Traffix Group

Traffic Engineering Assessment

Melton Christian College Toolern Vale Campus – Proposed Stage 4

674-740 Coburns Road, Toolern Vale

Prepared for
Melton Christian College

May 2026

G38228R-01B

Level 28, 459 Collins St
MELBOURNE VIC 3000

Office 38, L4/60 Moorabool St
GEELONG VIC 3220

Traffix Group Pty Ltd
ABN: 32 100 481 570

T: 03 9822 2888
traffixgroup.com.au

Document Control

Our Reference: G38228R-01B

Issue No.	Type	Date	Prepared By	Approved By
A	Draft	01/05/26	J. Amling	B. Chisholm (RPE7582)
B	Final	25/05/26	J. Amling	B. Chisholm (RPE7582)

AS/NZS ISO 45001-2018 Occupational Health & Safety Management Systems
AS/NZS ISO 14001 Environmental Management Systems
AS/NZS ISO 9001-2016 Quality Management Systems

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1. Introduction

Traffix Group has been engaged by Melton Christian College to undertake a Traffic Engineering Assessment for the Melton Christian College Toolern Vale Campus – Proposed Stage 4 at 674-740 Coburns Road, Toolern Vale.

This report provides a detailed traffic engineering assessment of the parking and traffic issues associated with the proposed student enrolment expansion.

In the course of undertaking this assessment, we reviewed background material, inspected the subject site, observed existing car parking and traffic conditions and assessed the car parking and traffic impacts of the proposal.

Our assessment is as follows.

2. Existing Conditions

2.1. Subject Site

The subject land, addressed as 674-740 Coburns Road, Toolern Vale, is located on the eastern side of Coburns Road, approximately 700 metres north of Minnis Road.

The site is irregular in shape with a total area of approximately 33.6 hectares and has a frontage of approximately 450 metres to Coburns Road along the western boundary of the site.

The site accommodates Melton Christian College Toolern Vale Campus and currently accommodates students from Prep to Year 4 in 2026. The approved construction of Stage 3 has begun and upon completion will provide capacity for Year 5 students and additional staff in 2027.

The current Planning Permit states that the existing school can currently accommodate up to 312 students and 32 staff.

The site currently provides 129 formal on-site car spaces, including 117 standard car spaces and 12 parallel drop-off/pick-up car spaces. This includes the eastern car park (Car Park B) consisting of 60 car spaces that was constructed in 2025.

The site provides two vehicle connections with Coburns Road. The northern connection accommodates all movements, whereas the southern connection accommodates exit movements only. However, the southern connection leg leading to the roundabout is line marked to allow vehicles to approach from the southern connection.

A locality plan and aerial of the site and surrounding area are provided at Figure 1 and Figure 2, respectively.

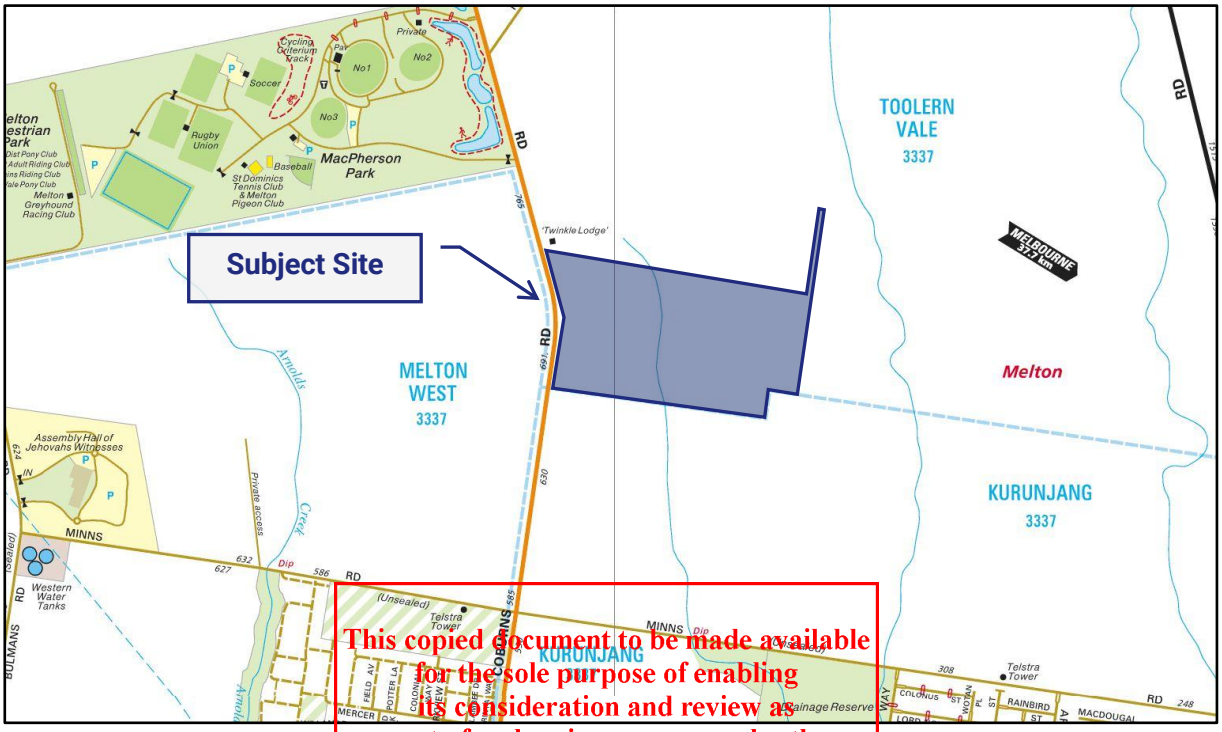


Figure 1: Locality Map

Source: Melway

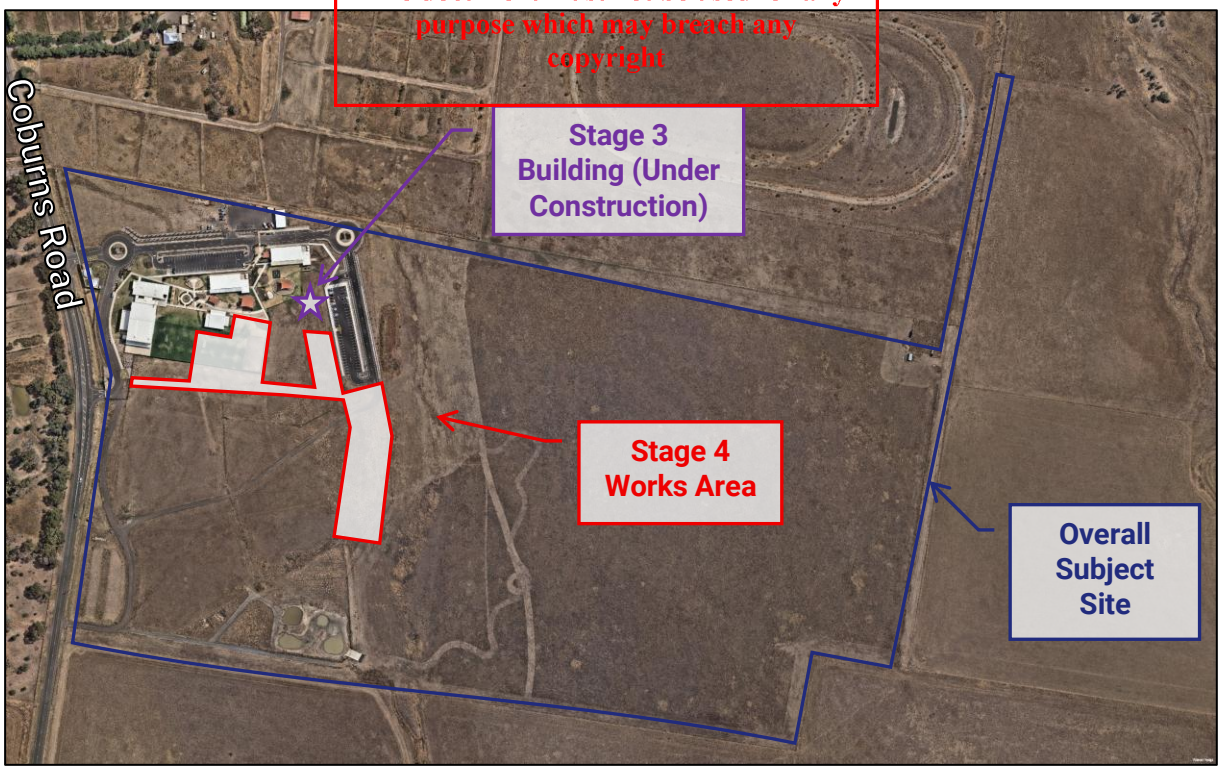


Figure 2: Aerial Photograph

Source: Nearmap (April 2026)

The subject site is zoned 'Green Wedge Zone (GWZ)' under the Melton Planning Scheme. Surrounding properties are generally zoned GWZ, except for MacPherson Park (zoned Public Park & Recreation) located north-east of the site. Residential uses are located further to south of the site, to the south of Minnis Road

A planning zone map is provided at Figure 3.

