Our Ref: 16220

11 September 2018

Catholic Metropolitan Cemeteries Trust
c/o Nettcorp
7 North Parade
Hunters Hill NSW 2110

Attention: Mr David De Angelis

Dear David,

RE: MACARTHUR MEMORIAL PARK RFI
SUPPLEMENTARY TRAFFIC IMPACT ASSESSMENT

As requested, please herein The Transport Planning Partnership's (TTPP) response to Campbelltown City Council's Request for Information (RFI) in relation to a development application (DA) for a proposed cemetery at 166-176 St Andrews Road, Varroville.

Background

The Catholic Metropolitan Cemeteries Trust (CMCT) submitted a DA for the proposed Macarthur Memorial Park on October 2017. The proposed memorial park includes a 113-hectare site and is set to accommodate a total of 136,000 plots, a multipurpose chapel to accommodate up to 500 visitors, a café and flower shop for visitors and ancillary offices and facilities. Stage 1 of the development is to provide burial capacity for the next 60 years.

A supporting Traffic Impact Assessment was prepared for the DA submission by TTPP, which included an assessment of weekday and weekend traffic generation and the future performance of the intersection of St Andrews Road and Spitfire Road. The assessment indicated that the existing intersection has low traffic volumes and has significant spare capacity to accommodate the estimated traffic from the proposed cemetery.

Council has submitted an RFI in relation to the DA, which included the following traffic items as addressed in this letter:

- *2.1 Peak Visitation Periods and Cumulative Impacts*

  The Transport Impact Assessment (TIA) does not consider potential traffic generation during special holidays and All Saints Day. Nor does it consider the cumulative traffic impacts on the road network from visitors as well as the potential traffic generation from funerals, especially when the burial plot capacity increases over the various stages of construction. An amended TIA that considers these peaks and cumulative impacts is required prior to determination of the DA.

- *2.2 Intersection Analysis*

  The TIA only models the impact of the proposal on one intersection and this is insufficient to assess the impacts of the proposed development. A revised TIA must be submitted which assesses the following intersections:

  - *St Andrews Road/ Campbelltown Road (NB: the RMS has indicated that there are no current plans to extend St Andrews Road to Camden Valley Way)*
  - *Spitfire Drive/ Thunderbolt Drive*
  - *Spitfire Drive/ Raby Drive; and*
  - *Raby Road/ Thunderbolt Drive.*

  In addition, further information regarding the forecast split of traffic using the four proposed Site Access points must be submitted and if necessary, all access points should be modelled.

  All intersections shall be modelled in SIDRA with all assumptions included in the revised TIA report. Modelling is to be based on at least a 20-year design horizon with respect to background growth. Background growth estimates shall be obtained in discussion with Council as Council has a traffic model and recent traffic data which may be of assistance. A digital copy of all SIDRA modelling files must be provided for further investigation by Council.

The findings of TTPP's assessment of the above RFI items are detailed below.

Council's RFI included two additional traffic related items which have been addressed by Warren Smith & Partners including:

- *2.3 Sight Distances*

  The TIA indicates that all new Site access driveway will not comply with the Austroads required Sight Distances and will require relocation of the boundary treatment sand trimming/ removal of the roadside vegetation. However, no details in his regard have been submitted as part of the DA.

  Further details regarding the extent of vegetation and boundary treatment amendments is required prior to determination of the DA and this may necessitate amended architectural, landscape and civil engineering plans.

- *2.4 Road Widening*

  Insufficient details have been provided with regard to the proposed design for Access B including details of impact on trees drainage and whether any localised road widening is required.

The Civil Engineers for the project, Warren Smith & Partners have prepared a detailed design, with assistance from TTPP, which has addressed the latter 2 issues. This letter attaches a plan of the final design at Attachment 1, but this has also been submitted separately as part of the RFI. TTPP has addressed the other issues raised by Council below.

2.1 Peak Visitation Periods & Cumulative Impacts

Traffic Generation (as per DA submission)

The DA traffic report conservatively estimated the traffic generation of the proposed site based on surveys of existing cemeteries in Sydney. The estimated traffic generation is reproduced in Table 1. It should be noted that the site activity peak hour was generally around midday both on a weekday and a weekend, but the traffic analysis assumed that the peaks would coincide (which in reality is a significant overestimation).

Table 1: Typical Site Traffic Generation

Peak Hour	Inbound	Outbound	Two-Way
Weekday			
AM Peak (Background Traffic)	25	25	50
AM Peak (Site Activity)	345	105	450
PM Peak (Site Activity)	225	225	450
PM Peak (Background Traffic)	25	25	50
Weekend			
AM Peak	350	310	660
PM Peak	270	330	600

Based on Table 1 the proposed site is estimated to generate a site peak of 450 vehicles per hour (vph) and 660 vph during the weekday and weekend respectively. As stated above, the site peak generally occurs around midday for both weekdays and weekends. Therefore, the site peak and road network peak overlap during the weekends but are separate on weekdays.

Notwithstanding the above, as a conservative approach, the DA traffic report superimposed the weekday site peak to the road network peak hour, to assess the impact if the site activity peak was to overlap with the weekday road network peak hour.

This conservative approach has been repeated in this assessment.

Special Holiday Traffic

Special holidays such as Mother's Day, Father's Day and All Souls Day are believed to generate a higher patronage to cemetery developments. Based on advice from Catholic Metropolitan Cemeteries Trust (CMCT) and their observations of Liverpool Cemetery, we have been advised that these special holidays result in an up to 20 per cent increase in the site's traffic generation for the weekday holidays and a 25 per cent increase for the weekend peak.

20-Year Traffic Growth

As requested by council, the existing traffic volumes have been factored to the year 2038 (20-year future case). Growth factors from the Roads and Maritime strategic traffic forecasting model (STM) were obtained and applied to background traffic. These are included as Attachment 5.

The STM model plot however, includes a new link from St Andrews Road to Camden Valley Way, which Council has advised in their RFI will now not be implemented. On this basis, the STM growth factors along St Andrews Road, which range which between a 4.3 and 5.5 per cent per annum growth, are no longer appropriate.

Notwithstanding this, the STM growth rates have been conservatively applied as provided, to the traffic model undertaken as part of this assessment.

2.2. Intersection Analysis

As requested, traffic modelling using SIDRA Intersection has been undertaken for a wider study area including four intersections plus the relevant access into the site. The modelling methodology and results are as follows.

Traffic Volumes

Traffic surveys were undertaken on Tuesday 12 June and Saturday 9 June 2018, at the following intersections for input into the SIDRA model.

- St Andrews Road-Campbelltown Road
- Spitfire Drive-Thunderbolt Drive
- Raby Road-Thunderbolt Drive.

In addition, the intersection of Spitfire Drive and Raby Road was surveyed on Saturday 30 June and Tuesday 3 July 2018.

The recorded traffic volumes are provided in Attachment Two.

Traffic Distribution

The site traffic distribution into the road network is guided by the configuration of the arterial road network and the location of the site access points.

The concept plan for the Macarthur Memorial Park includes four site access points including:

- Access A, which is to be used by serviced vehicles and staff members only
- Access B: the primary access for visitors
- Access C: this is the secondary access for visitors with a left-in/left-out arrangement to restrict its use and encourage visitors to use Access B. It is not anticipated that this will

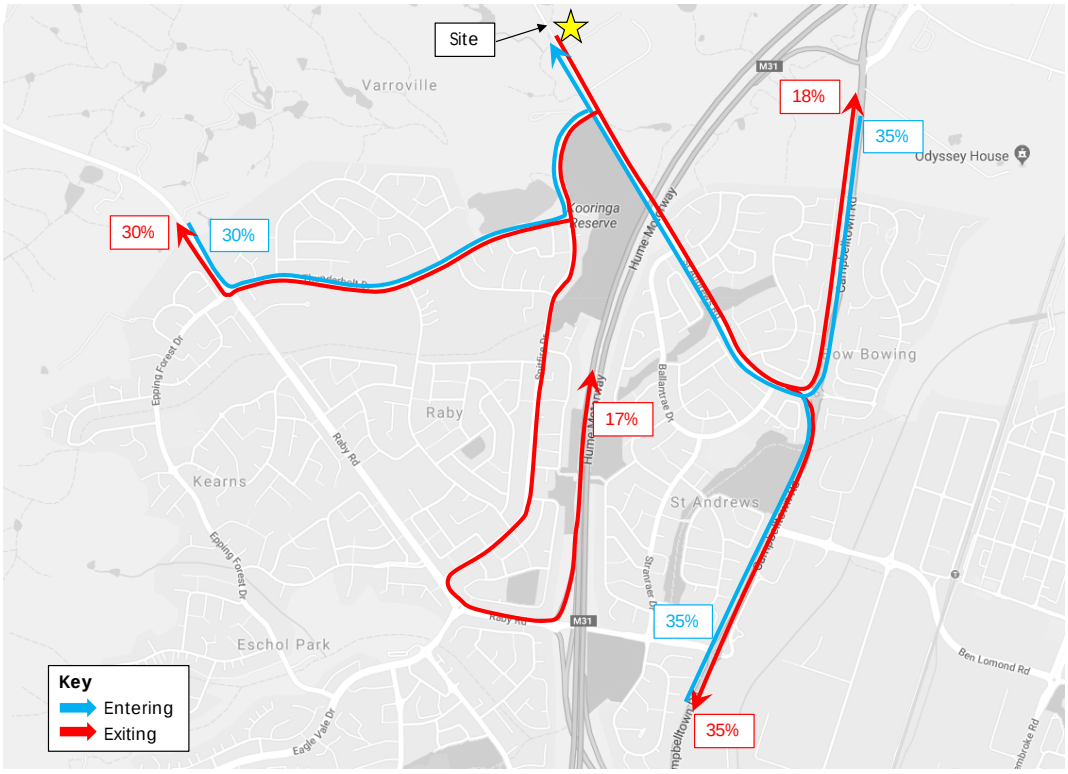
generate significant movements into the site but may relive the left turn out of egress B to some extent.

- Access D: this is a future access that would connect to the intersection of St Andrews Road and Spitfire Road. It is anticipated that this will not be provided in the initial stages of development (i.e. in the next 75 years) and is only drawn up so as to assist in the layout of the masterplan. As it is not possible to ascertain the road network conditions so far into the future (circa 2173), this access has not been included in the modelling undertaken for this assessment.

Based on the above, the site traffic is anticipated to primarily use Access B, with some anticipated to use Access C to exit the site. On this basis, Access B has been assessed in SIDRA with 100 per cent of site traffic applied to this access.

The site traffic has been distributed to the road network assuming that majority of traffic would access the site via Campbelltown Road, Hume Motorway and Camden Valley Way. The applied distributions are shown in Figure 1.

Figure 1: Site Traffic Distribution



SIDRA Results

Intersection modelling has been undertaken of the nominated intersections for the following scenarios:

- Existing Conditions
- Post Development (incl. traffic generation on special holidays)

- Year 2038 (without Development)
- Year 2038 Post Development (incl. traffic generation on special holidays).

The turning movement volumes for each of the above scenarios and SIDRA outputs are provided in Attachment Three and Attachment Four respectively.

The operation of the intersections has been assessed using SIDRA Intersection 8, a computer-based modelling package which assesses intersection performance under prevailing traffic conditions.

SIDRA calculates intersection performance measures such as 'average delay' that vehicles encounter and the level of service (LoS). SIDRA provides analysis of the operating conditions which can be compared to the performance criteria set out in Table 2.

Table 2: Level of Service Criteria for Intersection Operation

Level of Service	Average Delay (seconds per vehicle)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	Less than 14	good operation	good operation
B	15 to 28	good with acceptable delays and spare capacity	acceptable delays and spare capacity
C	29 to 42	satisfactory	satisfactory, but accident study required
D	43 to 56	operating near capacity	near capacity and accident study required
E	57 to 70	at capacity At signals, incidents will cause excessive delays.	at capacity, requires other control mode
F	Greater than 71	unsatisfactory with excessive queuing	unsatisfactory with excessive queuing; requires other control mode

Source: Roads and Maritime Guide to Traffic Generating Developments, 2002

The results of the SIDRA models are summarised from Table 3 to Table 6.

Table 3: Intersection Modelling Results -Existing

Intersection	AM Peak Hour		PM Peak Hour		Weekend	
	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service
Campbelltown Road-St Andrews Road	16	B	18	B	14	A
Spitfire Road-St Andrews Road	9	A	7	A	7	A
Spitfire Road-Thunderbolt Drive	11	A	8	A	6	A
Thunderbolt Drive-Raby Road-Epping Forest Drive	20	B	15	B	13	A
Spitfire Road-Raby Road	69	E	17	B	17	B

Table 4: Intersection Modelling Results - Post Development (incl. holiday)

Intersection	AM Peak Hour		PM Peak Hour		Weekend	
	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service
Campbelltown Road-St Andrews Road	17	B	21	B	15	B
Spitfire Road-St Andrews Road	15	B	9	A	9	A
Spitfire Road-Thunderbolt Drive	22	B	12	A	10	A
Thunderbolt Drive-Raby Road-Epping Forest Drive	23	B	16	B	13	A
Spitfire Road-Raby Road	69	E	17	B	17	B

Table 3 indicates that the existing road network is operating well with a level of service C or better. The only exception is the intersection of Spitfire Road and Raby Road where the right turn movement from Spitfire Road to Raby Road is already indicated to experience delays in the morning peak.

A comparison of Table 3 (existing intersection operation) and Table 4 (intersection operation with added development traffic) indicates that the site generated traffic would have a negligible impact to existing road network with the study intersections indicated to continue performing at LoS C or better.

Table 5: Intersection Modelling Results -Year 2038 (without Development)

Intersection	AM Peak Hour		PM Peak Hour		Weekend	
	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service
Campbelltown Road-St Andrews Road	19	B	137	F	31	C
Spitfire Road-St Andrews Road	10	A	8	A	7	A
Spitfire Road-Thunderbolt Drive	11	A	8	A	6	A
Thunderbolt Drive-Raby Road-Epping Forest Drive	26	B	16	B	14	A
Spitfire Road-Raby Road	590	F	18	B	18	B

Table 6: Intersection Modelling Results -Year 2038 Post Development (incl. holiday traffic)

Intersection	AM Peak Hour		PM Peak Hour		Weekend	
	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service
Campbelltown Road-St Andrews Road	35	C	418	F	15	B
Spitfire Road-St Andrews Road	10	A	11	A	7	A
Spitfire Road-Thunderbolt Drive	13	A	12	A	8	A
Thunderbolt Drive-Raby Road-Epping Forest Drive	38	C	18	B	14	A
Spitfire Road-Raby Road	590	F	18	B	19	B

Table 5 indicates that in the year 2038, with inclusion of STM growth projections, the study intersections would generally operate satisfactorily, with the exception of Campbelltown Road and St Andrews Road in the afternoon peak period and Spitfire Road and Raby Road which would reach capacity during the morning peak period.

The future operation of the intersection of Campbelltown Road-St Andrews is however attributed to the high growth factors provided in STM growth plot which assumes a new link will be provided from St Andrews Road to Camden Valley.

A sensitivity analysis of this intersection was undertaken by reducing the growth rate of St Andrews Road to match Campbelltown Road. The results indicated that the intersection would operate satisfactorily in the 20-year horizon. The results of this sensitivity test are presented in Table 6.

Table 7: Sensitivity (Reduced Growth on St Andrews Road) Year 2038 Post Development (incl. holiday traffic)

Intersection	PM Peak Hour	
	Delay (sec/veh)	Level of Service
Campbelltown Road-St Andrews Road	27	B

Based on the above, it is considered that the proposed development would have a minor impact to the surrounding road network with intersection performances generally operating as without the development. The intersection of Spitfire Road and Raby Road is anticipated to reach capacity in 2038 even without the development and should be upgraded prior.

Site Access

The proposed site access as provided in Attachment One has been tested in SIDRA based on volumes Year 2038 Post Development plus holiday traffic. The results of the model indicate that the site access will perform well with a LoS B or better as shown in Table 7.

Table 8: Site Access Modelling Results

Intersection	AM Peak Hour		PM Peak Hour		Weekend	
	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service	Delay (sec/veh)	Level of Service
ACCESS B	11	A	20	B	14	A

Summary and Conclusion

As requested by Council, TTPP have undertaken an assessment of the cumulative impact of additional traffic generated on special holidays. Based on advice from CMCT, the traffic generation on a holiday is assumed to increase by 20 per cent on a weekday and 25 per cent on a weekend compared to a typical day.

Intersection modelling of nominated intersections have been undertaken to assess the impact of the development under existing conditions and to the year 2038. While it is noted that the full traffic generating potential of the development will not be reached in the next 20 years, the full development has been applied to the intersection models for the purposes of this assessment.

The modelling results indicate that the proposed development would have a minor impact to the study intersections with performance levels generally consistent. However, there are 3 conclusions that can be drawn.

1. The proposed site access will operate at Level of Service B or better even 20 years into the future allowing for traffic growth.

2. The intersection of Raby Road and Spitfire Road is already overcapacity in the AM peak (when the demand from the memorial park would be minimal) and the performance will degrade further over the next the next 20-years with or without the proposed development. The development would further increase delays to this intersection however, the intersection would require upgrade with or without the development.

3. The Campbelltown Road and St Andrews Road would operate overcapacity in 2038 in the afternoon peak period. This performance is however attributed to the high growth factors provided in STM growth plot which assumes a new link will be provided from St Andrews Road to Camden Valley. A sensitivity analysis of this intersection was undertaken by reducing the growth rate of St Andrews Road to match Campbelltown Road and these results indicate that the intersection would operate satisfactorily in the 20-year horizon.

Based on the above assessment, it is not considered that the proposed Macarthur Memorial Park will have any significant adverse traffic related impacts to the surrounding local area.

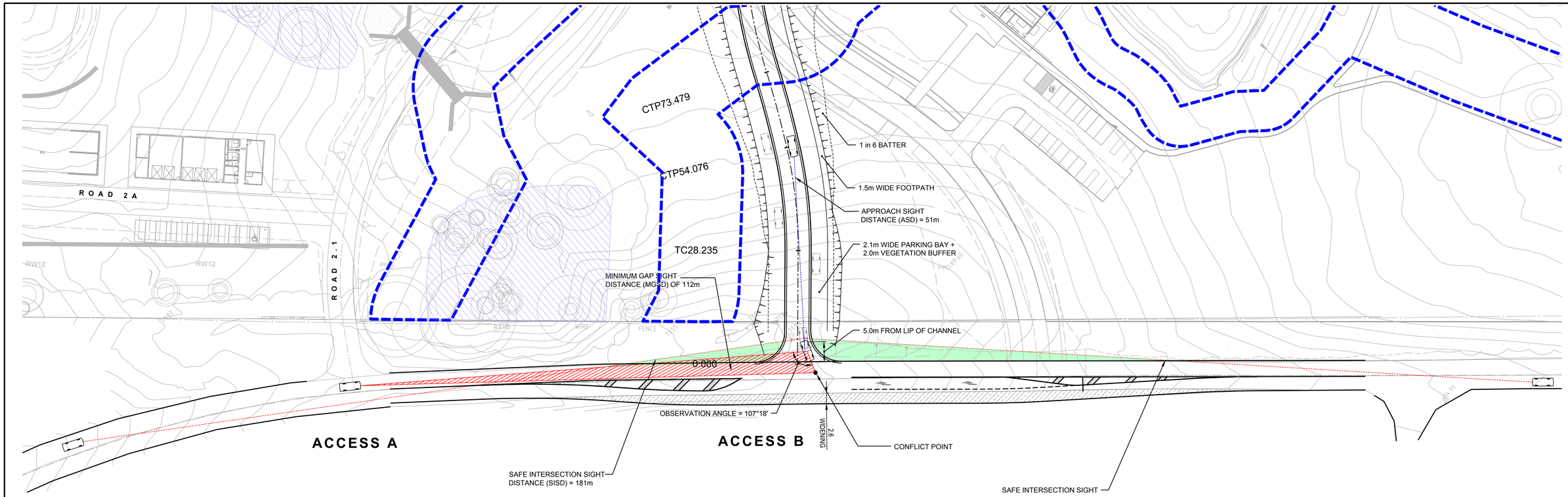
We trust the above is to your satisfaction. Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,

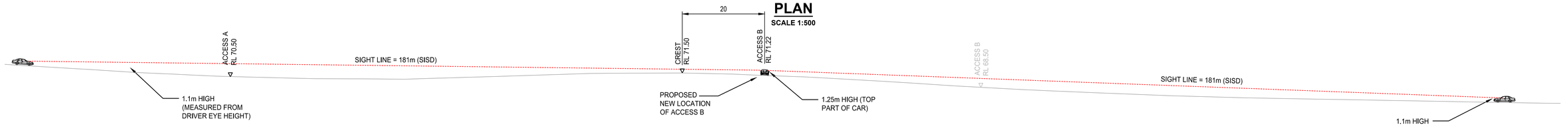
Ken Hollyoak
Director

Attachment One

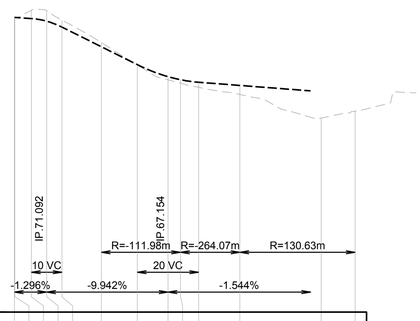
Site Access Plan



PLAN
SCALE 1:500



SECTION B - OPTION 1
SCALE 1:500



HORIZONTAL CURVE													
VERTICAL CURVE													
CONTROL LINE GRADE													
DATUM R.L. 52													
DESIGN SURFACE	71.228	71.227	71.157	70.984	70.595	69.318	68.148	67.364	67.165	67.000	66.792		
EXISTING SURFACE	71.223	71.698	71.675	71.053	69.593	68.125	67.154	66.935	66.670	66.202		64.662	65.118
DEPTHS	0.003	-0.541	-0.691	-0.458	-0.275	0.024	0.210	0.230	0.330	0.590			
CHAINAGE	-0.145	0.000	5.395	10.395	15.395	28.235	40.000	50.000	54.076	60.000	73.479	100.000	111.074

LONGITUDINAL SECTION OF ACCESS B
SCALE H1:1000
SCALE V1:200

NOTES:

1. APPROACH SIGHT DISTANCE BASED ON 50Km/hr
2. SAFE INTERSECTION SIGHT DISTANCE AND MINIMUM GAP SIGHT DISTANCE BASED ON 80Km/hr

LEGEND

- SIGHT LINES (SISD)
- SIGHT LINES (ASD)
- SIGHT ENVELOPE (MGSD)
- APPROX . EXTENTS OF VEGETATION TRIMMING
- APPROX . EXTENTS OF ROAD WIDENING

PRELIMINARY - NOT FOR CONSTRUCTION

NORTH

10.0 0 5.0 10.0 15.0 20.0m
PLAN SCALE 1:500 A1 SHEET

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
1	ISSUE FOR INFORMATION	18/06/18			
2	ISSUE FOR INFORMATION	20/06/18			
3	ISSUE FOR INFORMATION	21/06/18			

CLIENT
Catholic Cemeteries & Crematoria
Care,Compassion,Choice

PROJECT
MACARTHUR MEMORIAL PARK

PREPARED BY
Warren Smith & Partners
Warren Smith & Partners Pty Ltd
1st Floor, 123 Clarence Street, Sydney 2000 NSW Australia
T 02 9299 1312 F 02 9290 1295 wsp@warrensmith.com.au
www.warrensmith.com.au ABN 36 300 430 126
CONSULTING ENGINEERS
Hydraulic Services Fire Protection Civil Engineering
Sydney Water Accredited Water Servicing Co-ordinator
- Design Project Management - Building Plan Approvals
SERVING THE CONSTRUCTION INDUSTRY SINCE 1981.
Lic No: QAC/RE/10771

TITLE
SIGHT DISTANCE - ACCESS B OPTION 1

SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	J.W.	J.W.	N.Q.	M.C.

