

Our Ref: 22002

2 June 2023

NSW Land and Housing Corporation
Locked Bag 4009,
Ashfield NSW 1800

Attention: Paul Parfenow

Dear Paul,

**RE: BONNYRIGG STAGES 12 AND 13
TRAFFIC MODELLING**

As requested, please find herein The Transport Planning Partnership (TPPP)'s traffic modelling assessment for the Bonnyrigg Stages 12 and 13 residential subdivision.

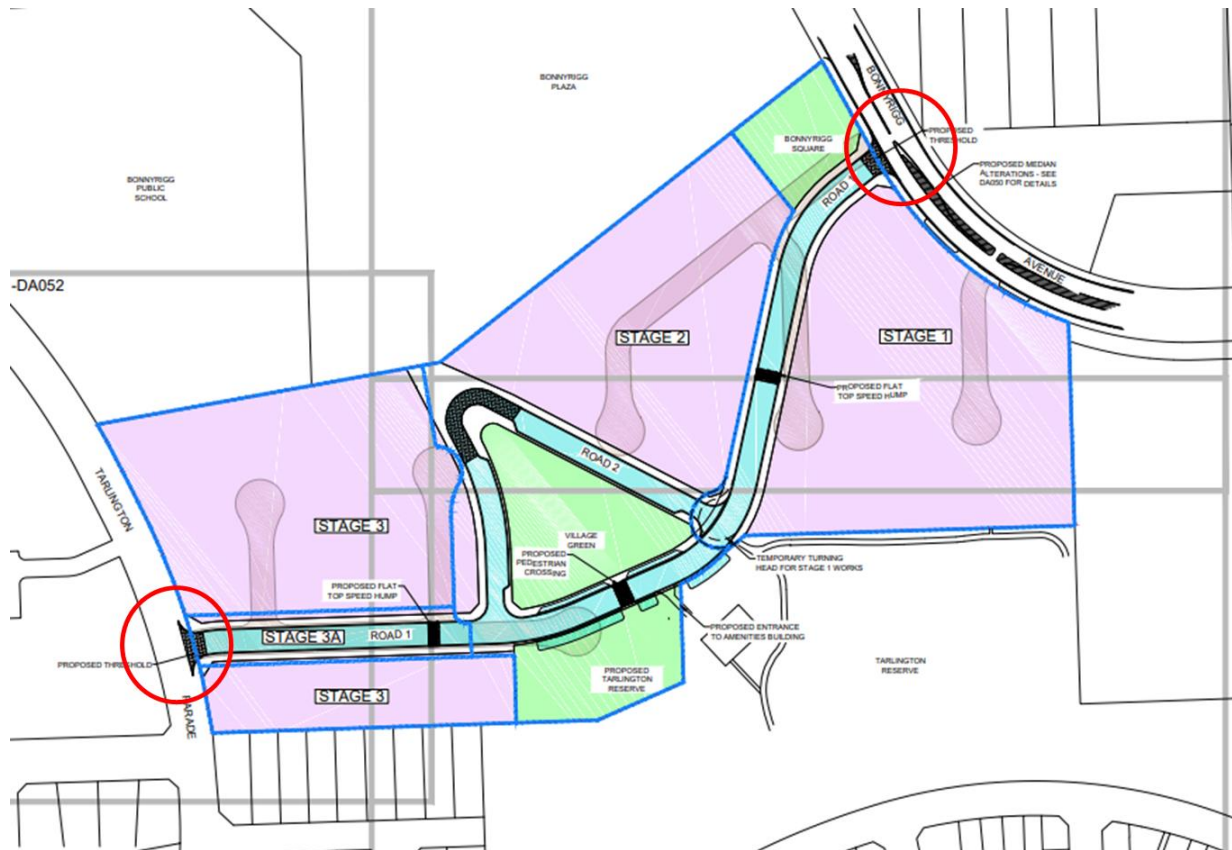
Background

TPPP has been commissioned to assess the traffic impacts of the proposed subdivision for stages 12 and 13 of Bonnyrigg. This is part of a development application for the subdivision of land as part of the broader redevelopment of the Bonnyrigg Precinct.

A Transport Assess and Mobility Plan was prepared by GTA consultants (2018) to capture the impacts of the precinct on the road network. However, TPPP has been requested to assess the localised impacts of Stages 12 and 13 on the road network.

This letter presents the traffic modelling that was undertaken for the intersections where the development adjoins the broader road network at Road 1 / Bonnyrigg Avenue and Road 1 / Tarlington Parade (see Figure 1).

Figure 1: Bonnyrigg Stages 12 and 13



Traffic Surveys

Traffic intersection counts were commissioned on Tuesday 2 May 2023 between 6:30am-9:30am and 2:30pm-6:30pm at the intersection of Bonnyrigg Avenue-Corlette Way and Tarlington Parade-Barraclough Way.

Traffic volumes based on the traffic surveys for the peak periods are shown in Figure 2.

