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Large Format Retail Expansion Stage II

Lot 701 Armadale Road, Treeby
Transport Impact Assessment

PREPARED FOR:
Satterley & Centuria Joint
Venture

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Document history and status

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1 Introduction

This Transport Impact Assessment (TIA) has been prepared by Transcore on behalf of Satterley & Centuria Joint Venture in relation to the proposed large format retail to be located at Lot 701 Armadale Road in Treeby. The subject site is located to the east of Verde Drive along Armadale Road as shown in **Figure 1**.

The proposed development involves the expansion of the existing South-Central large format retail site. The subject area is currently vacant and features an existing left in/left out crossover on Armadale Road. Residential dwellings in the Calleya Estate are located immediately to the north and east of the site and the existing South-Central development occupies the area to the west.

The proposed development would connect to the existing South-Central large format retail via two proposed access points on Verde Drive. Verde Drive connects to Armadale Road to the south via a roundabout intersection.

This TIA will evaluate the trip generation and distribution resulting from the proposed development and its impact on the surrounding road network. It will assess the expected traffic movements, including those of service vehicles, to ensure efficient access/egress and circulation. Additionally, a SIDRA network analysis will be undertaken for the crossovers on Armadale Road and Verde Drive, as well as for the roundabout intersection of Armadale Road/Verde Drive/Tapper Road.



Figure 1: Site location

2 Development Proposal

The proposal is for the expansion of the existing South-Central large format retail site on Lot 701 Armadale Road in Treeby. The proposed development plan is provided in **Appendix A** and entails the following land uses:

- Showroom: 33,996 m² GFA;
- Gym: 2,000 m² GFA; and,
- Food/Café: 350 m² GFA.

The proposed food/ café land use is expected to be used primarily by the staff and patrons of South-Central development.

The Site Plan indicates the provision of 705 car bays on-site, which is anticipated to be sufficient for the proposed development. This expectation is based on the significant cross-trade between the various land uses within the site, as well as the potential for reciprocal parking arrangements among these uses. This arrangement will help maximise parking efficiency and accommodate the needs of visitors across the different components of the development.

The subject site currently features a left in/left out crossover on Armadale Road (service road). As part of the proposal, some existing tenancies and car bays within South Central will be removed to facilitate two connections via internal driveways to Verde Drive, including the roundabout located to the northwest of the site. The southern proposed internal driveway connects to the existing left in/left out crossover on Verde Drive. The combination of the existing crossover on Armadale Road and the two connections to Verde Drive would facilitate effective traffic circulation of the general traffic and service vehicles.

Turn path analysis undertaken and documented in **Appendix B** confirm satisfactory movements of the service vehicles. The 19m semi-trailer accessing the service area for the building along the northern and eastern boundaries of the site will enter via the existing gated crossover on Biscayne Way, located at the northwest corner of the site and exit via Armadale Road crossover. This crossover will be used for service vehicles only.

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3 Existing Situation

3.1 Existing Land Use

The subject site is currently a vacant land and is situated to the north-east corner of Armadale Road and Verde Drive intersection. The existing land uses immediately to the east and north of the site are primarily residential, while commercial properties are located to the west. Armadale Road forms the southern boundary of the site.

3.2 Existing Road Network

The existing road network and its classification in accordance with the Main Roads WA functional road hierarchy is illustrated in **Figure 2**.

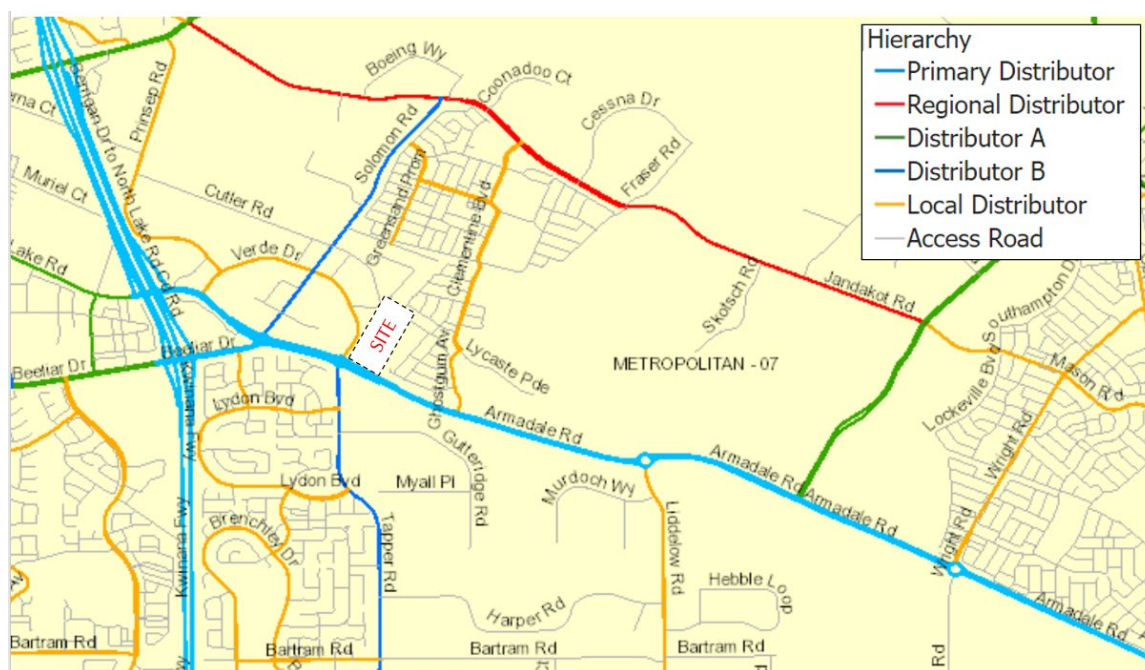


Figure 2: Existing Road Hierarchy

Armadale Road has recently undergone upgrades as part of the Armadale Road to North Lake Road Bridge Project. This project has introduced grade-separated roundabout intersections at the intersections of Armadale Road with Verde Drive and Solomon Road. Notably, Armadale Road is elevated to pass over the roundabout intersection at Verde Drive (refer **Figure 3**). The posted speed limit on the Armadale Road near the subject site is 60 km/h.

Armadale Road is classified as a Primary Distributor Road in the Main Roads Metropolitan Functional Road Hierarchy. It is covered by a Primary Regional Road reservation (i.e. *Red Road*) in the Metropolitan Region Scheme (MRS) and is a declared State Road under the care and control of Main Roads WA.

Tapper Road is a two-lane two-way road (one lane in each direction) that connects to Armadale Road at the Tapper Road / Verde Drive roundabout intersection. The posted speed limit along Tapper Road in the vicinity of the intersection is 60 km/h. Tapper Road is classified as Distributer B in the Main Roads Metropolitan Functional Road Hierarchy.

Verde Drive is a single carriageway divided road with one lane in each direction, connecting to Armadale Road at the roundabout intersection of Armadale Road, Tapper Road, and Verde Drive. The road loops around the South-Central area and connects to Solomon Road. The posted speed limit along Verde Drive in the vicinity of the site is 50 km/h. Verde Drive is classified as a Local Distributor Road within Main Roads Metropolitan Functional Road Hierarchy.



Figure 3: Existing roundabout intersection of Armadale Rd/ Verde Dr/ Tapper Rd

3.3 Existing Traffic Volume on Roads

The latest available reported traffic counts on the surrounding roads have been sourced from Main Roads WA and presented in **Figure 4**.

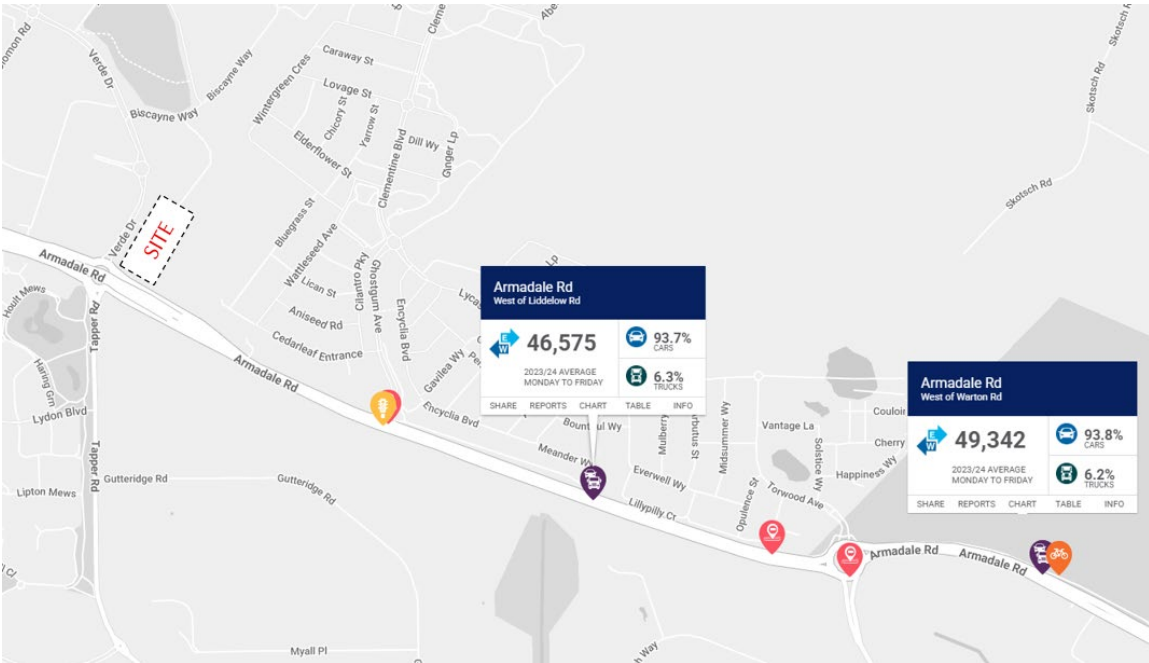


Figure 4: Existing traffic counts (Source: Main Roads WA)

Transcore organised video traffic count survey at the existing roundabout intersection of Armadale Road / Tapper Road / Verde Drive and the internal roundabout intersection on Verde Drive on Friday and Saturday 19th and 20th of September 2025. The peak hour traffic volumes at the roundabout intersection are shown in **Figure 5**.

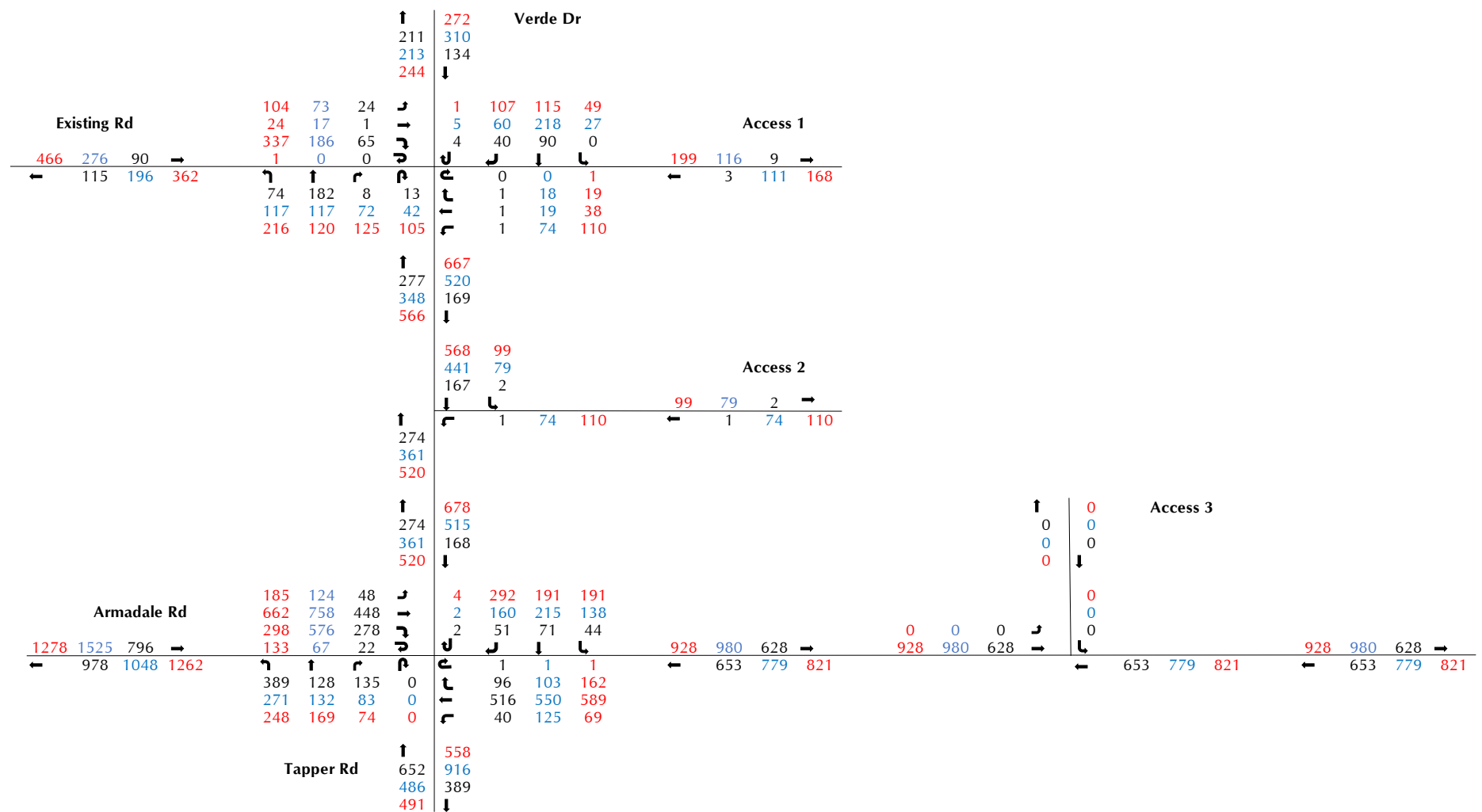


Figure 5: Existing peak hour traffic flows, AM, PM and Saturday PM peak hours

3.4 Crash Records

Information available on the Main Roads WA website indicates a total of 70 crashes at the roundabout intersection of Tapper Road and Verde Drive during the five-year period ending December 2024 (refer **Figure 6**).

Review of the crashes indicates there were no fatal accidents, but one incident resulted in a hospital visit, and 21 were classified as medical incidents. The majority of crashes were property damage only (PDO), with 30 categorized as major and 18 as minor. In terms of nature, the predominant type of crash was rear-end collisions, accounting for 38 incidents (54.29%), followed by right-angle crashes with 16 incidents (22.86%).

Similar analysis for the section of Verde Drive fronting the subject site indicates total of 4 incidents, with no fatalities or hospitalisations reported (refer **Figure 7**). Of these, 1 incident was classified as a medical case, while 3 were categorised as minor property damage only (PDO). The majority of crashes occurred in 2020, accounting for 75% of the total, with a single incident in 2023. In terms of nature, the crashes included 2 rear-end collisions (50%) and 1 right-angle collision (25%), alongside an unspecified incident classified as "other." The majority of incidents occurred during daylight conditions (75%) and on dry roads (75%), with half of the crashes occurring on straight road alignments.

It should be noted that the five-year crash period extends over the period prior to the upgrading and realignment of Armadale Road project. It is expected that this project will generally improve safety in the area.

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Severity	No.	%
Fatal	0	0
Hospital	1	1.43
Medical	21	30.00
PDO Major	30	42.86
PDO Minor	18	25.71
Year	No.	%
2021	10	14.29
2022	23	32.86
2023	16	22.86
2024	21	30.00
Nature	No.	%
Head On	0	0
Hit Animal	0	0
Hit Object	0	0
Hit Pedestrian	0	0
Non Collision	0	0
Not Known	0	0
Rear End	38	54.29
Right Angle	16	22.86
Right Turn Thru	1	1.43
Sideswipe Opposite Dirn	0	0
Sideswipe Same Dirn	15	21.43

Light	No.	%
Dark - Street Lights Not Provided	0	0
Dark - Street Lights Off	0	0
Dark - Street Lights On	3	4.29
Dawn Or Dusk	1	1.43
Daylight	53	75.71
Not Known	0	0
Other / Unknown	13	18.57
Conditions	No.	%
Dry	61	87.14
Not Known	0	0
Other / Unknown	3	4.29
Wet	6	8.57
Alignment	No.	%
Curve	26	37.14
Not Known	0	0
Other / Unknown	41	58.57
Straight	3	4.29
Total	70	

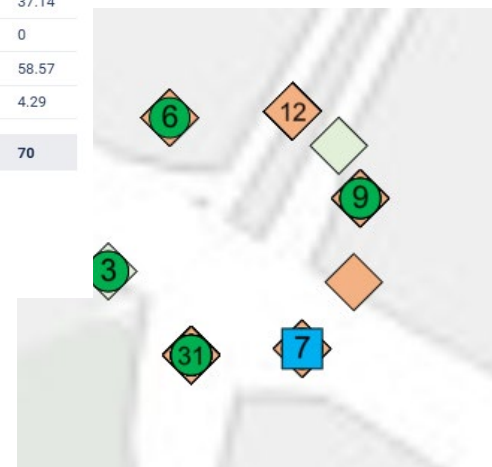


Figure 6: Crash analysis results for the intersection of Verde Drive/ Tapper Road

Severity	No.	%
Fatal	0	0
Hospital	0	0
Medical	1	25.00
PDO Major	0	0
PDO Minor	3	75.00

Year	No.	%
2020	3	75.00
2023	1	25.00

Nature	No.	%
Head On	0	0
Hit Animal	0	0
Hit Object	0	0
Hit Pedestrian	0	0
Non Collision	0	0
Not Known	0	0
Other / Unknown	1	25.00
Rear End	2	50.00
Right Angle	1	25.00
Right Turn Thru	0	0
Sideswipe Opposite Dirn	0	0
Sideswipe Same Dirn	0	0

Light	No.	%
Dark - Street Lights Not Provided	0	0
Dark - Street Lights Off	0	0
Dark - Street Lights On	1	25.00
Dawn Or Dusk	0	0
Daylight	3	75.00
Not Known	0	0

Conditions	No.	%
Dry	3	75.00
Not Known	0	0
Other / Unknown	1	25.00
Wet	0	0

Alignment	No.	%
Curve	0	0
Not Known	0	0
Other / Unknown	2	50.00
Straight	2	50.00

Total	4	
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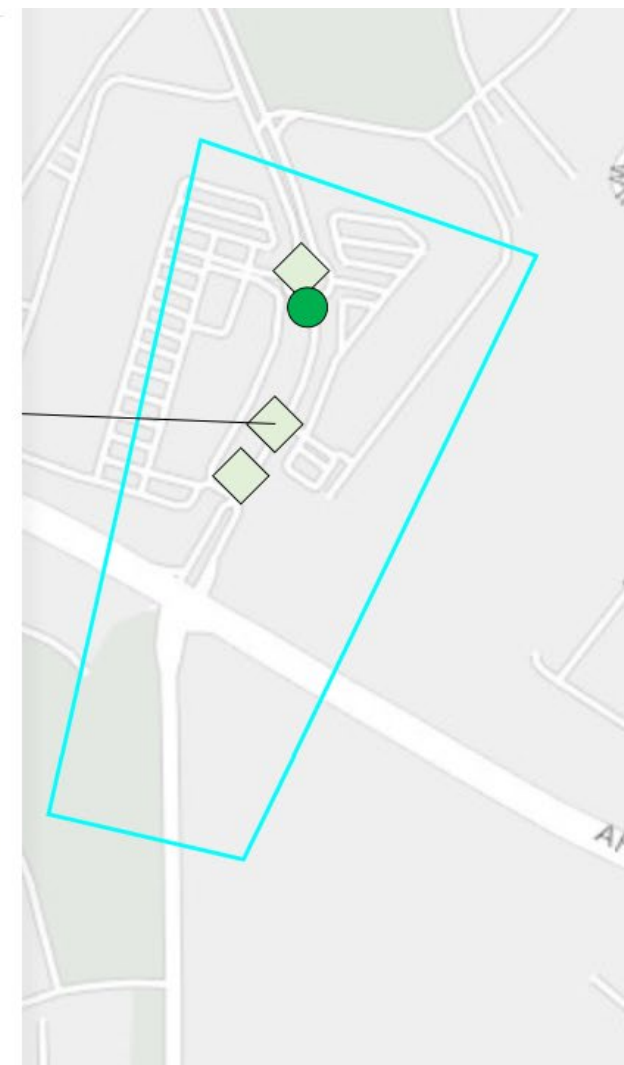


Figure 7: Crash analysis results for the Verde Drive fronting the subject site

3.5 Public Transport Access

Figure 8 illustrates the existing local public transport services in the vicinity of the subject site.

