

Reference: 24.014r03v03

08 April 2025

Isaac Property Terrey Hills Pty Ltd
Suite 1.04
3 Thomas Holt Drive
Macquarie Park NSW 2113
Australia

Attention: Mr Ben Isaac, Director

Re: 40 Myoora Road, Terrey Hills
Council's Development Application No. DA2024/1362
TfNSW Reference: SYD24/01792/01
Response to Request for Information

Dear Ben,

We refer to the subject development application in relation to the proposed restaurant located at 40 Myoora Road, Terrey Hills. TRAFFIX has been forwarded comments from Transport for New South Wales (TfNSW) dated 12th November 2024) provided in **Attachment 1** for reference.

The proposed development has been revised in response to feedback received from the local community, Council and TfNSW summarised as follows:

- A reduction in development yield from 2,698m² Gross Floor Area (GFA) with a maximum capacity of 794 patrons (original proposed development yield) to 1,399m² GFA with a maximum capacity of 594 patrons (amended proposed development yield).
- Removal of overflow parking area.
- Removal of mini bus service.

This document should be read with reference to the following documentation prepared by TRAFFIX which accompanied the Development Application:

- Original Traffic Impact Assessment Report (TRAFFIX reference: 24.014r01v02 dated September 2024).
- Updated Traffic Impact Assessment Report (TRAFFIX reference: 24.014r01v04 dated April 2025).

TRAFFIX has reviewed all relevant comments related to traffic and parking and has responded to each relevant comment as summarised below.

Responses to Transport for New South Wales (TAB A - TfNSW Comments)

- 1) **Delays:** TfNSW notes that the DA will significantly increase the delay for vehicles at the Mona Vale Road/Aumuna Road intersection, with delays for right turns out onto Mona Vale Road increasing from 310 seconds to 403 seconds. The analysis provided shows that the Mona Vale Road/Aumuna Road intersection is currently performing very poorly, and that the additional traffic generated by the DA will create an unacceptable safety risk at this intersection. High delays at an intersection will likely encourage drivers to take risks. Given the road environment, such risks could result in high-speed, high-severity crashes. The currently submitted documentation does not include any transport or traffic amelioration measures at the above intersection to reduce the impact of the DA in terms of improving road safety and network efficiency outcomes that benefit the development's operations and the associated vehicular traffic that the DA will generate. The fact that an intersection is already performing poorly does not justify accepting further vehicle movements without implementing necessary improvements. The Applicant must investigate and propose suitable traffic mitigation measures to reduce delays and improve road safety at this intersection

TRAFFIX Response:

Reference should be made to the updated modelling results based on the revised development yields discussed above and summarised in **Table A** below.

Table A: Intersection Performance for Existing and Development

Intersection	Control Type	Scenario	Period	Degree of Saturation (DoS)	Average Delay	Level of Service
Mona Vale Road and Aumuna Road (south approach)	Give way	Existing	PM	0.398	35.8	C
			SAT	0.486	200.1	F
		Existing + Development [†]	PM	0.398	36.6	C
			SAT	0.501	195.9	F
Mona Vale Road and Kamber Road (north approach)	Give way	Existing	PM	0.325	21.7	B
			SAT	0.379	60.2	E
		Existing + Development [†]	PM	0.325	22.1	B
			SAT	0.381	61.3	E
Aumuna Road and Myoora Road	Roundabout	Existing	PM	0.204	8.8	A
			SAT	0.226	8.7	A
		Existing + Development [†]	PM	0.224	8.8	A
			SAT	0.246	8.8	A

*LOS for priority intersections is based on the worst performing movement in accordance with TfNSW Guidelines.

The above modelling results show there will be no noticeable changes to the overall performance of the critical intersection of Mona Vale Road and Aumuna Road as a result of the proposed development and no upgrades are required to be made to this intersection, accordingly. Reference is made to the intersection performance summary figure presented in **Figure 1** below.

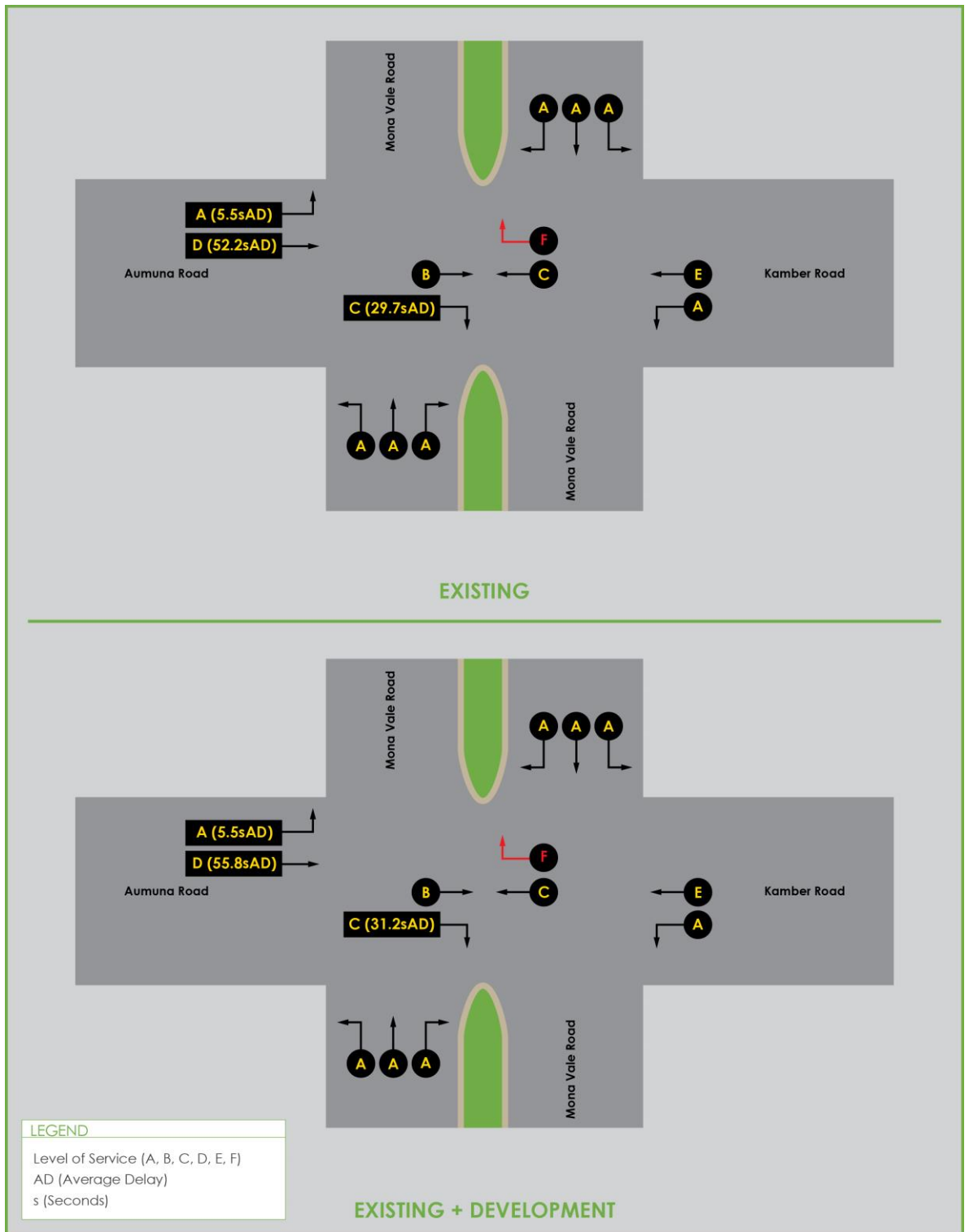


Figure 1: Mona Vale Road / Aumuna Road / Kamber Road Intersection Performance Summary

Whilst the intersection of Mona Vale Road and Aumuna Road currently fails and will continue to fail under the development scenario, this is due to vehicles turning right from Kamber Road onto Mona Vale Road, northbound and is not attributed to the additional traffic generated by the proposed development. Reference should be made to the intersection performance summary diagram presented in **Figure 1** above showing the Level of Service for each leg respectively for the existing and

existing plus development scenarios. Whilst there is a small increase to the average delay for vehicles turning right from Aumuna Road, eastbound onto Mona Vale Road, southbound, this is minor (+5.1 seconds in total), and the overall performance of the intersection will continue to operate at a Level of Service F with a slight improvement in average delay (-4.2 seconds) as shown in **Table A** above. This slight improvement is likely because more vehicles pass through the intersection without causing the worst performing movement (the right turn movement from Kamber Road onto Mona Vale Road) to perform any worse than it is already performing under the existing scenario.

Furthermore, the critical movement involving vehicles departing the subject site and turning right from Aumuna Road (eastbound) onto Mona Vale Road, southbound will result in an additional six (6) vehicles per hour undertaking this manoeuvre during peak times which is considered minor (equivalent to one additional vehicle every 10 minutes) and will have no noticeable impact on the performance of this intersection. A summary of additional vehicle movements caused by the proposed development, including the additional six (6) additional vehicles per hour turning right from Aumuna Road, eastbound onto Mona Vale Road, southbound (in green) is shown in **Figure 2** below for clarity.

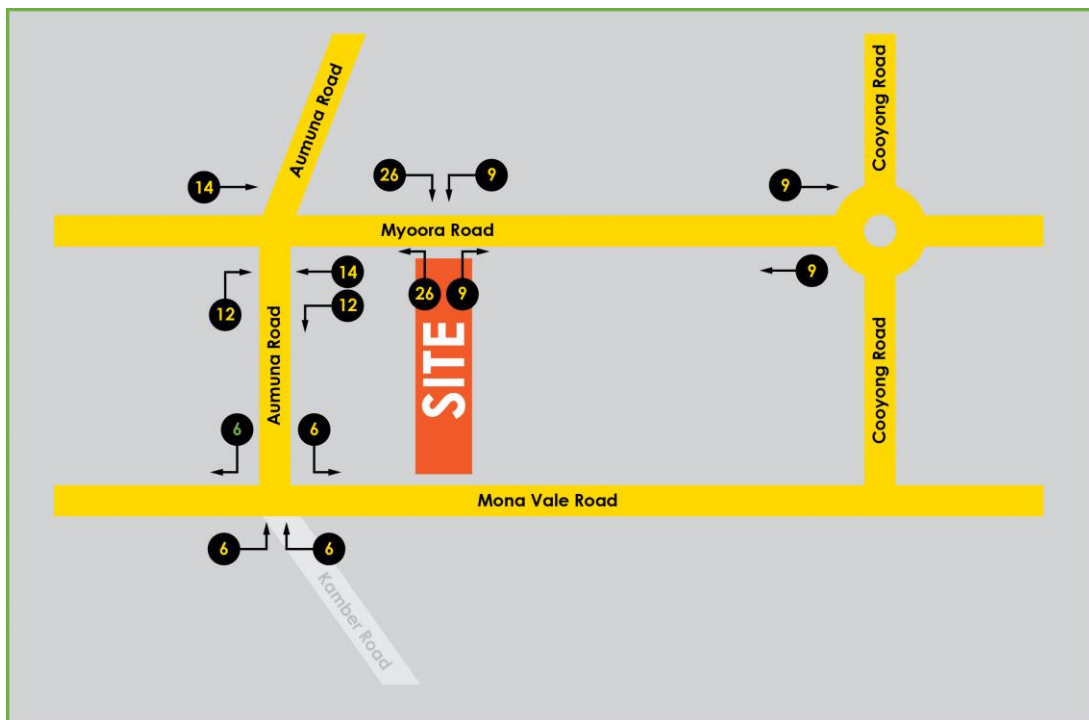


Figure 2 Development Peak Hourly Vehicle Trips

Therefore, no improvements are required to the critical intersection of Mona Vale Road and Aumuna Road to facilitate the proposed development in accordance with TfNSW guidelines.