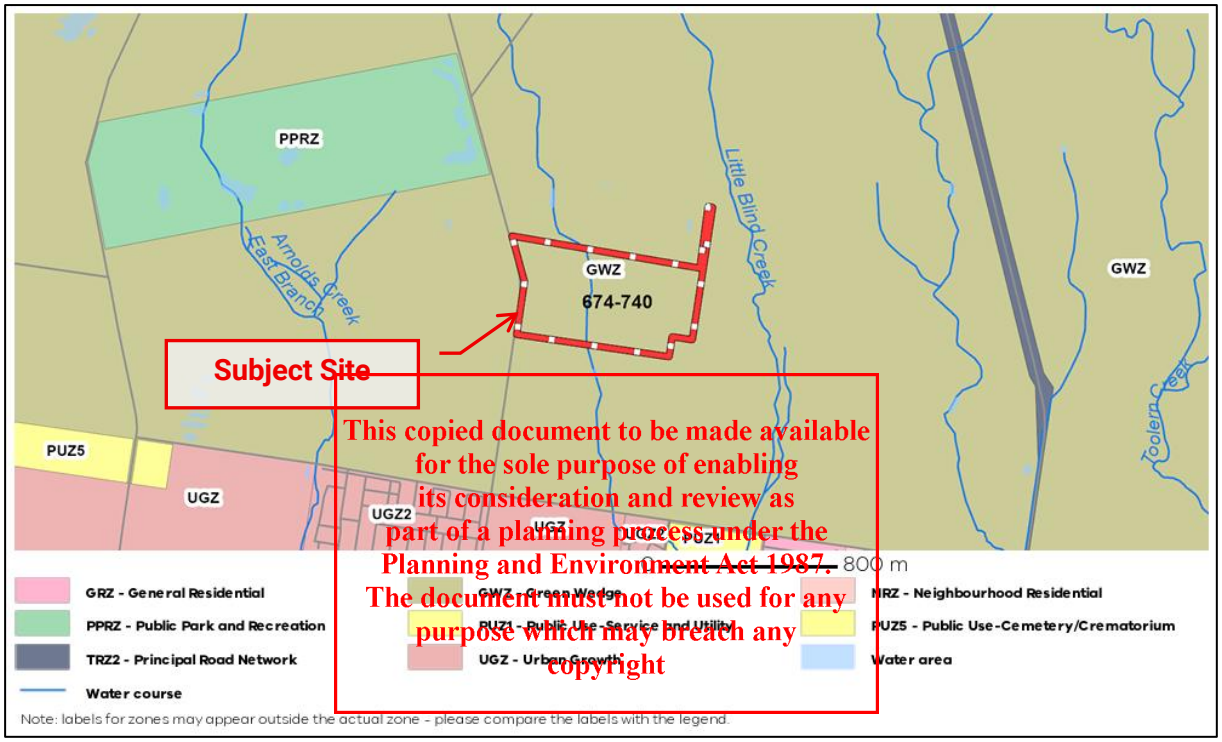


Figure 3: Planning Zone Map – Melton *Source: VicPlan*

2.2. Road Network

Coburns Road is classified within the Melton City Council Road Register as a 'Trunk Collector Road' under the control of Melton City Council. Coburns Road is generally aligned in the north-south direction along the western boundary of the site.

In the vicinity of the site, Coburns Road accommodates an approximate 7.2m wide carriageway which provides a single lane of traffic in each direction. Sealed shoulders of approximately 1.5m wide are provided on both sides. A 2m wide bike lane is also provided in each direction.

Immediately adjacent to the site, a right turn lane is accommodated to provide access into the school's main (northern) access.

Coburns Road, adjacent to the subject site, is shown at Figure 4 and Figure 5.

Figure 4: Coburns Road - View North

Figure 5: Coburns Road - View South

2.3. Existing Traffic Volumes

2.3.1. Traffic Surveys

Traffix Group commissioned turning movement counts at subject site's two vehicle connections with Coburns Road on Thursday 21st August 2025 between 7:30am-9:15am and 2:30pm-4:15pm, with data recorded in 5-minute increments.

A summary of the recorded AM and PM peak hour traffic volumes (7:50am-8:50am and 3:15pm-4:15pm), are shown in Figure 6.

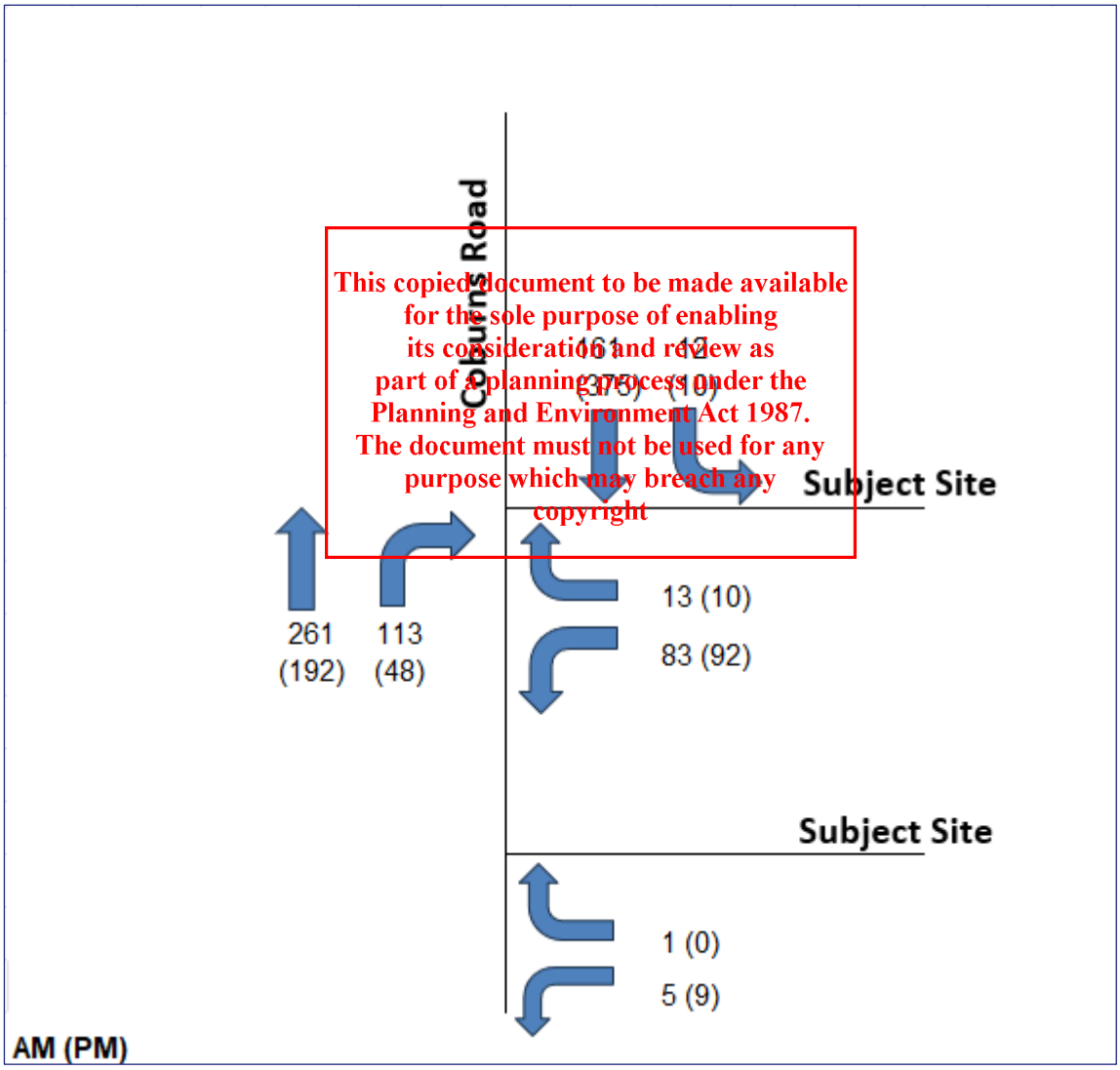


Figure 6: AM & PM Peak Hour Volumes – Site Accesses with Coburns Road

The traffic counts indicate that the school currently generates 227 and 169 vehicle movements to/from the site via the two (2) existing vehicle connections with Coburns Road during the AM and PM peak hours, respectively.