At present, Verde Drive is not directly served by any bus routes. However, several public transport options are accessible along Armadale Road and Tapper Road, providing convenient connectivity for commuters.

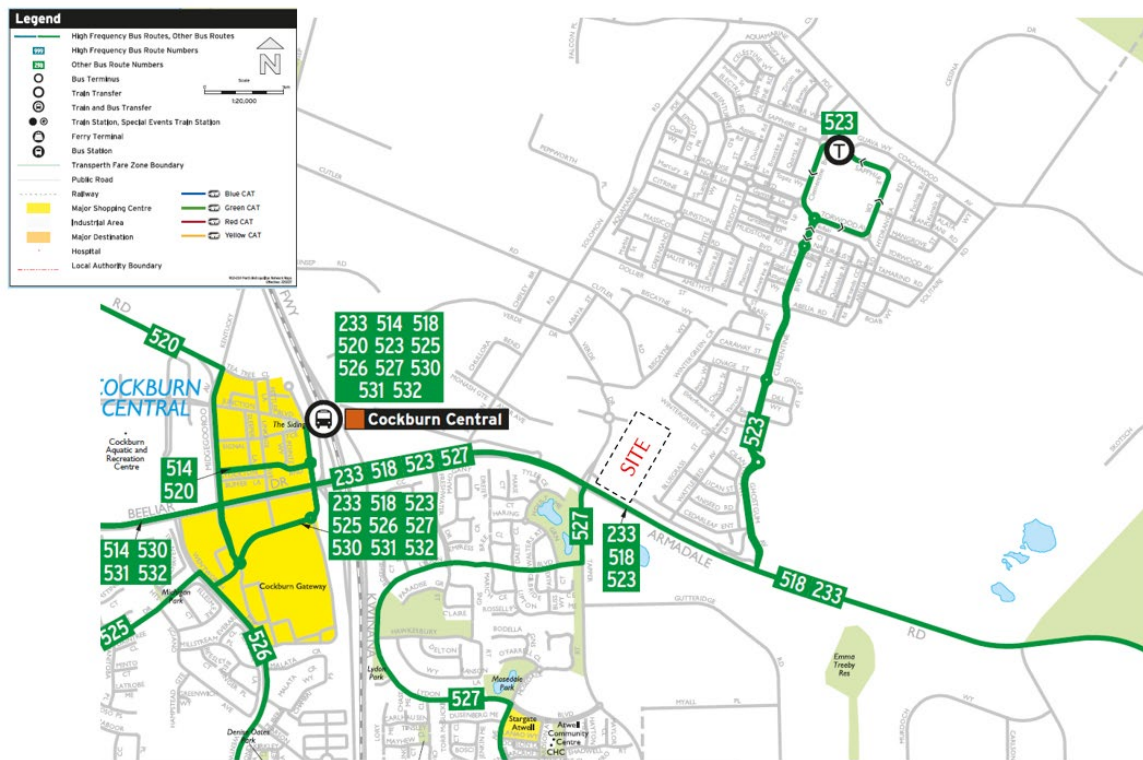


Figure 8: Existing local public transport

Figure 9 shows the estimated shortest walking distances from the site to the nearest bus stops. As shown in **Figure 9**, the site is well served by public transport, with the nearest bus stops located along Armadale Road and Tapper Road at distances ranging from approximately 305 to 380 metres. These are all within a comfortable walking range (generally up to 400–500 metres), providing good accessibility to the site, although no bus stops are located on Verde Drive.



Figure 9: Estimated walking distances from the site to the nearest bus stops

3.6 Pedestrian and Cyclist Facilities

The pedestrian and cyclists' connectivity to the site is currently available via the existing shared paths along Armadale Road and Verde Drive.

4 Changes to Surrounding Transport Networks

The proposed changes primarily involve creating new access points for the site onto Verde Drive. This includes western connections that link the site directly to the existing roundabout and the left in/left out crossover on Verde Drive. These upgrades are designed to integrate the site with the surrounding road network while effectively utilising the existing infrastructure.

5 Integration with Surrounding Area

The proposed development involves the expansion of the existing South-Central large format retail site and is designed to integrate seamlessly with the surrounding land uses. By connecting to Armadale Road and Verde Drive, the development enhances accessibility for both vehicles and pedestrians, making it easier for customers to reach the site.

Furthermore, by connecting with neighbouring land uses, the development creates a cohesive retail environment that complements the existing commercial and residential areas, potentially attracting more visitors and increasing economic activity. Overall, this integration supports local amenities and transition between the existing retail and residential development.

6 Traffic Assessment

6.1 Assessment Period

Due to the nature of the proposed development, the greatest demand on the local road network capacity is expected to occur during the combined peak business activity of the development and the peak commuter traffic during the weekday afternoon and Saturday midday periods. However, an assessment of the AM peak hour has also been undertaken, as required by the WAPC Guidelines.

The traffic assessments have been carried out for two horizon years - 2026, which is assumed to represent the post-development scenario, and 2036, which is assumed as the 10-year post-development assessment year.

6.2 Trip Generation

In order to establish the appropriate trip rates for the proposed large format retail reference was made to the “The Guide to Transport Impact Assessment Technical guidance for transport practitioners TS 00085 | Version 1.1”. This Guide supersedes the Guide to Traffic Generating Developments (GTGD 2002) and Updated Traffic Surveys Technical Direction (TDT 2013/04a). The applicable land use from the latest Guideline is Hardware and bulky goods stores include categories such as furniture, white goods, electrical equipment, bedding and Manchester, lighting, automotive parts, camping and outdoor equipment, tools, building materials and large hardware warehouses specialised in a variety of hand, paint, garden, domestic, outdoor furniture, timber and building products. The trip rates for the proposed gym were sourced from the ITE 11 Guidelines.

Significant cross trade between the proposed land uses within the development is expected. Accordingly, a cross trade of 30% is assumed to be reasonable to allow for internal trips between the proposed land uses within the site. Other data source and other assumptions are as follows:

- Food/ cafe trips are expected to be internal to the development;
- Pass-by rates from ITE Trip Generation Handbook 3rd Ed; Lands use 816 (Hardware/ Paint Store for proposed showroom tenancies).
- Trip in and out split of 50/50 for peak hours.

Table 1 summarises the daily and peak hour trip generation of the proposed development. **Table 2** shows the passing and non-passing trade components of the trip generation.

Accordingly, it is estimated that the proposed development would generate approximately 8,371 trips per regular weekday with approximately 599vph and 695 vph (both inbound and outbound) during the weekday AM and PM peak hours respectively and about 1,316vph during the Saturday mid-day peak hour.

Table 1: Trip generation of the proposed subdivision

Land use	Quantity	Daily Rate	Weekday-AM	Sat-Midday	Weekday-PM	Cross Trade	Daily Trips	Weekday-AM Trips	Sat-Midday Trips	Weekday-PM Trips	AM		Sat-PM		PM	
											IN	OUT	IN	OUT	IN	OUT
Gym	2000	0.371	0.014	0.034	0.037	0.30	520	28	48	52	14	14	24	24	26	26
Showroom (Hardware)	33996	0.330	0.017	0.053	0.027	0.30	7851	571	1268	643	286	286	634	634	321	321
Total traffic							8371	599	1316	695	300	300	658	658	347	347

Table 2: Passing trade and non-passing trade component of the trip generation

Passing Trip Component

%	Daily Trips	AM		Sat-Midday		PM	
		IN	OUT	IN	OUT	IN	OUT
0%	0	0	0	0	0	0	0
26%	2041	74	74	165	165	84	84
	2041	74	74	165	165	84	84

Primary Trip Component

Daily Trips	AM		Sat-Midday		PM	
	IN	OUT	IN	OUT	IN	OUT
520	14	14	24	24	26	26
5810	212	212	469	469	237	237
6330	226	226	493	493	263	263

6.3 Trip Distribution

The distribution of trips that will be attracted to the proposed development has been estimated based on the distribution of surrounding residential areas and the catchment area of the proposed development. The resulting modelled traffic distribution of the proposed development is summarised in **Table 3**.

Table 3: Traffic distribution

Roads	Primary trips	Pass by trips
North approach at the existing northern roundabout on Verde Drive	5%	0%
West approach at the existing northern roundabout on Verde Drive	5%	0%
Armadale Road, West	30%	20%
Armadale Road, East	30%	70%
Tapper Road, South	30%	10%

The traffic movements generated by the proposed development have been manually assigned on the adjacent road network and the resulting traffic movements generated by this development are shown in **Figure 10**.

6.4 Traffic Flow

Future year base traffic flows have been estimated by factoring up the current through traffic flows on Armadale Road (service road), Tapper Road and Verde Drive by 2% annually. It should be noted that traffic on Armadale Road has increased significantly in recent years, reflecting an unusual short-term spike in the annual growth rate. However, the 2% annual growth rate for Armadale Road aligns with the Main Roads WA ROM 2041 projections. Consequently, this same 2% growth rate was utilised for the purpose of the analysis.

Figure 11 illustrates 2026 base traffic plus development traffic and **Figure 12** reflects 2036 base traffic plus development traffic.

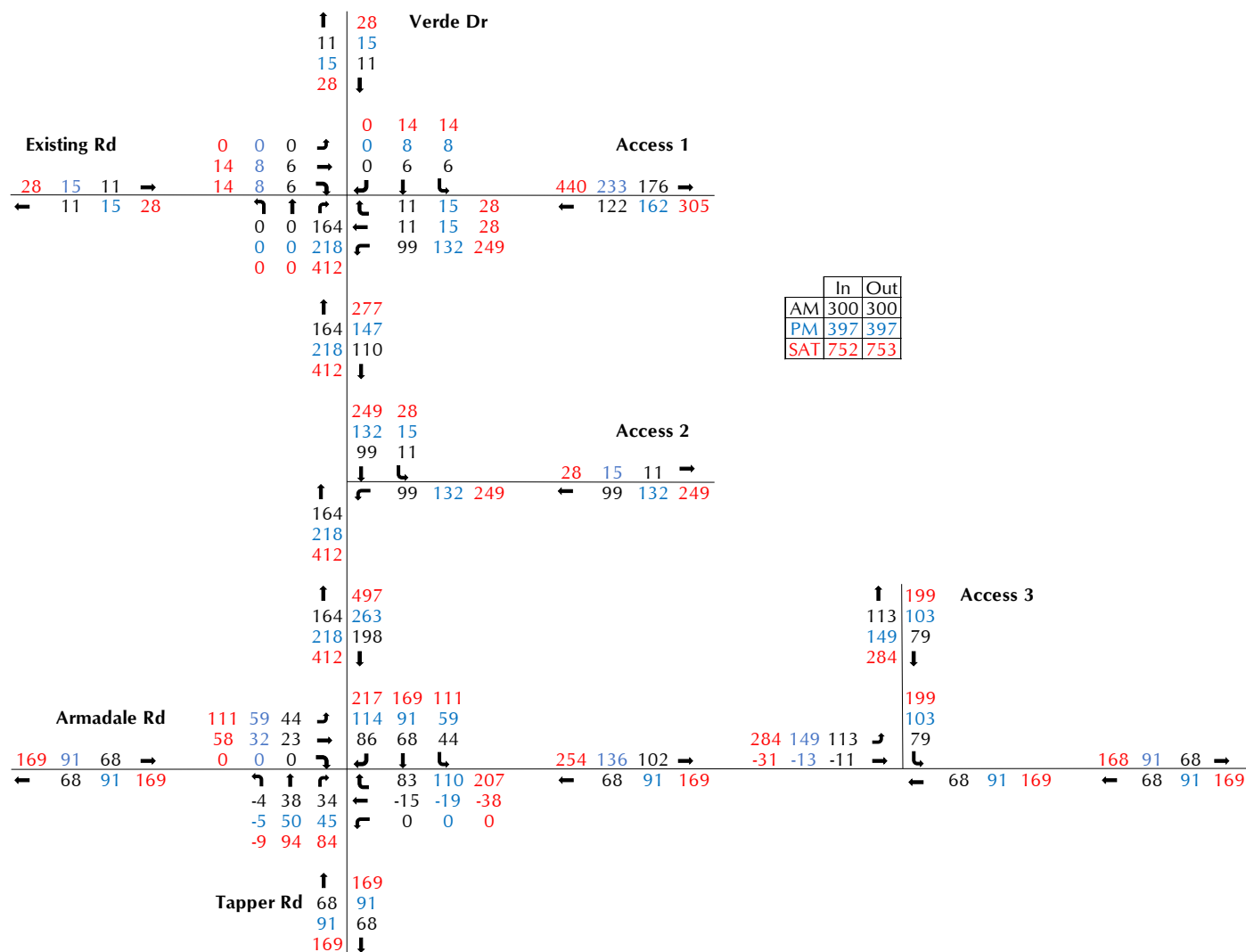


Figure 10: Proposed development traffic (AM/ PM/ Sat Mid-day)

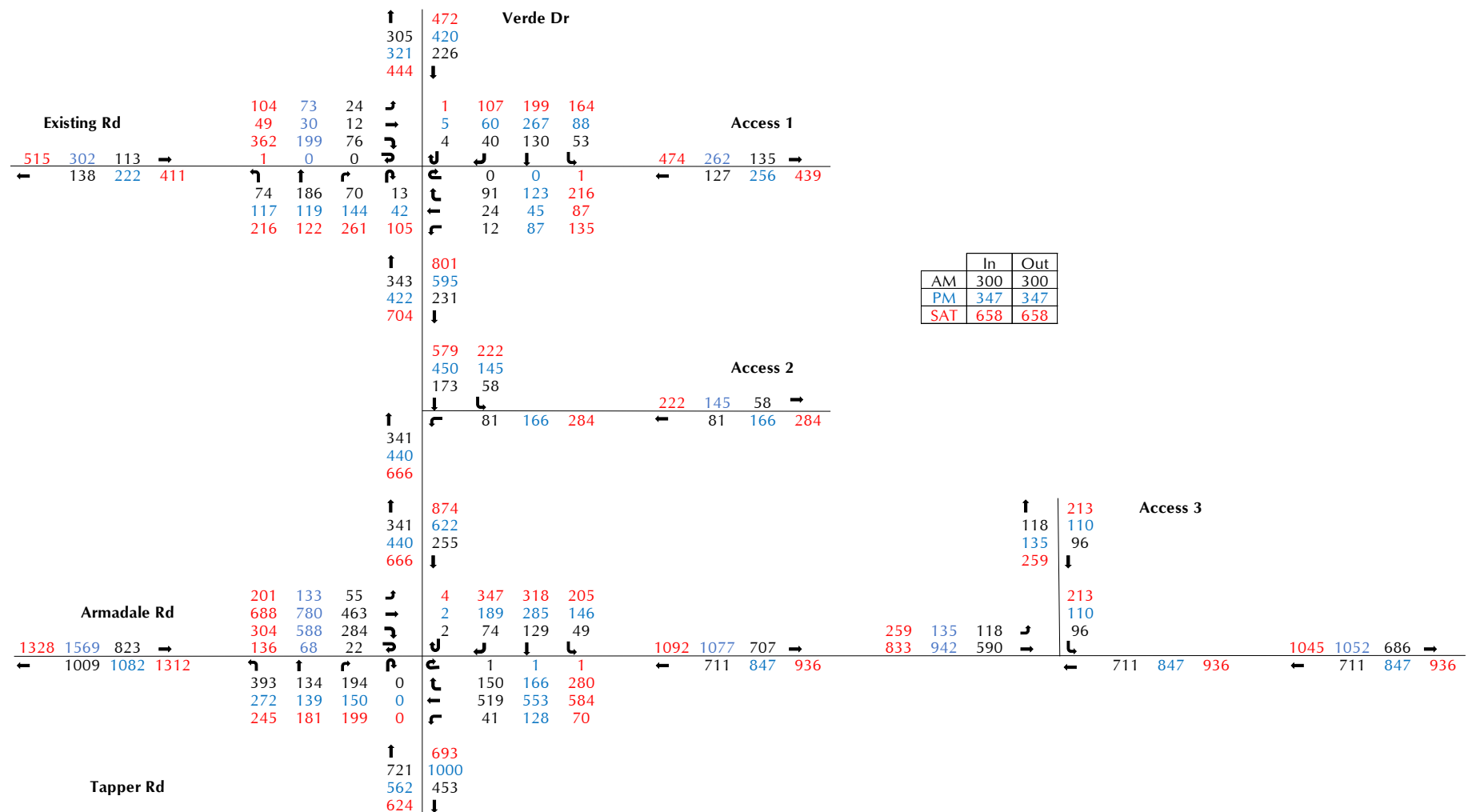


Figure 11: 2026 total traffic volumes (AM/ PM/ Sat Mid-day)

