PROPOSED MCDONALD'S RESTAURANT

8 Henry Street, Nanango QLD, 4615

Traffic Impact Assessment

For McDonald's Australia Limited

L+R ENGINEERS MANAGERS SCIENTISTS

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1 Introduction

Lambert & Rehbein (SEQ) Pty Ltd has been commissioned by McDonald's Australia Limited to undertake a Traffic Impact Assessment for a proposed Food and Drink Outlet located at 8 Henry Street, Nanango, QLD, 4615. The site is formally described as Lot 7 and 8 on RP886404.

The proposed development is for a McDonald's Restaurant with associated car parking and drive-thru. The site will gain access to the wider road network, via an all-movements access on Henry Street. The proposed site layout, prepared by GT Group is attached in **Appendix A**.

This report has been prepared to assess the potential impact that the proposed development could have on the external road network surrounding the site as well as to consider the car park provisions, servicing and access arrangements, and is set out as follows:

Section 2 discusses the existing land use and traffic arrangements in the vicinity of the proposed development site.

Section 3 provides details of the proposed development, including an assessment of the site layout, access, car parking and servicing arrangements.

Section 4 displays the calculations and assumptions used to establish the forecast generation of the proposed development traffic.

Section 5 summarises the key outcomes of the traffic investigations.

Lambert & Rehbein has derived the data in this report primarily from the data provided by the Client, and a desktop site investigation completed in April 2026.

This report has been prepared on behalf of and for the exclusive use of the Client and is subject to and issued in connection with the provisions of the agreement between Lambert & Rehbein and the Client. Lambert & Rehbein accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

2 Context of the Development Site

This section of the report describes the context of the proposed development and includes a description of the existing road network, adjacent land uses, and existing active and public transport facilities servicing the site.

2.1 Development Site

The development site is located at 8 Henry Street, Nanango, QLD, 4615. The site is formally described as Lot 7 and 8 on RP886404 with a total site area of approximately 2,026.6m^2.

The development site is zoned as 'Local Centre' as per the South Burnett Regional Council (SBRC) Planning Scheme (2015). The development site is typically surrounded by similar zoning of 'Local Centre' and 'Recreation and Open Space'. The development site in the context of the surrounding road network is shown in **Figure 2-1**.

Figure 2-1 Development Site Location (Source: Nearmap)

2.2 Adjacent Road Network

Inspection of the land use, road condition, intersection characteristics, public transport facilities, pedestrian access, and cyclist provisions surrounding the proposed development site have been undertaken in preparation of this traffic assessment. This was completed to collect information about the road network operation, safety characteristics, public transport network and specific network / land-use factors potentially of influence on the proposed development.

2.2.1 Henry Street

Henry Street runs along the western frontage of the development site and is a State-controlled road under the jurisdiction of the Department of Transport and Main Roads (DTMR). The general form of Henry Stret is shown in **Figure 2-2** and was found to have the following characteristics at the site's frontage:

- Two-way, two-lane road;
- Pavement width of approximately 22m;
- Angled on-street parking available on both sides of the road;
- Pedestrian footpath provided on eastern side of the road;
- No dedicated bicycle lane provided on the either side of the road; and
- Posted speed limit of 60km/h.

Figure 2-2 Henry Street facing North (Source: Google Maps)

2.2.2 Appin Street

Appin Street connects to Herny Street and is a collector road under the jurisdiction of SBRC. The general form of Appin Steet is shown in **Figure 2-3** and was found to have the following characteristics:

- Heavy vehicle bypass route;
- Two-way, two-lane road;
- Pavement width of approximately 17m;
- On-street parking available on both sides of the road;
- No pedestrian footpath provided on either side of the road;
- No dedicated bicycle lane provided; and
- Posted speed limit of 60km/h.

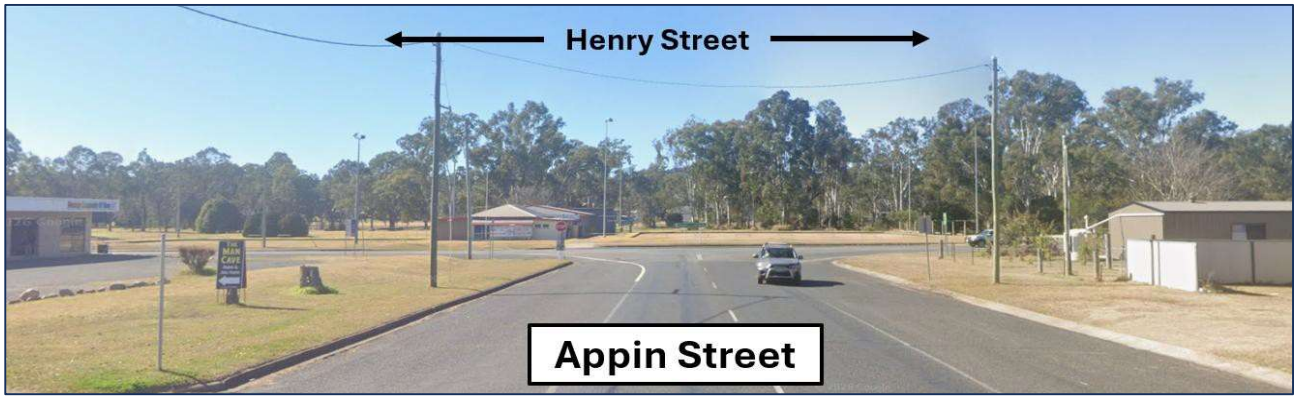


Figure 2-3 Appin Street facing East (Source: Google Maps)

2.3 Public and Active Transport

The development site has limited connectivity to the existing public transport network with no Translink bus stops located within proximity of the site, while the site is connected to existing active transport infrastructure, with a pedestrian footpath provided along the eastern side of Henry Street, allowing for local trips on foot from the nearby residential catchment.

2.4 Future Infrastructure Upgrades

The following resources were reviewed to determine if there are any future infrastructure upgrades within proximity of the development site:

- SBRC's Local Government Infrastructure Plan (LGIP);
- Queensland Transport and Roads Investment Program (QTRIP); and
- Queensland Government's Development Assessment Mapping System (DAMS).

A review of these resources found no relevant projects within proximity of the site.

2.5 Crash History

An investigation of the road crash history in the immediate vicinity of the subject site has been undertaken using publicly available crash data from the Queensland Government's mapping service Queensland Globe. The analysis found that there was one (1) 'Killed or Seriously Injured' (KSI) crashes recorded within the vicinity of the site within the last five (5) years of available data as shown in **Figure 2-4** and summarised in **Table 2-1.**

Figure 2-4 Road Crash Location (Source: QLD Globe)

Table 2-1 Detailed Crash Description

ID	SEVERITY	TYPE	NATURE	YEAR	CONDITIONS	CRASH DCA	DESCRIPTION	CRASH REFERENCE NUMBER
1	Hospitalisation	Multi-Vehicle	Angle	2022	Daylight-Clear	408	Vehs Manoeuvring: Entering From Footway	364212

As seen in **Table 2-1**, there has been one (1) hospitalisation in the last five years of publicly available data and no trend is identifiable.

3 Details of the Proposed Development

This section of the report describes the nature of the proposed development, the proposed access arrangements, servicing arrangements and on-site manoeuvrability.