Figure 2: Existing Traffic Volumes 2023

8:15am-9:15am Total 12 512 → HV 0 9 ↘ Bonnyrigg Ave ↖ 15 9 ↗ 0 0 ← 551 7 ↘ 11 0 Corlette Way	3:00pm-4:00pm Total 11 639 → HV 0 9 ↘ Bonnyrigg Ave ↖ 9 11 ↗ 0 0 ← 740 11 ↘ 14 0 Corlette Way
8:15am-9:15am Total HV 1 7 ↗ 5 191 → Tarlington Pde ↖ 3 0 ← 202 3 Barraclough Way ↖ 2 0 ↗ 8 7 ↘ ↘	2:45pm-3:45pm Total HV 0 9 ↗ 3 248 → Tarlington Pde ↖ 11 0 ← 220 3 Barraclough Way ↖ 0 0 ↗ 4 5 ↘ ↘

It is noted that the evening peak has significantly more traffic as result of the adjacent Bonnyrigg Plaza Shopping Centre. Conservatively, we have assumed that the site's peak traffic generation would align with the road network peaks.

Traffic Generation and Distribution

The traffic generation of the proposed development has been assessed in a manner to ensure consistency with the approved TMAP prepared by GTA in 2018. Therefore, trip generation rates have been sourced from the previous TMAP (GTA, 2018) which in turn are based on The Guide to Traffic Generating Developments 2002.

The proposed development would comprise 616 residential dwellings. This would be a net increase of 508 dwellings. A summary of the existing and proposed number of dwellings is shown in Table 1.

Table 1: Existing and Proposed Subdivision

	Stage 1 (Lot 1)	Stage 2 (Lot 2)	Stage 3 (Lot 3 and Lot 4)	Total
Existing	45 dwellings	32 dwellings	31 dwellings	108 dwellings + 1 former child care centre
Proposed	215 dwellings	199 dwellings	202 dwellings	616 dwellings

The following assumptions have been made for the purpose of estimating traffic generation :

- Land use split of 50% medium density and 50% high density this is based on the assumption of a mix of four(4) and six (6) apartment buildings. The RTA Guide to Traffic Generation defines high density as buildings greater than four (4) storeys. Medium density includes town houses and apartment buildings four (4) storeys or lower.
- 70:30 split for private housing and social housing
- Trip generation rates applied to both morning and evening peak consistent with the TMAP study for medium density. High density rates are based on the Roads and Maritime, Trip Generation Surveys High Density Residential (Bitzios Consulting 2017) and assumed discount for social housing.
- 20% inbound / 80% outbound trip distribution during the AM Peak
- 80% inbound / 20% outbound trip distribution during the PM Peak
- Equal distribution of traffic assigned to Bonnyrigg Avenue-Corlette Way and Tarlington Parade-Barraclough Way intersections
- 1.5% growth rate per annum for future year volumes (this is consistent with the Bonnyrigg TMAP) to account for the general uplift in development in the area and Bonnyrigg Plaza.

Based on the above, Table 2 summarises the estimated traffic generation during the AM and PM peak periods.

Table 2: Net Traffic Generation Estimates (AM and PM)

Land Use	Yield		Trip Rate		Traffic Generation		Total	
	Social (30%)	Private (70%)	Social	Private	Social	Private		
Medium Density (50%)	92 dwellings	216 dwellings	0.50 trips per dwelling	0.65 trips per dwelling	46 trips	140 trips	186 trips	
High Density (50%)	92 dwellings	216 dwellings	0.20 trips per dwelling	0.29 trips per dwelling	18 trips	63 trips	81 trips	
Total	616 dwellings				64 trips	203 trips	267 trips	
							Morning Peak	Evening Peak
Existing Traffic (based on traffic surveys)							-69 trips	-72 trips
Net Traffic							+198 trips	+195 trips

Based on Table 2, the proposed development is estimated to generate 267 trips during the morning and evening peak. Based on the traffic surveys undertaken in 2023, the existing area generates 69 and 72 vehicle trips in the morning peak and evening peak respectively.

Therefore, the proposed subdivision would generate a net traffic increase of 198 and 195 vehicle trips in the morning peak and evening peak respectively. The distribution of these additional trips is illustrated in Figure 3.

Figure 3: Additional Development Traffic

8:15am-9:15am Dev 9 Bonnyrigg Ave 50 30 11 Road 1	3:00pm-4:00pm Dev 31 Bonnyrigg Ave 9 11 47 Road 1
8:15am-9:15am Dev 14 Tarlington Pde 42 36 6	2:45pm-3:45pm Dev 34 Tarlington Pde 9 11 43

Modelling Results

The SIDRA modelling results for the morning and evening peak hours with and without the proposed development are presented in Table 3.

The scenarios include:

- S1 – 2023 Existing Traffic Volumes
- S2 – 2023 Existing Traffic Volumes + Net Development Traffic Volumes
- S3 – 2033 Future Traffic Volumes
- S4 - 2033 Future Traffic Volumes + Net Development Traffic Volumes

Table 3: Modelling Results

Intersection		Peak	S1 – Existing			S2 – Existing + Development			S3 – 10-Year Future (without Development)			S4 – 10-Year Future (with Development)		
			Avg Delay (s)	LoS	95 th % queue (m)	Avg Delay (s)	LoS	95 th % queue (m)	Avg Delay (s)	LoS	95 th % queue (m)	Avg Delay (s)	LoS	95 th % queue (m)
Bonnyrigg Ave-Corlette Way (Road 1)	Priority	Morning	24	B	2	29	C	9	32	C	2	41	C	13
		Evening	41	C	3	51	D	7	64	E	4	84	F	11
Tarlington Pde-BarracloUGH Way (Road 1)	Priority	Morning	6	A	0	6	A	3	6	A	1	6	A	3
		Evening	6	A	1	6	A	3	6	A	1	7	A	3

The results indicate that the intersection will operate acceptably with the additional development traffic in the 2023 scenario with a Level of Service D or better.