JOB No.	DRAWING No.	ISSUE
5162001	SK24a	3

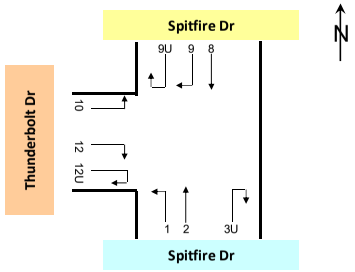
DATE	STATUS
14/06/18	DETAILED DESIGN

Attachment Two

Survey Data

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 1. Thunderbolt Dr / Spitfire Dr

Day/Date : Tuesday, 12th June 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



MATRIX Traffic and Transport Data

Approach	Spitfire Dr								
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	8	5	**13**	126	4	**130**	0	0	**0**
7:15 to 8:15	12	5	**17**	160	4	**164**	0	0	**0**
7:30 to 8:30	16	7	**23**	207	7	**214**	0	0	**0**
7:45 to 8:45	20	7	**27**	276	5	**281**	0	0	**0**
8:00 to 9:00	19	5	**24**	255	3	**258**	0	0	**0**
AM Totals	**27**	**10**	**37**	**381**	**7**	**388**	**0**	**0**	**0**
16:00 to 17:00	16	3	**19**	74	2	**76**	0	0	**0**
16:15 to 17:15	12	4	**16**	86	5	**91**	0	0	**0**
16:30 to 17:30	13	4	**17**	84	3	**87**	0	0	**0**
16:45 to 17:45	16	2	**18**	88	3	**91**	0	0	**0**
17:00 to 18:00	12	2	**14**	87	3	**90**	0	0	**0**
PM Totals	**28**	**5**	**33**	**161**	**5**	**166**	**0**	**0**	**0**

Approach	Spitfire Dr									Thunderbolt Dr								
Direction	Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	37	1	**38**	64	0	**64**	0	1	**1**	173	3	**176**	17	1	**18**	0	0	**0**
7:15 to 8:15	73	3	**76**	98	2	**100**	0	1	**1**	218	5	**223**	27	1	**28**	0	0	**0**
7:30 to 8:30	130	3	**133**	148	4	**152**	0	1	**1**	308	4	**312**	42	1	**43**	0	0	**0**
7:45 to 8:45	189	2	**191**	179	6	**185**	0	1	**1**	332	5	**337**	48	1	**49**	0	0	**0**
8:00 to 9:00	193	2	**195**	174	7	**181**	0	0	**0**	300	4	**304**	70	0	**70**	0	0	**0**
AM Totals	**230**	**3**	**233**	**238**	**7**	**245**	**0**	**1**	**1**	**473**	**7**	**480**	**87**	**1**	**88**	**0**	**0**	**0**
16:00 to 17:00	171	3	**174**	220	1	**221**	0	0	**0**	96	1	**97**	23	1	**24**	0	0	**0**
16:15 to 17:15	187	3	**190**	221	4	**225**	0	0	**0**	100	0	**100**	25	0	**25**	0	0	**0**
16:30 to 17:30	192	4	**196**	234	5	**239**	0	0	**0**	109	0	**109**	23	0	**23**	0	0	**0**
16:45 to 17:45	193	3	**196**	243	4	**247**	0	0	**0**	95	0	**95**	24	0	**24**	0	0	**0**
17:00 to 18:00	187	2	**189**	242	4	**246**	0	0	**0**	95	0	**95**	30	0	**30**	0	0	**0**
PM Totals	**358**	**5**	**363**	**462**	**5**	**467**	**0**	**0**	**0**	**191**	**1**	**192**	**53**	**1**	**54**	**0**	**0**	**0**

Job No. : N4253
Client : TTPP
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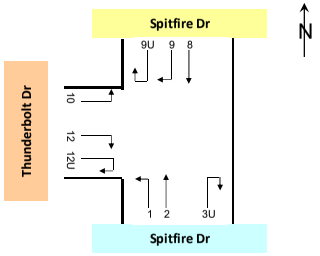


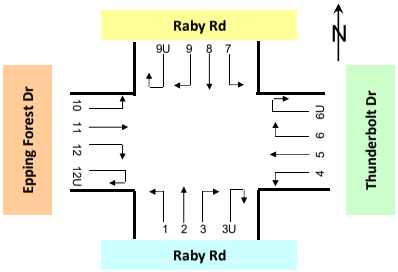
MATRIX Traffic and Transport Data

Approach	Spitfire Dr								
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00	12	0	**12**	42	1	**43**	0	0	**0**
11:15 to 12:15	13	1	**14**	60	1	**61**	0	0	**0**
11:30 to 12:30	14	1	**15**	58	1	**59**	0	0	**0**
11:45 to 12:45	14	1	**15**	56	1	**57**	0	0	**0**
12:00 to 13:00	13	1	**14**	59	0	**59**	0	0	**0**
12:15 to 13:15	17	1	**18**	58	0	**58**	0	0	**0**
12:30 to 13:30	17	1	**18**	57	0	**57**	0	0	**0**
12:45 to 13:45	13	1	**14**	57	0	**57**	0	0	**0**
13:00 to 14:00	15	2	**17**	53	0	**53**	0	0	**0**
13:15 to 14:15	14	2	**16**	55	0	**55**	0	0	**0**
13:30 to 14:30	15	2	**17**	53	0	**53**	0	0	**0**
13:45 to 14:45	14	2	**16**	48	0	**48**	0	0	**0**
14:00 to 15:00	17	1	**18**	49	0	**49**	0	0	**0**
Totals	**57**	**4**	**61**	**203**	**1**	**204**	**0**	**0**	**0**

Approach	Spitfire Dr									Thunderbolt Dr								
Direction	Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00	46	0	**46**	40	0	**40**	0	0	**0**	44	0	**44**	15	0	**15**	0	0	**0**
11:15 to 12:15	63	1	**64**	62	0	**62**	1	0	**1**	57	0	**57**	21	0	**21**	0	0	**0**
11:30 to 12:30	65	1	**66**	67	1	**68**	1	0	**1**	60	0	**60**	25	1	**26**	0	0	**0**
11:45 to 12:45	63	1	**64**	68	1	**69**	1	0	**1**	57	0	**57**	24	1	**25**	0	0	**0**
12:00 to 13:00	73	1	**74**	75	1	**76**	1	0	**1**	57	0	**57**	22	1	**23**	0	0	**0**
12:15 to 13:15	71	0	**71**	68	1	**69**	0	0	**0**	62	1	**63**	19	1	**20**	0	0	**0**
12:30 to 13:30	74	0	**74**	69	1	**70**	0	0	**0**	51	1	**52**	17	0	**17**	0	0	**0**
12:45 to 13:45	68	0	**68**	80	1	**81**	0	0	**0**	49	1	**50**	18	0	**18**	0	0	**0**
13:00 to 14:00	57	0	**57**	65	1	**66**	0	0	**0**	44	2	**46**	18	0	**18**	0	0	**0**
13:15 to 14:15	53	0	**53**	62	1	**63**	0	0	**0**	39	1	**40**	19	0	**19**	0	0	**0**
13:30 to 14:30	52	0	**52**	62	0	**62**	0	0	**0**	48	1	**49**	16	0	**16**	0	0	**0**
13:45 to 14:45	58	0	**58**	57	0	**57**	0	0	**0**	51	1	**52**	12	0	**12**	0	0	**0**
14:00 to 15:00	62	0	**62**	69	0	**69**	0	0	**0**	47	0	**47**	12	0	**12**	0	0	**0**
Totals	**238**	**1**	**239**	**249**	**2**	**251**	**1**	**0**	**1**	**192**	**2**	**194**	**67**	**1**	**68**	**0**	**0**	**0**

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 2. Thunderbolt Dr / Raby Rd / Epping Forest Dr

Day/Date : Tuesday, 12th June 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary

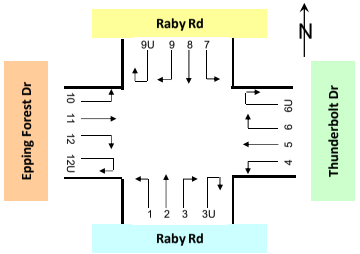


Approach	Raby Rd												Thunderbolt Dr											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	10	5	**15**	346	22	**368**	30	2	**32**	5	1	**6**	83	5	**88**	43	2	**45**	122	1	**123**	0	0	**0**
7:15 to 8:15	13	5	**18**	312	26	**338**	62	2	**64**	4	1	**5**	104	6	**110**	48	3	**51**	137	1	**138**	2	0	**2**
7:30 to 8:30	16	5	**21**	297	25	**322**	95	2	**97**	3	1	**4**	137	8	**145**	77	3	**80**	151	2	**153**	2	0	**2**
7:45 to 8:45	19	3	**22**	259	24	**283**	109	1	**110**	4	1	**5**	169	7	**176**	99	2	**101**	161	2	**163**	2	0	**2**
8:00 to 9:00	21	3	**24**	258	25	**283**	103	1	**104**	1	0	**1**	171	6	**177**	97	1	**98**	162	1	**163**	2	0	**2**
AM Totals	**31**	**8**	**39**	**604**	**47**	**651**	**133**	**3**	**136**	**6**	**1**	**7**	**254**	**11**	**265**	**140**	**3**	**143**	**284**	**2**	**286**	**2**	**0**	**2**
16:00 to 17:00	49	3	**52**	313	12	**325**	75	0	**75**	2	0	**2**	89	4	**93**	78	0	**78**	111	4	**115**	0	0	**0**
16:15 to 17:15	48	3	**51**	315	12	**327**	86	0	**86**	3	0	**3**	81	2	**83**	95	0	**95**	106	6	**112**	1	0	**1**
16:30 to 17:30	52	4	**56**	314	11	**325**	79	1	**80**	2	0	**2**	71	4	**75**	106	0	**106**	107	4	**111**	2	0	**2**
16:45 to 17:45	61	4	**65**	298	12	**310**	80	2	**82**	1	0	**1**	66	3	**69**	102	0	**102**	116	2	**118**	2	0	**2**
17:00 to 18:00	71	3	**74**	274	10	**284**	85	2	**87**	1	0	**1**	66	3	**69**	103	1	**104**	110	2	**112**	2	0	**2**
PM Totals	**120**	**6**	**126**	**587**	**22**	**609**	**160**	**2**	**162**	**3**	**0**	**3**	**155**	**7**	**162**	**181**	**1**	**182**	**221**	**6**	**227**	**2**	**0**	**2**

Approach	Raby Rd												Epping Forest Dr											
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	99	0	**99**	336	23	**359**	20	1	**21**	0	0	**0**	78	1	**79**	49	0	**49**	75	5	**80**	0	0	**0**
7:15 to 8:15	128	0	**128**	388	24	**412**	23	1	**24**	0	0	**0**	83	2	**85**	68	1	**69**	74	6	**80**	0	0	**0**
7:30 to 8:30	176	1	**177**	433	24	**457**	26	2	**28**	0	0	**0**	77	2	**79**	95	2	**97**	74	3	**77**	0	0	**0**
7:45 to 8:45	179	1	**180**	431	21	**452**	27	1	**28**	0	0	**0**	65	2	**67**	111	2	**113**	72	3	**75**	0	0	**0**
8:00 to 9:00	156	1	**157**	421	21	**442**	33	1	**34**	0	0	**0**	59	1	**60**	109	3	**112**	62	2	**64**	0	0	**0**
AM Totals	**255**	**1**	**256**	**757**	**44**	**801**	**53**	**2**	**55**	**0**	**0**	**0**	**137**	**2**	**139**	**158**	**3**	**161**	**137**	**7**	**144**	**0**	**0**	**0**
16:00 to 17:00	102	3	**105**	394	13	**407**	88	1	**89**	0	0	**0**	26	0	**26**	71	0	**71**	32	0	**32**	0	0	**0**
16:15 to 17:15	97	4	**101**	393	13	**406**	88	3	**91**	0	0	**0**	23	0	**23**	73	0	**73**	27	0	**27**	0	0	**0**
16:30 to 17:30	98	4	**102**	397	15	**412**	95	4	**99**	0	0	**0**	27	1	**28**	69	0	**69**	27	2	**29**	0	0	**0**
16:45 to 17:45	108	2	**110**	375	15	**390**	91	4	**95**	0	0	**0**	33	1	**34**	65	0	**65**	25	2	**27**	0	0	**0**
17:00 to 18:00	111	2	**113**	382	16	**398**	99	3	**102**	0	0	**0**	41	1	**42**	68	0	**68**	24	2	**26**	1	0	**1**
PM Totals	**213**	**5**	**218**	**776**	**29**	**805**	**187**	**4**	**191**	**0**	**0**	**0**	**67**	**1**	**68**	**139**	**0**	**139**	**56**	**2**	**58**	**1**	**0**	**1**

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 2. Thunderbolt Dr / Raby Rd / Epping Forest Dr

Day/Date : Saturday, 9th June 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary

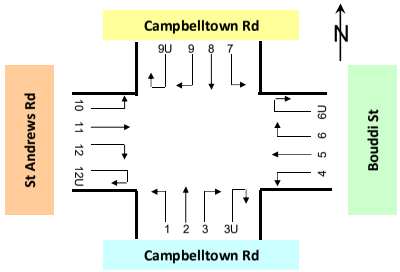


Approach	Raby Rd												Thunderbolt Dr											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00	23	4	**27**	225	5	**230**	60	0	**60**	2	0	**2**	66	1	**67**	47	0	**47**	81	0	**81**	2	0	**2**
11:15 to 12:15	21	2	**23**	230	4	**234**	64	0	**64**	1	0	**1**	69	1	**70**	45	0	**45**	78	0	**78**	1	0	**1**
11:30 to 12:30	20	2	**22**	252	4	**256**	67	0	**67**	0	0	**0**	69	1	**70**	44	0	**44**	85	0	**85**	1	0	**1**
11:45 to 12:45	21	2	**23**	253	3	**256**	65	0	**65**	1	0	**1**	75	1	**76**	39	0	**39**	76	0	**76**	0	0	**0**
12:00 to 13:00	23	2	**25**	248	4	**252**	53	0	**53**	2	0	**2**	71	1	**72**	49	0	**49**	74	0	**74**	0	0	**0**
12:15 to 13:15	28	3	**31**	245	4	**249**	47	0	**47**	2	0	**2**	75	1	**76**	51	0	**51**	70	0	**70**	0	0	**0**
12:30 to 13:30	33	3	**36**	222	6	**228**	47	0	**47**	2	0	**2**	73	1	**74**	46	0	**46**	65	0	**65**	1	0	**1**
12:45 to 13:45	35	3	**38**	213	5	**218**	48	0	**48**	1	0	**1**	55	1	**56**	53	0	**53**	63	0	**63**	1	0	**1**
13:00 to 14:00	37	5	**42**	226	3	**229**	59	0	**59**	0	0	**0**	57	1	**58**	44	0	**44**	62	0	**62**	1	0	**1**
13:15 to 14:15	40	4	**44**	227	6	**233**	62	0	**62**	0	0	**0**	46	1	**47**	39	0	**39**	59	0	**59**	1	0	**1**
13:30 to 14:30	36	4	**40**	224	4	**228**	64	0	**64**	0	0	**0**	55	2	**57**	45	0	**45**	65	0	**65**	0	0	**0**
13:45 to 14:45	39	4	**43**	224	4	**228**	66	0	**66**	0	0	**0**	67	2	**69**	47	0	**47**	65	0	**65**	0	0	**0**
14:00 to 15:00	40	2	**42**	212	6	**218**	55	0	**55**	0	0	**0**	64	2	**66**	43	0	**43**	67	0	**67**	1	0	**1**
Totals	**123**	**13**	**136**	**911**	**18**	**929**	**227**	**0**	**227**	**4**	**0**	**4**	**258**	**5**	**263**	**183**	**0**	**183**	**284**	**0**	**284**	**4**	**0**	**4**

Approach	Raby Rd												Epping Forest Dr											
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00	58	1	**59**	249	8	**257**	49	1	**50**	0	0	**0**	50	0	**50**	40	0	**40**	45	3	**48**	3	0	**3**
11:15 to 12:15	63	1	**64**	240	7	**247**	51	1	**52**	0	0	**0**	46	0	**46**	48	0	**48**	40	3	**43**	1	0	**1**
11:30 to 12:30	68	1	**69**	258	7	**265**	51	1	**52**	0	0	**0**	46	0	**46**	47	0	**47**	35	2	**37**	1	0	**1**
11:45 to 12:45	68	1	**69**	277	7	**284**	60	1	**61**	1	0	**1**	45	0	**45**	48	0	**48**	32	2	**34**	1	0	**1**
12:00 to 13:00	67	0	**67**	287	9	**296**	53	0	**53**	2	0	**2**	46	0	**46**	46	0	**46**	28	3	**31**	1	0	**1**
12:15 to 13:15	65	0	**65**	290	10	**300**	51	0	**51**	2	0	**2**	43	0	**43**	42	1	**43**	31	2	**33**	1	0	**1**
12:30 to 13:30	55	0	**55**	275	10	**285**	43	0	**43**	3	0	**3**	49	0	**49**	51	2	**53**	46	3	**49**	1	0	**1**
12:45 to 13:45	46	0	**46**	287	9	**296**	43	0	**43**	2	0	**2**	49	0	**49**	51	2	**53**	51	2	**53**	0	0	**0**
13:00 to 14:00	41	1	**42**	292	11	**303**	41	0	**41**	1	0	**1**	48	1	**49**	44	2	**46**	51	2	**53**	0	0	**0**
13:15 to 14:15	40	2	**42**	291	9	**300**	44	0	**44**	1	0	**1**	42	1	**43**	44	1	**45**	49	3	**52**	1	0	**1**
13:30 to 14:30	45	2	**47**	287	9	**296**	53	0	**53**	0	0	**0**	34	1	**35**	33	0	**33**	40	3	**43**	1	0	**1**
13:45 to 14:45	55	2	**57**	264	7	**271**	47	0	**47**	2	0	**2**	33	1	**34**	35	0	**35**	43	3	**46**	1	0	**1**
14:00 to 15:00	54	1	**55**	245	4	**249**	51	1	**52**	2	0	**2**	32	0	**32**	38	0	**38**	44	2	**46**	1	0	**1**
Totals	**220**	**3**	**223**	**1,073**	**32**	**1,105**	**194**	**2**	**196**	**5**	**0**	**5**	**176**	**1**	**177**	**168**	**2**	**170**	**168**	**10**	**178**	**5**	**0**	**5**

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 3. St Andrews Rd / Campbelltown Rd / Bouddi St

Day/Date : Tuesday, 12th June 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



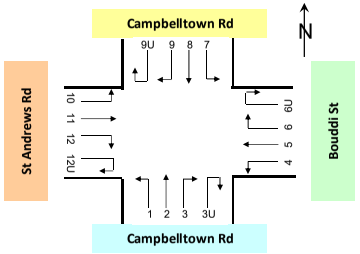
MATRIX Traffic and Transport Data

Approach	Campbelltown Rd												Bouddi St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	79	6	**85**	484	76	**560**	31	0	**31**	8	1	**9**	71	2	**73**	23	1	**24**	87	0	**87**	0	0	**0**
7:15 to 8:15	105	6	**111**	485	73	**558**	37	0	**37**	6	1	**7**	80	2	**82**	38	1	**39**	85	0	**85**	0	0	**0**
7:30 to 8:30	132	6	**138**	475	67	**542**	35	0	**35**	5	2	**7**	81	1	**82**	38	1	**39**	73	0	**73**	0	0	**0**
7:45 to 8:45	145	3	**148**	456	63	**519**	42	1	**43**	4	3	**7**	80	0	**80**	57	0	**57**	54	0	**54**	0	0	**0**
8:00 to 9:00	161	2	**163**	416	62	**478**	41	2	**43**	4	2	**6**	77	0	**77**	79	1	**80**	53	1	**54**	0	0	**0**
AM Totals	**240**	**8**	**248**	**900**	**138**	**1,038**	**72**	**2**	**74**	**12**	**3**	**15**	**148**	**2**	**150**	**102**	**2**	**104**	**140**	**1**	**141**	**0**	**0**	**0**
16:00 to 17:00	189	2	**191**	397	32	**429**	74	1	**75**	14	1	**15**	63	0	**63**	29	1	**30**	29	0	**29**	0	0	**0**
16:15 to 17:15	185	2	**187**	385	29	**414**	83	1	**84**	11	2	**13**	69	0	**69**	31	0	**31**	27	0	**27**	0	0	**0**
16:30 to 17:30	189	2	**191**	387	29	**416**	93	0	**93**	9	1	**10**	69	1	**70**	28	0	**28**	34	0	**34**	0	0	**0**
16:45 to 17:45	196	1	**197**	364	34	**398**	93	0	**93**	8	1	**9**	77	1	**78**	31	0	**31**	36	0	**36**	0	0	**0**
17:00 to 18:00	212	1	**213**	351	27	**378**	108	0	**108**	7	1	**8**	74	1	**75**	39	0	**39**	33	0	**33**	0	0	**0**
PM Totals	**401**	**3**	**404**	**748**	**59**	**807**	**182**	**1**	**183**	**21**	**2**	**23**	**137**	**1**	**138**	**68**	**1**	**69**	**62**	**0**	**62**	**0**	**0**	**0**

Approach	Campbelltown Rd												St Andrews Rd											
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	1	0	**1**	415	52	**467**	151	4	**155**	10	0	**10**	390	2	**392**	21	2	**23**	174	1	**175**	1	0	**1**
7:15 to 8:15	1	0	**1**	431	57	**488**	150	4	**154**	8	0	**8**	396	3	**399**	22	3	**25**	196	2	**198**	0	0	**0**
7:30 to 8:30	1	0	**1**	459	60	**519**	171	5	**176**	8	0	**8**	391	3	**394**	26	4	**30**	231	2	**233**	2	0	**2**
7:45 to 8:45	1	0	**1**	480	67	**547**	168	8	**176**	7	1	**8**	377	3	**380**	34	6	**40**	258	1	**259**	2	0	**2**
8:00 to 9:00	1	0	**1**	475	73	**548**	164	7	**171**	6	1	**7**	319	5	**324**	46	6	**52**	262	1	**263**	2	0	**2**
AM Totals	**2**	**0**	**2**	**890**	**125**	**1,015**	**315**	**11**	**326**	**16**	**1**	**17**	**709**	**7**	**716**	**67**	**8**	**75**	**436**	**2**	**438**	**3**	**0**	**3**
16:00 to 17:00	13	0	**13**	704	60	**764**	531	14	**545**	4	0	**4**	92	3	**95**	42	4	**46**	137	2	**139**	1	0	**1**
16:15 to 17:15	11	0	**11**	702	51	**753**	552	15	**567**	4	0	**4**	104	1	**105**	39	3	**42**	141	2	**143**	1	0	**1**
16:30 to 17:30	9	0	**9**	696	44	**740**	572	13	**585**	3	0	**3**	92	0	**92**	47	2	**49**	149	2	**151**	0	0	**0**
16:45 to 17:45	10	0	**10**	667	38	**705**	581	10	**591**	2	0	**2**	98	0	**98**	47	3	**50**	146	2	**148**	0	0	**0**
17:00 to 18:00	14	0	**14**	643	35	**678**	528	9	**537**	3	0	**3**	102	0	**102**	46	4	**50**	125	1	**126**	0	0	**0**
PM Totals	**27**	**0**	**27**	**1,347**	**95**	**1,442**	**1,059**	**23**	**1,082**	**7**	**0**	**7**	**194**	**3**	**197**	**88**	**8**	**96**	**262**	**3**	**265**	**1**	**0**	**1**

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 3. St Andrews Rd / Campbelltown Rd / Bouddi St

Day/Date : Saturday, 9th June 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



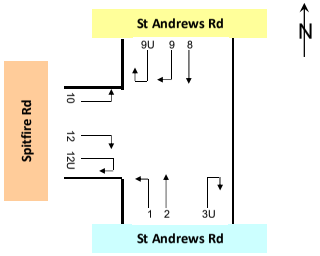
MATRIX Traffic and Transport Data

Approach	Campbelltown Rd												Bouddi St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00	77	2	**79**	195	7	**202**	69	1	**70**	8	0	**8**	73	1	**74**	24	0	**24**	37	0	**37**	0	0	**0**
11:15 to 12:15	90	2	**92**	202	5	**207**	61	2	**63**	6	0	**6**	74	1	**75**	21	0	**21**	42	0	**42**	0	0	**0**
11:30 to 12:30	89	4	**93**	207	3	**210**	60	2	**62**	5	0	**5**	78	1	**79**	22	0	**22**	50	0	**50**	1	0	**1**
11:45 to 12:45	98	4	**102**	221	5	**226**	60	1	**61**	4	0	**4**	70	1	**71**	22	0	**22**	49	0	**49**	1	0	**1**
12:00 to 13:00	104	2	**106**	220	7	**227**	66	1	**67**	7	0	**7**	64	1	**65**	20	0	**20**	51	0	**51**	1	0	**1**
12:15 to 13:15	106	2	**108**	232	9	**241**	69	0	**69**	7	0	**7**	63	1	**64**	23	0	**23**	48	0	**48**	1	0	**1**
12:30 to 13:30	106	0	**106**	235	10	**245**	72	0	**72**	4	0	**4**	60	1	**61**	26	0	**26**	40	0	**40**	0	0	**0**
12:45 to 13:45	104	0	**104**	224	8	**232**	74	0	**74**	4	0	**4**	59	1	**60**	27	0	**27**	33	0	**33**	0	0	**0**
13:00 to 14:00	90	0	**90**	224	6	**230**	77	0	**77**	2	0	**2**	63	0	**63**	27	0	**27**	31	0	**31**	0	0	**0**
13:15 to 14:15	88	1	**89**	212	3	**215**	75	0	**75**	3	0	**3**	59	0	**59**	26	0	**26**	25	0	**25**	0	0	**0**
13:30 to 14:30	92	1	**93**	213	3	**216**	70	1	**71**	4	0	**4**	58	0	**58**	22	0	**22**	24	0	**24**	0	0	**0**
13:45 to 14:45	84	1	**85**	205	3	**208**	80	1	**81**	5	0	**5**	55	0	**55**	21	0	**21**	28	0	**28**	0	0	**0**
14:00 to 15:00	91	1	**92**	192	3	**195**	67	1	**68**	4	0	**4**	58	1	**59**	25	0	**25**	24	0	**24**	0	0	**0**
Totals	**362**	**5**	**367**	**831**	**23**	**854**	**279**	**3**	**282**	**21**	**0**	**21**	**258**	**3**	**261**	**96**	**0**	**96**	**143**	**0**	**143**	**1**	**0**	**1**

Approach	Campbelltown Rd												St Andrews Rd											
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00	8	0	**8**	371	10	**381**	138	2	**140**	5	0	**5**	127	0	**127**	33	2	**35**	142	1	**143**	0	0	**0**
11:15 to 12:15	6	0	**6**	364	11	**375**	149	3	**152**	2	0	**2**	123	0	**123**	35	2	**37**	143	2	**145**	1	0	**1**
11:30 to 12:30	9	0	**9**	348	11	**359**	142	3	**145**	2	0	**2**	123	0	**123**	31	2	**33**	135	3	**138**	1	0	**1**
11:45 to 12:45	8	0	**8**	353	14	**367**	144	2	**146**	3	0	**3**	124	0	**124**	35	3	**38**	127	3	**130**	1	0	**1**
12:00 to 13:00	8	0	**8**	376	10	**386**	157	3	**160**	2	0	**2**	114	0	**114**	41	1	**42**	127	3	**130**	1	0	**1**
12:15 to 13:15	7	0	**7**	362	9	**371**	155	2	**157**	2	0	**2**	117	2	**119**	38	1	**39**	121	3	**124**	0	0	**0**
12:30 to 13:30	4	0	**4**	362	14	**376**	154	3	**157**	1	0	**1**	113	2	**115**	45	1	**46**	115	1	**116**	0	0	**0**
12:45 to 13:45	4	0	**4**	360	13	**373**	170	5	**175**	0	0	**0**	107	2	**109**	40	1	**41**	120	1	**121**	0	0	**0**
13:00 to 14:00	3	0	**3**	370	19	**389**	169	4	**173**	0	0	**0**	106	3	**109**	36	1	**37**	114	1	**115**	0	0	**0**
13:15 to 14:15	4	0	**4**	394	17	**411**	156	3	**159**	0	0	**0**	96	1	**97**	37	1	**38**	104	0	**104**	0	0	**0**
13:30 to 14:30	3	0	**3**	415	11	**426**	169	3	**172**	0	0	**0**	98	1	**99**	32	2	**34**	109	0	**109**	1	0	**1**
13:45 to 14:45	5	0	**5**	399	11	**410**	171	3	**174**	0	0	**0**	96	1	**97**	30	1	**31**	107	0	**107**	1	0	**1**
14:00 to 15:00	4	0	**4**	394	7	**401**	173	4	**177**	1	0	**1**	83	0	**83**	33	2	**35**	119	1	**120**	1	0	**1**
Totals	**23**	**0**	**23**	**1,511**	**46**	**1,557**	**637**	**13**	**650**	**8**	**0**	**8**	**430**	**3**	**433**	**143**	**6**	**149**	**502**	**6**	**508**	**2**	**0**	**2**