3.1 Proposed Development

The proposed development site is for a McDonald's Restaurant with a total Gross Floor Area (GFA) of 315m^2 with associated car parking and a dual lane drive through facility. The proposed site layout, prepared by GT Group is included in **Appendix A**.

3.2 Access Arrangements

Due to the constrained nature of the site, a 6.2m wide two way crossover will be provided for all movement access to and from Henry Street. The proposed access has been designed to accommodate the largest design vehicle as discussed further in **Section 3.6**.

A pedestrian crossing connecting to the existing footpath along Henry Street is proposed on the site providing safe access for pedestrians. We note that the pedestrian crossing is located across the loading bay where vehicles will be reversing. While it is likely that servicing will occur outside of peak operational hours, it is recommended that a servicing management plan is put in place to monitor the pedestrian access while a service vehicle is on site.

3.2.1 Sight Distance Assessment

A desktop sight distance assessment has been undertaken at the proposed access location along Henry Street, based on the requirements of AS2890.1. We note the road is generally flat and straight in both directions as shown in **Figure 3-1**, and **Figure 3-2.** The sight distance assessment is visually shown in **Figure 3-3.**

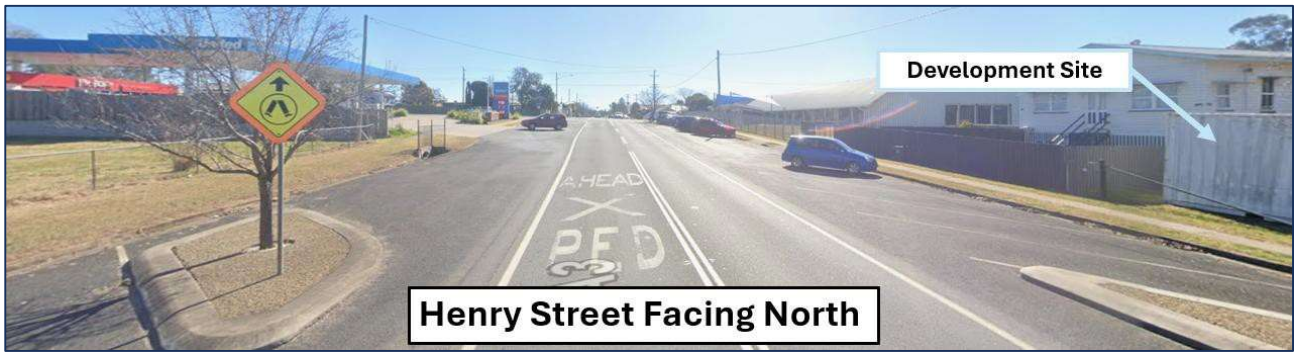


Figure 3-1 Henry Street Facing North (Source: Google Maps)

Figure 3-2 Henry Street Facing South (Source: Google Maps)

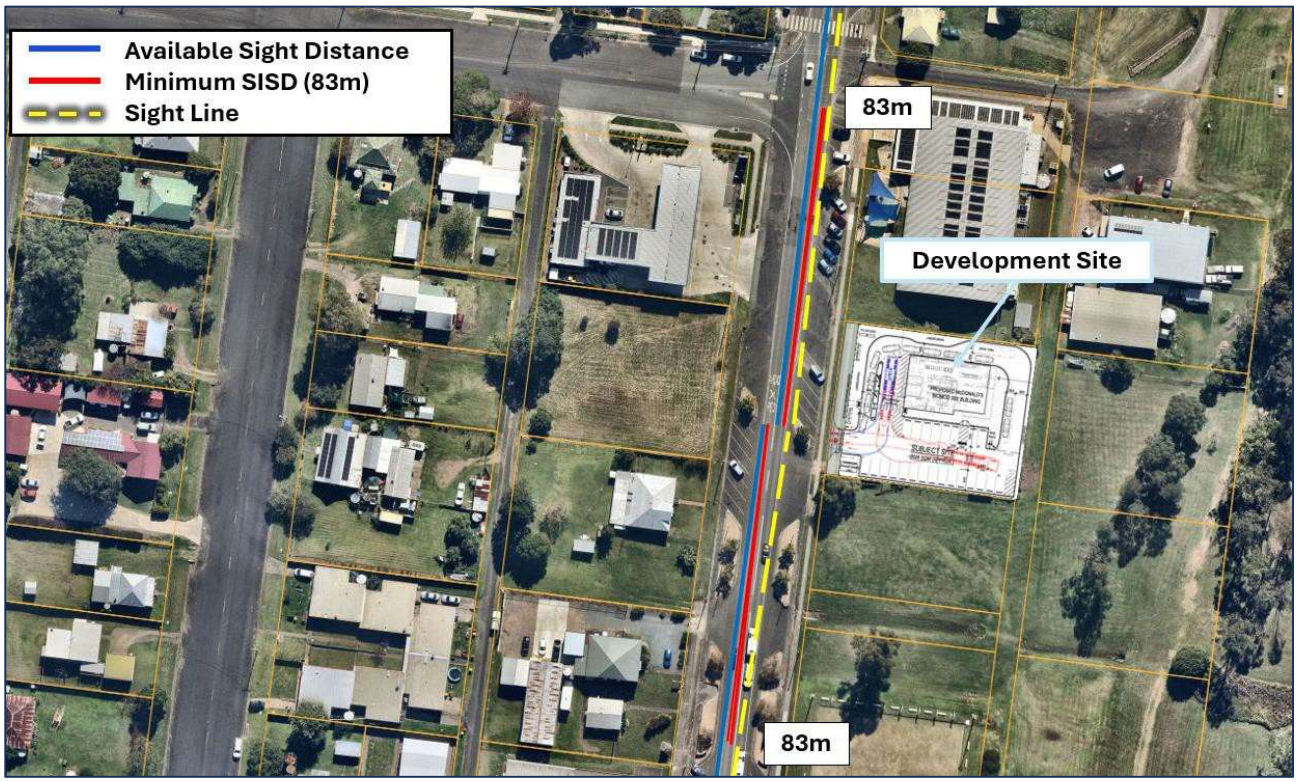


Figure 3-3 Available Sight Distance at Access (Source: Nearmap)

The results of the sight distance assessment are presented in **Table 3-1** which is based on aerial imagery and Google Streetview.

Table 3-1 Sight Distance Assessment

Location	Posted Speed (km/hr)	AS2890.1 Requirement	Available Sight Distance
Henry Street	60	83m	North – exceeds 83m South – exceeds 83m

As outlined in **Table 3-1**, the proposed driveway access location exceeds the minimum SISD requirements of AGRD Part 4A and is therefore a suitable access location.

3.3 Queuing Requirements

The proposed drive-through facility will provide queuing spaces for a minimum of 14 vehicles (B99), which in our view is considered more than sufficient, given the SRBC Planning Schemes minimum for drive-through sites is 10 vehicles. This will ensure the McDonald's car park and access will not be adversely affected by queuing vehicles. A swept path assessment of a B99 vehicle manoeuvring through the proposed drive through is illustrated in **Appendix B**.

3.4 Car Parking Provision

SBRC's Planning Scheme outlines the minimum car parking requirements for various uses. The car parking rates and requirements for a Food and Drink Outlet, not located within a retail core is shown below in **Table 3-2**.