2) Trip Distribution TfNSW does not agree with the trip distributions as detailed in the Traffic Impact Assessment (TIA) prepared by Traffix (reference 24.01 4r01 v02, dated September 2024). A review of available Google data suggests that vehicles travelling from the development site to the east, south, and north are directed by Google Maps to exit via the Mona Vale Road and Aumuna Road intersection. Although some vehicle movements generated by the development may “take advantage of alternative more convenient vehicle routes using nearby signalised intersections to turn right onto Mona Vale Road” most vehicle movements will utilise the Mona Vale Road and Aumuna Road intersection.

TRAFFIX Response:

Reference should be made to the intersection survey results presented in **Attachment 2** which demonstrates that during the critical Saturday peak at the intersection of Myoora Road/Aumuna Road between 10:15am-11:15am, only 17% of vehicles approached the intersection via the northeastern leg of Myoora Road and turned left onto Aumuna Road, southeast towards the intersection of Aumuna Road/Monavale Road.

The adopted trip distributions as assessed in the Traffic Impact Assessment assigned 75% of outbound vehicles to exit the site and turn left onto Myoora Road and 50 % of those vehicles were assigned to turn left onto Aumuna Road, southwest which is considered a conservative assessment. For context, if 100% of outbound vehicles exited the subject site and turned left onto Myoora Road and 17% of those vehicles turned left onto Aumuna Road at the intersection of Aumuna Road / Myoora Road as per the intersection surveys, then only 17% of vehicles exiting the subject site would turn left onto Aumuna Road, less than the 25% of vehicle trips as assessed in the TIA.

For clarity, a vehicle trip diagram of all additional vehicle trips generated by the subject development during peak operating hours is presented in **Figure 2** above.

*3) **Shuttle Bus:** TfNSW acknowledges the statements highlighting the significant role of the shuttle/mini-bus in promoting more sustainable travel behaviour and reducing reliance on private vehicles and onsite parking. However, TfNSW notes that the mini-bus will not operate during peak periods in the middle of the week or on Saturdays, and its operation will be limited to Friday and Saturday evenings starting from 6 pm. Additionally, TfNSW observes that the parking and patron survey conducted by McLaren Traffic Engineering (dated 10 January 2018) indicated no shuttle bus usage among patrons of the nearby Tavern. Furthermore, TfNSW was unable to locate the map showing the areas covered by the shuttle bus, as referenced in the Statement of Environmental Effects prepared by Urbis in September 2024. TfNSW is of the opinion that if the shuttle bus to be provided is only servicing the local area, given the size of the development and the large catchment that patrons will be coming from, the shuttle bus, while great to provide, will have minimal impacts on reducing the number of vehicular movements coming to and from Mona Vale Road.*

TRAFFIX Response:

The shuttle bus is no longer proposed in accordance with the revised plans.

*4. **Length of stay:** Based on the information provided, TfNSW assumes that the traffic generation rates for the DA assume a length of stay of 4.4 hours. If patrons were to stay for shorter durations, it would result in additional vehicle movements (e.g. if people were staying for 1 hour there would be 2 movements per car space) thereby increasing traffic at the Mona Vale Road/Aumuna Road intersection. The submitted TIA has estimated 0.45 movements per parking space which indicates you will have large groups of people that will arrive and leave at the same time.*

TRAFFIX Response:

Vehicle trip rates are based on Transport for New South Wales Guidelines (5 vehicle trips per 100m² of restaurant GFA) and are not based on parking provisions.

5. TfNSW has reviewed the provided SIDRA files and while noting the comments above has identified the following concerns that need to be addressed:

a) The priorities within the model indicate that vehicles turning right out of Aumuna Road onto Mona Vale Road don't have to give way to vehicles turning right from Mona Vale Road into Aumuna Road. This is to be confirmed by the Applicant.

TRAFFIX Response:

The revised model has been updated accordingly.

b) The results within the network model are based on the average back of queue and not the 95th percentile. While the average can be provided, the 95th percentile should also be assessed/reported.

TRAFFIX Response:

The 95th percentile queue is included in the updated modelling results presented in **Attachment 3**. It is noteworthy that the western Aumuna Road approach at the intersection of Mona Vale Road / Aumuna Road (South Approach) during the critical Saturday peak in the post development scenario operates with a 95th percentile back of queue of 1.7 vehicles (11.7m). This is in comparison with a 95th percentile back of queue of 1.4 vehicles (10.1m) for the existing intersection. The increase (0.3 vehicles and 1.6m) is considered negligible and will have no noticeable impacts on the operation of this intersection.

c) The default gap acceptance has been used and confirmation that this satisfactorily calibrates the model should be provided (refer to additional comments on base model calibration in Point g)

TRAFFIX Response:

The Gap acceptance has been set as 'high' to account for the high traffic flow along Mona Vale Road (opposing movement).

d) The traffic surveys undertaken in inform the study were not included in the traffic report, please provided these for review

TRAFFIX Response:

Reference should be made to the intersection survey results presented in **Attachment 2**.

e) An exit speed of 50km/h has been selected for vehicles travelling from Aumuna Road to the waiting bay. Justification for the speed selected is to be provided.

TRAFFIX Response:

The revised model has been updated with an applied exit speed of 10km/h.

f) The SIDRA results show that the post-development intersection of Mona Vale Road and Aumuna Road will not be functioning satisfactorily and will be over capacity. But that is based on an input of 135 movements per hour. There is no justification for this rate and that it applies to this site. TfNSW notes that the mini-bus will not be operating during peak times in the middle of the week and will only be operating on Friday and Saturday evenings from 6 pm therefore making it more difficult for TfNSW to understand the applicability of the 135 vehicle movements per hour. In addition, the above does not include the use of the site for functions that would see large numbers of people arriving and leaving at the same time.

TRAFFIX Response:

The revised model has been updated based on the updated yield and associated trip generation based on TfNSW Guidelines.

g) The SIDRA base models needs to be calibrated with on-site observations relating to queue lengths, delays, etc. While it is noted that a traffic survey has been completed, no details have been provided on what calibration works have been undertaken. As such, TfNSW requires details on how the base model has been calibrated and validated with on-site observations in the AM and PM peaks (e.g. TfNSW requires the observation data for queue lengths and delays at the Mona Vale Road and Aumuna Road intersection that has been used to inform the SIDRA base models in the AM and PM peaks).

TRAFFIX Response:

Observed video footage demonstrated no more than two (2) vehicles arrived and queued along Aumuna Road at the intersection of Aumuna Road / Mona Vale Road.

6) Strategic Design: A strategic design for any identified works at the Mona Vale Road and Aumuna Road intersection will need to be prepared to clarify the scope of works, demonstrate the works can be constructed within the road reserve and allow the consent authority to consider any environmental impacts of the works as part of their Part 4 assessment. These impacts include traffic and road safety impacts as well as other impacts such noise, flora and fauna, heritage and impact to community. The strategic design should address the requirements as detailed in the TfNSW Strategic Design Requirements fact sheet which is accessible through the following link - Strategic Design Fact Sheet.

TRAFFIX Response:

No intersection upgrades are required or considered necessary based on the modelling results presented in **Attachment 3**.

Conclusion

Having considered all comments, continued support is given to the subject development on traffic engineering and safety grounds and no road improvements or upgrades are warranted for the reasons discussed above. However, should any issues require further clarification, TRAFFIX requests the opportunity to provide a response prior to any determination being made.

Yours faithfully,

Traffix



Justin Pindar
Director

Encl: Attachment 1: TfNSW Correspondence
Attachment 2: Survey Results
Attachment 3: SIDRA Intersection Modelling Results

ATTACHMENT 1

TfNSW Correspondence

12 November 2024

TfNSW Reference: SYD24/01792/01
Council's Reference: DA2024/1362 (CNR-74738)



Mr Scott Phillips
Chief Executive Officer
PO Box 82
MANLY NSW 1655

**HOSPITALITY VENUE COMPRISING THREE RESTAURANTS AND ANCILLARY SUPPORTING USES
40 MYOORA ROAD, TERREY HILLS**

Dear Mr Phillips,

Reference is made to Council's correspondence, concerning the abovementioned Development Application (**DA**) which was referred to Transport for NSW (**TfNSW**) for comment under Sections 2.119 and 2.122 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

TfNSW has reviewed the application and **does not support** the DA in its current form. TfNSW is of the view that the DA will create a number of road safety issues, in particular, right turns out of Aumuna Road onto Mona Vale Road. Detailed comments are provided in **TAB A**.

It has been identified by TfNSW that no transport or traffic amelioration measures are proposed by the Applicant at the intersection of Mona Vale Road (**classified road**) and Aumuna Road intersection to reduce the impact of the DA in terms of improving road safety and network efficiency outcomes that benefit the development's operations and traffic generation and future road users.

As such, TfNSW recommends that the Applicant investigate and propose appropriate traffic mitigation measures to reduce the delay and associated road safety impact of the DA on the classified road network to address TfNSW comments in **TAB A**. Following receipt of updated information that addresses **TAB A**, TfNSW will review the material and respond accordingly.

TfNSW would welcome an opportunity to discuss this matter with Council and the Applicant to clarify the matters raised in **TAB A**, if required.

For more information, please contact Jim Tsirimiagos, Land Use Planner, on 0412 376 198, or by email at development.sydney@transport.nsw.gov.au.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Andrew Lissenden".

Andrew Lissenden
A/Senior Land Use Planner - Eastern
Land Use, Network & Place Planning
Transport Planning | Planning, Integration and Passenger

OFFICIAL

TAB A – TfNSW comments

TfNSW's reasons for not supporting the DA as currently submitted are detailed below:

1. Delays: TfNSW notes that the DA will significantly increase the delay for vehicles at the Mona Vale Road/Aumuna Road intersection, with delays for right turns out onto Mona Vale Road increasing from 310 seconds to 403 seconds. The analysis provided shows that the Mona Vale Road/Aumuna Road intersection is currently performing very poorly, and that the additional traffic generated by the DA will create an unacceptable safety risk at this intersection. High delays at an intersection will likely encourage drivers to take risks. Given the road environment, such risks could result in high-speed, high-severity crashes. The currently submitted documentation does not include any transport or traffic amelioration measures at the above intersection to reduce the impact of the DA in terms of improving road safety and network efficiency outcomes that benefit the development's operations and the associated vehicular traffic that the DA will generate. The fact that an intersection is already performing poorly does not justify accepting further vehicle movements without implementing necessary improvements. The Applicant must investigate and propose suitable traffic mitigation measures to reduce delays and improve road safety at this intersection.
2. Trip Distribution: TfNSW does not agree with the trip distributions as detailed in the Traffic Impact Assessment (TIA) prepared by Traffix (reference 24.01 4r01 v02, dated September 2024). A review of available Google data suggests that vehicles travelling from the development site to the east, south, and north are directed by Google Maps to exit via the Mona Vale Road and Aumuna Road intersection. Although some vehicle movements generated by the development may "take advantage of alternative more convenient vehicle routes using nearby signalised intersections to turn right onto Mona Vale Road" most vehicle movements will utilise the Mona Vale Road and Aumuna Road intersection.
3. Shuttle Bus: TfNSW acknowledges the statements highlighting the significant role of the shuttle/mini-bus in promoting more sustainable travel behaviour and reducing reliance on private vehicles and onsite parking. However, TfNSW notes that the mini-bus will not operate during peak periods in the middle of the week or on Saturdays, and its operation will be limited to Friday and Saturday evenings starting from 6 pm. Additionally, TfNSW observes that the parking and patron survey conducted by McLaren Traffic Engineering (dated 10 January 2018) indicated no shuttle bus usage among patrons of the nearby Tavern. Furthermore, TfNSW was unable to locate the map showing the areas covered by the shuttle bus, as referenced in the Statement of Environmental Effects prepared by Urbis in September 2024. TfNSW is of the opinion that if the shuttle bus to be provided is only servicing the local area, given the size of the development and the large catchment that patrons will be coming from, the shuttle bus, while great to provide, will have minimal impacts on reducing the number of vehicular movements coming to and from Mona Vale Road.
4. Length of Stay: Based on the information provided, TfNSW assumes that the traffic generation rates for the DA assume a length of stay of 4.4 hours. If patrons were to stay for shorter durations, it would result in additional vehicle movements (e.g. if people were staying for 1 hour there would be 2 movements per car space) thereby increasing traffic at the Mona Vale Road/Aumuna Road intersection. The submitted TIA has estimated 0.45 movements per parking space which indicates you will have large groups of people that will arrive and leave at the same time.
5. SIDRA: TfNSW has reviewed the provided SIDRA files and while noting the comments above has identified the following concerns that need to be addressed:
 - a. The priorities within the model indicate that vehicles turning right out of Aumuna Road onto Mona Vale Road don't have to give way to vehicles turning right from Mona Vale Road into Aumuna Road. This is to be confirmed by the Applicant.
 - b. The results within the network model are based on the average back of queue and not the 95th percentile. While the average can be provided, the 95th percentile should also be assessed/reported.
 - c. The default gap acceptance has been used and confirmation that this satisfactorily calibrates the model should be provided (refer to additional comments on base model calibration in Point g).
 - d. The traffic surveys undertaken to inform the study were not included in the traffic report, please provide these for review.
 - e. An exit speed of 50km/h has been selected for vehicles travelling from Aumuna Road to the waiting bay. Justification for the speed selected is to be provided.