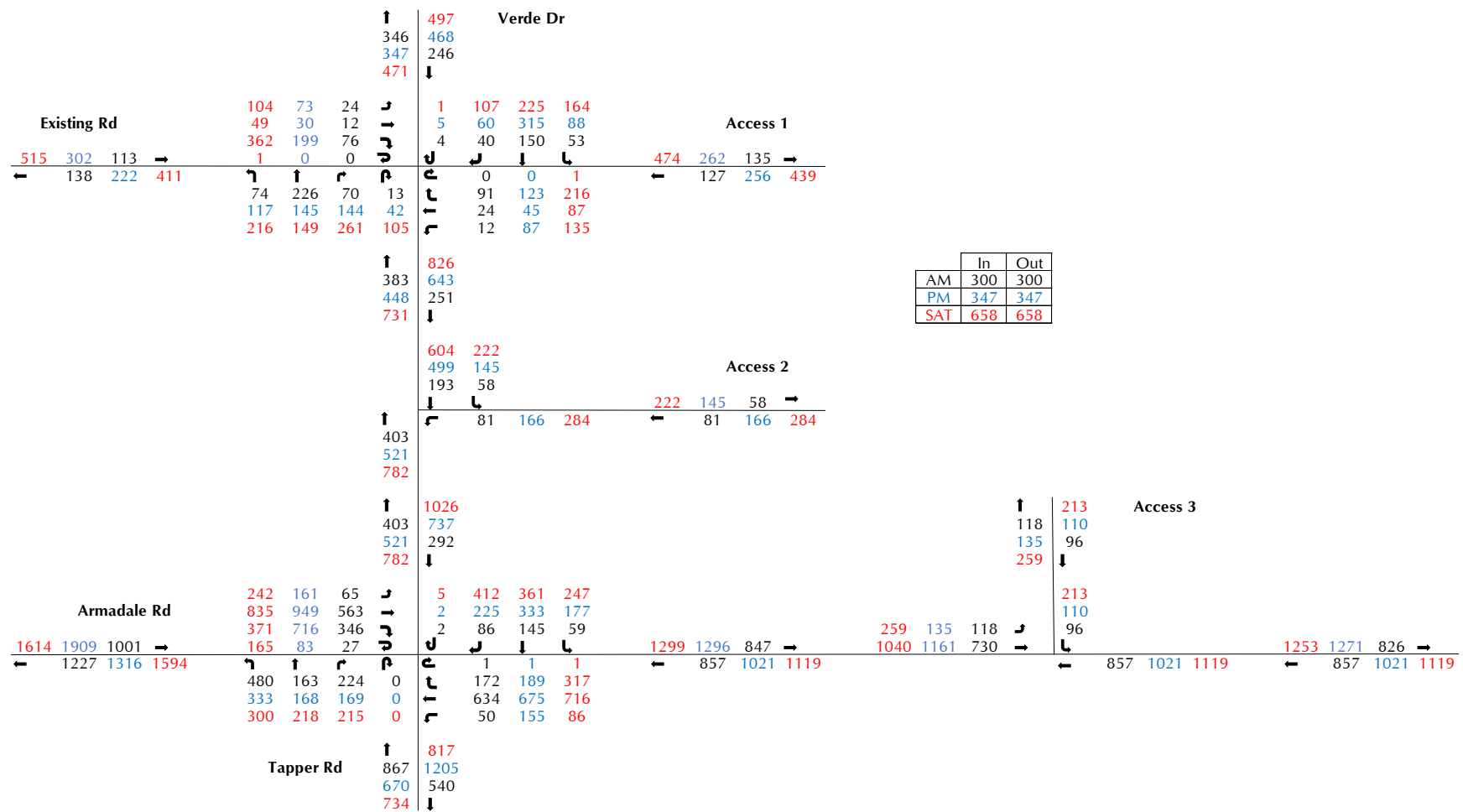


Figure 12: 2036 total traffic volumes (AM/ PM/ Sat Mid-day)

6.5 Analysis of Local Intersection & Proposed Crossovers

The development crossovers on Armadale Road and Verde Drive and the roundabout intersection on Armadale Road/ Verde Drive/ Tapper Road have been analysed as a network using Network analysis in the SIDRA computer software package (Version 10) for the weekday AM and PM peak hours and Saturday peak hour traffic flows.

SIDRA is an intersection modelling tool commonly used by traffic engineers for all types of intersections. SIDRA outputs are presented in the form of Degree of Saturation, Level of Service, Average Delay and 95% Queue. These characteristics are defined as follows:

- ✚ Degree of Saturation is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for infrequent traffic flow up to one for saturated flow or capacity.
- ✚ Level of Service is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. In general, there are 6 levels of service, designated from A to F, with Level of Service A representing the best operating condition (i.e. free flow) and Level of Service F the worst (i.e. forced or breakdown flow).
- ✚ Average Delay is the average of all travel time delays for vehicles through the intersection.
- ✚ 95% Queue is the queue length below which 95% of all observed queue lengths fall.

Figure 13 illustrates the intersection network and layout modelled in SIDRA.

The SIDRA Network analysis has been undertaken in accordance with current MRWA operational modelling guidelines including separate input of different classes of heavy vehicles and the parameters specified by MRWA for those vehicle classes.

The results of the SIDRA analysis are summarised in **Appendix C**.

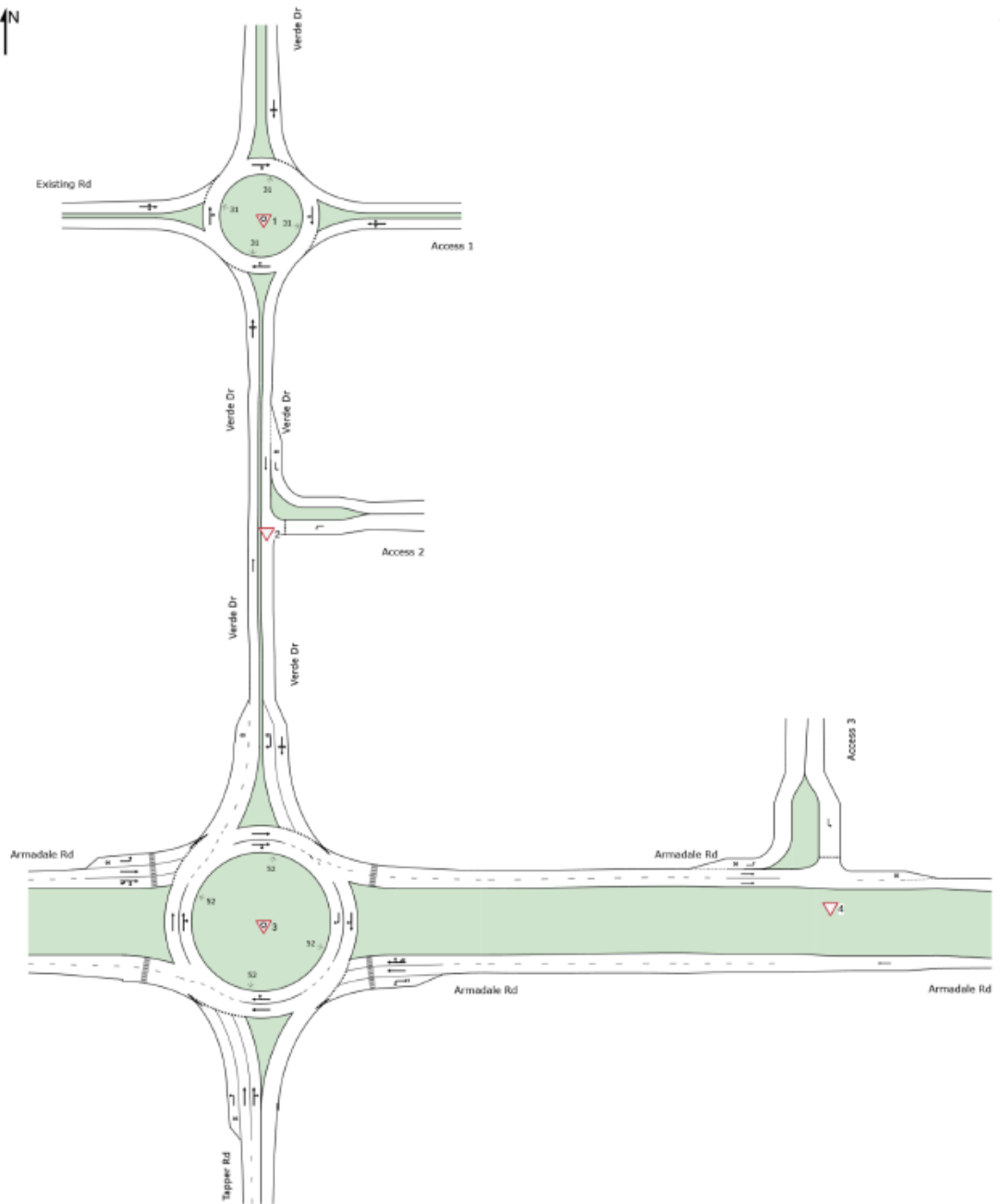


Figure 13: Intersection network and layouts modelled in SIDRA

6.5.1 Existing roundabout intersection of Armadale Road / Verde Drive / Tapper Road

The SIDRA results in **Appendix C** indicate that the existing roundabout intersection on Armadale Road / Verde Drive / Tapper Road is currently operating satisfactory with overall LoS of A during AM, PM and Saturday mid-day peak hours, with minimum queues and delays for all approaches of the intersection during typical peak conditions.

The addition of the development traffic in 2026 would not change the overall LoS of the intersection. In 2036, the overall LoS will remain as A during the AM peak hour but will reduce to B for the PM and Saturday mid-day peak hours. The critical leg of the intersection is Verde Drive as the majority of the development traffic would be distributed to this road. **Table 4** summarise the traffic operation of the Verde Drive leg of the intersection for existing, 2026 and 2036 scenarios.

Table 4: Verde Drive traffic operation

Verde Drive Approach		DoS	LoS	95% Back of Queue (m)
Existing	AM	0.10	A	2.9
	PM	0.43	A	20.4
	Sat	0.41	A	17.5
2026	AM	0.16	A	5.2
	PM	0.58	A	33.1
	Sat	0.62	A	34.9
2036	AM	0.21	A	7.6
	PM	0.91	C	104.6
	Sat	0.91	C	95.9

In the existing scenario, Verde Drive DoS values of 0.10 in the AM peak, 0.43 in the PM peak, and 0.41 on Saturdays, all resulting in a Level of Service of A. This indicates excellent traffic operations, with minimal delays and short queues, as evidenced by the 95th percentile back of queue measurements being relatively low (2.9m in the AM, 20.4m in the PM, and 17.5m on Saturday). The SIDRA model outputs align with site observations during peak hours. It is important to note that there are currently signalised pedestrian crossings on both sides of Armadale Road at the roundabout. These crossings were not included in the SIDRA model, as they are activated on demand and are not frequently used. Additionally, when activated, the pedestrian

signalised crossings create larger gaps in traffic at the roundabout, allowing for smoother vehicle flow.

By 2026 and with the development traffic, the AM peak DoS increases to 0.16, still maintaining a Level of Service A, but indicating a slight increase in demand and queue lengths, with the back of queue growing to 5.2m. The PM peak sees a more significant increase to a DoS of 0.58, leading to longer queues (33.1m), although still within acceptable limits for Level of Service A. The Saturday peak also reflects a rise to 0.62, with a back of queue of 34.9m.

By year 2036, the situation worsens as expected during the PM peak, where the DoS escalates to 0.91, resulting in a Level of Service C and with longer queues of 104.6m. The Saturday peak mirrors this trend with a DoS of 0.91 and a back of queue of 95.9m. This change is a direct result of background traffic growth.

The projected 95% queue in 2036 is expected to extend just before the existing left in/left out crossover on Verde Drive, without obstructing access to this crossover. Additionally, the SIDRA results for the left in/left out crossover on Verde Drive indicate satisfactory traffic operations in 2036, with no internal queues reported.

It should also be noted that if the southbound approach of Verde Drive towards the roundabout becomes congested during peak hours in the future, some drivers may choose to travel north on Verde Drive to access Solomon Road, allowing them to head west towards Cockburn Central or utilise the existing left in/left out crossover on Armadale Road depending on the direction of travel..

6.5.2 Existing northern roundabout on Verde Drive

The result of the SIDRA analysis for the existing northern roundabout on Verde Drive confirms satisfactory traffic operations with overall LoS A during the AM and PM peak hours for 2026 and 2036 scenarios. The Saturday peak hour is reported to have overall LoS A in 2026 and overall LoS B in 2036. The reported 95% queue would not extend back to the roundabout intersection of Armadale Road/ Verde Drive/ Tapper Road.

6.5.3 Existing left in/ left out crossover on Armadale Road

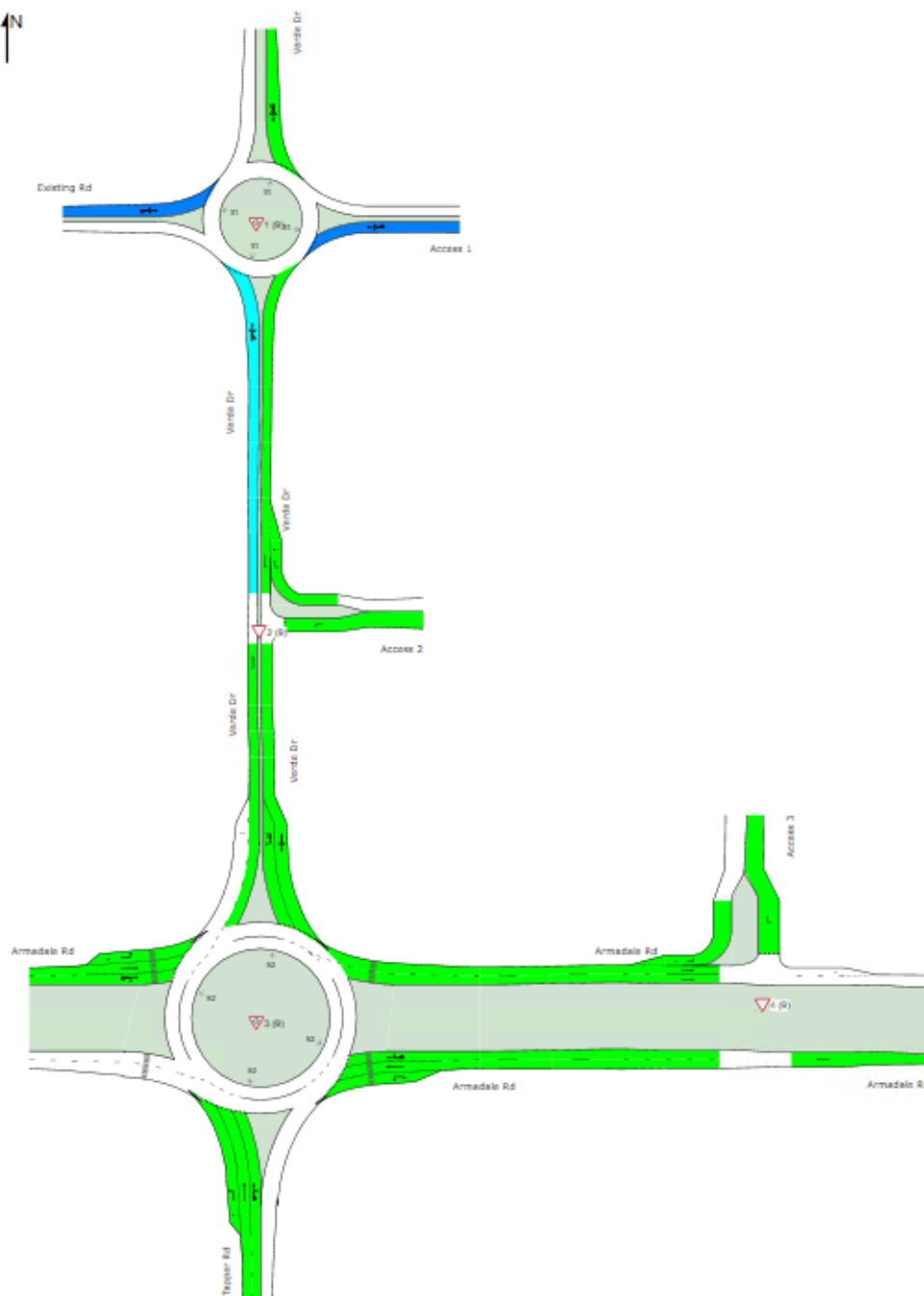
The result of the SIDRA analysis for the existing left in/ left out crossover on Armadale Road confirm that all movements would operate satisfactorily with LoS A indicating very good operations in 2026 and 2036.

