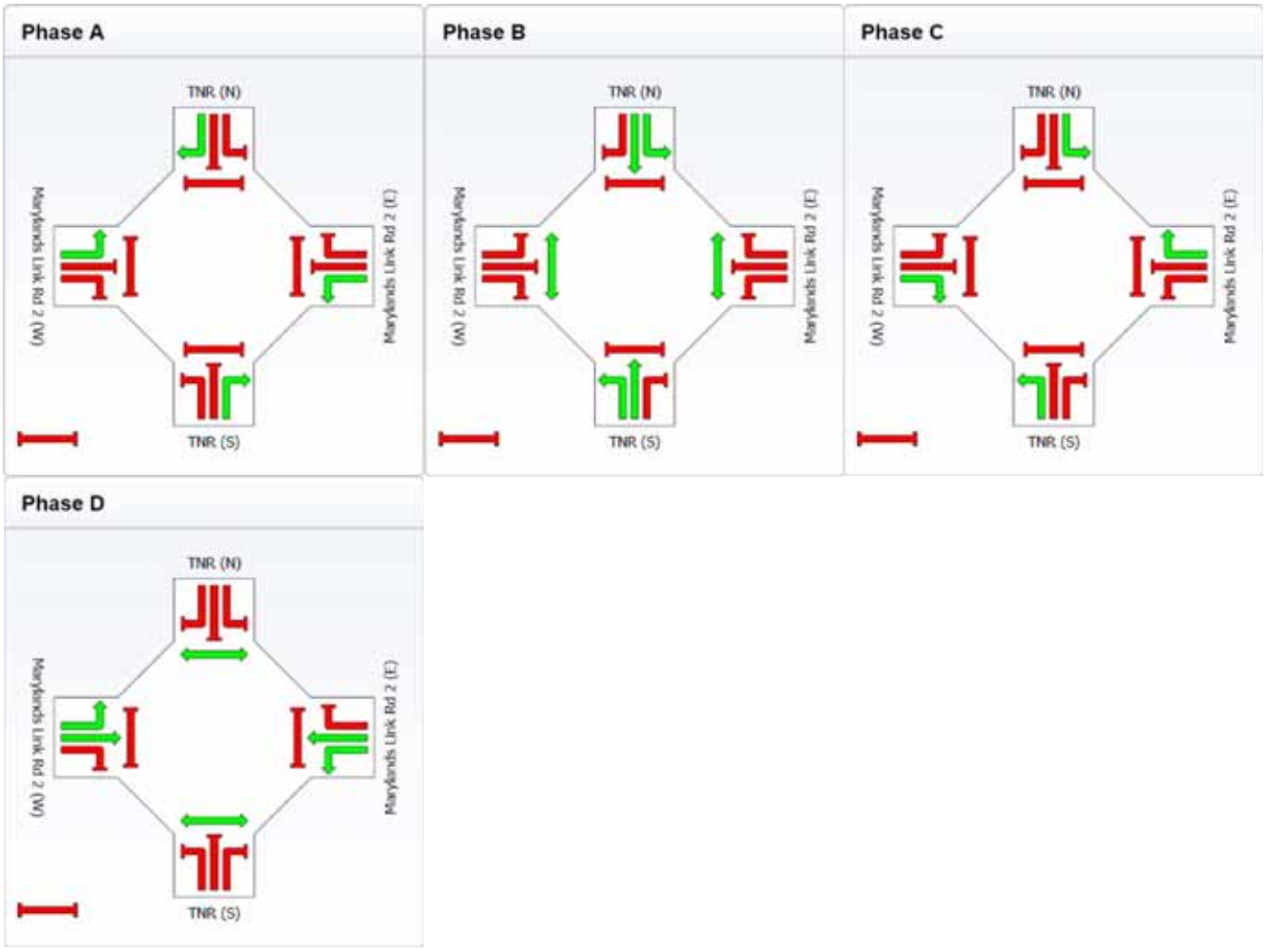
PHASING SUMMARY

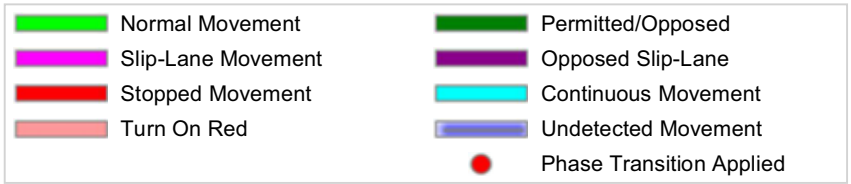
Marylands Link Road 2
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn (phase reduction applied)
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	14	58	21	33
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	20	64	27	39
Phase Split	13 %	43 %	18 %	26 %





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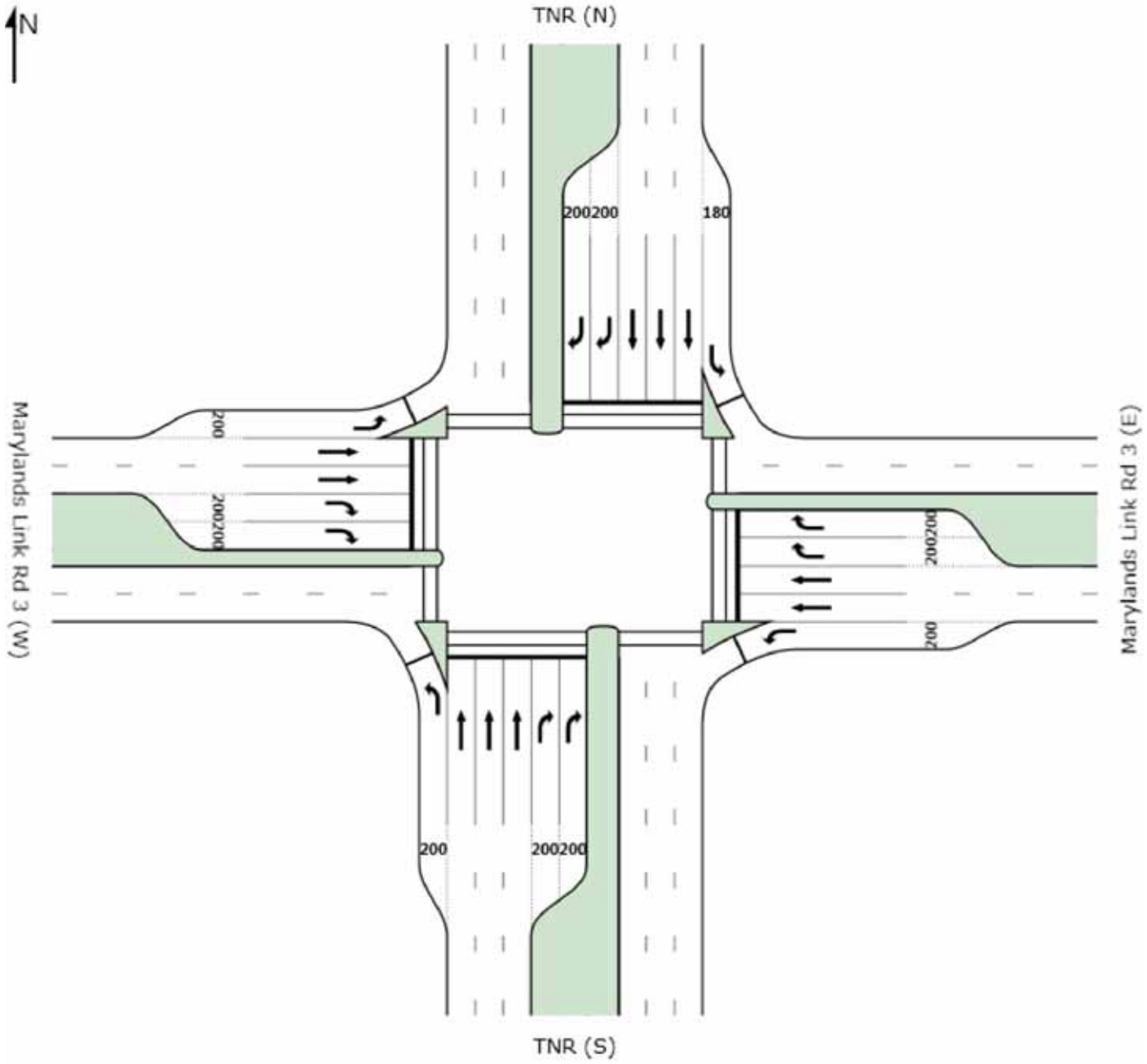
N
TNR (N)
200200
180
Marylands Link Rd 3 (W)
200
200200
Marylands Link Rd 3 (E)
200200
200
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Marylands Link Rd 3_AM

Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	408	4.9	0.375	20.6	LOS B	8.4	60.9	0.31	0.75	48.1
2	T	1727	5.0	0.808	42.3	LOS C	35.5	259.1	0.91	0.82	32.1
3	R	583	5.1	0.862	82.3	LOS F	22.2	161.8	1.00	0.91	21.8
Approach		2719	5.0	0.862	47.6	LOS D	35.5	259.1	0.84	0.83	30.5
East: Marylands Link Rd 3 (E)											
4	L	471	4.9	0.811	58.4	LOS E	30.9	225.7	0.94	0.89	23.3
5	T	188	5.0	0.224	51.4	LOS D	5.2	37.9	0.80	0.63	24.1
6	R	247	5.1	0.366	65.1	LOS E	7.5	54.9	0.87	0.78	21.8
Approach		906	5.0	0.811	58.8	LOS E	30.9	225.7	0.89	0.80	23.0
North: TNR (N)											
7	L	98	5.4	0.120	29.8	LOS C	2.8	20.4	0.42	0.74	40.8
8	T	1204	5.0	0.853	63.3	LOS E	29.2	212.8	1.00	0.93	25.1
9	R	126	5.0	0.581	89.2	LOS F	4.7	34.4	1.00	0.77	20.6
Approach		1428	5.0	0.853	63.3	LOS E	29.2	212.8	0.96	0.90	25.3
West: Marylands Link Rd 3 (W)											
10	L	307	5.1	0.531	50.9	LOS D	16.5	120.9	0.79	0.81	25.2
11	T	380	5.0	0.453	54.5	LOS D	11.3	82.7	0.86	0.72	23.2
12	R	568	5.0	0.840	76.6	LOS F	21.1	154.1	1.00	0.91	19.6
Approach		1256	5.0	0.840	63.6	LOS E	21.1	154.1	0.91	0.83	21.8
All Vehicles		6309	5.0	0.862	55.9	LOS D	35.5	259.1	0.89	0.84	26.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	57.2	LOS E	0.0	0.0	0.87	0.87
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	41.8	LOS E	0.0	0.0	0.75	0.75
All Pedestrians		40	58.8	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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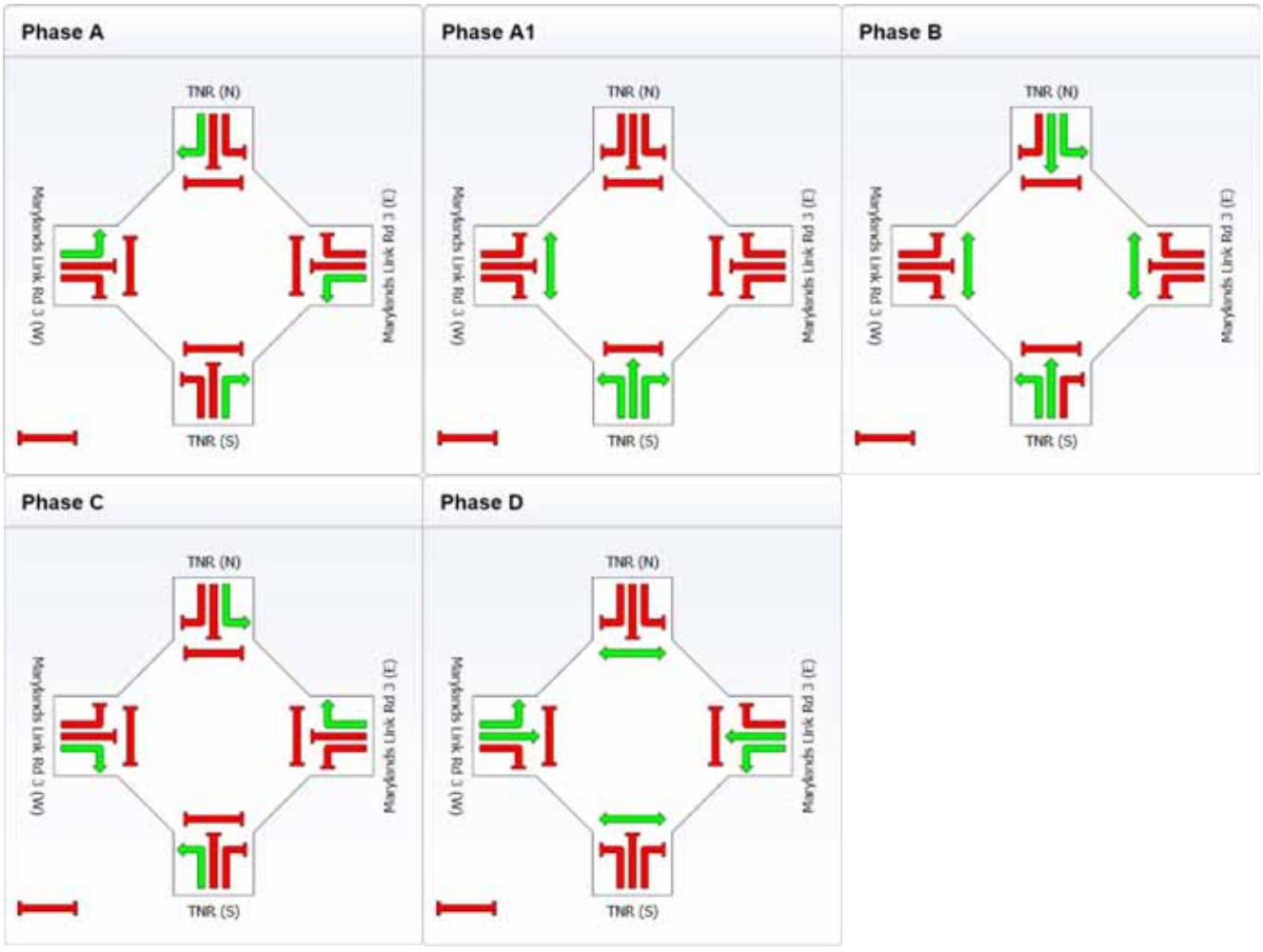
PHASING SUMMARY

Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	9	13	37	28	33
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	15	19	43	34	39
Phase Split	10 %	13 %	29 %	23 %	26 %



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MOVEMENT SUMMARY

Site: 2036_Marylands Link Rd 3_PM

Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	672	5.0	0.842	38.3	LOS C	30.0	219.0	0.77	0.87	35.7
2	T	1257	5.0	0.610	39.2	LOS C	22.3	162.8	0.79	0.69	33.7
3	R	489	5.0	0.881	88.4	LOS F	19.1	139.2	1.00	0.92	20.7
Approach		2418	5.0	0.881	48.9	LOS D	30.0	219.0	0.83	0.79	30.3
East: Marylands Link Rd 3 (E)											
4	L	589	5.0	0.867	52.7	LOS D	38.8	283.0	0.91	0.91	24.7
5	T	355	5.0	0.423	54.1	LOS D	10.5	76.4	0.85	0.71	23.3
6	R	109	4.8	0.238	71.9	LOS F	3.5	25.6	0.90	0.75	20.4
Approach		1054	5.0	0.867	55.2	LOS D	38.8	283.0	0.89	0.82	23.7
North: TNR (N)											
7	L	226	5.1	0.352	25.8	LOS B	5.8	42.3	0.38	0.75	43.6
8	T	1797	5.0	0.872	50.3	LOS D	41.7	304.6	0.96	0.92	29.0
9	R	286	5.1	0.593	78.4	LOS F	9.8	71.8	0.97	0.81	22.6
Approach		2309	5.0	0.872	51.4	LOS D	41.7	304.6	0.91	0.89	28.9
West: Marylands Link Rd 3 (W)											
10	L	140	5.3	0.197	36.2	LOS C	5.3	39.0	0.56	0.73	30.3
11	T	239	4.8	0.284	52.2	LOS D	6.7	49.0	0.81	0.66	23.9
12	R	403	5.0	0.878	86.4	LOS F	15.9	115.9	1.00	0.95	18.0
Approach		782	5.0	0.878	66.9	LOS E	15.9	115.9	0.86	0.82	21.1
All Vehicles		6563	5.0	0.881	52.9	LOS D	41.7	304.6	0.87	0.83	27.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	43.3	LOS E	0.0	0.0	0.76	0.76
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	43.3	LOS E	0.0	0.0	0.76	0.76
All Pedestrians		40	55.7	LOS E			0.86	0.86

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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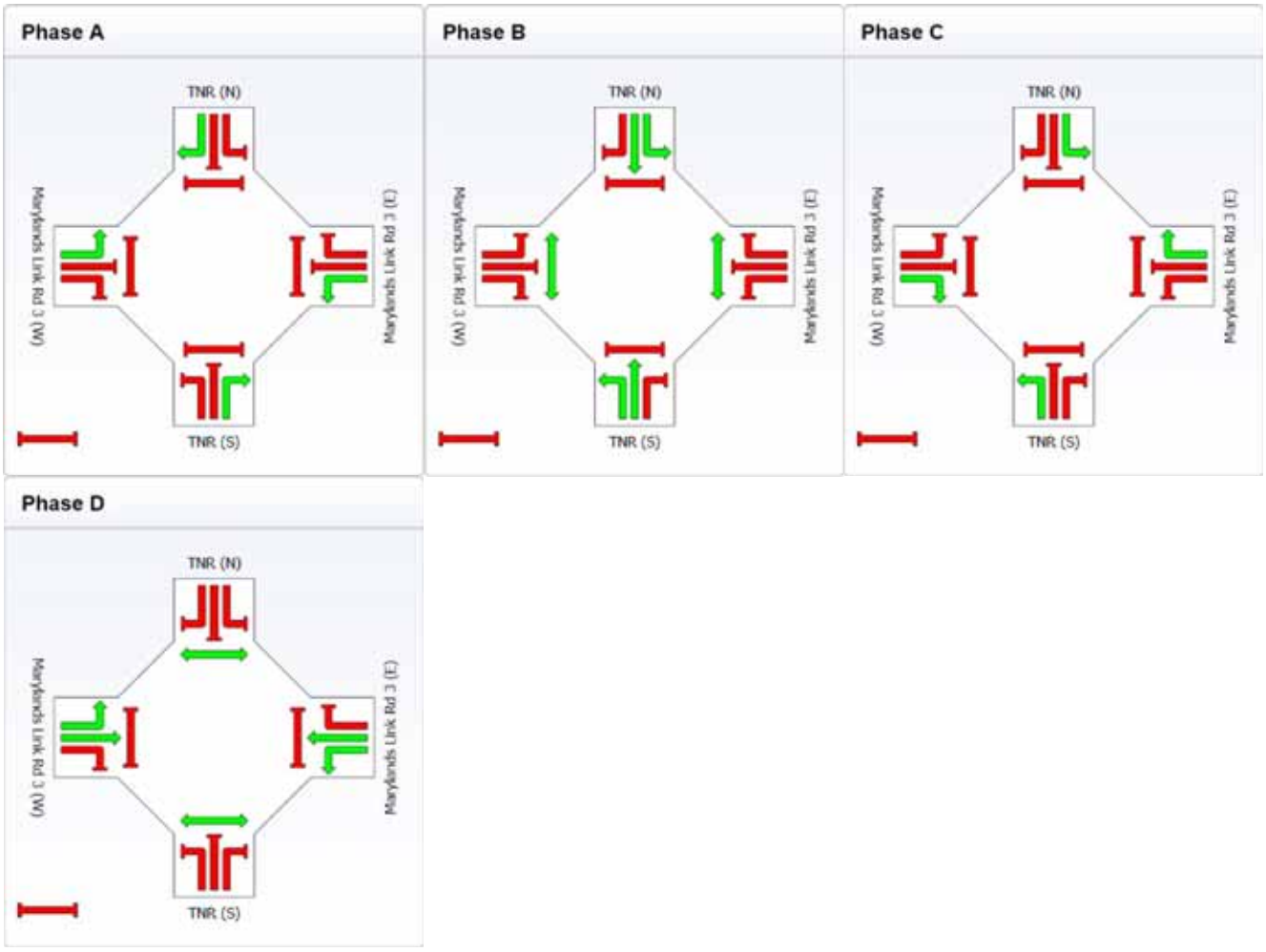
PHASING SUMMARY