- f. The SIDRA results show that the post-development intersection of Mona Vale Road and Aumuna Road will not be functioning satisfactorily and will be over capacity. But that is based on an input of 135 movements per hour. There is no justification for this rate and that it applies to this site. TfNSW notes that the mini-bus will not be operating during peak times in the middle of the week and will only be operating on Friday and Saturday evenings from 6 pm therefore making it more difficult for TfNSW to understand the applicability of the 135 vehicle movements per hour. In addition, the above does not include the use of the site for functions that would see large numbers of people arriving and leaving at the same time.
 - g. The SIDRA base models needs to be calibrated with on-site observations relating to queue lengths, delays, etc. While it is noted that a traffic survey has been completed, no details have been provided on what calibration works have been undertaken. As such, TfNSW requires details on how the base model has been calibrated and validated with on-site observations in the AM and PM peaks (e.g. TfNSW requires the observation data for queue lengths and delays at the Mona Vale Road and Aumuna Road intersection that has been used to inform the SIDRA base models in the AM and PM peaks).
6. Strategic Design: A strategic design for any identified works at the Mona Vale Road and Aumuna Road intersection will need to be prepared to clarify the scope of works, demonstrate the works can be constructed within the road reserve and allow the consent authority to consider any environmental impacts of the works as part of their Part 4 assessment. These impacts include traffic and road safety impacts as well as other impacts such noise, flora and fauna, heritage and impact to community. The strategic design should address the requirements as detailed in the TfNSW Strategic Design Requirements fact sheet which is accessible through the following link - [Strategic Design Fact Sheet](#).

Notes: TfNSW concurrence under Section 138 of the Roads Act, 1993 is required for any works within the road reserve of Mona Vale Road.

To reconsider the submitted DA, TfNSW requires the above matters to be addressed.

ATTACHMENT 2

Survey Results

Location Monavale Road Duration 10:00 - 14:00
 Kamber Road -
 Monavale Road -
 Aumuna Road Date Saturday, 6 April 2024
 Suburb TERRY HILLS Weather RAIN

All Vehicles Time Per 15 Mins	NORTHEAST													EAST												
	Monavale Road													Kamber Road												
	L			I			R			U			TOTAL	L			I			R			U			TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	
10:00 - 10:15	0	0	0	264	4	268	3	0	3	0	0	0	271	1	0	1	0	0	0	0	2	2	0	0	0	3
10:15 - 10:30	0	0	0	318	8	326	6	1	7	3	0	3	336	1	0	1	0	0	0	2	0	2	0	0	0	3
10:30 - 10:45	2	2	4	321	4	325	7	2	9	0	0	0	338	2	0	2	0	0	0	1	0	1	0	0	0	3
10:45 - 11:00	3	1	4	329	11	340	6	1	7	3	0	3	354	1	0	1	0	0	0	0	2	2	0	0	0	3
11:00 - 11:15	1	0	1	345	7	352	7	2	9	2	0	2	364	2	1	3	1	0	1	1	0	1	0	0	0	5
11:15 - 11:30	1	0	1	359	6	365	7	0	7	1	0	1	374	1	0	1	0	0	0	3	0	3	0	0	0	4
11:30 - 11:45	0	0	0	372	4	376	7	1	8	1	0	1	385	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	2	0	2	307	10	317	2	0	2	1	0	1	322	1	0	1	0	0	0	2	0	2	0	0	0	3
12:00 - 12:15	0	0	0	333	4	337	8	2	10	1	0	1	348	2	0	2	0	0	0	1	1	2	0	0	0	4
12:15 - 12:30	1	0	1	347	10	357	7	1	8	3	0	3	369	1	0	1	0	0	0	0	0	0	0	0	0	1
12:30 - 12:45	3	1	4	392	2	394	9	3	12	7	0	7	417	4	0	4	0	0	0	0	0	0	0	0	0	4
12:45 - 13:00	0	0	0	296	7	303	12	0	12	1	0	1	316	0	0	0	0	0	0	0	0	0	0	0	0	0
Period End	13	4	17	3983	77	4060	81	13	94	23	0	23	4194	16	1	17	1	0	1	10	5	15	0	0	0	33

All Vehicles Time Per 15 Mins	SOUTHWEST													WEST												
	Monavale Road													Aumuna Road												
	L			I			R			U			TOTAL	L			I			R			U			TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	
10:00 - 10:15	15	0	15	300	4	304	1	0	1	2	0	2	322	5	0	5	1	0	1	6	0	6	0	0	0	12
10:15 - 10:30	14	0	14	318	8	326	1	0	1	0	0	0	341	5	2	7	2	0	2	13	0	13	0	0	0	22
10:30 - 10:45	18	0	18	327	6	333	1	0	1	0	0	0	352	9	0	9	1	0	1	14	0	14	0	0	0	24
10:45 - 11:00	22	1	23	366	4	370	0	0	0	2	0	2	395	5	0	5	0	0	0	9	0	9	0	0	0	14
11:00 - 11:15	12	0	12	379	3	382	0	0	0	0	0	0	394	3	0	3	0	0	0	13	0	13	0	0	0	16
11:15 - 11:30	4	1	5	364	7	371	1	0	1	1	0	1	378	13	0	13	1	0	1	12	0	12	0	0	0	26
11:30 - 11:45	13	0	13	387	8	395	1	0	1	1	0	1	410	6	3	9	0	0	0	15	2	17	0	0	0	26
11:45 - 12:00	20	0	20	399	5	404	3	0	3	1	0	1	428	7	1	8	0	0	0	8	0	8	0	0	0	16
12:00 - 12:15	4	0	4	423	4	427	1	0	1	2	0	2	434	13	1	14	0	0	0	10	0	10	0	0	0	24
12:15 - 12:30	12	0	12	454	6	460	0	0	0	0	0	0	472	7	1	8	0	0	0	8	0	8	0	0	0	16
12:30 - 12:45	12	1	13	429	10	439	1	0	1	0	0	0	453	10	1	11	0	0	0	13	0	13	0	0	0	24
12:45 - 13:00	22	0	22	449	7	456	3	0	3	1	0	1	482	5	0	5	0	0	0	15	0	15	0	0	0	20
Period End	168	3	171	4595	72	4667	13	0	13	10	0	10		88	9	97	5	0	5	136	2	138	0	0	0	240

Location Monavale Road Duration 10:00 - 14:00
 Kamber Road
 Monavale Road
 Aumuna Road Date Saturday, 6 April 2024
 Suburb TERRY HILLS Weather RAIN

All Vehicles Time Per Hour	NORTHEAST Monavale Road													EAST Kamber Road													TOTAL										
	L				T				R				U				TOTAL	L				T				R				U							
	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	
10:00 - 11:00	5	3	8		1232	27	1259		22	4	26		6	0	6		1299	5	0	5		0	0	0		3	4	7		0	0	0		12	2730	63	2793
10:15 - 11:15	6	3	9		1313	30	1343		26	6	32		8	0	8		1392	6	1	7		1	0	1		4	2	6		0	0	0		14	2898	66	2964
10:30 - 11:30	7	3	10		1354	28	1382		27	5	32		6	0	6		1430	6	1	7		1	0	1		5	2	7		0	0	0		15	2983	61	3044
10:45 - 11:45	5	1	6		1405	28	1433		27	4	31		7	0	7		1477	4	1	5		1	0	1		4	2	6		0	0	0		12	3083	65	3148
11:00 - 12:00	4	0	4		1383	27	1410		23	3	26		5	0	5		1445	4	1	5		1	0	1		6	0	6		0	0	0		12	3090	61	3151
11:15 - 12:15	3	0	3		1371	24	1395		24	3	27		4	0	4		1429	4	0	4		0	0	0		6	1	7		0	0	0		11	3122	60	3182
11:30 - 12:30	3	0	3		1359	28	1387		24	4	28		6	0	6		1424	4	0	4		0	0	0		3	1	4		0	0	0		8	3194	64	3258
11:45 - 12:45	6	1	7		1379	26	1405		26	6	32		12	0	12		1456	8	0	8		0	0	0		3	1	4		0	0	0		12	3271	64	3335
12:00 - 13:00	4	1	5		1368	23	1391		36	6	42		12	0	12		1450	7	0	7		0	0	0		1	1	2		0	0	0		9	3322	62	3384
12:15 - 13:15	4	1	5		1035	19	1054		28	4	32		11	0	11		1102	5	0	5		0	0	0		0	0	0		0	0	0		5	2524	50	2574
12:30 - 13:30	3	1	4		688	9	697		21	3	24		8	0	8		733	4	0	4		0	0	0		0	0	0		0	0	0		4	1684	32	1716
12:45 - 13:45	0	0	0		296	7	303		12	0	12		1	0	1		316	0	0	0		0	0	0		0	0	0		0	0	0		0	804	14	818
13:00 - 14:00	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0		0
Period End																																					

All Vehicles Time Per Hour	SOUTHWEST Monavale Road												WEST Aumuna Road																
	L			T			R			U			TOTAL	L			T			R			U			TOTAL	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	
10:00 - 11:00	69	1	70	1311	22	1333	3	0	3	4	0	4	1410	24	2	26	4	0	4	42	0	42	0	0	0	72	2730	63	2793
10:15 - 11:15	66	1	67	1390	21	1411	2	0	2	2	0	2	1482	22	2	24	3	0	3	49	0	49	0	0	0	76	2898	66	2964
10:30 - 11:30	56	2	58	1436	20	1456	2	0	2	3	0	3	1519	30	0	30	2	0	2	48	0	48	0	0	0	80	2983	61	3044
10:45 - 11:45	51	2	53	1496	22	1518	2	0	2	4	0	4	1577	27	3	30	1	0	1	49	2	51	0	0	0	82	3083	65	3148
11:00 - 12:00	49	1	50	1529	23	1552	5	0	5	3	0	3	1610	29	4	33	1	0	1	48	2	50	0	0	0	84	3090	61	3151
11:15 - 12:15	41	1	42	1573	24	1597	6	0	6	5	0	5	1650	39	5	44	1	0	1	45	2	47	0	0	0	92	3122	60	3182
11:30 - 12:30	49	0	49	1663	23	1686	5	0	5	4	0	4	1744	33	6	39	0	0	0	41	2	43	0	0	0	82	3194	64	3258
11:45 - 12:45	48	1	49	1705	25	1730	5	0	5	3	0	3	1787	37	4	41	0	0	0	39	0	39	0	0	0	80	3271	64	3335
12:00 - 13:00	50	1	51	1755	27	1782	5	0	5	3	0	3	1841	35	3	38	0	0	0	46	0	46	0	0	0	84	3322	62	3384
12:15 - 13:15	46	1	47	1332	23	1355	4	0	4	1	0	1	1407	22	2	24	0	0	0	36	0	36	0	0	0	60	2524	50	2574
12:30 - 13:30	34	1	35	878	17	895	4	0	4	1	0	1	935	15	1	16	0	0	0	28	0	28	0	0	0	44	1684	32	1716
12:45 - 13:45	22	0	22	449	7	456	3	0	3	1	0	1	482	5	0	5	0	0	0	15	0	15	0	0	0	20	804	14	818
13:00 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Period End																													