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 5. St Andrews Rd / Spitfire Rd

Day/Date : Saturday, 9th June 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



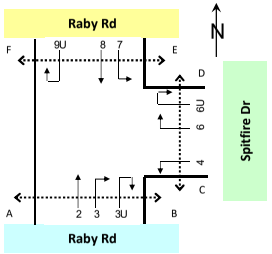
MATRIX Traffic and Transport Data

Approach	St Andrews Rd											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)				Direction 3U (U Turn)				
Time Period	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total		
11:00 to 12:00	109	1	**110**	9	0	**9**		0	0	**0**		
11:15 to 12:15	115	2	**117**	7	0	**7**		0	0	**0**		
11:30 to 12:30	122	2	**124**	5	0	**5**		1	0	**1**		
11:45 to 12:45	128	2	**130**	4	0	**4**		1	0	**1**		
12:00 to 13:00	141	2	**143**	3	0	**3**		1	0	**1**		
12:15 to 13:15	136	1	**137**	4	0	**4**		2	0	**2**		
12:30 to 13:30	134	1	**135**	3	0	**3**		2	0	**2**		
12:45 to 13:45	138	1	**139**	4	0	**4**		3	0	**3**		
13:00 to 14:00	116	1	**117**	8	0	**8**		3	0	**3**		
13:15 to 14:15	104	1	**105**	9	0	**9**		2	0	**2**		
13:30 to 14:30	107	0	**107**	13	0	**13**		2	0	**2**		
13:45 to 14:45	109	0	**109**	15	2	**17**		1	0	**1**		
14:00 to 15:00	119	0	**119**	10	2	**12**		1	0	**1**		
Totals	**485**	**4**	**489**	**30**	**2**	**32**		**5**	**0**	**5**		

Approach	St Andrews Rd									Spitfire Rd								
Direction	Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00	17	0	**17**	6	0	**6**	0	0	**0**	3	1	**4**	110	1	**111**	0	0	**0**
11:15 to 12:15	14	0	**14**	8	0	**8**	0	0	**0**	4	1	**5**	115	1	**116**	0	0	**0**
11:30 to 12:30	8	0	**8**	8	0	**8**	0	0	**0**	5	1	**6**	114	0	**114**	0	0	**0**
11:45 to 12:45	7	0	**7**	5	0	**5**	0	0	**0**	4	1	**5**	104	0	**104**	1	0	**1**
12:00 to 13:00	5	0	**5**	4	0	**4**	0	0	**0**	3	0	**3**	106	0	**106**	1	0	**1**
12:15 to 13:15	8	0	**8**	3	0	**3**	0	0	**0**	2	0	**2**	113	1	**114**	2	0	**2**
12:30 to 13:30	7	0	**7**	3	0	**3**	0	0	**0**	0	0	**0**	105	1	**106**	2	0	**2**
12:45 to 13:45	6	0	**6**	2	0	**2**	0	0	**0**	0	0	**0**	103	1	**104**	1	0	**1**
13:00 to 14:00	8	0	**8**	2	0	**2**	0	0	**0**	0	0	**0**	96	2	**98**	1	0	**1**
13:15 to 14:15	7	0	**7**	2	0	**2**	0	0	**0**	1	0	**1**	84	1	**85**	1	0	**1**
13:30 to 14:30	9	0	**9**	2	0	**2**	0	0	**0**	2	0	**2**	92	1	**93**	1	0	**1**
13:45 to 14:45	7	0	**7**	4	0	**4**	0	0	**0**	2	0	**2**	93	1	**94**	1	0	**1**
14:00 to 15:00	5	0	**5**	4	0	**4**	0	0	**0**	5	0	**5**	88	0	**88**	1	0	**1**
Totals	**35**	**0**	**35**	**16**	**0**	**16**	**0**	**0**	**0**	**11**	**1**	**12**	**400**	**3**	**403**	**3**	**0**	**3**

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 4. Raby Rd / Spitfire Dr

Day/Date : Saturday, 30th June 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



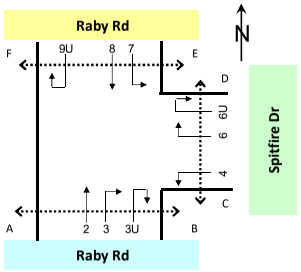
MATRIX Traffic and Transport Data

Approach	Raby Rd									Spitfire Dr								
Direction		Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)				Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period		Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total	Lights	Heavies	Total
11:00 to 12:00		537	14	**551**	313	4	**317**	4	0	**4**	332	3	**335**		19	0	**19**	0	0	**0**
11:15 to 12:15		560	14	**574**	303	4	**307**	4	0	**4**	342	5	**347**		18	0	**18**	0	0	**0**
11:30 to 12:30		572	13	**585**	286	3	**289**	4	0	**4**	321	6	**327**		21	0	**21**	0	0	**0**
11:45 to 12:45		565	10	**575**	284	3	**287**	0	0	**0**	316	6	**322**		18	0	**18**	0	0	**0**
12:00 to 13:00		590	9	**599**	286	3	**289**	0	0	**0**	303	4	**307**		14	0	**14**	0	0	**0**
12:15 to 13:15		564	10	**574**	273	2	**275**	0	0	**0**	290	3	**293**		15	1	**16**	0	0	**0**
12:30 to 13:30		550	16	**566**	276	5	**281**	0	0	**0**	281	1	**282**		17	1	**18**	0	0	**0**
12:45 to 13:45		518	17	**535**	261	4	**265**	0	0	**0**	288	3	**291**		15	1	**16**	0	0	**0**
13:00 to 14:00		505	18	**523**	267	4	**271**	0	0	**0**	276	3	**279**		14	1	**15**	0	0	**0**
13:15 to 14:15		511	18	**529**	282	5	**287**	0	0	**0**	261	3	**264**		13	0	**13**	0	0	**0**
13:30 to 14:30		504	13	**517**	288	2	**290**	0	0	**0**	255	3	**258**		10	0	**10**	0	0	**0**
13:45 to 14:45		518	11	**529**	313	2	**315**	1	0	**1**	235	2	**237**		12	0	**12**	0	0	**0**
14:00 to 15:00		503	7	**510**	319	2	**321**	1	0	**1**	244	2	**246**		13	0	**13**	0	0	**0**
Totals		**2,135**	**48**	**2,183**	**1,185**	**13**	**1,198**	**5**	**0**	**5**	**1,155**	**12**	**1,167**		**60**	**1**	**61**	**0**	**0**	**0**

Approach	Raby Rd									Crossing Pedestrians							
Direction	Direction 7 (Left Turn)			Direction 8 (Through)				Direction 9U (U Turn)										
Time Period	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total		A	B	C	D	E	F		Total
11:00 to 12:00	29	0	**29**	579	9	**588**		0	0	**0**		0	3	1	1	1	2		**8**
11:15 to 12:15	26	0	**26**	572	10	**582**		0	0	**0**		0	3	1	2	1	2		**9**
11:30 to 12:30	31	0	**31**	609	12	**621**		0	0	**0**		0	3	0	2	0	2		**7**
11:45 to 12:45	28	1	**29**	599	13	**612**		0	0	**0**		0	1	0	2	3	0		**6**
12:00 to 13:00	30	1	**31**	572	16	**588**		0	0	**0**		0	0	0	1	3	0		**4**
12:15 to 13:15	31	1	**32**	586	16	**602**		0	0	**0**		0	0	0	0	3	0		**3**
12:30 to 13:30	28	1	**29**	550	16	**566**		0	0	**0**		0	0	0	0	4	0		**4**
12:45 to 13:45	31	0	**31**	530	15	**545**		0	0	**0**		0	0	0	0	1	0		**1**
13:00 to 14:00	31	0	**31**	523	13	**536**		0	0	**0**		0	0	0	0	1	1		**2**
13:15 to 14:15	33	0	**33**	534	12	**546**		0	0	**0**		0	0	0	0	1	2		**3**
13:30 to 14:30	30	0	**30**	517	11	**528**		0	0	**0**		0	0	0	0	0	3		**3**
13:45 to 14:45	33	0	**33**	531	11	**542**		0	0	**0**		0	0	0	0	0	3		**3**
14:00 to 15:00	34	0	**34**	508	12	**520**		0	0	**0**		0	0	0	0	4	3		**7**
Totals	**124**	**1**	**125**	**2,182**	**50**	**2,232**		**0**	**0**	**0**		**0**	**3**	**1**	**2**	**9**	**6**		**21**

Job No. : N4253
Client : TTPP
Suburb : Wallacia
Location : 4. Raby Rd / Spitfire Dr

Day/Date : Tuesday, 3rd July 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



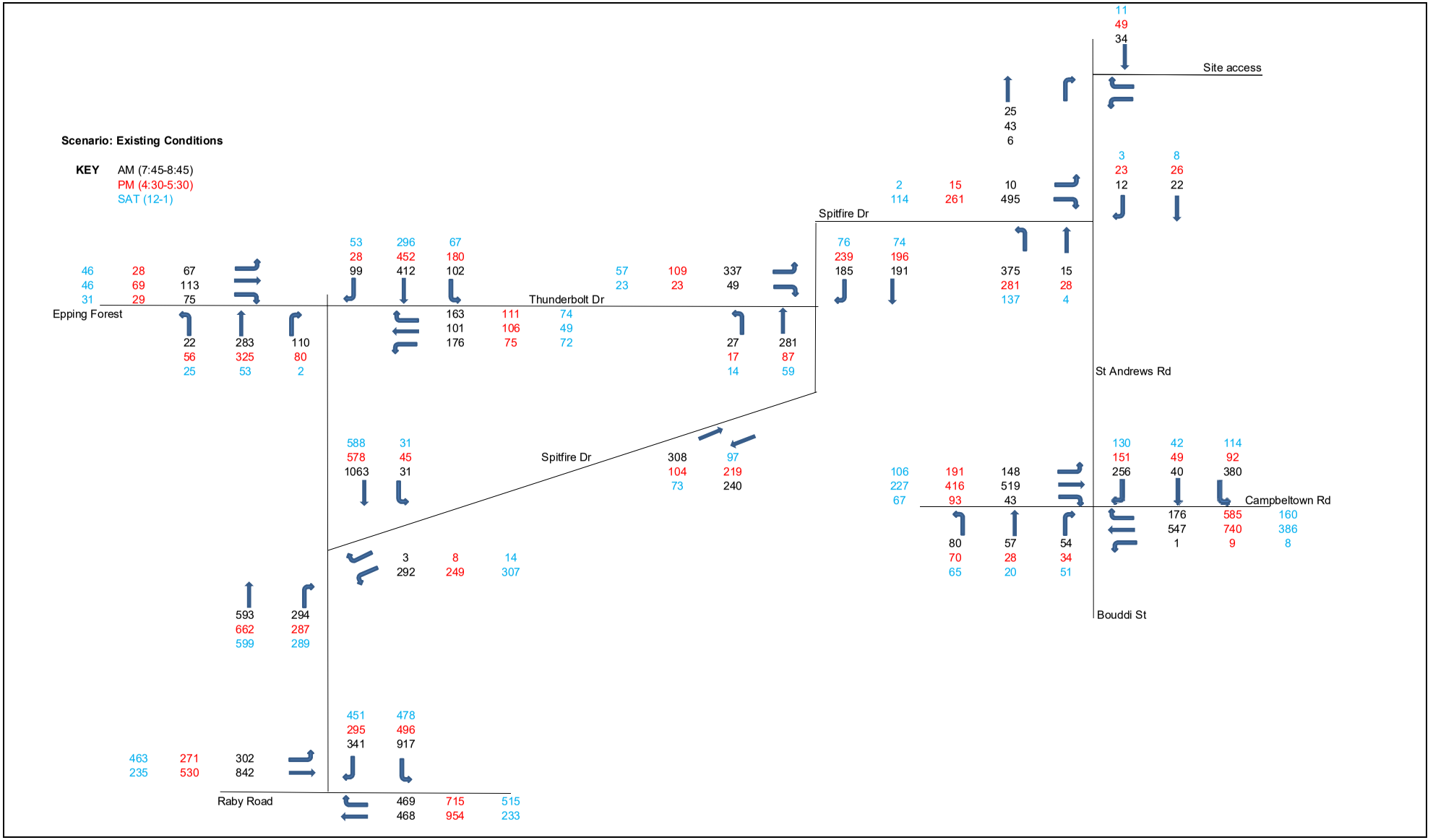
MATRIX Traffic and Transport Data

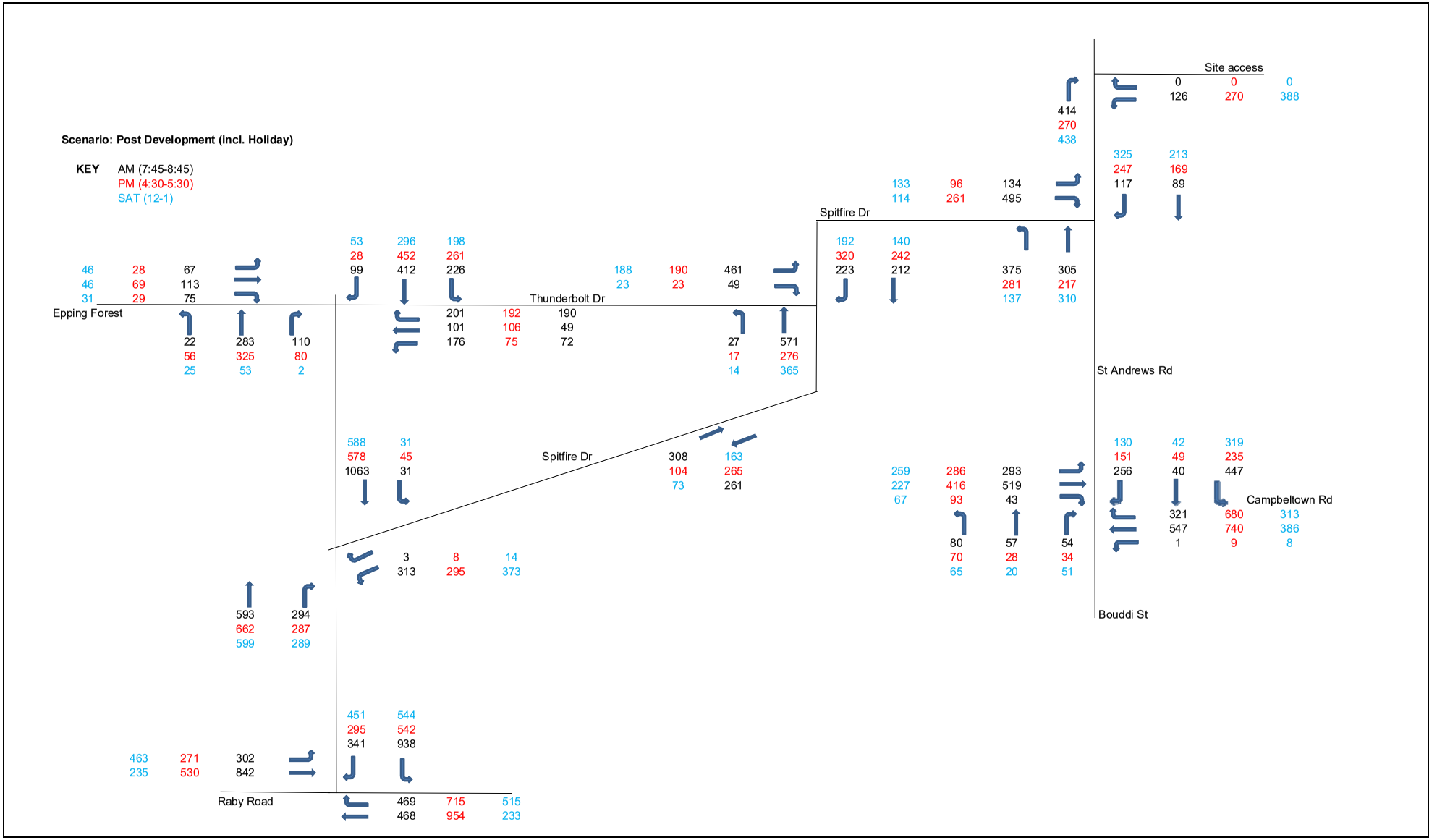
Approach	Raby Rd									Spitfire Dr								
Direction		Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)				Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period		Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00		417	36	**453**	125	15	**140**	0	0	**0**	227	8	**235**		14	0	**14**	0	0	**0**
7:15 to 8:15		488	28	**516**	169	14	**183**	0	0	**0**	243	9	**252**		10	0	**10**	0	0	**0**
7:30 to 8:30		538	27	**565**	216	15	**231**	0	0	**0**	271	10	**281**		7	0	**7**	0	0	**0**
7:45 to 8:45		571	22	**593**	282	12	**294**	0	0	**0**	282	10	**292**		3	0	**3**	0	0	**0**
8:00 to 9:00		583	20	**603**	294	8	**302**	0	0	**0**	288	9	**297**		1	0	**1**	0	0	**0**
AM Totals		**1,000**	**56**	**1,056**	**419**	**23**	**442**	**0**	**0**	**0**	**515**	**17**	**532**		**15**	**0**	**15**	**0**	**0**	**0**
16:00 to 17:00		637	19	**656**	287	8	**295**	0	0	**0**	222	10	**232**		11	0	**11**	0	0	**0**
16:15 to 17:15		644	19	**663**	283	7	**290**	0	0	**0**	235	7	**242**		7	0	**7**	0	0	**0**
16:30 to 17:30		648	14	**662**	280	7	**287**	0	0	**0**	242	7	**249**		8	0	**8**	0	0	**0**
16:45 to 17:45		651	14	**665**	279	8	**287**	0	0	**0**	242	5	**247**		7	0	**7**	0	0	**0**
17:00 to 18:00		649	10	**659**	304	6	**310**	0	0	**0**	247	4	**251**		9	0	**9**	0	0	**0**
PM Totals		**1,286**	**29**	**1,315**	**591**	**14**	**605**	**0**	**0**	**0**	**469**	**14**	**483**		**20**	**0**	**20**	**0**	**0**	**0**

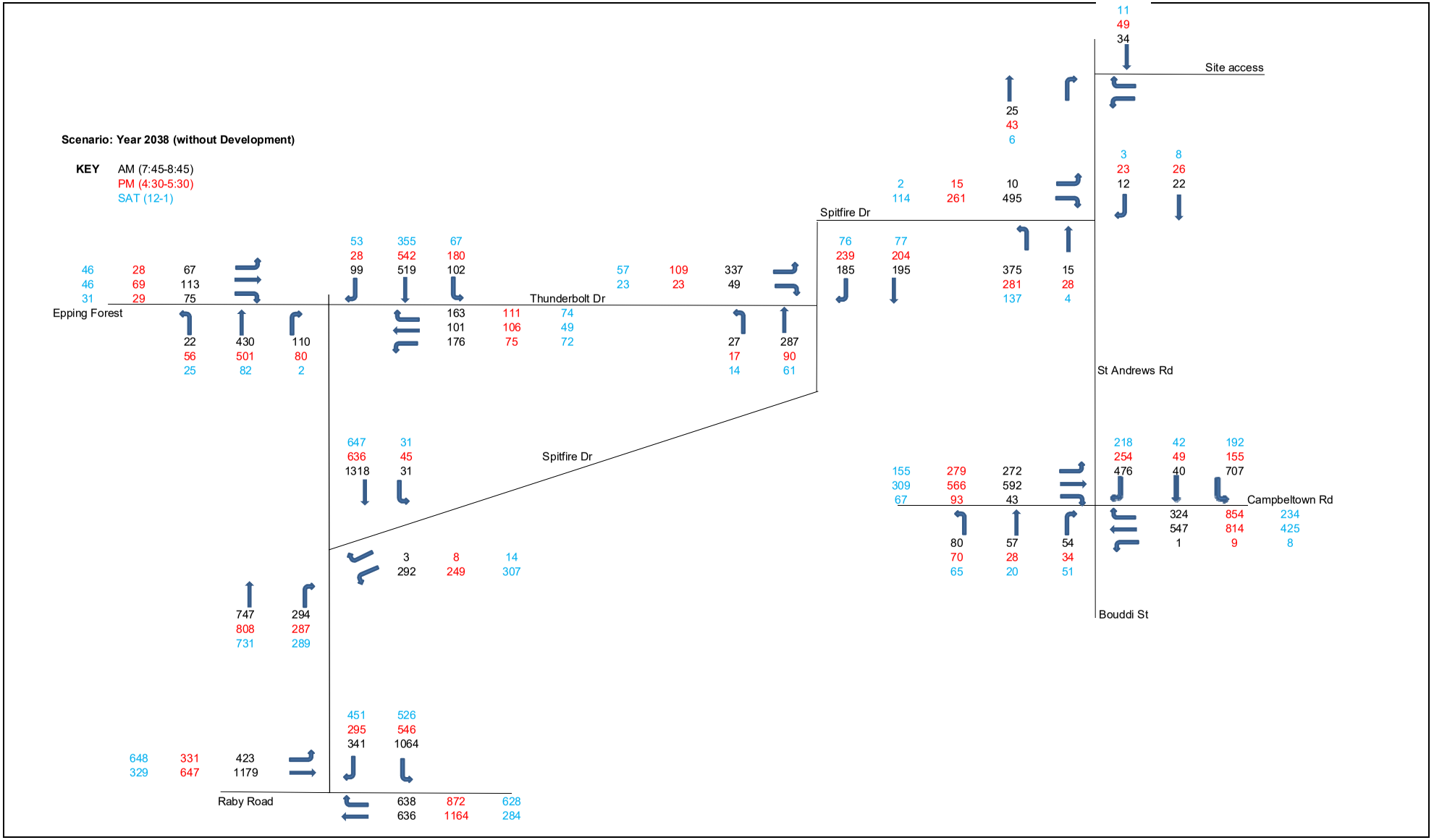
Approach	Raby Rd									Crossing Pedestrians						
Direction	Direction 7 (Left Turn)			Direction 8 (Through)				Direction 9U (U Turn)								
Time Period	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total	A	B	C	D	E	F	Total
7:00 to 8:00	19	1	**20**	787	37	**824**		0	0	**0**	0	0	2	1	0	0	**3**
7:15 to 8:15	20	4	**24**	889	43	**932**		0	0	**0**	0	0	0	2	0	0	**2**
7:30 to 8:30	22	5	**27**	976	46	**1,022**		0	0	**0**	0	0	0	1	0	0	**1**
7:45 to 8:45	26	5	**31**	1,013	50	**1,063**		0	0	**0**	0	0	0	1	0	0	**1**
8:00 to 9:00	27	5	**32**	955	44	**999**		0	0	**0**	0	0	0	1	0	1	**2**
AM Totals	**46**	**6**	**52**	**1,742**	**81**	**1,823**		**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**5**
16:00 to 17:00	45	2	**47**	559	28	**587**		0	0	**0**	0	2	2	1	0	0	**5**
16:15 to 17:15	45	2	**47**	563	26	**589**		0	0	**0**	0	2	2	1	0	0	**5**
16:30 to 17:30	41	4	**45**	555	23	**578**		0	0	**0**	0	0	0	1	0	0	**1**
16:45 to 17:45	39	3	**42**	591	19	**610**		0	0	**0**	0	0	0	1	0	0	**1**
17:00 to 18:00	39	2	**41**	599	20	**619**		0	0	**0**	1	0	0	0	0	0	**1**
PM Totals	**84**	**4**	**88**	**1,158**	**48**	**1,206**		**0**	**0**	**0**	**1**	**2**	**2**	**1**	**0**	**0**	**6**