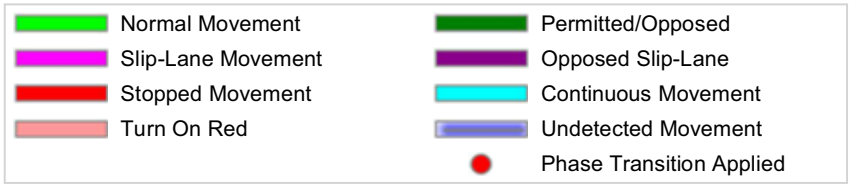
Marylands Link Road 3
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	20	54	19	33
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	26	60	25	39
Phase Split	17 %	40 %	17 %	26 %





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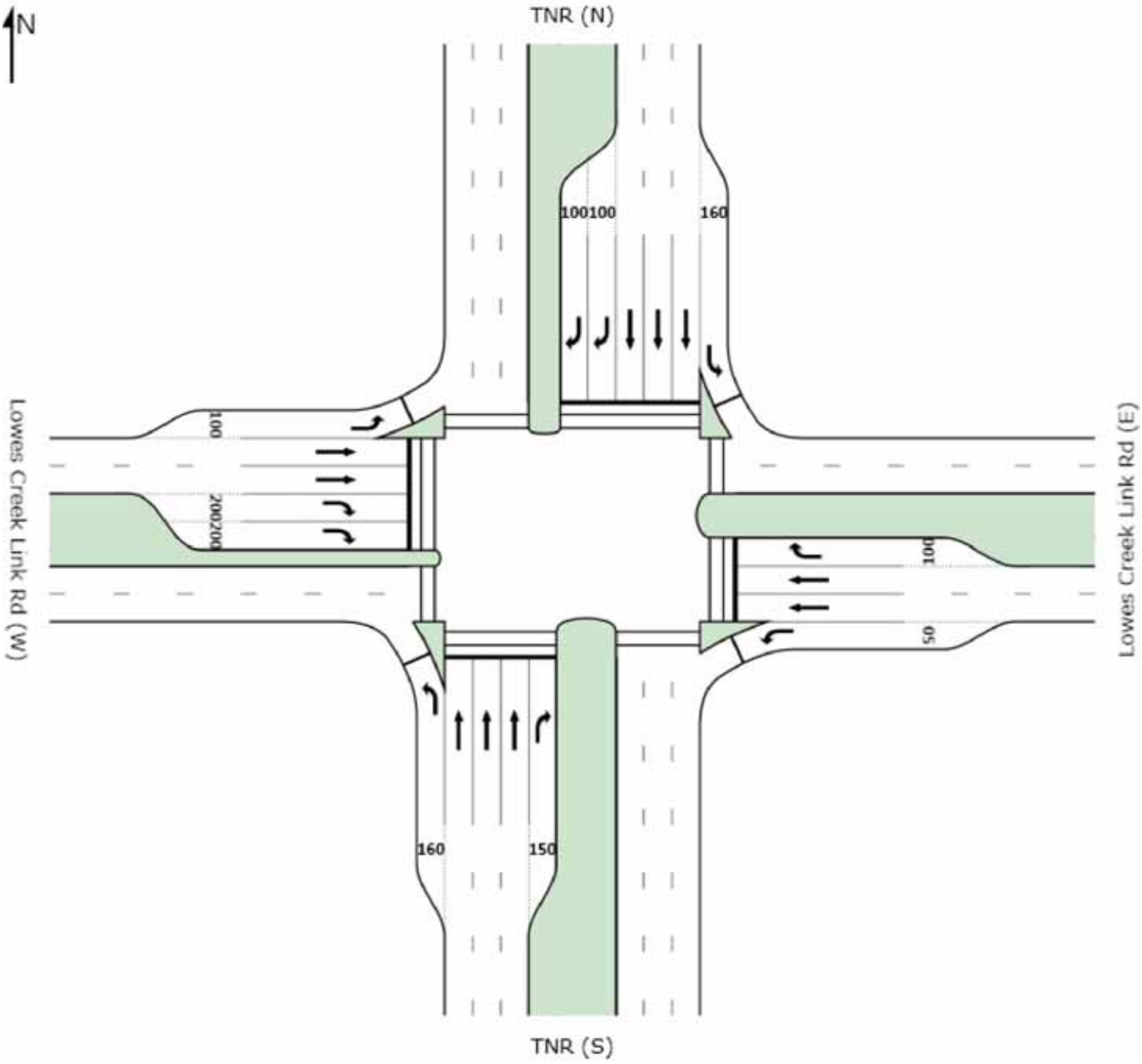
N
TNR (N)
100100
160
Lowes Creek Link Rd (W)
100
200200
100
50
Lowes Creek Link Rd (E)
160
150
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Lowes Creek Link Rd_AM

Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	243	5.2	0.225	18.1	LOS B	3.7	26.9	0.23	0.73	50.5
2	T	1837	5.0	0.752	33.3	LOS C	33.3	243.1	0.81	0.73	36.5
3	R	203	0.0	0.601	72.4	LOS F	13.3	93.2	0.94	0.82	23.8
Approach		2283	4.6	0.752	35.2	LOS C	33.3	243.1	0.76	0.74	35.9
East: Lowes Creek Link Rd (E)											
4	L	17	0.0	0.051	28.6	LOS C	0.5	3.5	0.43	0.65	33.8
5	T	162	4.7	0.193	51.0	LOS D	4.4	32.2	0.79	0.62	24.2
6	R	23	4.5	0.319	88.0	LOS F	1.7	12.7	0.99	0.71	17.8
Approach		202	4.3	0.319	53.3	LOS D	4.4	32.2	0.78	0.63	23.8
North: TNR (N)											
7	L	21	5.0	0.033	40.8	LOS C	0.8	5.7	0.54	0.71	34.5
8	T	1009	5.0	0.615	49.4	LOS D	19.8	144.4	0.86	0.74	29.5
9	R	106	5.0	0.733	95.1	LOS F	4.2	30.5	1.00	0.79	19.6
Approach		1137	5.0	0.733	53.5	LOS D	19.8	144.4	0.87	0.75	28.2
West: Lowes Creek Link Rd (W)											
10	L	319	5.0	0.673	36.9	LOS C	13.5	98.4	0.63	0.76	30.0
11	T	482	5.0	0.379	38.9	LOS C	11.6	85.0	0.71	0.60	28.1
12	R	419	5.0	0.754	75.8	LOS F	15.0	109.2	1.00	0.86	19.7
Approach		1220	5.0	0.754	51.1	LOS D	15.0	109.2	0.79	0.73	24.8
All Vehicles		4842	4.8	0.754	44.2	LOS D	33.3	243.1	0.79	0.74	30.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	49.6	LOS E	0.0	0.0	0.81	0.81
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	52.1	LOS E	0.0	0.0	0.83	0.83
All Pedestrians		40	58.8	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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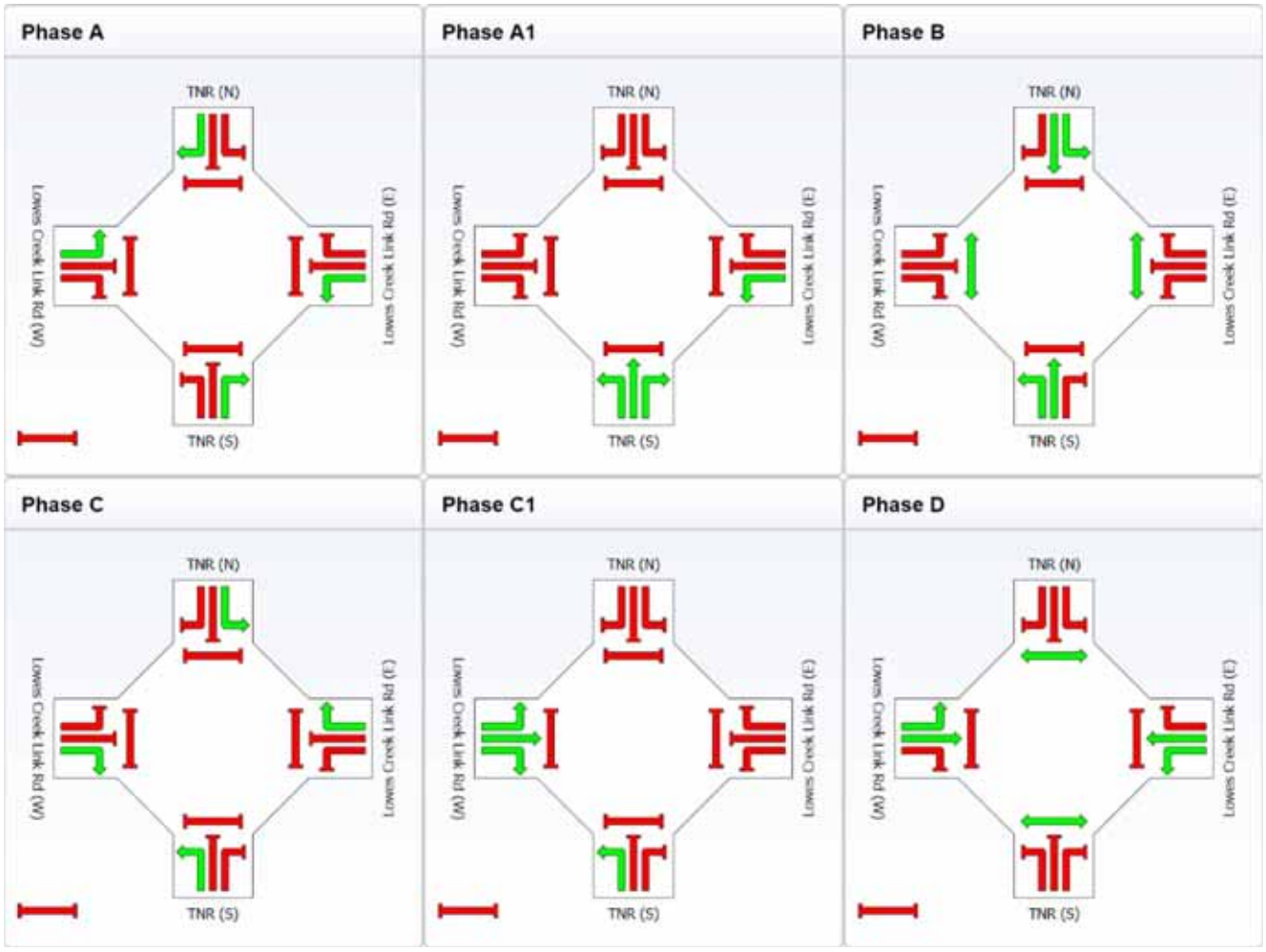
PHASING SUMMARY

Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	6	15	43	6	11	33
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	12	21	49	12	17	39
Phase Split	8 %	14 %	33 %	8 %	11 %	26 %



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MOVEMENT SUMMARY

Site: 2036_Lowes Creek Link Rd_PM

Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	414	5.1	0.531	30.2	LOS C	13.9	101.8	0.50	0.79	40.5
2	T	986	5.0	0.479	36.9	LOS C	16.0	117.1	0.72	0.63	34.9
3	R	108	0.0	0.788	90.4	LOS F	8.3	58.1	1.00	0.85	20.3
Approach		1508	4.7	0.788	38.9	LOS C	16.0	117.1	0.68	0.69	34.4
East: Lowes Creek Link Rd (E)											
4	L	31	0.0	0.121	41.7	LOS C	1.2	8.7	0.59	0.68	28.2
5	T	379	5.0	0.451	54.5	LOS D	11.3	82.4	0.86	0.72	23.2
6	R	43	6.5	0.278	78.6	LOS F	3.0	22.0	0.95	0.74	19.2
Approach		453	4.8	0.451	55.9	LOS D	11.3	82.4	0.85	0.72	23.0
North: TNR (N)											
7	L	15	7.1	0.016	20.9	LOS B	0.3	1.9	0.26	0.70	47.9
8	T	2007	5.0	0.797	32.6	LOS C	37.5	273.5	0.84	0.76	36.8
9	R	297	5.0	0.534	75.1	LOS F	9.8	71.8	0.94	0.81	23.3
Approach		2319	5.0	0.797	38.0	LOS C	37.5	273.5	0.85	0.77	34.3
West: Lowes Creek Link Rd (W)											
10	L	117	5.4	0.227	30.9	LOS C	3.9	28.3	0.49	0.70	32.7
11	T	251	5.0	0.274	49.6	LOS D	6.8	49.6	0.79	0.64	24.6
12	R	301	4.9	0.778	82.5	LOS F	11.2	82.0	1.00	0.87	18.6
Approach		668	5.0	0.778	61.1	LOS E	11.2	82.0	0.83	0.75	22.3
All Vehicles		4948	4.9	0.797	43.0	LOS D	37.5	273.5	0.80	0.74	31.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P3	Across E approach	10	41.1	LOS E	0.0	0.0	0.74	0.74
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	43.3	LOS E	0.0	0.0	0.76	0.76
All Pedestrians		40	54.5	LOS E			0.85	0.85

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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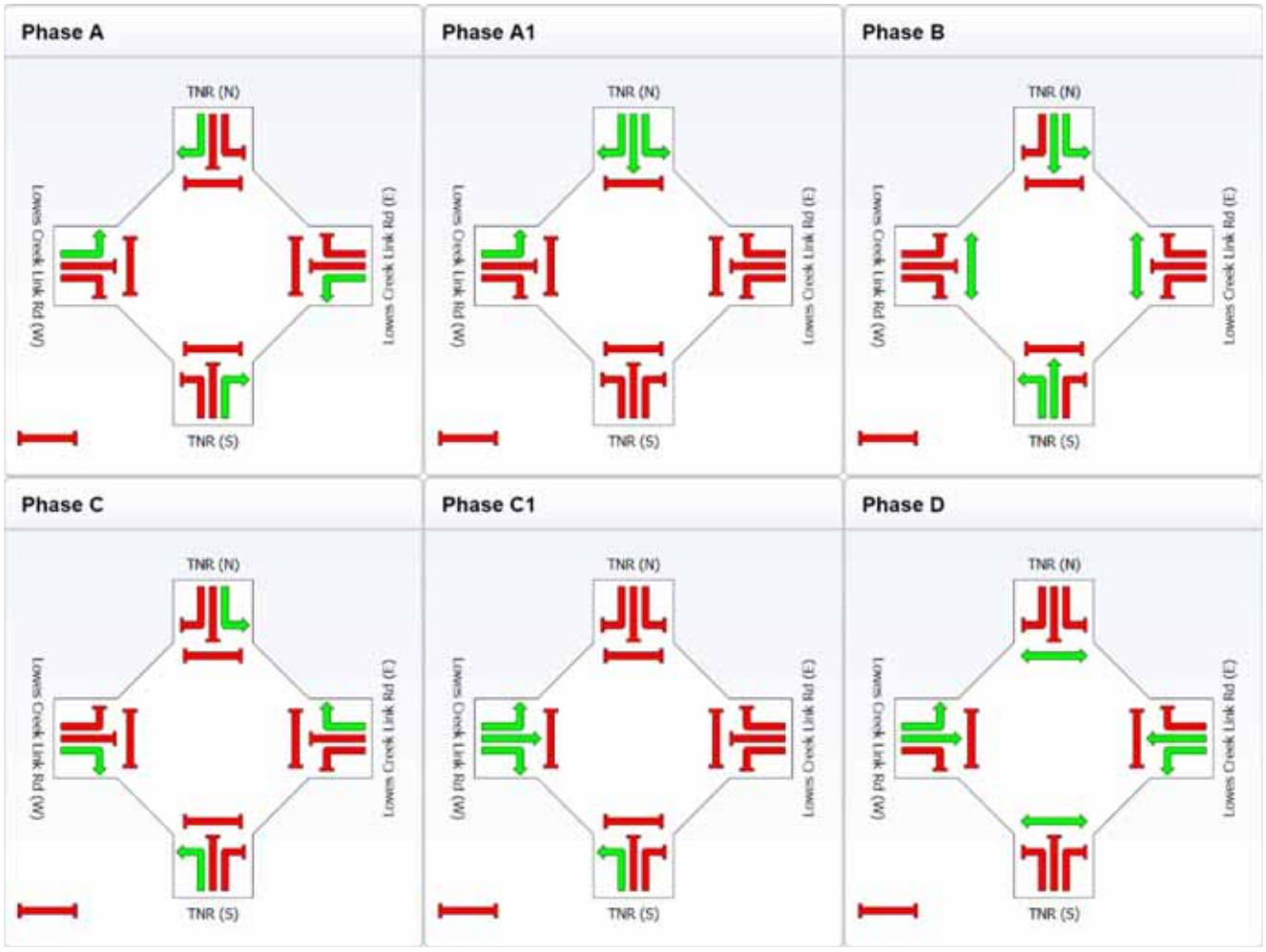
PHASING SUMMARY

Lowes Creek Link Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, C1, D

Phase Timing Results

Phase	A	A1	B	C	C1	D
Green Time (sec)	11	6	54	13	0	33
Yellow Time (sec)	4	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2	2
Phase Time (sec)	17	12	60	19	3	39
Phase Split	11 %	8 %	40 %	13 %	2 %	26 %