2.3.2. Traffic Observations

As part of our assessment of the existing school, Traffix Group recently observed traffic movements during the peak afternoon pick-up period on Wednesday 25th March 2026.

This was done to confirm the traffic conditions were similar to when traffic data was collected previously in Thursday 21st August 2025.

There were minimal to no queues observed at the site access points or along Coburns Road within the vicinity of the site. The longest queue length observed was up to three (3) vehicles only propped in the right turn lane on Coburns Road waiting to enter the site. Importantly, the queues were accommodated within the turn lane and there was no impact to through traffic on Coburns Road.

3. Proposal

The proposal is for the Stage 4 development of the Melton Christian College Toolern Vale Campus. The proposed Stage 4 development will occur following completion of the approved Stage 3 works which includes a new building with classrooms and ancillary facilities.

The proposed Stage 4 development is to comprise:

- Building F – Year 6 & 7 classrooms
- Buildings 10A & 10B – multi-purpose centre
- Car Parks C & D

The Stage 4 application seeks an increase to the capacity of the school to a maximum of 468 students and 52 staff on-site at any one time. This is an increase of 156 students and 20 staff.

Vehicle access with Coburns Road is to remain as consistent with existing conditions.

The proposed Car Parks C & D are to be located to the south of the existing Car Park B on the eastern side of the site, with vehicle access via a connection to the existing internal access road. This proposed new car park includes 140 parking spaces, made up of approximately 60 spaces within Car Park C and 80 spaces within Car Park D.

Car Park C is to accommodate the increase in car parking requirement associated with the Stage 4 development. Car Park D will provide additional spaces in excess of what is required at Stage 4 to facilitate future growth and development stages of the school master plan.

A loading area is proposed to be constructed between the existing eastern carpark and the proposed new carpark accessed via an access road connecting the two carparks.

A site plan of the proposed Stage 4 development is attached at Appendix A.

4. Car Parking Considerations

4.1. Statutory Car Parking Requirements

The car parking requirements for the proposed development are outlined under Clause 52.06 of the Melton Planning Scheme. The purpose of Clause 52.06 is:

- *To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.*
- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

Clause 52.06-5 now states that:

> *"Table 1 of this clause sets out the minimum and maximum car parking requirements that apply to a use specified in the table based on the land category identified in the Car Parking Requirement Maps (Department of Transport and Planning, 2025) (CPR maps)."*

The land category of the surrounding area of the proposed site is shown in Figure 7.

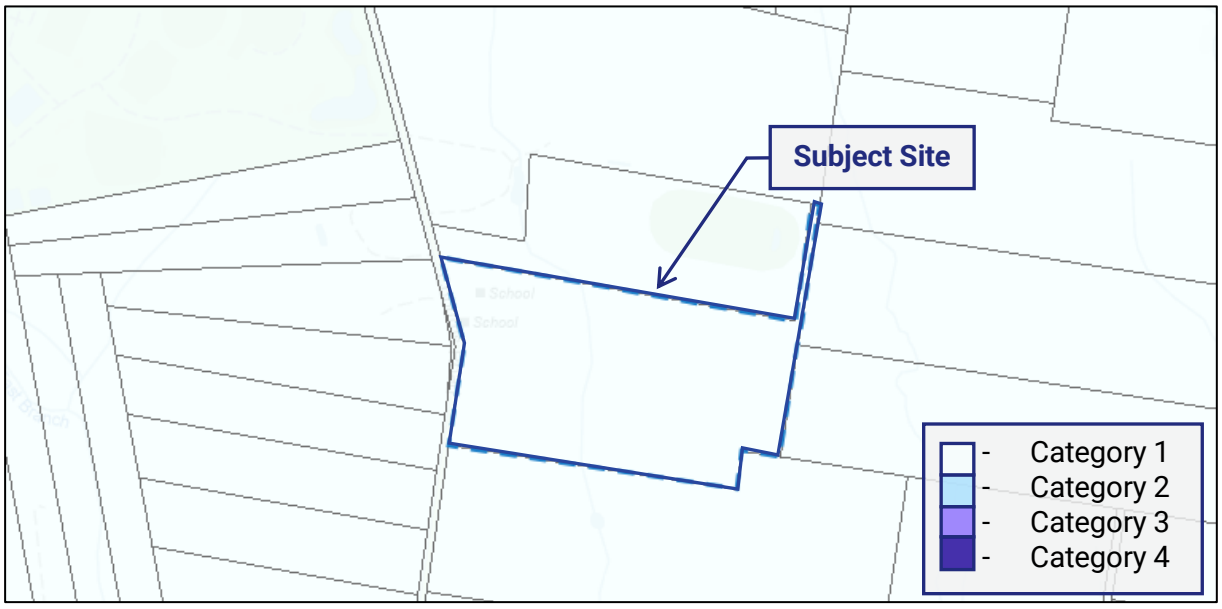


Figure 7: Car Parking Requirement Map - Melton City Council

It is noted that Clause 52.06 of the Planning Scheme states that "*where an existing use is increased…, the car parking requirement only applies to the increase*". As such, the

assessment of the statutory car parking requirement is based on the additional number of staff proposed.

Based on the above, the statutory car parking requirement for the proposed expansion is outlined in Table 1.

Table 1: Clause 52.06 - Statutory Car Parking Requirements – Proposed Increase

Use	Measure	Category 1 - Statutory Car Parking Rate	Requirement
Primary School / Secondary School	+20 staff	Minimum 1 space to each employee	+20 spaces

However, the existing school currently provides a surplus of on-site car parking above the statutory requirement. A holistic assessment of the proposed total staff numbers following development of Stage 4 is outlined in Table 2.

Table 2: Clause 52.06 - Statutory Car Parking Requirements – Holistic Assessment

Use	Measure	Category 1 - Statutory Car Parking Rate	Requirement
Primary School / Secondary School	52 staff	Minimum 1 space to each employee	52 spaces

It is important to note that the Clause 52.06 rate for 'Primary School' or 'Secondary School' use does not make any allowances for the drop-off/pick-up demands generated by parents.

Consistent with our previous Traffic Engineering Assessment and agreed to with Council's traffic engineer as part of the master plan, a rate of 0.4 car parking spaces per student (inclusive of parent and staff parking) was adopted as a suitable car parking provision for the proposed school.

Based on this rate, the empirical car parking demand for the proposed expanded school with 468 total students following development of Stage 4 is calculated in Table 3.

Table 3: Empirical Car Parking Requirements – Holistic Assessment

No. of Students	Rate	Empirical Car Parking Demand	Car Parking Provision
468 students	0.4 spaces per student	187 car spaces	271 car spaces

The above table demonstrates that the car parking provision of 271 spaces well exceed the empirical peak demand of 187 spaces following the completion of Stage 4 works.

Accordingly, we are satisfied that the proposed overall on-site car parking provision with 271 car spaces is appropriate to accommodate the proposed Stage 4 development and staff/student capacity increase.

As mentioned above, Car Park D includes additional car parking spaces (approximately 40 spaces) to allow for future development stages of the school master plan.

4.2. Car Parking Layout & Access Arrangements

The car park layout and access arrangements have been developed with design advice provided to the project architect (Cotter Reid) and is considered to meet the relevant requirements of the Melton Planning Scheme and where applicable, the Australian Standard for Off-Street Parking (AS2890.1:2004).

A concept functional layout plan for the car park and associated swept paths is attached at Appendix B.

A review of the car park layout reveals:

- Car spaces have been provided with minimum dimensions of 2.6 metres width and 4.9 metres length, accessible from 6.4 metre wide aisles, meeting the requirements under Clause 52.06-9 of the Planning Scheme.
- Accessways have been designed at least 4 metres or 6.4 metres width for single-lane and dual-lane accessways respectively, in excess of the requirements under Clause 52.06-9 and AS/NZS 2890.1-2004.
- All vehicles can enter and exit the site in a forward direction in accordance with Clause 52.06-9 (Design Standard 1).
- The western half of the new Car Park C & D is to operate as one-way northbound to provide for efficient circulation.

Based on the foregoing, the car park layout and access arrangements is considered satisfactory.

5. Loading & Waste Considerations

Clause 65.01 of the Planning Scheme states that the responsible authority must consider a number of matters as appropriate including:

- *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*

A new on-site loading bay is to be provided for deliveries of specialist materials (i.e. science/woodwork materials, canteen deliveries). This loading bay is to be located between the existing Car Park B and proposed Car Park C/D, accessed via the proposed service roadway. There will be removable bollards installed at the eastern end of the service roadway to manage vehicle access to/from the loading bay.

These deliveries will be undertaken by a vehicle up to an 8.8 metre long medium rigid vehicle (MRV). Vehicle accessibility has been demonstrated via swept paths attached at Appendix B.