In the future, it is predicted that the intersections will function well during the morning peak hour. However, as traffic continues to grow, the Bonnyrigg Avenue-Corlette Way intersection may experience an increase in delay, operating at a level of Service E and F for the without (S3) and with (S4) development traffic scenarios respectively. The intersection's performance is determined by its worst-performing movement, which is the right turn from Corlette Way (Road 1) with a traffic volume of only 22 vehicles per hour during the evening peak and would have an 84-second average delay with the development. This movement, however, will not affect the other movements on Bonnyrigg Avenue which will operate at Level of Service B or better.

Additionally, the 95th percentile queue for the worst movement is only 11 m, meaning that the queue will not exceed 1.5 car lengths 95% of the time during the evening peak. Further, the right turn movements from Bonnyrigg Avenue to Road 1 will be contained within the right turn bay not causing delay to the road network.

Overall, the modelling shows that the proposed development would not have a significant impact on the road network.

It is not recommended to take any measures to improve the delay for right turn movements from Road 1. The intersection does not meet the requirements for traffic signals, and a roundabout is not advisable due to its proximity to the adjacent roundabout. Although the wide median allows for a 'seagull' intersection treatment to be considered, it is not recommended as the impacts of delay on the right turn from Road 1 affect only a few vehicles and does not impact the road network in any other way. Further, the delay would reduce the attractiveness for through traffic on local roads.

Summary and Conclusion

Based on the above it is expected that the proposed development would have minor impacts to the surrounding road network. The development is anticipated to generate 267 vehicle trips in the morning and afternoon peak. This is a net increase of 198 and 195 trips in the morning peak and evening peak respectively.

Modelling results indicate all intersections would operate satisfactorily at LoS D or better in the Year 2023 scenarios. Some increases in delay are expected in the evening peak at Bonnyrigg Ave-Corlette Way (Road 1) as a result of the increase in background traffic, however, the 95th percentile queue on the worst performing movement is estimated to be less than 1.5 vehicles for 95% of the time during the evening peak.

We trust the above is to your satisfaction. Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,



Stephen Read
Associate

Attachment One

SIDRA Outputs

SITE LAYOUT

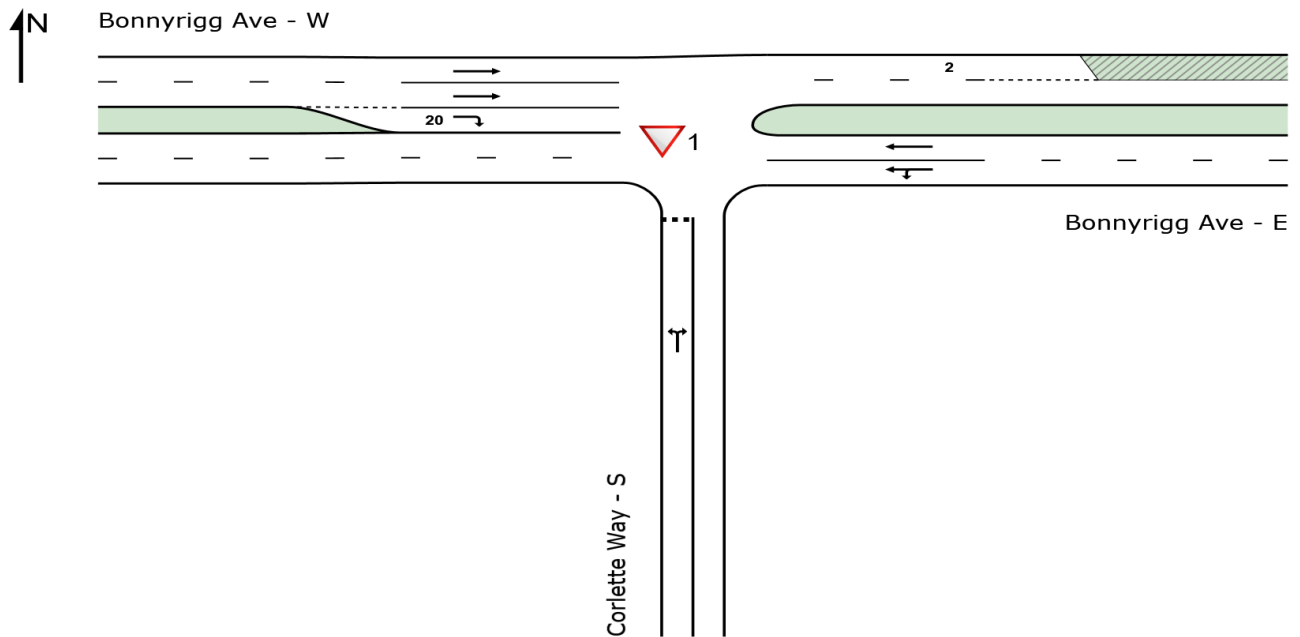
▽ Site: 1 [AM - Bonnyrigg Ave - Corlette Way (Site Folder: Existing)]