6.5.4 Existing left in/ left out crossover on Verde Drive

The result of the SIDRA analysis for the existing left in/ left out crossover on Verde Drive confirm that all movements would operate satisfactorily with LoS A indicating very good operations in 2026 and 2036.

6.5.5 Network operations

Relevant SIDRA network outputs for the critical Saturday peak hour were reviewed to evaluate the operation of the existing crossovers on Armadale Road and Verde Drive, along with the roundabout intersections, as part of an integrated network system. As illustrated in **Figure 14** and **Figure 15**, the analysis indicates that there are no queue backs reported from the Armadale Road roundabout intersection extending to development crossovers during the critical Saturday peak period during the 2026 and 2036 assessment years. Additionally, no queue back from the development crossover on Armadale Road to the Armadale Road roundabout intersection have been reported during the critical Saturday peak hour during the 2026 and 2036 assessment years.



Colour code based on Queue Storage Ratio
 [< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]
 Queue Model: SIDRA Standard.

**Figure 14: Saturday critical peak hour network analysis – queue storage ratio
 (2026)**

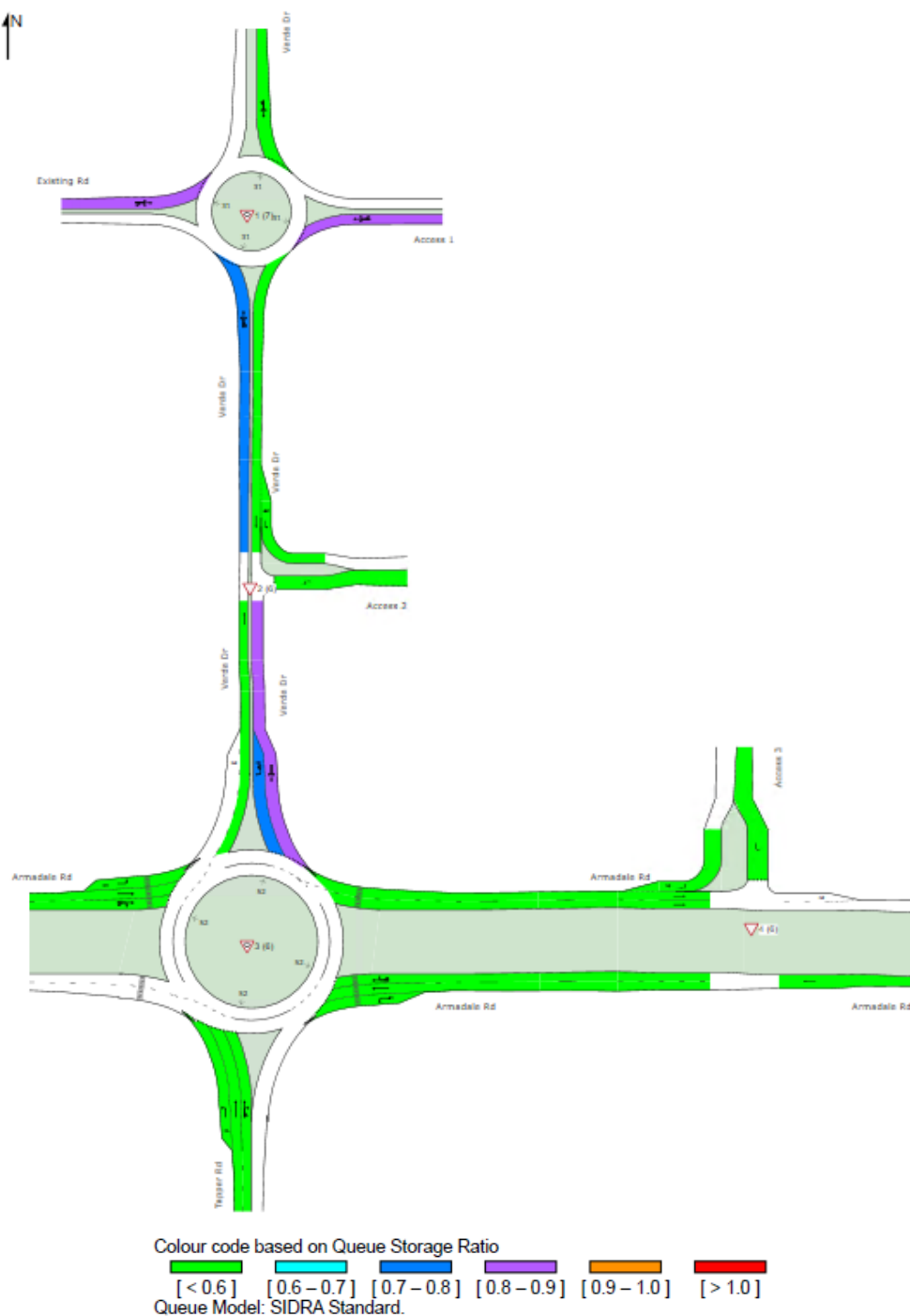


**Figure 15: Saturday critical peak hour network analysis – queue storage ratio
 (2036)**

6.6 Impact on Surrounding Roads and Neighbouring Areas

The section of Verde Drive between the existing northern roundabout on Verde Drive and the existing Armadale Road roundabout intersection is expected to experience the highest traffic impact. This is because the majority of the development traffic is expected to be distributed towards Armadale Road.

However, SIDRA analysis undertaken indicated that the existing standard of Verde Drive and Armadale Road roundabout intersection would be able to accommodate the additional development traffic.

6.7 Traffic Noise and Vibration

The WAPC's *State Planning Policy 5.4: Road and Rail Transport Noise and Freight Considerations in Land Use Planning* requires assessment of noise impact on noise-sensitive developments when a road carries more than 20,000vpd in an urban area or 5,000vpd in a rural area.

The traffic generation of the proposed development will not increase the traffic volumes on the surrounding roads more than 20,000vpd, so no significant noise impacts on surrounding areas are anticipated.

6.8 Road Safety

Other than the crash records reported, no particular road safety issues have been identified in relation to the proposed development.

7 Parking Assessment

The Site Plan indicates the provision of 705 new car bays on-site, which is anticipated to be sufficient for the proposed development. This expectation is based on the significant cross-trade between the various land uses within the site, as well as the potential for reciprocal parking arrangements among these uses. This arrangement will help maximise parking efficiency and accommodate the needs of visitors across the different components of the development.

8 Provision of Heavy Vehicles

The largest service vehicle that would visit the site is a 19m semi-trailer. This size service vehicle is only expected to use the loading bay behind building 2. The 19m semi-trailer visiting the proposed loading bay will enter the site through the existing gated crossover on Biscayne Way, located at the northwest corner of the site and would exit via the existing left in/ left out crossover on Armadale Road (refer Sk05 in **Appendix B**).

The other showroom tenancies would be serviced by service vehicles up to 12.5m long. The 12.5m service vehicle can enter via the roundabout intersection on Verde Drive and exit via the existing left in/ left out crossover on Armadale Road. The 12.5m service vehicle can also enter the site via the existing gated crossover on Biscayne Way (refer Sk06 and Sk07 in **Appendix B**).

9 Public Transport Access

Public transport services in the area are addressed in Section 3.5 of this report.

10 Pedestrian and Cyclist Access

Pedestrian and Cyclist facilities in the area are addressed in Section 3.6 of the report. The pedestrian and cyclist can use the existing shared paths along Armadale Road and Verde Drive to access the proposed development.

11 Conclusions

This Transport Impact Assessment (TIA) has been prepared by Transcore on behalf of Satterley & Centuria Joint Venture in relation to the proposed large format retail to be located at Lot 701 Armadale Road in Treeby.

The proposed development involves the expansion of the existing South-Central large format retail site to the west over the existing vacant land. The subject area features an existing left in/left out crossover on Armadale Road. As part of this proposal, some existing tenancies and car bays will be removed to create an internal driveway connecting the development to the existing roundabout intersection on Verde Drive. Additionally, the existing left in/left out crossover on Verde Drive will be linked to the development by extending the current internal driveway. Together, the existing crossover on Armadale Road and the two connections to Verde Drive will facilitate effective traffic circulation for both general and service vehicles.

Turn path analysis undertaken in Appendix B confirm satisfactory traffic movements of the service vehicles.

It is estimated that the proposed development would generate approximately 8,371 trips per regular weekday with approximately 599vph and 695vph (both inbound and outbound) during the weekday AM and PM peak hours respectively and about 1,316vph during the Saturday mid-day peak hour.

The SIDRA network outputs for the critical Saturday peak hour demonstrate satisfactory operations with no queue backs reported from the Armadale Road roundabout intersection extending to the development crossover and Verde Drive northern roundabout intersection during the critical Saturday peak period for both the 2026 and 2036 assessment years. Furthermore, no queue back from the development crossover on Armadale Road is reported to the Armadale Road roundabout intersection during the critical Saturday peak hour for the same assessment years.

The Site Plan indicates the provision of 705 car bays on-site, which is anticipated to be sufficient for the proposed development. This expectation is based on the significant cross-trade between the various land uses within the site, as well as the potential for reciprocal parking arrangements among these uses. This arrangement will help maximise parking efficiency and accommodate the needs of visitors across the different components of the development

In conclusion, the findings of this Transport Impact Assessment are supportive of the proposed development.

Appendix A

PROPOSED SITE PLAN



Engineering a better future for over 20 years!

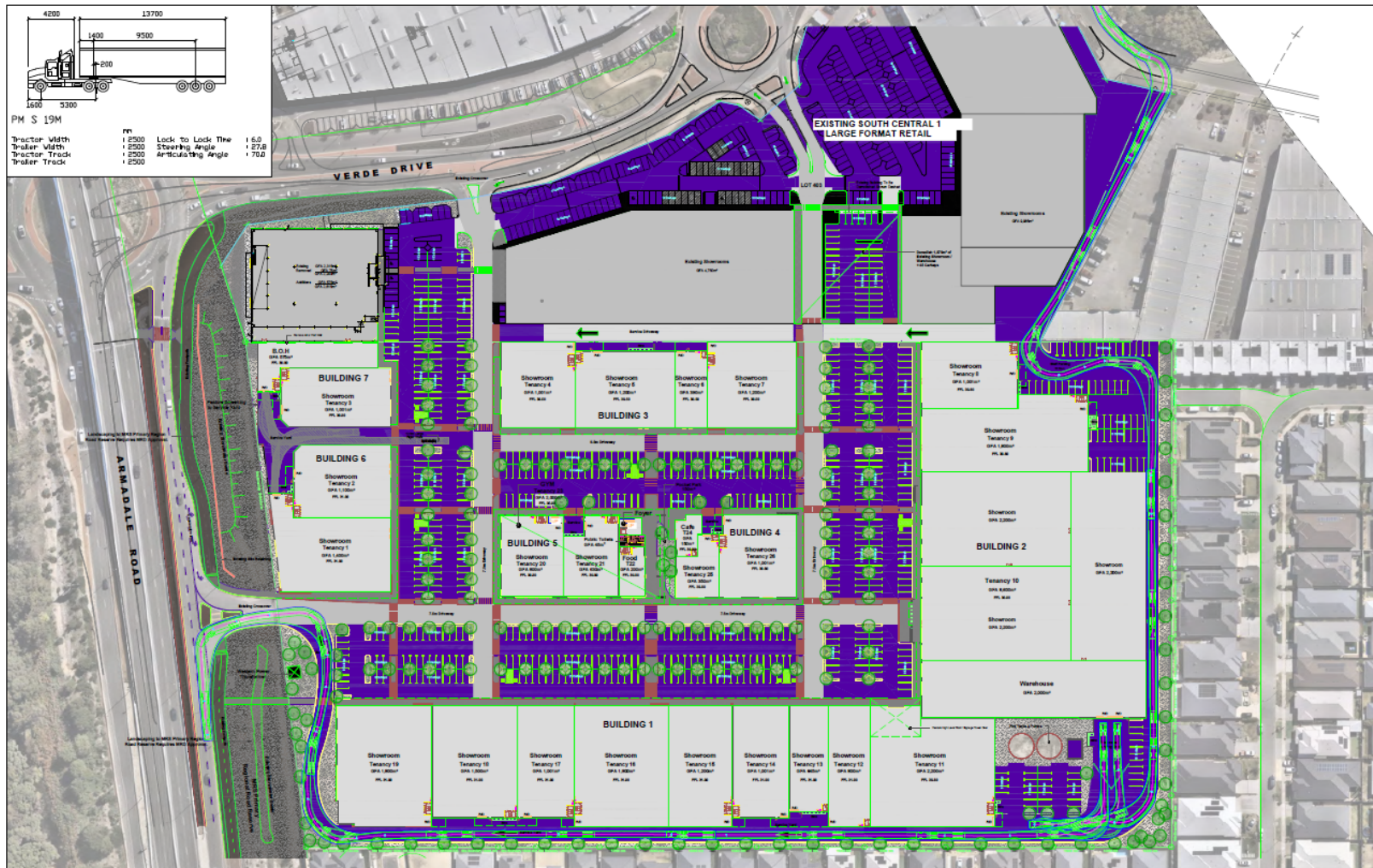


Appendix B

TURN PATH ANALYSIS



Engineering a better future for over 20 years!



Lot 701 Armadale Road, Banjup
19m Semi-Trailer
Site Circulation

LEGEND
Vehicle Body
Wheel Path
500mm Clearance



t25.187.sk05

16/10/2025

Scale: 1:1400 @ A3



Appendix C

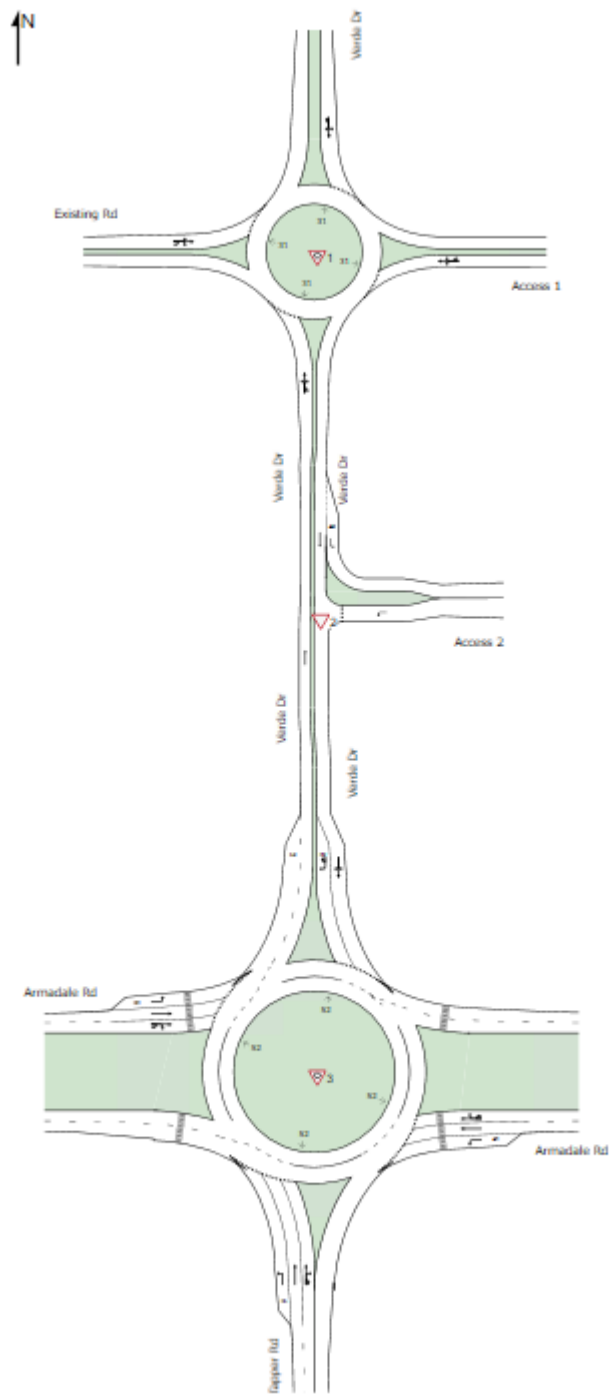
INTERSECTION ANALYSIS



Engineering a better future for over 20 years!