Table 3-2: Car Parking Requirement

USE	YIELD	PARKING RATE	MINIMUM CAR PARKING REQUIREMENT	PROPOSED CAR PARKING SUPPLY
Food and Drink Outlet	315m²	1 space per 15m² GFA	21	25 (Including 1 PWD and 2 Waiting Bays)
Total			**21**	**25**

As summarised above in **Table 3-2**, the minimum car parking requirement for the proposed development is 21 spaces. As shown in the site layout attached in **Appendix A**, the proposed development will provide 25 spaces including one (1) PWD parking space and two (2) waiting bays, which equates to a surplus of 4 parking spaces against SBRC's requirements.

3.5 Car Parking Design

Table 3-3 below presents the traffic engineering elements of the proposed new car parking layout, and the respective level of compliance with *AS2890.1 Parking Facilities – Off-street Car Parking* and *AS2890.2 Parking Facilities – Off-street commercial vehicle facilities.*

Table 3-3: Car Parking Design

DESIGN ASPECT	PROPOSED PROVISION	AS2890 REQUIREMENT	COMPLIANCE
Parking Bay Length - Visitor	5.4m	5.4m	Compliant
Parking Bay Width - Visitor	2.7m	2.6m (Class 3A)	Compliant
Parking Bay Length - PWD Bay	5.4m	5.4m	Compliant
Parking Bay Width - PWD Bay	2.4m plus 2.4m shared area	2.4m plus 2.4m shared area	Compliant
Parking Aisle Minimum Width	6.2m	6.2m (Class 3A)	Compliant
Service Aisle Width	6.2m	6.5m	Performance Solution

As outlined in **Table 3-3** above, the proposed car park is designed in accordance with the requirements of *AS2890.1*.

Due to the constrained nature of the site, a performance solution is required for the crossover and aisle where it is used by the service vehicle. As shown in the swept path assessment included in **Appendix B**, the 14-pallet service vehicle is able to manoeuvre with the aisle to enter and exit the loading bay and therefore, the reduced width is deemed to be a suitable outcome.

3.6 Servicing Arrangement

A swept path assessment has been undertaken to demonstrate the successful manoeuvrability of the largest vehicle anticipated to access the site, the McDonald's 14 pallet trailer, as per the details supplied by the client. The swept path assessment, included in **Appendix B** demonstrates the service vehicle entering the site, manoeuvring within the service/loading areas and exiting the site. The service vehicle can enter and exit the site in a forward direction, remaining lane correct upon exit.

We note that the swept path will impact the car parking space located immediately adjacent the loading bay and is also required to reverse over the pedestrian crossing. It is therefore recommended that the use of the space and crossing is managed/supervised during servicing which can be captured as part of a servicing management plan.

4 Impact Assessment

This section of the report provides details of the potential impact that the development generated traffic volumes could have on the operation of the surrounding road network.

4.1 Background Traffic

Automatic traffic count (ATC) data was collected from 18th November 2025 to 24th November 2025 at the following locations near the development site, also illustrated in **Figure 4-1**:

- 1. Burnett Highway, between Alfred Street & Appin Street;
- 2. Burnett Highway, South of Mill Flat Road; and
- 3. Appin Street W, near Fitzroy Street.

Figure 4-1 ATC Locations

The count data was collected for 24 hours for 7 days and presented in 1-hour periods to capture peak periods. The AM, PM, and midday weekend peak hours were found to be as follows:

- AM peak hour: Friday 8am – 9am;
- PM peak hour: Friday 3:00pm – 4:00pm; and
- Weekend peak hour: Saturday 11:00am – 12:00pm.

A summary of traffic survey data is displayed in **Figure C1**, attached in **Appendix C**.

Vehicle movements at the Henry Street / Appin Street intersection were estimated and calibrated based on the surrounding ATC volumes which were then utilised for the background traffic in the analysis. The assumptions used to estimate the volumes are as follows:

- 75% of Northbound traffic along Henry Street turns left into Appin Street as it is provided as a heavy vehicle bypass. This is supported due to a large reduction in traffic volume at the next ATC counter along Henry Street northbound;
- 75% of Eastbound traffic along Appin Street turn right on Henry Street to directly match the above assumption, which is also supported by ATC volumes;
- The remaining 25% Eastbound from Appin Street turning left onto Henry Street; and
- 25% right turns into Appin Street from Henry Street.

The opening year for the development is assumed to be 2027. To assess the future background traffic a conservative linear annual growth rate of 1.5% per annum has been applied to all. This is based on the 5-year recorded growth at DTMR counter site 30092 – D'Aguilar Highway (Yarraman – Kingaroy). The predicted background traffic in 2027 and 2037 has been presented in **Figure C2** and **Figure C3** attached in **Appendix C.**

4.2 Trip Generation

Traffic associated with the proposed development has been estimated to be 180 vehicles within each peak hour (combined in and out). We understand that this McDonald's is anticipated to generate less revenue than a typical McDonald's restaurant and also note that the buildings GFA is 315m^2, considerably smaller than the typical 450m^2.

The use of 180 trips in each peak hour is reasonable in our view, as it still falls within the range provided in Transport for New South Wales (TfNSW) Guide to Traffic Impact Assessment – Updated Traffic Surveys.

The traffic generation rates, and in / out directionality of movements adopted for the analysis is documented in **Table 4-1.**

Table 4-1: Traffic Generation and Directionality Rates

LAND USE	DIRECTIONALITY (50% IN / 50% OUT)		
	AM PEAK	PM PEAK	W/E PEAK
Food and Drink Outlet	180 trips / hour	180 trips / hour	180 trips / hour

Based on the above guidelines and assumptions, the estimated traffic generated by the proposed development is documented in **Table 4-2**.

Table 4-2: Development Traffic Generation

LAND USE	AM PEAK (IN)	AM PEAK (OUT)	PM PEAK (IN)	PM PEAK (OUT)	W/E PEAK (IN)	W/E PEAK (OUT)
Food and Drink Outlet	90	90	90	90	90	90
Total Trips	**180**		**180**		**180**	

Due to the nature of the development site and its location on Henry Street, it is anticipated that there will be a high number of drop-in trips accessing the McDonalds. Based on the guidance in the TfNSW Guide to Transport Impact Assessment guidance, it is conservatively estimated that drop-in trips will account for 50% of all trips with the remaining 50% being new trips. Based on the above assumptions, the anticipated new and drop-in trips generated by the proposed development is documented in **Table 4-3.**

Table 4-3 Development Traffic – Trip Segmentation

LAND USE	AM PEAK (IN)	AM PEAK (OUT)	PM PEAK (IN)	PM PEAK (OUT)	W/E PEAK (IN)	W/E PEAK (OUT)
50% New Trips	45	45	45	45	45	45
50% Drop-In Trips	45	45	45	45	45	45
Total Trips	**180**		**180**		**180**	

As shown in **Table 4-3**, the proposed development is estimated to generate approximately 90 new trips (combined in and out) during all peak periods.

4.3 Trip Distribution

The trip distribution for the proposed development is split for new trips and drop-in trips. The adopted trip distribution has been presented in **Figure C4** and **Figure C6** attached in **Appendix C**. The drop-in trip distribution has been assessed using the survey data received and was determined to be:

- 50% to/from the north along Henry Street and
- 50% to/from the south along Henry Street.

The new trip distribution has been assessed by the broader location and was determined to be:

- 70% to/from the north along Henry Street and
- 30% to/from the south along Henry Street with 15% of this to/from Appin Street and the remainder to/from further south along Henry Street.