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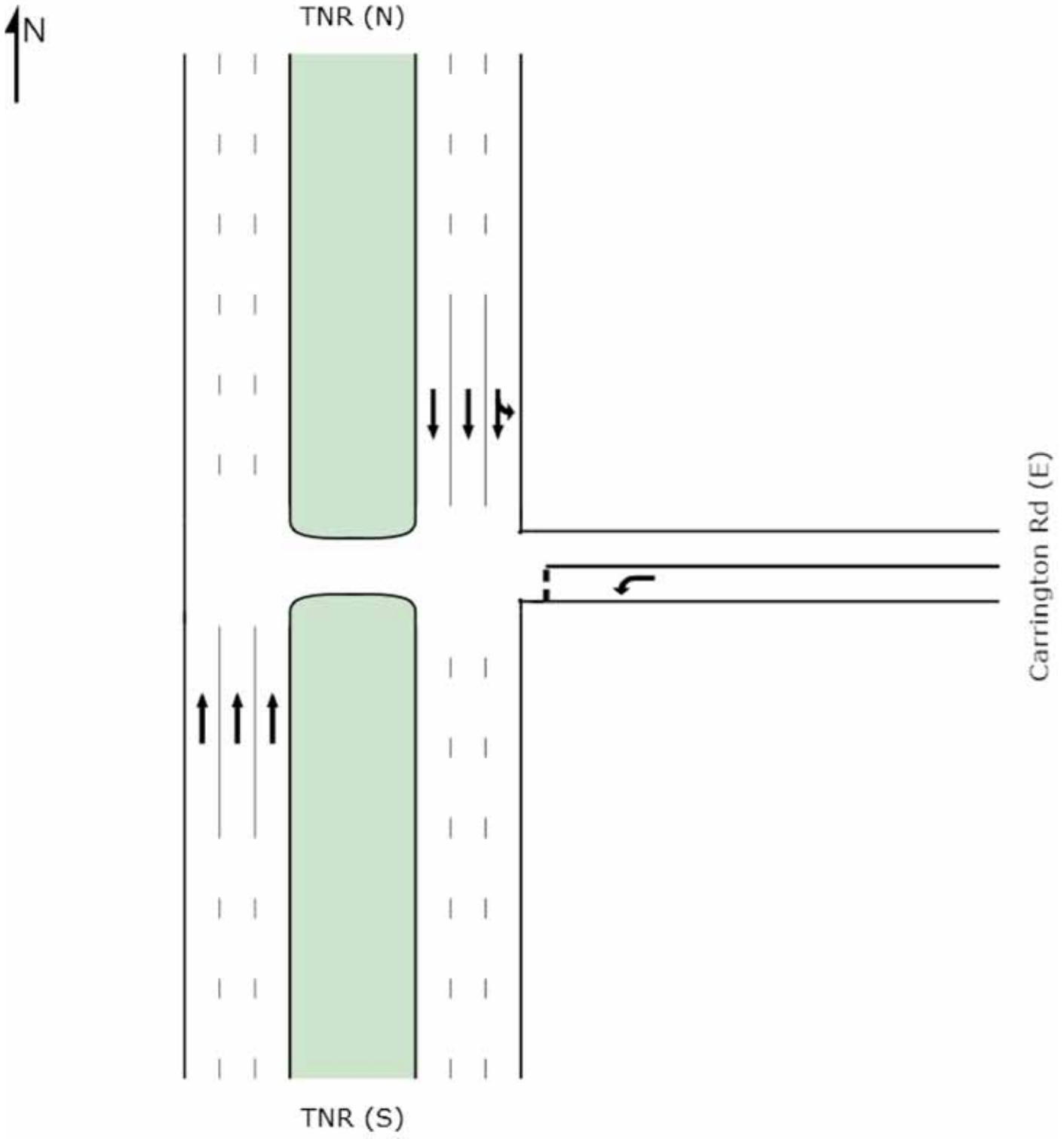
N
TNR (N)
Carrington Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Carrington Rd_AM

Carrington Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	2381	5.0	0.420	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2381	5.0	0.420	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Carrington Rd (E)											
4	L	84	5.0	0.138	12.8	LOS A	0.6	4.1	0.58	0.81	44.5
Approach		84	5.0	0.138	12.8	LOS A	0.6	4.1	0.58	0.81	44.5
North: TNR (N)											
7	L	31	3.4	0.191	11.1	LOS A	0.0	0.0	0.00	1.26	58.9
8	T	1052	5.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1082	5.0	0.191	0.3	NA	0.0	0.0	0.00	0.04	79.2
All Vehicles		3547	5.0	0.420	0.4	NA	0.6	4.1	0.01	0.03	78.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Carrington Rd_PM

Carrington Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1242	5.0	0.219	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1242	5.0	0.219	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Carrington Rd (E)											
4	L	117	5.4	0.464	29.7	LOS C	2.2	15.8	0.87	1.06	33.1
Approach		117	5.4	0.464	29.7	LOS C	2.2	15.8	0.87	1.06	33.1
North: TNR (N)											
7	L	37	5.7	0.395	11.2	LOS A	0.0	0.0	0.00	1.32	58.9
8	T	2201	5.0	0.395	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2238	5.0	0.395	0.2	NA	0.0	0.0	0.00	0.02	79.5
All Vehicles		3597	5.0	0.464	1.1	NA	2.2	15.8	0.03	0.05	76.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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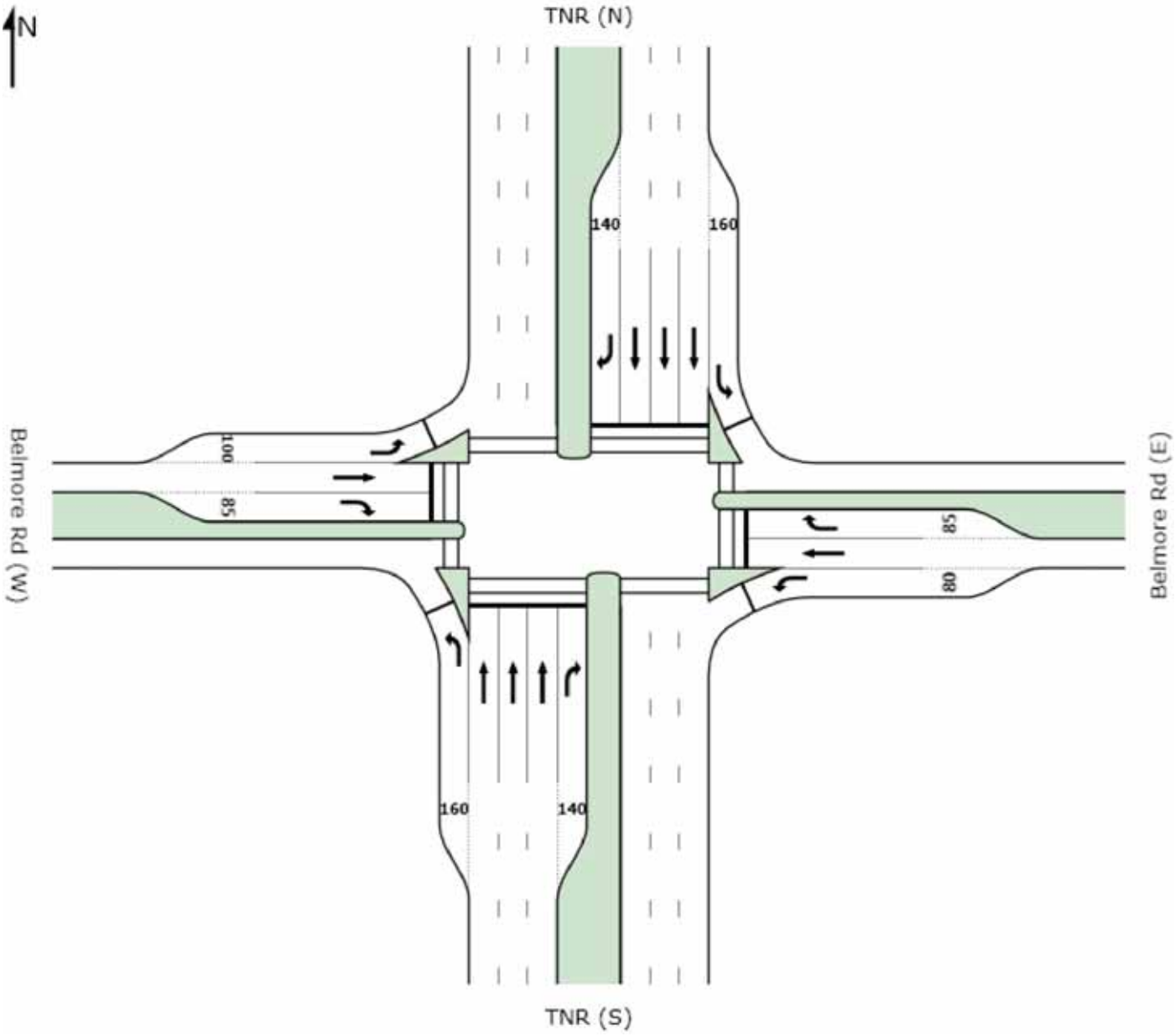
N
TNR (N)
140
160
Belmore Rd (W)
100
85
Belmore Rd (E)
85
80
160
140
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Belmore Rd_AM

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	37	5.7	0.035	18.1	LOS B	0.5	3.8	0.21	0.70	50.5
2	T	2302	5.0	0.858	21.2	LOS B	35.2	256.7	0.87	0.80	44.1
3	R	41	5.1	0.118	41.2	LOS C	1.5	11.1	0.80	0.74	34.2
Approach		2380	5.0	0.858	21.5	LOS B	35.2	256.7	0.86	0.80	44.0
East: Belmore Rd (E)											
4	L	49	4.3	0.141	37.8	LOS C	1.8	13.4	0.80	0.72	29.7
5	T	11	0.0	0.027	51.1	LOS D	0.6	3.9	0.76	0.53	24.2
6	R	77	4.9	0.795	90.5	LOS F	6.0	43.9	1.00	0.85	17.4
Approach		137	4.3	0.795	68.4	LOS E	6.0	43.9	0.91	0.78	21.0
North: TNR (N)											
7	L	52	4.1	0.070	32.0	LOS C	1.5	11.2	0.44	0.73	39.3
8	T	987	5.0	0.488	37.9	LOS C	16.3	119.3	0.73	0.64	34.4
9	R	111	4.8	0.831	92.5	LOS F	8.6	62.8	1.00	0.87	19.9
Approach		1149	4.9	0.831	42.9	LOS D	16.3	119.3	0.75	0.66	32.3
West: Belmore Rd (W)											
10	L	132	5.2	0.329	47.3	LOS D	6.1	44.9	0.68	0.75	26.3
11	T	11	0.0	0.027	51.1	LOS D	0.6	3.9	0.76	0.53	24.2
12	R	45	4.7	0.467	86.2	LOS F	3.4	24.5	1.00	0.74	18.0
Approach		187	4.8	0.467	56.9	LOS E	6.1	44.9	0.76	0.73	23.6
All Vehicles		3854	4.9	0.858	31.3	LOS C	35.2	256.7	0.82	0.76	37.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	38.2	LOS D	0.0	0.0	0.71	0.71
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	38.2	LOS D	0.0	0.0	0.71	0.71
All Pedestrians		40	53.2	LOS E			0.83	0.83

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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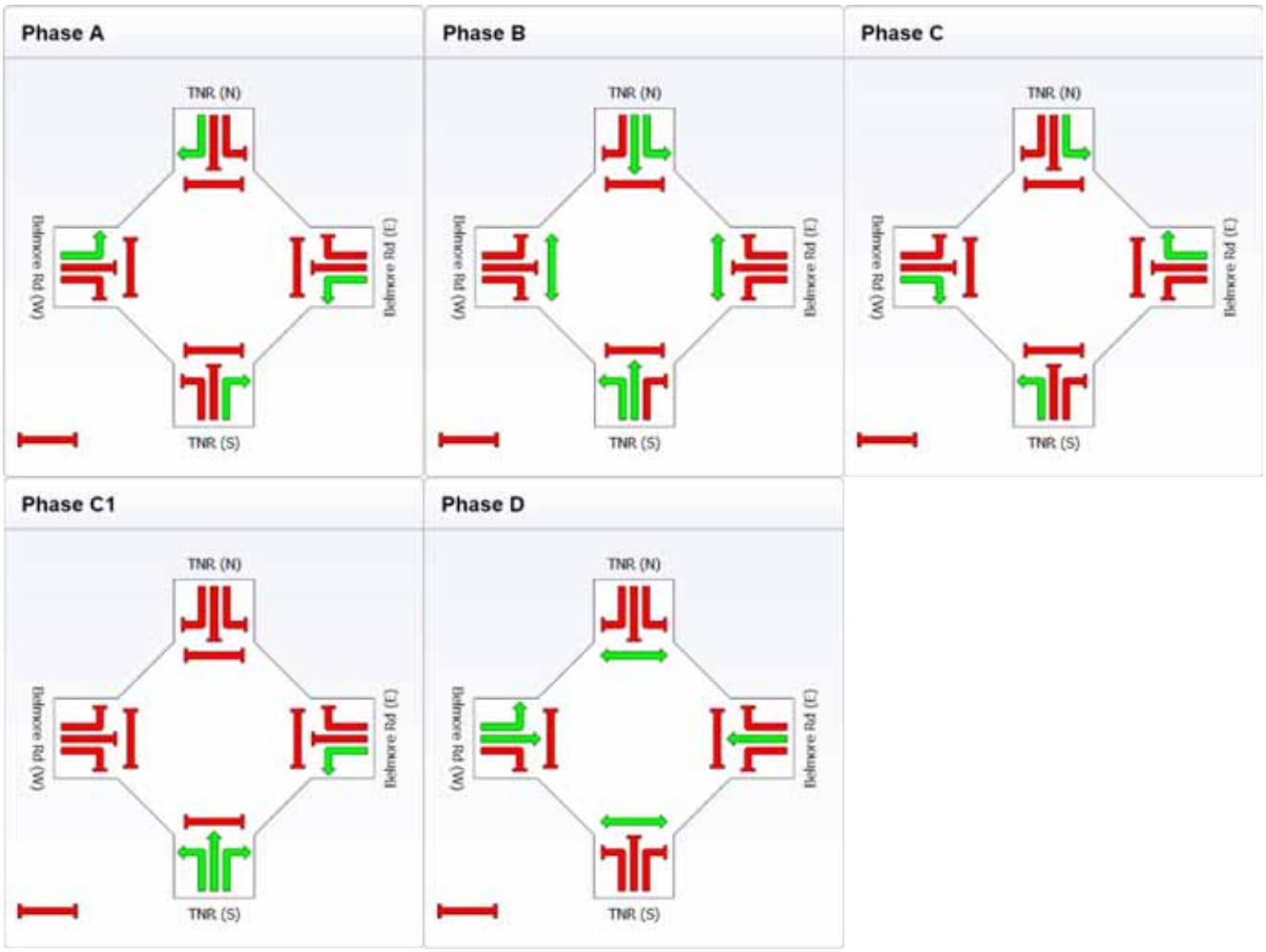
PHASING SUMMARY

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	11	53	8	18	30
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	17	59	14	24	36
Phase Split	11 %	39 %	9 %	16 %	24 %



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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MOVEMENT SUMMARY

Site: 2036_Belmore Rd_PM

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	48	4.3	0.060	27.3	LOS B	1.2	8.9	0.37	0.72	42.5
2	T	1128	5.0	0.490	31.0	LOS C	16.9	123.4	0.67	0.58	38.2
3	R	65	4.8	0.681	91.8	LOS F	5.0	36.4	1.00	0.79	20.0
Approach		1242	5.0	0.681	34.1	LOS C	16.9	123.4	0.67	0.60	36.6
East: Belmore Rd (E)											
4	L	46	4.5	0.141	49.0	LOS D	2.1	15.5	0.67	0.71	25.8
5	T	11	0.0	0.028	52.0	LOS D	0.6	4.0	0.77	0.54	24.0
6	R	55	4.9	0.647	89.1	LOS F	4.2	30.7	1.00	0.78	17.6
Approach		112	4.3	0.647	68.9	LOS E	4.2	30.7	0.84	0.73	20.9
North: TNR (N)											
7	L	91	4.7	0.079	16.6	LOS B	1.1	7.8	0.18	0.71	52.1
8	T	2147	5.0	0.686	17.9	LOS B	27.9	203.4	0.59	0.54	48.1
9	R	174	4.8	0.495	69.7	LOS E	10.9	79.3	0.90	0.81	24.5
Approach		2412	5.0	0.686	21.6	LOS B	27.9	203.4	0.60	0.56	45.1
West: Belmore Rd (W)											
10	L	144	4.8	0.286	32.1	LOS C	5.0	36.4	0.51	0.71	32.1
11	T	11	0.0	0.028	52.0	LOS D	0.6	4.0	0.77	0.54	24.0
12	R	43	4.9	0.510	87.8	LOS F	3.3	23.8	1.00	0.74	17.7
Approach		198	4.6	0.510	45.3	LOS D	5.0	36.4	0.63	0.71	26.9
All Vehicles		3963	4.9	0.686	28.0	LOS B	27.9	203.4	0.63	0.59	39.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P3	Across E approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
P5	Across N approach	10	69.1	LOS F	0.0	0.0	0.96	0.96
P7	Across W approach	10	32.7	LOS D	0.0	0.0	0.66	0.66
All Pedestrians		40	50.9	LOS E			0.81	0.81

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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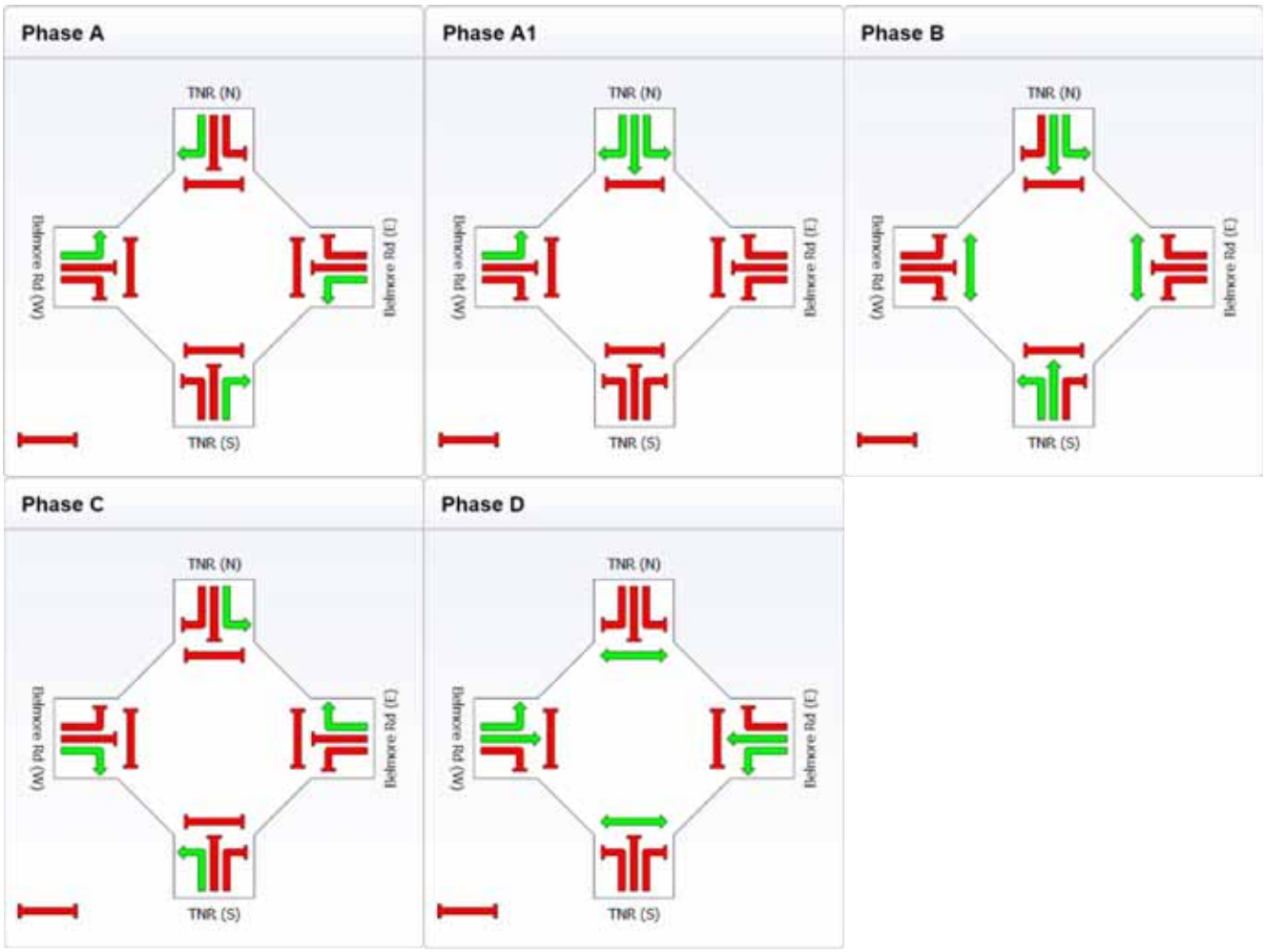
PHASING SUMMARY