EXISTING





MOVEMENT SUMMARY

 **Site: [3] Armadale Rd & Tapper Rd & Verde Dr - Existing - AM**
(Existing - AM)

Network: [1] AM (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Tapper Rd															
4	L2	All MCs	409	6.0	409	6.0	0.257	4.0	LOS A	1.2	10.0	0.52	0.48	0.52	52.5
2	T1	All MCs	135	6.0	135	6.0	0.139	3.5	LOS A	0.6	4.6	0.49	0.39	0.49	50.3
6	R2	All MCs	142	6.0	142	6.0	0.139	11.0	LOS B	0.6	4.6	0.50	0.67	0.50	32.3
6u	U	All MCs	1	6.0	1	6.0	0.139	13.7	LOS B	0.6	4.6	0.50	0.67	0.50	49.1
Approach			687	6.0	687	6.0	0.257	5.4	LOS A	1.2	10.0	0.51	0.50	0.51	46.7
East: Armadale Rd															
7	L2	All MCs	42	6.0	42	6.0	0.032	3.9	LOS A	0.1	1.1	0.41	0.46	0.41	51.9
8	T1	All MCs	543	10.9	543	10.9	0.237	3.3	LOS A	1.2	10.0	0.46	0.37	0.46	50.6
6	R2	All MCs	101	6.0	101	6.0	0.237	11.0	LOS B	1.1	9.0	0.48	0.50	0.48	37.5
9u	U	All MCs	1	6.0	1	6.0	0.237	13.8	LOS B	1.1	9.0	0.48	0.50	0.48	41.5
Approach			687	9.9	687	9.9	0.237	4.5	LOS A	1.2	10.0	0.46	0.40	0.46	49.7
North: Verde Dr															
7	L2	All MCs	46	6.0	46	6.0	0.101	2.8	LOS A	0.4	2.9	0.48	0.28	0.48	42.7
8	T1	All MCs	75	6.0	75	6.0	0.101	1.6	LOS A	0.4	2.9	0.48	0.28	0.48	51.8
9	R2	All MCs	54	6.0	54	6.0	0.063	9.1	LOS A	0.2	1.6	0.49	0.70	0.49	42.1
9u	U	All MCs	2	6.0	2	6.0	0.063	11.2	LOS B	0.2	1.6	0.49	0.70	0.49	31.0
Approach			177	6.0	177	6.0	0.101	4.3	LOS A	0.4	2.9	0.48	0.41	0.48	46.5
West: Armadale Rd															
10	L2	All MCs	51	6.0	51	6.0	0.038	4.0	LOS A	0.1	1.1	0.35	0.44	0.35	50.5
2	T1	All MCs	472	7.3	472	7.3	0.272	2.8	LOS A	1.3	10.2	0.40	0.30	0.40	51.3
3	R2	All MCs	293	6.0	293	6.0	0.272	10.7	LOS B	1.2	9.4	0.43	0.64	0.43	48.0
3u	U	All MCs	23	6.0	23	6.0	0.272	13.4	LOS B	1.2	9.4	0.43	0.64	0.43	47.2
Approach			838	6.7	838	6.7	0.272	5.9	LOS A	1.3	10.2	0.41	0.43	0.41	49.5
All Vehicles			2389	7.4	2389	7.4	0.272	5.2	LOS A	1.3	10.2	0.46	0.44	0.46	48.4

MOVEMENT SUMMARY

 Site: [1] Verde Dr & Access 1 - Existing - AM (Existing - AM)

Network: [1] AM (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV] veh/h	%	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Verde Dr															
4	L2	All MCs	78	6.0	78	6.0	0.198	4.9	LOS A	0.9	7.0	0.15	0.35	0.15	27.5
2	T1	All MCs	192	6.0	192	6.0	0.198	1.9	LOS A	0.9	7.0	0.15	0.35	0.15	45.8
6	R2	All MCs	8	6.0	8	6.0	0.198	10.7	LOS B	0.9	7.0	0.15	0.35	0.15	30.2
6u	U	All MCs	14	6.0	14	6.0	0.198	9.7	LOS A	0.9	7.0	0.15	0.35	0.15	36.2
Approach			292	6.0	292	6.0	0.198	3.3	LOS A	0.9	7.0	0.15	0.35	0.15	42.0
East: Access 1															
7	L2	All MCs	1	6.0	1	6.0	0.004	0.9	LOS A	0.0	0.1	0.36	0.15	0.36	18.5
8	T1	All MCs	1	6.0	1	6.0	0.004	0.9	LOS A	0.0	0.1	0.36	0.15	0.36	19.2
6	R2	All MCs	1	6.0	1	6.0	0.004	0.9	LOS A	0.0	0.1	0.36	0.15	0.36	37.3
9u	U	All MCs	1	6.0	1	6.0	0.004	0.9	LOS A	0.0	0.1	0.36	0.15	0.36	19.0
Approach			4	6.0	4	6.0	0.004	0.9	LOS A	0.0	0.1	0.36	0.15	0.36	26.5
North: Verde Dr															
7	L2	All MCs	1	6.0	1	6.0	0.107	5.0	LOS A	0.4	3.1	0.18	0.45	0.18	40.4
8	T1	All MCs	95	6.0	95	6.0	0.107	2.0	LOS A	0.4	3.1	0.18	0.45	0.18	44.0
9	R2	All MCs	42	6.0	42	6.0	0.107	10.8	LOS B	0.4	3.1	0.18	0.45	0.18	37.7
9u	U	All MCs	4	6.0	4	6.0	0.107	9.8	LOS A	0.4	3.1	0.18	0.45	0.18	45.7
Approach			142	6.0	142	6.0	0.107	4.9	LOS A	0.4	3.1	0.18	0.45	0.18	41.8
West: Existing Rd															
10	L2	All MCs	25	6.0	25	6.0	0.078	0.8	LOS A	0.3	2.6	0.31	0.18	0.31	35.3
2	T1	All MCs	1	6.0	1	6.0	0.078	0.8	LOS A	0.3	2.6	0.31	0.18	0.31	19.3
3	R2	All MCs	68	6.0	68	6.0	0.078	0.8	LOS A	0.3	2.6	0.31	0.18	0.31	19.1
3u	U	All MCs	1	6.0	1	6.0	0.078	0.8	LOS A	0.3	2.6	0.31	0.18	0.31	19.4
Approach			96	6.0	96	6.0	0.078	0.8	LOS A	0.3	2.6	0.31	0.18	0.31	26.5
All Vehicles			534	6.0	534	6.0	0.198	3.3	LOS A	0.9	7.0	0.19	0.35	0.19	39.4

MOVEMENT SUMMARY

Site: [2] Verde Dr & Access 2 - Existing - AM (Existing - AM)

Network: [1] AM (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number of Cycles	Aver. Speed
			[Total HV]	[Total HV]						[Veh.	Dist]		Rate to Depart		km/h
			veh/h	%	veh/h	%	v/c	sec		veh	m				
South: Verde Dr															
2	T1	All MCs	288	6.0	288	6.0	0.159	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			288	6.0	288	6.0	0.159	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Access 2															
7	L2	All MCs	1	6.0	1	6.0	0.001	0.6	LOS A	0.0	0.0	0.27	0.09	0.27	18.3
Approach			1	6.0	1	6.0	0.001	0.6	LOS A	0.0	0.0	0.27	0.09	0.27	18.3
North: Verde Dr															
7	L2	All MCs	2	6.0	2	6.0	0.001	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	176	6.0	176	6.0	0.097	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			178	6.0	178	6.0	0.097	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
All Vehicles			467	6.0	467	6.0	0.159	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6

MOVEMENT SUMMARY

 Site: [3 (2)] Armadale Rd & Tapper Rd & Verde Dr - Existing - PM (Existing - PM)

Network: [2] PM (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Tapper Rd															
4	L2	All MCs	285	6.0	285	6.0	0.209	4.4	LOS A	1.2	9.4	0.65	0.53	0.65	51.9
2	T1	All MCs	139	6.0	139	6.0	0.134	4.0	LOS A	0.6	5.0	0.61	0.46	0.61	49.0
6	R2	All MCs	87	6.0	87	6.0	0.134	11.4	LOS B	0.6	5.0	0.62	0.65	0.62	32.6
6u	U	All MCs	1	6.0	1	6.0	0.134	14.1	LOS B	0.6	5.0	0.62	0.65	0.62	49.6
Approach			513	6.0	513	6.0	0.209	5.5	LOS A	1.2	9.4	0.63	0.53	0.63	47.0
East: Armadale Rd															
7	L2	All MCs	132	6.0	132	6.0	0.125	5.9	LOS A	0.7	5.9	0.72	0.66	0.72	50.1
8	T1	All MCs	579	10.9	579	10.9	0.342	5.7	LOS A	2.4	20.4	0.80	0.60	0.80	47.7
6	R2	All MCs	108	6.0	108	6.0	0.342	13.8	LOS B	2.0	16.3	0.78	0.72	0.78	33.5
9u	U	All MCs	1	6.0	1	6.0	0.342	16.5	LOS B	2.0	16.3	0.78	0.72	0.78	38.3
Approach			820	9.5	820	9.5	0.342	6.8	LOS A	2.4	20.4	0.78	0.63	0.78	47.1
North: Verde Dr															
7	L2	All MCs	145	6.0	145	6.0	0.434	5.7	LOS A	2.5	20.4	0.80	0.70	0.92	39.0
8	T1	All MCs	226	6.0	226	6.0	0.434	4.4	LOS A	2.5	20.4	0.80	0.70	0.92	49.2
9	R2	All MCs	168	6.0	168	6.0	0.261	11.0	LOS B	1.1	8.9	0.71	0.84	0.71	41.2
9u	U	All MCs	2	6.0	2	6.0	0.261	13.2	LOS B	1.1	8.9	0.71	0.84	0.71	29.6
Approach			542	6.0	542	6.0	0.434	6.8	LOS A	2.5	20.4	0.77	0.74	0.85	44.4
West: Armadale Rd															
10	L2	All MCs	131	6.0	131	6.0	0.098	4.1	LOS A	0.4	3.1	0.36	0.44	0.36	50.5
2	T1	All MCs	798	7.3	798	7.3	0.475	2.9	LOS A	2.7	21.9	0.46	0.30	0.46	51.0
3	R2	All MCs	606	6.0	606	6.0	0.550	11.2	LOS B	3.4	26.9	0.54	0.67	0.56	47.2
3u	U	All MCs	71	6.0	71	6.0	0.550	13.9	LOS B	3.4	26.9	0.54	0.67	0.56	46.4
Approach			1605	6.6	1605	6.6	0.550	6.6	LOS A	3.4	26.9	0.48	0.47	0.49	48.7
All Vehicles			3480	7.1	3480	7.1	0.550	6.5	LOS A	3.4	26.9	0.62	0.56	0.64	47.5

MOVEMENT SUMMARY

 **Site: [1 (2)] Verde Dr & Access 1 - Existing - PM** (Existing - PM)

Network: [2] PM (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Verde Dr															
4	L2	All MCs	123	6.0	123	6.0	0.266	5.2	LOS A	1.3	10.5	0.25	0.50	0.25	25.7
2	T1	All MCs	123	6.0	123	6.0	0.266	2.2	LOS A	1.3	10.5	0.25	0.50	0.25	43.6
6	R2	All MCs	76	6.0	76	6.0	0.266	11.0	LOS B	1.3	10.5	0.25	0.50	0.25	27.5
6u	U	All MCs	44	6.0	44	6.0	0.266	9.9	LOS A	1.3	10.5	0.25	0.50	0.25	31.1
Approach			366	6.0	366	6.0	0.266	5.9	LOS A	1.3	10.5	0.25	0.50	0.25	35.1
East: Access 1															
7	L2	All MCs	78	6.0	78	6.0	0.129	3.0	LOS A	0.7	5.8	0.61	0.44	0.61	16.4
8	T1	All MCs	20	6.0	20	6.0	0.129	3.0	LOS A	0.7	5.8	0.61	0.44	0.61	18.2
6	R2	All MCs	19	6.0	19	6.0	0.129	3.0	LOS A	0.7	5.8	0.61	0.44	0.61	37.8
9u	U	All MCs	1	6.0	1	6.0	0.129	3.0	LOS A	0.7	5.8	0.61	0.44	0.61	17.6
Approach			118	6.0	118	6.0	0.129	3.0	LOS A	0.7	5.8	0.61	0.44	0.61	24.2
North: Verde Dr															
7	L2	All MCs	28	6.0	28	6.0	0.287	6.0	LOS A	1.3	10.6	0.42	0.49	0.42	39.8
8	T1	All MCs	229	6.0	229	6.0	0.287	3.0	LOS A	1.3	10.6	0.42	0.49	0.42	43.3
9	R2	All MCs	63	6.0	63	6.0	0.287	11.8	LOS B	1.3	10.6	0.42	0.49	0.42	37.2
9u	U	All MCs	5	6.0	5	6.0	0.287	10.8	LOS B	1.3	10.6	0.42	0.49	0.42	45.4
Approach			326	6.0	326	6.0	0.287	5.1	LOS A	1.3	10.6	0.42	0.49	0.42	41.6
West: Existing Rd															
10	L2	All MCs	77	6.0	77	6.0	0.245	1.1	LOS A	1.2	9.7	0.41	0.25	0.41	35.2
2	T1	All MCs	18	6.0	18	6.0	0.245	1.1	LOS A	1.2	9.7	0.41	0.25	0.41	19.1
3	R2	All MCs	196	6.0	196	6.0	0.245	1.1	LOS A	1.2	9.7	0.41	0.25	0.41	18.8
3u	U	All MCs	1	6.0	1	6.0	0.245	1.1	LOS A	1.2	9.7	0.41	0.25	0.41	19.2
Approach			292	6.0	292	6.0	0.245	1.1	LOS A	1.2	9.7	0.41	0.25	0.41	26.3
All Vehicles			1102	6.0	1102	6.0	0.287	4.1	LOS A	1.3	10.6	0.38	0.43	0.38	34.5

MOVEMENT SUMMARY

 **Site: [2 (2)] Verde Dr & Access 2 - Existing - PM** (Existing - PM)

Network: [2] PM (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Verde Dr															
2	T1	All MCs	380	6.0	380	6.0	0.209	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			380	6.0	380	6.0	0.209	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Access 2															
7	L2	All MCs	78	6.0	78	6.0	0.084	2.3	LOS A	0.3	2.5	0.49	0.40	0.49	16.8
Approach			78	6.0	78	6.0	0.084	2.3	LOS A	0.3	2.5	0.49	0.40	0.49	16.8
North: Verde Dr															
7	L2	All MCs	83	6.0	83	6.0	0.049	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	464	6.0	464	6.0	0.255	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			547	6.0	547	6.0	0.255	1.0	NA	0.0	0.0	0.00	0.09	0.00	44.0
All Vehicles			1005	6.0	1005	6.0	0.255	0.7	NA	0.3	2.5	0.04	0.08	0.04	43.1

MOVEMENT SUMMARY

 Site: [3 (3)] Armadale Rd & Tapper Rd & Verde Dr - Existing - SAT (Existing - SAT)

Network: [3] SAT (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Tapper Rd															
4	L2	All MCs	261	6.0	261	6.0	0.215	5.5	LOS A	1.4	11.1	0.78	0.66	0.78	51.4
2	T1	All MCs	178	6.0	178	6.0	0.177	5.2	LOS A	0.9	6.9	0.69	0.55	0.69	48.3
6	R2	All MCs	78	6.0	78	6.0	0.177	12.6	LOS B	0.9	6.9	0.70	0.68	0.70	32.5
6u	U	All MCs	1	6.0	1	6.0	0.177	15.3	LOS B	0.9	6.9	0.70	0.68	0.70	49.7
Approach			518	6.0	518	6.0	0.215	6.4	LOS A	1.4	11.1	0.74	0.63	0.74	46.8
East: Armadale Rd															
7	L2	All MCs	73	6.0	73	6.0	0.056	4.6	LOS A	0.3	2.3	0.61	0.55	0.61	50.7
8	T1	All MCs	620	10.9	620	10.9	0.348	4.4	LOS A	2.1	17.7	0.70	0.49	0.70	48.6
6	R2	All MCs	171	6.0	171	6.0	0.348	12.5	LOS B	1.8	14.8	0.70	0.68	0.70	34.2
9u	U	All MCs	1	6.0	1	6.0	0.348	15.2	LOS B	1.8	14.8	0.70	0.68	0.70	38.7
Approach			864	9.5	864	9.5	0.348	6.1	LOS A	2.1	17.7	0.69	0.53	0.69	47.1
North: Verde Dr															
7	L2	All MCs	201	6.0	201	6.0	0.412	4.3	LOS A	2.2	17.5	0.71	0.55	0.78	39.9
8	T1	All MCs	201	6.0	201	6.0	0.412	3.1	LOS A	2.2	17.5	0.71	0.55	0.78	49.9
9	R2	All MCs	307	6.0	307	6.0	0.412	10.9	LOS B	2.2	17.5	0.70	0.86	0.79	41.0
9u	U	All MCs	4	6.0	4	6.0	0.412	13.1	LOS B	1.9	15.6	0.70	0.86	0.79	29.2
Approach			714	6.0	714	6.0	0.412	6.9	LOS A	2.2	17.5	0.71	0.68	0.78	43.4
West: Armadale Rd															
10	L2	All MCs	195	6.0	195	6.0	0.151	4.6	LOS A	0.6	5.1	0.42	0.47	0.42	50.0
2	T1	All MCs	697	7.3	697	7.3	0.407	3.1	LOS A	2.2	18.0	0.48	0.33	0.48	50.5
3	R2	All MCs	314	6.0	314	6.0	0.407	11.1	LOS B	2.0	16.5	0.52	0.67	0.52	47.5
3u	U	All MCs	140	6.0	140	6.0	0.407	13.8	LOS B	2.0	16.5	0.52	0.67	0.52	46.7
Approach			1345	6.7	1345	6.7	0.407	6.3	LOS A	2.2	18.0	0.49	0.46	0.49	48.9
All Vehicles			3441	7.1	3441	7.1	0.412	6.4	LOS A	2.2	18.0	0.62	0.55	0.64	47.1

MOVEMENT SUMMARY

 **Site: [1 (3)] Verde Dr & Access 1 - Existing - SAT** (Existing - SAT)

Network: [3] SAT (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Verde Dr															
4	L2	All MCs	227	6.0	227	6.0	0.455	5.6	LOS A	2.9	23.1	0.41	0.55	0.41	24.8
2	T1	All MCs	126	6.0	126	6.0	0.455	2.6	LOS A	2.9	23.1	0.41	0.55	0.41	42.5
6	R2	All MCs	132	6.0	132	6.0	0.455	11.4	LOS B	2.9	23.1	0.41	0.55	0.41	26.3
6u	U	All MCs	111	6.0	111	6.0	0.455	10.4	LOS B	2.9	23.1	0.41	0.55	0.41	29.0
Approach			596	6.0	596	6.0	0.455	7.2	LOS A	2.9	23.1	0.41	0.55	0.41	31.5
East: Access 1															
7	L2	All MCs	116	6.0	116	6.0	0.226	4.6	LOS A	1.4	11.4	0.75	0.57	0.75	14.8
8	T1	All MCs	40	6.0	40	6.0	0.226	4.6	LOS A	1.4	11.4	0.75	0.57	0.75	17.3
6	R2	All MCs	20	6.0	20	6.0	0.226	4.6	LOS A	1.4	11.4	0.75	0.57	0.75	36.8
9u	U	All MCs	1	6.0	1	6.0	0.226	4.6	LOS A	1.4	11.4	0.75	0.57	0.75	16.4
Approach			177	6.0	177	6.0	0.226	4.6	LOS A	1.4	11.4	0.75	0.57	0.75	21.0
North: Verde Dr															
7	L2	All MCs	52	6.0	52	6.0	0.309	7.6	LOS A	1.7	13.6	0.63	0.69	0.63	37.7
8	T1	All MCs	121	6.0	121	6.0	0.309	4.6	LOS A	1.7	13.6	0.63	0.69	0.63	40.7
9	R2	All MCs	113	6.0	113	6.0	0.309	13.4	LOS B	1.7	13.6	0.63	0.69	0.63	35.5
9u	U	All MCs	1	6.0	1	6.0	0.309	12.3	LOS B	1.7	13.6	0.63	0.69	0.63	43.8
Approach			286	6.0	286	6.0	0.309	8.6	LOS A	1.7	13.6	0.63	0.69	0.63	37.8
West: Existing Rd															
10	L2	All MCs	109	6.0	109	6.0	0.452	2.1	LOS A	2.8	22.8	0.60	0.42	0.60	34.7
2	T1	All MCs	25	6.0	25	6.0	0.452	2.1	LOS A	2.8	22.8	0.60	0.42	0.60	18.7
3	R2	All MCs	355	6.0	355	6.0	0.452	2.1	LOS A	2.8	22.8	0.60	0.42	0.60	18.3
3u	U	All MCs	1	6.0	1	6.0	0.452	2.1	LOS A	2.8	22.8	0.60	0.42	0.60	18.9
Approach			491	6.0	491	6.0	0.452	2.1	LOS A	2.8	22.8	0.60	0.42	0.60	24.8
All Vehicles			1549	6.0	1549	6.0	0.455	5.5	LOS A	2.9	23.1	0.55	0.54	0.55	30.3