4.4 Development Traffic

Based on the trip distribution outlined in **Section 4.4**, trips in and out of the site are displayed in **Figure C5** and **Figure C7,** attached in **Appendix C.**

4.5 Design Traffic

The design traffic scenario (background traffic plus development) generated traffic in 2027 and 2037 is displayed in **Figure C8** and **Figure C9,** attached in **Appendix C**.

4.6 Intersection Analysis

SIDRA Intersection software has been used to assess the performance of the Henry Street / Appin Street intersection in the opening year (2027) and the Henry Street / Site Access intersection in the opening year (2027) and the 10-year design horizon (2037).

4.6.1 SIDRA Model Assumptions

The following parameters have been applied to the SIDRA model:

- A Saturation Flow of 1,950 through car units per hour;
- A Peak Flow Period of 30 minutes, with a conservative Peak Flow Factor of 95%;
- Intersection geometry based on aerial imagery;
- SIDRA default gap acceptance parameters.

We note that all intersections have been analysed using conservative values for both peak flow factors and peak flow periods. These values effectively inflate the design traffic volumes, producing a more conservative assessment of each intersection.

Considering the values noted above, we believe that the assessment presented herein should be considered highly conservative and the results should represent a worst-case scenario for the impacts of the proposed development.

4.6.2 Henry Street / Site Access

A turn lane warrant assessment has first been completed at the access intersection for the 10-year design horizon (2037) design scenario to determine the required form of the intersection. We note that Henry Street has a posted speed of 60km/hr and as such, the assessment has been based on the less than or equal to 70km/hr turn lane warrant assessment graph.