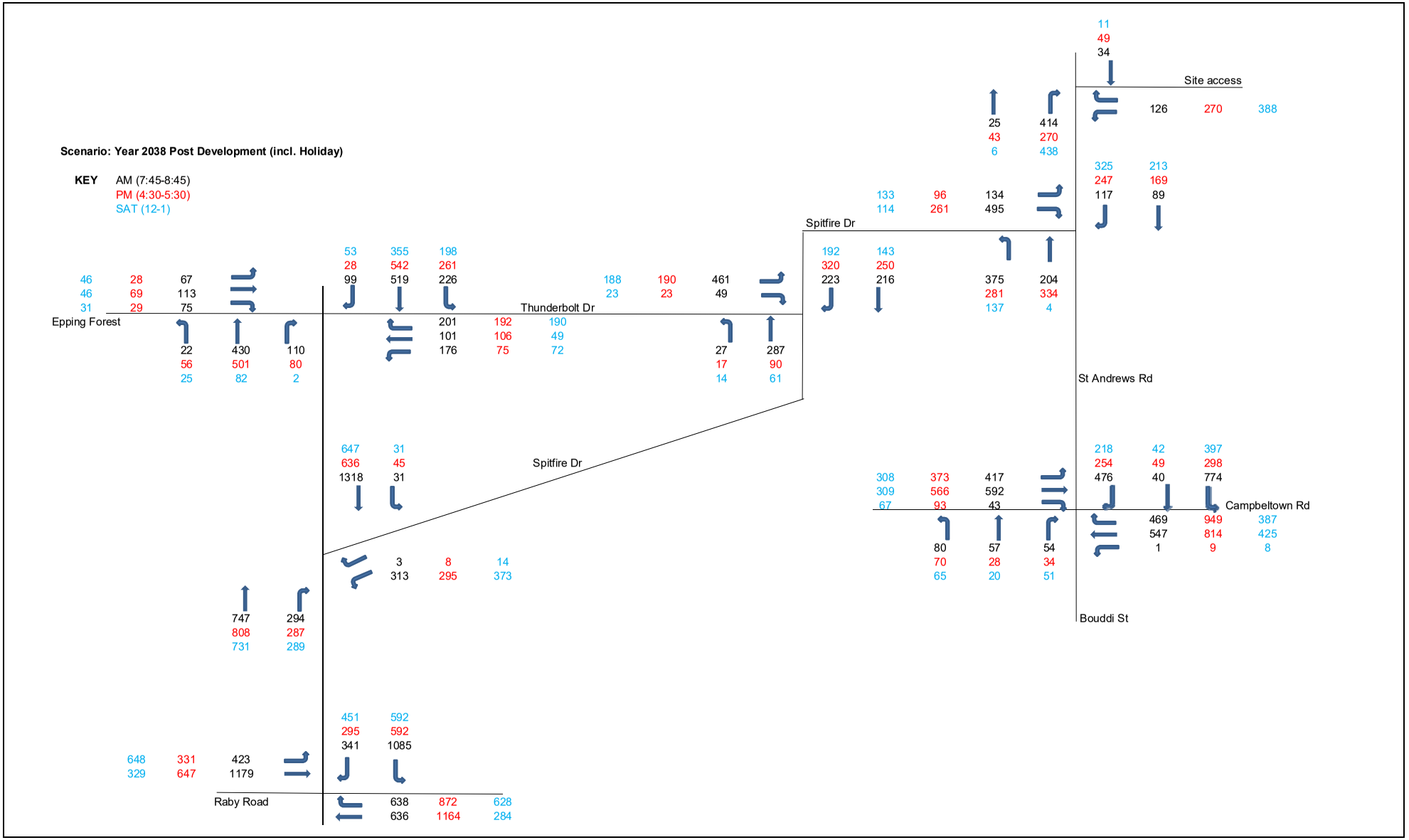
Attachment Three

Modelling Turning Volumes


Scenario: Existing Conditions
KEY
AM (7:45-8:45)
PM (4:30-5:30)
SAT (12-1)
Epping Forest
Thunderbolt Dr
Spitfire Dr
Spitfire Dr
Raby Road
Site access
St Andrews Rd
Campbeltown Rd
Bouddi St
46 46 31
28 69 29
67 113 75
22 56 25
283 325 53
110 80 2
53 28 99
296 452 412
67 180 102
163 101 176
111 106 75
74 49 72
57 23
109 23
337 49
27 17 14
281 87 59
76 239 185
74 196 191
2 114
15 261
25 43 6
10 495
375 281 137
15 28 4
11 49 34
3 23 12
8 26 22
588 578 1063
31 45 31
308 104 73
97 219 240
3 292
8 249
14 307
593 662 599
294 287 289
451 295 341
478 496 917
463 235
271 530
302 842
469 468
715 954
515 233
106 227 67
191 416 93
148 519 43
80 70 65
57 28 20
54 34 51
130 151 256
42 49 40
114 92 380
176 547 1
585 740 9
160 386 8


Scenario: Post Development (incl. Holiday)
KEY
AM (7:45-8:45)
PM (4:30-5:30)
SAT (12-1)
Epping Forest
Thunderbolt Dr
Spitfire Dr
Spitfire Dr
Site access
St Andrews Rd
Campbeltown Rd
Bouddi St
Raby Road
46 46 31
28 69 29
67 113 75
22 56 25
283 325 53
110 80 2
53 28 99
296 452 412
198 261 226
201 101 176
192 106 75
190 49 72
188 23
190 23
461 49
27 17 14
571 276 365
192 320 223
140 242 212
133 114
96 261
134 495
375 281 137
414 270 438
305 217 310
0 126
0 270
0 388
325 247 117
213 169 89
588 578 1063
31 45 31
308 104 73
163 265 261
259 227 67
286 416 93
293 519 43
80 70 65
57 28 20
54 34 51
130 151 256
42 49 40
319 235 447
321 547 1
680 740 9
313 386 8
3 313
8 295
14 373
593 662 599
294 287 289
451 295 341
544 542 938
463 235
271 530
302 842
469 468
715 954
515 233


Scenario: Year 2038 (without Development)
KEY
AM (7:45-8:45)
PM (4:30-5:30)
SAT (12-1)
Epping Forest
Thunderbolt Dr
Spitfire Dr
Site access
St Andrews Rd
Campbeltown Rd
Bouddi St
Raby Road
46 46 31
28 69 29
67 113 75
22 56 25
430 501 82
110 80 2
53 28 99
355 542 519
67 180 102
163 101 176
111 106 75
74 49 72
57 23
109 23
337 49
27 17 14
287 90 61
76 239 185
77 204 195
2 114
15 261
10 495
25 43 6
375 281 137
15 28 4
11 49 34
3 23 12
8 26 22
647 636 1318
31 45 31
3 292
8 249
14 307
155 309 67
279 566 93
272 592 43
80 70 65
57 28 20
54 34 51
218 254 476
42 49 40
192 155 707
324 547 1
854 814 9
234 425 8
747 808 731
294 287 289
451 295 341
526 546 1064
648 329
331 647
423 1179
638 636
872 1164
628 284


Scenario: Year 2038 Post Development (incl. Holiday)
KEY
AM (7:45-8:45)
PM (4:30-5:30)
SAT (12-1)
Epping Forest
Thunderbolt Dr
Spitfire Dr
Site access
St Andrews Rd
Campbeltown Rd
Bouddi St
Raby Road