Belmore Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	8	15	61	7	29
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	14	21	67	13	35
Phase Split	9 %	14 %	45 %	9 %	23 %



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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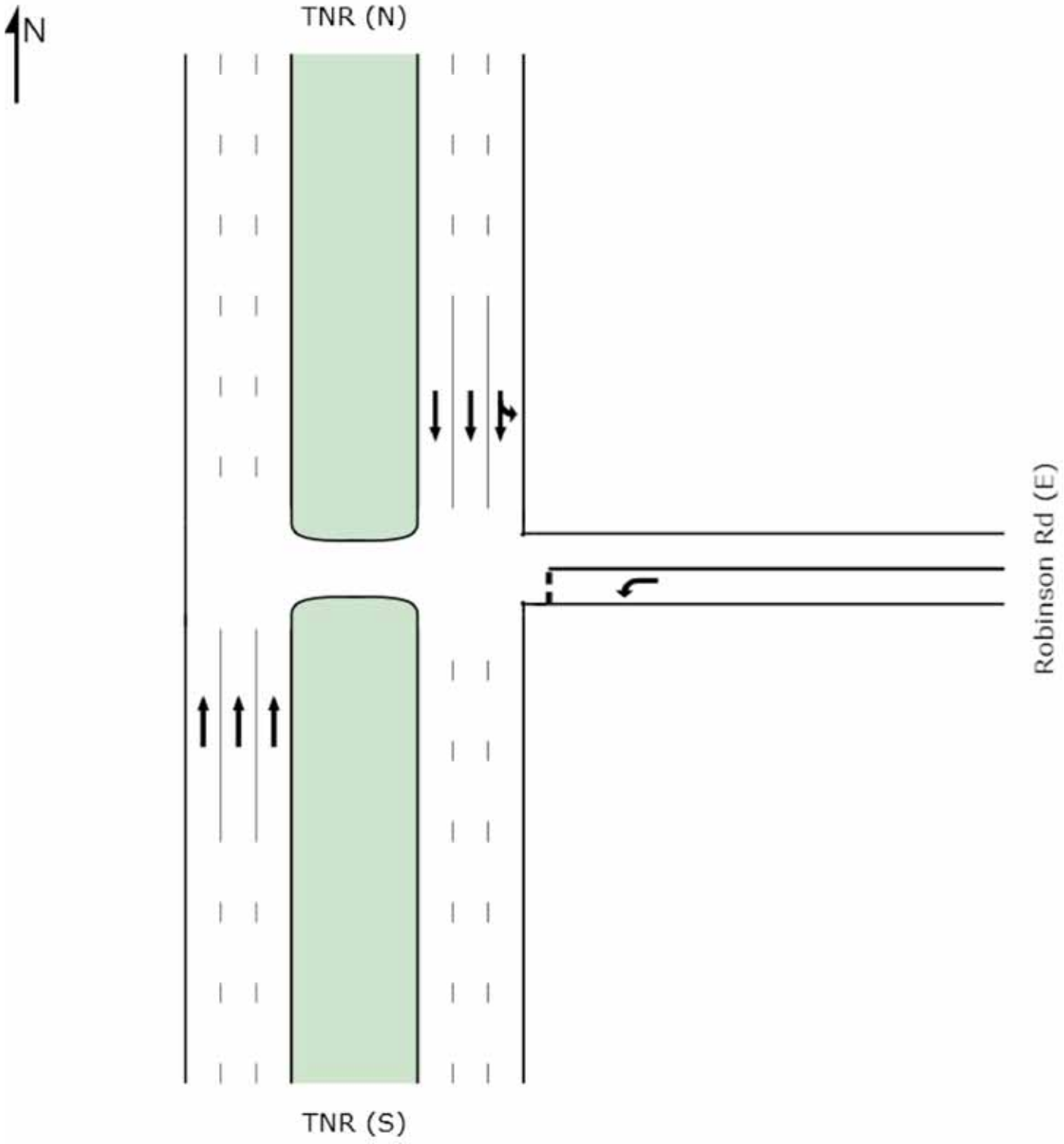
N
TNR (N)
Robinson Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Robinson Rd_AM

Robinson Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	2529	5.0	0.446	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2529	5.0	0.446	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Robinson Rd (E)											
4	L	27	3.8	0.047	12.8	LOS A	0.2	1.3	0.57	0.77	44.5
Approach		27	3.8	0.047	12.8	LOS A	0.2	1.3	0.57	0.77	44.5
North: TNR (N)											
7	L	15	7.1	0.201	11.3	LOS A	0.0	0.0	0.00	1.34	58.9
8	T	1122	5.0	0.201	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1137	5.0	0.201	0.1	NA	0.0	0.0	0.00	0.02	79.6
All Vehicles		3694	5.0	0.446	0.1	NA	0.2	1.3	0.00	0.01	79.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Robinson Rd_PM

Robinson Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1347	5.0	0.238	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1347	5.0	0.238	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Robinson Rd (E)											
4	L	28	3.7	0.129	25.3	LOS B	0.4	3.2	0.84	0.95	35.4
Approach		28	3.7	0.129	25.3	LOS B	0.4	3.2	0.84	0.95	35.4
North: TNR (N)											
7	L	21	5.0	0.425	11.2	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	2384	5.0	0.425	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2405	5.0	0.425	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		3781	5.0	0.425	0.3	NA	0.4	3.2	0.01	0.01	79.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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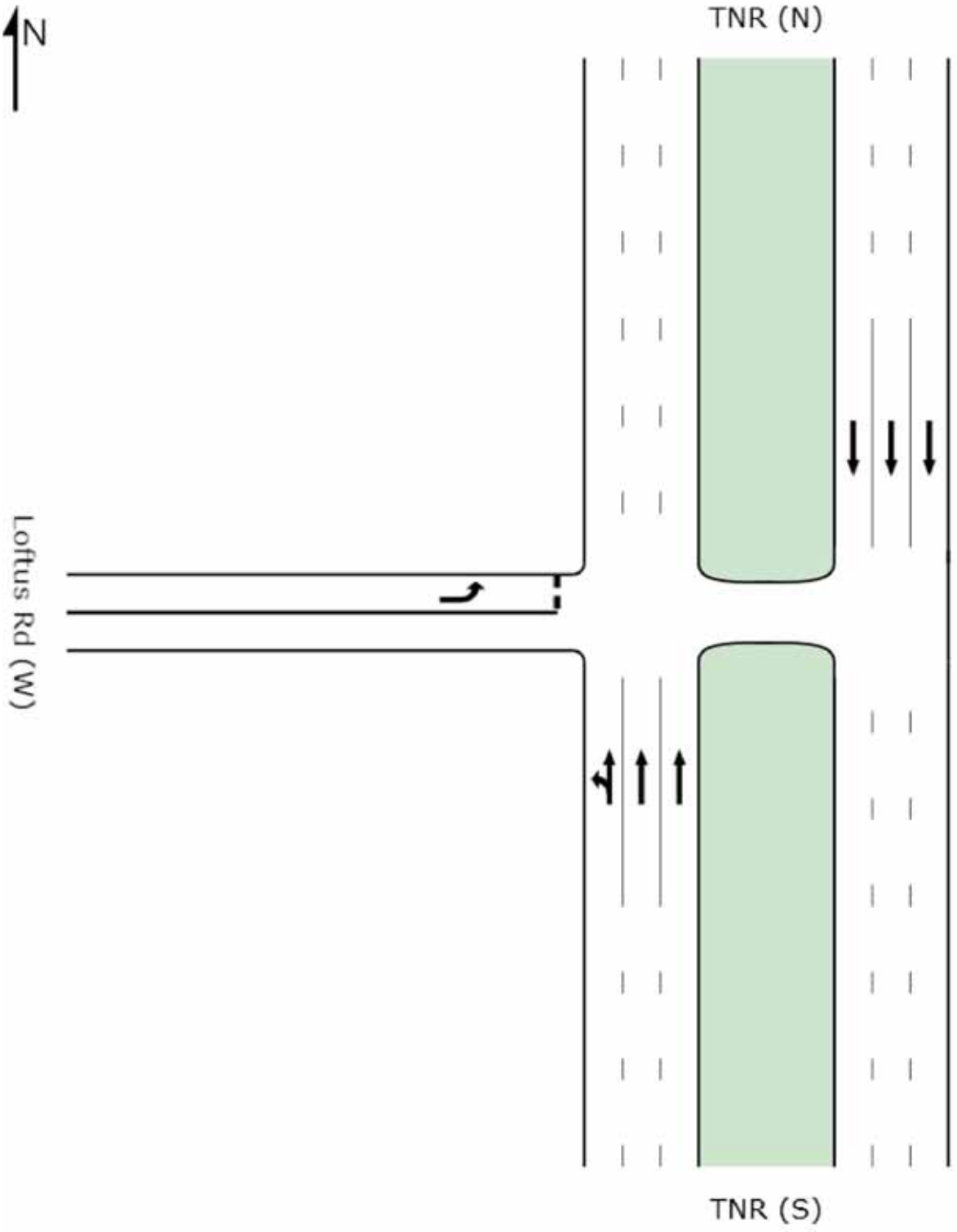
N
TNR (N)
Loftus Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Loftus Rd_AM

Loftus Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	93	4.5	0.447	11.1	LOS A	0.0	0.0	0.00	1.24	58.9
2	T	2437	5.0	0.447	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2529	5.0	0.447	0.4	NA	0.0	0.0	0.00	0.05	79.0
North: TNR (N)											
8	T	1138	5.0	0.201	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1138	5.0	0.201	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Loftus Rd (W)											
10	L	125	5.0	0.597	39.4	LOS C	3.0	21.8	0.92	1.13	28.8
Approach		125	5.0	0.597	39.4	LOS C	3.0	21.8	0.92	1.13	28.8
All Vehicles		3793	5.0	0.597	1.6	NA	3.0	21.8	0.03	0.07	75.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Loftus Rd_PM

Loftus Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	147	5.0	0.239	11.2	LOS A	0.0	0.0	0.00	1.04	58.9
2	T	1199	5.0	0.239	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1346	5.0	0.239	1.2	NA	0.0	0.0	0.00	0.11	77.0
North: TNR (N)											
8	T	2404	5.0	0.424	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2404	5.0	0.424	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Loftus Rd (W)											
10	L	106	5.0	0.194	13.8	LOS A	0.8	5.8	0.62	0.87	43.6
Approach		106	5.0	0.194	13.8	LOS A	0.8	5.8	0.62	0.87	43.6
All Vehicles		3857	5.0	0.424	0.8	NA	0.8	5.8	0.02	0.06	77.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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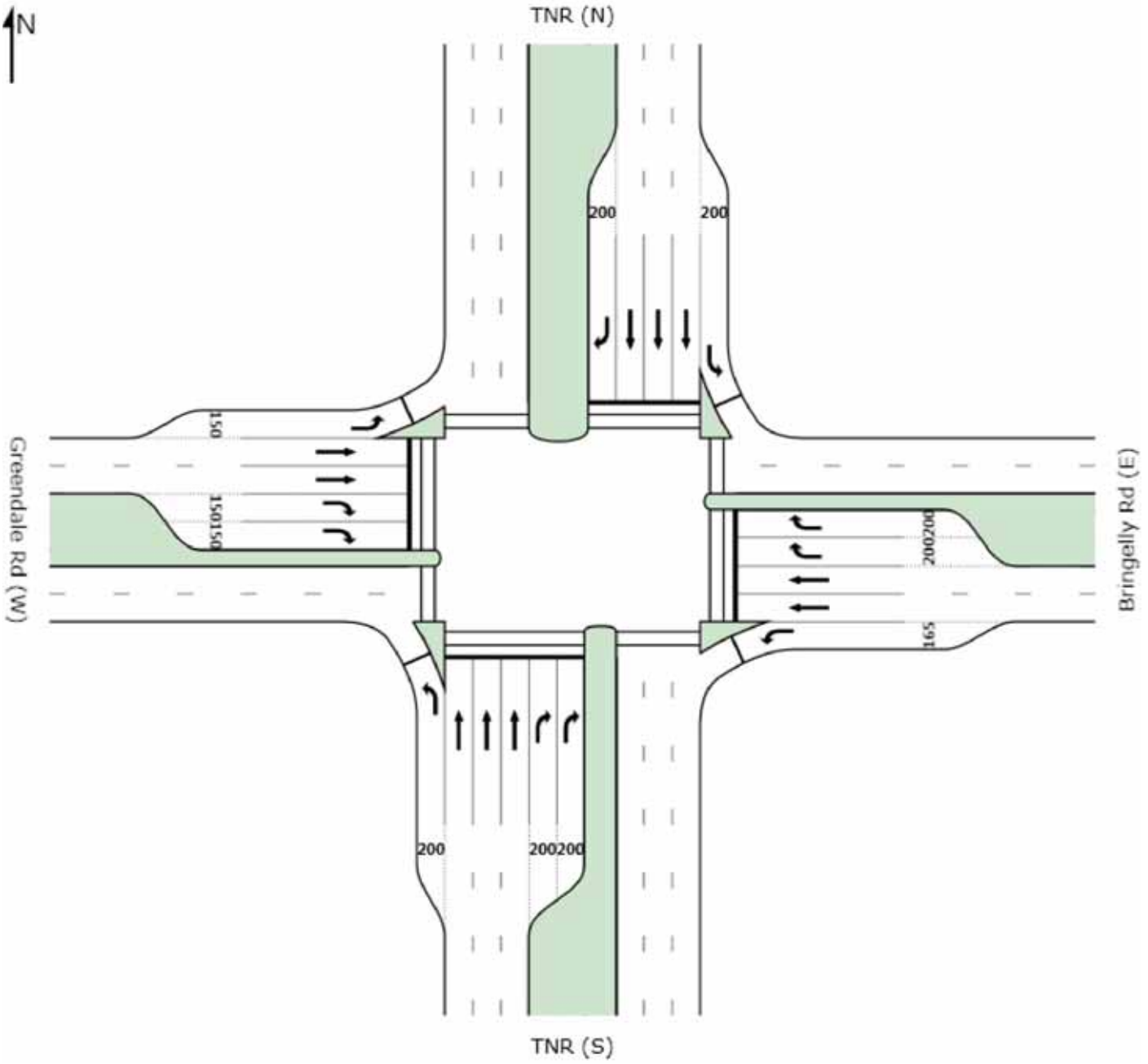
N
TNR (N)
200
200
150
150150
Greendale Rd (W)
200200
Bringelly Rd (E)
200
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Bringelly Rd / Greendale Rd_AM

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	360	5.0	0.324	19.2	LOS B	6.4	46.5	0.27	0.74	49.5
2	T	1957	5.0	0.722	27.0	LOS B	31.8	232.4	0.73	0.67	40.5
3	R	245	5.2	0.199	46.6	LOS D	5.3	38.8	0.64	0.77	31.9
Approach		2562	5.0	0.722	27.8	LOS B	31.8	232.4	0.66	0.69	40.5
East: Bringelly Rd (E)											
4	L	149	4.9	0.142	19.1	LOS B	2.4	17.5	0.24	0.72	49.5
5	T	307	5.1	0.366	53.3	LOS D	8.9	65.0	0.84	0.69	28.2
6	R	261	4.8	0.720	85.1	LOS F	9.6	69.9	1.00	0.83	21.3
Approach		718	5.0	0.720	57.8	LOS E	9.6	69.9	0.77	0.75	27.4
North: TNR (N)											
7	L	327	5.1	0.565	55.1	LOS D	18.0	131.4	0.81	0.83	28.7
8	T	728	5.1	0.707	63.1	LOS E	16.5	120.5	0.97	0.82	25.2
9	R	61	5.2	0.723	93.6	LOS F	4.7	34.7	1.00	0.80	19.8
Approach		1117	5.1	0.723	62.4	LOS E	18.0	131.4	0.92	0.82	25.8
West: Greendale Rd (W)											
10	L	72	4.4	0.131	50.2	LOS D	3.2	23.4	0.66	0.75	30.5
11	T	440	5.0	0.524	55.6	LOS D	13.5	98.2	0.89	0.74	27.4
12	R	260	4.9	0.717	85.0	LOS F	9.5	69.6	1.00	0.83	21.4
Approach		772	4.9	0.717	65.0	LOS E	13.5	98.2	0.90	0.77	25.3
All Vehicles		5168	5.0	0.723	45.0	LOS D	31.8	232.4	0.77	0.74	31.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	66.3	LOS F	0.0	0.0	0.94	0.94
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	66.3	LOS F	0.0	0.0	0.94	0.94
All Pedestrians		40	66.5	LOS F			0.94	0.94

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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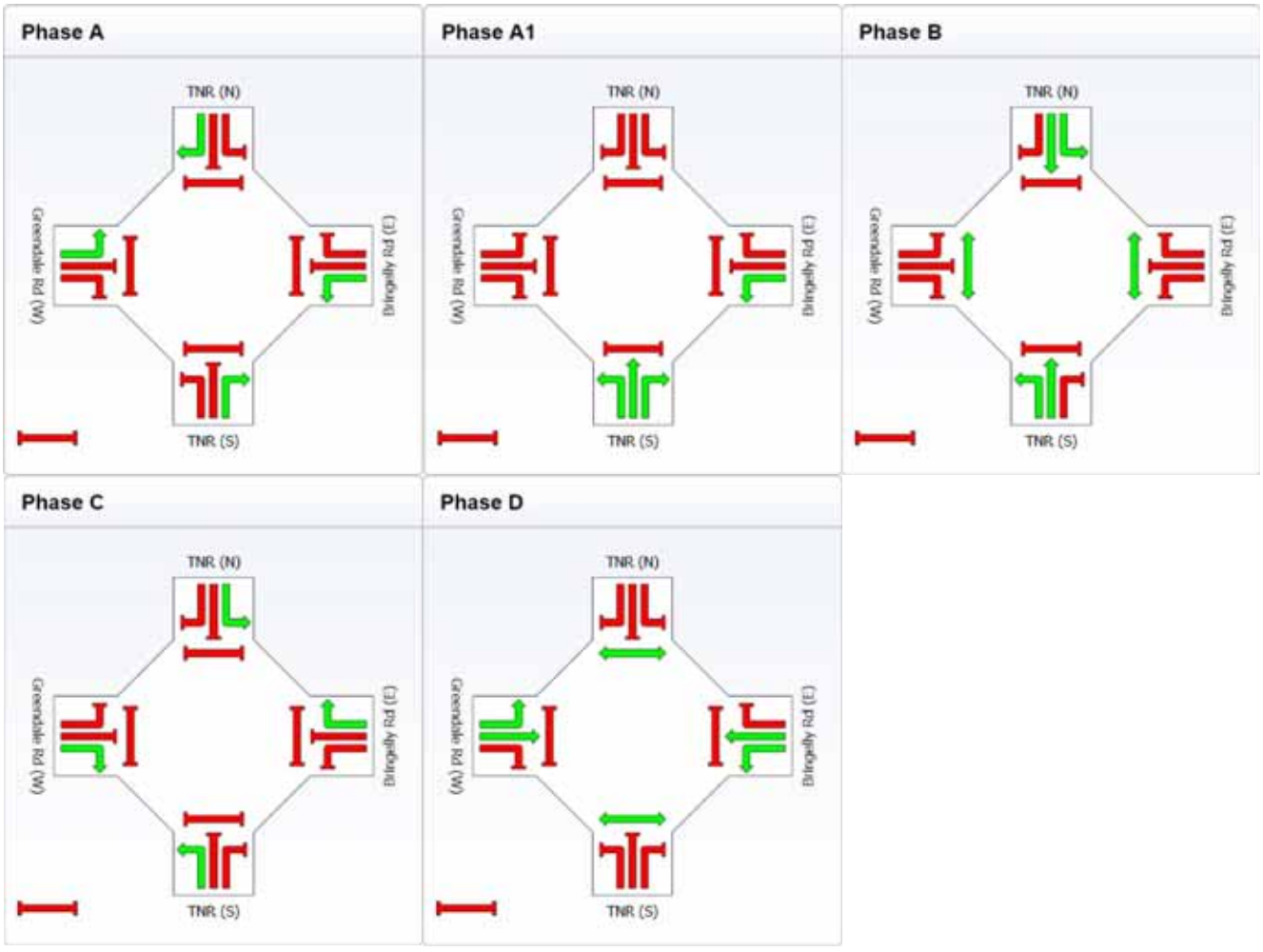
PHASING SUMMARY