Waste collection arrangements are to continue as per the existing arrangements for the school. Accordingly, no further assessment is required.

Accordingly, we are satisfied that appropriate loading and waste provisions can be accommodated in accordance with the objectives of the Planning Scheme.

6. Traffic Considerations

6.1. Traffic Generation

A first principles assessment has been completed for the traffic generation of the existing school site using data collected in August 2025. As mentioned in Section 2.3, the peak traffic movements recorded in the AM and PM peak hours were 227 and 169 vehicle movements, respectively. The school has informed that there were 156 students enrolled at the time of the traffic counts[1].

Based on the above, the existing traffic generation rate for the AM and PM peak hours is 1.46 vehicle movements/student and 1.08 vehicles/student, respectively.

Therefore, based on a total number of 468 students post Stage 4 development, the following peak hour traffic generation by the expanded school are anticipated:

- AM Peak Hour – 681 vehicle movements.
- PM Peak Hour – 507 vehicle movements.

6.2. Traffic Distribution

The existing traffic distributions recorded at the site's access points during the peak hours will be adopted for the purpose of our assessment. The existing AM peak and PM peak hour traffic distributions are shown at Figure 8.

[1] Although there were some absentees on the day of the surveys, this is normal and it is unlikely that there would be no absentees on any given day. Accordingly, our assessments with the recorded traffic movements assumes a 'typical' day.

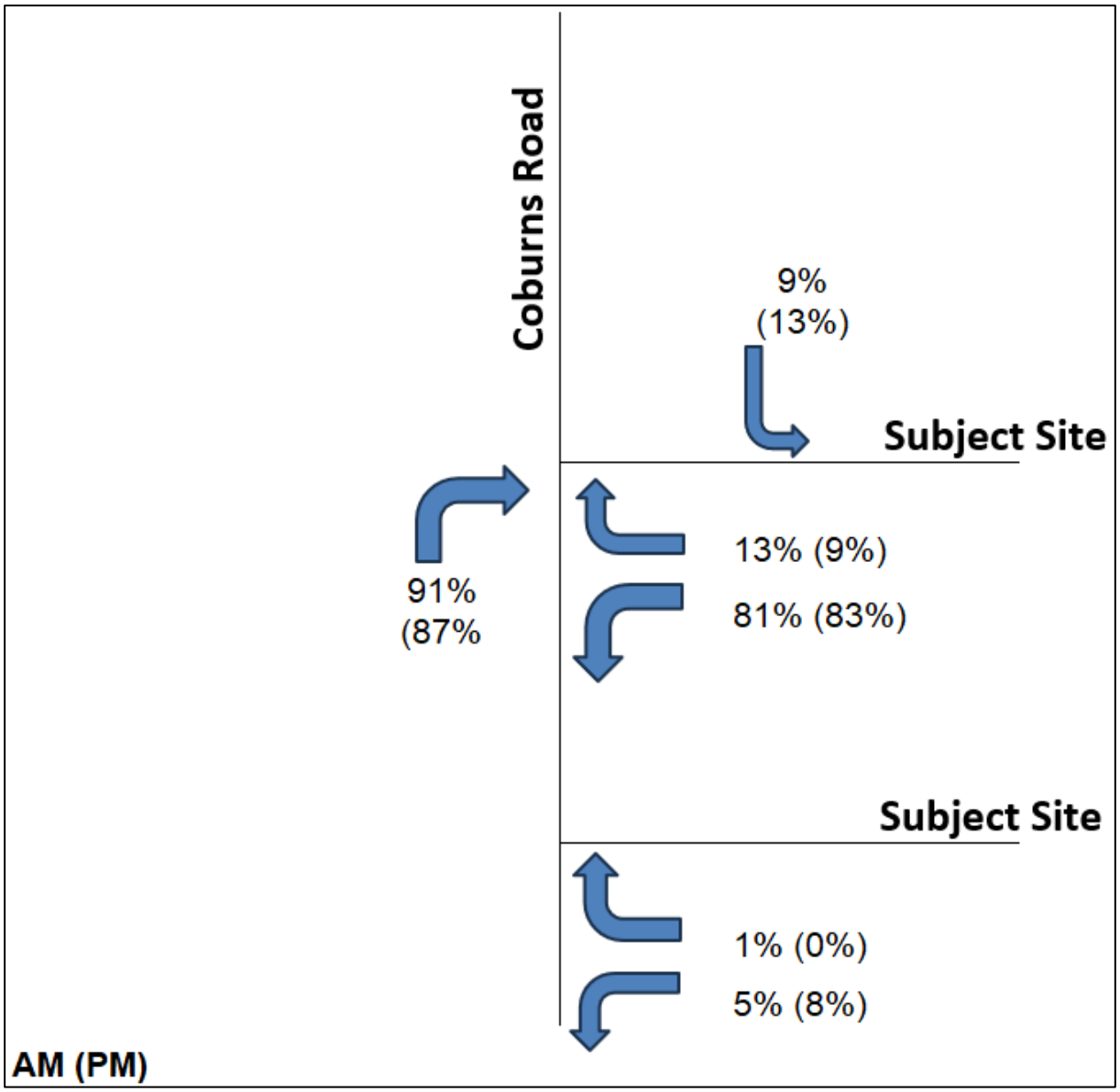


Figure 8: AM & PM Peak Hour - Coburns Road Access Traffic Distributions

6.3. Post Development Traffic

The predicted post development traffic volumes during the AM and PM peak hour are presented at Figure 9.

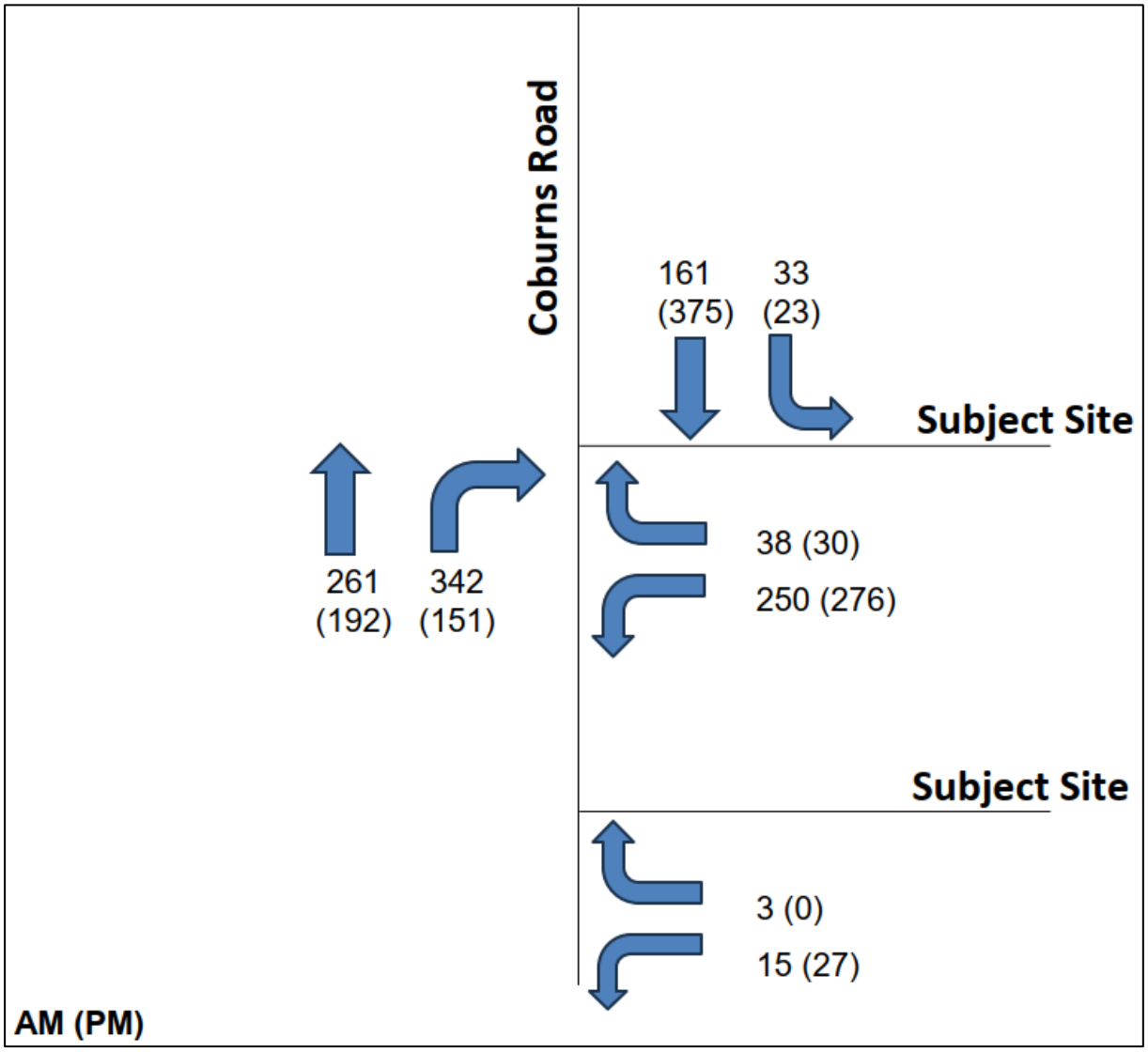


Figure 9: AM & PM Peak Hours – Post Development Traffic Movements

6.4. Traffic Assessment

We have utilised SIDRA Intersection 10.0 to undertake an assessment of the intersection between site's main (northern) vehicle access with Coburns Road. It is not necessary to assess the southern access given it is an exit only connection with a low number of traffic movements.