Attachement Four

SIDRA Outputs

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street EX AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	156	2.0	0.292	6.2	LOS A	1.6	11.6	0.48	0.59	0.48	57.0
2	T1	546	12.1	0.365	6.6	LOS A	2.2	16.6	0.49	0.58	0.49	60.9
3	R2	45	2.3	0.365	11.9	LOS A	2.2	16.6	0.50	0.58	0.50	54.8
3u	U	7	42.9	0.365	15.5	LOS B	2.2	16.6	0.50	0.58	0.50	52.1
Approach		755	9.8	0.365	6.9	LOS A	2.2	16.6	0.49	0.58	0.49	59.6
East: Bouddi Street												
4	L2	84	0.0	0.285	6.2	LOS A	1.4	9.9	0.72	0.80	0.72	51.0
5	T1	60	0.0	0.285	6.1	LOS A	1.4	9.9	0.72	0.80	0.72	50.1
6	R2	57	0.0	0.285	11.3	LOS A	1.4	9.9	0.72	0.80	0.72	52.4
6u	U	1	0.0	0.285	13.3	LOS A	1.4	9.9	0.72	0.80	0.72	48.9
Approach		202	0.0	0.285	7.6	LOS A	1.4	9.9	0.72	0.80	0.72	51.1
North: Campbeltown Road (north)												
7	L2	1	0.0	0.322	6.5	LOS A	1.8	14.1	0.56	0.61	0.56	52.3
8	T1	576	12.2	0.403	7.0	LOS A	2.6	19.6	0.57	0.63	0.57	59.9
9	R2	185	4.5	0.403	12.3	LOS A	2.6	19.6	0.58	0.66	0.58	56.9
9u	U	8	12.5	0.403	15.1	LOS B	2.6	19.6	0.58	0.66	0.58	55.1
Approach		771	10.4	0.403	8.4	LOS A	2.6	19.6	0.57	0.64	0.57	59.1
West: St Andrews Road												
10	L2	400	0.8	0.367	5.9	LOS A	2.0	14.2	0.63	0.69	0.63	56.7
11	T1	42	15.0	0.357	6.8	LOS A	1.8	13.1	0.64	0.82	0.64	49.0
12	R2	269	0.4	0.357	11.9	LOS A	1.8	13.1	0.64	0.82	0.64	54.6
12u	U	2	0.0	0.357	14.2	LOS A	1.8	13.1	0.64	0.82	0.64	53.8
Approach		714	1.5	0.367	8.2	LOS A	2.0	14.2	0.64	0.75	0.64	55.3
All Vehicles		2441	6.7	0.403	7.8	LOS A	2.6	19.6	0.58	0.67	0.58	57.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street EX PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	201	1.0	0.395	8.9	LOS A	2.6	18.7	0.79	0.83	0.79	55.5
2	T1	438	7.0	0.495	9.4	LOS A	4.1	30.0	0.82	0.85	0.89	58.6
3	R2	98	0.0	0.495	14.8	LOS B	4.1	30.0	0.84	0.85	0.91	52.6
3u	U	11	10.0	0.495	17.8	LOS B	4.1	30.0	0.84	0.85	0.91	57.3
Approach		747	4.5	0.495	10.1	LOS A	4.1	30.0	0.82	0.84	0.86	56.9
East: Bouddi Street												
4	L2	74	1.4	0.281	8.4	LOS A	1.5	10.4	0.83	0.90	0.83	49.7
5	T1	29	0.0	0.281	8.2	LOS A	1.5	10.4	0.83	0.90	0.83	48.9
6	R2	36	0.0	0.281	13.4	LOS A	1.5	10.4	0.83	0.90	0.83	51.1
6u	U	1	0.0	0.281	15.5	LOS B	1.5	10.4	0.83	0.90	0.83	47.7
Approach		140	0.8	0.281	9.7	LOS A	1.5	10.4	0.83	0.90	0.83	49.9
North: Campbeltown Road (north)												
7	L2	9	0.0	0.532	6.8	LOS A	3.7	27.1	0.61	0.63	0.62	52.1
8	T1	779	5.9	0.666	7.4	LOS A	6.4	45.9	0.63	0.67	0.66	59.7
9	R2	616	2.2	0.666	13.2	LOS A	6.4	45.9	0.68	0.75	0.74	55.5
9u	U	3	0.0	0.666	15.8	LOS B	6.4	45.9	0.68	0.75	0.74	53.9
Approach		1407	4.3	0.666	9.9	LOS A	6.4	45.9	0.65	0.70	0.69	57.7
West: St Andrews Road												
10	L2	97	0.0	0.118	5.9	LOS A	0.6	3.9	0.58	0.67	0.58	57.0
11	T1	52	4.1	0.198	5.4	LOS A	1.1	7.6	0.59	0.71	0.59	49.6
12	R2	159	1.3	0.198	10.9	LOS A	1.1	7.6	0.59	0.71	0.59	55.1
12u	U	1	0.0	0.198	13.2	LOS A	1.1	7.6	0.59	0.71	0.59	54.5
Approach		308	1.4	0.198	8.4	LOS A	1.1	7.6	0.59	0.70	0.59	54.6
All Vehicles		2603	3.8	0.666	9.8	LOS A	6.4	45.9	0.70	0.75	0.74	56.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street EX SAT]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	112	1.9	0.151	5.7	LOS A	0.7	5.0	0.37	0.54	0.37	57.6
2	T1	239	3.1	0.189	5.9	LOS A	0.9	6.7	0.37	0.56	0.37	61.5
3	R2	71	1.5	0.189	11.4	LOS A	0.9	6.7	0.36	0.57	0.36	54.8
3u	U	7	0.0	0.189	14.0	LOS A	0.9	6.7	0.36	0.57	0.36	62.8
Approach		428	2.5	0.189	6.9	LOS A	0.9	6.7	0.37	0.56	0.37	59.3
East: Bouddi Street												
4	L2	68	1.5	0.163	4.7	LOS A	0.7	5.0	0.56	0.69	0.56	51.6
5	T1	21	0.0	0.163	4.5	LOS A	0.7	5.0	0.56	0.69	0.56	50.7
6	R2	54	0.0	0.163	9.8	LOS A	0.7	5.0	0.56	0.69	0.56	53.0
6u	U	1	0.0	0.163	11.8	LOS A	0.7	5.0	0.56	0.69	0.56	49.5
Approach		144	0.7	0.163	6.6	LOS A	0.7	5.0	0.56	0.69	0.56	52.0
North: Campbeltown Road (north)												
7	L2	8	0.0	0.211	5.8	LOS A	1.0	7.4	0.40	0.53	0.40	53.1
8	T1	406	2.6	0.264	6.1	LOS A	1.4	10.0	0.40	0.57	0.40	61.3
9	R2	168	1.9	0.264	11.6	LOS A	1.4	10.0	0.40	0.61	0.40	57.6
9u	U	2	0.0	0.264	14.1	LOS A	1.4	10.0	0.40	0.61	0.40	55.8
Approach		585	2.3	0.264	7.7	LOS A	1.4	10.0	0.40	0.58	0.40	60.0
West: St Andrews Road												
10	L2	120	0.0	0.112	5.0	LOS A	0.5	3.3	0.42	0.56	0.42	57.6
11	T1	44	2.4	0.144	4.7	LOS A	0.6	4.6	0.41	0.64	0.41	50.1
12	R2	137	2.3	0.144	10.2	LOS A	0.6	4.6	0.41	0.64	0.41	55.5
12u	U	1	0.0	0.144	12.5	LOS A	0.6	4.6	0.41	0.64	0.41	55.2
Approach		302	1.4	0.144	7.3	LOS A	0.6	4.6	0.41	0.61	0.41	55.4
All Vehicles		1460	2.0	0.264	7.3	LOS A	1.4	10.0	0.41	0.59	0.41	57.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street EX AM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	308	1.0	0.391	7.2	LOS A	2.4	17.1	0.64	0.71	0.64	56.6
2	T1	546	12.1	0.490	7.7	LOS A	3.5	26.7	0.67	0.68	0.68	59.7
3	R2	45	2.3	0.490	13.0	LOS A	3.5	26.7	0.68	0.67	0.69	53.9
3u	U	7	42.9	0.490	16.8	LOS B	3.5	26.7	0.68	0.67	0.69	51.3
Approach		907	8.1	0.490	7.8	LOS A	3.5	26.7	0.66	0.69	0.67	58.3
East: Bouddi Street												
4	L2	84	0.0	0.315	6.9	LOS A	1.6	11.4	0.77	0.85	0.77	50.6
5	T1	60	0.0	0.315	6.8	LOS A	1.6	11.4	0.77	0.85	0.77	49.7
6	R2	57	0.0	0.315	12.0	LOS A	1.6	11.4	0.77	0.85	0.77	51.9
6u	U	1	0.0	0.315	14.0	LOS A	1.6	11.4	0.77	0.85	0.77	48.5
Approach		202	0.0	0.315	8.3	LOS A	1.6	11.4	0.77	0.85	0.77	50.7
North: Campbeltown Road (north)												
7	L2	1	0.0	0.383	6.7	LOS A	2.3	17.9	0.59	0.62	0.59	52.2
8	T1	576	12.2	0.480	7.2	LOS A	3.4	25.0	0.60	0.65	0.60	59.5
9	R2	338	2.5	0.480	12.4	LOS A	3.4	25.0	0.62	0.70	0.62	56.1
9u	U	8	12.5	0.480	15.3	LOS B	3.4	25.0	0.62	0.70	0.62	54.2
Approach		923	8.7	0.480	9.1	LOS A	3.4	25.0	0.61	0.67	0.61	58.2
West: St Andrews Road												
10	L2	471	0.7	0.454	6.6	LOS A	3.1	21.6	0.73	0.79	0.76	56.3
11	T1	42	15.0	0.383	7.4	LOS A	2.2	15.6	0.70	0.85	0.71	48.7
12	R2	269	0.4	0.383	12.3	LOS A	2.2	15.6	0.70	0.85	0.71	54.3
12u	U	2	0.0	0.383	14.7	LOS B	2.2	15.6	0.70	0.85	0.71	53.5
Approach		784	1.3	0.454	8.6	LOS A	3.1	21.6	0.72	0.81	0.74	55.1
All Vehicles		2817	5.8	0.490	8.5	LOS A	3.5	26.7	0.67	0.73	0.68	56.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street EX PM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	301	0.7	0.505	11.6	LOS A	4.1	29.0	0.89	0.98	1.04	53.6
2	T1	438	7.0	0.632	13.0	LOS A	6.8	50.2	0.96	1.03	1.23	56.1
3	R2	98	0.0	0.632	18.4	LOS B	6.8	50.2	0.96	1.04	1.24	50.8
3u	U	11	10.0	0.632	21.4	LOS B	6.8	50.2	0.96	1.04	1.24	55.1
Approach		847	4.0	0.632	13.2	LOS A	6.8	50.2	0.93	1.02	1.16	54.5
East: Bouddi Street												
4	L2	74	1.4	0.308	9.3	LOS A	1.7	11.8	0.86	0.92	0.88	49.1
5	T1	29	0.0	0.308	9.1	LOS A	1.7	11.8	0.86	0.92	0.88	48.3
6	R2	36	0.0	0.308	14.3	LOS A	1.7	11.8	0.86	0.92	0.88	50.5
6u	U	1	0.0	0.308	16.4	LOS B	1.7	11.8	0.86	0.92	0.88	47.2
Approach		140	0.8	0.308	10.6	LOS A	1.7	11.8	0.86	0.92	0.88	49.3
North: Campbeltown Road (north)												
7	L2	9	0.0	0.570	7.2	LOS A	4.3	32.0	0.64	0.67	0.67	51.9
8	T1	779	5.9	0.714	7.8	LOS A	7.8	55.8	0.66	0.70	0.71	59.6
9	R2	716	1.9	0.714	13.7	LOS A	7.8	55.8	0.73	0.78	0.82	55.1
9u	U	3	0.0	0.714	16.3	LOS B	7.8	55.8	0.73	0.78	0.82	53.4
Approach		1507	4.0	0.714	10.6	LOS A	7.8	55.8	0.69	0.74	0.76	57.3
West: St Andrews Road												
10	L2	247	0.0	0.237	5.6	LOS A	1.4	9.9	0.64	0.66	0.64	56.7
11	T1	52	4.1	0.245	6.2	LOS A	1.4	9.8	0.65	0.75	0.65	49.4
12	R2	159	1.3	0.245	11.6	LOS A	1.4	9.8	0.65	0.75	0.65	54.8
12u	U	1	0.0	0.245	13.9	LOS A	1.4	9.8	0.65	0.75	0.65	54.3
Approach		459	0.9	0.245	7.8	LOS A	1.4	9.9	0.65	0.70	0.65	55.1
All Vehicles		2954	3.3	0.714	10.9	LOS A	7.8	55.8	0.76	0.82	0.86	55.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street EX SAT+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	273	0.8	0.258	6.5	LOS A	1.4	9.8	0.52	0.65	0.52	57.2
2	T1	239	3.1	0.261	6.6	LOS A	1.5	10.5	0.51	0.62	0.51	60.5
3	R2	71	1.5	0.261	12.1	LOS A	1.5	10.5	0.51	0.62	0.51	54.3
3u	U	7	0.0	0.261	14.7	LOS B	1.5	10.5	0.51	0.62	0.51	62.2
Approach		589	1.8	0.261	7.3	LOS A	1.5	10.5	0.52	0.63	0.52	58.2
East: Bouddi Street												
4	L2	68	1.5	0.178	5.2	LOS A	0.8	5.6	0.61	0.74	0.61	51.3
5	T1	21	0.0	0.178	5.0	LOS A	0.8	5.6	0.61	0.74	0.61	50.5
6	R2	54	0.0	0.178	10.2	LOS A	0.8	5.6	0.61	0.74	0.61	52.8
6u	U	1	0.0	0.178	12.3	LOS A	0.8	5.6	0.61	0.74	0.61	49.2
Approach		144	0.7	0.178	7.1	LOS A	0.8	5.6	0.61	0.74	0.61	51.7
North: Campbeltown Road (north)												
7	L2	8	0.0	0.269	5.9	LOS A	1.4	10.0	0.43	0.54	0.43	53.0
8	T1	406	2.6	0.336	6.2	LOS A	1.9	13.7	0.43	0.57	0.43	61.1
9	R2	329	1.0	0.336	11.6	LOS A	1.9	13.7	0.43	0.66	0.43	56.5
9u	U	2	0.0	0.336	14.2	LOS A	1.9	13.7	0.43	0.66	0.43	54.7
Approach		746	1.8	0.336	8.6	LOS A	1.9	13.7	0.43	0.61	0.43	58.8
West: St Andrews Road												
10	L2	336	0.0	0.270	5.1	LOS A	1.6	10.9	0.50	0.59	0.50	57.3
11	T1	44	2.4	0.185	5.4	LOS A	0.9	6.7	0.49	0.67	0.49	49.9
12	R2	137	2.3	0.185	10.9	LOS A	0.9	6.7	0.49	0.67	0.49	55.2
12u	U	1	0.0	0.185	13.2	LOS A	0.9	6.7	0.49	0.67	0.49	54.9
Approach		518	0.8	0.270	6.7	LOS A	1.6	10.9	0.50	0.62	0.50	56.0
All Vehicles		1998	1.5	0.336	7.6	LOS A	1.9	13.7	0.49	0.63	0.49	57.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street 2038 AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	286	2.0	0.431	7.4	LOS A	2.8	20.5	0.69	0.73	0.69	56.2
2	T1	623	12.1	0.539	8.1	LOS A	4.4	33.8	0.73	0.73	0.77	59.5
3	R2	45	2.3	0.539	13.4	LOS A	4.4	33.8	0.74	0.73	0.79	53.6
3u	U	7	42.9	0.539	17.3	LOS B	4.4	33.8	0.74	0.73	0.79	51.0
Approach		962	8.9	0.539	8.2	LOS A	4.4	33.8	0.72	0.73	0.75	58.1
East: Bouddi Street												
4	L2	84	0.0	0.404	10.3	LOS A	2.5	17.3	0.87	0.97	1.00	48.5
5	T1	60	0.0	0.404	10.1	LOS A	2.5	17.3	0.87	0.97	1.00	47.7
6	R2	57	0.0	0.404	15.4	LOS B	2.5	17.3	0.87	0.97	1.00	49.7
6u	U	1	0.0	0.404	17.4	LOS B	2.5	17.3	0.87	0.97	1.00	46.6
Approach		202	0.0	0.404	11.7	LOS A	2.5	17.3	0.87	0.97	1.00	48.6
North: Campbeltown Road (north)												
7	L2	1	0.0	0.491	9.2	LOS A	3.7	28.5	0.81	0.88	0.89	51.2
8	T1	576	12.2	0.614	10.1	LOS A	6.1	45.7	0.84	0.90	0.95	57.9
9	R2	341	4.5	0.614	15.7	LOS B	6.1	45.7	0.88	0.94	1.04	54.1
9u	U	8	12.5	0.614	18.6	LOS B	6.1	45.7	0.88	0.94	1.04	52.5
Approach		926	9.4	0.614	12.2	LOS A	6.1	45.7	0.85	0.91	0.99	56.4
West: St Andrews Road												
10	L2	744	0.8	0.758	10.9	LOS A	8.6	60.9	0.92	1.10	1.31	53.3
11	T1	42	15.0	0.698	11.6	LOS A	6.4	45.6	0.88	1.08	1.21	46.3
12	R2	501	0.4	0.698	16.5	LOS B	6.4	45.6	0.88	1.08	1.21	51.3
12u	U	2	0.0	0.698	18.8	LOS B	6.4	45.6	0.88	1.08	1.21	50.6
Approach		1289	1.1	0.758	13.1	LOS A	8.6	60.9	0.90	1.09	1.27	52.2
All Vehicles		3380	5.5	0.758	11.4	LOS A	8.6	60.9	0.83	0.93	1.03	54.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street 2038 PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	294	1.0	0.869	38.0	LOS C	13.2	94.4	1.00	1.36	2.10	38.7
2	T1	596	7.0	1.088	114.4	LOS F	55.4	407.4	1.00	2.47	5.13	22.4
3	R2	98	0.0	1.088	133.5	LOS F	55.4	407.4	1.00	2.67	5.68	19.9
3u	U	11	10.0	1.088	136.5	LOS F	55.4	407.4	1.00	2.67	5.68	20.6
Approach		998	4.6	1.088	94.0	LOS F	55.4	407.4	1.00	2.17	4.30	25.1
East: Bouddi Street												
4	L2	74	1.4	0.507	20.8	LOS B	3.4	23.8	0.97	1.09	1.25	42.7
5	T1	29	0.0	0.507	20.5	LOS B	3.4	23.8	0.97	1.09	1.25	42.1
6	R2	36	0.0	0.507	25.8	LOS B	3.4	23.8	0.97	1.09	1.25	43.7
6u	U	1	0.0	0.507	27.8	LOS B	3.4	23.8	0.97	1.09	1.25	41.2
Approach		140	0.8	0.507	22.1	LOS B	3.4	23.8	0.97	1.09	1.25	42.8
North: Campbeltown Road (north)												
7	L2	9	0.0	0.734	10.7	LOS A	8.4	61.9	0.85	0.92	1.08	50.6
8	T1	857	5.9	0.918	12.5	LOS A	21.9	157.0	0.88	0.97	1.21	56.7
9	R2	899	2.2	0.918	23.1	LOS B	21.9	157.0	1.00	1.15	1.70	48.6
9u	U	3	0.0	0.918	25.6	LOS B	21.9	157.0	1.00	1.15	1.70	47.4
Approach		1768	4.0	0.918	17.9	LOS B	21.9	157.0	0.94	1.06	1.46	52.2
West: St Andrews Road												
10	L2	163	0.0	0.222	6.5	LOS A	1.2	8.2	0.68	0.77	0.68	56.5
11	T1	52	4.1	0.336	6.1	LOS A	2.1	14.9	0.72	0.79	0.72	48.9
12	R2	267	1.3	0.336	11.5	LOS A	2.1	14.9	0.72	0.79	0.72	54.2
12u	U	1	0.0	0.336	13.8	LOS A	2.1	14.9	0.72	0.79	0.72	53.7
Approach		483	1.2	0.336	9.2	LOS A	2.1	14.9	0.71	0.79	0.71	54.3
All Vehicles		3389	3.6	1.088	39.2	LOS C	55.4	407.4	0.93	1.35	2.18	39.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street 2038 SAT]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	163	2.0	0.437	13.2	LOS A	3.3	24.3	0.93	1.00	1.05	52.3
2	T1	325	12.1	0.548	14.5	LOS A	5.3	40.7	0.99	1.05	1.19	54.8
3	R2	71	2.3	0.548	19.8	LOS B	5.3	40.7	1.00	1.06	1.23	49.8
3u	U	7	42.9	0.548	24.2	LOS B	5.3	40.7	1.00	1.06	1.23	47.5
Approach		566	8.4	0.548	14.9	LOS B	5.3	40.7	0.97	1.04	1.15	53.3
East: Bouddi Street												
4	L2	8	0.0	0.929	23.4	LOS B	15.9	111.0	0.99	1.61	2.51	41.4
5	T1	447	0.0	0.929	23.2	LOS B	15.9	111.0	0.99	1.61	2.51	40.9
6	R2	246	0.0	0.929	28.5	LOS B	15.9	111.0	0.99	1.61	2.51	42.3
6u	U	1	0.0	0.929	30.5	LOS C	15.9	111.0	0.99	1.61	2.51	40.0
Approach		703	0.0	0.929	25.1	LOS B	15.9	111.0	0.99	1.61	2.51	41.4
North: Campbeltown Road (north)												
7	L2	8	0.0	0.292	6.4	LOS A	1.6	12.3	0.53	0.60	0.53	52.5
8	T1	447	12.2	0.366	6.9	LOS A	2.3	16.9	0.54	0.63	0.54	59.9
9	R2	246	4.5	0.366	12.2	LOS A	2.3	16.9	0.55	0.67	0.55	56.4
9u	U	8	12.5	0.366	15.0	LOS B	2.3	16.9	0.55	0.67	0.55	54.6
Approach		711	9.4	0.366	8.8	LOS A	2.3	16.9	0.54	0.64	0.54	58.5
West: St Andrews Road												
10	L2	202	0.8	0.242	6.4	LOS A	1.3	9.1	0.65	0.74	0.65	56.6
11	T1	44	15.0	0.271	6.2	LOS A	1.6	11.3	0.65	0.77	0.65	49.0
12	R2	229	0.4	0.271	11.4	LOS A	1.6	11.3	0.65	0.77	0.65	54.6
12u	U	2	0.0	0.271	13.7	LOS A	1.6	11.3	0.65	0.77	0.65	53.9
Approach		478	1.9	0.271	8.8	LOS A	1.6	11.3	0.65	0.75	0.65	54.8
All Vehicles		2458	5.0	0.929	14.9	LOS B	15.9	111.0	0.79	1.03	1.27	50.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street 2038 AM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	439	2.0	0.589	10.7	LOS A	5.3	38.0	0.87	0.96	1.05	54.3
2	T1	623	12.1	0.738	13.2	LOS A	9.4	72.2	0.97	1.06	1.32	56.3
3	R2	45	2.3	0.738	18.5	LOS B	9.4	72.2	0.97	1.06	1.32	51.2
3u	U	7	42.9	0.738	22.7	LOS B	9.4	72.2	0.97	1.06	1.32	48.8
Approach		1115	8.0	0.738	12.5	LOS A	9.4	72.2	0.93	1.02	1.21	55.2
East: Bouddi Street												
4	L2	84	0.0	0.477	13.3	LOS A	3.1	22.0	0.92	1.04	1.14	46.6
5	T1	60	0.0	0.477	13.2	LOS A	3.1	22.0	0.92	1.04	1.14	45.9
6	R2	57	0.0	0.477	18.4	LOS B	3.1	22.0	0.92	1.04	1.14	47.8
6u	U	1	0.0	0.477	20.5	LOS B	3.1	22.0	0.92	1.04	1.14	44.9
Approach		202	0.0	0.477	14.8	LOS B	3.1	22.0	0.92	1.04	1.14	46.7
North: Campbeltown Road (north)												
7	L2	1	0.0	0.584	10.4	LOS A	5.1	39.3	0.87	0.96	1.04	50.6
8	T1	576	12.2	0.731	11.6	LOS A	9.2	67.9	0.90	0.98	1.11	57.1
9	R2	494	4.5	0.731	17.9	LOS B	9.2	67.9	0.97	1.04	1.28	52.2
9u	U	8	12.5	0.731	20.8	LOS B	9.2	67.9	0.97	1.04	1.28	50.6
Approach		1079	8.7	0.731	14.5	LOS B	9.2	67.9	0.93	1.01	1.19	54.7
West: St Andrews Road												
10	L2	815	0.8	0.964	34.9	LOS C	27.2	191.8	1.00	1.75	2.85	39.5
11	T1	42	15.0	0.817	18.2	LOS B	10.6	75.3	1.00	1.25	1.64	42.9
12	R2	501	0.4	0.817	23.0	LOS B	10.6	75.3	1.00	1.25	1.64	47.2
12u	U	2	0.0	0.817	25.4	LOS B	10.6	75.3	1.00	1.25	1.64	46.6
Approach		1360	1.1	0.964	30.0	LOS C	27.2	191.8	1.00	1.55	2.36	42.2
All Vehicles		3756	5.3	0.964	19.5	LOS B	27.2	191.8	0.96	1.21	1.62	49.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street 2038 PM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	393	1.0	1.135	175.1	LOS F	49.3	349.3	1.00	2.59	5.90	15.8
2	T1	596	7.0	1.421	397.5	LOS F	144.2	1061.2	1.00	4.64	11.35	8.3
3	R2	98	0.0	1.421	414.5	LOS F	144.2	1061.2	1.00	4.75	11.63	8.0
3u	U	11	10.0	1.421	417.6	LOS F	144.2	1061.2	1.00	4.75	11.63	8.1
Approach		1097	4.3	1.421	319.6	LOS F	144.2	1061.2	1.00	3.92	9.42	9.9
East: Bouddi Street												
4	L2	74	1.4	0.569	27.3	LOS B	4.0	27.8	0.99	1.13	1.36	39.8
5	T1	29	0.0	0.569	27.0	LOS B	4.0	27.8	0.99	1.13	1.36	39.2
6	R2	36	0.0	0.569	32.3	LOS C	4.0	27.8	0.99	1.13	1.36	40.6
6u	U	1	0.0	0.569	34.3	LOS C	4.0	27.8	0.99	1.13	1.36	38.5
Approach		140	0.8	0.569	28.6	LOS C	4.0	27.8	0.99	1.13	1.36	39.9
North: Campbeltown Road (north)												
7	L2	9	0.0	0.757	10.8	LOS A	9.2	67.7	0.86	0.92	1.11	50.5
8	T1	857	5.9	0.947	12.8	LOS A	27.3	195.3	0.88	0.97	1.23	56.5
9	R2	999	2.2	0.947	26.2	LOS B	27.3	195.3	1.00	1.23	1.89	46.7
9u	U	3	0.0	0.947	28.7	LOS C	27.3	195.3	1.00	1.23	1.89	45.5
Approach		1868	3.9	0.947	20.0	LOS B	27.3	195.3	0.95	1.11	1.58	50.7
West: St Andrews Road												
10	L2	314	0.0	0.346	6.0	LOS A	2.1	14.6	0.67	0.71	0.67	56.6
11	T1	52	4.1	0.305	5.7	LOS A	1.9	13.5	0.65	0.74	0.65	49.1
12	R2	267	1.3	0.305	11.1	LOS A	1.9	13.5	0.65	0.74	0.65	54.5
12u	U	1	0.0	0.305	13.4	LOS A	1.9	13.5	0.65	0.74	0.65	53.9
Approach		634	0.9	0.346	8.1	LOS A	2.1	14.6	0.66	0.72	0.66	55.0
All Vehicles		3739	3.4	1.421	106.2	LOS F	144.2	1061.2	0.92	1.87	3.72	23.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street 2038 SAT+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	324	1.3	0.336	7.2	LOS A	2.0	14.1	0.62	0.71	0.62	56.8
2	T1	325	3.1	0.355	7.1	LOS A	2.3	16.3	0.62	0.65	0.62	60.0
3	R2	71	1.5	0.355	12.7	LOS A	2.3	16.3	0.62	0.65	0.62	54.0
3u	U	7	0.0	0.355	15.2	LOS B	2.3	16.3	0.62	0.65	0.62	61.7
Approach		727	2.1	0.355	7.8	LOS A	2.3	16.3	0.62	0.68	0.62	57.9
East: Bouddi Street												
4	L2	68	1.5	0.206	6.1	LOS A	1.0	6.9	0.70	0.82	0.70	50.8
5	T1	21	0.0	0.206	5.9	LOS A	1.0	6.9	0.70	0.82	0.70	49.9
6	R2	54	0.0	0.206	11.1	LOS A	1.0	6.9	0.70	0.82	0.70	52.2
6u	U	1	0.0	0.206	13.1	LOS A	1.0	6.9	0.70	0.82	0.70	48.7
Approach		144	0.7	0.206	8.0	LOS A	1.0	6.9	0.70	0.82	0.70	51.1
North: Campbeltown Road (north)												
7	L2	8	0.0	0.337	6.5	LOS A	1.9	13.8	0.54	0.59	0.54	52.4
8	T1	447	2.6	0.422	6.8	LOS A	2.7	19.6	0.54	0.62	0.54	60.5
9	R2	407	1.9	0.422	12.2	LOS A	2.7	19.6	0.56	0.70	0.56	55.8
9u	U	2	0.0	0.422	14.8	LOS B	2.7	19.6	0.56	0.70	0.56	54.1
Approach		865	2.2	0.422	9.3	LOS A	2.7	19.6	0.55	0.66	0.55	58.0
West: St Andrews Road												
10	L2	418	0.0	0.362	5.7	LOS A	2.4	16.5	0.62	0.66	0.62	56.8
11	T1	44	2.4	0.293	6.0	LOS A	1.7	12.0	0.60	0.74	0.60	49.3
12	R2	229	2.3	0.293	11.5	LOS A	1.7	12.0	0.60	0.74	0.60	54.5
12u	U	1	0.0	0.293	13.8	LOS A	1.7	12.0	0.60	0.74	0.60	54.1
Approach		693	0.9	0.362	7.6	LOS A	2.4	16.5	0.61	0.69	0.61	55.4
All Vehicles		2429	1.7	0.422	8.3	LOS A	2.7	19.6	0.60	0.68	0.60	56.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Campbeltown Road-St Andrews Road-Bouddi Street 2038 PM+Holiday Dev - Reduced Growth]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Campbeltown Road (south)												
1	L2	301	1.0	0.624	14.0	LOS A	6.0	42.9	0.95	1.08	1.24	51.8
2	T1	596	7.0	0.781	17.6	LOS B	11.3	83.4	0.99	1.17	1.53	52.7
3	R2	98	0.0	0.781	23.5	LOS B	11.3	83.4	1.00	1.19	1.58	47.7
3u	U	11	10.0	0.781	26.5	LOS B	11.3	83.4	1.00	1.19	1.58	51.4
Approach		1005	4.5	0.781	17.2	LOS B	11.3	83.4	0.98	1.14	1.45	51.9
East: Bouddi Street												
4	L2	74	1.4	0.358	11.4	LOS A	2.1	14.7	0.90	0.97	0.99	47.8
5	T1	29	0.0	0.358	11.2	LOS A	2.1	14.7	0.90	0.97	0.99	47.1
6	R2	36	0.0	0.358	16.4	LOS B	2.1	14.7	0.90	0.97	0.99	49.1
6u	U	1	0.0	0.358	18.4	LOS B	2.1	14.7	0.90	0.97	0.99	46.0
Approach		140	0.8	0.358	12.7	LOS A	2.1	14.7	0.90	0.97	0.99	48.0
North: Campbeltown Road (north)												
7	L2	9	0.0	0.623	8.1	LOS A	5.5	40.2	0.72	0.76	0.80	51.6
8	T1	857	5.9	0.779	8.9	LOS A	10.5	75.3	0.75	0.79	0.86	58.9
9	R2	716	2.2	0.779	15.3	LOS B	10.5	75.3	0.84	0.86	1.02	54.1
9u	U	3	0.0	0.779	17.9	LOS B	10.5	75.3	0.84	0.86	1.02	52.5
Approach		1585	4.2	0.779	11.8	LOS A	10.5	75.3	0.79	0.82	0.93	56.5
West: St Andrews Road												
10	L2	216	0.0	0.282	6.7	LOS A	1.6	11.3	0.72	0.78	0.72	56.3
11	T1	52	4.1	0.270	6.2	LOS A	1.7	11.8	0.72	0.78	0.72	49.1
12	R2	197	1.3	0.270	11.6	LOS A	1.7	11.8	0.72	0.78	0.72	54.4
12u	U	1	0.0	0.270	13.9	LOS A	1.7	11.8	0.72	0.78	0.72	53.9
Approach		465	1.0	0.282	8.7	LOS A	1.7	11.8	0.72	0.78	0.72	54.6
All Vehicles		3196	3.7	0.781	13.1	LOS A	11.3	83.4	0.84	0.93	1.07	54.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive EX AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	23	13.6	0.111	8.2	LOS A	0.6	4.6	0.58	0.65	0.58	54.9
22	T1	298	8.5	0.311	7.5	LOS A	2.2	16.1	0.61	0.67	0.61	56.9
23	R2	116	0.9	0.311	11.7	LOS A	2.2	16.1	0.62	0.68	0.62	55.7
23u	U	5	20.0	0.311	14.4	LOS A	2.2	16.1	0.62	0.68	0.62	54.2
Approach		442	6.9	0.311	8.7	LOS A	2.2	16.1	0.61	0.67	0.61	56.5
NorthEast: Thunderbolt Drive												
24	L2	185	4.0	0.689	13.4	LOS A	6.9	49.6	0.91	1.09	1.25	49.1
25	T1	106	2.0	0.689	13.5	LOS A	6.9	49.6	0.91	1.09	1.25	48.6
26	R2	172	1.2	0.689	18.0	LOS B	6.9	49.6	0.91	1.09	1.25	50.4
26u	U	2	0.0	0.689	20.0	LOS B	6.9	49.6	0.91	1.09	1.25	49.4
Approach		465	2.5	0.689	15.2	LOS B	6.9	49.6	0.91	1.09	1.25	49.5
NorthWest: Raby Road (north west)												
27	L2	107	1.0	0.602	8.0	LOS A	5.6	40.2	0.73	0.75	0.78	54.4
28	T1	434	5.1	0.602	8.6	LOS A	5.6	40.2	0.73	0.75	0.78	57.5
29	R2	104	1.0	0.602	13.0	LOS A	5.6	40.2	0.73	0.75	0.78	55.7
29u	U	1	0.0	0.602	15.2	LOS B	5.6	40.2	0.73	0.75	0.78	59.4
Approach		646	3.7	0.602	9.2	LOS A	5.6	40.2	0.73	0.75	0.78	56.7
SouthWest: Epping Forest Drive												
30	L2	71	3.0	0.363	7.3	LOS A	1.9	13.3	0.65	0.80	0.65	53.6
31	T1	119	1.8	0.363	7.5	LOS A	1.9	13.3	0.65	0.80	0.65	52.9
32	R2	79	4.0	0.363	12.1	LOS A	1.9	13.3	0.65	0.80	0.65	54.3
32u	U	1	0.0	0.363	14.0	LOS A	1.9	13.3	0.65	0.80	0.65	53.8
Approach		269	2.7	0.363	8.9	LOS A	1.9	13.3	0.65	0.80	0.65	53.5
All Vehicles		1823	4.0	0.689	10.6	LOS A	6.9	49.6	0.74	0.83	0.84	54.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive EX PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	59	7.1	0.108	7.1	LOS A	0.6	4.3	0.49	0.60	0.49	55.9
22	T1	342	3.4	0.303	6.6	LOS A	2.1	15.0	0.51	0.60	0.51	58.9
23	R2	84	1.3	0.303	11.1	LOS A	2.1	15.0	0.51	0.60	0.51	56.5
23u	U	2	0.0	0.303	13.3	LOS A	2.1	15.0	0.51	0.60	0.51	60.3
Approach		487	3.5	0.303	7.5	LOS A	2.1	15.0	0.51	0.60	0.51	58.1
NorthEast: Thunderbolt Drive												
24	L2	79	5.3	0.415	7.9	LOS A	2.6	18.3	0.71	0.83	0.73	52.5
25	T1	112	0.0	0.415	8.0	LOS A	2.6	18.3	0.71	0.83	0.73	52.3
26	R2	117	3.6	0.415	12.6	LOS A	2.6	18.3	0.71	0.83	0.73	53.8
26u	U	2	0.0	0.415	14.5	LOS B	2.6	18.3	0.71	0.83	0.73	53.2
Approach		309	2.7	0.415	9.7	LOS A	2.6	18.3	0.71	0.83	0.73	52.9
NorthWest: Raby Road (north west)												
27	L2	189	2.2	0.561	6.4	LOS A	4.7	33.9	0.57	0.60	0.57	55.6
28	T1	476	3.3	0.561	6.9	LOS A	4.7	33.9	0.57	0.60	0.57	59.3
29	R2	29	14.3	0.561	11.7	LOS A	4.7	33.9	0.57	0.60	0.57	56.4
29u	U	1	0.0	0.561	13.6	LOS A	4.7	33.9	0.57	0.60	0.57	60.9
Approach		696	3.5	0.561	6.9	LOS A	4.7	33.9	0.57	0.60	0.57	58.1
SouthWest: Epping Forest Drive												
30	L2	29	3.6	0.174	6.7	LOS A	0.8	5.7	0.56	0.71	0.56	54.2
31	T1	73	0.0	0.174	6.8	LOS A	0.8	5.7	0.56	0.71	0.56	53.5
32	R2	31	6.9	0.174	11.6	LOS A	0.8	5.7	0.56	0.71	0.56	54.2
32u	U	1	0.0	0.174	13.4	LOS A	0.8	5.7	0.56	0.71	0.56	54.4
Approach		134	2.4	0.174	7.9	LOS A	0.8	5.7	0.56	0.71	0.56	53.8
All Vehicles		1626	3.2	0.561	7.7	LOS A	4.7	33.9	0.58	0.65	0.58	56.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive EX SAT]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	26	8.0	0.025	6.2	LOS A	0.1	0.9	0.36	0.54	0.36	56.6
22	T1	56	5.7	0.043	6.0	LOS A	0.2	1.7	0.34	0.50	0.34	59.5
23	R2	2	0.0	0.043	10.5	LOS A	0.2	1.7	0.34	0.50	0.34	57.8
23u	U	2	0.0	0.043	12.7	LOS A	0.2	1.7	0.34	0.50	0.34	61.7
Approach		86	6.1	0.043	6.3	LOS A	0.2	1.7	0.34	0.51	0.34	58.6
NorthEast: Thunderbolt Drive												
24	L2	76	1.4	0.234	6.2	LOS A	1.2	8.1	0.52	0.69	0.52	54.6
25	T1	52	0.0	0.234	6.4	LOS A	1.2	8.1	0.52	0.69	0.52	53.5
26	R2	78	0.0	0.234	10.9	LOS A	1.2	8.1	0.52	0.69	0.52	55.9
26u	U	1	0.0	0.234	13.0	LOS A	1.2	8.1	0.52	0.69	0.52	54.4
Approach		206	0.5	0.234	8.1	LOS A	1.2	8.1	0.52	0.69	0.52	54.8
NorthWest: Raby Road (north west)												
27	L2	71	1.5	0.316	5.3	LOS A	2.0	14.6	0.29	0.51	0.29	56.6
28	T1	312	2.4	0.316	5.8	LOS A	2.0	14.6	0.29	0.51	0.29	60.6
29	R2	56	1.9	0.316	10.4	LOS A	2.0	14.6	0.29	0.51	0.29	57.9
29u	U	1	0.0	0.316	12.6	LOS A	2.0	14.6	0.29	0.51	0.29	62.0
Approach		439	2.2	0.316	6.3	LOS A	2.0	14.6	0.29	0.51	0.29	59.6
SouthWest: Epping Forest Drive												
30	L2	48	0.0	0.125	4.6	LOS A	0.5	3.9	0.29	0.53	0.29	56.3
31	T1	48	0.0	0.125	4.9	LOS A	0.5	3.9	0.29	0.53	0.29	54.8
32	R2	33	6.5	0.125	9.5	LOS A	0.5	3.9	0.29	0.53	0.29	55.7
32u	U	1	0.0	0.125	11.4	LOS A	0.5	3.9	0.29	0.53	0.29	55.8
Approach		131	1.6	0.125	6.0	LOS A	0.5	3.9	0.29	0.53	0.29	55.6
All Vehicles		862	2.1	0.316	6.7	LOS A	2.0	14.6	0.35	0.56	0.35	57.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive EX AM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	23	13.6	0.115	8.5	LOS A	0.6	4.8	0.61	0.67	0.61	54.8
22	T1	298	8.5	0.324	7.7	LOS A	2.3	17.3	0.65	0.69	0.65	56.7
23	R2	116	0.9	0.324	11.9	LOS A	2.3	17.3	0.66	0.69	0.66	55.5
23u	U	5	20.0	0.324	14.7	LOS B	2.3	17.3	0.66	0.69	0.66	54.0
Approach		442	6.9	0.324	8.9	LOS A	2.3	17.3	0.65	0.69	0.65	56.3
NorthEast: Thunderbolt Drive												
24	L2	185	4.0	0.765	15.9	LOS B	9.0	64.1	0.97	1.18	1.45	47.4
25	T1	106	2.0	0.765	16.0	LOS B	9.0	64.1	0.97	1.18	1.45	47.0
26	R2	212	1.0	0.765	20.5	LOS B	9.0	64.1	0.97	1.18	1.45	48.7
26u	U	2	0.0	0.765	22.5	LOS B	9.0	64.1	0.97	1.18	1.45	47.7
Approach		505	2.3	0.765	17.8	LOS B	9.0	64.1	0.97	1.18	1.45	47.8
NorthWest: Raby Road (north west)												
27	L2	238	0.4	0.716	9.7	LOS A	8.8	63.3	0.83	0.82	0.97	53.8
28	T1	434	5.1	0.716	10.3	LOS A	8.8	63.3	0.83	0.82	0.97	56.8
29	R2	104	1.0	0.716	14.7	LOS B	8.8	63.3	0.83	0.82	0.97	55.0
29u	U	1	0.0	0.716	16.9	LOS B	8.8	63.3	0.83	0.82	0.97	58.7
Approach		777	3.1	0.716	10.7	LOS A	8.8	63.3	0.83	0.82	0.97	55.6
SouthWest: Epping Forest Drive												
30	L2	71	3.0	0.376	7.7	LOS A	2.0	14.1	0.67	0.83	0.69	53.4
31	T1	119	1.8	0.376	7.9	LOS A	2.0	14.1	0.67	0.83	0.69	52.7
32	R2	79	4.0	0.376	12.5	LOS A	2.0	14.1	0.67	0.83	0.69	54.1
32u	U	1	0.0	0.376	14.4	LOS A	2.0	14.1	0.67	0.83	0.69	53.6
Approach		269	2.7	0.376	9.2	LOS A	2.0	14.1	0.67	0.83	0.69	53.3
All Vehicles		1994	3.7	0.765	11.9	LOS A	9.0	64.1	0.80	0.88	0.98	53.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive EX PM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	59	7.1	0.116	7.7	LOS A	0.6	4.7	0.56	0.65	0.56	55.6
22	T1	342	3.4	0.327	7.1	LOS A	2.4	16.9	0.60	0.65	0.60	58.5
23	R2	84	1.3	0.327	11.5	LOS A	2.4	16.9	0.60	0.65	0.60	56.1
23u	U	2	0.0	0.327	13.7	LOS A	2.4	16.9	0.60	0.65	0.60	59.9
Approach		487	3.5	0.327	7.9	LOS A	2.4	16.9	0.60	0.65	0.60	57.7
NorthEast: Thunderbolt Drive												
24	L2	79	5.3	0.532	9.3	LOS A	4.0	28.6	0.78	0.92	0.89	51.3
25	T1	112	0.0	0.532	9.3	LOS A	4.0	28.6	0.78	0.92	0.89	51.0
26	R2	202	2.1	0.532	13.9	LOS A	4.0	28.6	0.78	0.92	0.89	52.7
26u	U	2	0.0	0.532	15.9	LOS B	4.0	28.6	0.78	0.92	0.89	51.8
Approach		395	2.1	0.532	11.7	LOS A	4.0	28.6	0.78	0.92	0.89	51.9
NorthWest: Raby Road (north west)												
27	L2	275	1.5	0.626	6.5	LOS A	5.8	41.5	0.62	0.61	0.62	55.5
28	T1	476	3.3	0.626	7.0	LOS A	5.8	41.5	0.62	0.61	0.62	59.2
29	R2	29	14.3	0.626	11.9	LOS A	5.8	41.5	0.62	0.61	0.62	56.3
29u	U	1	0.0	0.626	13.7	LOS A	5.8	41.5	0.62	0.61	0.62	60.7
Approach		781	3.1	0.626	7.0	LOS A	5.8	41.5	0.62	0.61	0.62	57.7
SouthWest: Epping Forest Drive												
30	L2	29	3.6	0.185	7.2	LOS A	0.9	6.2	0.60	0.75	0.60	53.9
31	T1	73	0.0	0.185	7.4	LOS A	0.9	6.2	0.60	0.75	0.60	53.2
32	R2	31	6.9	0.185	12.1	LOS A	0.9	6.2	0.60	0.75	0.60	53.9
32u	U	1	0.0	0.185	13.9	LOS A	0.9	6.2	0.60	0.75	0.60	54.1
Approach		134	2.4	0.185	8.5	LOS A	0.9	6.2	0.60	0.75	0.60	53.5
All Vehicles		1797	2.9	0.626	8.4	LOS A	5.8	41.5	0.64	0.70	0.67	56.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive EX SAT+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	26	8.0	0.028	6.8	LOS A	0.1	1.1	0.47	0.57	0.47	56.2
22	T1	56	5.7	0.047	6.5	LOS A	0.3	1.9	0.45	0.54	0.45	58.9
23	R2	2	0.0	0.047	10.9	LOS A	0.3	1.9	0.45	0.54	0.45	57.2
23u	U	2	0.0	0.047	13.2	LOS A	0.3	1.9	0.45	0.54	0.45	61.1
Approach		86	6.1	0.047	6.8	LOS A	0.3	1.9	0.45	0.55	0.45	58.1
NorthEast: Thunderbolt Drive												
24	L2	76	1.4	0.373	6.5	LOS A	2.1	14.5	0.58	0.75	0.58	53.6
25	T1	52	0.0	0.373	6.7	LOS A	2.1	14.5	0.58	0.75	0.58	52.5
26	R2	200	0.0	0.373	11.2	LOS A	2.1	14.5	0.58	0.75	0.58	54.8
26u	U	1	0.0	0.373	13.3	LOS A	2.1	14.5	0.58	0.75	0.58	53.4
Approach		328	0.3	0.373	9.5	LOS A	2.1	14.5	0.58	0.75	0.58	54.2
NorthWest: Raby Road (north west)												
27	L2	208	0.5	0.409	5.4	LOS A	3.1	21.7	0.33	0.51	0.33	56.7
28	T1	312	2.4	0.409	5.9	LOS A	3.1	21.7	0.33	0.51	0.33	60.7
29	R2	56	1.9	0.409	10.4	LOS A	3.1	21.7	0.33	0.51	0.33	58.0
29u	U	1	0.0	0.409	12.6	LOS A	3.1	21.7	0.33	0.51	0.33	62.1
Approach		577	1.6	0.409	6.1	LOS A	3.1	21.7	0.33	0.51	0.33	58.9
SouthWest: Epping Forest Drive												
30	L2	48	0.0	0.138	5.2	LOS A	0.6	4.5	0.41	0.59	0.41	55.9
31	T1	48	0.0	0.138	5.5	LOS A	0.6	4.5	0.41	0.59	0.41	54.4
32	R2	33	6.5	0.138	10.1	LOS A	0.6	4.5	0.41	0.59	0.41	55.2
32u	U	1	0.0	0.138	12.1	LOS A	0.6	4.5	0.41	0.59	0.41	55.3
Approach		131	1.6	0.138	6.6	LOS A	0.6	4.5	0.41	0.59	0.41	55.1
All Vehicles		1122	1.6	0.409	7.2	LOS A	3.1	21.7	0.42	0.59	0.42	56.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive 2038 AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	23	13.6	0.149	8.3	LOS A	0.8	6.2	0.60	0.67	0.60	54.8
22	T1	453	5.6	0.419	7.6	LOS A	3.2	23.6	0.66	0.68	0.66	57.6
23	R2	116	0.9	0.419	11.9	LOS A	3.2	23.6	0.68	0.68	0.68	55.7
23u	U	5	20.0	0.419	14.7	LOS B	3.2	23.6	0.68	0.68	0.68	54.2
Approach		597	5.1	0.419	8.5	LOS A	3.2	23.6	0.66	0.68	0.66	57.1
NorthEast: Thunderbolt Drive												
24	L2	185	4.0	0.805	20.9	LOS B	10.2	73.1	1.00	1.26	1.69	44.6
25	T1	106	2.0	0.805	21.1	LOS B	10.2	73.1	1.00	1.26	1.69	44.3
26	R2	172	1.2	0.805	25.6	LOS B	10.2	73.1	1.00	1.26	1.69	45.7
26u	U	2	0.0	0.805	27.5	LOS B	10.2	73.1	1.00	1.26	1.69	44.9
Approach		465	2.5	0.805	22.7	LOS B	10.2	73.1	1.00	1.26	1.69	44.9
NorthWest: Raby Road (north west)												
27	L2	107	1.0	0.703	9.4	LOS A	8.4	60.1	0.82	0.81	0.95	53.9
28	T1	546	4.0	0.703	10.0	LOS A	8.4	60.1	0.82	0.81	0.95	57.1
29	R2	104	1.0	0.703	14.5	LOS A	8.4	60.1	0.82	0.81	0.95	55.1
29u	U	1	0.0	0.703	16.7	LOS B	8.4	60.1	0.82	0.81	0.95	58.7
Approach		759	3.2	0.703	10.6	LOS A	8.4	60.1	0.82	0.81	0.95	56.3
SouthWest: Epping Forest Drive												
30	L2	71	3.0	0.410	8.7	LOS A	2.3	16.5	0.73	0.89	0.79	52.7
31	T1	119	1.8	0.410	8.9	LOS A	2.3	16.5	0.73	0.89	0.79	52.0
32	R2	79	4.0	0.410	13.5	LOS A	2.3	16.5	0.73	0.89	0.79	53.4
32u	U	1	0.0	0.410	15.4	LOS B	2.3	16.5	0.73	0.89	0.79	52.9
Approach		269	2.7	0.410	10.3	LOS A	2.3	16.5	0.73	0.89	0.79	52.6
All Vehicles		2091	3.5	0.805	12.6	LOS A	10.2	73.1	0.80	0.88	1.01	53.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive 2038 PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	59	7.1	0.148	7.2	LOS A	0.8	6.0	0.51	0.61	0.51	55.7
22	T1	527	2.2	0.415	6.7	LOS A	3.2	23.0	0.56	0.61	0.56	59.1
23	R2	84	1.3	0.415	11.2	LOS A	3.2	23.0	0.57	0.61	0.57	56.4
23u	U	2	50.0	0.415	14.7	LOS B	3.2	23.0	0.57	0.61	0.57	48.4
Approach		673	2.7	0.415	7.4	LOS A	3.2	23.0	0.56	0.61	0.56	58.4
NorthEast: Thunderbolt Drive												
24	L2	79	5.3	0.460	9.4	LOS A	3.2	22.7	0.79	0.92	0.87	51.5
25	T1	112	0.0	0.460	9.5	LOS A	3.2	22.7	0.79	0.92	0.87	51.3
26	R2	117	3.6	0.460	14.1	LOS A	3.2	22.7	0.79	0.92	0.87	52.7
26u	U	2	0.0	0.460	16.0	LOS B	3.2	22.7	0.79	0.92	0.87	52.1
Approach		309	2.7	0.460	11.3	LOS A	3.2	22.7	0.79	0.92	0.87	51.9
NorthWest: Raby Road (north west)												
27	L2	189	2.2	0.634	6.6	LOS A	5.9	42.7	0.63	0.61	0.63	55.3
28	T1	571	2.8	0.634	7.0	LOS A	5.9	42.7	0.63	0.61	0.63	59.1
29	R2	29	14.3	0.634	11.9	LOS A	5.9	42.7	0.63	0.61	0.63	56.1
29u	U	1	0.0	0.634	13.8	LOS A	5.9	42.7	0.63	0.61	0.63	60.5
Approach		791	3.1	0.634	7.1	LOS A	5.9	42.7	0.63	0.61	0.63	58.0
SouthWest: Epping Forest Drive												
30	L2	29	3.6	0.198	7.7	LOS A	0.9	6.7	0.64	0.79	0.64	53.6
31	T1	73	0.0	0.198	7.8	LOS A	0.9	6.7	0.64	0.79	0.64	53.0
32	R2	31	6.9	0.198	12.6	LOS A	0.9	6.7	0.64	0.79	0.64	53.7
32u	U	1	0.0	0.198	14.4	LOS A	0.9	6.7	0.64	0.79	0.64	53.9
Approach		134	2.4	0.198	8.9	LOS A	0.9	6.7	0.64	0.79	0.64	53.3
All Vehicles		1906	2.8	0.634	8.0	LOS A	5.9	42.7	0.63	0.67	0.64	56.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive 2038 SAT]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	26	13.6	0.029	6.5	LOS A	0.1	1.1	0.38	0.55	0.38	56.3
22	T1	86	5.6	0.069	6.0	LOS A	0.4	2.7	0.34	0.51	0.34	59.5
23	R2	2	0.9	0.069	10.5	LOS A	0.4	2.7	0.34	0.51	0.34	57.7
23u	U	5	20.0	0.069	13.1	LOS A	0.4	2.7	0.34	0.51	0.34	56.0
Approach		120	7.9	0.069	6.5	LOS A	0.4	2.7	0.35	0.52	0.35	58.6
NorthEast: Thunderbolt Drive												
24	L2	78	4.0	0.253	6.8	LOS A	1.3	9.1	0.57	0.73	0.57	53.7
25	T1	52	2.0	0.253	6.9	LOS A	1.3	9.1	0.57	0.73	0.57	53.1
26	R2	76	1.2	0.253	11.4	LOS A	1.3	9.1	0.57	0.73	0.57	55.2
26u	U	2	0.0	0.253	13.5	LOS A	1.3	9.1	0.57	0.73	0.57	54.0
Approach		207	2.4	0.253	8.6	LOS A	1.3	9.1	0.57	0.73	0.57	54.1
NorthWest: Raby Road (north west)												
27	L2	71	1.0	0.363	5.4	LOS A	2.5	17.9	0.31	0.51	0.31	56.5
28	T1	374	4.0	0.363	5.9	LOS A	2.5	17.9	0.31	0.51	0.31	60.0
29	R2	56	1.0	0.363	10.4	LOS A	2.5	17.9	0.31	0.51	0.31	57.9
29u	U	1	0.0	0.363	12.6	LOS A	2.5	17.9	0.31	0.51	0.31	61.9
Approach		501	3.3	0.363	6.3	LOS A	2.5	17.9	0.31	0.51	0.31	59.3
SouthWest: Epping Forest Drive												
30	L2	48	3.0	0.129	4.8	LOS A	0.6	4.0	0.32	0.55	0.32	55.5
31	T1	48	1.8	0.129	5.1	LOS A	0.6	4.0	0.32	0.55	0.32	54.6
32	R2	33	4.0	0.129	9.6	LOS A	0.6	4.0	0.32	0.55	0.32	56.2
32u	U	1	0.0	0.129	11.6	LOS A	0.6	4.0	0.32	0.55	0.32	55.6
Approach		131	2.8	0.129	6.2	LOS A	0.6	4.0	0.32	0.55	0.32	55.3
All Vehicles		959	3.6	0.363	6.8	LOS A	2.5	17.9	0.38	0.56	0.38	57.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive 2038 AM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	23	13.6	0.156	8.6	LOS A	0.9	6.7	0.63	0.69	0.63	54.7
22	T1	453	8.0	0.439	7.9	LOS A	3.5	25.7	0.70	0.70	0.70	56.8
23	R2	116	0.9	0.439	12.1	LOS A	3.5	25.7	0.72	0.71	0.72	55.5
23u	U	5	20.0	0.439	15.0	LOS B	3.5	25.7	0.72	0.71	0.72	54.0
Approach		597	6.9	0.439	8.8	LOS A	3.5	25.7	0.71	0.70	0.71	56.4
NorthEast: Thunderbolt Drive												
24	L2	185	4.0	0.905	31.8	LOS C	15.8	113.0	1.00	1.47	2.24	39.4
25	T1	106	2.0	0.905	32.0	LOS C	15.8	113.0	1.00	1.47	2.24	39.1
26	R2	212	1.2	0.905	36.4	LOS C	15.8	113.0	1.00	1.47	2.24	40.2
26u	U	2	0.0	0.905	38.4	LOS C	15.8	113.0	1.00	1.47	2.24	39.6
Approach		505	2.4	0.905	33.8	LOS C	15.8	113.0	1.00	1.47	2.24	39.7
NorthWest: Raby Road (north west)												
27	L2	238	1.0	0.816	12.3	LOS A	13.7	98.0	0.95	0.93	1.24	51.9
28	T1	546	4.0	0.816	12.9	LOS A	13.7	98.0	0.95	0.93	1.24	54.9
29	R2	104	1.0	0.816	17.3	LOS B	13.7	98.0	0.95	0.93	1.24	53.0
29u	U	1	0.0	0.816	19.5	LOS B	13.7	98.0	0.95	0.93	1.24	56.4
Approach		889	2.9	0.816	13.2	LOS A	13.7	98.0	0.95	0.93	1.24	53.8
SouthWest: Epping Forest Drive												
30	L2	71	3.0	0.426	9.3	LOS A	2.5	17.7	0.75	0.91	0.84	52.4
31	T1	119	1.8	0.426	9.5	LOS A	2.5	17.7	0.75	0.91	0.84	51.6
32	R2	79	4.0	0.426	14.1	LOS A	2.5	17.7	0.75	0.91	0.84	53.0
32u	U	1	0.0	0.426	15.9	LOS B	2.5	17.7	0.75	0.91	0.84	52.5
Approach		269	2.7	0.426	10.8	LOS A	2.5	17.7	0.75	0.91	0.84	52.2
All Vehicles		2261	3.8	0.905	16.4	LOS B	15.8	113.0	0.87	0.99	1.27	50.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive 2038 PM+Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	59	7.1	0.162	7.8	LOS A	0.9	6.8	0.58	0.66	0.58	55.4
22	T1	527	3.4	0.454	7.3	LOS A	3.7	26.5	0.67	0.66	0.67	58.3
23	R2	84	1.3	0.454	11.7	LOS A	3.7	26.5	0.68	0.66	0.68	55.9
23u	U	2	0.0	0.454	13.9	LOS A	3.7	26.5	0.68	0.66	0.68	59.6
Approach		673	3.4	0.454	7.9	LOS A	3.7	26.5	0.66	0.66	0.66	57.7
NorthEast: Thunderbolt Drive												
24	L2	79	5.3	0.599	11.6	LOS A	5.1	36.7	0.86	1.03	1.09	49.7
25	T1	112	0.0	0.599	11.6	LOS A	5.1	36.7	0.86	1.03	1.09	49.5
26	R2	202	3.6	0.599	16.3	LOS B	5.1	36.7	0.86	1.03	1.09	50.8
26u	U	2	0.0	0.599	18.2	LOS B	5.1	36.7	0.86	1.03	1.09	50.2
Approach		395	2.9	0.599	14.0	LOS A	5.1	36.7	0.86	1.03	1.09	50.2
NorthWest: Raby Road (north west)												
27	L2	275	2.2	0.701	6.9	LOS A	7.5	53.8	0.69	0.63	0.70	55.1
28	T1	571	3.3	0.701	7.4	LOS A	7.5	53.8	0.69	0.63	0.70	58.7
29	R2	29	14.3	0.701	12.3	LOS A	7.5	53.8	0.69	0.63	0.70	55.9
29u	U	1	0.0	0.701	14.1	LOS A	7.5	53.8	0.69	0.63	0.70	60.3
Approach		876	3.3	0.701	7.4	LOS A	7.5	53.8	0.69	0.63	0.70	57.5
SouthWest: Epping Forest Drive												
30	L2	29	3.6	0.216	8.3	LOS A	1.1	7.6	0.69	0.83	0.69	53.2
31	T1	73	0.0	0.216	8.4	LOS A	1.1	7.6	0.69	0.83	0.69	52.6
32	R2	31	6.9	0.216	13.2	LOS A	1.1	7.6	0.69	0.83	0.69	53.3
32u	U	1	0.0	0.216	15.0	LOS B	1.1	7.6	0.69	0.83	0.69	53.4
Approach		134	2.4	0.216	9.5	LOS A	1.1	7.6	0.69	0.83	0.69	52.9
All Vehicles		2077	3.2	0.701	9.0	LOS A	7.5	53.8	0.71	0.73	0.76	55.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Raby Road-Epping Forest Drive-Thunderbolt Drive 2038 SAT +Holiday Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Raby Road (south east)												
21	L2	26	8.0	0.031	7.1	LOS A	0.2	1.2	0.48	0.59	0.48	56.2
22	T1	86	3.7	0.072	6.5	LOS A	0.4	2.9	0.46	0.54	0.46	59.4
23	R2	2	0.0	0.072	10.9	LOS A	0.4	2.9	0.46	0.54	0.46	57.2
23u	U	2	0.0	0.072	13.2	LOS A	0.4	2.9	0.46	0.54	0.46	61.1
Approach		117	4.5	0.072	6.8	LOS A	0.4	2.9	0.46	0.55	0.46	58.7
NorthEast: Thunderbolt Drive												
24	L2	76	1.4	0.394	7.0	LOS A	2.2	15.7	0.63	0.79	0.63	53.2
25	T1	52	0.0	0.394	7.2	LOS A	2.2	15.7	0.63	0.79	0.63	52.2
26	R2	200	0.0	0.394	11.7	LOS A	2.2	15.7	0.63	0.79	0.63	54.5
26u	U	1	0.0	0.394	13.8	LOS A	2.2	15.7	0.63	0.79	0.63	53.0
Approach		328	0.3	0.394	9.9	LOS A	2.2	15.7	0.63	0.79	0.63	53.8
NorthWest: Raby Road (north west)												
27	L2	208	0.5	0.451	5.4	LOS A	3.6	25.4	0.35	0.51	0.35	56.6
28	T1	374	2.0	0.451	5.9	LOS A	3.6	25.4	0.35	0.51	0.35	60.7
29	R2	56	1.9	0.451	10.5	LOS A	3.6	25.4	0.35	0.51	0.35	57.9
29u	U	1	0.0	0.451	12.7	LOS A	3.6	25.4	0.35	0.51	0.35	62.0
Approach		639	1.5	0.451	6.1	LOS A	3.6	25.4	0.35	0.51	0.35	59.0
SouthWest: Epping Forest Drive												
30	L2	48	0.0	0.142	5.4	LOS A	0.7	4.7	0.43	0.61	0.43	55.8
31	T1	48	0.0	0.142	5.7	LOS A	0.7	4.7	0.43	0.61	0.43	54.3
32	R2	33	6.5	0.142	10.3	LOS A	0.7	4.7	0.43	0.61	0.43	55.1
32u	U	1	0.0	0.142	12.2	LOS A	0.7	4.7	0.43	0.61	0.43	55.2
Approach		131	1.6	0.142	6.8	LOS A	0.7	4.7	0.43	0.61	0.43	55.0
All Vehicles		1215	1.5	0.451	7.3	LOS A	3.6	25.4	0.44	0.60	0.44	57.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road EX AM]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	395	2.0	0.342	3.5	LOS A	2.1	15.2	0.37	0.47	0.37	38.3
2	T1	16	1.0	0.342	3.2	LOS A	2.1	15.2	0.37	0.47	0.37	38.9
Approach		411	2.0	0.342	3.5	LOS A	2.1	15.2	0.37	0.47	0.37	38.3
North: St Andrews Road (north)												
8	T1	23	1.0	0.048	6.2	LOS A	0.2	1.8	0.63	0.64	0.63	37.6
9	R2	13	1.0	0.048	9.3	LOS A	0.2	1.8	0.63	0.64	0.63	37.6
Approach		36	1.0	0.048	7.3	LOS A	0.2	1.8	0.63	0.64	0.63	37.6
West: Spitfire Drive												
10	L2	11	1.0	0.417	2.7	LOS A	3.3	23.5	0.13	0.55	0.13	37.5
12	R2	521	2.0	0.417	5.5	LOS A	3.3	23.5	0.13	0.55	0.13	38.0
12u	U	121	2.0	0.417	6.8	LOS A	3.3	23.5	0.13	0.55	0.13	38.4
Approach		653	2.0	0.417	5.7	LOS A	3.3	23.5	0.13	0.55	0.13	38.1
All Vehicles		1099	1.9	0.417	5.0	LOS A	3.3	23.5	0.23	0.53	0.23	38.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road EX PM]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	296	2.0	0.269	3.4	LOS A	1.6	11.1	0.32	0.45	0.32	38.4
2	T1	29	0.0	0.269	3.0	LOS A	1.6	11.1	0.32	0.45	0.32	38.9
Approach		325	1.8	0.269	3.3	LOS A	1.6	11.1	0.32	0.45	0.32	38.4
North: St Andrews Road (north)												
8	T1	27	1.0	0.055	4.3	LOS A	0.3	1.9	0.48	0.57	0.48	38.1
9	R2	24	1.0	0.055	7.4	LOS A	0.3	1.9	0.48	0.57	0.48	38.1
Approach		52	1.0	0.055	5.7	LOS A	0.3	1.9	0.48	0.57	0.48	38.1
West: Spitfire Drive												
10	L2	16	1.0	0.265	2.8	LOS A	1.7	11.9	0.15	0.55	0.15	37.5
12	R2	275	2.0	0.265	5.6	LOS A	1.7	11.9	0.15	0.55	0.15	38.0
12u	U	95	0.0	0.265	6.9	LOS A	1.7	11.9	0.15	0.55	0.15	38.4
Approach		385	1.5	0.265	5.8	LOS A	1.7	11.9	0.15	0.55	0.15	38.1
All Vehicles		762	1.6	0.269	4.7	LOS A	1.7	11.9	0.25	0.51	0.25	38.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road EX SAT]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	144	0.7	0.095	2.6	LOS A	0.5	3.4	0.04	0.40	0.04	38.8
2	T1	4	0.0	0.095	2.3	LOS A	0.5	3.4	0.04	0.40	0.04	39.4
Approach		148	0.7	0.095	2.6	LOS A	0.5	3.4	0.04	0.40	0.04	38.8
North: St Andrews Road (north)												
8	T1	8	0.0	0.010	2.8	LOS A	0.0	0.3	0.26	0.41	0.26	38.7
9	R2	3	0.0	0.010	6.0	LOS A	0.0	0.3	0.26	0.41	0.26	38.8
Approach		12	0.0	0.010	3.7	LOS A	0.0	0.3	0.26	0.41	0.26	38.8
West: Spitfire Drive												
10	L2	2	0.0	0.079	2.6	LOS A	0.4	2.7	0.04	0.57	0.04	37.7
12	R2	120	0.9	0.079	5.5	LOS A	0.4	2.7	0.04	0.57	0.04	38.3
12u	U	2	0.0	0.079	6.7	LOS A	0.4	2.7	0.04	0.57	0.04	38.7
Approach		124	0.8	0.079	5.4	LOS A	0.4	2.7	0.04	0.57	0.04	38.3
All Vehicles		284	0.7	0.095	3.9	LOS A	0.5	3.4	0.05	0.48	0.05	38.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road EX AM+Holiday Dev]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	395	2.0	0.671	5.9	LOS A	7.2	50.9	0.75	0.69	0.80	37.5
2	T1	321	1.0	0.671	5.5	LOS A	7.2	50.9	0.75	0.69	0.80	38.1
Approach		716	1.6	0.671	5.7	LOS A	7.2	50.9	0.75	0.69	0.80	37.8
North: St Andrews Road (north)												
8	T1	94	1.0	0.349	7.0	LOS A	2.5	17.6	0.85	0.86	0.85	37.0
9	R2	123	1.0	0.349	10.2	LOS A	2.5	17.6	0.85	0.86	0.85	37.0
Approach		217	1.0	0.349	8.8	LOS A	2.5	17.6	0.85	0.86	0.85	37.0
West: Spitfire Drive												
10	L2	141	1.0	0.814	10.9	LOS A	13.5	95.8	0.99	1.00	1.30	34.9
12	R2	521	2.0	0.814	13.8	LOS A	13.5	95.8	0.99	1.00	1.30	35.3
12u	U	121	2.0	0.814	15.1	LOS B	13.5	95.8	0.99	1.00	1.30	35.7
Approach		783	1.8	0.814	13.5	LOS A	13.5	95.8	0.99	1.00	1.30	35.3
All Vehicles		1716	1.6	0.814	9.7	LOS A	13.5	95.8	0.87	0.85	1.04	36.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road EX PM+Holiday Dev]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	296	2.0	0.565	6.4	LOS A	4.9	34.9	0.75	0.76	0.81	37.4
2	T1	228	0.0	0.565	6.0	LOS A	4.9	34.9	0.75	0.76	0.81	37.9
Approach		524	1.1	0.565	6.3	LOS A	4.9	34.9	0.75	0.76	0.81	37.6
North: St Andrews Road (north)												
8	T1	178	1.0	0.487	5.4	LOS A	3.7	25.8	0.72	0.75	0.73	37.5
9	R2	260	1.0	0.487	8.5	LOS A	3.7	25.8	0.72	0.75	0.73	37.5
Approach		438	1.0	0.487	7.3	LOS A	3.7	25.8	0.72	0.75	0.73	37.5
West: Spitfire Drive												
10	L2	101	1.0	0.448	4.4	LOS A	3.5	24.5	0.59	0.66	0.59	37.1
12	R2	275	2.0	0.448	7.2	LOS A	3.5	24.5	0.59	0.66	0.59	37.6
12u	U	95	0.0	0.448	8.4	LOS A	3.5	24.5	0.59	0.66	0.59	38.0
Approach		471	1.4	0.448	6.8	LOS A	3.5	24.5	0.59	0.66	0.59	37.6
All Vehicles		1433	1.2	0.565	6.8	LOS A	4.9	34.9	0.69	0.72	0.71	37.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road EX SAT +Holiday Dev]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	144	0.7	0.498	5.5	LOS A	3.7	25.8	0.69	0.67	0.69	37.7
2	T1	326	0.0	0.498	5.1	LOS A	3.7	25.8	0.69	0.67	0.69	38.2
Approach		471	0.2	0.498	5.2	LOS A	3.7	25.8	0.69	0.67	0.69	38.0
North: St Andrews Road (north)												
8	T1	224	0.0	0.456	3.2	LOS A	3.7	25.8	0.44	0.54	0.44	38.1
9	R2	342	0.0	0.456	6.3	LOS A	3.7	25.8	0.44	0.54	0.44	38.1
Approach		566	0.0	0.456	5.1	LOS A	3.7	25.8	0.44	0.54	0.44	38.1
West: Spitfire Drive												
10	L2	140	0.0	0.281	4.8	LOS A	1.8	12.6	0.59	0.66	0.59	37.5
12	R2	120	0.9	0.281	7.6	LOS A	1.8	12.6	0.59	0.66	0.59	38.0
12u	U	2	0.0	0.281	8.8	LOS A	1.8	12.6	0.59	0.66	0.59	38.4
Approach		262	0.4	0.281	6.1	LOS A	1.8	12.6	0.59	0.66	0.59	37.7
All Vehicles		1299	0.2	0.498	5.3	LOS A	3.7	25.8	0.56	0.61	0.56	38.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road 2038 AM]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	395	2.0	0.353	3.5	LOS A	2.3	16.1	0.38	0.47	0.38	38.3
2	T1	29	1.0	0.353	3.2	LOS A	2.3	16.1	0.38	0.47	0.38	38.8
Approach		424	1.9	0.353	3.5	LOS A	2.3	16.1	0.38	0.47	0.38	38.3
North: St Andrews Road (north)												
8	T1	47	1.0	0.081	6.3	LOS A	0.4	3.1	0.65	0.65	0.65	37.7
9	R2	13	1.0	0.081	9.5	LOS A	0.4	3.1	0.65	0.65	0.65	37.7
Approach		60	1.0	0.081	7.0	LOS A	0.4	3.1	0.65	0.65	0.65	37.7
West: Spitfire Drive												
10	L2	11	1.0	0.437	2.8	LOS A	3.5	25.1	0.19	0.55	0.19	37.4
12	R2	521	2.0	0.437	5.6	LOS A	3.5	25.1	0.19	0.55	0.19	37.9
12u	U	121	2.0	0.437	6.9	LOS A	3.5	25.1	0.19	0.55	0.19	38.4
Approach		653	2.0	0.437	5.8	LOS A	3.5	25.1	0.19	0.55	0.19	38.0
All Vehicles		1137	1.9	0.437	5.0	LOS A	3.5	25.1	0.28	0.52	0.28	38.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road 2038 PM]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	296	2.0	0.290	3.4	LOS A	1.7	12.4	0.34	0.45	0.34	38.4
2	T1	56	1.0	0.290	3.0	LOS A	1.7	12.4	0.34	0.45	0.34	38.9
Approach		352	1.8	0.290	3.3	LOS A	1.7	12.4	0.34	0.45	0.34	38.4
North: St Andrews Road (north)												
8	T1	57	1.0	0.087	4.3	LOS A	0.4	3.1	0.50	0.56	0.50	38.2
9	R2	24	1.0	0.087	7.5	LOS A	0.4	3.1	0.50	0.56	0.50	38.2
Approach		81	1.0	0.087	5.3	LOS A	0.4	3.1	0.50	0.56	0.50	38.2
West: Spitfire Drive												
10	L2	16	1.0	0.284	2.9	LOS A	1.8	12.9	0.23	0.55	0.23	37.4
12	R2	275	2.0	0.284	5.8	LOS A	1.8	12.9	0.23	0.55	0.23	37.9
12u	U	95	2.0	0.284	7.0	LOS A	1.8	12.9	0.23	0.55	0.23	38.3
Approach		385	2.0	0.284	6.0	LOS A	1.8	12.9	0.23	0.55	0.23	38.0
All Vehicles		818	1.8	0.290	4.8	LOS A	1.8	12.9	0.30	0.51	0.30	38.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road 2038 SAT]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	144	2.0	0.097	2.6	LOS A	0.5	3.6	0.04	0.40	0.04	38.8
2	T1	8	1.0	0.097	2.3	LOS A	0.5	3.6	0.04	0.40	0.04	39.4
Approach		153	1.9	0.097	2.6	LOS A	0.5	3.6	0.04	0.40	0.04	38.8
North: St Andrews Road (north)												
8	T1	17	1.0	0.017	2.9	LOS A	0.1	0.6	0.27	0.38	0.27	38.9
9	R2	3	1.0	0.017	6.0	LOS A	0.1	0.6	0.27	0.38	0.27	38.9
Approach		20	1.0	0.017	3.4	LOS A	0.1	0.6	0.27	0.38	0.27	38.9
West: Spitfire Drive												
10	L2	2	1.0	0.083	2.7	LOS A	0.4	2.8	0.06	0.57	0.06	37.7
12	R2	120	2.0	0.083	5.5	LOS A	0.4	2.8	0.06	0.57	0.06	38.2
12u	U	1	2.0	0.083	6.8	LOS A	0.4	2.8	0.06	0.57	0.06	38.6
Approach		123	2.0	0.083	5.4	LOS A	0.4	2.8	0.06	0.57	0.06	38.2
All Vehicles		296	1.9	0.097	3.8	LOS A	0.5	3.6	0.06	0.47	0.06	38.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road 2038 AM+Holiday Dev]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	395	2.0	0.587	4.9	LOS A	5.0	35.3	0.67	0.63	0.67	37.8
2	T1	228	1.0	0.587	4.5	LOS A	5.0	35.3	0.67	0.63	0.67	38.3
Approach		623	1.6	0.587	4.8	LOS A	5.0	35.3	0.67	0.63	0.67	38.0
North: St Andrews Road (north)												
8	T1	118	1.0	0.373	7.1	LOS A	2.6	18.4	0.83	0.86	0.83	37.0
9	R2	123	1.0	0.373	10.3	LOS A	2.6	18.4	0.83	0.86	0.83	37.0
Approach		241	1.0	0.373	8.7	LOS A	2.6	18.4	0.83	0.86	0.83	37.0
West: Spitfire Drive												
10	L2	141	1.0	0.725	6.3	LOS A	9.1	64.8	0.81	0.75	0.89	36.5
12	R2	521	2.0	0.725	9.2	LOS A	9.1	64.8	0.81	0.75	0.89	37.0
12u	U	121	2.0	0.725	10.4	LOS A	9.1	64.8	0.81	0.75	0.89	37.4
Approach		783	1.8	0.725	8.8	LOS A	9.1	64.8	0.81	0.75	0.89	37.0
All Vehicles		1647	1.6	0.725	7.3	LOS A	9.1	64.8	0.76	0.72	0.80	37.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road 2038 PM+Holiday Dev]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	296	2.0	0.717	8.9	LOS A	8.9	62.6	0.88	0.92	1.08	36.5
2	T1	378	0.0	0.717	8.5	LOS A	8.9	62.6	0.88	0.92	1.08	37.0
Approach		674	0.9	0.717	8.7	LOS A	8.9	62.6	0.88	0.92	1.08	36.8
North: St Andrews Road (north)												
8	T1	207	1.0	0.530	5.8	LOS A	4.4	31.3	0.76	0.79	0.80	37.4
9	R2	260	1.0	0.530	9.0	LOS A	4.4	31.3	0.76	0.79	0.80	37.4
Approach		467	1.0	0.530	7.6	LOS A	4.4	31.3	0.76	0.79	0.80	37.4
West: Spitfire Drive												
10	L2	101	1.0	0.543	6.4	LOS A	4.7	33.4	0.78	0.82	0.84	36.5
12	R2	275	2.0	0.543	9.2	LOS A	4.7	33.4	0.78	0.82	0.84	37.0
12u	U	95	0.0	0.543	10.5	LOS A	4.7	33.4	0.78	0.82	0.84	37.4
Approach		471	1.4	0.543	8.9	LOS A	4.7	33.4	0.78	0.82	0.84	36.9
All Vehicles		1612	1.1	0.717	8.4	LOS A	8.9	62.6	0.82	0.85	0.93	37.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-St Andrews Road 2038 SAT +Holiday Dev]