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1 (phase reduction applied)
Input Sequence: A, A1, B, C, C1, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	7	38	27	15	33
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	13	44	33	21	39
Phase Split	9 %	29 %	22 %	14 %	26 %



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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MOVEMENT SUMMARY

Site: 2036_Bringelly Rd / Greendale Rd_PM

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	240	4.8	0.207	14.1	LOS A	1.7	12.7	0.19	0.72	55.1
2	T	837	5.0	0.548	50.6	LOS D	16.3	118.8	0.85	0.73	29.0
3	R	229	5.0	0.792	90.0	LOS F	8.8	64.1	1.00	0.85	20.4
Approach		1306	5.0	0.792	50.8	LOS D	16.3	118.8	0.76	0.75	29.4
East: Bringelly Rd (E)											
4	L	215	4.9	0.359	48.8	LOS D	10.1	73.6	0.69	0.80	31.0
5	T	418	5.0	0.498	55.2	LOS D	12.7	92.4	0.88	0.73	27.6
6	R	218	4.8	0.530	80.4	LOS F	7.5	55.0	0.97	0.79	22.2
Approach		851	5.0	0.530	60.0	LOS E	12.7	92.4	0.85	0.76	26.7
North: TNR (N)											
7	L	322	4.9	0.306	21.7	LOS B	6.8	49.9	0.32	0.75	47.1
8	T	1843	5.0	0.833	25.3	LOS B	27.3	199.1	0.91	0.83	41.0
9	R	83	5.1	0.230	40.7	LOS C	3.0	22.1	0.82	0.76	34.6
Approach		2248	5.0	0.833	25.3	LOS B	27.3	199.1	0.82	0.81	41.5
West: Greendale Rd (W)											
10	L	64	4.9	0.081	26.8	LOS B	1.6	11.7	0.37	0.72	42.9
11	T	314	5.0	0.374	53.4	LOS D	9.1	66.4	0.84	0.69	28.2
12	R	346	4.9	0.843	88.3	LOS F	13.3	97.1	1.00	0.90	20.8
Approach		724	4.9	0.843	67.7	LOS E	13.3	97.1	0.87	0.79	24.7
All Vehicles		5129	5.0	0.843	43.6	LOS D	27.3	199.1	0.82	0.78	32.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	54.6	LOS E	0.0	0.0	0.85	0.85
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	54.6	LOS E	0.0	0.0	0.85	0.85
All Pedestrians		40	60.7	LOS F			0.90	0.90

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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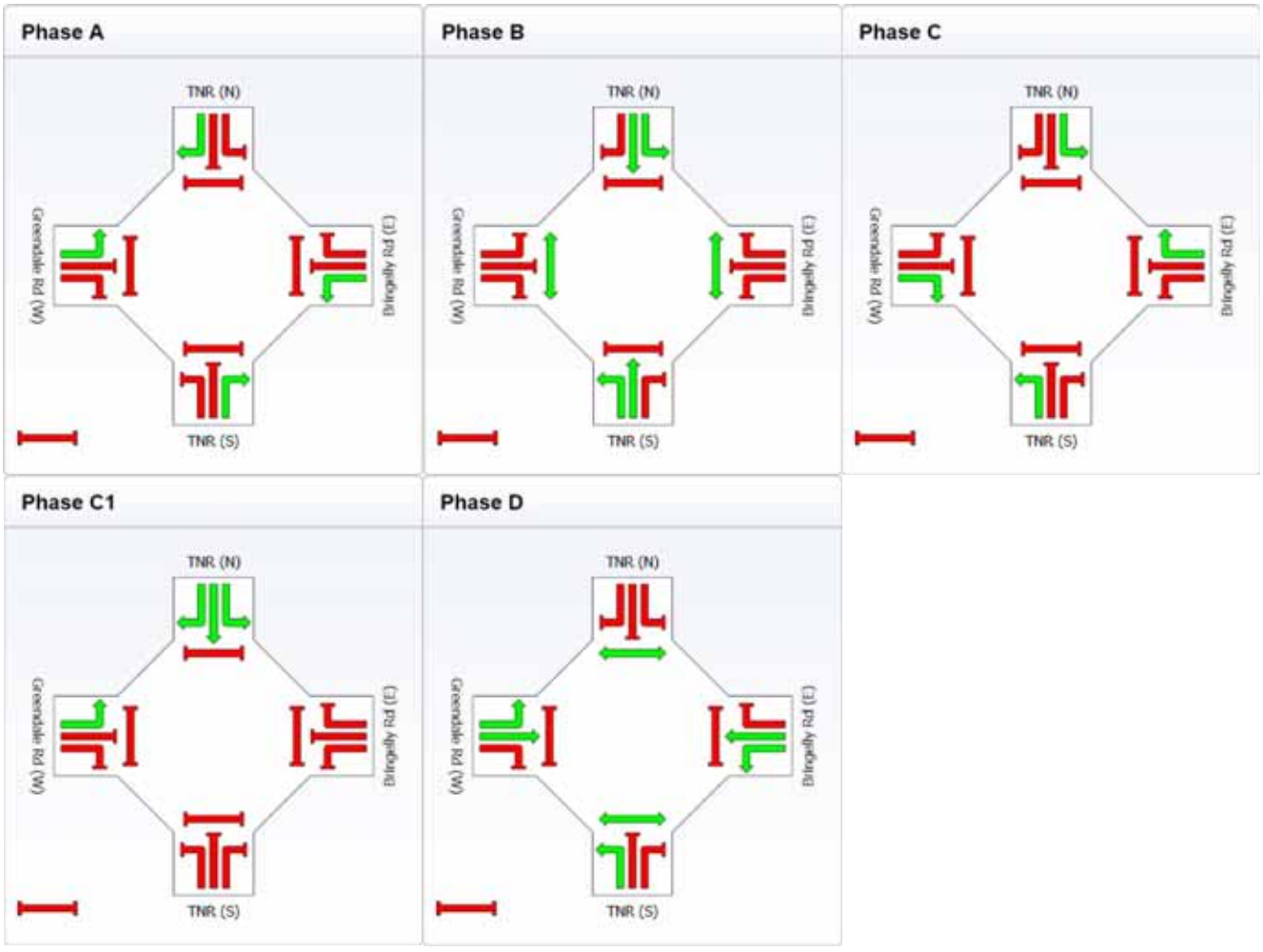
PHASING SUMMARY

Bringelly Road / Greendale Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Diamond 1
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	12	40	17	18	33
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	18	46	23	24	39
Phase Split	12 %	31 %	15 %	16 %	26 %



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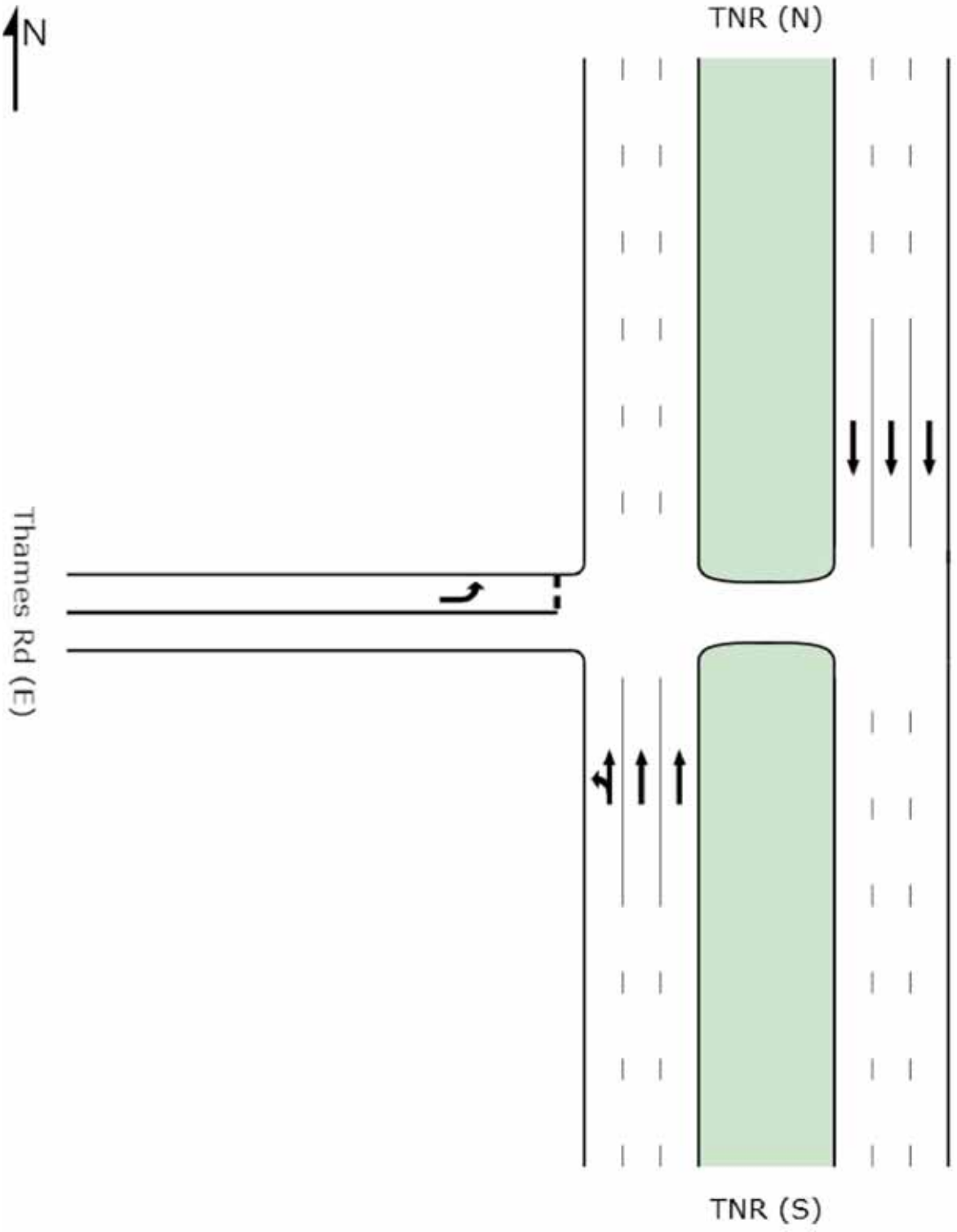
N
TNR (N)
Thames Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Thames Rd_AM

Thames Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	13	8.3	0.404	11.3	LOS A	0.0	0.0	0.00	1.38	58.9
2	T	2278	5.0	0.404	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2291	5.0	0.404	0.1	NA	0.0	0.0	0.00	0.01	79.8
North: TNR (N)											
8	T	1115	5.0	0.197	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1115	5.0	0.197	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Thames Rd (E)											
10	L	20	5.3	0.209	48.3	LOS D	0.6	4.6	0.94	0.99	25.8
Approach		20	5.3	0.209	48.3	LOS D	0.6	4.6	0.94	0.99	25.8
All Vehicles		3425	5.0	0.404	0.3	NA	0.6	4.6	0.01	0.01	79.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Thames Rd_PM

Thames Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	19	5.6	0.197	11.2	LOS A	0.0	0.0	0.00	1.32	58.9
2	T	1099	5.0	0.197	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1118	5.0	0.197	0.2	LOS A	0.0	0.0	0.00	0.02	79.5
North: TNR (N)											
8	T	2247	5.0	0.397	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2247	5.0	0.397	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
West: Thames Rd (E)											
10	L	17	6.3	0.040	15.1	LOS B	0.2	1.3	0.65	0.85	42.5
Approach		17	6.3	0.040	15.1	LOS B	0.2	1.3	0.65	0.85	42.5
All Vehicles		3382	5.0	0.397	0.1	NA	0.2	1.3	0.00	0.01	79.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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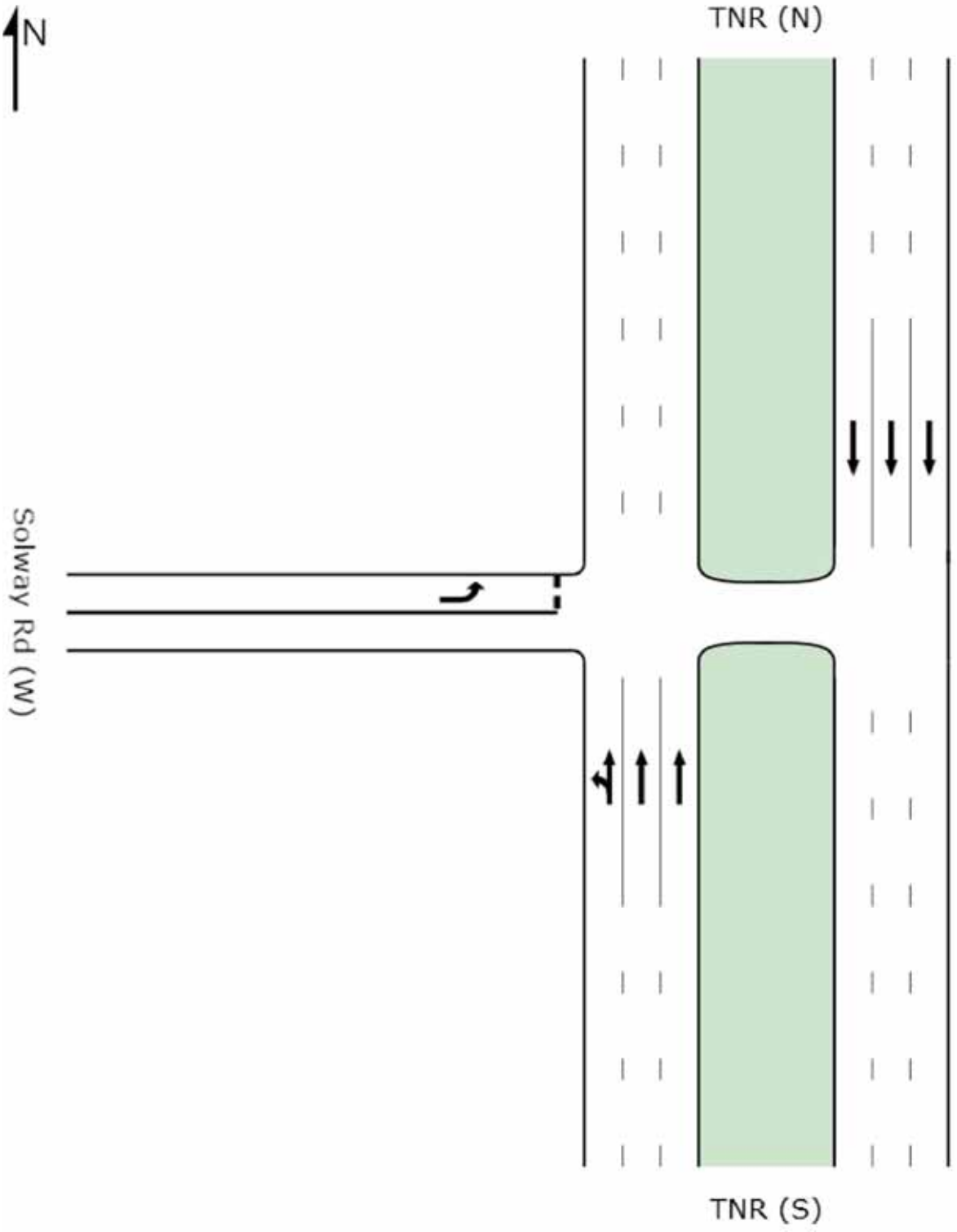
N
TNR (N)
Solway Rd (W)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Solway Rd_AM

Solway Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	13	8.3	0.406	11.3	LOS A	0.0	0.0	0.00	1.38	58.9
2	T	2286	5.0	0.406	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2299	5.0	0.406	0.1	NA	0.0	0.0	0.00	0.01	79.8
North: TNR (N)											
8	T	857	5.0	0.151	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		857	5.0	0.151	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Solway Rd (W)											
10	L	20	5.3	0.212	48.9	LOS D	0.6	4.6	0.94	0.99	25.6
Approach		20	5.3	0.212	48.9	LOS D	0.6	4.6	0.94	0.99	25.6
All Vehicles		3176	5.0	0.406	0.4	NA	0.6	4.6	0.01	0.01	79.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Solway Rd_PM