SIDRA is a computer simulation package which assesses the operating performance of intersections and road networks.

A summary of the key outputs is as follows:

- **Degree of Saturation (DoS) –** The ratio of traffic volume to maximum capacity for a particular turning movement. A DoS of 0.90 for an unsignalised intersection is typically considered the practical limit, the exceedance of which results in disproportionate increases to delay/queueing.
- **Average Delay (Avg. Delay) –** The average delay in seconds for a vehicle making a particular turning movement.
- **95th Percentile Queue (95% Queue) –** The 95th percentile queue length is the length in metres which 95 per cent of all observed cycle queues fall below (or 5% exceed) during the peak analysis period.

The assessed SIDRA layout of the existing main (northern) access intersection is shown at Figure 10, noting that no changes to the existing intersection layout are proposed as part of the proposed expansion. For the vehicle exiting the school, we have considered a short (6m length) separate right-turn lane given there is sufficient space for a left-turning and right-turning vehicle to be positioned side by side.

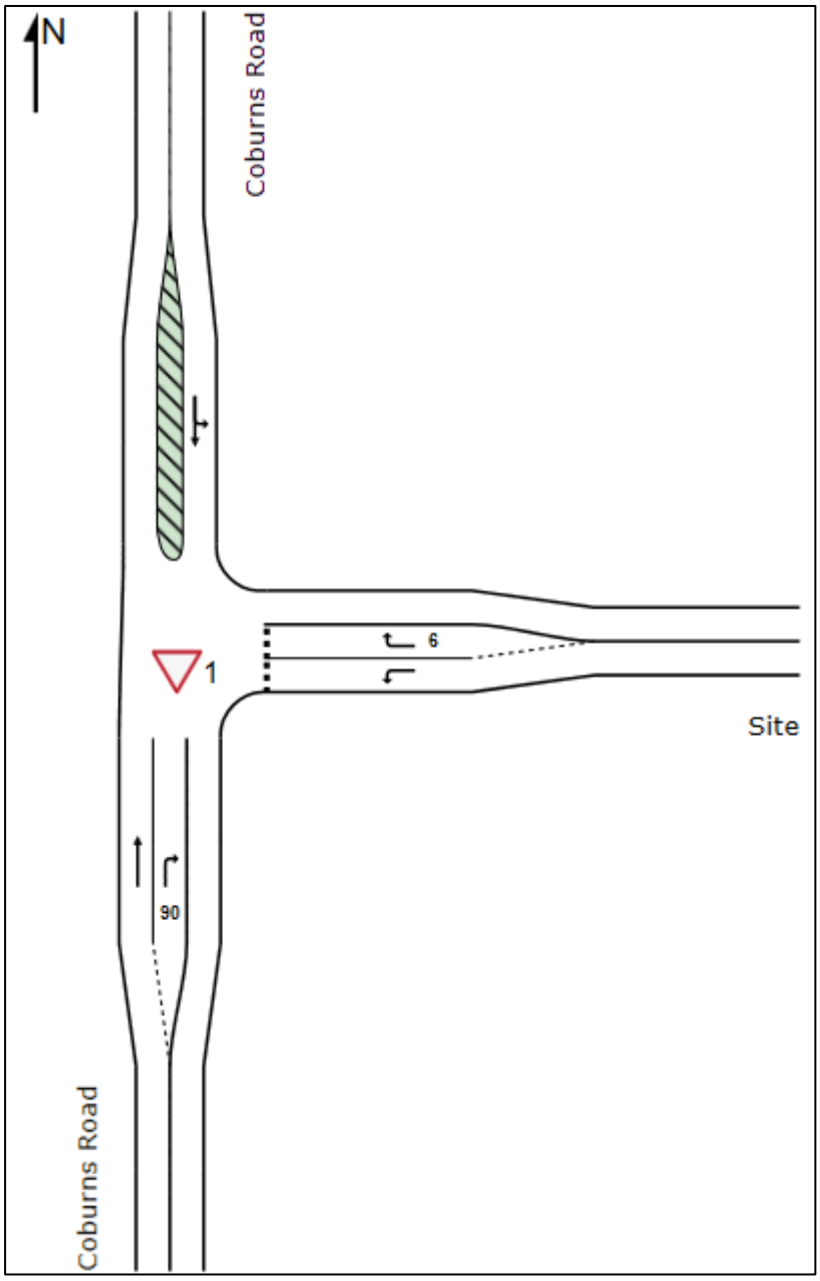


Figure 10: Coburns Road/Main Access- Concept Layout (SIDRA)

6.5. Traffic Impact

The key findings of our SIDRA assessment are summarised in Table 4 and Table 5, with full results provided at Appendix C.

Table 4: AM Peak Hour - SIDRA Results Comparison Table

Intersection Leg/Movement		AM Peak Hour					
		Existing Conditions			Post Development		
		DoS	Avg. Delay (s)	95% Queue (m)	DoS	Avg. Delay (s)	95% Queue (m)
Coburns Road (South)	Through	0.14	0	0	0.14	0	0
	Right	0.08	6	3	0.24	6	9
Subject Site (East)	Left	0.06	6	2	0.18	6	6
	Right	0.02	9	1	0.10	13	2
Coburns Road (North)	Left	0.10	6	0	0.11	6	0
	Through	0.10	0	0	0.11	0	0

Table 5: PM Peak Hour - SIDRA Results Comparison Table

Intersection Leg/Movement		PM Peak Hour					
		Existing Conditions			Post Development		
		DoS	Avg. Delay (s)	95% Queue (m)	DoS	Avg. Delay (s)	95% Queue (m)
Coburns Road (South)	Through	0.11	0	0	0.11	0	0
	Right	0.04	7	1	0.13	7	4
Subject Site (East)	Left	0.09	7	2	0.26	7	8
	Right	0.02	10	1	0.07	12	2
Coburns Road (North)	Left	0.21	6	0	0.22	6	0
	Through	0.21	0	0	0.22	0	0

As shown in the above tables, the site's main intersection with Coburns Road is expected to operate well within acceptable operating conditions post development, with minimal change compared to existing conditions. Based on the outcome of our assessments and analysis, we anticipate that proposed expansion will have no material impact to the surrounding road network and intersections.

7. Bicycle Considerations

Clause 52.34 of the Melton Planning Scheme specifies the bicycle parking requirement for new developments. The statutory bicycle requirement for the proposed Stage 4 development is shown at Table 6.

Table 6: Clause 52.34 - Statutory Bicycle Parking Requirement

Use	Measure	Statutory Rate	Statutory Bicycle Requirement
Primary School / Secondary School	+20 staff	1 to each 20 staff	+1 staff space
	+156 students	1 to each 5 students over year 4	+32 student spaces

Based on the above, the proposed Stage 4 development has a requirement to provide an additional 33 bicycle spaces, including 1 staff space and 32 student spaces.

We understand that there are currently 12 bicycle spaces on-site adjacent to Stage 3.

A new bike store is to be provided in the western part of the school, near the southern vehicle access. A total of 17 double-sided bicycle rails (34 bicycle spaces) are to be provided which meets the statutory requirement. Accordingly, the proposed provision of bicycle spaces is satisfactory for the proposed expansion.

Bicycle spaces are to be provided to be 1.8m long, with a 1m spacing between hoops and accessed from an aisle at least 1.5m wide, in accordance with the Australian Standard for bicycle parking facilities (AS2890.3:2015).