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
1	L2	144	0.7	0.162	4.7	LOS A	0.9	6.4	0.53	0.58	0.53	38.0
2	T1	8	0.0	0.162	4.3	LOS A	0.9	6.4	0.53	0.58	0.53	38.6
Approach		153	0.7	0.162	4.6	LOS A	0.9	6.4	0.53	0.58	0.53	38.1
North: St Andrews Road (north)												
8	T1	234	0.0	0.456	3.2	LOS A	3.3	22.8	0.39	0.53	0.39	38.2
9	R2	342	0.0	0.456	6.3	LOS A	3.3	22.8	0.39	0.53	0.39	38.2
Approach		576	0.0	0.456	5.1	LOS A	3.3	22.8	0.39	0.53	0.39	38.2
West: Spitfire Drive												
10	L2	140	0.0	0.167	2.7	LOS A	1.0	7.3	0.07	0.49	0.07	38.2
12	R2	120	0.9	0.167	5.5	LOS A	1.0	7.3	0.07	0.49	0.07	38.8
12u	U	2	0.0	0.167	6.7	LOS A	1.0	7.3	0.07	0.49	0.07	39.2
Approach		262	0.4	0.167	4.0	LOS A	1.0	7.3	0.07	0.49	0.07	38.5
All Vehicles		991	0.2	0.456	4.7	LOS A	3.3	22.8	0.33	0.53	0.33	38.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive EX AM]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	28	25.9	0.172	5.9	LOS A	0.0	0.0	0.00	0.05	0.00	56.7
2	T1	296	1.8	0.172	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.6
Approach		324	3.9	0.172	0.5	NA	0.0	0.0	0.00	0.05	0.00	59.3
North: Spitfire Drive (north)												
8	T1	201	1.0	0.258	1.1	LOS A	1.4	9.9	0.42	0.33	0.42	56.0
9	R2	195	3.2	0.258	7.0	LOS A	1.4	9.9	0.42	0.33	0.42	54.0
Approach		396	2.1	0.258	4.0	NA	1.4	9.9	0.42	0.33	0.42	55.0
West: Thunderbolt Drive												
10	L2	355	1.5	0.370	7.1	LOS A	2.0	13.9	0.46	0.70	0.51	52.0
12	R2	52	2.0	0.370	10.9	LOS A	2.0	13.9	0.46	0.70	0.51	51.6
Approach		406	1.6	0.370	7.6	LOS A	2.0	13.9	0.46	0.70	0.51	51.9
All Vehicles		1126	2.4	0.370	4.3	NA	2.0	13.9	0.31	0.38	0.33	55.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive EX PM]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	18	23.5	0.059	5.8	LOS A	0.0	0.0	0.00	0.10	0.00	56.5
2	T1	92	3.4	0.059	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	59.3
Approach		109	6.7	0.059	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.8
North: Spitfire Drive (north)												
8	T1	206	2.0	0.266	0.4	LOS A	1.4	10.3	0.24	0.32	0.24	56.3
9	R2	252	2.1	0.266	6.0	LOS A	1.4	10.3	0.24	0.32	0.24	54.3
Approach		458	2.1	0.266	3.4	NA	1.4	10.3	0.24	0.32	0.24	55.2
West: Thunderbolt Drive												
10	L2	115	0.0	0.109	5.8	LOS A	0.4	3.0	0.18	0.57	0.18	53.1
12	R2	24	0.0	0.109	8.3	LOS A	0.4	3.0	0.18	0.57	0.18	52.7
Approach		139	0.0	0.109	6.3	LOS A	0.4	3.0	0.18	0.57	0.18	53.0
All Vehicles		706	2.4	0.266	3.6	NA	1.4	10.3	0.19	0.33	0.19	55.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive EX SAT]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	15	7.1	0.040	5.6	LOS A	0.0	0.0	0.00	0.11	0.00	57.1
2	T1	62	0.0	0.040	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	59.0
Approach		77	1.4	0.040	1.1	NA	0.0	0.0	0.00	0.11	0.00	58.6
North: Spitfire Drive (north)												
8	T1	78	1.4	0.089	0.2	LOS A	0.4	2.8	0.16	0.29	0.16	56.8
9	R2	80	1.3	0.089	5.7	LOS A	0.4	2.8	0.16	0.29	0.16	54.8
Approach		158	1.3	0.089	3.0	NA	0.4	2.8	0.16	0.29	0.16	55.8
West: Thunderbolt Drive												
10	L2	60	0.0	0.062	5.7	LOS A	0.2	1.7	0.14	0.56	0.14	53.2
12	R2	24	4.3	0.062	6.4	LOS A	0.2	1.7	0.14	0.56	0.14	52.6
Approach		84	1.3	0.062	5.9	LOS A	0.2	1.7	0.14	0.56	0.14	53.0
All Vehicles		319	1.3	0.089	3.3	NA	0.4	2.8	0.12	0.32	0.12	55.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive EX AM+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	28	25.9	0.328	5.9	LOS A	0.0	0.0	0.00	0.03	0.00	56.8
2	T1	601	0.9	0.328	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	59.7
Approach		629	2.0	0.328	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.6
North: Spitfire Drive (north)												
8	T1	223	0.9	0.385	4.0	LOS A	2.9	20.8	0.64	0.47	0.84	53.7
9	R2	235	2.7	0.385	10.1	LOS A	2.9	20.8	0.64	0.47	0.84	51.9
Approach		458	1.8	0.385	7.1	NA	2.9	20.8	0.64	0.47	0.84	52.8
West: Thunderbolt Drive												
10	L2	485	1.1	0.700	13.1	LOS A	6.0	42.3	0.75	1.17	1.58	47.7
12	R2	52	2.0	0.700	21.6	LOS B	6.0	42.3	0.75	1.17	1.58	47.4
Approach		537	1.2	0.700	13.9	LOS A	6.0	42.3	0.75	1.17	1.58	47.7
All Vehicles		1624	1.7	0.700	6.7	NA	6.0	42.3	0.43	0.53	0.76	53.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive EX PM+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	18	23.5	0.161	5.8	LOS A	0.0	0.0	0.00	0.03	0.00	56.9
2	T1	291	1.1	0.161	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	59.7
Approach		308	2.4	0.161	0.4	NA	0.0	0.0	0.00	0.03	0.00	59.6
North: Spitfire Drive (north)												
8	T1	255	1.7	0.389	1.5	LOS A	2.6	18.7	0.48	0.39	0.51	55.4
9	R2	337	1.6	0.389	7.2	LOS A	2.6	18.7	0.48	0.39	0.51	53.5
Approach		592	1.6	0.389	4.7	NA	2.6	18.7	0.48	0.39	0.51	54.3
West: Thunderbolt Drive												
10	L2	200	0.0	0.209	6.7	LOS A	0.9	6.0	0.41	0.65	0.41	52.3
12	R2	24	0.0	0.209	12.0	LOS A	0.9	6.0	0.41	0.65	0.41	51.9
Approach		224	0.0	0.209	7.2	LOS A	0.9	6.0	0.41	0.65	0.41	52.3
All Vehicles		1124	1.5	0.389	4.0	NA	2.6	18.7	0.34	0.35	0.35	55.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive EX SAT+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	15	7.1	0.205	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	57.8
2	T1	384	0.0	0.205	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.8
Approach		399	0.3	0.205	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Spitfire Drive (north)												
8	T1	147	0.7	0.244	1.5	LOS A	1.3	9.4	0.48	0.41	0.48	55.4
9	R2	202	0.5	0.244	7.3	LOS A	1.3	9.4	0.48	0.41	0.48	53.5
Approach		349	0.6	0.244	4.9	NA	1.3	9.4	0.48	0.41	0.48	54.3
West: Thunderbolt Drive												
10	L2	198	0.0	0.215	7.1	LOS A	0.9	6.2	0.47	0.69	0.47	52.2
12	R2	24	4.3	0.215	10.2	LOS A	0.9	6.2	0.47	0.69	0.47	51.6
Approach		222	0.5	0.215	7.5	LOS A	0.9	6.2	0.47	0.69	0.47	52.1
All Vehicles		971	0.4	0.244	3.6	NA	1.3	9.4	0.28	0.31	0.28	55.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive 2038 AM]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	28	25.9	0.172	5.9	LOS A	0.0	0.0	0.00	0.05	0.00	56.7
2	T1	296	1.8	0.172	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.6
Approach		324	3.9	0.172	0.5	NA	0.0	0.0	0.00	0.05	0.00	59.3
North: Spitfire Drive (north)												
8	T1	201	1.0	0.258	1.1	LOS A	1.4	9.9	0.42	0.33	0.42	56.0
9	R2	195	3.2	0.258	7.0	LOS A	1.4	9.9	0.42	0.33	0.42	54.0
Approach		396	2.1	0.258	4.0	NA	1.4	9.9	0.42	0.33	0.42	55.0
West: Thunderbolt Drive												
10	L2	355	1.5	0.370	7.1	LOS A	2.0	13.9	0.46	0.70	0.51	52.0
12	R2	52	2.0	0.370	10.9	LOS A	2.0	13.9	0.46	0.70	0.51	51.6
Approach		406	1.6	0.370	7.6	LOS A	2.0	13.9	0.46	0.70	0.51	51.9
All Vehicles		1126	2.4	0.370	4.3	NA	2.0	13.9	0.31	0.38	0.33	55.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive 2038 PM]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	18	23.5	0.059	5.8	LOS A	0.0	0.0	0.00	0.10	0.00	56.5
2	T1	92	3.4	0.059	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	59.3
Approach		109	6.7	0.059	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.8
North: Spitfire Drive (north)												
8	T1	206	2.0	0.266	0.4	LOS A	1.4	10.3	0.24	0.32	0.24	56.3
9	R2	252	2.1	0.266	6.0	LOS A	1.4	10.3	0.24	0.32	0.24	54.3
Approach		458	2.1	0.266	3.4	NA	1.4	10.3	0.24	0.32	0.24	55.2
West: Thunderbolt Drive												
10	L2	115	0.0	0.109	5.8	LOS A	0.4	3.0	0.18	0.57	0.18	53.1
12	R2	24	0.0	0.109	8.3	LOS A	0.4	3.0	0.18	0.57	0.18	52.7
Approach		139	0.0	0.109	6.3	LOS A	0.4	3.0	0.18	0.57	0.18	53.0
All Vehicles		706	2.4	0.266	3.6	NA	1.4	10.3	0.19	0.33	0.19	55.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive 2038 SAT]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	15	7.1	0.040	5.6	LOS A	0.0	0.0	0.00	0.11	0.00	57.1
2	T1	62	0.0	0.040	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	59.0
Approach		77	1.4	0.040	1.1	NA	0.0	0.0	0.00	0.11	0.00	58.6
North: Spitfire Drive (north)												
8	T1	78	1.4	0.089	0.2	LOS A	0.4	2.8	0.16	0.29	0.16	56.8
9	R2	80	1.3	0.089	5.7	LOS A	0.4	2.8	0.16	0.29	0.16	54.8
Approach		158	1.3	0.089	3.0	NA	0.4	2.8	0.16	0.29	0.16	55.8
West: Thunderbolt Drive												
10	L2	60	0.0	0.062	5.7	LOS A	0.2	1.7	0.14	0.56	0.14	53.2
12	R2	24	4.3	0.062	6.4	LOS A	0.2	1.7	0.14	0.56	0.14	52.6
Approach		84	1.3	0.062	5.9	LOS A	0.2	1.7	0.14	0.56	0.14	53.0
All Vehicles		319	1.3	0.089	3.3	NA	0.4	2.8	0.12	0.32	0.12	55.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive 2038 AM+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	28	25.9	0.172	5.9	LOS A	0.0	0.0	0.00	0.05	0.00	56.7
2	T1	296	1.8	0.172	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.6
Approach		324	3.9	0.172	0.5	NA	0.0	0.0	0.00	0.05	0.00	59.3
North: Spitfire Drive (north)												
8	T1	223	0.9	0.300	1.2	LOS A	1.7	12.1	0.44	0.34	0.44	55.8
9	R2	235	2.7	0.300	7.1	LOS A	1.7	12.1	0.44	0.34	0.44	53.8
Approach		458	1.8	0.300	4.2	NA	1.7	12.1	0.44	0.34	0.44	54.8
West: Thunderbolt Drive												
10	L2	485	1.1	0.482	7.8	LOS A	3.4	24.1	0.50	0.75	0.65	51.5
12	R2	52	2.0	0.482	12.9	LOS A	3.4	24.1	0.50	0.75	0.65	51.1
Approach		537	1.2	0.482	8.3	LOS A	3.4	24.1	0.50	0.75	0.65	51.5
All Vehicles		1319	2.1	0.482	5.0	NA	3.4	24.1	0.36	0.44	0.42	54.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive 2038 PM+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	18	23.5	0.120	5.8	LOS A	0.0	0.0	0.00	0.05	0.00	56.9
2	T1	211	1.5	0.120	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.6
Approach		228	3.2	0.120	0.5	NA	0.0	0.0	0.00	0.05	0.00	59.4
North: Spitfire Drive (north)												
8	T1	325	1.3	0.388	0.9	LOS A	2.3	16.5	0.39	0.31	0.39	56.1
9	R2	311	1.7	0.388	6.7	LOS A	2.3	16.5	0.39	0.31	0.39	54.1
Approach		636	1.5	0.388	3.7	NA	2.3	16.5	0.39	0.31	0.39	55.1
West: Thunderbolt Drive												
10	L2	174	0.0	0.176	6.3	LOS A	0.7	5.0	0.33	0.61	0.33	52.6
12	R2	24	0.0	0.176	11.5	LOS A	0.7	5.0	0.33	0.61	0.33	52.2
Approach		198	0.0	0.176	6.9	LOS A	0.7	5.0	0.33	0.61	0.33	52.5
All Vehicles		1062	1.6	0.388	3.6	NA	2.3	16.5	0.30	0.31	0.30	55.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Spitfire Drive-Thunderbolt Drive 2038 SAT+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Drive (south)												
1	L2	15	7.1	0.040	5.6	LOS A	0.0	0.0	0.00	0.11	0.00	57.1
2	T1	62	0.0	0.040	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	59.0
Approach		77	1.4	0.040	1.1	NA	0.0	0.0	0.00	0.11	0.00	58.6
North: Spitfire Drive (north)												
8	T1	147	0.7	0.198	0.2	LOS A	1.0	7.1	0.19	0.33	0.19	56.4
9	R2	202	0.5	0.198	5.8	LOS A	1.0	7.1	0.19	0.33	0.19	54.5
Approach		349	0.6	0.198	3.4	NA	1.0	7.1	0.19	0.33	0.19	55.3
West: Thunderbolt Drive												
10	L2	198	0.0	0.156	5.7	LOS A	0.7	4.7	0.14	0.56	0.14	53.2
12	R2	24	4.3	0.156	7.7	LOS A	0.7	4.7	0.14	0.56	0.14	52.6
Approach		222	0.5	0.156	6.0	LOS A	0.7	4.7	0.14	0.56	0.14	53.1
All Vehicles		648	0.6	0.198	4.0	NA	1.0	7.1	0.15	0.38	0.15	54.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -Ex AM]