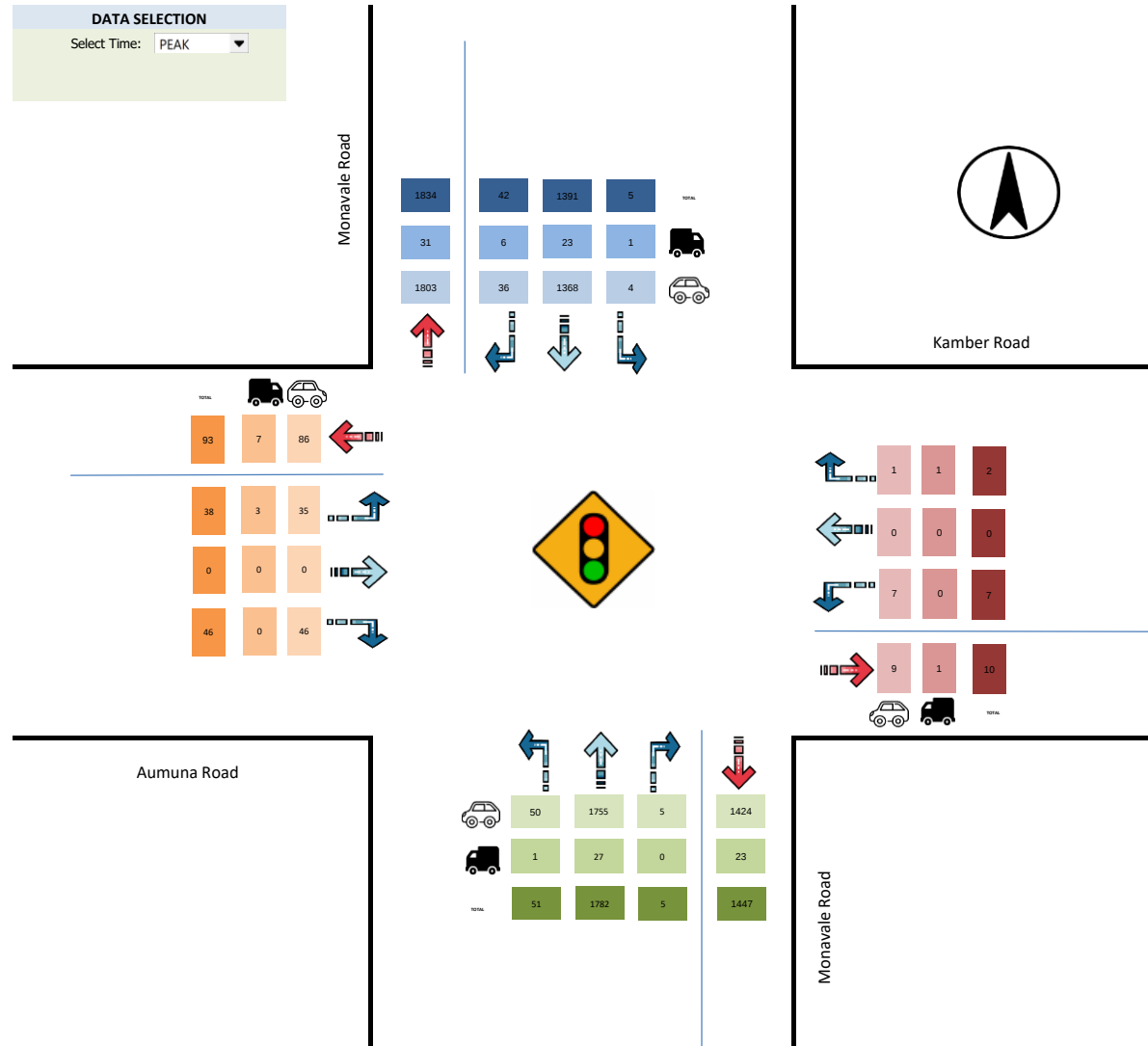
Location Monavale Road
Kamber Road
Monavale Road
Aumuna Road
Suburb TERRY HILLS

Duration 10:00 - 14:00
-
-
-
Date Saturday, 6 April 2024
Weather RAIN

DATA SELECTION

Select Time:

TIME RANGE		
PEAK	-	MIDDAY
PEAK		
12:00	-	13:00



Traffic Information Specialist

ABN: 42 613 389 923
Email info@tistraffic.com.au

Location Aumuna Road Duration -
 Myoora Road -
 Aumuna Road 16:00 - 18:00
 Myoora Road Date Friday, 5 April 2024
 Suburb TERRY HILLS Weather RAIN

All Vehicles Time Per 15 Mins	NORTHWEST Aumuna Road													NORTHEAST Myoora Road													TOTAL		
	L			I			R			U			TOTAL	L			I			R			U			TOTAL			
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY		Σ		LIGHT
16:00 - 16:15	2	0	2	2	0	2	13	0	13	0	0	0	17	13	0	13	55	3	58	2	0	2	0	0	0	73	137	11	148
16:15 - 16:30	2	0	2	3	0	3	11	0	11	0	0	0	16	6	0	6	48	5	53	1	0	1	0	0	0	60	115	15	130
16:30 - 16:45	0	0	0	4	0	4	10	0	10	0	0	0	14	8	1	9	58	2	60	0	0	0	0	0	0	69	118	8	126
16:45 - 17:00	1	0	1	1	0	1	8	0	8	0	0	0	10	10	0	10	35	3	38	2	0	2	1	0	0	51	107	7	114
17:00 - 17:15	0	0	0	3	0	3	3	0	3	0	0	0	6	9	0	9	54	1	55	1	0	1	0	0	0	65	119	2	121
17:15 - 17:30	0	0	0	1	0	1	9	0	9	0	0	0	10	14	0	14	32	3	35	0	0	0	0	0	0	49	96	6	102
17:30 - 17:45	0	0	0	6	0	6	4	0	4	0	0	0	10	11	0	11	41	0	41	0	0	0	0	0	0	52	97	3	100
17:45 - 18:00	0	0	0	2	0	2	6	0	6	0	0	0	8	6	0	6	24	2	26	0	0	0	0	0	0	32	77	8	85
Period End	5	0	5	22	0	22	64	0	64	0	0	0	91	77	1	78	347	19	366	6	0	6	1	0	1	451	866	60	926

All Vehicles Time Per 15 Mins	SOUTHEAST Aumuna Road													SOUTHWEST Myoora Road													TOTAL		
	L			I			R			U			TOTAL	L			I			R			U			TOTAL			
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY		Σ		LIGHT
16:00 - 16:15	6	2	8	6	0	6	9	1	10	0	0	0	24	6	0	6	20	3	23	3	2	5	0	0	0	34	137	11	148
16:15 - 16:30	8	0	8	3	0	3	10	2	12	0	0	0	23	7	0	7	6	8	14	10	0	10	0	0	0	31	115	15	130
16:30 - 16:45	6	2	8	1	0	1	6	1	7	0	0	0	16	4	0	4	14	1	15	7	1	8	0	0	0	27	118	8	126
16:45 - 17:00	7	2	9	4	0	4	12	0	12	0	0	0	25	5	0	5	15	2	17	6	0	6	0	0	0	28	107	7	114
17:00 - 17:15	5	0	5	6	0	6	7	0	7	0	0	0	18	8	0	8	17	1	18	6	0	6	0	0	0	32	119	2	121
17:15 - 17:30	6	0	6	2	0	2	11	0	11	0	0	0	19	4	0	4	12	3	15	5	0	5	0	0	0	24	96	6	102
17:30 - 17:45	7	1	8	2	0	2	7	0	7	0	0	0	17	5	0	5	10	2	12	4	0	4	0	0	0	21	97	3	100
17:45 - 18:00	10	0	10	4	0	4	10	0	10	0	0	0	24	2	0	2	7	6	13	6	0	6	0	0	0	21	77	8	85
Period End	55	7	62	28	0	28	72	4	76	0	0	0	166	41	0	41	101	26	127	47	3	50	0	0	0	218	866	60	926

Location Aumuna Road Duration -
 Myoora Road -
 Aumuna Road 16:00 - 18:00
 Myoora Road Date Friday, 5 April 2024
 Suburb TERRY HILLS Weather RAIN

All Vehicles Time Per Hour	NORTHWEST Aumuna Road													NORTHEAST Myoora Road																
	L			I			R			U			TOTAL	L			I			R			U			TOTAL	TOTAL		TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY		
16:00 - 17:00	5	0	5	10	0	10	42	0	42	0	0	0	57	37	1	38	196	13	209	5	0	5	1	0	1	253	477	41	518	
16:15 - 17:15	3	0	3	11	0	11	32	0	32	0	0	0	46	33	1	34	195	11	206	4	0	4	1	0	1	245	459	32	491	
16:30 - 17:30	1	0	1	9	0	9	30	0	30	0	0	0	40	41	1	42	179	9	188	3	0	3	1	0	1	234	440	23	463	
16:45 - 17:45	1	0	1	11	0	11	24	0	24	0	0	0	36	44	0	44	162	7	169	3	0	3	1	0	1	217	419	18	437	
17:00 - 18:00	0	0	0	12	0	12	22	0	22	0	0	0	34	40	0	40	151	6	157	1	0	1	0	0	0	198	389	19	408	
Period End																														

All Vehicles		SOUTHEAST													SOUTHWEST																
Time Per Hour		Aumuna Road													Myoora Road																
		L			I			R			U			TOTAL	L			I			R			U			TOTAL	TOTAL		TOTAL	
		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY		
16:00 - 17:00		27	6	33	14	0	14	37	4	41	0	0	0	88	22	0	22	55	14	69	26	3	29	0	0	0	120	477	41	518	
16:15 - 17:15		26	4	30	14	0	14	35	3	38	0	0	0	82	24	0	24	52	12	64	29	1	30	0	0	0	118	459	32	491	
16:30 - 17:30		24	4	28	13	0	13	36	1	37	0	0	0	78	21	0	21	58	7	65	24	1	25	0	0	0	111	440	23	463	
16:45 - 17:45		25	3	28	14	0	14	37	0	37	0	0	0	79	22	0	22	54	8	62	21	0	21	0	0	0	105	419	18	437	
17:00 - 18:00		28	1	29	14	0	14	35	0	35	0	0	0	78	19	0	19	46	12	58	21	0	21	0	0	0	98	389	19	408	
Period End																															