MOVEMENT SUMMARY

 **Site: [2 (3)] Verde Dr & Access 2 - Existing - SAT** (Existing - SAT)

Network: [3] SAT (Existing)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Verde Dr															
2	T1	All MCs	547	6.0	547	6.0	0.301	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			547	6.0	547	6.0	0.301	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.8
East: Access 2															
7	L2	All MCs	116	6.0	116	6.0	0.154	3.6	LOS A	0.6	4.5	0.57	0.54	0.57	15.4
Approach			116	6.0	116	6.0	0.154	3.6	LOS A	0.6	4.5	0.57	0.54	0.57	15.4
North: Verde Dr															
7	L2	All MCs	104	6.0	104	6.0	0.061	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	598	6.0	598	6.0	0.329	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			702	6.0	702	6.0	0.329	1.0	NA	0.0	0.0	0.00	0.09	0.00	44.1
All Vehicles			1365	6.0	1365	6.0	0.329	0.8	NA	0.6	4.5	0.05	0.09	0.05	42.5

2026





MOVEMENT SUMMARY

Site: [4 (7)] Armadale Rd & Access 3 - 2026 - AM (2026 - AM)

Network: [7] AM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Armadale Rd															
2	T1	All MCs	748	10.9	748	10.9	0.399	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			748	10.9	748	10.9	0.399	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.7
North: Access 3															
7	L2	All MCs	101	6.0	101	6.0	0.076	1.7	LOS A	0.3	2.5	0.28	0.15	0.28	42.5
Approach			101	6.0	101	6.0	0.076	1.7	LOS A	0.3	2.5	0.28	0.15	0.28	42.5
West: Armadale Rd															
7	L2	All MCs	124	6.0	124	6.0	0.073	7.6	LOS A	0.0	0.0	0.00	0.64	0.00	33.6
8	T1	All MCs	621	7.3	621	7.3	0.252	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			745	7.1	745	7.1	0.252	1.5	NA	0.0	0.0	0.00	0.11	0.00	57.2
All Vehicles			1595	8.8	1595	8.8	0.399	0.9	NA	0.3	2.5	0.02	0.06	0.02	57.0

MOVEMENT SUMMARY

 Site: [3 (7)] Armadale Rd & Tapper Rd & Verde Dr - 2026 - AM
(2026 - AM)

Network: [7] AM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh]	Dist] m			Aver. Speed km/h
South: Tapper Rd														
4	L2	All MCs	414	6.0	414	6.0	0.271	4.2	LOS A	1.3	10.8	0.56	0.50	0.56
2	T1	All MCs	141	6.0	141	6.0	0.188	3.9	LOS A	0.8	6.5	0.53	0.36	0.53
6	R2	All MCs	204	6.0	204	6.0	0.188	11.3	LOS B	0.8	6.5	0.55	0.73	0.55
6u	U	All MCs	1	6.0	1	6.0	0.188	14.0	LOS B	0.8	6.5	0.55	0.73	0.55
Approach			760	6.0	760	6.0	0.271	6.0	LOS A	1.3	10.8	0.55	0.53	0.55
East: Armadale Rd														
7	L2	All MCs	43	6.0	43	6.0	0.033	4.1	LOS A	0.1	1.1	0.45	0.49	0.45
8	T1	All MCs	546	10.9	546	10.9	0.266	3.5	LOS A	1.4	11.8	0.51	0.40	0.51
6	R2	All MCs	158	6.0	158	6.0	0.266	11.4	LOS B	1.3	10.4	0.53	0.58	0.53
9u	U	All MCs	1	6.0	1	6.0	0.266	14.1	LOS B	1.3	10.4	0.53	0.58	0.53
Approach			748	9.6	748	9.6	0.266	5.2	LOS A	1.4	11.8	0.51	0.44	0.51
North: Verde Dr														
7	L2	All MCs	52	6.0	52	6.0	0.165	3.1	LOS A	0.7	5.2	0.54	0.29	0.54
8	T1	All MCs	136	6.0	136	6.0	0.165	1.9	LOS A	0.7	5.2	0.54	0.29	0.54
9	R2	All MCs	78	6.0	78	6.0	0.095	9.3	LOS A	0.3	2.7	0.53	0.72	0.53
9u	U	All MCs	2	6.0	2	6.0	0.095	11.5	LOS B	0.3	2.7	0.53	0.72	0.53
Approach			267	6.0	267	6.0	0.165	4.4	LOS A	0.7	5.2	0.54	0.42	0.54
West: Armadale Rd														
10	L2	All MCs	58	6.0	58	6.0	0.044	4.3	LOS A	0.2	1.4	0.41	0.46	0.41
2	T1	All MCs	487	7.3	487	7.3	0.291	3.1	LOS A	1.4	11.6	0.47	0.32	0.47
3	R2	All MCs	299	6.0	299	6.0	0.291	11.1	LOS B	1.3	10.5	0.50	0.67	0.50
3u	U	All MCs	23	6.0	23	6.0	0.291	13.8	LOS B	1.3	10.5	0.50	0.67	0.50
Approach			867	6.7	867	6.7	0.291	6.2	LOS A	1.4	11.6	0.47	0.46	0.47
All Vehicles			2643	7.3	2643	7.3	0.291	5.7	LOS A	1.4	11.8	0.51	0.47	0.51

MOVEMENT SUMMARY

 Site: [1 (6)] Verde Dr & Access 1 - 2026 - AM (2026 - AM)

Network: [7] AM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Verde Dr															
4	L2	All MCs	78	6.0	78	6.0	0.279	5.4	LOS A	1.4	11.3	0.33	0.47	0.33	26.0
2	T1	All MCs	196	6.0	196	6.0	0.279	2.4	LOS A	1.4	11.3	0.33	0.47	0.33	44.0
6	R2	All MCs	74	6.0	74	6.0	0.279	11.2	LOS B	1.4	11.3	0.33	0.47	0.33	26.2
6u	U	All MCs	14	6.0	14	6.0	0.279	10.2	LOS B	1.4	11.3	0.33	0.47	0.33	31.9
Approach			361	6.0	361	6.0	0.279	5.2	LOS A	1.4	11.3	0.33	0.47	0.33	38.2
East: Access 1															
7	L2	All MCs	13	6.0	13	6.0	0.119	1.4	LOS A	0.6	5.0	0.44	0.27	0.44	18.7
8	T1	All MCs	25	6.0	25	6.0	0.119	1.4	LOS A	0.6	5.0	0.44	0.27	0.44	19.2
6	R2	All MCs	96	6.0	96	6.0	0.119	1.4	LOS A	0.6	5.0	0.44	0.27	0.44	35.1
9u	U	All MCs	1	6.0	1	6.0	0.119	1.4	LOS A	0.6	5.0	0.44	0.27	0.44	19.2
Approach			135	6.0	135	6.0	0.119	1.4	LOS A	0.6	5.0	0.44	0.27	0.44	32.0
North: Verde Dr															
7	L2	All MCs	56	6.0	56	6.0	0.191	5.3	LOS A	0.8	6.1	0.28	0.45	0.28	37.8
8	T1	All MCs	137	6.0	137	6.0	0.191	2.3	LOS A	0.8	6.1	0.28	0.45	0.28	43.9
9	R2	All MCs	42	6.0	42	6.0	0.191	11.1	LOS B	0.8	6.1	0.28	0.45	0.28	37.5
9u	U	All MCs	4	6.0	4	6.0	0.191	10.1	LOS B	0.8	6.1	0.28	0.45	0.28	45.7
Approach			239	6.0	239	6.0	0.191	4.7	LOS A	0.8	6.1	0.28	0.45	0.28	41.0
West: Existing Rd															
10	L2	All MCs	25	6.0	25	6.0	0.108	1.5	LOS A	0.5	4.0	0.44	0.30	0.44	35.0
2	T1	All MCs	13	6.0	13	6.0	0.108	1.5	LOS A	0.5	4.0	0.44	0.30	0.44	19.2
3	R2	All MCs	80	6.0	80	6.0	0.108	1.5	LOS A	0.5	4.0	0.44	0.30	0.44	18.7
3u	U	All MCs	1	6.0	1	6.0	0.108	1.5	LOS A	0.5	4.0	0.44	0.30	0.44	19.2
Approach			119	6.0	119	6.0	0.108	1.5	LOS A	0.5	4.0	0.44	0.30	0.44	24.8
All Vehicles			854	6.0	854	6.0	0.279	3.9	LOS A	1.4	11.3	0.35	0.41	0.35	36.3

MOVEMENT SUMMARY

Site: [2 (7)] Verde Dr & Access 2 - 2026 - AM (2026 - AM)

Network: [7] AM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]	[Total HV]						[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Verde Dr															
2	T1	All MCs	359	6.0	359	6.0	0.198	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			359	6.0	359	6.0	0.198	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Access 2															
7	L2	All MCs	85	6.0	85	6.0	0.065	0.7	LOS A	0.3	2.1	0.29	0.16	0.29	18.2
Approach			85	6.0	85	6.0	0.065	0.7	LOS A	0.3	2.1	0.29	0.16	0.29	18.2
North: Verde Dr															
7	L2	All MCs	61	6.0	61	6.0	0.036	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	182	6.0	182	6.0	0.100	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			243	6.0	243	6.0	0.100	1.6	NA	0.0	0.0	0.00	0.15	0.00	41.3
All Vehicles			687	6.0	687	6.0	0.198	0.7	NA	0.3	2.1	0.04	0.07	0.04	41.7

MOVEMENT SUMMARY

Site: [4 (8)] Armadale Rd & Access 3 - 2026 - PM (2026 - PM)

Network: [8] PM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]		[Total HV]					[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Armadale Rd															
2	T1	All MCs	892	10.9	892	10.9	0.476	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach			892	10.9	892	10.9	0.476	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.6
North: Access 3															
7	L2	All MCs	116	6.0	116	6.0	0.097	3.8	LOS A	0.4	3.1	0.37	0.24	0.37	42.2
Approach			116	6.0	116	6.0	0.097	3.8	LOS A	0.4	3.1	0.37	0.24	0.37	42.2
West: Armadale Rd															
7	L2	All MCs	142	6.0	142	6.0	0.084	7.6	LOS A	0.0	0.0	0.00	0.64	0.00	33.6
8	T1	All MCs	992	7.3	992	7.3	0.402	0.8	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach			1134	7.1	1134	7.1	0.402	1.6	NA	0.0	0.0	0.00	0.08	0.00	57.8
All Vehicles			2141	8.6	2141	8.6	0.476	1.1	NA	0.4	3.1	0.02	0.06	0.02	57.3

MOVEMENT SUMMARY

 **Site: [3 (8)] Armadale Rd & Tapper Rd & Verde Dr - 2026 - PM**
(2026 - PM)

Network: [8] PM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				km/h
South: Tapper Rd															
4	L2	All MCs	286	6.0	286	6.0	0.225	4.6	LOS A	1.4	11.0	0.72	0.56	0.72	51.6
2	T1	All MCs	146	6.0	146	6.0	0.209	4.5	LOS A	1.0	8.2	0.66	0.46	0.66	48.8
6	R2	All MCs	158	6.0	158	6.0	0.209	11.9	LOS B	1.0	8.2	0.68	0.75	0.68	45.0
6u	U	All MCs	1	6.0	1	6.0	0.209	14.6	LOS B	1.0	8.2	0.68	0.75	0.68	48.5
Approach			592	6.0	592	6.0	0.225	6.5	LOS A	1.4	11.0	0.70	0.58	0.70	49.5
East: Armadale Rd															
7	L2	All MCs	135	6.0	135	6.0	0.132	6.5	LOS A	0.8	6.8	0.78	0.68	0.78	49.7
8	T1	All MCs	582	10.9	582	10.9	0.411	6.7	LOS A	3.2	26.9	0.88	0.70	0.91	46.8
6	R2	All MCs	175	6.0	175	6.0	0.411	15.4	LOS B	2.7	21.9	0.84	0.84	0.93	30.9
9u	U	All MCs	1	6.0	1	6.0	0.411	18.1	LOS B	2.7	21.9	0.84	0.84	0.93	30.9
Approach			893	9.2	893	9.2	0.411	8.4	LOS A	3.2	26.9	0.86	0.72	0.89	45.4
North: Verde Dr															
7	L2	All MCs	154	6.0	154	6.0	0.583	7.8	LOS A	4.1	33.1	0.88	0.95	1.16	28.7
8	T1	All MCs	300	6.0	300	6.0	0.583	6.5	LOS A	4.1	33.1	0.88	0.95	1.16	46.9
9	R2	All MCs	199	6.0	199	6.0	0.333	11.8	LOS B	1.6	12.6	0.77	0.89	0.82	40.7
9u	U	All MCs	2	6.0	2	6.0	0.333	13.9	LOS B	1.6	12.6	0.77	0.89	0.82	29.0
Approach			655	6.0	655	6.0	0.583	8.4	LOS A	4.1	33.1	0.85	0.93	1.05	42.6
West: Armadale Rd															
10	L2	All MCs	140	6.0	140	6.0	0.106	4.4	LOS A	0.4	3.6	0.43	0.47	0.43	49.9
2	T1	All MCs	821	7.3	821	7.3	0.506	3.3	LOS A	3.1	24.7	0.55	0.33	0.55	49.0
3	R2	All MCs	619	6.0	619	6.0	0.602	12.2	LOS B	4.2	34.0	0.65	0.76	0.74	46.6
3u	U	All MCs	72	6.0	72	6.0	0.602	14.9	LOS B	4.2	34.0	0.65	0.76	0.74	45.7
Approach			1652	6.6	1652	6.6	0.602	7.2	LOS A	4.2	34.0	0.58	0.52	0.62	47.5
All Vehicles			3791	7.0	3791	7.0	0.602	7.6	LOS A	4.2	34.0	0.71	0.65	0.77	46.6

MOVEMENT SUMMARY

 Site: [1 (8)] Verde Dr & Access 1 - 2026 - PM (2026 - PM)

Network: [8] PM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.]	[Dist]			Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			km/h
South: Verde Dr														
4	L2	All MCs	123	6.0	123	6.0	0.369	5.9	LOS A	2.2	17.4	0.46	0.58	0.46
2	T1	All MCs	125	6.0	125	6.0	0.369	2.9	LOS A	2.2	17.4	0.46	0.58	0.46
6	R2	All MCs	152	6.0	152	6.0	0.369	11.7	LOS B	2.2	17.4	0.46	0.58	0.46
6u	U	All MCs	44	6.0	44	6.0	0.369	10.6	LOS B	2.2	17.4	0.46	0.58	0.46
Approach			444	6.0	444	6.0	0.369	7.5	LOS A	2.2	17.4	0.46	0.58	0.46
East: Access 1														
7	L2	All MCs	92	6.0	92	6.0	0.317	4.0	LOS A	2.0	16.4	0.73	0.55	0.73
8	T1	All MCs	47	6.0	47	6.0	0.317	4.0	LOS A	2.0	16.4	0.73	0.55	0.73
6	R2	All MCs	129	6.0	129	6.0	0.317	4.0	LOS A	2.0	16.4	0.73	0.55	0.73
9u	U	All MCs	1	6.0	1	6.0	0.317	4.0	LOS A	2.0	16.4	0.73	0.55	0.73
Approach			269	6.0	269	6.0	0.317	4.0	LOS A	2.0	16.4	0.73	0.55	0.73
North: Verde Dr														
7	L2	All MCs	93	6.0	93	6.0	0.415	6.8	LOS A	2.2	18.1	0.55	0.56	0.55
8	T1	All MCs	281	6.0	281	6.0	0.415	3.7	LOS A	2.2	18.1	0.55	0.56	0.55
9	R2	All MCs	63	6.0	63	6.0	0.415	12.5	LOS B	2.2	18.1	0.55	0.56	0.55
9u	U	All MCs	5	6.0	5	6.0	0.415	11.5	LOS B	2.2	18.1	0.55	0.56	0.55
Approach			442	6.0	442	6.0	0.415	5.7	LOS A	2.2	18.1	0.55	0.56	0.55
West: Existing Rd														
10	L2	All MCs	77	6.0	77	6.0	0.306	2.2	LOS A	1.7	13.7	0.57	0.41	0.57
2	T1	All MCs	32	6.0	32	6.0	0.306	2.2	LOS A	1.7	13.7	0.57	0.41	0.57
3	R2	All MCs	209	6.0	209	6.0	0.306	2.2	LOS A	1.7	13.7	0.57	0.41	0.57
3u	U	All MCs	1	6.0	1	6.0	0.306	2.2	LOS A	1.7	13.7	0.57	0.41	0.57
Approach			319	6.0	319	6.0	0.306	2.2	LOS A	1.7	13.7	0.57	0.41	0.57
All Vehicles			1475	6.0	1475	6.0	0.415	5.2	LOS A	2.2	18.1	0.56	0.53	0.56