NA

Site Category: NA

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: X:\22002 Bonnyrigg Stages 12 and 13\07 Modelling Files\Model\22002-Bonnyrigg-230515.sip9

SITE LAYOUT

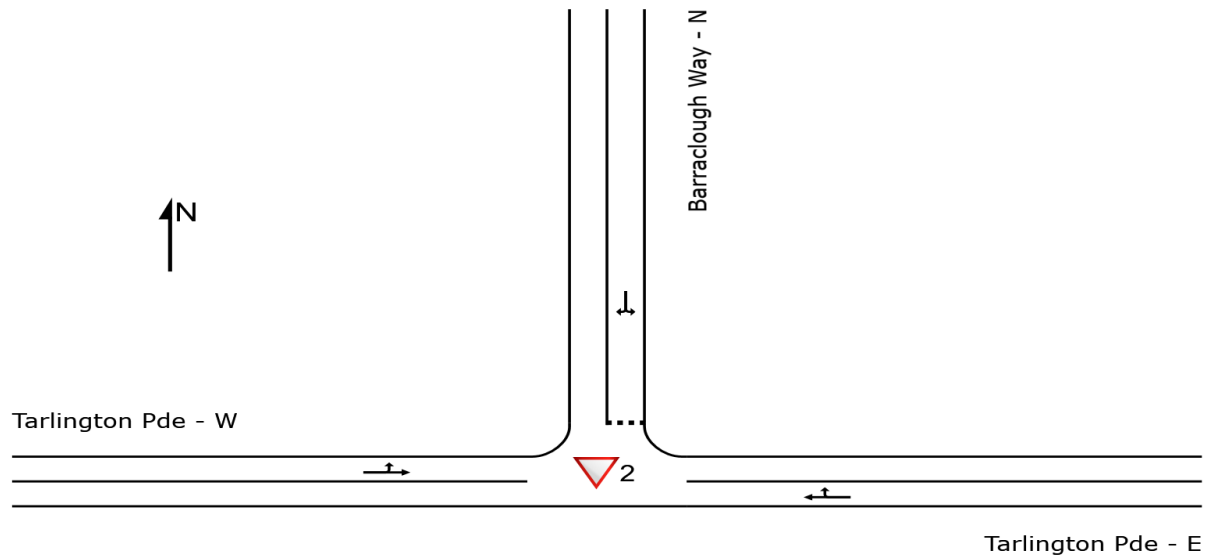
▼ Site: 2 [AM - Tarlington Pde - Barraclough Way (Site Folder: Existing)]

NA

Site Category: NA

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: X:\22002 Bonnyrigg Stages 12 and 13\07 Modelling Files\Model\22002-Bonnyrigg-230515.sip9