Network: N101 [Existing AM]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	307	3.4	307	3.4	0.896	45.5	LOS D	8.8	63.5	0.97	1.65	3.34	26.0
2	T1	3	0.0	3	0.0	0.025	35.1	LOS C	0.1	0.5	0.89	1.00	0.89	28.8
Approach		311	3.4	311	3.4	0.896	45.4	LOS D	8.8	63.5	0.97	1.64	3.32	26.0
East: Raby Road (North-West)														
4	L2	33	16.1	33	16.1	0.305	5.8	LOS A	0.0	0.0	0.00	0.03	0.00	57.2
5	T1	1119	4.7	1119	4.7	0.305	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach		1152	5.0	1152	5.0	0.305	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.6
West: Raby Road (South-East)														
12	R2	309	4.1	309	4.1	0.981	69.1	LOS E	14.0	101.6	0.99	2.06	4.94	19.9
Approach		309	4.1	309	4.1	0.981	69.1	NA	14.0	101.6	0.99	2.06	4.94	19.9
All Vehicles		1772	4.6	1772	4.6	0.981	20.2	NA	14.0	101.6	0.34	0.66	1.44	38.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -Ex AM]

Network: N101 [Existing AM]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	3	0.0	3	0.0	0.004	2.0	LOS A	0.0	0.1	0.45	0.29	0.45	50.1
Approach		3	0.0	3	0.0	0.004	2.0	LOS A	0.0	0.1	0.45	0.29	0.45	50.1
West: Raby Rd (South-East)														
11	T1	624	3.7	624	3.7	0.164	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		624	3.7	624	3.7	0.164	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		627	3.7	627	3.7	0.164	0.0	NA	0.0	0.1	0.00	0.00	0.00	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -Ex PM]

Network: N101 [Existing PM]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	262	2.8	262	2.8	0.366	13.1	LOS A	1.9	13.7	0.63	1.06	0.80	42.6
2	T1	8	0.0	8	0.0	0.025	17.0	LOS B	0.1	0.6	0.72	0.96	0.72	39.9
Approach		271	2.7	271	2.7	0.366	13.2	LOS A	1.9	13.7	0.64	1.06	0.80	42.5
East: Raby Road (North-West)														
4	L2	47	4.4	47	4.4	0.173	5.6	LOS A	0.0	0.0	0.00	0.09	0.00	57.4
5	T1	608	3.5	608	3.5	0.173	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.3
Approach		656	3.5	656	3.5	0.173	0.4	NA	0.0	0.0	0.00	0.04	0.00	59.1
West: Raby Road (South-East)														
12	R2	302	2.4	302	2.4	0.439	10.7	LOS A	2.5	17.9	0.67	0.95	0.94	44.2
Approach		302	2.4	302	2.4	0.439	10.7	NA	2.5	17.9	0.67	0.95	0.94	44.2
All Vehicles		1228	3.1	1228	3.1	0.439	5.8	NA	2.5	17.9	0.30	0.49	0.41	50.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -Ex PM]

Network: N101 [Existing PM]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	8	0.0	8	0.0	0.011	2.4	LOS A	0.0	0.2	0.47	0.36	0.47	49.6
Approach		8	0.0	8	0.0	0.011	2.4	LOS A	0.0	0.2	0.47	0.36	0.47	49.6
West: Raby Rd (South-East)														
11	T1	697	2.1	697	2.1	0.181	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		697	2.1	697	2.1	0.181	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		705	2.1	705	2.1	0.181	0.0	NA	0.0	0.2	0.01	0.00	0.01	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -Ex SAT]

Network: N101 [Existing SAT]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	323	1.3	323	1.3	0.446	13.7	LOS A	2.6	18.7	0.66	1.09	0.93	42.2
2	T1	15	0.0	15	0.0	0.044	17.2	LOS B	0.2	1.1	0.72	1.00	0.72	39.7
Approach		338	1.2	338	1.2	0.446	13.8	LOS A	2.6	18.7	0.66	1.09	0.93	42.1
East: Raby Road (North-West)														
4	L2	33	3.2	33	3.2	0.170	5.6	LOS A	0.0	0.0	0.00	0.06	0.00	57.7
5	T1	619	2.7	619	2.7	0.170	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	59.5
Approach		652	2.7	652	2.7	0.170	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.4
West: Raby Road (South-East)														
12	R2	304	1.0	304	1.0	0.432	10.5	LOS A	2.5	17.4	0.66	0.94	0.92	44.5
Approach		304	1.0	304	1.0	0.432	10.5	NA	2.5	17.4	0.66	0.94	0.92	44.5
All Vehicles		1294	2.0	1294	2.0	0.446	6.2	NA	2.6	18.7	0.33	0.52	0.46	50.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -Ex SAT]