MOVEMENT SUMMARY

Site: [2 (8)] Verde Dr & Access 2 - 2026 - PM (2026 - PM)

Network: [8] PM (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Verde Dr															
2	T1	All MCs	463	6.0	463	6.0	0.255	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			463	6.0	463	6.0	0.255	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Access 2															
7	L2	All MCs	175	6.0	175	6.0	0.192	2.6	LOS A	0.8	6.0	0.52	0.45	0.52	16.4
Approach			175	6.0	175	6.0	0.192	2.6	LOS A	0.8	6.0	0.52	0.45	0.52	16.4
North: Verde Dr															
7	L2	All MCs	153	6.0	153	6.0	0.090	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	474	6.0	474	6.0	0.261	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			626	6.0	626	6.0	0.261	1.6	NA	0.0	0.0	0.00	0.15	0.00	41.4
All Vehicles			1264	6.0	1264	6.0	0.261	1.1	NA	0.8	6.0	0.07	0.13	0.07	39.5

MOVEMENT SUMMARY

Site: [4 (9)] Armadale Rd & Access 3 - 2026 - SAT (2026 - SAT)

Network: [9] SAT (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number	Aver. Speed
			[Total HV]		[Total HV]					[Veh.	Dist]		Rate to Depart		km/h
			veh/h	%	veh/h	%	v/c	sec		veh	m				
East: Armadale Rd															
2	T1	All MCs	985	10.9	985	10.9	0.526	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.5
Approach			985	10.9	985	10.9	0.526	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.5
North: Access 3															
7	L2	All MCs	224	6.0	224	6.0	0.182	3.5	LOS A	0.8	6.3	0.37	0.24	0.37	42.2
Approach			224	6.0	224	6.0	0.182	3.5	LOS A	0.8	6.3	0.37	0.24	0.37	42.2
West: Armadale Rd															
7	L2	All MCs	273	6.0	273	6.0	0.161	7.6	LOS A	0.0	0.0	0.00	0.64	0.00	33.6
8	T1	All MCs	877	7.3	877	7.3	0.356	0.7	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach			1149	7.0	1149	7.0	0.356	2.3	NA	0.0	0.0	0.00	0.15	0.00	55.8
All Vehicles			2359	8.5	2359	8.5	0.526	1.6	NA	0.8	6.3	0.03	0.10	0.03	55.5

MOVEMENT SUMMARY

 Site: [3 (9)] Armadale Rd & Tapper Rd & Verde Dr - 2026 - SAT (2026 - SAT)

Network: [9] SAT (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number of Cycles Rate to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Tapper Rd															
4	L2	All MCs	258	6.0	258	6.0	0.246	6.2	LOS A	1.8	14.3	0.88	0.74	0.88	50.9
2	T1	All MCs	191	6.0	191	6.0	0.372	6.9	LOS A	2.0	16.4	0.79	0.64	0.80	47.7
6	R2	All MCs	209	6.0	209	6.0	0.372	14.5	LOS B	2.0	16.4	0.81	0.88	0.88	43.6
6u	U	All MCs	1	6.0	1	6.0	0.372	17.2	LOS B	2.0	16.4	0.81	0.88	0.88	47.6
Approach			659	6.0	659	6.0	0.372	9.1	LOS A	2.0	16.4	0.83	0.76	0.86	48.0
East: Armadale Rd															
7	L2	All MCs	74	6.0	74	6.0	0.062	5.2	LOS A	0.4	3.1	0.75	0.63	0.75	49.9
8	T1	All MCs	615	10.9	615	10.9	0.465	5.8	LOS A	3.6	30.4	0.85	0.64	0.94	47.4
6	R2	All MCs	295	6.0	295	6.0	0.465	14.4	LOS B	3.0	24.1	0.81	0.87	0.94	31.0
9u	U	All MCs	1	6.0	1	6.0	0.465	17.1	LOS B	3.0	24.1	0.81	0.87	0.94	31.0
Approach			984	9.1	984	9.1	0.465	8.3	LOS A	3.6	30.4	0.83	0.71	0.92	44.3
North: Verde Dr															
7	L2	All MCs	216	6.0	216	6.0	0.623	6.3	LOS A	4.3	34.9	0.84	0.82	1.09	29.6
8	T1	All MCs	335	6.0	335	6.0	0.623	5.1	LOS A	4.3	34.9	0.84	0.82	1.09	47.6
9	R2	All MCs	365	6.0	365	6.0	0.565	12.5	LOS B	3.1	25.2	0.79	0.97	1.00	39.8
9u	U	All MCs	4	6.0	4	6.0	0.565	14.7	LOS B	3.1	25.2	0.79	0.97	1.00	27.7
Approach			920	6.0	920	6.0	0.623	8.4	LOS A	4.3	34.9	0.82	0.88	1.05	41.9
West: Armadale Rd															
10	L2	All MCs	212	6.0	212	6.0	0.174	5.4	LOS A	0.8	6.8	0.55	0.54	0.55	48.8
2	T1	All MCs	724	7.3	724	7.3	0.466	3.8	LOS A	3.0	24.2	0.65	0.40	0.66	47.8
3	R2	All MCs	320	6.0	320	6.0	0.466	12.3	LOS B	2.8	22.2	0.67	0.77	0.73	46.8
3u	U	All MCs	143	6.0	143	6.0	0.466	15.0	LOS B	2.8	22.2	0.67	0.77	0.73	46.0
Approach			1399	6.7	1399	6.7	0.466	7.1	LOS A	3.0	24.2	0.64	0.54	0.67	47.3
All Vehicles			3962	7.0	3962	7.0	0.623	8.0	LOS A	4.3	34.9	0.76	0.70	0.85	45.5

MOVEMENT SUMMARY

 Site: [1 (9)] Verde Dr & Access 1 - 2026 - SAT (2026 - SAT)

Network: [9] SAT (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				km/h
South: Verde Dr															
4	L2	All MCs	227	6.0	227	6.0	0.730	10.1	LOS B	8.5	68.1	0.87	0.85	1.08	21.8
2	T1	All MCs	128	6.0	128	6.0	0.730	7.1	LOS A	8.5	68.1	0.87	0.85	1.08	38.9
6	R2	All MCs	275	6.0	275	6.0	0.730	15.9	LOS B	8.5	68.1	0.87	0.85	1.08	21.9
6u	U	All MCs	111	6.0	111	6.0	0.730	14.9	LOS B	8.5	68.1	0.87	0.85	1.08	23.0
Approach			741	6.0	741	6.0	0.730	12.5	LOS B	8.5	68.1	0.87	0.85	1.08	26.3
East: Access 1															
7	L2	All MCs	142	6.0	142	6.0	0.697	14.7	LOS B	8.4	67.7	1.00	1.36	1.53	12.4
8	T1	All MCs	92	6.0	92	6.0	0.697	14.7	LOS B	8.4	67.7	1.00	1.36	1.53	14.6
6	R2	All MCs	227	6.0	227	6.0	0.697	14.7	LOS B	8.4	67.7	1.00	1.36	1.53	29.6
9u	U	All MCs	1	6.0	1	6.0	0.697	14.7	LOS B	8.4	67.7	1.00	1.36	1.53	14.5
Approach			462	6.0	462	6.0	0.697	14.7	LOS B	8.4	67.7	1.00	1.36	1.53	23.5
North: Verde Dr															
7	L2	All MCs	173	6.0	173	6.0	0.671	14.4	LOS B	6.9	55.4	0.93	0.99	1.31	32.7
8	T1	All MCs	209	6.0	209	6.0	0.671	11.4	LOS B	6.9	55.4	0.93	0.99	1.31	36.4
9	R2	All MCs	113	6.0	113	6.0	0.671	20.2	LOS C	6.9	55.4	0.93	0.99	1.31	32.6
9u	U	All MCs	1	6.0	1	6.0	0.671	19.2	LOS B	6.9	55.4	0.93	0.99	1.31	41.1
Approach			496	6.0	496	6.0	0.671	14.5	LOS B	6.9	55.4	0.93	0.99	1.31	34.0
West: Existing Rd															
10	L2	All MCs	109	6.0	109	6.0	0.711	10.4	LOS B	8.3	66.8	0.97	1.22	1.40	31.0
2	T1	All MCs	52	6.0	52	6.0	0.711	10.4	LOS B	8.3	66.8	0.97	1.22	1.40	16.0
3	R2	All MCs	381	6.0	381	6.0	0.711	10.4	LOS B	8.3	66.8	0.97	1.22	1.40	14.3
3u	U	All MCs	1	6.0	1	6.0	0.711	10.4	LOS B	8.3	66.8	0.97	1.22	1.40	16.1
Approach			543	6.0	543	6.0	0.711	10.4	LOS B	8.3	66.8	0.97	1.22	1.40	20.0
All Vehicles			2242	6.0	2242	6.0	0.730	12.9	LOS B	8.5	68.1	0.93	1.08	1.30	26.3

MOVEMENT SUMMARY

Site: [2 (9)] Verde Dr & Access 2 - 2026 - SAT (2026 - SAT)

Network: [9] SAT (2026)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				km/h
South: Verde Dr															
2	T1	All MCs	701	6.0	701	6.0	0.386	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			701	6.0	701	6.0	0.386	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.8
East: Access 2															
7	L2	All MCs	299	6.0	299	6.0	0.406	5.3	LOS A	2.1	16.7	0.64	0.84	0.88	13.8
Approach			299	6.0	299	6.0	0.406	5.3	LOS A	2.1	16.7	0.64	0.84	0.88	13.8
North: Verde Dr															
7	L2	All MCs	234	6.0	234	6.0	0.138	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	609	6.0	609	6.0	0.335	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			843	6.0	843	6.0	0.335	1.8	NA	0.0	0.0	0.00	0.17	0.00	40.6
All Vehicles			1843	6.0	1843	6.0	0.406	1.7	NA	2.1	16.7	0.10	0.21	0.14	37.0

2036



MOVEMENT SUMMARY

Site: [4 (4)] Armadale Rd & Access 3 - 2036 - AM (2036 - AM)

Network: [4] AM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m		Rate to Depart		km/h
East: Armadale Rd															
2	T1	All MCs	902	10.9	902	10.9	0.481	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach			902	10.9	902	10.9	0.481	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.6
North: Access 3															
7	L2	All MCs	101	6.0	101	6.0	0.079	2.3	LOS A	0.3	2.6	0.31	0.18	0.31	42.3
Approach			101	6.0	101	6.0	0.079	2.3	LOS A	0.3	2.6	0.31	0.18	0.31	42.3
West: Armadale Rd															
7	L2	All MCs	124	6.0	124	6.0	0.073	7.6	LOS A	0.0	0.0	0.00	0.64	0.00	33.6
8	T1	All MCs	768	7.3	768	7.3	0.312	0.4	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach			893	7.1	893	7.1	0.312	1.4	NA	0.0	0.0	0.00	0.09	0.00	57.6
All Vehicles			1896	8.9	1896	8.9	0.481	0.9	NA	0.3	2.6	0.02	0.05	0.02	57.4

MOVEMENT SUMMARY

 Site: [3 (4)] Armadale Rd & Tapper Rd & Verde Dr - 2036 - AM
(2036 - AM)

Network: [4] AM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Tapper Rd															
4	L2	All MCs	505	6.0	505	6.0	0.362	4.6	LOS A	2.1	17.0	0.69	0.55	0.69	51.7
2	T1	All MCs	172	6.0	172	6.0	0.235	4.1	LOS A	1.1	8.8	0.60	0.38	0.60	50.1
6	R2	All MCs	236	6.0	236	6.0	0.235	11.6	LOS B	1.1	8.8	0.63	0.75	0.63	44.4
6u	U	All MCs	1	6.0	1	6.0	0.235	14.3	LOS B	1.1	8.8	0.63	0.75	0.63	48.1
Approach			914	6.0	914	6.0	0.362	6.3	LOS A	2.1	17.0	0.66	0.57	0.66	49.8
East: Armadale Rd															
7	L2	All MCs	53	6.0	53	6.0	0.041	4.3	LOS A	0.2	1.5	0.51	0.52	0.51	51.3
8	T1	All MCs	667	10.9	667	10.9	0.336	3.9	LOS A	2.0	16.7	0.60	0.43	0.60	49.4
6	R2	All MCs	181	6.0	181	6.0	0.336	11.8	LOS B	1.8	14.4	0.61	0.61	0.61	35.3
9u	U	All MCs	1	6.0	1	6.0	0.336	14.5	LOS B	1.8	14.4	0.61	0.61	0.61	35.3
Approach			902	9.6	902	9.6	0.336	5.5	LOS A	2.0	16.7	0.60	0.47	0.60	47.9
North: Verde Dr															
7	L2	All MCs	62	6.0	62	6.0	0.213	3.6	LOS A	0.9	7.6	0.64	0.37	0.64	35.1
8	T1	All MCs	153	6.0	153	6.0	0.213	2.4	LOS A	0.9	7.6	0.64	0.37	0.64	50.6
9	R2	All MCs	91	6.0	91	6.0	0.122	9.8	LOS A	0.5	3.7	0.61	0.76	0.61	41.6
9u	U	All MCs	2	6.0	2	6.0	0.122	12.0	LOS B	0.5	3.7	0.61	0.76	0.61	30.3
Approach			307	6.0	307	6.0	0.213	4.9	LOS A	0.9	7.6	0.63	0.49	0.63	45.9
West: Armadale Rd															
10	L2	All MCs	68	6.0	68	6.0	0.052	4.5	LOS A	0.2	1.7	0.45	0.48	0.45	49.7
2	T1	All MCs	593	7.3	593	7.3	0.365	3.3	LOS A	2.0	16.1	0.54	0.34	0.54	49.0
3	R2	All MCs	364	6.0	364	6.0	0.365	11.4	LOS B	1.8	14.3	0.57	0.70	0.57	47.4
3u	U	All MCs	28	6.0	28	6.0	0.365	14.1	LOS B	1.8	14.3	0.57	0.70	0.57	46.6
Approach			1054	6.7	1054	6.7	0.365	6.4	LOS A	2.0	16.1	0.54	0.48	0.54	48.1
All Vehicles			3177	7.3	3177	7.3	0.365	6.0	LOS A	2.1	17.0	0.60	0.51	0.60	48.4

MOVEMENT SUMMARY

 Site: [1 (4)] Verde Dr & Access 1 - 2036 - AM (2036 - AM)

Network: [4] AM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Verde Dr															
4	L2	All MCs	78	6.0	78	6.0	0.310	5.5	LOS A	1.6	13.0	0.34	0.46	0.34	26.1
2	T1	All MCs	238	6.0	238	6.0	0.310	2.4	LOS A	1.6	13.0	0.34	0.46	0.34	44.2
6	R2	All MCs	74	6.0	74	6.0	0.310	11.3	LOS B	1.6	13.0	0.34	0.46	0.34	26.3
6u	U	All MCs	14	6.0	14	6.0	0.310	10.2	LOS B	1.6	13.0	0.34	0.46	0.34	32.2
Approach			403	6.0	403	6.0	0.310	4.9	LOS A	1.6	13.0	0.34	0.46	0.34	39.1
East: Access 1															
7	L2	All MCs	13	6.0	13	6.0	0.121	1.5	LOS A	0.6	5.1	0.45	0.28	0.45	18.7
8	T1	All MCs	25	6.0	25	6.0	0.121	1.5	LOS A	0.6	5.1	0.45	0.28	0.45	19.2
6	R2	All MCs	96	6.0	96	6.0	0.121	1.5	LOS A	0.6	5.1	0.45	0.28	0.45	35.1
9u	U	All MCs	1	6.0	1	6.0	0.121	1.5	LOS A	0.6	5.1	0.45	0.28	0.45	19.1
Approach			135	6.0	135	6.0	0.121	1.5	LOS A	0.6	5.1	0.45	0.28	0.45	32.0
North: Verde Dr															
7	L2	All MCs	56	6.0	56	6.0	0.207	5.4	LOS A	0.8	6.7	0.28	0.44	0.28	37.9
8	T1	All MCs	158	6.0	158	6.0	0.207	2.3	LOS A	0.8	6.7	0.28	0.44	0.28	44.0
9	R2	All MCs	42	6.0	42	6.0	0.207	11.1	LOS B	0.8	6.7	0.28	0.44	0.28	37.6
9u	U	All MCs	4	6.0	4	6.0	0.207	10.1	LOS B	0.8	6.7	0.28	0.44	0.28	45.8
Approach			260	6.0	260	6.0	0.207	4.5	LOS A	0.8	6.7	0.28	0.44	0.28	41.3
West: Existing Rd															
10	L2	All MCs	25	6.0	25	6.0	0.111	1.7	LOS A	0.5	4.2	0.47	0.32	0.47	35.0
2	T1	All MCs	13	6.0	13	6.0	0.111	1.7	LOS A	0.5	4.2	0.47	0.32	0.47	19.1
3	R2	All MCs	80	6.0	80	6.0	0.111	1.7	LOS A	0.5	4.2	0.47	0.32	0.47	18.6
3u	U	All MCs	1	6.0	1	6.0	0.111	1.7	LOS A	0.5	4.2	0.47	0.32	0.47	19.1
Approach			119	6.0	119	6.0	0.111	1.7	LOS A	0.5	4.2	0.47	0.32	0.47	24.8
All Vehicles			917	6.0	917	6.0	0.310	3.9	LOS A	1.6	13.0	0.36	0.41	0.36	37.0

MOVEMENT SUMMARY

Site: [2 (4)] Verde Dr & Access 2 - 2036 - AM (2036 - AM)

Network: [4] AM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				km/h
South: Verde Dr															
2	T1	All MCs	424	6.0	424	6.0	0.233	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			424	6.0	424	6.0	0.233	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Access 2															
7	L2	All MCs	85	6.0	85	6.0	0.067	0.8	LOS A	0.3	2.1	0.31	0.17	0.31	18.1
Approach			85	6.0	85	6.0	0.067	0.8	LOS A	0.3	2.1	0.31	0.17	0.31	18.1
North: Verde Dr															
7	L2	All MCs	61	6.0	61	6.0	0.036	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	203	6.0	203	6.0	0.112	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			264	6.0	264	6.0	0.112	1.5	NA	0.0	0.0	0.00	0.14	0.00	41.8
All Vehicles			774	6.0	774	6.0	0.233	0.6	NA	0.3	2.1	0.03	0.07	0.03	42.4