USER REPORT FOR SITE

 **Project: 22002-Bonnyrigg-230515**

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Template: Movement Summary

Site: 1 [AM - Bonnyrigg Ave - Corlette Way (Site Folder: Existing)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
South: Corlette Way - S															
1	L2	All MCs	16	0.0	16	0.0	0.068	5.7	LOS A	0.2	1.6	0.63	0.67	0.63	20.2
3	R2	All MCs	9	0.0	9	0.0	0.068	23.6	LOS B	0.2	1.6	0.63	0.67	0.63	34.9
Approach			25	0.0	25	0.0	0.068	12.4	LOS A	0.2	1.6	0.63	0.67	0.63	25.8
East: Bonnyrigg Ave - E															
4	L2	All MCs	12	0.0	12	0.0	0.153	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	47.0
5	T1	All MCs	580	1.3	580	1.3	0.153	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.7
Approach			592	1.2	592	1.2	0.153	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.6
West: Bonnyrigg Ave - W															
11	T1	All MCs	539	2.3	539	2.3	0.234	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	9	0.0	9	0.0	0.011	5.8	LOS A	0.0	0.3	0.49	0.59	0.49	35.0
Approach			548	2.3	548	2.3	0.234	0.3	NA	0.0	0.3	0.01	0.01	0.01	49.6
All Vehicles			1165	1.7	1165	1.7	0.234	0.4	NA	0.2	1.6	0.02	0.02	0.02	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [AM - Tarlington Pde - Barraclough Way (Site Folder: Existing)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]		[Total HV]					[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
East: Tarlington Pde - E															
5	T1	All MCs	213	1.5	213	1.5	0.112	0.0	LOS A	0.0	0.2	0.01	0.01	0.01	40.0
6	R2	All MCs	3	0.0	3	0.0	0.112	4.0	LOS A	0.0	0.2	0.01	0.01	0.01	39.4
Approach			216	1.5	216	1.5	0.112	0.1	NA	0.0	0.2	0.01	0.01	0.01	39.9
North: Barraclough Way - N															
7	L2	All MCs	7	0.0	7	0.0	0.017	4.0	LOS A	0.1	0.4	0.35	0.51	0.35	37.5
9	R2	All MCs	8	25.0	8	25.0	0.017	5.9	LOS A	0.1	0.4	0.35	0.51	0.35	37.3
Approach			16	13.3	16	13.3	0.017	5.0	LOS A	0.1	0.4	0.35	0.51	0.35	37.4
West: Tarlington Pde - W															
10	L2	All MCs	7	14.3	7	14.3	0.109	3.5	LOS A	0.0	0.0	0.00	0.02	0.00	39.4
11	T1	All MCs	201	2.6	201	2.6	0.109	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
Approach			208	3.0	208	3.0	0.109	0.2	NA	0.0	0.0	0.00	0.02	0.00	39.9
All Vehicles			440	2.6	440	2.6	0.112	0.3	NA	0.1	0.4	0.02	0.03	0.02	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 1 [PM - Bonnyrigg Ave - Corlette Way (Site Folder: Existing)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Corlette Way - S															
1	L2	All MCs	9	0.0	9	0.0	0.130	6.2	LOS A	0.4	2.8	0.80	0.88	0.80	15.7
3	R2	All MCs	12	0.0	12	0.0	0.130	41.4	LOS C	0.4	2.8	0.80	0.88	0.80	27.3
Approach			21	0.0	21	0.0	0.130	25.6	LOS B	0.4	2.8	0.80	0.88	0.80	22.2
East: Bonnyrigg Ave - E															
4	L2	All MCs	15	0.0	15	0.0	0.206	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	47.0
5	T1	All MCs	779	1.5	779	1.5	0.206	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.7
Approach			794	1.5	794	1.5	0.206	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.6
West: Bonnyrigg Ave - W															
11	T1	All MCs	673	1.7	673	1.7	0.291	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	9	0.0	9	0.0	0.014	7.1	LOS A	0.1	0.4	0.57	0.66	0.57	33.3
Approach			682	1.7	682	1.7	0.291	0.3	NA	0.1	0.4	0.01	0.01	0.01	49.6
All Vehicles			1497	1.5	1497	1.5	0.291	0.6	NA	0.4	2.8	0.01	0.02	0.01	48.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [PM - Tarlington Pde - Barraclough Way (Site Folder: Existing)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh.]	[Dist]									
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Tarlington Pde - E															
5	T1	All MCs	232	1.4	232	1.4	0.128	0.0	LOS A	0.1	0.7	0.05	0.05	0.05	39.8
6	R2	All MCs	12	0.0	12	0.0	0.128	5.9	LOS A	0.1	0.7	0.05	0.05	0.05	39.3
Approach			243	1.3	243	1.3	0.128	0.3	NA	0.1	0.7	0.05	0.05	0.05	39.8
North: Barraclough Way - N															
7	L2	All MCs	5	0.0	5	0.0	0.009	4.2	LOS A	0.0	0.2	0.37	0.51	0.37	37.5
9	R2	All MCs	4	0.0	4	0.0	0.009	5.6	LOS A	0.0	0.2	0.37	0.51	0.37	37.4
Approach			9	0.0	9	0.0	0.009	4.8	LOS A	0.0	0.2	0.37	0.51	0.37	37.5
West: Tarlington Pde - W															
10	L2	All MCs	9	0.0	9	0.0	0.140	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	39.4
11	T1	All MCs	261	1.2	261	1.2	0.140	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
Approach			271	1.2	271	1.2	0.140	0.2	NA	0.0	0.0	0.00	0.02	0.00	39.9
All Vehicles			523	1.2	523	1.2	0.140	0.3	NA	0.1	0.7	0.03	0.04	0.03	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 1 [AM - Bonnyrigg Ave - Corlette Way (Site Folder: EX + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Corlette Way - S															
1	L2	All MCs	68	0.0	68	0.0	0.300	6.8	LOS A	1.3	9.1	0.71	0.77	0.84	19.1
3	R2	All MCs	41	0.0	41	0.0	0.300	28.9	LOS C	1.3	9.1	0.71	0.77	0.84	33.1
Approach			109	0.0	109	0.0	0.300	15.0	LOS B	1.3	9.1	0.71	0.77	0.84	24.5
East: Bonnyrigg Ave - E															
4	L2	All MCs	23	0.0	23	0.0	0.156	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	46.8
5	T1	All MCs	580	1.3	580	1.3	0.156	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.5
Approach			603	1.2	603	1.2	0.156	0.2	NA	0.0	0.0	0.00	0.02	0.00	49.4
West: Bonnyrigg Ave - W															
11	T1	All MCs	539	2.3	539	2.3	0.234	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	19	0.0	19	0.0	0.023	5.9	LOS A	0.1	0.6	0.50	0.62	0.50	34.9
Approach			558	2.3	558	2.3	0.234	0.4	NA	0.1	0.6	0.02	0.02	0.02	49.3
All Vehicles			1271	1.6	1271	1.6	0.300	1.6	NA	1.3	9.1	0.07	0.09	0.08	44.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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.