Location Aumuna Road
 Myoora Road
 Aumuna Road
 Myoora Road
 Suburb TERRY HILLS

Duration -
 -
 16:00 - 18:00

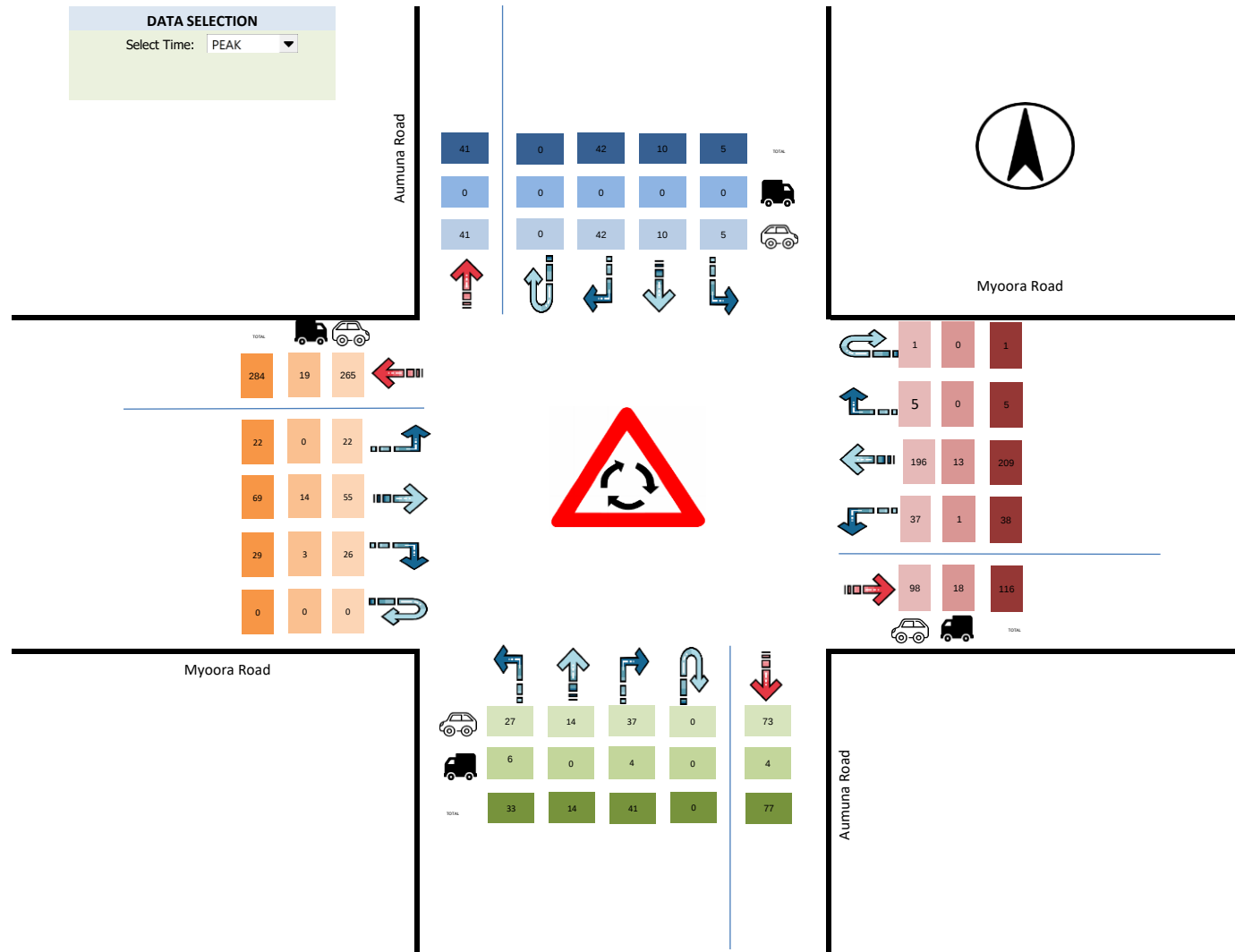
Date Friday, 5 April 2024

Weather RAIN

DATA SELECTION

Select Time:

TIME RANGE		
PEAK	-	PM
PEAK		
16:00	-	17:00



Traffic Information Specialist

ABN: 42 613 389 923

Email info@tistrtraffic.com.au

Location Monavale Road Duration -
 Kamber Road -
 Monavale Road 16:00 - 18:00
 Aumuna Road Date Friday, 5 April 2024
 Suburb TERRY HILLS Weather RAIN

All Vehicles Time Per 15 Mins	NORTHEAST													EAST												
	Monavale Road													Kamber Road												
	L			I			R			U			TOTAL	L			I			R			U			TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	
16:00 - 16:15	0	0	0	234	10	244	4	2	6	0	0	0	250	2	0	2	0	0	0	2	0	2	0	0	0	4
16:15 - 16:30	2	0	2	267	11	278	6	0	6	0	0	0	286	2	0	2	0	0	0	0	0	0	0	0	0	2
16:30 - 16:45	4	0	4	266	7	273	8	2	10	1	0	1	288	0	0	0	0	0	0	2	0	2	0	0	0	2
16:45 - 17:00	1	0	1	282	12	294	4	2	6	0	0	0	301	2	0	2	0	0	0	1	0	1	0	0	0	3
17:00 - 17:15	0	0	0	315	14	329	1	0	1	0	0	0	330	2	0	2	0	0	0	1	0	1	0	0	0	3
17:15 - 17:30	0	0	0	316	3	319	2	0	2	1	0	1	322	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	0	253	8	261	3	1	4	0	0	0	265	1	0	1	0	0	0	0	0	0	0	0	0	1
17:45 - 18:00	0	0	0	207	4	211	3	0	3	0	0	0	214	0	0	0	1	0	1	0	0	0	0	0	0	1
Period End	7	0	7	2140	69	2209	31	7	38	2	0	2		9	0	9	1	0	1	6	0	6	0	0	0	16

All Vehicles Time Per 15 Mins	SOUTHWEST													WEST												
	Monavale Road													Aumuna Road												
	L			I			R			U			TOTAL	L			I			R			U			TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	
16:00 - 16:15	30	1	31	353	13	366	2	0	2	8	0	8	407	14	2	16	0	0	0	7	1	8	0	0	0	24
16:15 - 16:30	17	2	19	334	9	343	3	0	3	4	0	4	369	12	0	12	0	0	0	9	0	9	0	0	0	21
16:30 - 16:45	17	1	18	342	7	349	3	0	3	8	0	8	378	12	1	13	0	0	0	9	1	10	0	0	0	23
16:45 - 17:00	21	0	21	358	7	365	0	0	0	5	0	5	391	11	0	11	0	0	0	9	1	10	0	0	0	21
17:00 - 17:15	18	2	20	390	7	397	1	0	1	13	0	13	431	11	0	11	0	0	0	9	0	9	0	0	0	20
17:15 - 17:30	21	0	21	359	2	361	1	0	1	9	0	9	392	10	2	12	0	0	0	11	0	11	0	0	0	23
17:30 - 17:45	15	1	16	354	1	355	2	0	2	5	0	5	378	6	0	6	0	0	0	9	0	9	0	0	0	15
17:45 - 18:00	25	0	25	335	5	340	0	0	0	3	0	3	368	14	0	14	0	0	0	8	0	8	0	0	0	22
Period End	164	7	171	2825	51	2876	12	0	12	55	0	55	3114	90	5	95	0	0	0	71	3	74	0	0	0	169

Location Monavale Road Duration -
 Kamber Road -
 Monavale Road 16:00 - 18:00
 Aumuna Road Date Friday, 5 April 2024
 Suburb TERRY HILLS Weather RAIN

All Vehicles Time Per Hour	NORTHEAST Monavale Road												EAST Kamber Road												TOTAL												
	L				I				R				U				TOTAL	TOTAL																			
	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ													
16:00 - 17:00	7	0	7		1049	40	1089		22	6	28		1	0	1		1125	6	0	6		0	0	0		5	0	5		0	0	0		11	2678	92	2770
16:15 - 17:15	7	0	7		1130	44	1174		19	4	23		1	0	1		1205	6	0	6		0	0	0		4	0	4		0	0	0		10	2783	86	2869
16:30 - 17:30	5	0	5		1179	36	1215		15	4	19		2	0	2		1241	4	0	4		0	0	0		4	0	4		0	0	0		8	2857	71	2928
16:45 - 17:45	1	0	1		1166	37	1203		10	3	13		1	0	1		1218	5	0	5		0	0	0		2	0	2		0	0	0		7	2833	63	2896
17:00 - 18:00	0	0	0		1091	29	1120		9	1	10		1	0	1		1131	3	0	3		1	0	1		1	0	1		0	0	0		5	2735	50	2785
Period End																																					

All Vehicles		SOUTHWEST												WEST																
Time Per Hour		Monavale Road												Aumuna Road																
		L			I			R			U			TOTAL	L			I			R			U			TOTAL	TOTAL		TOTAL
		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	
16:00 - 17:00		85	4	89	1387	36	1423	8	0	8	25	0	25	1545	49	3	52	0	0	0	34	3	37	0	0	0	89	2678	92	2770
16:15 - 17:15		73	5	78	1424	30	1454	7	0	7	30	0	30	1569	46	1	47	0	0	0	36	2	38	0	0	0	85	2783	86	2869
16:30 - 17:30		77	3	80	1449	23	1472	5	0	5	35	0	35	1592	44	3	47	0	0	0	38	2	40	0	0	0	87	2857	71	2928
16:45 - 17:45		75	3	78	1461	17	1478	4	0	4	32	0	32	1592	38	2	40	0	0	0	38	1	39	0	0	0	79	2833	63	2896
17:00 - 18:00		79	3	82	1438	15	1453	4	0	4	30	0	30	1569	41	2	43	0	0	0	37	0	37	0	0	0	80	2735	50	2785
Period End																														

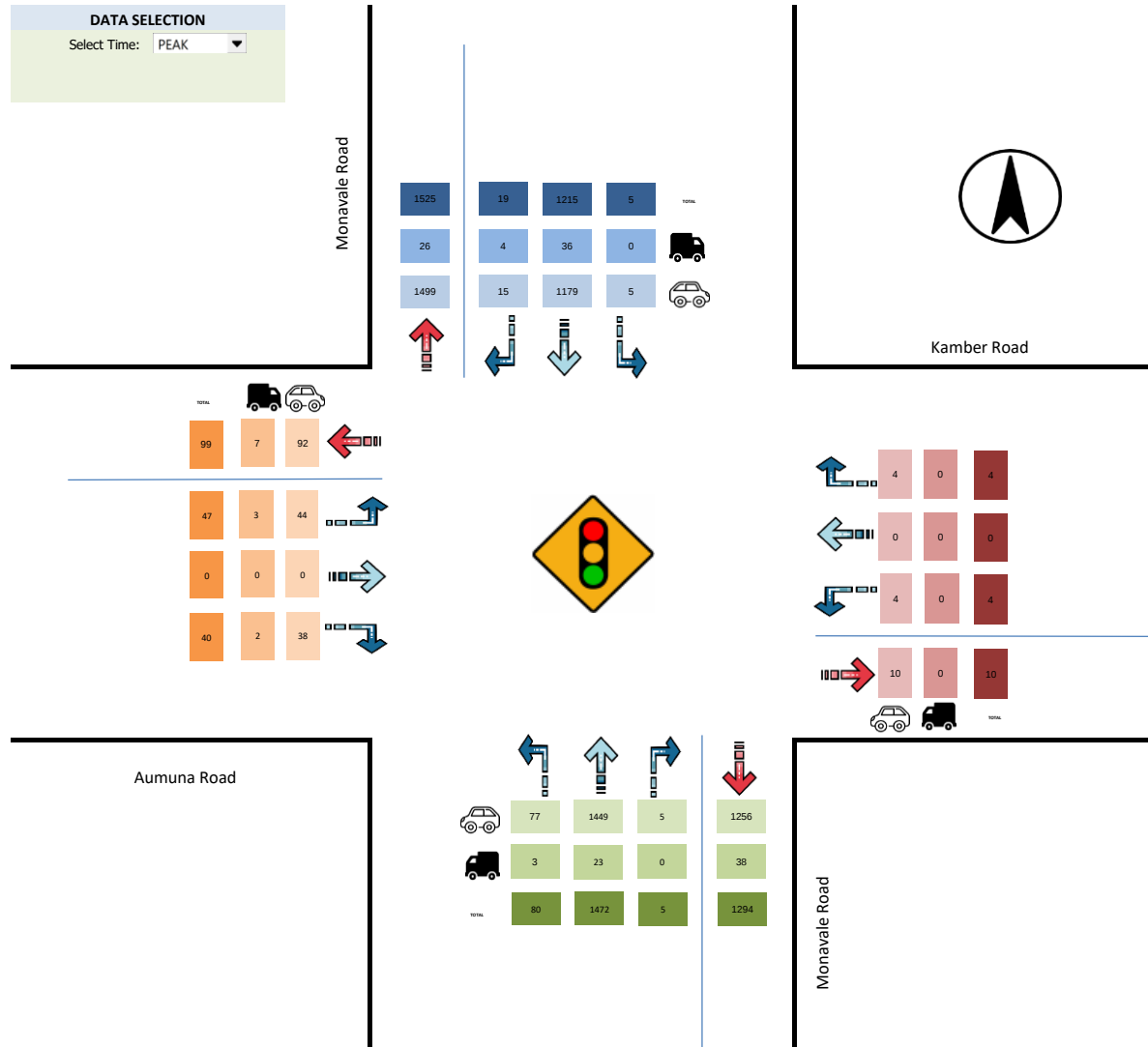
Location Monavale Road
Kamber Road
Monavale Road
Aumuna Road
Suburb TERRY HILLS