8. Conclusion

Having undertaken a detailed Traffic Engineering Assessment for the Melton Christian College Toolern Vale Campus – Proposed Stage 4 at 674-740 Coburns Road, Toolern Vale, we are of the opinion that:

a) the proposed car parking provision exceeds the statutory requirement and the is adequate to meet the peak empirical car parking demand during drop-off and pick-up periods,

b) the proposed car parking layout and access arrangements are compliant with the Melton Planning Scheme requirements and where applicable, the Australian Standard for Off-Street Parking (AS2890.1:2004),

c) the on-site loading area for specialist deliveries has been designed to meet the objectives of Clause 65.01 of the Planning Scheme,

d) waste collection arrangements are to remain consistent with the existing arrangements,

e) additional traffic generated by the proposed Stage 4 development will be comfortably accommodated by the site's existing connections with Coburns Road with minimal change to existing conditions as demonstrated by the SIDRA analysis of the main access,

f) the provision of additional on-site bicycle spaces will meet the statutory bicycle parking requirement, and

g) there are no traffic engineering reasons why a Planning Permit for the proposed Stage 4 Development at Melton Christian College (674-740 Coburns Road, Toolern Vale), should be refused.

Appendix A

Development Plan

SERVICES INFRASTRUCTURE SCOPE:

GENERALLY ALLOW FOR:

HYDRAULIC / STORMWATER:

- EXTENSION OF COLD WATER FROM BUILDING C TO NEW BUILDING F
- EXTENSION OF SEWER FROM BUILDING C TO NEW BUILDING F (CONNECTING BACK TO EXISTING SITE SEPTIC)
- NEW DUAL HEAD FIRE HYDRANT
- FIRE HOSE REELS/EXTINGUISHERS INTERNALLY

ELECTRICAL
- NEW POWER SUPPLY FROM BUILDING A TO BUILDING F
- NEW DATA SUPPLY FROM BUILDING A TO BUILDING F

LANDSCAPE SCOPE:
REFER TO LANDSCAPE ARCHITECT FOR ALL SURFACE FINISHES, PLANTING SELECTIONS, AND EXTERNAL FURNITURE UNLESS OTHERWISE NOTED

STORMWATER UPGRADE SCOPE:

GENERALLY ALLOW TO:

- REMOVE AND RELOCATED THE INDICATED STORMWATER LINES (525RCP SHOWN DASHED RED), TO RESOLVE CLASH WITH UNDERSLAB STRUCTURE.
- RAIN WATER TANKS/HARVESTING SYSTEM FOR TOILET FLUSHING (INCLUDING FIRST FLUSH DEVICE AND RETICULATION TO TOILETS)
- NEW STORMWATER PITS/AG DRAIN TO PERIMETER OF BUILDING.

STAGE 4 - LANDSCAPE CONNECTIVE WORKS INCLUDING HARD AND SOFT LANDSCAPING, TREE PLANTING, MINOR OUTDOOR FURNITURE, STORMWATER DRAINAGE.

ALTERNATIVE PROVIDE PRICE FOR SIMPLE 2.4M CONCRETE FOOTPATH FROM NEW CARPARK TO EXISTING

APPROXIMATE LOCATION OF DELIVERY ZONE FOR SPECIALIST MATERIALS (IE SCIENCE/WOODWORK/CANTEEN).

APPROX LOCATION OF HYDRANT AND ASSOCIATED HARDSTAND

CARPARK C - APPROXIMATE WORKS AREA - 60 CARPARKS

APPROX LOCATION FOR BIKE STORE - 17 DOUBLE SIDE BICYCLE RAILS TO BE PROVIDED. REFER LANDSCAPE ARCHITECT

CARPARK D - APPROXIMATE WORKS AREA - 80 CARPARKS.

REALIGNED PERIMETRE FENCE (POST AND WIRE FARM FENCE)

EXISTING EFFLUENT FIELD / SEPTIC TREATMENT SYSTEM. - NO WORKS - REFER WASTE WATER CONSULTANT

WETLANDS - NO WORKS - REFER CIVIL ENGINEER

ADVERTISED PLAN

1 TP - PROPOSED SITE PLAN
1 : 1000

NORTH

MELTON CHRISTIAN COLLEGE
STEADFAST AND STRONG

REVISIONS		
DATE	REV	ACTIVITY
25/05/26	A	TOWN PLANNING ISSUE

cotter reid architects
Suite 10, First Floor,
18-20 Riversdale Road
Geelong, VIC, 3220
Ph: 03 5222 5067
www.cotterreid.com.au

PROJECT:
MELTON CHRISTIAN COLLEGE - COBURNS CAMPUS - STAGE 4

DRAWING TITLE:
PROPOSED SITE PLAN

PROJECT ADDRESS:
674-740 COBURNS RD, TOOLERN VALE, VIC. 3337

PROJECT STAGE:
TOWN PLANNING

DRAWING No:
TP4-02

REVISION:
A

DRAWING ISSUE STATUS:
FOR APPROVAL

PROJECT No:
25-914

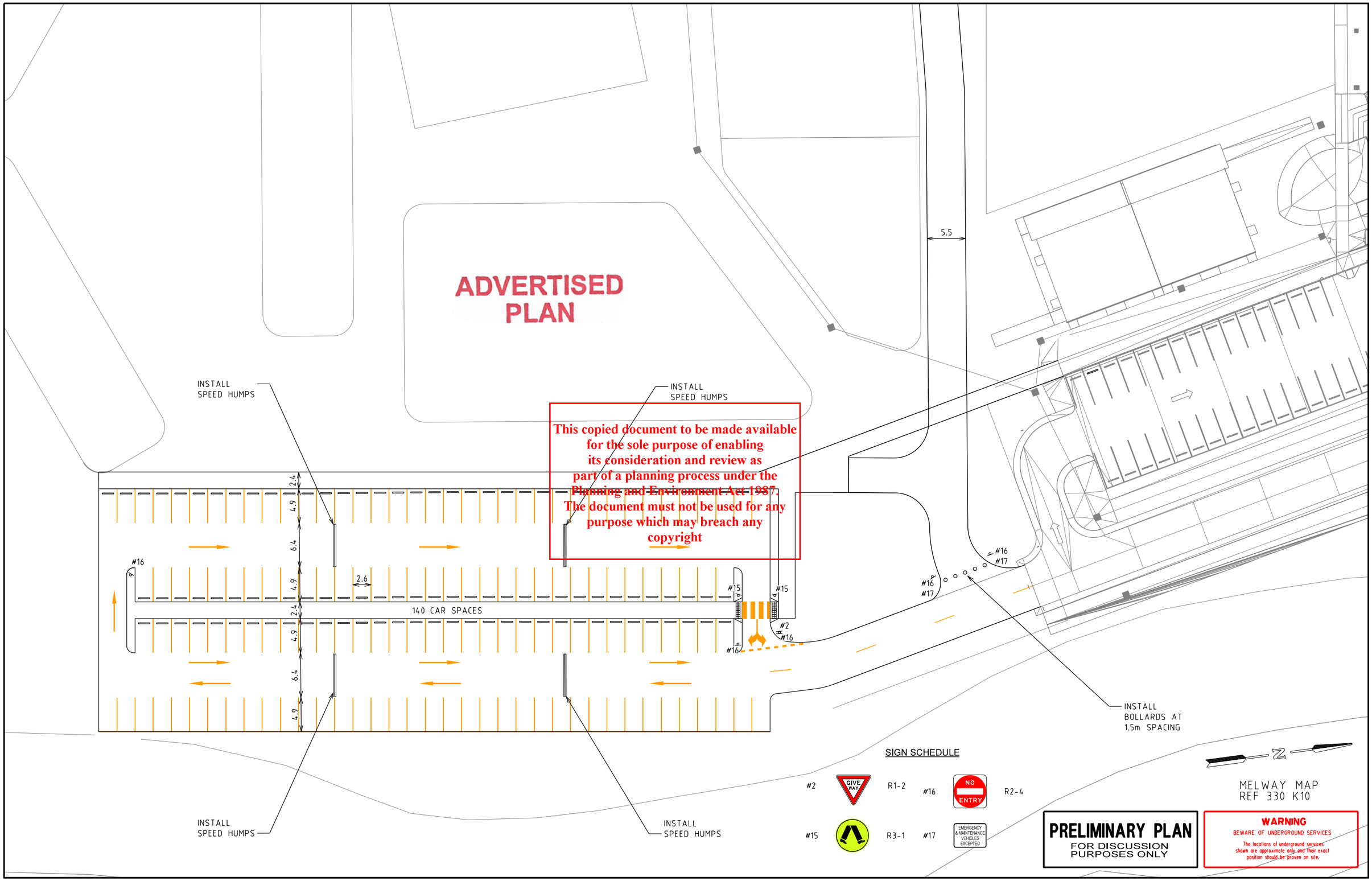
SCALE:
1 : 1000@ A1

ISSUE DATE:
25/05/26

PLOT TIME & DATE: 26/06/2026 11:16:20 AM

Appendix B

Car Park Plan & Swept Paths



SIGN SCHEDULE

#2	GIVE WAY	R1-2	#16	NO ENTRY	R2-4
#15		R3-1	#17	EMERGENCY & MAINTENANCE VEHICLES EXCEPTED	

MELWAY MAP
REF 330 K10

PRELIMINARY PLAN
FOR DISCUSSION
PURPOSES ONLY

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services shown are approximate only and their exact position should be proven on site.