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Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [AM - Tarlington Pde - Barraclough Way (Site Folder: EX + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Tarlington Pde - E															
5	T1	All MCs	213	1.5	213	1.5	0.117	0.0	LOS A	0.1	0.5	0.04	0.04	0.04	39.9
6	R2	All MCs	9	0.0	9	0.0	0.117	5.3	LOS A	0.1	0.5	0.04	0.04	0.04	39.3
Approach			222	1.4	222	1.4	0.117	0.2	NA	0.1	0.5	0.04	0.04	0.04	39.8
North: Barraclough Way - N															
7	L2	All MCs	46	0.0	46	0.0	0.097	4.1	LOS A	0.3	2.5	0.36	0.55	0.36	37.5
9	R2	All MCs	53	4.0	53	4.0	0.097	5.5	LOS A	0.3	2.5	0.36	0.55	0.36	37.4
Approach			99	2.1	99	2.1	0.097	4.9	LOS A	0.3	2.5	0.36	0.55	0.36	37.5
West: Tarlington Pde - W															
10	L2	All MCs	22	4.8	22	4.8	0.117	3.5	LOS A	0.0	0.0	0.00	0.05	0.00	39.3
11	T1	All MCs	201	2.6	201	2.6	0.117	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.8
Approach			223	2.8	223	2.8	0.117	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.8
All Vehicles			544	2.1	544	2.1	0.117	1.1	NA	0.3	2.5	0.08	0.13	0.08	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 1 [PM - Bonnyrigg Ave - Corlette Way (Site Folder: EX + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Corlette Way - S															
1	L2	All MCs	19	0.0	19	0.0	0.288	8.6	LOS A	1.0	6.9	0.85	0.95	1.00	14.2
3	R2	All MCs	23	0.0	23	0.0	0.288	50.8	LOS D	1.0	6.9	0.85	0.95	1.00	24.7
Approach			42	0.0	42	0.0	0.288	31.8	LOS C	1.0	6.9	0.85	0.95	1.00	20.1
East: Bonnyrigg Ave - E															
4	L2	All MCs	64	0.0	64	0.0	0.219	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	46.3
5	T1	All MCs	779	1.5	779	1.5	0.219	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.2
Approach			843	1.4	843	1.4	0.219	0.4	NA	0.0	0.0	0.00	0.04	0.00	48.8
West: Bonnyrigg Ave - W															
11	T1	All MCs	673	1.7	673	1.7	0.291	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	42	0.0	42	0.0	0.066	7.7	LOS A	0.3	1.8	0.59	0.75	0.59	32.6
Approach			715	1.6	715	1.6	0.291	0.7	NA	0.3	1.8	0.03	0.04	0.03	48.5
All Vehicles			1600	1.4	1600	1.4	0.291	1.3	NA	1.0	6.9	0.04	0.07	0.04	46.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [PM - Tarlington Pde - Barracrough Way (Site Folder: EX + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Tarlington Pde - E															
5	T1	All MCs	232	1.4	232	1.4	0.163	0.0	LOS A	0.4	3.2	0.19	0.21	0.19	39.4
6	R2	All MCs	57	0.0	57	0.0	0.163	6.2	LOS A	0.4	3.2	0.19	0.21	0.19	38.8
Approach			288	1.1	288	1.1	0.163	1.2	NA	0.4	3.2	0.19	0.21	0.19	39.3
North: Barracrough Way - N															
7	L2	All MCs	17	0.0	17	0.0	0.031	4.2	LOS A	0.1	0.8	0.39	0.54	0.39	37.5
9	R2	All MCs	14	0.0	14	0.0	0.031	6.0	LOS A	0.1	0.8	0.39	0.54	0.39	37.4
Approach			31	0.0	31	0.0	0.031	5.0	LOS A	0.1	0.8	0.39	0.54	0.39	37.4
West: Tarlington Pde - W															
10	L2	All MCs	46	0.0	46	0.0	0.160	3.5	LOS A	0.0	0.0	0.00	0.07	0.00	39.3
11	T1	All MCs	261	1.2	261	1.2	0.160	0.1	LOS A	0.0	0.0	0.00	0.07	0.00	39.7
Approach			307	1.0	307	1.0	0.160	0.6	NA	0.0	0.0	0.00	0.07	0.00	39.7
All Vehicles			626	1.0	626	1.0	0.163	1.1	NA	0.4	3.2	0.11	0.16	0.11	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 1 [AM - Bonnyrigg Ave - Corlette Way (Site Folder: FB)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Corlette Way - S															
1	L2	All MCs	16	0.0	16	0.0	0.088	5.9	LOS A	0.3	2.0	0.70	0.73	0.70	18.9
3	R2	All MCs	9	0.0	9	0.0	0.088	31.6	LOS C	0.3	2.0	0.70	0.73	0.70	32.7
Approach			25	0.0	25	0.0	0.088	15.6	LOS B	0.3	2.0	0.70	0.73	0.70	24.2
East: Bonnyrigg Ave - E															
4	L2	All MCs	12	0.0	12	0.0	0.175	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	47.0
5	T1	All MCs	667	1.1	667	1.1	0.175	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.7
Approach			679	1.1	679	1.1	0.175	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.7
West: Bonnyrigg Ave - W															
11	T1	All MCs	620	2.0	620	2.0	0.268	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	9	0.0	9	0.0	0.012	6.3	LOS A	0.0	0.3	0.53	0.62	0.53	34.3
Approach			629	2.0	629	2.0	0.268	0.3	NA	0.0	0.3	0.01	0.01	0.01	49.6
All Vehicles			1334	1.5	1334	1.5	0.268	0.5	NA	0.3	2.0	0.02	0.02	0.02	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [AM - Tarlington Pde - Barraclough Way (Site Folder: FB)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh]	[Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
East: Tarlington Pde - E															
5	T1	All MCs	244	1.3	244	1.3	0.129	0.0	LOS A	0.0	0.2	0.01	0.01	0.01	40.0
6	R2	All MCs	3	0.0	3	0.0	0.129	4.2	LOS A	0.0	0.2	0.01	0.01	0.01	39.4
Approach			247	1.3	247	1.3	0.129	0.1	NA	0.0	0.2	0.01	0.01	0.01	40.0
North: Barraclough Way - N															
7	L2	All MCs	7	0.0	7	0.0	0.018	4.1	LOS A	0.1	0.5	0.38	0.53	0.38	37.4
9	R2	All MCs	8	25.0	8	25.0	0.018	6.4	LOS A	0.1	0.5	0.38	0.53	0.38	37.2
Approach			16	13.3	16	13.3	0.018	5.3	LOS A	0.1	0.5	0.38	0.53	0.38	37.3
West: Tarlington Pde - W															
10	L2	All MCs	7	14.3	7	14.3	0.125	3.5	LOS A	0.0	0.0	0.00	0.01	0.00	39.4
11	T1	All MCs	232	2.3	232	2.3	0.125	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	39.9
Approach			239	2.6	239	2.6	0.125	0.1	NA	0.0	0.0	0.00	0.01	0.00	39.9
All Vehicles			502	2.3	502	2.3	0.129	0.3	NA	0.1	0.5	0.02	0.03	0.02	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 1 [PM - Bonnyrigg Ave - Corlette Way (Site Folder: FB)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Corlette Way - S															