Duration -
-
16:00 - 18:00
Date Friday, 5 April 2024
Weather RAIN

DATA SELECTION

Select Time:

TIME RANGE		
PEAK	-	PM
PEAK		
16:30	-	17:30



Traffic Information Specialist

ABN: 42 613 389 923
Email info@tistraffic.com.au

Location Aumuna Road
 Myoora Road
 Aumuna Road
 Myoora Road
 Suburb TERRY HILLS

Duration 10:00 - 14:00
 -
 -

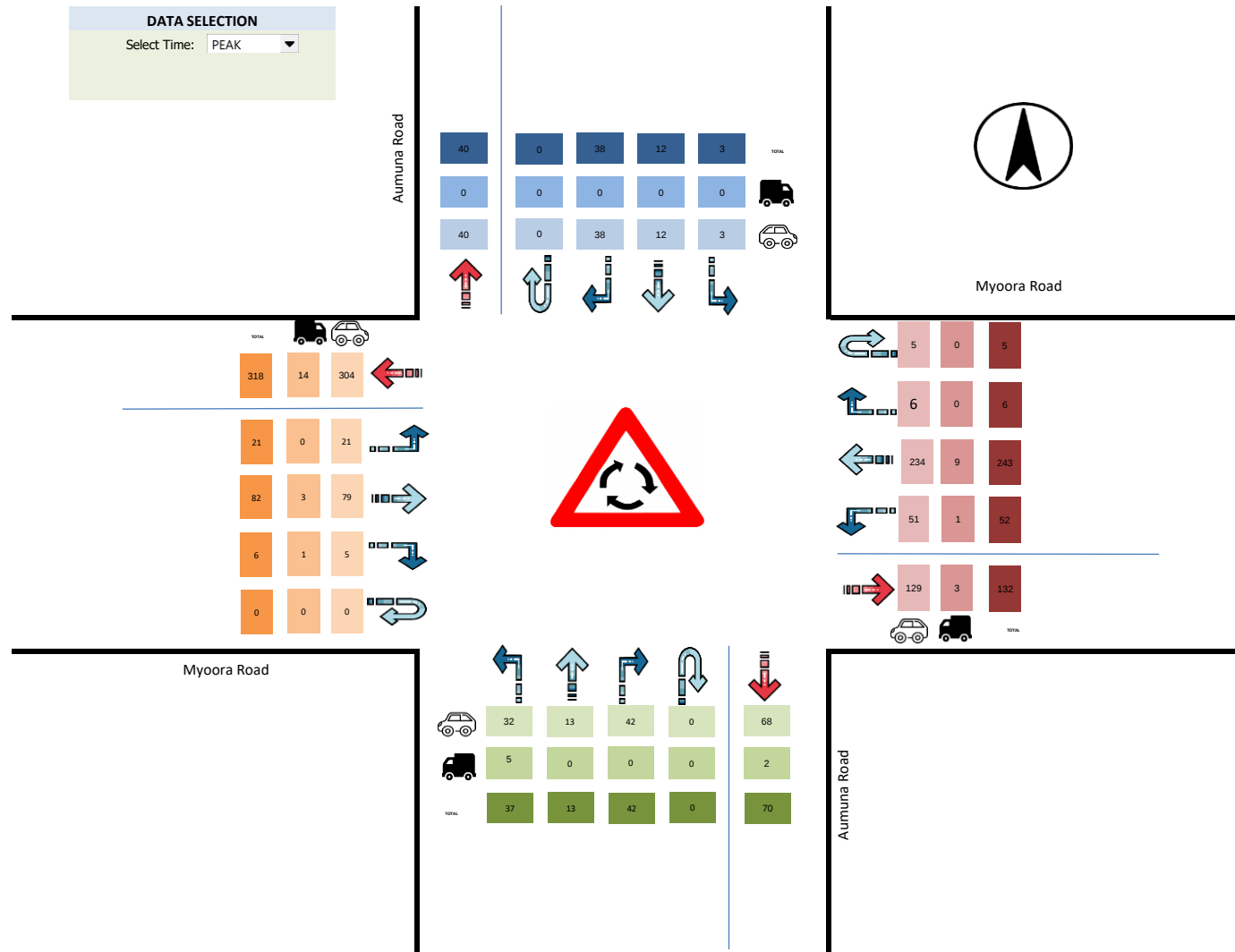
Date Saturday, 6 April 2024

Weather RAIN

DATA SELECTION

Select Time:

TIME RANGE		
PEAK	-	MIDDAY
PEAK		
10:15	-	11:15



ATTACHMENT 3

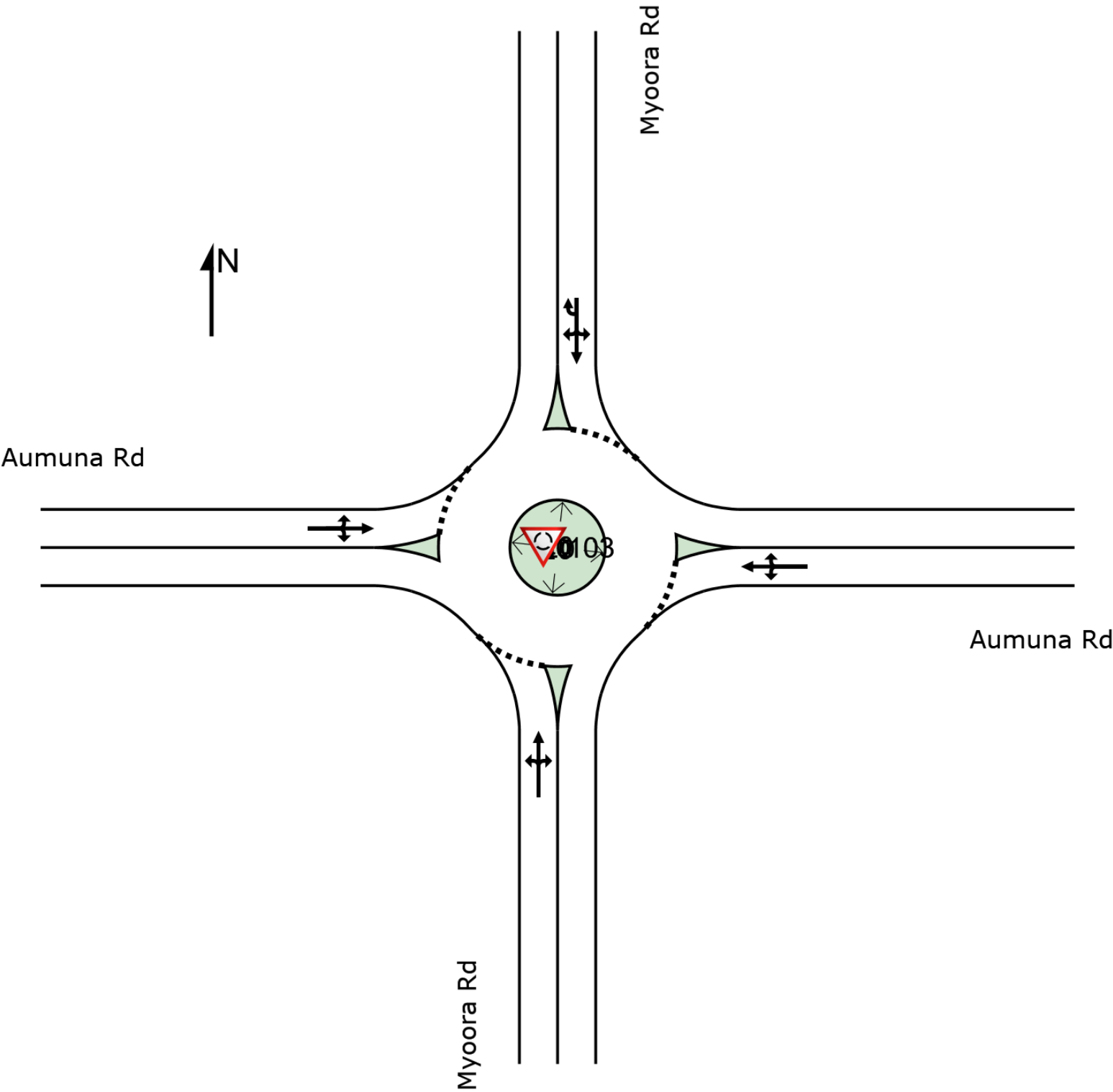
SIDRA Intersection Modelling Results

SITE LAYOUT

Site: 103 [Aumuna / Myoora PM Peak - Existing (Site Folder: Existing)]