ISSUE	ISSUE DESCRIPTION	DESIGNER	CHECKED/APPROVED	ISSUE DATE
A	INITIAL ISSUE	D.M.	B.C.(RPE7582)	26 MAR 2026
B	UPDATED ISSUE	D.M.	B.C.(RPE7582)	16 APR 2026

GENERAL NOTES
1 BASE INFORMATION FROM ARCHITECT FILE (SD03.DWG)
2 ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL
3 ALL PROPOSED FOOTPATHS AND PRAM CROSSINGS ARE TO BE CONSTRUCTED WITH TACTILE GROUND SURFACE INDICATORS TO DDA COMPLIANCE GUIDELINES REFER TO AS 1428.4.2009

DESIGNED
D. MAGEE

CHECKED/APPROVED
B. CHISHOLM

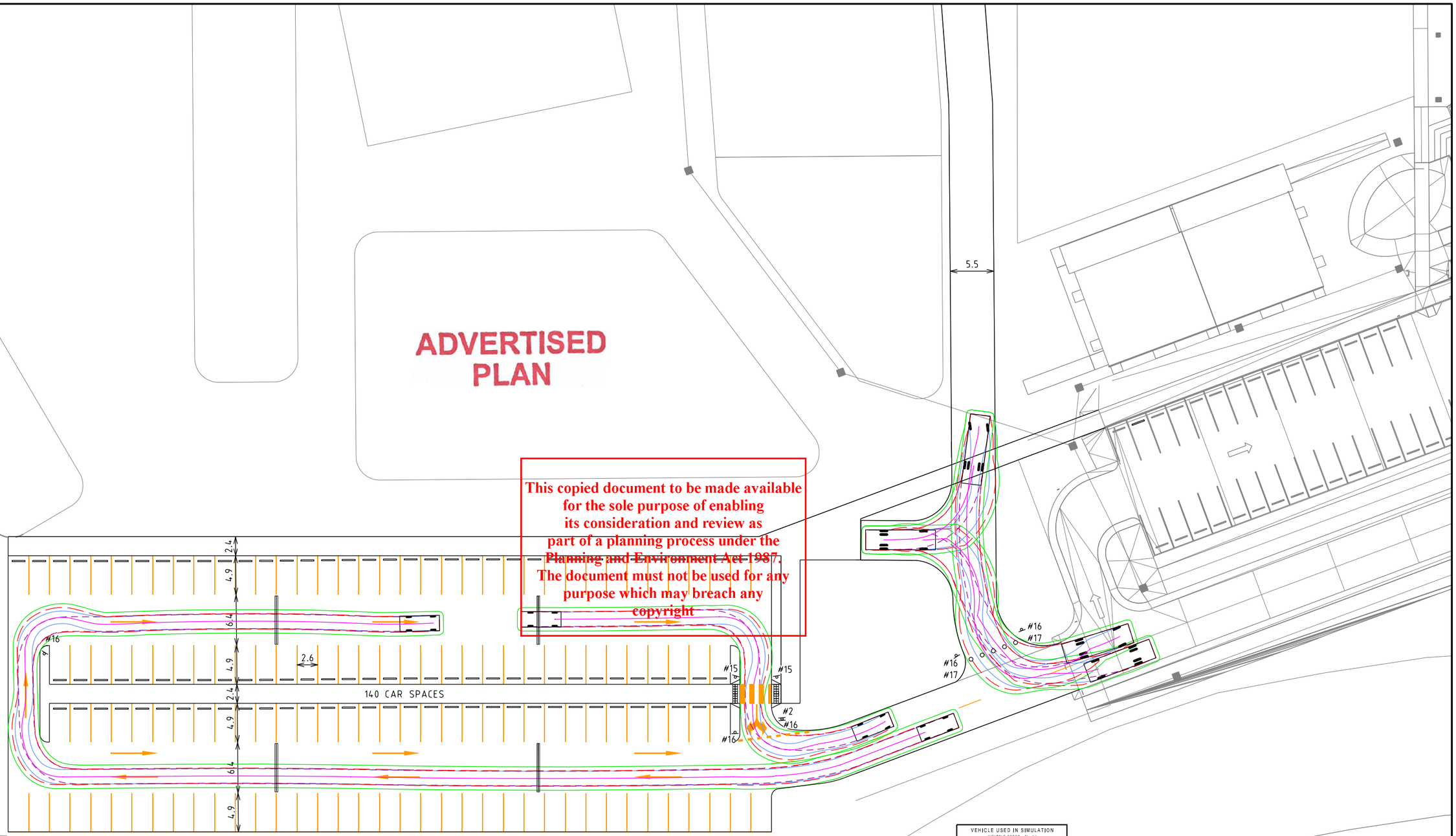
FILE NAME
G38228-01-00.dgn

Traffix Group
Level 28, 459 Collins Street
Melbourne, Victoria 3000
+61 3 9822 2888
www.traffixgroup.com.au

674-760 COBURNS ROAD - TOOLERN VALE
MELTON CHRISTIAN COLLEGE - CARPARK C & D
MELTON CITY
SIGNAGE AND LINEMARKING PLAN

SCALE 1:500 (A3) 0 2.5 5 7.5 10
SHEET No. 1/2
DWG No. G38228-01-01

DATE: 16/04/2026
MODEL: G38228-01-01
FILE: \\fssrv02\Group\Synergy\Projects\GRP3\GRP38228\03-Drawings\G38228-01-00.dgn



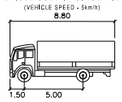
VEHICLE USED IN SIMULATION
(VEHICLE SPEED - 5km/h)

99th percentile

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

LEGEND
FRONT WHEELS
REAR WHEELS
VEHICLE BODY
BODY CLEARANCE

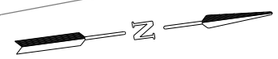
VEHICLE USED IN SIMULATION
(VEHICLE SPEED - 5km/h)



8.8m MRV

meters	
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND
FRONT WHEELS
REAR WHEELS
VEHICLE BODY
BODY CLEARANCE



MELWAY MAP
REF 330 K10

PRELIMINARY PLAN
FOR DISCUSSION
PURPOSES ONLY

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services
shown are approximate only and their exact
position should be proven on site.

ISSUE	ISSUE DESCRIPTION	DESIGNER	CHECKED/APPROVED	ISSUE DATE
A	INITIAL ISSUE	D.M.	B.C.(RPE7582)	26 MAR 2026
B	UPDATED ISSUE	D.M.	B.C.(RPE7582)	16 APR 2026

GENERAL NOTES
1 BASE INFORMATION FROM ARCHITECT FILE (SD03.DWG)
2 ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL
3 ALL PROPOSED FOOTPATHS AND PRAM CROSSINGS ARE TO BE CONSTRUCTED WITH TACTILE GROUND SURFACE INDICATORS TO DDA COMPLIANCE GUIDELINES REFER TO AS 1428.4 2009

DESIGNED
D. MAGEE

CHECKED/APPROVED
B. CHISHOLM

FILE NAME
G38228-01-00.dgn

Traffix Group
Level 28, 459 Collins Street
Melbourne, Victoria 3000
+61 3 9822 2888
www.traffixgroup.com.au

674-760 COBURNS ROAD - TOOLERN VALE
MELTON CHRISTIAN COLLEGE - CARPARK C & D
MELTON CITY
SWEPT PATHS

SCALE 1:500 (A3) 0 2.5 5 7.5 10
SHEET No. 2/2
DWG No. G38228-01-02

DATE: 16/04/2026
MODEL: G38228-01-02
FILE: \\transv02\Group\Synergy\Projects\GRP3\GRP38228\03-Drawings\G38228-01-00.dgn