1	L2	All MCs	9	0.0	9	0.0	0.200	7.9	LOS A	0.6	4.2	0.86	0.95	0.91	12.8
3	R2	All MCs	12	0.0	12	0.0	0.200	64.2	LOS E	0.6	4.2	0.86	0.95	0.91	22.4
Approach			21	0.0	21	0.0	0.200	38.9	LOS C	0.6	4.2	0.86	0.95	0.91	18.1
East: Bonnyrigg Ave - E															
4	L2	All MCs	15	0.0	15	0.0	0.236	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	47.0
5	T1	All MCs	896	1.3	896	1.3	0.236	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.7
Approach			911	1.3	911	1.3	0.236	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.7
West: Bonnyrigg Ave - W															
11	T1	All MCs	774	1.5	774	1.5	0.334	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	9	0.0	9	0.0	0.016	8.1	LOS A	0.1	0.4	0.60	0.70	0.60	32.2
Approach			783	1.5	783	1.5	0.334	0.4	NA	0.1	0.4	0.01	0.01	0.01	49.6
All Vehicles			1715	1.4	1715	1.4	0.334	0.7	NA	0.6	4.2	0.01	0.02	0.01	48.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [PM - Tarlington Pde - Barraclough Way (Site Folder: FB)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]		[Total HV]					[Veh. Dist]					
			veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
East: Tarlington Pde - E															
5	T1	All MCs	266	1.2	266	1.2	0.146	0.0	LOS A	0.1	0.7	0.04	0.05	0.04	39.9
6	R2	All MCs	12	0.0	12	0.0	0.146	6.4	LOS A	0.1	0.7	0.04	0.05	0.04	39.3
Approach			278	1.1	278	1.1	0.146	0.3	NA	0.1	0.7	0.04	0.05	0.04	39.8
North: Barraclough Way - N															
7	L2	All MCs	5	0.0	5	0.0	0.010	4.3	LOS A	0.0	0.2	0.40	0.52	0.40	37.5
9	R2	All MCs	4	0.0	4	0.0	0.010	6.0	LOS A	0.0	0.2	0.40	0.52	0.40	37.4
Approach			9	0.0	9	0.0	0.010	5.1	LOS A	0.0	0.2	0.40	0.52	0.40	37.4
West: Tarlington Pde - W															
10	L2	All MCs	9	0.0	9	0.0	0.160	3.5	LOS A	0.0	0.0	0.00	0.01	0.00	39.4
11	T1	All MCs	300	1.1	300	1.1	0.160	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	39.9
Approach			309	1.0	309	1.0	0.160	0.2	NA	0.0	0.0	0.00	0.01	0.00	39.9
All Vehicles			597	1.1	597	1.1	0.160	0.3	NA	0.1	0.7	0.03	0.04	0.03	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 1 [AM - Bonnyrigg Ave - Corlette Way (Site Folder: FB + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Corlette Way - S															
1	L2	All MCs	68	0.0	68	0.0	0.390	8.6	LOS A	1.8	12.6	0.81	0.90	1.09	17.2
3	R2	All MCs	41	0.0	41	0.0	0.390	40.5	LOS C	1.8	12.6	0.81	0.90	1.09	29.8
Approach			109	0.0	109	0.0	0.390	20.6	LOS B	1.8	12.6	0.81	0.90	1.09	22.0
East: Bonnyrigg Ave - E															
4	L2	All MCs	23	0.0	23	0.0	0.179	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	46.8
5	T1	All MCs	667	1.1	667	1.1	0.179	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.6
Approach			691	1.1	691	1.1	0.179	0.2	NA	0.0	0.0	0.00	0.02	0.00	49.4
West: Bonnyrigg Ave - W															
11	T1	All MCs	620	2.0	620	2.0	0.268	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	19	0.0	19	0.0	0.025	6.5	LOS A	0.1	0.7	0.53	0.65	0.53	34.2
Approach			639	2.0	639	2.0	0.268	0.4	NA	0.1	0.7	0.02	0.02	0.02	49.3
All Vehicles			1439	1.4	1439	1.4	0.390	1.8	NA	1.8	12.6	0.07	0.09	0.09	44.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [AM - Tarlington Pde - Barraclough Way (Site Folder: FB + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh]	Dist] m				
East: Tarlington Pde - E															
5	T1	All MCs	244	1.3	244	1.3	0.133	0.0	LOS A	0.1	0.5	0.03	0.04	0.03	39.9
6	R2	All MCs	9	0.0	9	0.0	0.133	5.6	LOS A	0.1	0.5	0.03	0.04	0.03	39.3
Approach			254	1.2	254	1.2	0.133	0.2	NA	0.1	0.5	0.03	0.04	0.03	39.9
North: Barraclough Way - N															
7	L2	All MCs	46	0.0	46	0.0	0.102	4.2	LOS A	0.4	2.6	0.39	0.57	0.39	37.5
9	R2	All MCs	53	4.0	53	4.0	0.102	5.9	LOS A	0.4	2.6	0.39	0.57	0.39	37.4
Approach			99	2.1	99	2.1	0.102	5.1	LOS A	0.4	2.6	0.39	0.57	0.39	37.4
West: Tarlington Pde - W															
10	L2	All MCs	22	4.8	22	4.8	0.133	3.5	LOS A	0.0	0.0	0.00	0.04	0.00	39.4
11	T1	All MCs	232	2.3	232	2.3	0.133	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	39.8
Approach			254	2.5	254	2.5	0.133	0.3	NA	0.0	0.0	0.00	0.04	0.00	39.8
All Vehicles			606	1.9	606	1.9	0.133	1.1	NA	0.4	2.6	0.08	0.13	0.08	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 1 [PM - Bonnyrigg Ave - Corlette Way (Site Folder: FB + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]		[Total HV]					[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
South: Corlette Way - S															
1	L2	All MCs	19	0.0	19	0.0	0.449	15.6	LOS B	1.5	10.7	0.91	1.06	1.19	10.7
3	R2	All MCs	23	0.0	23	0.0	0.449	83.5	LOS F	1.5	10.7	0.91	1.06	1.19	18.8
Approach			42	0.0	42	0.0	0.449	53.0	LOS D	1.5	10.7	0.91	1.06	1.19	15.2
East: Bonnyrigg Ave - E															
4	L2	All MCs	64	0.0	64	0.0	0.249	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	46.4
5	T1	All MCs	896	1.3	896	1.3	0.249	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	49.2
Approach			960	1.2	960	1.2	0.249	0.3	NA	0.0	0.0	0.00	0.04	0.00	48.9
West: Bonnyrigg Ave - W															
11	T1	All MCs	774	1.5	774	1.5	0.334	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
12	R2	All MCs	42	0.0	42	0.0	0.076	8.8	LOS A	0.3	2.0	0.63	0.80	0.63	31.4
Approach			816	1.4	816	1.4	0.334	0.7	NA	0.3	2.0	0.03	0.04	0.03	48.6
All Vehicles			1818	1.3	1818	1.3	0.449	1.7	NA	1.5	10.7	0.04	0.06	0.04	45.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 2 [PM - Tarlington Pde - Barracrough Way (Site Folder: FB + Dev)]