New Site
Site Category: Existing Design
Roundabout

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



MOVEMENT SUMMARY

 Site: 103 [Aumuna / Myoora PM Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: Existing Design
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Myoora Rd															
1	L2	All MCs	25	0.0	25	0.0	0.103	3.9	LOS A	0.5	4.2	0.21	0.48	0.21	45.6
2	T1	All MCs	67	18.8	67	18.8	0.103	4.1	LOS A	0.5	4.2	0.21	0.48	0.21	45.8
3	R2	All MCs	32	3.3	32	3.3	0.103	7.2	LOS A	0.5	4.2	0.21	0.48	0.21	45.4
Approach			124	11.0	124	11.0	0.103	4.8	LOS A	0.5	4.2	0.21	0.48	0.21	45.6
East: Aumuna Rd															
4	L2	All MCs	32	13.3	32	13.3	0.088	5.3	LOS A	0.4	3.3	0.43	0.59	0.43	44.7
5	T1	All MCs	15	0.0	15	0.0	0.088	5.0	LOS A	0.4	3.3	0.43	0.59	0.43	45.1
6	R2	All MCs	40	7.9	40	7.9	0.088	8.4	LOS A	0.4	3.3	0.43	0.59	0.43	44.5
Approach			86	8.5	86	8.5	0.088	6.7	LOS A	0.4	3.3	0.43	0.59	0.43	44.7
North: Myoora Rd															
7	L2	All MCs	36	2.9	36	2.9	0.204	4.1	LOS A	1.1	8.3	0.25	0.42	0.25	45.9
8	T1	All MCs	217	5.3	217	5.3	0.204	4.1	LOS A	1.1	8.3	0.25	0.42	0.25	46.2
9	R2	All MCs	4	0.0	4	0.0	0.204	7.3	LOS A	1.1	8.3	0.25	0.42	0.25	45.7
9u	U	All MCs	1	0.0	1	0.0	0.204	8.8	LOS A	1.1	8.3	0.25	0.42	0.25	45.7
Approach			258	4.9	258	4.9	0.204	4.1	LOS A	1.1	8.3	0.25	0.42	0.25	46.1
West: Aumuna Rd															
10	L2	All MCs	3	0.0	3	0.0	0.042	4.3	LOS A	0.2	1.4	0.30	0.57	0.30	44.8
11	T1	All MCs	12	0.0	12	0.0	0.042	4.3	LOS A	0.2	1.4	0.30	0.57	0.30	45.0
12	R2	All MCs	34	0.0	34	0.0	0.042	7.6	LOS A	0.2	1.4	0.30	0.57	0.30	44.5
Approach			48	0.0	48	0.0	0.042	6.6	LOS A	0.2	1.4	0.30	0.57	0.30	44.7
All Vehicles			517	6.5	517	6.5	0.204	5.0	LOS A	1.1	8.3	0.27	0.48	0.27	45.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 103 [Aumuna / Myoora SAT Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: Existing Design
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Myoora Rd															
1	L2	All MCs	19	5.6	19	5.6	0.078	3.9	LOS A	0.4	3.0	0.18	0.45	0.18	45.9
2	T1	All MCs	64	4.9	64	4.9	0.078	3.9	LOS A	0.4	3.0	0.18	0.45	0.18	46.2
3	R2	All MCs	15	7.1	15	7.1	0.078	7.2	LOS A	0.4	3.0	0.18	0.45	0.18	45.6
Approach			98	5.4	98	5.4	0.078	4.4	LOS A	0.4	3.0	0.18	0.45	0.18	46.0
East: Aumuna Rd															
4	L2	All MCs	42	15.0	42	15.0	0.088	5.5	LOS A	0.4	3.3	0.45	0.59	0.45	44.7
5	T1	All MCs	8	0.0	8	0.0	0.088	5.1	LOS A	0.4	3.3	0.45	0.59	0.45	45.1
6	R2	All MCs	35	0.0	35	0.0	0.088	8.4	LOS A	0.4	3.3	0.45	0.59	0.45	44.6
Approach			85	7.4	85	7.4	0.088	6.6	LOS A	0.4	3.3	0.45	0.59	0.45	44.7
North: Myoora Rd															
7	L2	All MCs	48	0.0	48	0.0	0.226	4.0	LOS A	1.3	9.3	0.24	0.42	0.24	46.0
8	T1	All MCs	242	2.6	242	2.6	0.226	4.0	LOS A	1.3	9.3	0.24	0.42	0.24	46.2
9	R2	All MCs	3	0.0	3	0.0	0.226	7.2	LOS A	1.3	9.3	0.24	0.42	0.24	45.7
9u	U	All MCs	3	0.0	3	0.0	0.226	8.7	LOS A	1.3	9.3	0.24	0.42	0.24	45.7
Approach			297	2.1	297	2.1	0.226	4.1	LOS A	1.3	9.3	0.24	0.42	0.24	46.2
West: Aumuna Rd															
10	L2	All MCs	1	0.0	1	0.0	0.047	4.2	LOS A	0.2	1.6	0.27	0.55	0.27	44.9
11	T1	All MCs	18	0.0	18	0.0	0.047	4.2	LOS A	0.2	1.6	0.27	0.55	0.27	45.2
12	R2	All MCs	36	2.9	36	2.9	0.047	7.5	LOS A	0.2	1.6	0.27	0.55	0.27	44.6
Approach			55	1.9	55	1.9	0.047	6.3	LOS A	0.2	1.6	0.27	0.55	0.27	44.8
All Vehicles			535	3.5	535	3.5	0.226	4.8	LOS A	1.3	9.3	0.26	0.47	0.26	45.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 103 [Aumuna / Myoora PM Peak (Site Folder: Post development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: Existing Design
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Myoora Rd															
1	L2	All MCs	25	0.0	25	0.0	0.117	4.0	LOS A	0.6	4.8	0.24	0.47	0.24	45.6
2	T1	All MCs	82	15.4	82	15.4	0.117	4.1	LOS A	0.6	4.8	0.24	0.47	0.24	45.8
3	R2	All MCs	32	3.3	32	3.3	0.117	7.3	LOS A	0.6	4.8	0.24	0.47	0.24	45.3
Approach			139	9.8	139	9.8	0.117	4.8	LOS A	0.6	4.8	0.24	0.47	0.24	45.6
East: Aumuna Rd															
4	L2	All MCs	32	13.3	32	13.3	0.101	5.4	LOS A	0.5	3.8	0.44	0.60	0.44	44.6
5	T1	All MCs	15	0.0	15	0.0	0.101	5.1	LOS A	0.5	3.8	0.44	0.60	0.44	45.0
6	R2	All MCs	53	6.0	53	6.0	0.101	8.5	LOS A	0.5	3.8	0.44	0.60	0.44	44.4
Approach			99	7.4	99	7.4	0.101	7.0	LOS A	0.5	3.8	0.44	0.60	0.44	44.5
North: Myoora Rd															
7	L2	All MCs	48	2.2	48	2.2	0.224	4.1	LOS A	1.3	9.3	0.25	0.43	0.25	45.9
8	T1	All MCs	232	5.0	232	5.0	0.224	4.1	LOS A	1.3	9.3	0.25	0.43	0.25	46.2
9	R2	All MCs	4	0.0	4	0.0	0.224	7.3	LOS A	1.3	9.3	0.25	0.43	0.25	45.7
9u	U	All MCs	1	0.0	1	0.0	0.224	8.8	LOS A	1.3	9.3	0.25	0.43	0.25	45.7
Approach			285	4.4	285	4.4	0.224	4.1	LOS A	1.3	9.3	0.25	0.43	0.25	46.1
West: Aumuna Rd															
10	L2	All MCs	3	0.0	3	0.0	0.043	4.5	LOS A	0.2	1.5	0.33	0.57	0.33	44.7
11	T1	All MCs	12	0.0	12	0.0	0.043	4.5	LOS A	0.2	1.5	0.33	0.57	0.33	45.0
12	R2	All MCs	34	0.0	34	0.0	0.043	7.7	LOS A	0.2	1.5	0.33	0.57	0.33	44.5
Approach			48	0.0	48	0.0	0.043	6.7	LOS A	0.2	1.5	0.33	0.57	0.33	44.6
All Vehicles			572	5.9	572	5.9	0.224	5.0	LOS A	1.3	9.3	0.29	0.48	0.29	45.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 103 [Aumuna / Myoora SAT Peak (Site Folder: Post development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: Existing Design
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Myoora Rd															
1	L2	All MCs	19	5.6	19	5.6	0.091	4.0	LOS A	0.5	3.5	0.21	0.45	0.21	45.8
2	T1	All MCs	79	4.0	79	4.0	0.091	3.9	LOS A	0.5	3.5	0.21	0.45	0.21	46.1
3	R2	All MCs	15	7.1	15	7.1	0.091	7.3	LOS A	0.5	3.5	0.21	0.45	0.21	45.5
Approach			113	4.7	113	4.7	0.091	4.4	LOS A	0.5	3.5	0.21	0.45	0.21	46.0
East: Aumuna Rd															
4	L2	All MCs	42	15.0	42	15.0	0.102	5.6	LOS A	0.5	3.8	0.46	0.61	0.46	44.5
5	T1	All MCs	8	0.0	8	0.0	0.102	5.2	LOS A	0.5	3.8	0.46	0.61	0.46	45.0
6	R2	All MCs	47	0.0	47	0.0	0.102	8.5	LOS A	0.5	3.8	0.46	0.61	0.46	44.5
Approach			98	6.5	98	6.5	0.102	7.0	LOS A	0.5	3.8	0.46	0.61	0.46	44.5
North: Myoora Rd															
7	L2	All MCs	61	0.0	61	0.0	0.246	4.0	LOS A	1.5	10.4	0.24	0.42	0.24	46.0
8	T1	All MCs	257	2.5	257	2.5	0.246	4.0	LOS A	1.5	10.4	0.24	0.42	0.24	46.2
9	R2	All MCs	3	0.0	3	0.0	0.246	7.2	LOS A	1.5	10.4	0.24	0.42	0.24	45.7
9u	U	All MCs	3	0.0	3	0.0	0.246	8.8	LOS A	1.5	10.4	0.24	0.42	0.24	45.7
Approach			324	1.9	324	1.9	0.246	4.1	LOS A	1.5	10.4	0.24	0.42	0.24	46.2
West: Aumuna Rd															
10	L2	All MCs	1	0.0	1	0.0	0.048	4.3	LOS A	0.2	1.6	0.30	0.56	0.30	44.8
11	T1	All MCs	18	0.0	18	0.0	0.048	4.3	LOS A	0.2	1.6	0.30	0.56	0.30	45.1
12	R2	All MCs	36	2.9	36	2.9	0.048	7.6	LOS A	0.2	1.6	0.30	0.56	0.30	44.6
Approach			55	1.9	55	1.9	0.048	6.5	LOS A	0.2	1.6	0.30	0.56	0.30	44.7
All Vehicles			589	3.2	589	3.2	0.246	4.8	LOS A	1.5	10.4	0.28	0.47	0.28	45.7

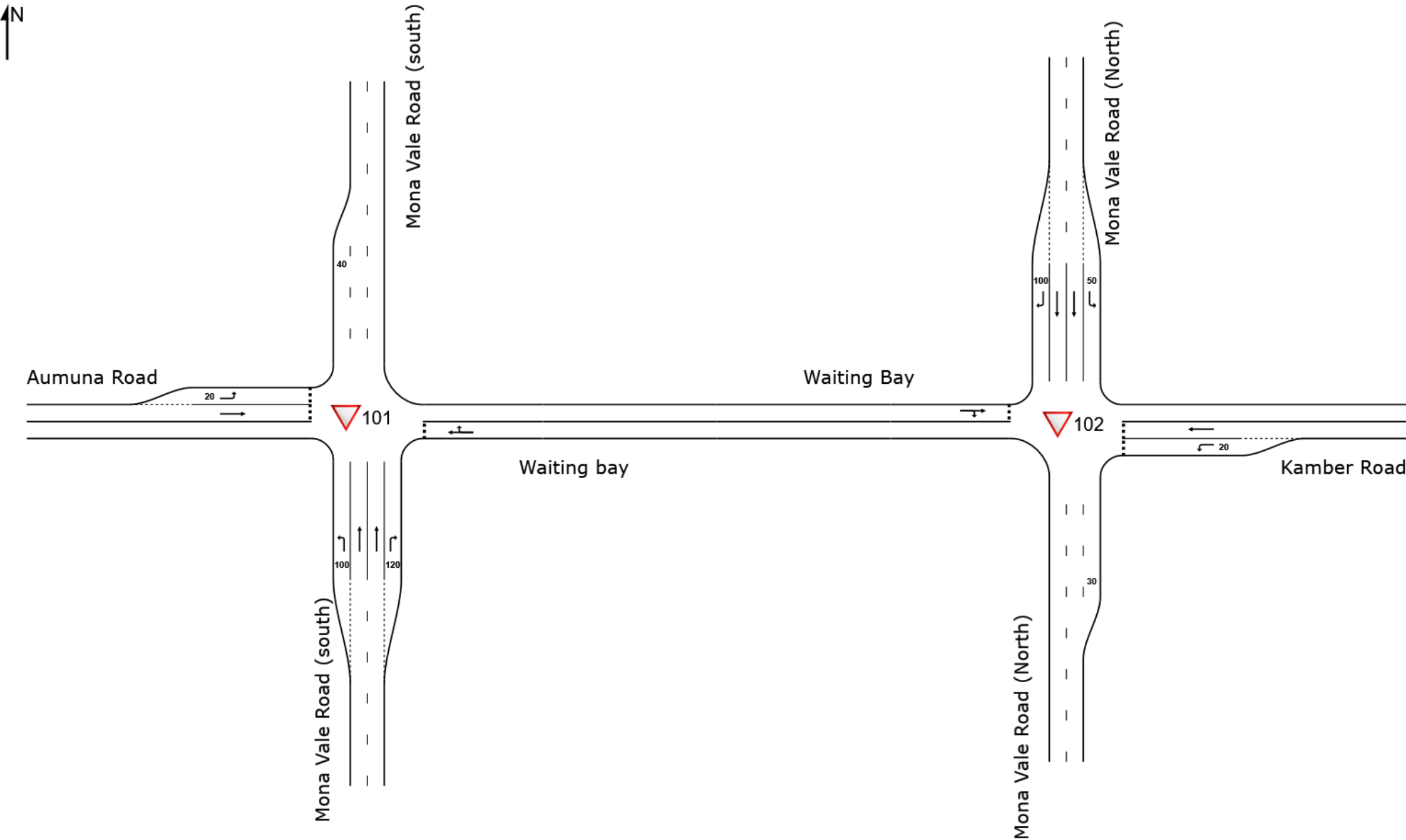
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

■ ■ Network: N103 [Mona Vale Road PM (Network Folder: Existing)]

New Network
Network Category: (None)

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



SITES IN NETWORK		
Site ID	CCG ID	Site Name
▽101	NA	Mona Vale / Aumuna South Approach PM Peak - Existing
▽102	NA	Mona Vale / Kamber North Approach PM Peak - Existing

MOVEMENT SUMMARY

▼ Site: 101 [Mona Vale / Aumuna South Approach PM Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