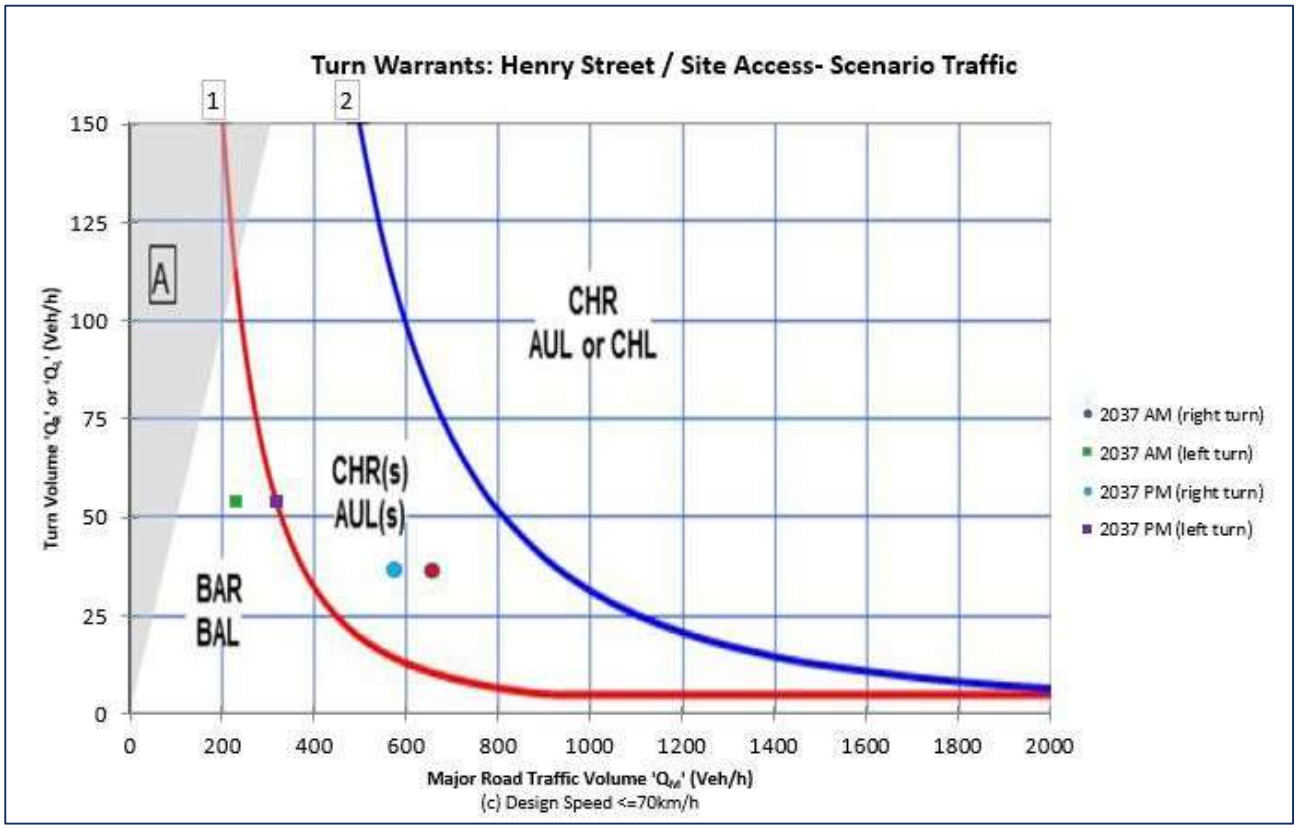


Figure 4-2 Turn Lane Warrant Assessment Graph – AM and PM Peaks

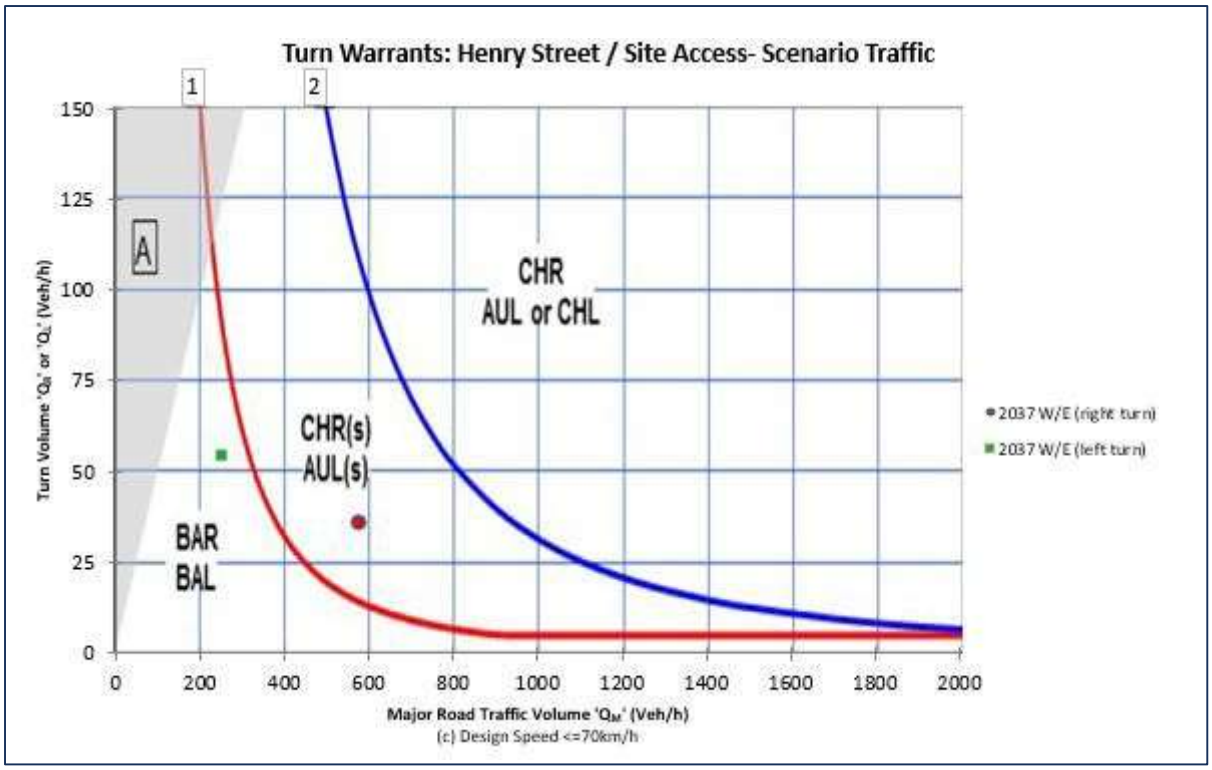


Figure 4-3 Turn Lane Warrant Assessment Graph – Weekend Midday Peak

As illustrated in **Figure 4-2** and **Figure 4-3**, the volumes at the Henry Street / Site Access intersection trigger a short channelised right turn (CHR (s)) in all of the assessed peak design scenarios.

We therefore recommend that a CHR(s) is provided in accordance with Austroads GTRD Part 4a and the Road Planning and Design Manual (RPDM). Assuming a design speed of 70km/hr, the absolute minimum deceleration length is 35m (Table 7.1) plus storage. It has been assumed that a B99 will be the designated design vehicle for the proposed development and as such 6m has been assumed as the storage length. Therefore, the total length of the channelised lane is 41m including the deceleration length and storage. The proposed form of access intersection, inclusive of the CHR (s) is illustrated in **Figure 4-4.**

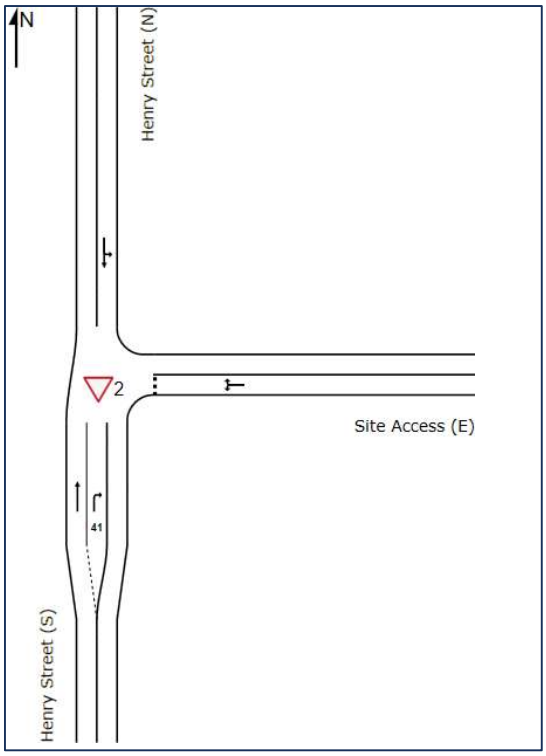


Figure 4-4 Henry Street / Site Access Proposed Form

Table 4-4 below presents the results of the SIDRA intersection analysis of the proposed design traffic for the opening year (2027) and 10-year design horizon (2037). Detailed SIDRA outputs (including lane summaries) are enclosed in **Appendix D.**

Table 4-4: Henry Street / Site Access SIDRA Results

SCENARIO	APPROACH	AM PEAK				PM PEAK				WEEKEND PEAK			
		DoS	Avg Delay (s)	LoS	95% Back of Queue (m)	DoS	Avg Delay (s)	LoS	95% Back of Queue (m)	DoS	Avg Delay (s)	LoS	95% Back of Queue (m)
2027 Design Traffic	Henry Street (S)	0.175	0.7	NA	0.8	0.096	1.1	NA	0.9	0.126	0.9	NA	0.8
	Site Access (N)	0.129	8.7	LOS A	3.5	0.122	8.3	LOS A	3.3	0.119	8.2	LOS A	3.3
	Henry Street (N)	0.137	1.2	NA	0	0.179	1	NA	0	0.147	1.1	NA	0
2037 Design Traffic	Henry Street (S)	0.203	0.6	NA	0.8	0.112	1	NA	0.9	0.146	0.8	NA	0.9
	Site Access (N)	0.144	9.5	LOS A	3.9	0.134	9	LOS A	3.6	0.13	8.8	LOS A	3.5
	Henry Street (N)	0.154	1.1	NA	0	0.202	0.9	NA	0	0.166	1	NA	0

As indicated in **Table 4-4**, the Henry Street / Site Access intersection will theoretically operate below capacity during the year of opening (2027) and in the 10-year design horizon (2037) in all peak periods.

4.6.3 Henry Street / Appin Street

The existing form of Henry Street / Appin Street intersection has been modelled in SIDRA based on aerial imagery as illustrated in **Figure 4-5.**