NA

Site Category: NA

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh]	[Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
East: Tarlington Pde - E															
5	T1	All MCs	266	1.2	266	1.2	0.183	0.0	LOS A	0.5	3.4	0.19	0.20	0.19	39.4
6	R2	All MCs	57	0.0	57	0.0	0.183	6.7	LOS A	0.5	3.4	0.19	0.20	0.19	38.9
Approach			323	1.0	323	1.0	0.183	1.2	NA	0.5	3.4	0.19	0.20	0.19	39.3
North: Barracrough Way - N															
7	L2	All MCs	17	0.0	17	0.0	0.033	4.4	LOS A	0.1	0.8	0.42	0.56	0.42	37.4
9	R2	All MCs	14	0.0	14	0.0	0.033	6.5	LOS A	0.1	0.8	0.42	0.56	0.42	37.3
Approach			31	0.0	31	0.0	0.033	5.3	LOS A	0.1	0.8	0.42	0.56	0.42	37.3
West: Tarlington Pde - W															
10	L2	All MCs	46	0.0	46	0.0	0.180	3.5	LOS A	0.0	0.0	0.00	0.06	0.00	39.3
11	T1	All MCs	300	1.1	300	1.1	0.180	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	39.7
Approach			346	0.9	346	0.9	0.180	0.5	NA	0.0	0.0	0.00	0.06	0.00	39.7
All Vehicles			700	0.9	700	0.9	0.183	1.0	NA	0.5	3.4	0.10	0.15	0.10	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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