Appendix C

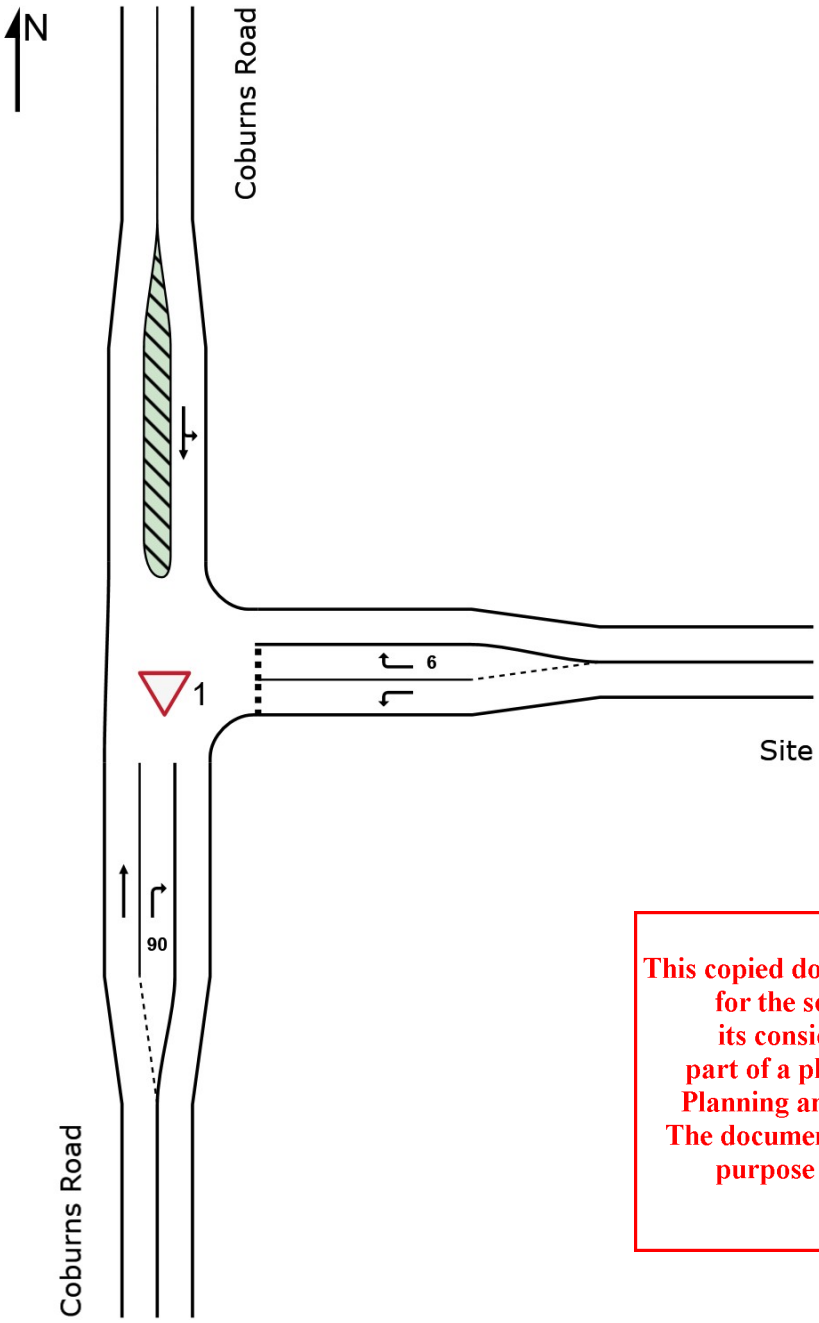
SIDRA Output

SITE LAYOUT

Site: [1] AM Peak (Existing)

Coburns Road/Subject Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

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



MOVEMENT SUMMARY

Site: [1] AM Peak (Existing)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Coburns Road/Subject Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Coburns Road															
2	T1	All MCs	275	2.3	275	2.3	0.143	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	119	0.0	119	0.0	0.078	6.1	LOS A	0.4	2.5	0.30	0.57	0.30	51.9
Approach			394	1.6	394	1.6	0.143	1.9	NA	0.4	2.5	0.09	0.17	0.09	57.3
East: Site															
4	L2	All MCs	87	0.0	87	0.0	0.062	6.1	LOS A	0.2	1.7	0.26	0.56	0.26	52.1
6	R2	All MCs	14	0.0	14	0.0	0.023	9.4	LOS A	0.1	0.6	0.54	0.70	0.54	50.0
Approach			101	0.0	101	0.0	0.062	6.5	LOS A	0.2	1.7	0.30	0.58	0.30	51.8
North: Coburns Road															
7	L2	All MCs	13	0.0	13	0.0	0.096	5.6	LOS A	0.0	0.0	0.00	0.04	0.00	57.1
8	T1	All MCs	169	3.7	169	3.7	0.096	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.6
Approach			182	3.5	182	3.5	0.096	0.4	NA	0.0	0.0	0.00	0.04	0.00	59.4
All Vehicles			677	1.9	677	1.9	0.143	2.2	NA	0.4	2.5	0.10	0.20	0.10	56.9

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

Organisation: TRAFFIX GROUP PTY LTD | Licence: NETWORK / FLOATING | Processed: Wednesday, 24 September 2025 4:34:09 PM
Project: \\tfxsrv02\Group\Synergy\Projects\GRP3\GRP38228\07-Analysis\SIDRA\Site-Coburns Road.sipx

MOVEMENT SUMMARY

Site: [1 (2)] PM Peak (Existing)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Coburns Road/Subject Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Coburns Road															
2	T1	All MCs	202	1.6	202	1.6	0.105	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	All MCs	51	0.0	51	0.0	0.042	6.9	LOS A	0.2	1.2	0.45	0.63	0.45	51.5
Approach			253	1.2	253	1.2	0.105	1.4	NA	0.2	1.2	0.09	0.13	0.09	58.0
East: Site															
4	L2	All MCs	97	0.0	97	0.0	0.086	7.0	LOS A	0.3	2.4	0.43	0.65	0.43	51.6
6	R2	All MCs	11	0.0	11	0.0	0.020	10.4	LOS B	0.1	0.5	0.57	0.73	0.57	49.3
Approach			107	0.0	107	0.0	0.086	7.3	LOS A	0.3	2.4	0.44	0.66	0.44	51.4
North: Coburns Road															
7	L2	All MCs	11	0.0	11	0.0	0.210	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	57.3
8	T1	All MCs	395	1.6	395	1.6	0.210	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach			405	1.6	405	1.6	0.210	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
All Vehicles			765	1.2	765	1.2	0.210	1.6	NA	0.3	2.4	0.09	0.14	0.09	57.8

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

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MOVEMENT SUMMARY

Site: [1 (3)] AM Peak (Proposed)
Output produced by SIDRA INTERSECTION Version: 10.0.9.250

Coburns Road/Subject Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Coburns Road															
2	T1	All MCs	275	2.3	275	2.3	0.143	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	360	0.0	360	0.0	0.241	6.3	LOS A	1.3	8.8	0.36	0.59	0.36	51.7
Approach			635	1.0	635	1.0	0.241	3.6	NA	1.3	8.8	0.20	0.33	0.20	55.0
East: Site															
4	L2	All MCs	263	0.0	263	0.0	0.187	6.2	LOS A	0.8	5.8	0.29	0.57	0.29	52.0
6	R2	All MCs	40	0.0	40	0.0	0.095	12.7	LOS B	0.3	2.4	0.67	0.87	0.67	47.8
Approach			303	0.0	303	0.0	0.187	7.0	LOS A	0.8	5.8	0.34	0.61	0.34	51.4
North: Coburns Road															
7	L2	All MCs	35	0.0	35	0.0	0.108	5.6	LOS A	0.0	0.0	0.00	0.10	0.00	56.6
8	T1	All MCs	169	3.7	169	3.7	0.108	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	59.0
Approach			204	3.1	204	3.1	0.108	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.6
All Vehicles			1142	1.1	1142	1.1	0.241	4.0	NA	1.3	8.8	0.20	0.37	0.20	54.6

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

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MOVEMENT SUMMARY

Site: [1 (4)] PM Peak (Proposed)
Output produced by SIDRA INTERSECTION Version: 10.0.9.250

Coburns Road/Subject Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Coburns Road															
2	T1	All MCs	202	1.6	202	1.6	0.105	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	All MCs	159	0.0	159	0.0	0.134	7.2	LOS A	0.6	4.2	0.48	0.68	0.48	51.4
Approach			361	0.9	361	0.9	0.134	3.2	NA	0.6	4.2	0.21	0.30	0.21	55.9
East: Site															
4	L2	All MCs	291	0.0	291	0.0	0.259	7.3	LOS A	1.1	7.9	0.48	0.68	0.48	51.4
6	R2	All MCs	32	0.0	32	0.0	0.070	12.0	LOS B	0.2	1.7	0.64	0.85	0.64	48.2
Approach			322	0.0	322	0.0	0.259	7.7	LOS A	1.1	7.9	0.50	0.70	0.50	51.1
North: Coburns Road															
7	L2	All MCs	24	0.0	24	0.0	0.218	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	57.1
8	T1	All MCs	395	1.6	395	1.6	0.218	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.6
Approach			419	1.5	419	1.5	0.218	0.4	NA	0.0	0.0	0.00	0.03	0.00	59.4
All Vehicles			1102	0.9	1102	0.9	0.259	3.4	NA	1.1	7.9	0.21	0.31	0.21	55.6

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

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