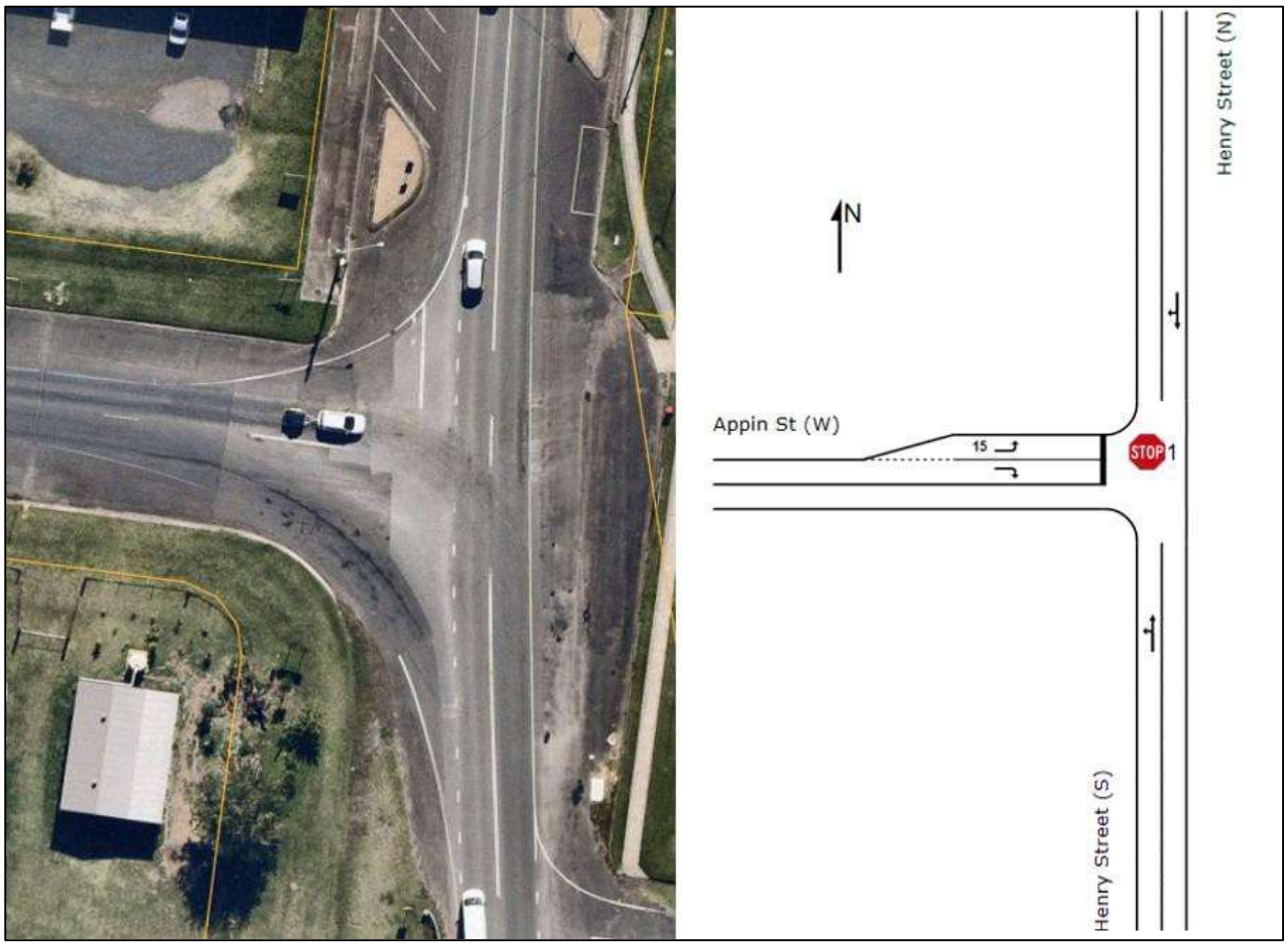


Figure 4-5 Henry Street / Appin Street Intersection Layout

Table 4-5 presents the results of the SIDRA intersection analysis, with detailed movement SIDRA outputs attached in **Appendix D.**

Table 4-5 Henry Street / Appin Street SIDRA Results

SCENARIO	APPROACH	AM PEAK				PM PEAK				WEEKEND PEAK			
		DoS	Avg Delay (s)	LoS	95% Back of Queue (m)	DoS	Avg Delay (s)	LoS	95% Back of Queue (m)	DoS	Avg Delay (s)	LoS	95% Back of Queue (m)
2027 Background	Henry Street (S)	0.23	1.6	NA	0	0.14	2.2	NA	0	0.158	1.3	NA	0
	Henery Street (N)	0.134	1.7	NA	2.6	0.168	0.9	NA	1.9	0.135	0.8	NA	1.4
	Appin Street (W)	0.235	11.2	LOS B	5.9	0.221	10.3	LOS B	5.5	0.157	10.2	LOS B	3.7
2027 Design Traffic	Henry Street (S)	0.234	1.6	NA	0	0.143	2.1	NA	0	0.162	1.3	NA	0
	Henery Street (N)	0.144	2	NA	3.1	0.177	1	NA	2.4	0.144	1	NA	1.8
	Appin Street (W)	0.241	11.3	LOS B	6.1	0.227	10.4	LOS B	5.6	0.161	10.3	LOS B	3.8

As indicated in **Table 4-5**, the Henry Street / Appin Street intersection will theoretically operate below capacity during the year of opening (2027) in both peak periods, with only minor increases in delays and queues on all approaches, as a result of the proposed development.

4.7 Net Delay Assessment

An intersection delay assessment has been undertaken in accordance with DTMR's Guide to Traffic Impact Assessment (GTIA) for the Henry Street / Appin Street intersection. The results of the assessment are shown in **Table 4-6**. The calculations for the delay assessment have been included in **Appendix E.**

Table 4-6 Net Delay Assessment Results

PEAK PERIOD	AGGREGATE INTERSECTION-DELAY (VEHICLE-MINUTES)		ID = $\sum_{i=1}^{n} WD - \sum_{i=1}^{n} BC$	
	$\sum BC$	$\sum WD$	Δ	%
AM Peak	3,188.2	3,249	60.8	1.91%
PM Peak	2,869.7	2,903.7	34	1.18%
W/E Peak	2,031.5	2,058.4	26.9	1.32%
Combined Peaks	**8,089.4**	**8,211.1**	**121.7**	**1.50%**

The net delay assessment found that the development generated traffic would increase the aggregate intersection delay for background traffic by approximately 1.50% which is well below the notional GTIA threshold of 5%, therefore no mitigation measures are necessary.

4.8 Risk Assessment

A detailed risk assessment has been undertaken in accordance with the Guide to Traffic Impact Assessment, as provided in **Table 4-7**.

Table 4-7: Risk Assessment

	Without Development			With Development				With Development & Mitigation		
Risk Item	**Likelihood**	**Consequence**	**Risk Score**	**Likelihood**	**Consequence**	**Risk Score**	**Comment**	**Likelihood**	**Consequence**	**Risk Score**
Introduction of left turns into site from Henry Street	NA	NA	NA	1	2	L		NA	NA	NA
Introduction of right turns into site from Henry Street	NA	NA	NA	2	3	M	It is recommended that a CHR(s) is provided to accommodate right turning vehicles giving way to southbound through movements	1	3	L
Introduction of left turns out of site into Henry Street	NA	NA	NA	1	2	L	The access intersection will operate well below capacity with minimal delays where adequate gaps in traffic are provided for exiting vehicles	NA	NA	NA
Introduction of right turns out of site into Henry Street	NA	NA	NA	1	3	L		NA	NA	NA

Increased movements at the Henry Street / Appin Street intersection	1	3	L	1	3	L	The access intersection will operate well below capacity with minimal delays with the inclusion of development traffic and therefore the risk score is anticipated to remain the same. There is no crash trend evident at this intersection	NA	NA	NA

As summarised in **Table 4-7**, the proposed development results in a medium risk for right turn movements into the site, however the introduction of a CHR(s) will mitigate this risk. All other movements into and out of the site and at the Henry Street / Appin Street intersection are considered to be low risk and no further mitigation measures are deemed necessary.

5 Summary

Lambert & Rehbein (SEQ) has been commissioned by McDonald's Australia Pty Ltd to undertake a Traffic Impact Assessment (TIA) for a proposed food and drink outlet located at 8 Henry Street, Nanango, QLD, 4615. The site is formally described as Lot 7 and 8 on RP886404 with a total site area of approximately 2,026.6m^2.

The proposed development will gain access to the external road network via an all-movement crossover onto Henry Street. The crossover will be constructed as a general wide heavy-duty vehicle crossing in accordance with IPWEA Standard Drawing RS-051.

The minimum parking requirement for the proposed development is 21 parking spaces. The proposed development provides 25 parking spaces, including one (1) PWD parking space and two (2) waiting bays, which equates to a surplus of 4 parking spaces against SBRC's requirements. The proposed car park has been designed generally in accordance with requirements of SBRC's Planning Scheme and meets the minimum requirements of *AS2890.1*.

Due to the nature of the development site and the surrounding road network, it is anticipated that there will be an equal proportion of new and drop-in trips accessing the McDonald's. The development will generate 180 trips (combined in and out) during all peak periods.

A turn lane warrant assessment at the access intersection indicates that a CHR(s) is required. We therefore recommend that a CHR(s) is provided in accordance with *Austroads GTRD Part 4a and the Road Planning and Design Manual (RPDM).*

Based on the results of SIDRA analysis, during the year of opening (2027) and the 10-year design horizon (2037), the Henry Street / Site Access Intersection will theoretically operate below capacity during all peak periods.