Solway Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	19	5.6	0.197	11.2	LOS A	0.0	0.0	0.00	1.32	58.9
2	T	1097	5.0	0.197	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1116	5.0	0.197	0.2	NA	0.0	0.0	0.00	0.02	79.5
North: TNR (N)											
8	T	2083	5.0	0.368	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2083	5.0	0.368	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Solway Rd (W)											
10	L	17	6.3	0.040	15.1	LOS B	0.1	1.0	0.65	0.85	42.5
Approach		17	6.3	0.040	15.1	LOS B	0.1	1.0	0.65	0.85	42.5
All Vehicles		3216	5.0	0.368	0.1	NA	0.1	1.0	0.00	0.01	79.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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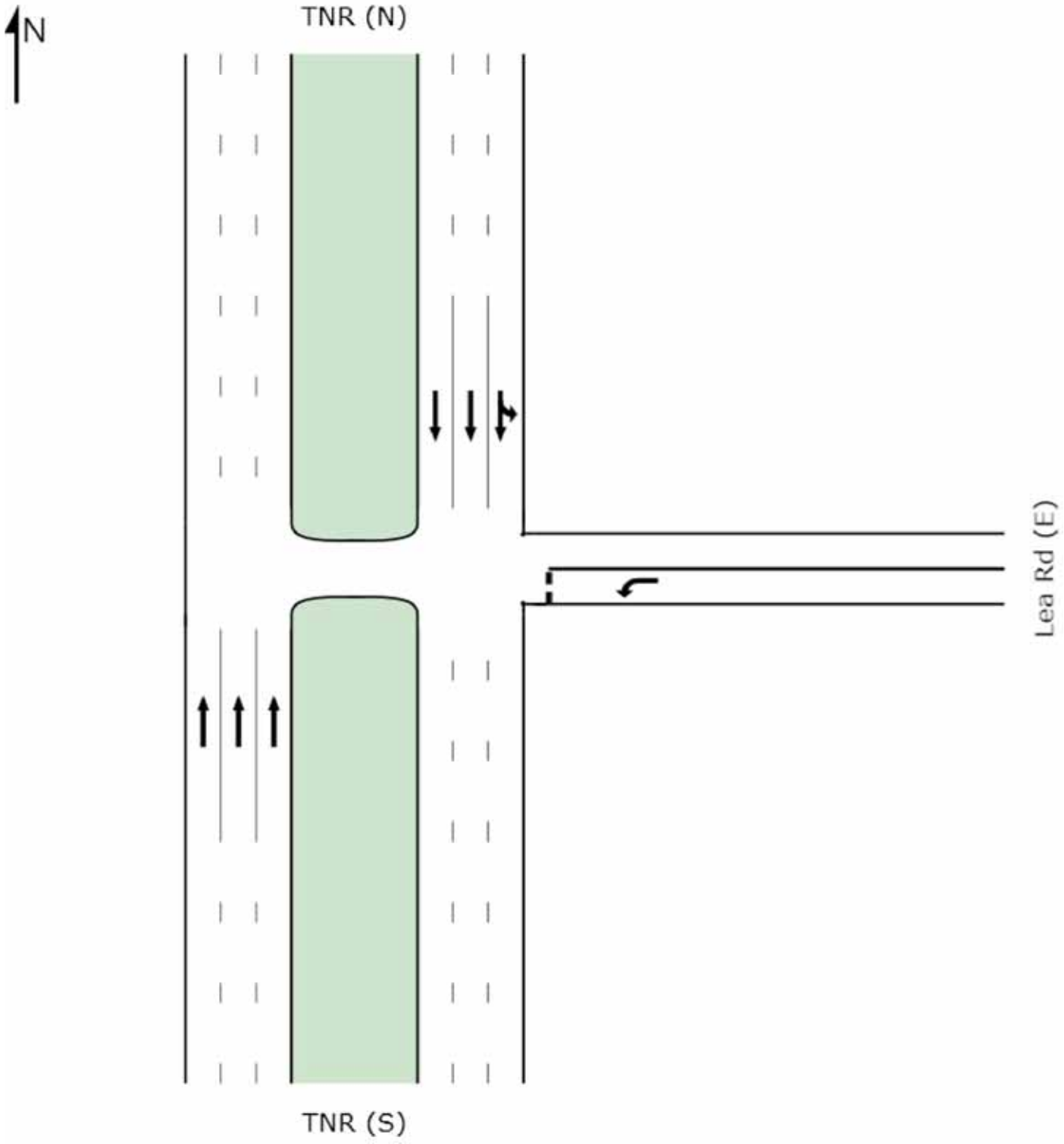
N
TNR (N)
Lea Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Lea Rd_AM

Lea Rd
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	2286	5.0	0.404	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2286	5.0	0.404	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Lea Rd (E)											
4	L	258	4.9	0.402	14.3	LOS A	2.4	17.7	0.65	0.96	43.1
Approach		258	4.9	0.402	14.3	LOS A	2.4	17.7	0.65	0.96	43.1
North: TNR (N)											
7	L	125	5.0	0.175	11.2	LOS A	0.0	0.0	0.00	1.01	58.9
8	T	857	5.0	0.175	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		982	5.0	0.175	1.4	NA	0.0	0.0	0.00	0.13	76.6
All Vehicles		3526	5.0	0.404	1.4	NA	2.4	17.7	0.05	0.11	74.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Lea Rd_PM

Lea Rd
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
2	T	1347	5.0	0.238	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1347	5.0	0.238	0.0	NA	0.0	0.0	0.00	0.00	80.0
East: Lea Rd (E)											
4	L	28	3.7	0.129	25.3	LOS B	0.4	3.2	0.84	0.95	35.4
Approach		28	3.7	0.129	25.3	LOS B	0.4	3.2	0.84	0.95	35.4
North: TNR (N)											
7	L	21	5.0	0.425	11.2	LOS A	0.0	0.0	0.00	1.35	58.9
8	T	2384	5.0	0.425	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		2405	5.0	0.425	0.1	NA	0.0	0.0	0.00	0.01	79.8
All Vehicles		3781	5.0	0.425	0.3	NA	0.4	3.2	0.01	0.01	79.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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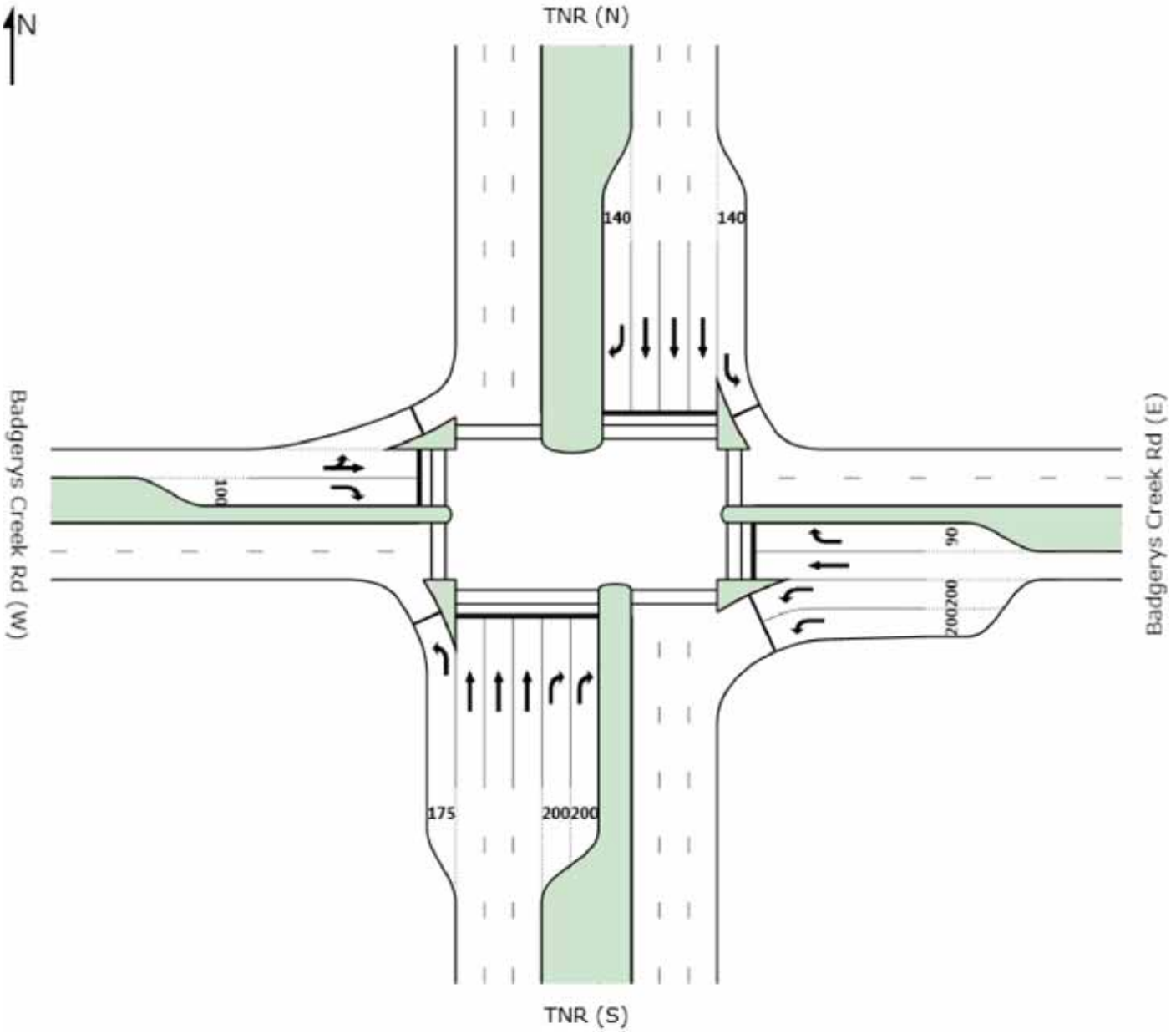
N
TNR (N)
140
140
Badgerys Creek Rd (W)
100
90
200200
Badgerys Creek Rd (E)
175
200200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Badgerys Creek Rd_AM

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	11	0.0	0.009	17.0	LOS B	0.1	0.9	0.18	0.69	51.6
2	T	1206	5.0	0.396	14.9	LOS B	11.3	82.4	0.42	0.37	51.9
3	R	1017	5.0	0.676	40.9	LOS C	24.5	178.6	0.72	0.84	34.4
Approach		2234	5.0	0.676	26.7	LOS B	24.5	178.6	0.56	0.59	42.2
East: Badgerys Creek Rd (E)											
4	L	413	5.1	0.163	9.7	LOS A	1.2	8.4	0.08	0.62	47.6
5	T	11	0.0	0.024	48.4	LOS D	0.5	3.8	0.74	0.51	25.0
6	R	26	4.0	0.361	88.3	LOS F	2.0	14.4	1.00	0.71	17.7
Approach		449	4.9	0.361	15.2	LOS B	2.0	14.4	0.15	0.62	42.5
North: TNR (N)											
7	L	26	4.0	0.066	60.4	LOS E	1.4	9.9	0.75	0.73	27.0
8	T	557	4.9	0.694	67.8	LOS E	13.0	94.8	0.99	0.82	24.1
9	R	11	0.0	0.140	90.0	LOS F	0.8	5.4	0.98	0.68	20.3
Approach		594	4.8	0.694	67.8	LOS E	13.0	94.8	0.98	0.82	24.1
West: Badgerys Creek Rd (W)											
10	L	11	0.0	0.031	52.1	LOS D	0.7	5.0	0.69	0.70	25.1
11	T	4	0.0	0.031	44.5	LOS D	0.7	5.0	0.69	0.50	25.7
12	R	12	9.1	0.164	87.0	LOS F	0.9	6.5	0.98	0.68	17.9
Approach		26	4.0	0.164	66.2	LOS E	0.9	6.5	0.82	0.66	21.4
All Vehicles		3303	4.9	0.694	32.9	LOS C	24.5	178.6	0.58	0.63	36.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	66.3	LOS F	0.0	0.0	0.94	0.94
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	66.3	LOS F	0.0	0.0	0.94	0.94
All Pedestrians		40	66.5	LOS F			0.94	0.94

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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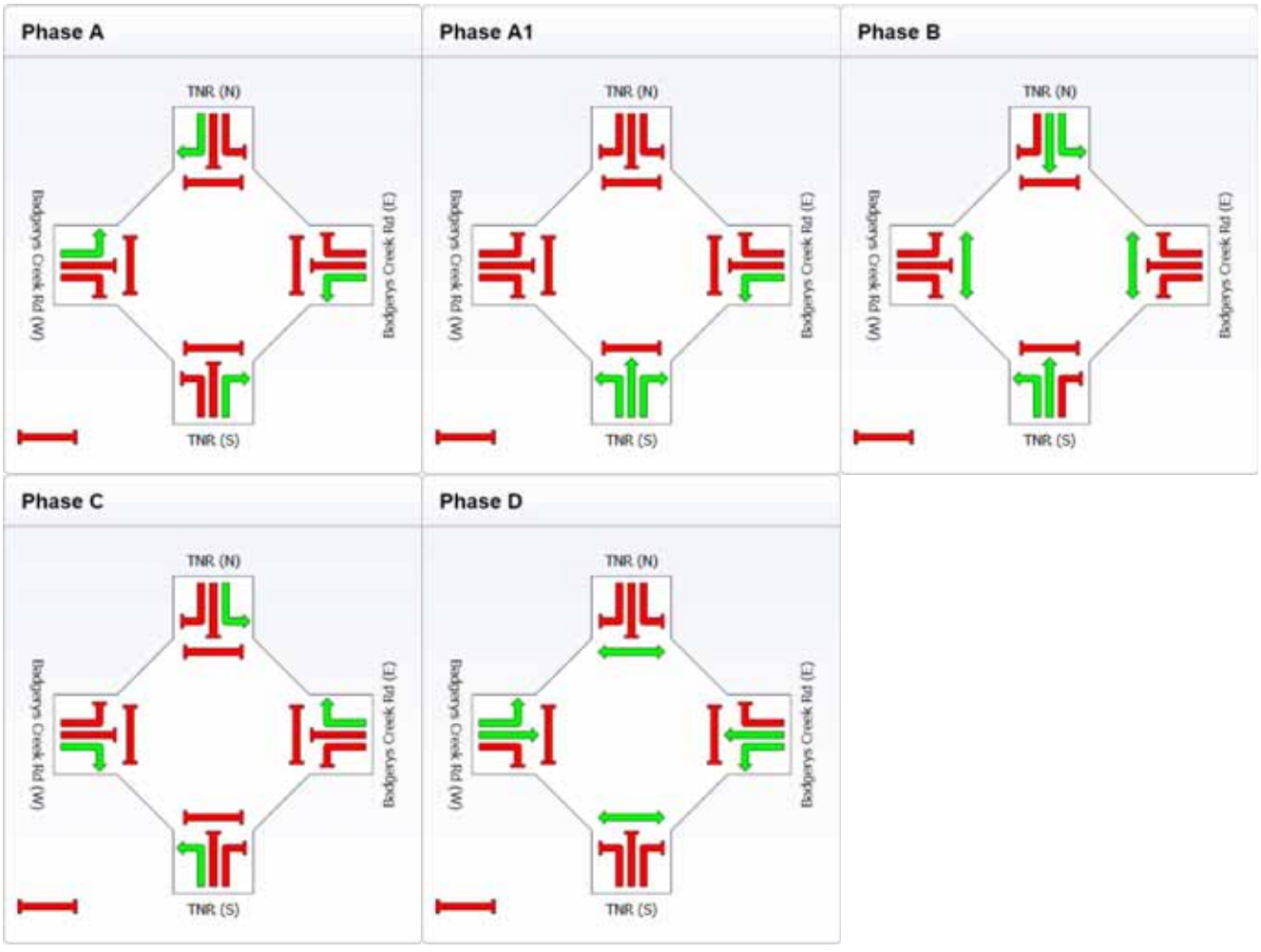
PHASING SUMMARY

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Split Phasing
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	54	21	6	33
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	60	27	12	39
Phase Split	8 %	40 %	18 %	8 %	26 %



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MOVEMENT SUMMARY

Site: 2036_Badgerys Creek Rd_PM

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	13	8.3	0.012	17.2	LOS B	0.2	1.2	0.18	0.69	51.6
2	T	727	5.1	0.239	13.4	LOS A	5.9	42.8	0.36	0.31	53.9
3	R	375	5.1	0.508	68.2	LOS E	11.6	84.8	0.89	0.82	24.9
Approach		1115	5.1	0.508	31.9	LOS C	11.6	84.8	0.54	0.48	38.8
East: Badgerys Creek Rd (E)											
4	L	951	5.0	0.590	32.6	LOS C	19.9	145.2	0.63	0.78	31.9
5	T	11	0.0	0.024	48.4	LOS D	0.5	3.8	0.74	0.51	25.0
6	R	34	6.3	0.469	89.1	LOS F	2.6	18.9	1.00	0.72	17.6
Approach		995	5.0	0.590	34.7	LOS C	19.9	145.2	0.64	0.78	30.9
North: TNR (N)											
7	L	26	4.0	0.038	31.0	LOS C	0.8	5.5	0.42	0.71	40.0
8	T	1114	5.0	0.521	35.8	LOS C	18.2	132.8	0.73	0.63	35.4
9	R	11	0.0	0.140	90.0	LOS F	0.8	5.4	0.98	0.68	20.3
Approach		1151	4.9	0.521	36.2	LOS C	18.2	132.8	0.72	0.64	35.3
West: Badgerys Creek Rd (W)											
10	L	11	0.0	0.028	51.2	LOS D	0.6	4.5	0.68	0.69	25.3
11	T	3	0.0	0.028	43.6	LOS D	0.6	4.5	0.68	0.49	25.9
12	R	13	8.3	0.178	87.1	LOS F	0.9	7.0	0.98	0.68	17.9
Approach		26	4.0	0.178	67.5	LOS E	0.9	7.0	0.83	0.66	21.2
All Vehicles		3286	5.0	0.590	34.5	LOS C	19.9	145.2	0.64	0.63	34.8

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	37.5	LOS D	0.0	0.0	0.71	0.71
P5	Across N approach	10	65.3	LOS F	0.0	0.0	0.93	0.93
P7	Across W approach	10	37.5	LOS D	0.0	0.0	0.71	0.71
All Pedestrians		40	52.1	LOS E			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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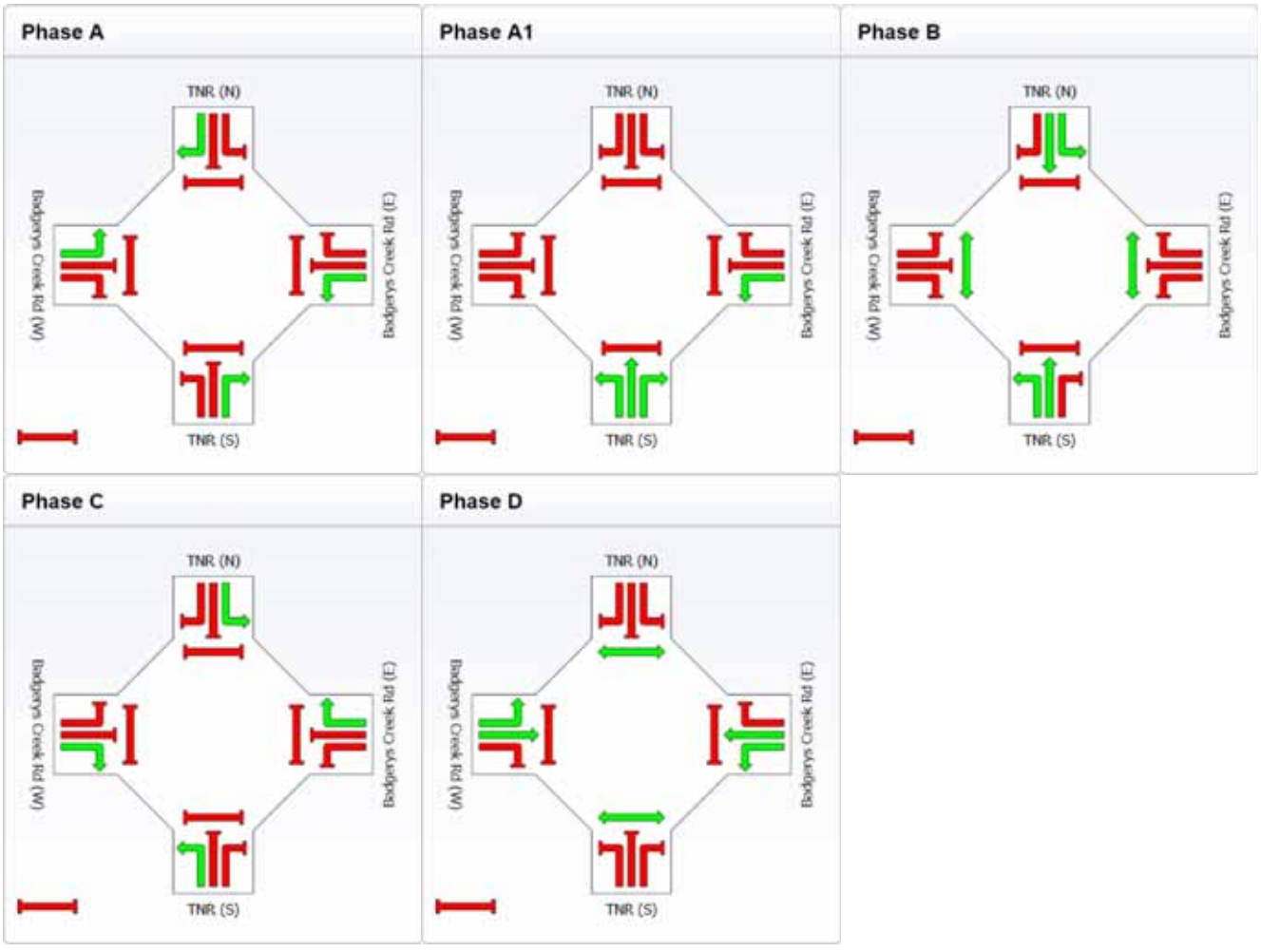
PHASING SUMMARY