▣▣ Network: N103 [Mona Vale Road PM (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Mona Vale Road (south)															
1	L2	All MCs	82	6.4	82	6.4	0.046	7.1	LOS A	0.0	0.0	0.00	0.63	0.00	67.3
2	T1	All MCs	1531	2.1	1531	2.1	0.398	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
3	R2	All MCs	7	0.0	7	0.0	0.004	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1620	2.3	1620	2.3	0.398	0.6	NA	0.0	0.0	0.00	0.04	0.00	79.1
East: Waiting bay															
5	T1	All MCs	6	0.0	6	0.0	0.069	20.2	LOS B	0.2	1.5	0.90	0.90	0.90	26.5
6	R2	All MCs	4	0.0	4	0.0	0.069	28.2	LOS B	0.2	1.5	0.90	0.90	0.90	45.2
Approach			11	0.0	11	0.0	0.069	23.4	LOS B	0.2	1.5	0.90	0.90	0.90	34.6
West: Aumuna Road															
10	L2	All MCs	49	2.1	49	2.1	0.038	5.0	LOS A	0.0	0.0	0.00	0.53	0.00	60.0
11	T1	All MCs	40	5.3	40	5.3	0.263	35.8	LOS C	0.8	5.9	0.92	1.01	1.02	25.5
Approach			89	3.5	89	3.5	0.263	18.8	LOS B	0.8	5.9	0.41	0.74	0.45	46.4
All Vehicles			1720	2.3	1720	2.3	0.398	1.7	NA	0.8	5.9	0.03	0.08	0.03	77.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 102 [Mona Vale / Kamber North Approach PM Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

▣▣ Network: N103 [Mona Vale Road PM (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Kamber Road															
4	L2	All MCs	6	0.0	6	0.0	0.005	4.7	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	4	0.0	4	0.0	0.016	21.3	LOS B	0.1	0.4	0.82	0.93	0.82	31.8
Approach			11	0.0	11	0.0	0.016	11.3	LOS A	0.1	0.4	0.33	0.69	0.33	51.7
North: Mona Vale Road (North)															
7	L2	All MCs	7	0.0	7	0.0	0.004	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	69.0
8	T1	All MCs	1236	3.7	1236	3.7	0.325	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
9	R2	All MCs	24	17.4	24	17.4	0.015	8.6	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1267	4.0	1267	4.0	0.325	0.3	NA	0.0	0.0	0.00	0.02	0.00	79.6
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.228	14.6	LOS B	0.7	5.2	0.87	0.95	0.95	27.6
12	R2	All MCs	40	5.3	40	5.3	0.228	21.7	LOS B	0.7	5.2	0.87	0.95	0.95	46.3
Approach			41	5.1	41	5.1	0.228	21.5	LOS B	0.7	5.2	0.87	0.95	0.95	45.9
All Vehicles			1319	4.0	1319	4.0	0.325	1.1	NA	0.7	5.2	0.03	0.05	0.03	78.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Mona Vale / Aumuna South Approach SAT Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Mona Vale Road SAT (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Mona Vale Road (south)															
1	L2	All MCs	54	2.0	54	2.0	0.029	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	68.5
2	T1	All MCs	1876	1.5	1876	1.5	0.486	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	79.5
3	R2	All MCs	5	0.0	5	0.0	0.003	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1935	1.5	1935	1.5	0.486	0.5	NA	0.0	0.0	0.00	0.02	0.00	79.3
East: Waiting bay															
5	T1	All MCs	1	0.0	1	0.0	0.142	35.6	LOS C	0.2	2.2	0.98	0.99	0.99	9.8
6	R2	All MCs	2	50.0	2	50.0	0.142	200.1	LOS F	0.2	2.2	0.98	0.99	0.99	17.4
Approach			3	33.3	3	33.3	0.142	145.2	LOS F	0.2	2.2	0.98	0.99	0.99	15.0
West: Aumuna Road															
10	L2	All MCs	40	7.9	40	7.9	0.031	5.5	LOS A	0.0	0.0	0.00	0.53	0.00	59.5
11	T1	All MCs	48	0.0	48	0.0	0.431	52.5	LOS D	1.4	10.1	0.96	1.04	1.16	20.7
Approach			88	3.6	88	3.6	0.431	31.3	LOS C	1.4	10.1	0.53	0.81	0.63	38.5
All Vehicles			2026	1.7	2026	1.7	0.486	2.0	NA	1.4	10.1	0.02	0.06	0.03	77.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 102 [Mona Vale / Kamber North Approach SAT Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

▣▣ Network: N101 [Mona Vale Road SAT (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Kamber Road															
4	L2	All MCs	7	0.0	7	0.0	0.006	4.8	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	2	50.0	2	50.0	0.031	60.2	LOS E	0.1	0.7	0.93	0.98	0.93	19.2
Approach			9	11.1	9	11.1	0.031	17.1	LOS B	0.1	0.7	0.21	0.63	0.21	50.6
North: Mona Vale Road (North)															
7	L2	All MCs	5	20.0	5	20.0	0.003	7.3	LOS A	0.0	0.0	0.00	0.63	0.00	64.2
8	T1	All MCs	1464	1.7	1464	1.7	0.379	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
9	R2	All MCs	44	14.3	44	14.3	0.026	8.5	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1514	2.1	1514	2.1	0.379	0.4	NA	0.0	0.0	0.00	0.03	0.00	79.4
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.335	23.1	LOS B	1.1	7.9	0.92	1.08	1.08	24.7
12	R2	All MCs	48	0.0	48	0.0	0.335	29.7	LOS C	1.1	7.9	0.92	1.08	1.08	42.5
Approach			49	0.0	49	0.0	0.335	29.5	LOS C	1.1	7.9	0.92	1.08	1.08	42.2
All Vehicles			1573	2.1	1573	2.1	0.379	1.5	NA	1.1	7.9	0.03	0.06	0.04	78.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Mona Vale / Aumuna South Approach PM Peak (Site Folder: Post development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101 [Mona Vale Rd PM (Network Folder: Post development - right turn from Aumuna Rd permitted)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Mona Vale Road (south)															
1	L2	All MCs	88	6.0	88	6.0	0.050	7.1	LOS A	0.0	0.0	0.00	0.63	0.00	67.5
2	T1	All MCs	1531	2.1	1531	2.1	0.398	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
3	R2	All MCs	7	0.0	7	0.0	0.004	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1626	2.3	1626	2.3	0.398	0.6	NA	0.0	0.0	0.00	0.04	0.00	79.1
East: Waiting bay															
5	T1	All MCs	13	0.0	13	0.0	0.106	20.6	LOS B	0.3	2.3	0.90	0.90	0.90	26.7
6	R2	All MCs	4	0.0	4	0.0	0.106	29.0	LOS C	0.3	2.3	0.90	0.90	0.90	45.4
Approach			17	0.0	17	0.0	0.106	22.7	LOS B	0.3	2.3	0.90	0.90	0.90	31.9
West: Aumuna Road															
10	L2	All MCs	56	1.9	56	1.9	0.042	5.0	LOS A	0.0	0.0	0.00	0.53	0.00	60.0
11	T1	All MCs	46	4.5	46	4.5	0.301	36.6	LOS C	1.0	7.0	0.92	1.02	1.05	25.2
Approach			102	3.1	102	3.1	0.301	19.3	LOS B	1.0	7.0	0.42	0.75	0.48	46.0
All Vehicles			1745	2.3	1745	2.3	0.398	1.9	NA	1.0	7.0	0.03	0.09	0.04	76.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 102 [Mona Vale / Kamber North Approach PM Peak (Site Folder: Post development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101 [Mona Vale Rd PM (Network Folder: Post development - right turn from Aumuna Rd permitted)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Kamber Road															
4	L2	All MCs	6	0.0	6	0.0	0.005	4.7	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	4	0.0	4	0.0	0.016	21.5	LOS B	0.1	0.4	0.82	0.93	0.82	31.7
Approach			11	0.0	11	0.0	0.016	11.4	LOS A	0.1	0.4	0.33	0.69	0.33	51.6
North: Mona Vale Road (North)															
7	L2	All MCs	7	0.0	7	0.0	0.004	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	69.0
8	T1	All MCs	1236	3.7	1236	3.7	0.325	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
9	R2	All MCs	31	13.8	31	13.8	0.018	8.5	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1274	4.0	1274	4.0	0.325	0.4	NA	0.0	0.0	0.00	0.02	0.00	79.5
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.260	15.3	LOS B	0.8	6.1	0.88	0.98	0.98	27.4
12	R2	All MCs	46	4.5	46	4.5	0.260	22.1	LOS B	0.8	6.1	0.88	0.98	0.98	46.1
Approach			47	4.4	47	4.4	0.260	22.0	LOS B	0.8	6.1	0.88	0.98	0.98	45.8
All Vehicles			1332	4.0	1332	4.0	0.325	1.2	NA	0.8	6.1	0.03	0.06	0.04	78.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 101 [Mona Vale / Aumuna South Approach SAT Peak (Site Folder: Post development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101 [Mona Vale Rd SAT (Network Folder: Post development - right turn from Aumuna Rd permitted)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Mona Vale Road (south)															
1	L2	All MCs	60	1.8	60	1.8	0.033	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	68.5
2	T1	All MCs	1876	1.5	1876	1.5	0.486	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	79.5
3	R2	All MCs	5	0.0	5	0.0	0.003	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1941	1.5	1941	1.5	0.486	0.5	NA	0.0	0.0	0.00	0.02	0.00	79.2
East: Waiting bay															
5	T1	All MCs	1	0.0	1	0.0	0.146	36.0	LOS C	0.3	2.3	0.98	0.99	0.99	9.9
6	R2	All MCs	2	50.0	2	50.0	0.146	195.9	LOS F	0.3	2.3	0.98	0.99	0.99	17.6
Approach			3	33.3	3	33.3	0.146	142.6	LOS F	0.3	2.3	0.98	0.99	0.99	15.2
West: Aumuna Road															
10	L2	All MCs	46	6.8	46	6.8	0.036	5.5	LOS A	0.0	0.0	0.00	0.53	0.00	59.6
11	T1	All MCs	55	0.0	55	0.0	0.501	55.8	LOS D	1.7	11.7	0.96	1.06	1.21	20.0
Approach			101	3.1	101	3.1	0.501	32.7	LOS C	1.7	11.7	0.52	0.81	0.66	38.0
All Vehicles			2045	1.6	2045	1.6	0.501	2.3	NA	1.7	11.7	0.03	0.06	0.03	76.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 102 [Mona Vale / Kamber North Approach SAT Peak (Site Folder: Post development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101 [Mona Vale Rd SAT (Network Folder: Post development - right turn from Aumuna Rd permitted)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total	HV]	[Total	HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Kamber Road															
4	L2	All MCs	7	0.0	7	0.0	0.006	4.8	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	2	50.0	2	50.0	0.032	61.3	LOS E	0.1	0.7	0.93	0.98	0.93	19.0
Approach			9	11.1	9	11.1	0.032	17.4	LOS B	0.1	0.7	0.21	0.63	0.21	50.5
North: Mona Vale Road (North)															
7	L2	All MCs	5	20.0	5	20.0	0.003	7.3	LOS A	0.0	0.0	0.00	0.63	0.00	64.2
8	T1	All MCs	1464	1.7	1464	1.7	0.379	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
9	R2	All MCs	51	12.5	51	12.5	0.030	8.4	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1520	2.1	1520	2.1	0.379	0.5	NA	0.0	0.0	0.00	0.03	0.00	79.4
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.381	24.5	LOS B	1.3	9.2	0.93	1.12	1.12	24.2
12	R2	All MCs	55	0.0	55	0.0	0.381	31.2	LOS C	1.3	9.2	0.93	1.12	1.12	41.8
Approach			56	0.0	56	0.0	0.381	31.1	LOS C	1.3	9.2	0.93	1.12	1.12	41.5
All Vehicles			1585	2.1	1585	2.1	0.381	1.6	NA	1.3	9.2	0.03	0.07	0.04	77.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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