MOVEMENT SUMMARY

Site: [4 (5)] Armadale Rd & Access 3 - 2036 - PM (2036 - PM)

Network: [5] PM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]	m			km/h
East: Armadale Rd															
2	T1	All MCs	1075	10.9	1075	10.9	0.573	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	59.4
Approach			1075	10.9	1075	10.9	0.573	0.3	NA	0.0	0.0	0.00	0.00	0.00	59.4
North: Access 3															
7	L2	All MCs	116	6.0	116	6.0	0.105	6.0	LOS A	0.4	3.3	0.41	0.30	0.41	42.0
Approach			116	6.0	116	6.0	0.105	6.0	LOS A	0.4	3.3	0.41	0.30	0.41	42.0
West: Armadale Rd															
7	L2	All MCs	142	6.0	142	6.0	0.084	7.6	LOS A	0.0	0.0	0.00	0.64	0.00	33.6
8	T1	All MCs	1222	7.3	1222	7.3	0.496	1.3	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			1364	7.2	1364	7.2	0.496	1.9	NA	0.0	0.0	0.00	0.07	0.00	58.0
All Vehicles			2555	8.7	2555	8.7	0.573	1.4	NA	0.4	3.3	0.02	0.05	0.02	57.6

MOVEMENT SUMMARY

 Site: [3 (5)] Armadale Rd & Tapper Rd & Verde Dr - 2036 - PM
(2036 - PM)

Network: [5] PM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Tapper Rd															
4	L2	All MCs	351	6.0	351	6.0	0.325	5.4	LOS A	2.3	18.3	0.86	0.65	0.86	51.0
2	T1	All MCs	177	6.0	177	6.0	0.280	5.1	LOS A	1.5	11.9	0.76	0.51	0.76	48.0
6	R2	All MCs	178	6.0	178	6.0	0.280	12.4	LOS B	1.5	11.9	0.78	0.78	0.78	44.7
6u	U	All MCs	1	6.0	1	6.0	0.280	15.1	LOS B	1.5	11.9	0.78	0.78	0.78	48.3
Approach			706	6.0	706	6.0	0.325	7.1	LOS A	2.3	18.3	0.81	0.65	0.81	49.0
East: Armadale Rd															
7	L2	All MCs	163	6.0	163	6.0	0.197	8.7	LOS A	1.6	12.5	0.96	0.75	0.96	48.1
8	T1	All MCs	711	10.9	711	10.9	0.636	15.3	LOS B	8.0	67.4	0.99	1.08	1.49	40.8
6	R2	All MCs	199	6.0	199	6.0	0.636	23.7	LOS C	5.8	47.2	0.98	1.06	1.46	23.9
9u	U	All MCs	1	6.0	1	6.0	0.636	26.4	LOS C	5.8	47.2	0.98	1.06	1.46	23.9
Approach			1074	9.2	1074	9.2	0.636	15.8	LOS B	8.0	67.4	0.99	1.03	1.40	39.7
North: Verde Dr															
7	L2	All MCs	186	6.0	186	6.0	0.911	31.9	LOS C	13.0	104.6	1.00	1.65	2.63	13.6
8	T1	All MCs	351	6.0	351	6.0	0.911	30.7	LOS C	13.0	104.6	1.00	1.65	2.63	32.4
9	R2	All MCs	237	6.0	237	6.0	0.511	15.7	LOS B	2.9	23.2	0.88	1.02	1.11	38.1
9u	U	All MCs	2	6.0	2	6.0	0.511	17.8	LOS B	2.9	23.2	0.88	1.02	1.11	25.6
Approach			776	6.0	776	6.0	0.911	26.3	LOS C	13.0	104.6	0.96	1.46	2.16	30.9
West: Armadale Rd															
10	L2	All MCs	169	6.0	169	6.0	0.131	4.7	LOS A	0.6	4.7	0.48	0.49	0.48	49.5
2	T1	All MCs	999	7.3	999	7.3	0.633	4.1	LOS A	5.1	41.1	0.66	0.46	0.73	47.9
3	R2	All MCs	754	6.0	754	6.0	0.768	14.5	LOS B	7.7	62.0	0.81	0.91	1.08	45.2
3u	U	All MCs	87	6.0	87	6.0	0.768	17.2	LOS B	7.7	62.0	0.81	0.91	1.08	44.2
Approach			2009	6.6	2009	6.6	0.768	8.6	LOS A	7.7	62.0	0.71	0.65	0.85	46.2
All Vehicles			4565	7.0	4565	7.0	0.911	13.1	LOS B	13.0	104.6	0.83	0.88	1.20	42.3

MOVEMENT SUMMARY

 Site: [1 (5)] Verde Dr & Access 1 - 2036 - PM (2036 - PM)

Network: [5] PM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart
			[Total HV]	[Total HV]						[Veh.]	[Dist]			Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			km/h
South: Verde Dr														
4	L2	All MCs	123	6.0	123	6.0	0.392	5.9	LOS A	2.4	19.0	0.47	0.57	0.47
2	T1	All MCs	153	6.0	153	6.0	0.392	2.9	LOS A	2.4	19.0	0.47	0.57	0.47
6	R2	All MCs	152	6.0	152	6.0	0.392	11.7	LOS B	2.4	19.0	0.47	0.57	0.47
6u	U	All MCs	44	6.0	44	6.0	0.392	10.7	LOS B	2.4	19.0	0.47	0.57	0.47
Approach			472	6.0	472	6.0	0.392	7.2	LOS A	2.4	19.0	0.47	0.57	0.47
East: Access 1														
7	L2	All MCs	92	6.0	92	6.0	0.334	4.5	LOS A	2.2	17.8	0.77	0.59	0.77
8	T1	All MCs	47	6.0	47	6.0	0.334	4.5	LOS A	2.2	17.8	0.77	0.59	0.77
6	R2	All MCs	129	6.0	129	6.0	0.334	4.5	LOS A	2.2	17.8	0.77	0.59	0.77
9u	U	All MCs	1	6.0	1	6.0	0.334	4.5	LOS A	2.2	17.8	0.77	0.59	0.77
Approach			269	6.0	269	6.0	0.334	4.5	LOS A	2.2	17.8	0.77	0.59	0.77
North: Verde Dr														
7	L2	All MCs	93	6.0	93	6.0	0.464	6.9	LOS A	2.7	21.3	0.58	0.57	0.58
8	T1	All MCs	332	6.0	332	6.0	0.464	3.9	LOS A	2.7	21.3	0.58	0.57	0.58
9	R2	All MCs	63	6.0	63	6.0	0.464	12.7	LOS B	2.7	21.3	0.58	0.57	0.58
9u	U	All MCs	5	6.0	5	6.0	0.464	11.6	LOS B	2.7	21.3	0.58	0.57	0.58
Approach			493	6.0	493	6.0	0.464	5.7	LOS A	2.7	21.3	0.58	0.57	0.58
West: Existing Rd														
10	L2	All MCs	77	6.0	77	6.0	0.313	2.3	LOS A	1.8	14.3	0.59	0.43	0.59
2	T1	All MCs	32	6.0	32	6.0	0.313	2.3	LOS A	1.8	14.3	0.59	0.43	0.59
3	R2	All MCs	209	6.0	209	6.0	0.313	2.3	LOS A	1.8	14.3	0.59	0.43	0.59
3u	U	All MCs	1	6.0	1	6.0	0.313	2.3	LOS A	1.8	14.3	0.59	0.43	0.59
Approach			319	6.0	319	6.0	0.313	2.3	LOS A	1.8	14.3	0.59	0.43	0.59
All Vehicles			1553	6.0	1553	6.0	0.464	5.3	LOS A	2.7	21.3	0.58	0.54	0.58

MOVEMENT SUMMARY

Site: [2 (5)] Verde Dr & Access 2 - 2036 - PM (2036 - PM)

Network: [5] PM (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Verde Dr															
2	T1	All MCs	548	6.0	548	6.0	0.302	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			548	6.0	548	6.0	0.302	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.8
East: Access 2															
7	L2	All MCs	175	6.0	175	6.0	0.215	3.0	LOS A	0.8	6.5	0.55	0.50	0.55	15.9
Approach			175	6.0	175	6.0	0.215	3.0	LOS A	0.8	6.5	0.55	0.50	0.55	15.9
North: Verde Dr															
7	L2	All MCs	153	6.0	153	6.0	0.090	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	525	6.0	525	6.0	0.300	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			678	6.0	678	6.0	0.300	1.5	NA	0.0	0.0	0.00	0.13	0.00	41.9
All Vehicles			1401	6.0	1401	6.0	0.302	1.1	NA	0.8	6.5	0.07	0.13	0.07	40.1

MOVEMENT SUMMARY

Site: [4 (6)] Armadale Rd & Access 3 - 2036 - SAT (2036 - SAT)

Network: [6] SAT (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate to Depart	Number Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh. veh	[Dist] m				
			veh/h	%	veh/h	%	v/c	sec							km/h
East: Armadale Rd															
2	T1	All MCs	1178	10.9	1178	10.9	0.628	0.4	LOS A	0.0	0.0	0.00	0.00	0.00	59.3
Approach			1178	10.9	1178	10.9	0.628	0.4	NA	0.0	0.0	0.00	0.00	0.00	59.3
North: Access 3															
7	L2	All MCs	224	6.0	224	6.0	0.195	5.4	LOS A	0.8	6.7	0.41	0.30	0.41	42.0
Approach			224	6.0	224	6.0	0.195	5.4	LOS A	0.8	6.7	0.41	0.30	0.41	42.0
West: Armadale Rd															
7	L2	All MCs	273	6.0	273	6.0	0.161	7.6	LOS A	0.0	0.0	0.00	0.64	0.00	33.6
8	T1	All MCs	1095	7.3	1095	7.3	0.444	1.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			1367	7.0	1367	7.0	0.444	2.4	NA	0.0	0.0	0.00	0.13	0.00	56.5
All Vehicles			2769	8.6	2769	8.6	0.628	1.8	NA	0.8	6.7	0.03	0.09	0.03	56.0

MOVEMENT SUMMARY

 Site: [3 (6)] Armadale Rd & Tapper Rd & Verde Dr - 2036 - SAT (2036 - SAT)

Network: [6] SAT (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number Cycles to Depart	Aver. Speed
			[Total HV] veh/h	%	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Tapper Rd															
4	L2	All MCs	316	6.0	316	6.0	0.376	8.1	LOS A	3.1	25.2	1.00	0.82	1.00	50.4
2	T1	All MCs	229	6.0	229	6.0	0.529	9.4	LOS A	3.5	27.8	0.88	0.83	0.95	46.1
6	R2	All MCs	226	6.0	226	6.0	0.529	18.7	LOS B	3.5	27.8	0.91	1.00	1.16	40.5
6u	U	All MCs	1	6.0	1	6.0	0.529	21.4	LOS C	3.5	27.8	0.91	1.00	1.16	45.5
Approach			773	6.0	773	6.0	0.529	11.6	LOS B	3.5	27.8	0.94	0.87	1.03	46.6
East: Armadale Rd															
7	L2	All MCs	91	6.0	91	6.0	0.085	6.2	LOS A	0.7	5.2	0.87	0.71	0.87	49.2
8	T1	All MCs	754	10.9	754	10.9	0.663	10.6	LOS B	7.4	62.6	0.99	1.02	1.39	42.8
6	R2	All MCs	334	6.0	334	6.0	0.663	19.1	LOS B	5.5	44.6	0.93	1.04	1.34	26.6
9u	U	All MCs	1	6.0	1	6.0	0.663	21.8	LOS C	5.5	44.6	0.93	1.04	1.34	26.6
Approach			1179	9.1	1179	9.1	0.663	12.6	LOS B	7.4	62.6	0.97	1.00	1.34	40.1
North: Verde Dr															
7	L2	All MCs	260	6.0	260	6.0	0.906	20.7	LOS C	11.9	95.9	1.00	1.50	2.29	17.4
8	T1	All MCs	380	6.0	380	6.0	0.906	19.5	LOS B	11.9	95.9	1.00	1.50	2.29	37.3
9	R2	All MCs	434	6.0	434	6.0	0.850	22.1	LOS C	7.1	57.1	0.94	1.28	1.75	34.4
9u	U	All MCs	5	6.0	5	6.0	0.850	24.3	LOS C	7.1	57.1	0.94	1.28	1.75	21.3
Approach			1079	6.0	1079	6.0	0.906	20.9	LOS C	11.9	95.9	0.97	1.41	2.07	33.1
West: Armadale Rd															
10	L2	All MCs	255	6.0	255	6.0	0.216	6.1	LOS A	1.1	9.2	0.62	0.56	0.62	48.3
2	T1	All MCs	879	7.3	879	7.3	0.601	5.1	LOS A	5.2	41.8	0.77	0.58	0.90	46.6
3	R2	All MCs	391	6.0	391	6.0	0.601	13.8	LOS B	4.5	36.4	0.78	0.87	0.96	45.8
3u	U	All MCs	174	6.0	174	6.0	0.601	16.5	LOS B	4.5	36.4	0.78	0.87	0.96	44.9
Approach			1698	6.7	1698	6.7	0.601	8.4	LOS A	5.2	41.8	0.75	0.67	0.87	46.2
All Vehicles			4728	7.0	4728	7.0	0.906	12.8	LOS B	11.9	95.9	0.89	0.96	1.29	41.6

MOVEMENT SUMMARY

 Site: [1 (7)] Verde Dr & Access 1 - 2036 - SAT (2036 - SAT)

Network: [6] SAT (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number	Aver. Speed
			[Total HV]		[Total HV]					[Veh.	Dist]		Rate to Depart		
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Verde Dr															
4	L2	All MCs	227	6.0	227	6.0	0.758	10.7	LOS B	9.4	75.7	0.89	0.88	1.14	21.6
2	T1	All MCs	157	6.0	157	6.0	0.758	7.7	LOS A	9.4	75.7	0.89	0.88	1.14	38.7
6	R2	All MCs	275	6.0	275	6.0	0.758	16.5	LOS B	9.4	75.7	0.89	0.88	1.14	21.6
6u	U	All MCs	111	6.0	111	6.0	0.758	15.5	LOS B	9.4	75.7	0.89	0.88	1.14	22.6
Approach			769	6.0	769	6.0	0.758	12.9	LOS B	9.4	75.7	0.89	0.88	1.14	26.7
East: Access 1															
7	L2	All MCs	142	6.0	142	6.0	0.722	16.8	LOS B	9.2	73.5	1.00	1.47	1.62	11.7
8	T1	All MCs	92	6.0	92	6.0	0.722	16.8	LOS B	9.2	73.5	1.00	1.47	1.62	14.1
6	R2	All MCs	227	6.0	227	6.0	0.722	16.8	LOS B	9.2	73.5	1.00	1.47	1.62	28.8
9u	U	All MCs	1	6.0	1	6.0	0.722	16.8	LOS B	9.2	73.5	1.00	1.47	1.62	14.0
Approach			462	6.0	462	6.0	0.722	16.8	LOS B	9.2	73.5	1.00	1.47	1.62	22.8
North: Verde Dr															
7	L2	All MCs	173	6.0	173	6.0	0.716	15.7	LOS B	8.0	63.9	0.96	1.04	1.42	32.2
8	T1	All MCs	237	6.0	237	6.0	0.716	12.7	LOS B	8.0	63.9	0.96	1.04	1.42	35.6
9	R2	All MCs	113	6.0	113	6.0	0.716	21.5	LOS C	8.0	63.9	0.96	1.04	1.42	32.1
9u	U	All MCs	1	6.0	1	6.0	0.716	20.5	LOS C	8.0	63.9	0.96	1.04	1.42	40.6
Approach			523	6.0	523	6.0	0.716	15.6	LOS B	8.0	63.9	0.96	1.04	1.42	33.5
West: Existing Rd															
10	L2	All MCs	109	6.0	109	6.0	0.745	12.4	LOS B	9.3	74.8	1.00	1.35	1.52	30.2
2	T1	All MCs	52	6.0	52	6.0	0.745	12.4	LOS B	9.3	74.8	1.00	1.35	1.52	15.4
3	R2	All MCs	381	6.0	381	6.0	0.745	12.4	LOS B	9.3	74.8	1.00	1.35	1.52	13.6
3u	U	All MCs	1	6.0	1	6.0	0.745	12.4	LOS B	9.3	74.8	1.00	1.35	1.52	15.5
Approach			543	6.0	543	6.0	0.745	12.4	LOS B	9.3	74.8	1.00	1.35	1.52	19.2
All Vehicles			2298	6.0	2298	6.0	0.758	14.2	LOS B	9.4	75.7	0.95	1.15	1.39	26.0

MOVEMENT SUMMARY

Site: [2 (6)] Verde Dr & Access 2 - 2036 - SAT (2036 - SAT)

Network: [6] SAT (2036)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Site Category: (None)

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number of Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Verde Dr															
2	T1	All MCs	823	6.0	823	6.0	0.453	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.7
Approach			823	6.0	823	6.0	0.453	0.1	NA	0.0	0.0	0.00	0.00	0.00	49.7
East: Access 2															
7	L2	All MCs	299	6.0	299	6.0	0.430	5.8	LOS A	2.2	17.6	0.66	0.89	0.94	13.4
Approach			299	6.0	299	6.0	0.430	5.8	LOS A	2.2	17.6	0.66	0.89	0.94	13.4
North: Verde Dr															
7	L2	All MCs	234	6.0	234	6.0	0.138	6.4	LOS A	0.0	0.0	0.00	0.60	0.00	30.8
8	T1	All MCs	636	6.0	636	6.0	0.354	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			869	6.0	869	6.0	0.354	1.7	NA	0.0	0.0	0.00	0.16	0.00	40.8
All Vehicles			1992	6.0	1992	6.0	0.453	1.7	NA	2.2	17.6	0.10	0.20	0.14	37.5