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Split Phasing
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	19	56	6	33
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	25	62	12	39
Phase Split	8 %	17 %	41 %	8 %	26 %



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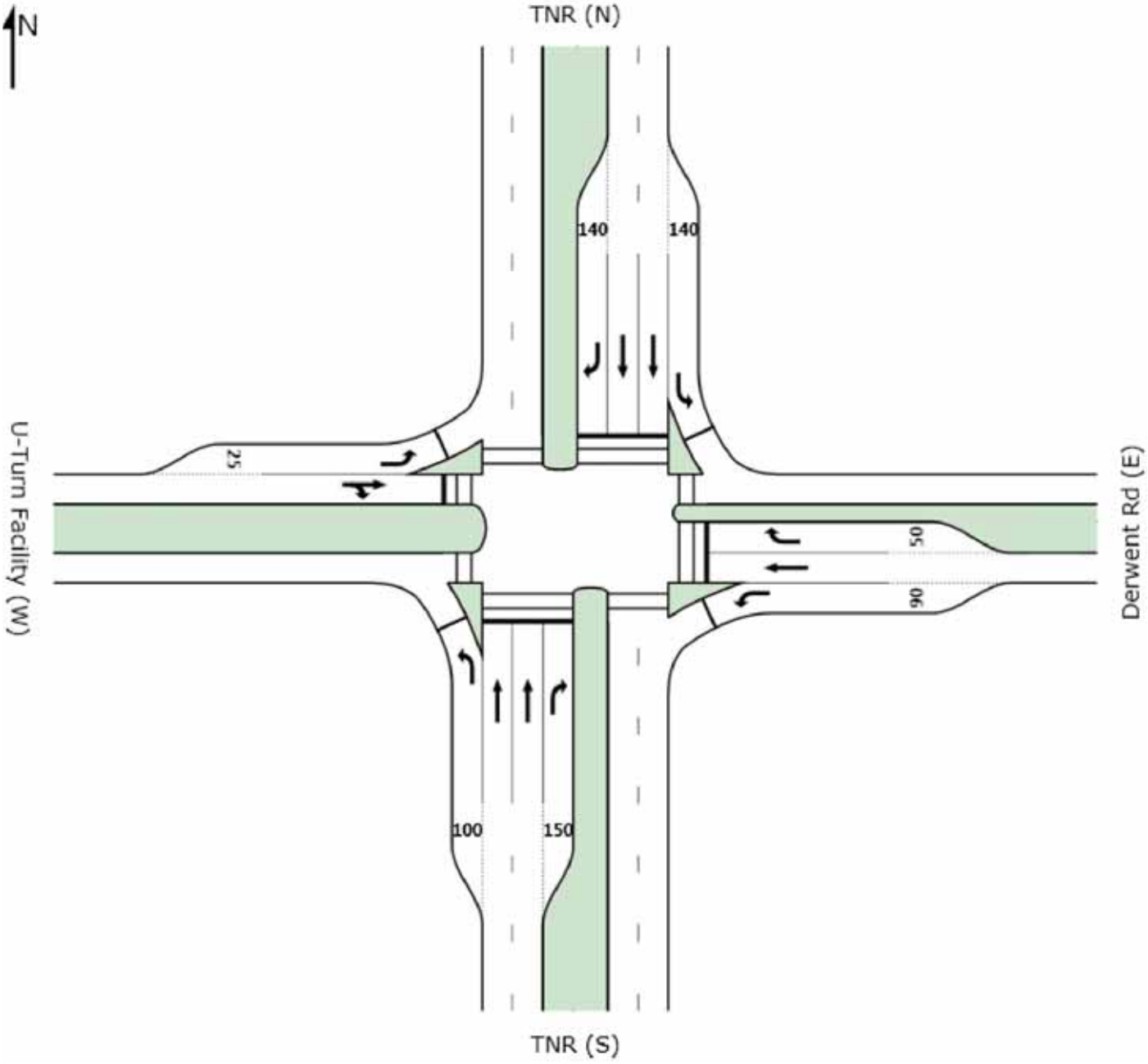
N
TNR (N)
140
140
25
50
90
100
150
U-Turn Facility (W)
Derwent Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Derwent Rd_AM

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	48	4.3	0.041	13.9	LOS A	0.3	2.4	0.10	0.70	55.2
2	T	1179	5.0	0.653	24.9	LOS B	26.2	191.6	0.67	0.60	42.1
3	R	61	5.2	0.321	79.5	LOS F	4.1	30.0	0.94	0.76	22.2
Approach		1288	5.0	0.653	27.1	LOS B	26.2	191.6	0.66	0.61	40.8
East: Derwent Rd (E)											
4	L	20	5.3	0.053	45.3	LOS D	0.9	6.3	0.62	0.68	27.0
5	T	1	0.0	0.003	55.7	LOS D	0.1	0.4	0.80	0.48	23.0
6	R	11	0.0	0.057	64.6	LOS E	0.6	4.2	0.82	0.68	21.7
Approach		32	3.3	0.057	52.1	LOS D	0.9	6.3	0.69	0.67	24.8
North: TNR (N)											
7	L	15	7.1	0.014	16.0	LOS B	0.1	1.1	0.25	0.69	52.9
8	T	518	5.1	0.328	27.8	LOS B	10.2	74.5	0.58	0.50	40.4
9	R	1	0.0	0.014	87.6	LOS F	0.1	0.5	0.96	0.59	20.7
Approach		534	5.1	0.328	27.6	LOS B	10.2	74.5	0.58	0.51	40.6
West: U-Turn Facility (W)											
10	L	1	0.0	0.007	37.2	LOS C	0.0	0.3	0.75	0.59	29.9
11	T	1	0.0	0.170	58.7	LOS E	3.0	21.5	0.85	0.65	21.6
12	R	48	4.3	0.170	66.6	LOS E	3.0	21.5	0.85	0.74	21.3
Approach		51	4.2	0.170	65.8	LOS E	3.0	21.5	0.85	0.74	21.5
All Vehicles		1904	5.0	0.653	28.7	LOS C	26.2	191.6	0.64	0.59	39.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	32.0	LOS D	0.0	0.0	0.65	0.65
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	30.1	LOS D	0.0	0.0	0.63	0.63
All Pedestrians		40	49.6	LOS E			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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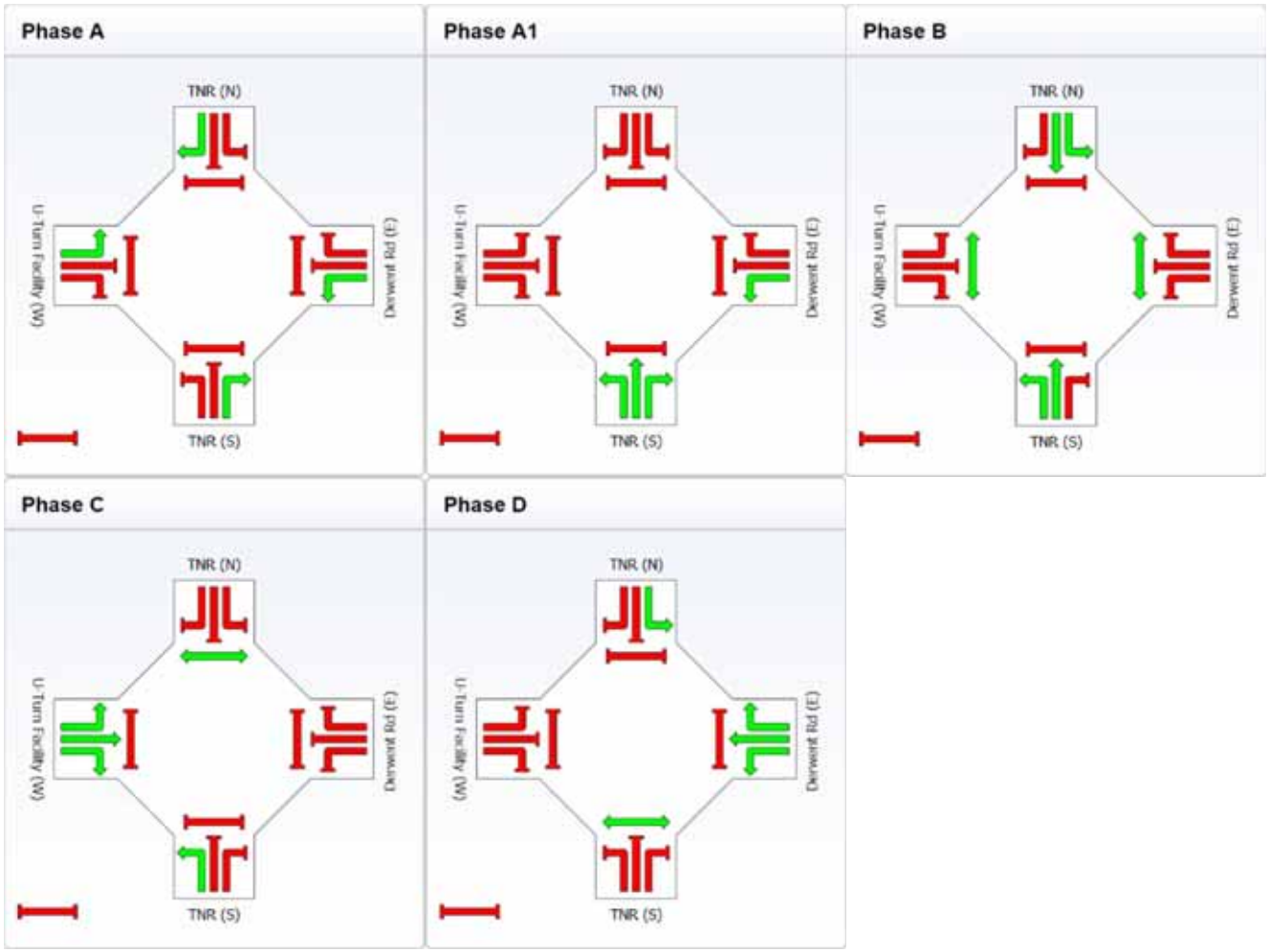
PHASING SUMMARY

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Split Phasing
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	6	4	62	24	24
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	10	68	30	30
Phase Split	8 %	7 %	45 %	20 %	20 %



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MOVEMENT SUMMARY

Site: 2036_Derwent Rd_PM

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	64	4.9	0.055	14.0	LOS A	0.4	3.3	0.10	0.70	55.2
2	T	674	5.0	0.373	20.8	LOS B	11.4	83.5	0.51	0.44	45.9
3	R	24	4.3	0.338	91.8	LOS F	1.8	13.3	1.00	0.71	20.0
Approach		762	5.0	0.373	22.4	LOS B	11.4	83.5	0.49	0.47	44.7
East: Derwent Rd (E)											
4	L	60	5.3	0.182	55.5	LOS D	3.1	22.7	0.75	0.73	24.0
5	T	1	0.0	0.003	55.7	LOS D	0.1	0.4	0.80	0.48	23.0
6	R	14	7.7	0.080	65.1	LOS E	0.8	5.9	0.82	0.68	21.7
Approach		75	5.6	0.182	57.2	LOS E	3.1	22.7	0.76	0.72	23.5
North: TNR (N)											
7	L	4	0.0	0.004	13.7	LOS A	0.0	0.2	0.15	0.68	55.3
8	T	1017	5.0	0.555	23.3	LOS B	20.4	148.9	0.60	0.54	43.5
9	R	1	0.0	0.014	87.6	LOS F	0.1	0.5	0.96	0.59	20.7
Approach		1022	4.9	0.555	23.3	LOS B	20.4	148.9	0.60	0.54	43.5
West: U-Turn Facility (W)											
10	L	1	0.0	0.007	37.2	LOS C	0.0	0.3	0.75	0.59	29.9
11	T	1	0.0	0.225	59.4	LOS E	4.0	28.9	0.86	0.67	21.4
12	R	64	4.9	0.225	67.3	LOS E	4.0	28.9	0.86	0.75	21.2
Approach		66	4.8	0.225	66.7	LOS E	4.0	28.9	0.86	0.75	21.3
All Vehicles		1925	5.0	0.555	25.8	LOS B	20.4	148.9	0.57	0.53	41.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	25.8	LOS C	0.0	0.0	0.59	0.59
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	24.1	LOS C	0.0	0.0	0.57	0.57
All Pedestrians		40	46.6	LOS E			0.77	0.77

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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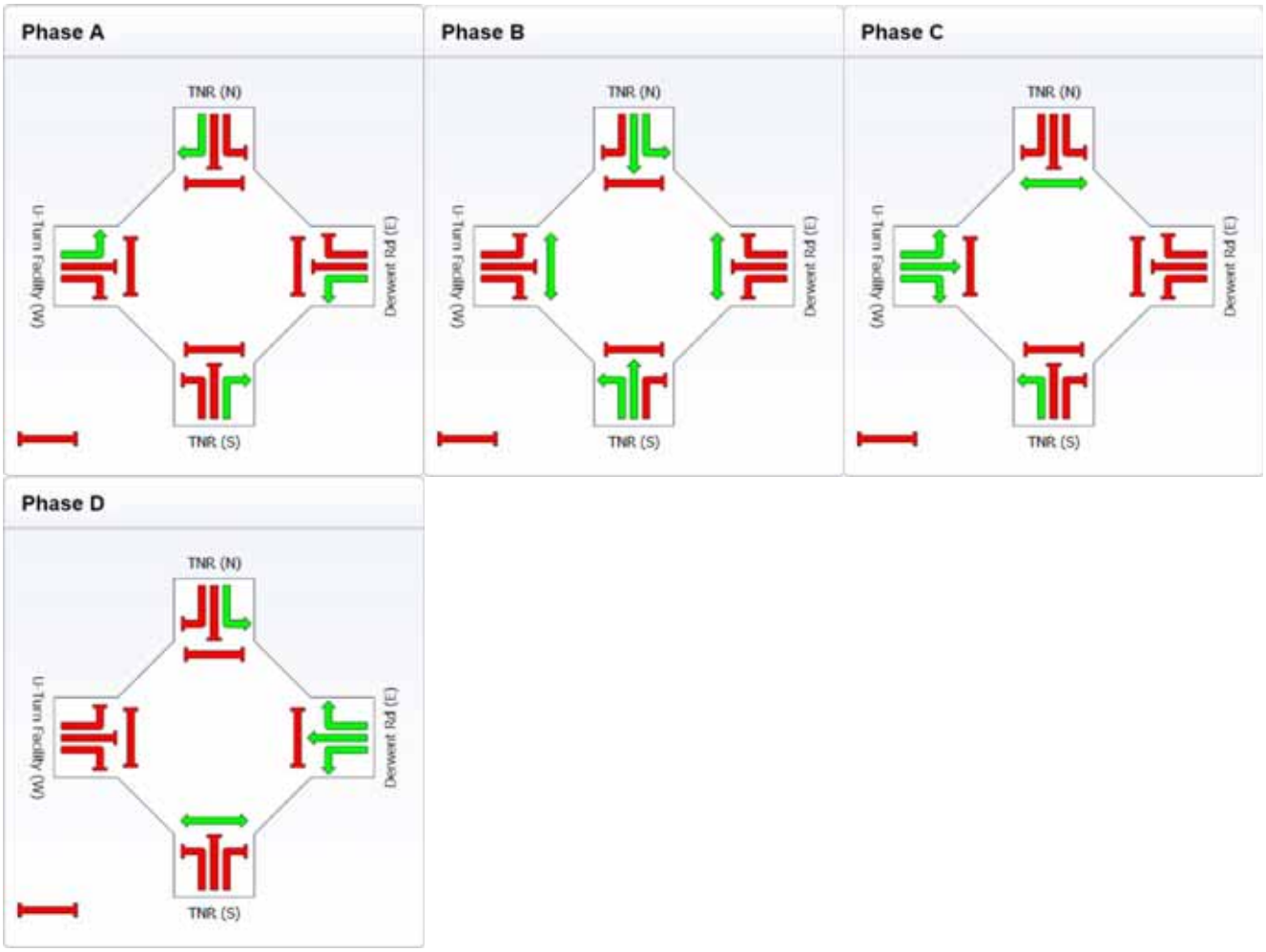
PHASING SUMMARY

Badgerys Creek Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Green Split Priority for Coordinated Movements applies
Sequence: Split Phasing (phase reduction applied)
Input Sequence: A, A1, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	6	72	24	24
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	12	78	30	30
Phase Split	8 %	52 %	20 %	20 %



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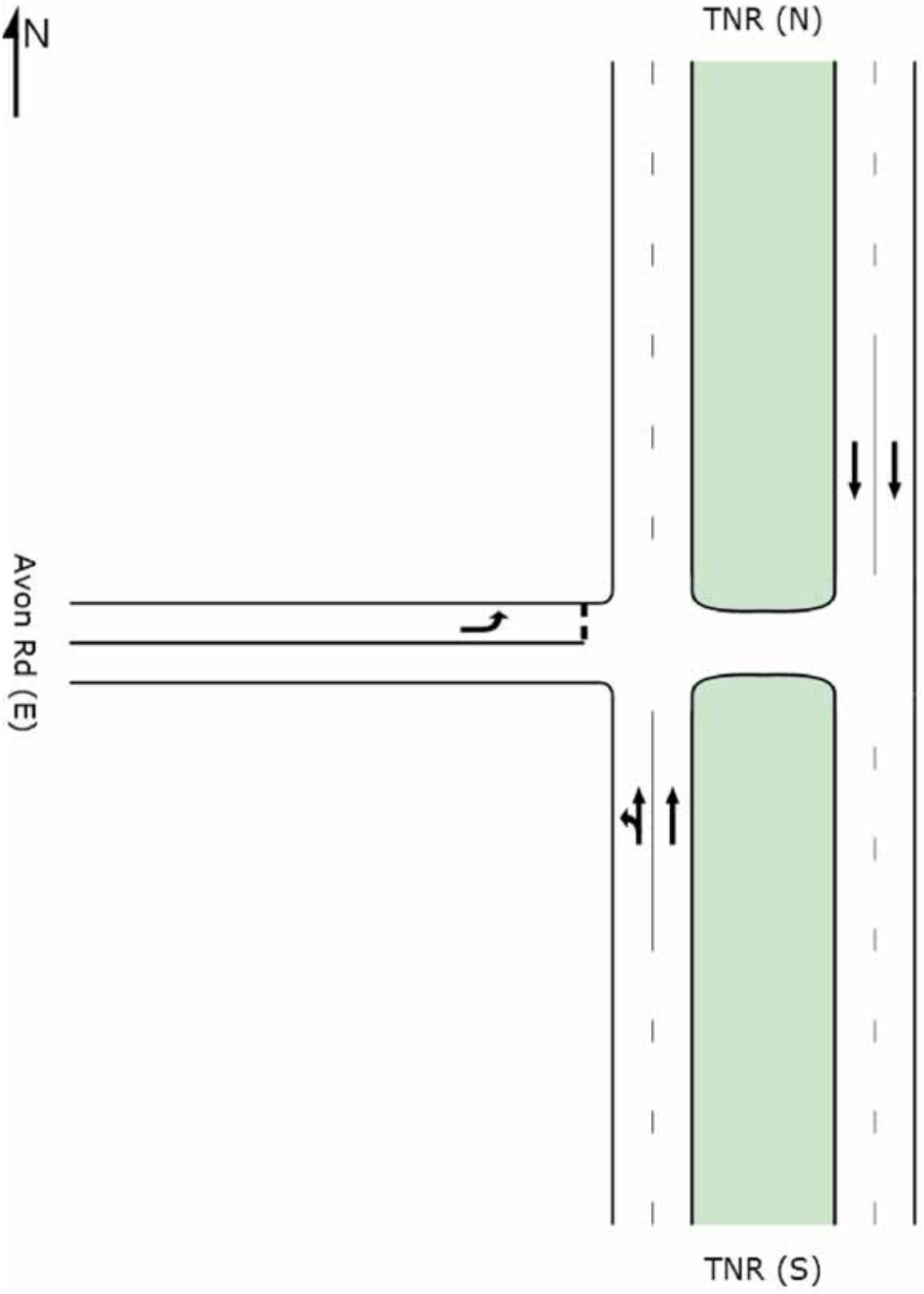
N
TNR (N)
Avon Rd (E)
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Avon Rd_AM

Avon Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	7	0.0	0.313	10.9	LOS A	0.0	0.0	0.00	1.34	58.9
2	T	1176	5.0	0.313	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1183	5.0	0.313	0.1	NA	0.0	0.0	0.00	0.01	79.8
North: TNR (N)											
8	T	532	5.0	0.141	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		532	5.0	0.141	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Avon Rd (E)											
10	L	11	0.0	0.031	17.2	LOS B	0.1	0.7	0.72	0.89	40.7
Approach		11	0.0	0.031	17.2	LOS B	0.1	0.7	0.72	0.89	40.7
All Vehicles		1725	4.9	0.313	0.2	NA	0.1	0.7	0.00	0.01	79.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2036_Avon Rd_PM

Avon Road
Giveway / Yield (Two-Way)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	7	0.0	0.182	10.9	LOS A	0.0	0.0	0.00	1.33	58.9
2	T	679	5.0	0.182	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		686	4.9	0.182	0.1	NA	0.0	0.0	0.00	0.01	79.7
North: TNR (N)											
8	T	1023	5.0	0.271	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		1023	5.0	0.271	0.0	NA	0.0	0.0	0.00	0.00	80.0
West: Avon Rd (E)											
10	L	11	0.0	0.017	11.7	LOS A	0.1	0.4	0.52	0.71	45.4
Approach		11	0.0	0.017	11.7	LOS A	0.1	0.4	0.52	0.71	45.4
All Vehicles		1720	5.0	0.271	0.1	NA	0.1	0.4	0.00	0.01	79.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model used.