The Henry Street / Appin Street intersection will theoretically operate below capacity during the year of opening (2027) in all peak periods, with minor increases in delays and queues on all approaches, as a result of the proposed development.

The net delay assessment found that the development generated traffic would increase the aggregate intersection delay for background traffic by approximately 1.50%. This is well below the notional GTIA threshold of 5%, and as such, no mitigation measures are deemed necessary.

The proposed development results in a medium risk for right turn movements into the site, however the introduction of a CHR(s) will mitigate this risk. All other movements into and out of the site and at the Henry Street / Appin Street intersection are considered to be low risk and no further mitigation measures are deemed necessary.

We are of the view that there are no outstanding matters from a traffic engineering perspective that should preclude approval of the proposed development.

Appendix A – Site Layout

REAL PROPERTY DESCRIPTION

LOT 7 ON RP886404, LOT 8 ON RP886404

SITE AREA: 2035.4 SQM

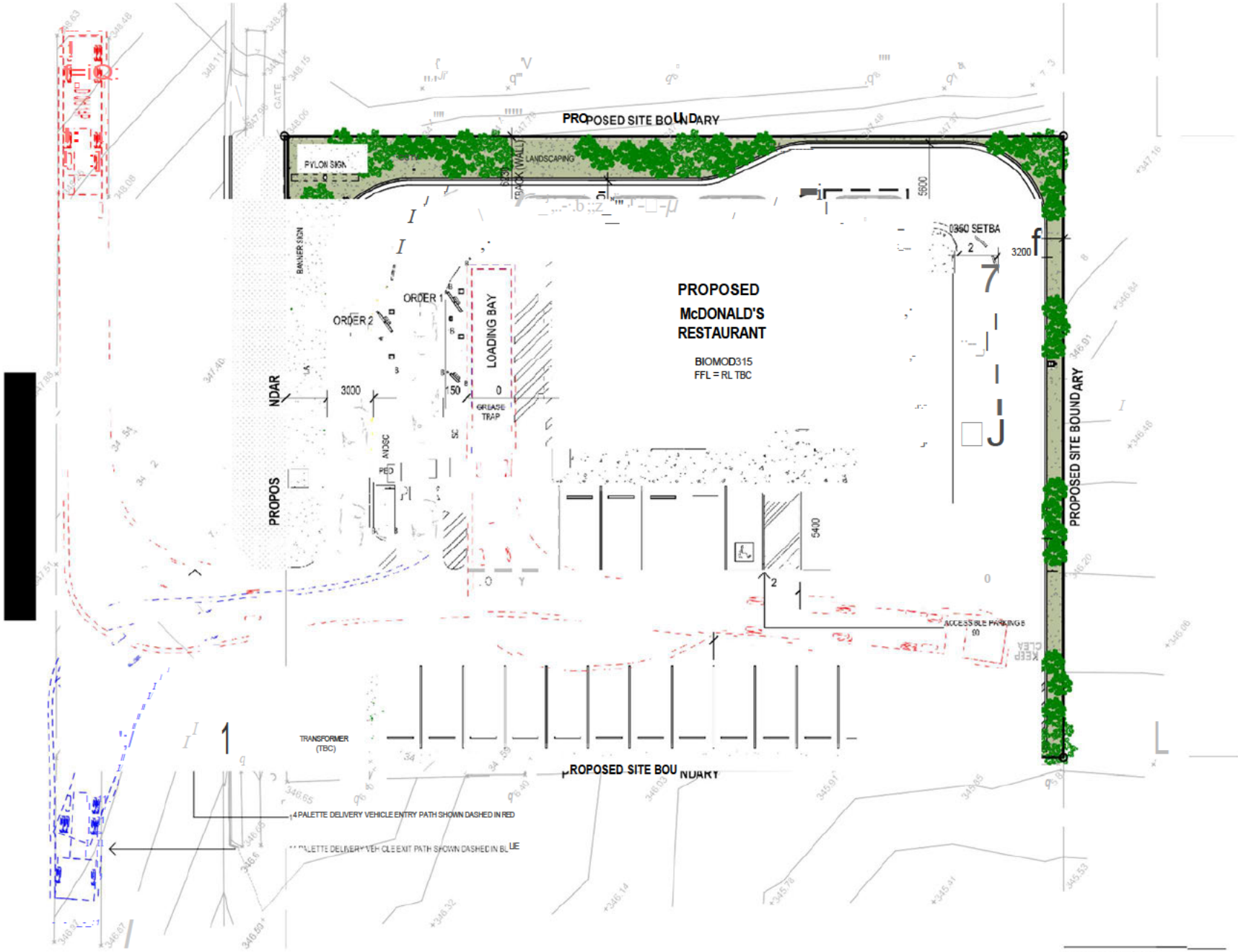
LOCAL AUTHORITY:
SOUTH BURNETT REGIONAL COUNCIL

STREET ADDRESS:
HENRY STREET, NANANGO QLD 4515

SITE AREA SCHEDULE	
IDENTITY	AREA
LOT 8 ON RP70210	2035.4 m²
LANDSCAPED AREA	238.7m²
IMPERVIOUS AREA	1796.7m²

BUILDING GFA SCHEDULE	
DESCRIPTOR	AREA
BUILDING GFA STANDARD LAYOUT	314.7 m²

PARKING SUMMARY	
TYPE	NO.
ACCESSIBLE W/WHEEL STOP	1
SERVERY BAY (3RD WINDOW)	1
STANDARD SPACE	22
WAITINGBAY	2



PROPOSED SITE PLAN

VEHICLE DETECTOR LOOP
HATCH DENOTES PAINTED KERB, REFER TO NOTE 6.