Network: N101 [Existing SAT]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	15	0.0	15	0.0	0.017	2.1	LOS A	0.1	0.3	0.45	0.34	0.45	50.0
Approach		15	0.0	15	0.0	0.017	2.1	LOS A	0.1	0.3	0.45	0.34	0.45	50.0
West: Raby Rd (South-East)														
11	T1	631	1.5	631	1.5	0.163	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		631	1.5	631	1.5	0.163	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		645	1.5	645	1.5	0.163	0.1	NA	0.1	0.3	0.01	0.01	0.01	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW - EX AM+Holiday Dev] Network: N101 [Existing AM +Holiday Dev]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	329	3.2	329	3.2	0.958	60.4	LOS E	12.8	91.9	0.99	1.95	4.49	22.0
2	T1	3	0.0	3	0.0	0.025	35.1	LOS C	0.1	0.5	0.89	1.00	0.89	28.8
Approach		333	3.2	333	3.2	0.958	60.2	LOS E	12.8	91.9	0.99	1.94	4.45	22.0
East: Raby Road (North-West)														
4	L2	33	16.1	33	16.1	0.305	5.8	LOS A	0.0	0.0	0.00	0.03	0.00	57.2
5	T1	1119	4.7	1119	4.7	0.305	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach		1152	5.0	1152	5.0	0.305	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.6
West: Raby Road (South-East)														
12	R2	309	4.1	309	4.1	0.981	69.1	LOS E	14.0	101.6	0.99	2.06	4.94	19.9
Approach		309	4.1	309	4.1	0.981	69.1	NA	14.0	101.6	0.99	2.06	4.94	19.9
All Vehicles		1794	4.5	1794	4.5	0.981	23.2	NA	14.0	101.6	0.35	0.73	1.68	36.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW - EX AM +Holiday Dev] Network: N101 [Existing AM +Holiday Dev]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	3	0.0	3	0.0	0.004	2.0	LOS A	0.0	0.1	0.45	0.29	0.45	50.1
Approach		3	0.0	3	0.0	0.004	2.0	LOS A	0.0	0.1	0.45	0.29	0.45	50.1
West: Raby Rd (South-East)														
11	T1	624	3.7	624	3.7	0.164	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		624	3.7	624	3.7	0.164	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		627	3.7	627	3.7	0.164	0.0	NA	0.0	0.1	0.00	0.00	0.00	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -Ex PM+Holiday Dev] Network: N101 [Existing PM +Holiday Dev]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	311	2.4	311	2.4	0.432	13.7	LOS A	2.5	17.9	0.66	1.09	0.91	42.2
2	T1	8	0.0	8	0.0	0.025	17.0	LOS B	0.1	0.6	0.72	0.96	0.72	39.9
Approach		319	2.3	319	2.3	0.432	13.8	LOS A	2.5	17.9	0.66	1.08	0.91	42.1
East: Raby Road (North-West)														
4	L2	47	4.4	47	4.4	0.173	5.6	LOS A	0.0	0.0	0.00	0.09	0.00	57.4
5	T1	608	3.5	608	3.5	0.173	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.3
Approach		656	3.5	656	3.5	0.173	0.4	NA	0.0	0.0	0.00	0.04	0.00	59.1
West: Raby Road (South-East)														
12	R2	302	2.4	302	2.4	0.439	10.7	LOS A	2.5	17.9	0.67	0.95	0.94	44.2
Approach		302	2.4	302	2.4	0.439	10.7	NA	2.5	17.9	0.67	0.95	0.94	44.2
All Vehicles		1277	3.0	1277	3.0	0.439	6.2	NA	2.5	17.9	0.32	0.52	0.45	50.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -Ex PM +Holiday Dev]

Network: N101 [Existing PM +Holiday Dev]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	8	0.0	8	0.0	0.011	2.4	LOS A	0.0	0.2	0.47	0.36	0.47	49.6
Approach		8	0.0	8	0.0	0.011	2.4	LOS A	0.0	0.2	0.47	0.36	0.47	49.6
West: Raby Rd (South-East)														
11	T1	697	2.1	697	2.1	0.181	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		697	2.1	697	2.1	0.181	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		705	2.1	705	2.1	0.181	0.0	NA	0.0	0.2	0.01	0.00	0.01	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -Ex SAT+Holiday Dev]

Network: N101 [Existing SAT+Holiday Dev]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	393	1.1	393	1.1	0.541	14.7	LOS B	3.7	26.5	0.70	1.14	1.12	41.4
2	T1	15	0.0	15	0.0	0.044	17.2	LOS B	0.2	1.1	0.72	1.00	0.72	39.7
Approach		407	1.0	407	1.0	0.541	14.8	LOS B	3.7	26.5	0.70	1.14	1.11	41.3
East: Raby Road (North-West)														
4	L2	33	3.2	33	3.2	0.170	5.6	LOS A	0.0	0.0	0.00	0.06	0.00	57.7
5	T1	619	2.7	619	2.7	0.170	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	59.5
Approach		652	2.7	652	2.7	0.170	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.4
West: Raby Road (South-East)														
12	R2	304	1.0	304	1.0	0.432	10.5	LOS A	2.5	17.4	0.66	0.94	0.92	44.5
Approach		304	1.0	304	1.0	0.432	10.5	NA	2.5	17.4	0.66	0.94	0.92	44.5
All Vehicles		1363	1.9	1363	1.9	0.541	6.9	NA	3.7	26.5	0.36	0.56	0.54	49.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -Ex SAT +Holiday Dev]

Network: N101 [Existing SAT+Holiday Dev]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	15	0.0	15	0.0	0.017	2.1	LOS A	0.1	0.3	0.45	0.34	0.45	50.0
Approach		15	0.0	15	0.0	0.017	2.1	LOS A	0.1	0.3	0.45	0.34	0.45	50.0
West: Raby Rd (South-East)														
11	T1	631	1.5	631	1.5	0.163	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		631	1.5	631	1.5	0.163	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		645	1.5	645	1.5	0.163	0.1	NA	0.1	0.3	0.01	0.01	0.01	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -2038 AM]

Network: N101 [2038 AM]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	307	3.4	307	3.4	1.416	413.4	LOS F	63.3	456.4	1.00	4.46	14.69	4.6
2	T1	3	0.0	3	0.0	0.046	57.6	LOS E	0.1	0.9	0.94	1.00	0.94	21.4
Approach		311	3.4	311	3.4	1.416	409.8	LOS F	63.3	456.4	1.00	4.43	14.55	4.7
East: Raby Road (North-West)														
4	L2	33	16.1	33	16.1	0.374	5.8	LOS A	0.0	0.0	0.00	0.03	0.00	57.3
5	T1	1387	3.8	1387	3.8	0.374	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		1420	4.1	1420	4.1	0.374	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.6
West: Raby Road (South-East)														
12	R2	309	4.1	309	4.1	1.619	590.1	LOS F	80.8	585.0	1.00	4.97	16.95	3.3
Approach		309	4.1	309	4.1	1.619	590.1	NA	80.8	585.0	1.00	4.97	16.95	3.3
All Vehicles		2040	4.0	2040	4.0	1.619	152.0	NA	80.8	585.0	0.30	1.44	4.79	11.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -2038 AM]

Network: N101 [2038 AM]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	3	0.0	3	0.0	0.004	2.9	LOS A	0.0	0.1	0.51	0.37	0.51	49.0
Approach		3	0.0	3	0.0	0.004	2.9	LOS A	0.0	0.1	0.51	0.37	0.51	49.0
West: Raby Rd (South-East)														
11	T1	786	2.9	786	2.9	0.205	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		786	2.9	786	2.9	0.205	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		789	2.9	789	2.9	0.205	0.0	NA	0.0	0.1	0.00	0.00	0.00	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -2038 PM]

Network: N101 [2038 PM]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	262	2.8	262	2.8	0.396	14.0	LOS A	2.1	15.1	0.66	1.07	0.88	41.9
2	T1	8	0.0	8	0.0	0.028	18.4	LOS B	0.1	0.7	0.75	0.99	0.75	38.8
Approach		271	2.7	271	2.7	0.396	14.2	LOS A	2.1	15.1	0.66	1.07	0.88	41.8
East: Raby Road (North-West)														
4	L2	47	4.4	47	4.4	0.189	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	57.4
5	T1	669	3.5	669	3.5	0.189	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.4
Approach		717	3.5	717	3.5	0.189	0.4	NA	0.0	0.0	0.00	0.04	0.00	59.2
West: Raby Road (South-East)														
12	R2	302	2.4	302	2.4	0.476	11.8	LOS A	2.8	19.8	0.70	0.98	1.05	43.2
Approach		302	2.4	302	2.4	0.476	11.8	NA	2.8	19.8	0.70	0.98	1.05	43.2
All Vehicles		1289	3.1	1289	3.1	0.476	6.0	NA	2.8	19.8	0.30	0.48	0.43	50.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -2038 PM]

Network: N101 [2038 PM]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	8	0.0	8	0.0	0.013	3.3	LOS A	0.0	0.2	0.54	0.45	0.54	48.4
Approach		8	0.0	8	0.0	0.013	3.3	LOS A	0.0	0.2	0.54	0.45	0.54	48.4
West: Raby Rd (South-East)														
11	T1	851	2.0	851	2.0	0.221	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		851	2.0	851	2.0	0.221	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		859	2.0	859	2.0	0.221	0.1	NA	0.0	0.2	0.01	0.00	0.01	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -2038 SAT]

Network: N101 [2038 SAT]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	323	1.3	323	1.3	0.483	14.8	LOS B	2.9	20.7	0.69	1.11	1.04	41.3
2	T1	15	0.0	15	0.0	0.049	18.6	LOS B	0.2	1.2	0.75	1.00	0.75	38.7
Approach		338	1.2	338	1.2	0.483	14.9	LOS B	2.9	20.7	0.69	1.11	1.02	41.2
East: Raby Road (North-West)														
4	L2	33	3.2	33	3.2	0.187	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	57.7
5	T1	681	2.7	681	2.7	0.187	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	59.6
Approach		714	2.7	714	2.7	0.187	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.4
West: Raby Road (South-East)														
12	R2	304	1.0	304	1.0	0.469	11.6	LOS A	2.7	19.2	0.69	0.97	1.03	43.5
Approach		304	1.0	304	1.0	0.469	11.6	NA	2.7	19.2	0.69	0.97	1.03	43.5
All Vehicles		1356	2.0	1356	2.0	0.483	6.5	NA	2.9	20.7	0.33	0.51	0.49	50.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -2038 SAT]

Network: N101 [2038 SAT]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	15	0.0	15	0.0	0.020	2.9	LOS A	0.1	0.3	0.50	0.42	0.50	49.0
Approach		15	0.0	15	0.0	0.020	2.9	LOS A	0.1	0.3	0.50	0.42	0.50	49.0
West: Raby Rd (South-East)														
11	T1	769	1.5	769	1.5	0.199	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		769	1.5	769	1.5	0.199	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		784	1.5	784	1.5	0.199	0.1	NA	0.1	0.3	0.01	0.01	0.01	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -2038 AM+Holiday Dev]

Network: N101 [2038 AM +Holiday Dev]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	329	3.2	329	3.2	1.512	497.0	LOS F	76.8	552.1	1.00	4.94	16.58	3.9
2	T1	3	0.0	3	0.0	0.046	57.6	LOS E	0.1	0.9	0.94	1.00	0.94	21.4
Approach		333	3.2	333	3.2	1.512	492.8	LOS F	76.8	552.1	1.00	4.90	16.43	3.9
East: Raby Road (North-West)														
4	L2	33	16.1	33	16.1	0.374	5.8	LOS A	0.0	0.0	0.00	0.03	0.00	57.3
5	T1	1387	3.8	1387	3.8	0.374	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		1420	4.1	1420	4.1	0.374	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.6
West: Raby Road (South-East)														
12	R2	309	4.1	309	4.1	1.619	590.1	LOS F	80.8	585.0	1.00	4.97	16.95	3.3
Approach		309	4.1	309	4.1	1.619	590.1	NA	80.8	585.0	1.00	4.97	16.95	3.3
All Vehicles		2062	3.9	2062	3.9	1.619	168.2	NA	80.8	585.0	0.31	1.55	5.19	10.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -2038 AM+Holiday Dev]

Network: N101 [2038 AM +Holiday Dev]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	3	0.0	3	0.0	0.004	2.9	LOS A	0.0	0.1	0.51	0.37	0.51	49.0
Approach		3	0.0	3	0.0	0.004	2.9	LOS A	0.0	0.1	0.51	0.37	0.51	49.0
West: Raby Rd (South-East)														
11	T1	786	2.9	786	2.9	0.205	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		786	2.9	786	2.9	0.205	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		789	2.9	789	2.9	0.205	0.0	NA	0.0	0.1	0.00	0.00	0.00	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -2038 PM+Holiday Dev]

Network: N101 [2038 PM +Holiday Dev]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	311	2.8	311	2.8	0.469	14.8	LOS B	2.8	19.9	0.69	1.11	1.01	41.3
2	T1	8	0.0	8	0.0	0.028	18.4	LOS B	0.1	0.7	0.75	0.99	0.75	38.8
Approach		319	2.7	319	2.7	0.469	14.9	LOS B	2.8	19.9	0.69	1.11	1.01	41.3
East: Raby Road (North-West)														
4	L2	47	4.4	47	4.4	0.189	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	57.4
5	T1	669	3.5	669	3.5	0.189	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.4
Approach		717	3.5	717	3.5	0.189	0.4	NA	0.0	0.0	0.00	0.04	0.00	59.2
West: Raby Road (South-East)														
12	R2	302	2.4	302	2.4	0.476	11.8	LOS A	2.8	19.8	0.70	0.98	1.05	43.2
Approach		302	2.4	302	2.4	0.476	11.8	NA	2.8	19.8	0.70	0.98	1.05	43.2
All Vehicles		1338	3.1	1338	3.1	0.476	6.4	NA	2.8	19.9	0.32	0.51	0.48	50.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -2038 PM+Holiday Dev]

Network: N101 [2038 PM +Holiday Dev]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	8	0.0	8	0.0	0.013	3.3	LOS A	0.0	0.2	0.54	0.45	0.54	48.4
Approach		8	0.0	8	0.0	0.013	3.3	LOS A	0.0	0.2	0.54	0.45	0.54	48.4
West: Raby Rd (South-East)														
11	T1	851	2.0	851	2.0	0.221	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		851	2.0	851	2.0	0.221	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		859	2.0	859	2.0	0.221	0.1	NA	0.0	0.2	0.01	0.00	0.01	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Raby Rd-Spitfire Dr_Stage 1 (Minor Road) NSW -2038 SAT+Holiday Dev]

Network: N101 [2038 SAT +Holiday Dev]

Staged crossing Stage 1 (Minor Road) at three-way intersection with 5-lane major road. Major road turn lane is treated as a full-length lane.
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr (Stage 1)														
1	L2	393	1.3	393	1.3	0.586	16.1	LOS B	4.2	29.6	0.73	1.18	1.27	40.4
2	T1	15	0.0	15	0.0	0.049	18.6	LOS B	0.2	1.2	0.75	1.00	0.75	38.7
Approach		407	1.3	407	1.3	0.586	16.2	LOS B	4.2	29.6	0.73	1.17	1.26	40.3
East: Raby Road (North-West)														
4	L2	33	3.2	33	3.2	0.187	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	57.7
5	T1	681	2.7	681	2.7	0.187	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	59.6
Approach		714	2.7	714	2.7	0.187	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.4
West: Raby Road (South-East)														
12	R2	304	1.0	304	1.0	0.469	11.6	LOS A	2.7	19.2	0.69	0.97	1.03	43.5
Approach		304	1.0	304	1.0	0.469	11.6	NA	2.7	19.2	0.69	0.97	1.03	43.5
All Vehicles		1425	2.0	1425	2.0	0.586	7.2	NA	4.2	29.6	0.36	0.56	0.58	49.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 2 [Raby Rd-Spitfire Dr_Stage 2 (Median) NSW -2038 SAT+Holiday Dev]

Network: N101 [2038 SAT +Holiday Dev]

Staged crossing Stage 2 (Median) at three-way intersection with 5-lane major road.
Give-way behaviour assumed at Stage 2.
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Spitfire Dr_Median Storage Area														
3	R2	15	0.0	15	0.0	0.020	2.9	LOS A	0.1	0.3	0.50	0.42	0.50	49.0
Approach		15	0.0	15	0.0	0.020	2.9	LOS A	0.1	0.3	0.50	0.42	0.50	49.0
West: Raby Rd (South-East)														
11	T1	769	1.5	769	1.5	0.199	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		769	1.5	769	1.5	0.199	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		784	1.5	784	1.5	0.199	0.1	NA	0.1	0.3	0.01	0.01	0.01	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Site Access - 2038 AM+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
2	T1	85	12.0	0.047	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
3	R2	436	0.0	0.267	4.0	LOS A	1.5	10.3	0.26	0.49	0.26	37.9
Approach		521	2.0	0.267	3.3	NA	1.5	10.3	0.22	0.41	0.22	38.3
East: Site Access												
4	L2	133	0.0	0.105	3.9	LOS A	0.4	3.1	0.23	0.46	0.23	38.3
6	R2	1	0.0	0.105	11.0	LOS A	0.4	3.1	0.23	0.46	0.23	38.0
Approach		134	0.0	0.105	3.9	LOS A	0.4	3.1	0.23	0.46	0.23	38.3
North: St Andrews Road (south)												
7	L2	1	0.0	0.058	3.4	LOS A	0.0	0.0	0.00	0.00	0.00	40.1
8	T1	108	6.0	0.058	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		109	5.9	0.058	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles		764	2.2	0.267	3.0	NA	1.5	10.3	0.19	0.36	0.19	38.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Site Access - 2038 PM+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
2	T1	438	12.0	0.244	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
3	R2	284	0.0	0.187	4.2	LOS A	0.9	6.5	0.33	0.52	0.33	37.8
Approach		722	7.3	0.244	1.7	NA	0.9	6.5	0.13	0.20	0.13	39.1
East: Site Access												
4	L2	284	0.0	0.241	4.3	LOS A	1.1	7.7	0.34	0.52	0.34	38.1
6	R2	1	0.0	0.241	20.3	LOS B	1.1	7.7	0.34	0.52	0.34	37.8
Approach		285	0.0	0.241	4.4	LOS A	1.1	7.7	0.34	0.52	0.34	38.1
North: St Andrews Road (south)												
7	L2	1	0.0	0.098	3.4	LOS A	0.0	0.0	0.00	0.00	0.00	40.1
8	T1	183	6.0	0.098	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		184	6.0	0.098	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles		1192	5.3	0.244	2.1	NA	1.1	7.7	0.16	0.25	0.16	39.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Site Access - 2038 SAT+Holiday Dev]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

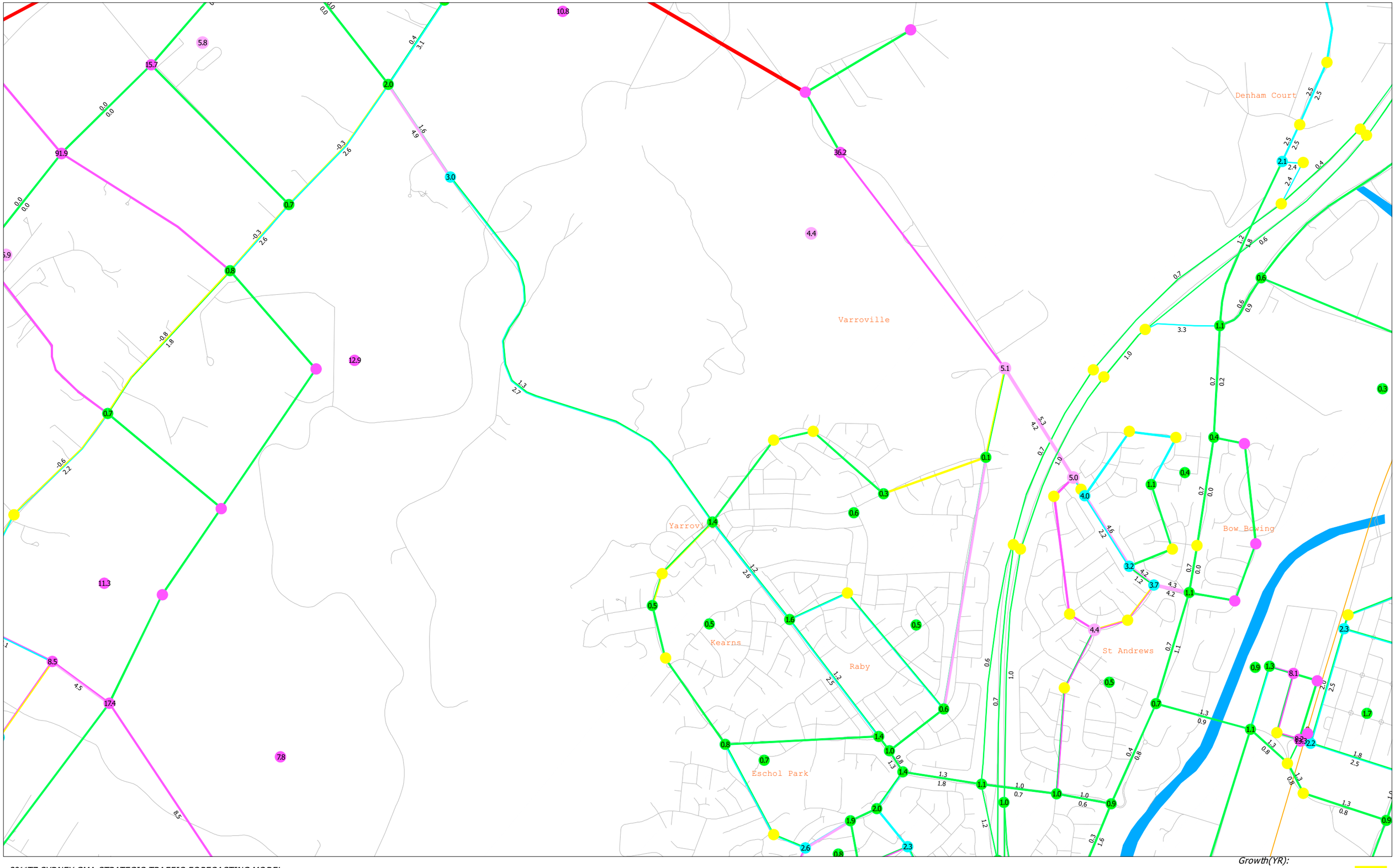
Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: St Andrews Road (south)												
2	T1	8	12.0	0.005	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
3	R2	461	0.0	0.299	4.2	LOS A	1.7	11.6	0.34	0.52	0.34	37.8
Approach		469	0.2	0.299	4.2	NA	1.7	11.6	0.34	0.51	0.34	37.9
East: Site Access												
4	L2	408	0.0	0.338	4.4	LOS A	1.7	12.0	0.36	0.52	0.36	38.1
6	R2	1	0.0	0.338	13.6	LOS A	1.7	12.0	0.36	0.52	0.36	37.8
Approach		409	0.0	0.338	4.4	LOS A	1.7	12.0	0.36	0.52	0.36	38.1
North: St Andrews Road (south)												
7	L2	1	0.0	0.090	3.4	LOS A	0.0	0.0	0.00	0.00	0.00	40.1
8	T1	167	6.0	0.090	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		168	6.0	0.090	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles		1047	1.1	0.338	3.6	NA	1.7	12.0	0.29	0.43	0.29	38.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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: 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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Attachment Five

RMS STM Plots

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS

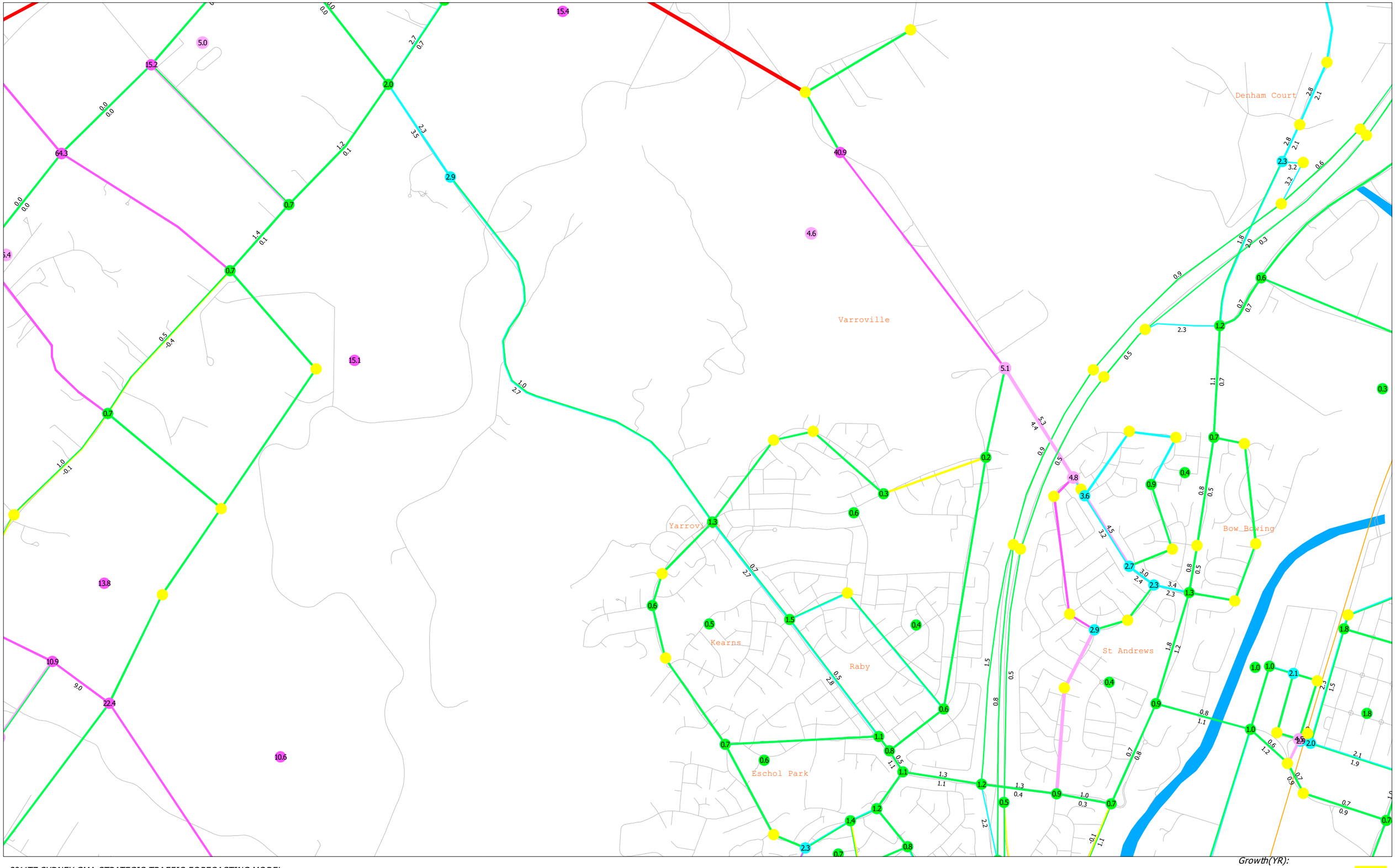


2011TZ SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL
Scenario 2036: 2036 SYDNEY TRAFFIC FORECASTING MODEL(LU2016V1.3)7-9AM(mf36)
2018-06-21 12:45

Growth(YR):

- *<0*
- *<2.00*
- *2.01-4.00*
- *4.01-6.00*
- *>6.00*
- *New Links=999*

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS



2011TZ SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL
Scenario 20360: 2036 SYDNEY TRAFFIC FORECASTING MODEL(LU2016V1.3)4-6PM(mf56)
2018-06-21 12:46

Growth(YR):

<0
<2.00
2.01-4.00
4.01-6.00
>6.00
New Links=999