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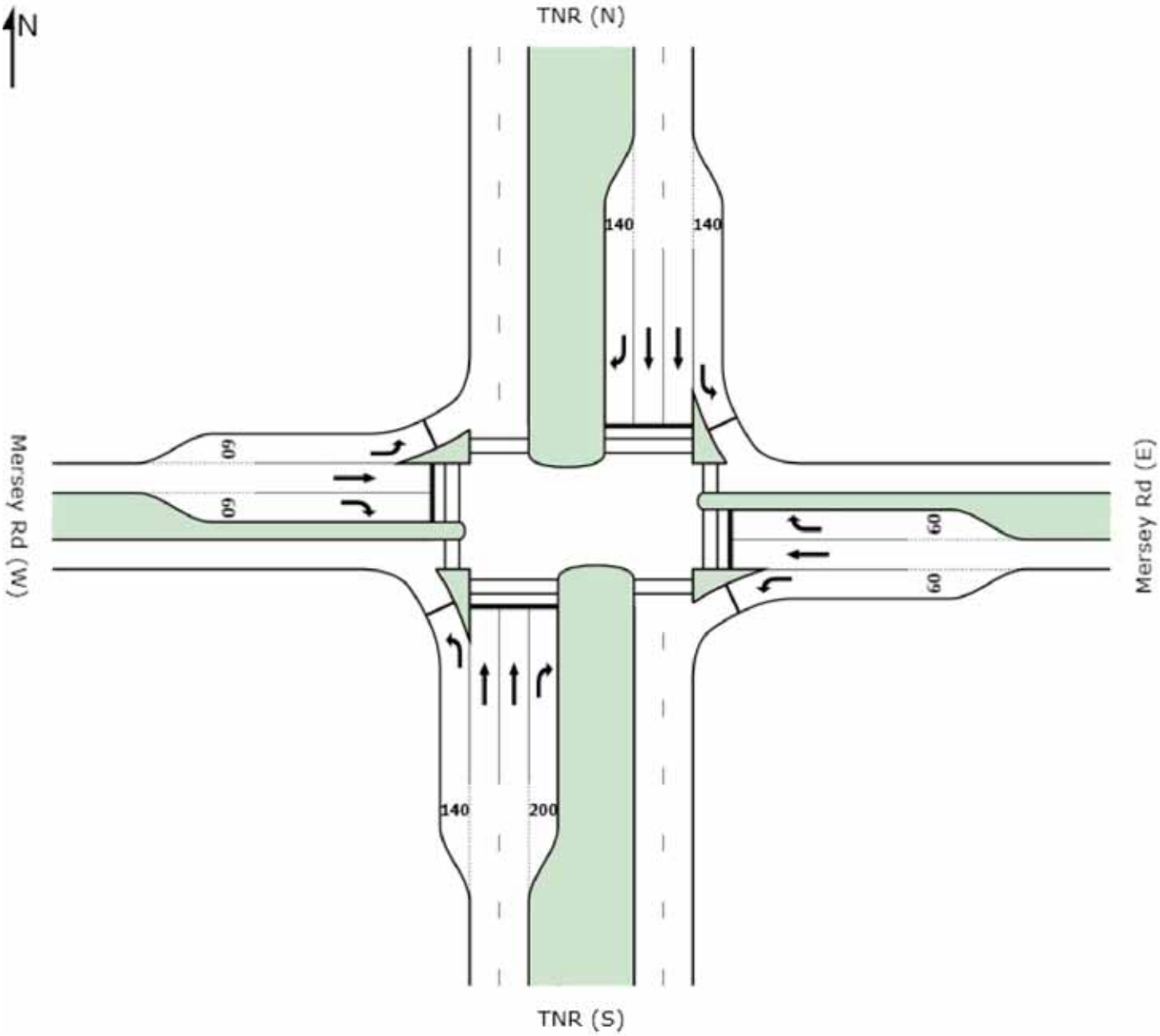
N
TNR (N)
140
140
Mersey Rd (W)
60
60
Mersey Rd (E)
60
60
140
200
TNR (S)

MOVEMENT SUMMARY

Site: 2036_Mersey Rd_AM

Mersey Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	11	0.0	0.009	16.2	LOS B	0.1	0.8	0.16	0.69	52.5
2	T	1103	5.0	0.522	15.0	LOS B	16.9	123.0	0.46	0.42	51.6
3	R	65	4.8	0.245	72.8	LOS F	4.1	29.7	0.88	0.76	23.8
Approach		1179	4.9	0.522	18.2	LOS B	16.9	123.0	0.48	0.44	48.5
East: Mersey Rd (E)											
4	L	17	6.3	0.055	36.4	LOS C	0.6	4.5	0.53	0.66	30.3
5	T	11	0.0	0.029	52.9	LOS D	0.6	4.0	0.78	0.54	23.7
6	R	19	5.3	0.262	87.7	LOS F	1.4	10.4	0.99	0.70	17.8
Approach		46	4.4	0.262	61.2	LOS E	1.4	10.4	0.77	0.65	22.4
North: TNR (N)											
7	L	135	4.7	0.159	23.2	LOS B	2.9	21.0	0.32	0.73	45.7
8	T	445	5.1	0.250	20.7	LOS B	7.1	52.1	0.48	0.41	46.0
9	R	54	0.0	0.477	88.1	LOS F	3.9	27.6	0.99	0.75	20.7
Approach		634	4.6	0.477	27.0	LOS B	7.1	52.1	0.49	0.50	41.7
West: Mersey Rd (W)											
10	L	11	0.0	0.039	47.7	LOS D	0.5	3.3	0.64	0.66	26.2
11	T	11	0.0	0.029	52.9	LOS D	0.6	4.0	0.78	0.54	23.7
12	R	18	5.9	0.248	87.7	LOS F	1.3	9.8	0.99	0.70	17.8
Approach		39	2.7	0.248	67.5	LOS E	1.3	9.8	0.84	0.65	21.0
All Vehicles		1898	4.7	0.522	23.2	LOS B	16.9	123.0	0.50	0.47	43.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	27.0	LOS C	0.0	0.0	0.60	0.60
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	27.0	LOS C	0.0	0.0	0.60	0.60
All Pedestrians		40	47.6	LOS E			0.78	0.78

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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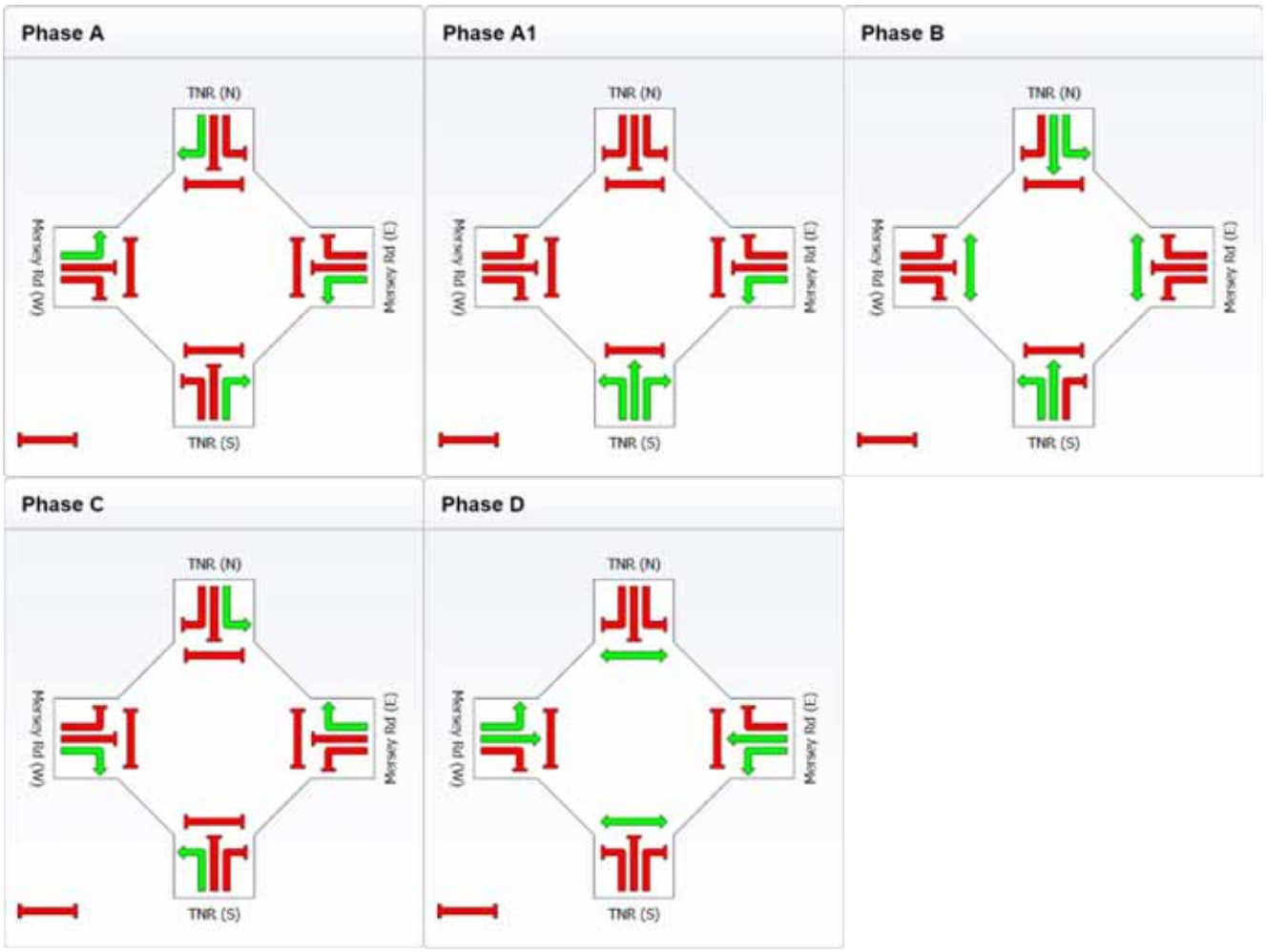
PHASING SUMMARY

Mersey Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, A1, B, C, D
Output Sequence: A, A1, B, C, D

Phase Timing Results

Phase	A	A1	B	C	D
Green Time (sec)	9	7	70	6	28
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	15	13	76	12	34
Phase Split	10 %	9 %	51 %	8 %	23 %



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MOVEMENT SUMMARY

Site: 2036_Mersey Rd_PM

Mersey Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

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	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: TNR (S)											
1	L	11	0.0	0.012	23.7	LOS B	0.2	1.6	0.31	0.70	45.2
2	T	652	5.0	0.569	46.7	LOS D	18.4	134.3	0.83	0.72	30.5
3	R	20	5.3	0.276	91.4	LOS F	1.5	11.0	0.99	0.70	20.1
Approach		682	4.9	0.569	47.6	LOS D	18.4	134.3	0.83	0.71	30.2
East: Mersey Rd (E)											
4	L	66	4.8	0.270	52.2	LOS D	3.3	23.7	0.71	0.72	24.9
5	T	11	0.0	0.029	52.9	LOS D	0.6	4.0	0.78	0.54	23.7
6	R	119	5.3	0.569	65.1	LOS E	7.2	52.7	0.87	0.77	21.7
Approach		196	4.8	0.569	60.1	LOS E	7.2	52.7	0.81	0.74	22.8
North: TNR (N)											
7	L	36	5.9	0.030	15.3	LOS B	0.3	2.5	0.14	0.70	53.6
8	T	838	5.0	0.568	18.3	LOS B	11.8	86.2	0.73	0.63	47.2
9	R	97	0.0	0.407	50.1	LOS D	4.5	31.8	0.93	0.77	30.4
Approach		971	4.5	0.568	21.3	LOS B	11.8	86.2	0.73	0.65	44.9
West: Mersey Rd (W)											
10	L	11	0.0	0.031	33.7	LOS C	0.4	2.5	0.50	0.65	31.4
11	T	3	0.0	0.009	52.4	LOS D	0.2	1.2	0.77	0.50	23.9
12	R	23	4.5	0.107	61.4	LOS E	1.3	9.4	0.79	0.70	22.5
Approach		37	2.9	0.107	52.7	LOS D	1.3	9.4	0.71	0.67	24.6
All Vehicles		1885	4.7	0.569	35.5	LOS C	18.4	134.3	0.77	0.68	35.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P3	Across E approach	10	44.1	LOS E	0.0	0.0	0.77	0.77
P5	Across N approach	10	68.2	LOS F	0.0	0.0	0.95	0.95
P7	Across W approach	10	44.1	LOS E	0.0	0.0	0.77	0.77
All Pedestrians		40	56.1	LOS E			0.86	0.86

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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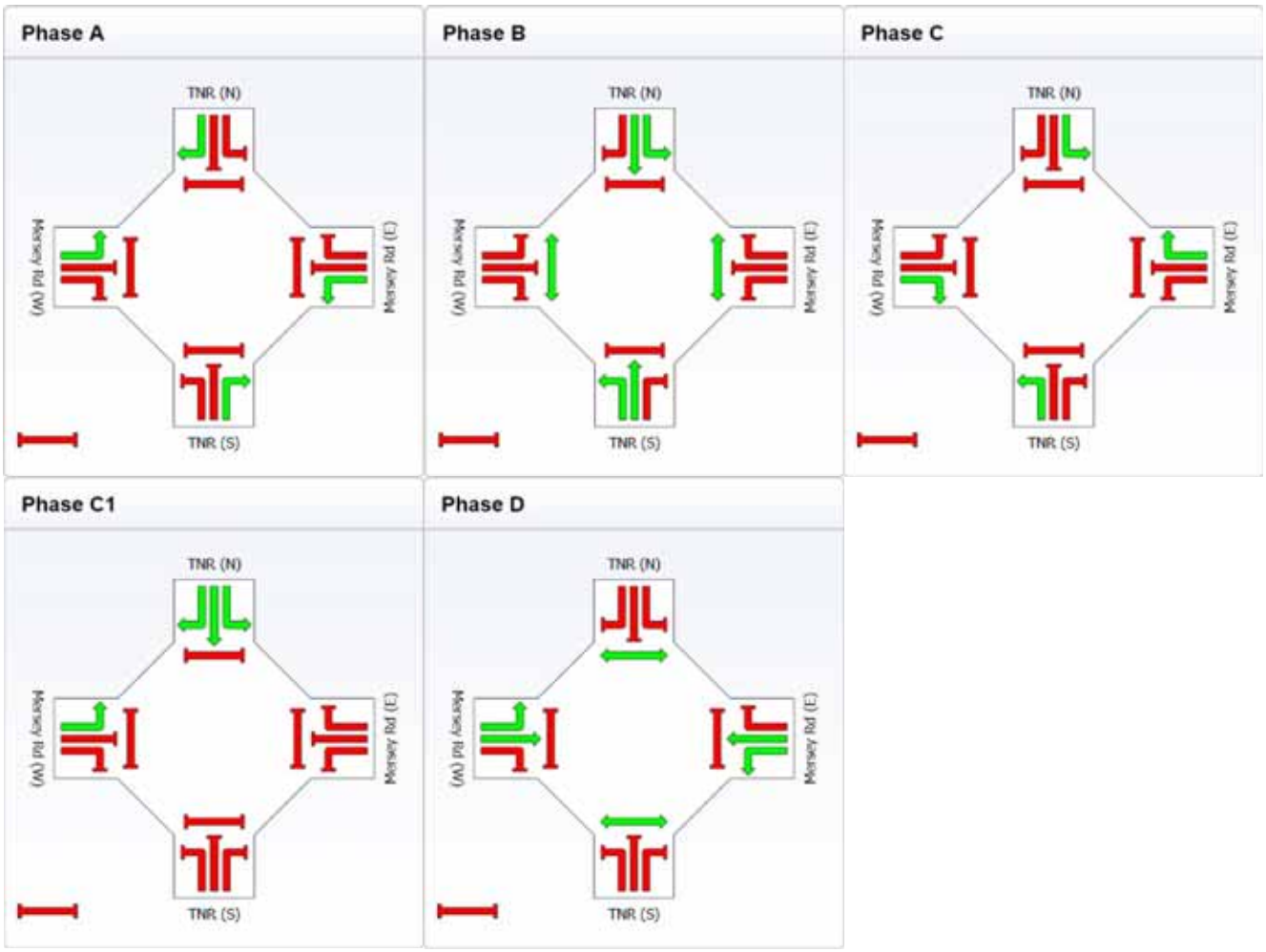
PHASING SUMMARY

Mersey Road
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, B, C, C1, D
Output Sequence: A, B, C, C1, D

Phase Timing Results

Phase	A	B	C	C1	D
Green Time (sec)	6	45	28	13	28
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	12	51	34	19	34
Phase Split	8 %	34 %	23 %	13 %	23 %



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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