McDONALD'S NANANGO

8 HENRY STREET
NANANGO QLD 4615

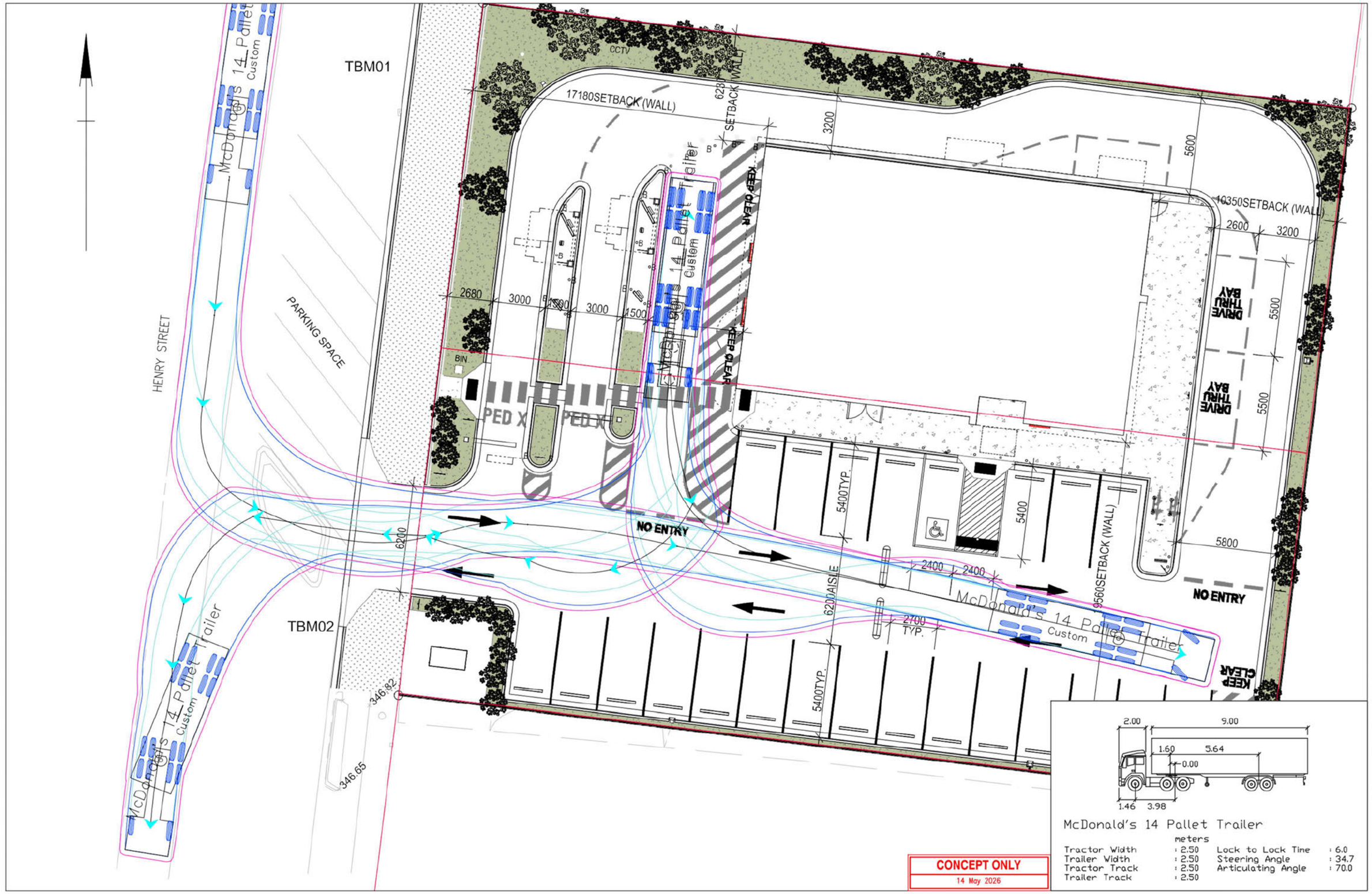
DEVELOPMENT A

1:250@A3 BIO MOD 315

PROPOSED SITE PLAN

Project No. 26010 Drawing No. A062 Rev. B

Appendix B – Swept Path Assessment



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Project:
McDONALD'S NANANGO

Client:
McDONALD'S AUSRALIA PTY LTD

Title:
SWEPT PATHS ASSESSMENT
McDONALD'S 14 PALLETT TRUCK

L+R ENGINEERS PLANNERS SCIENTISTS [redacted]

Drawn: MDB | Checked: AG | Approved: | Rev. A | Date ?

Figure No: B25525-SK-001
Scale: AS SHOWN | A1
File Ref: SEE BELOW | Sheet Size

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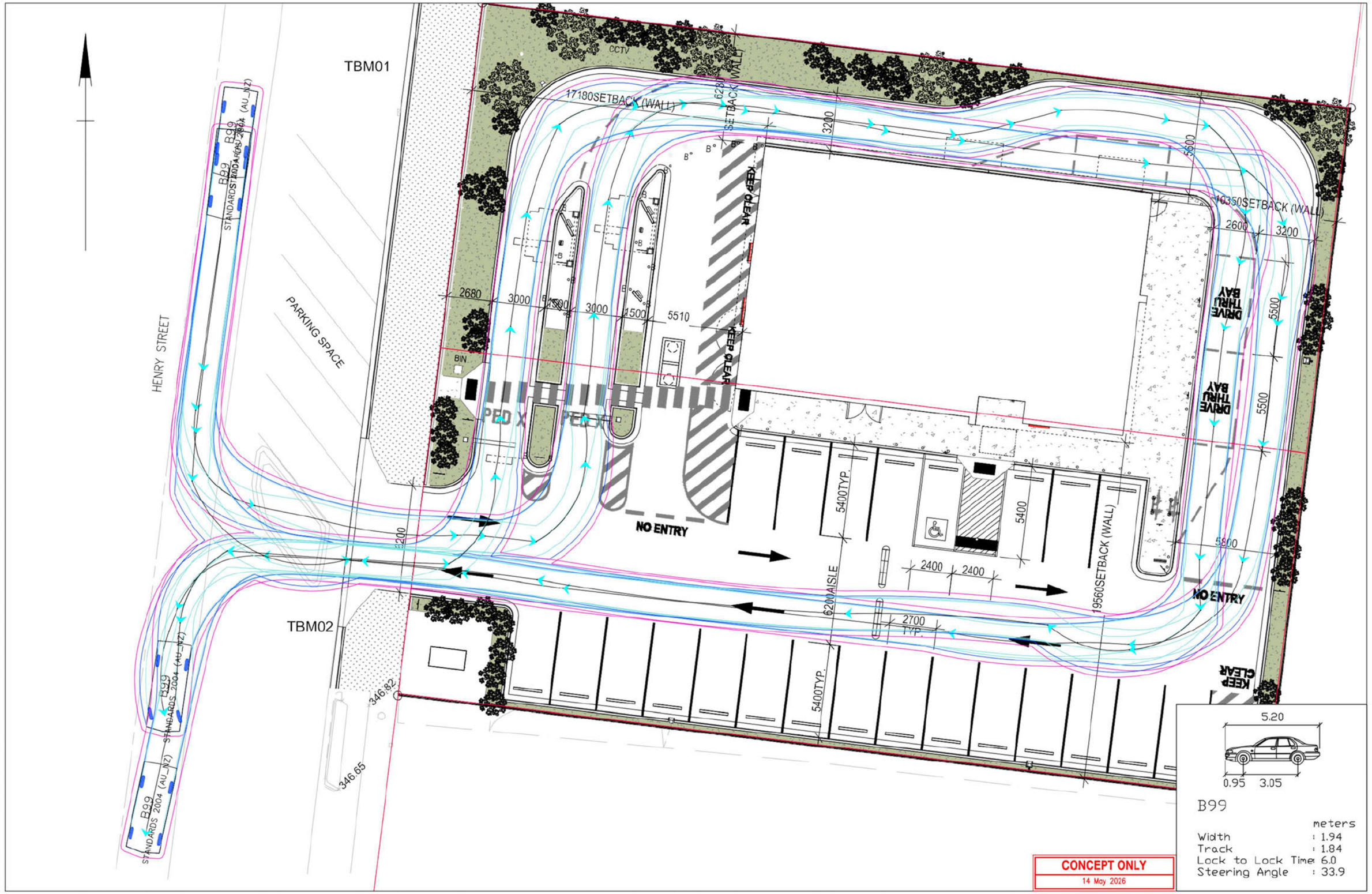


0 1 2 3 4m
SCALE 1:100 (A1)

Project: McDONALD'S NANANGO

Client: *McDONALD'S AUSRALIA PTY LTD*

Title: SWEPT PATHS ASSESSMENT
B99 VEHICLE

L+R ENGINEERS MANAGERS SCIENTISTS [redacted]

Drawn: MDB | Checked: AG | Approved: | Rev. A | Date ?

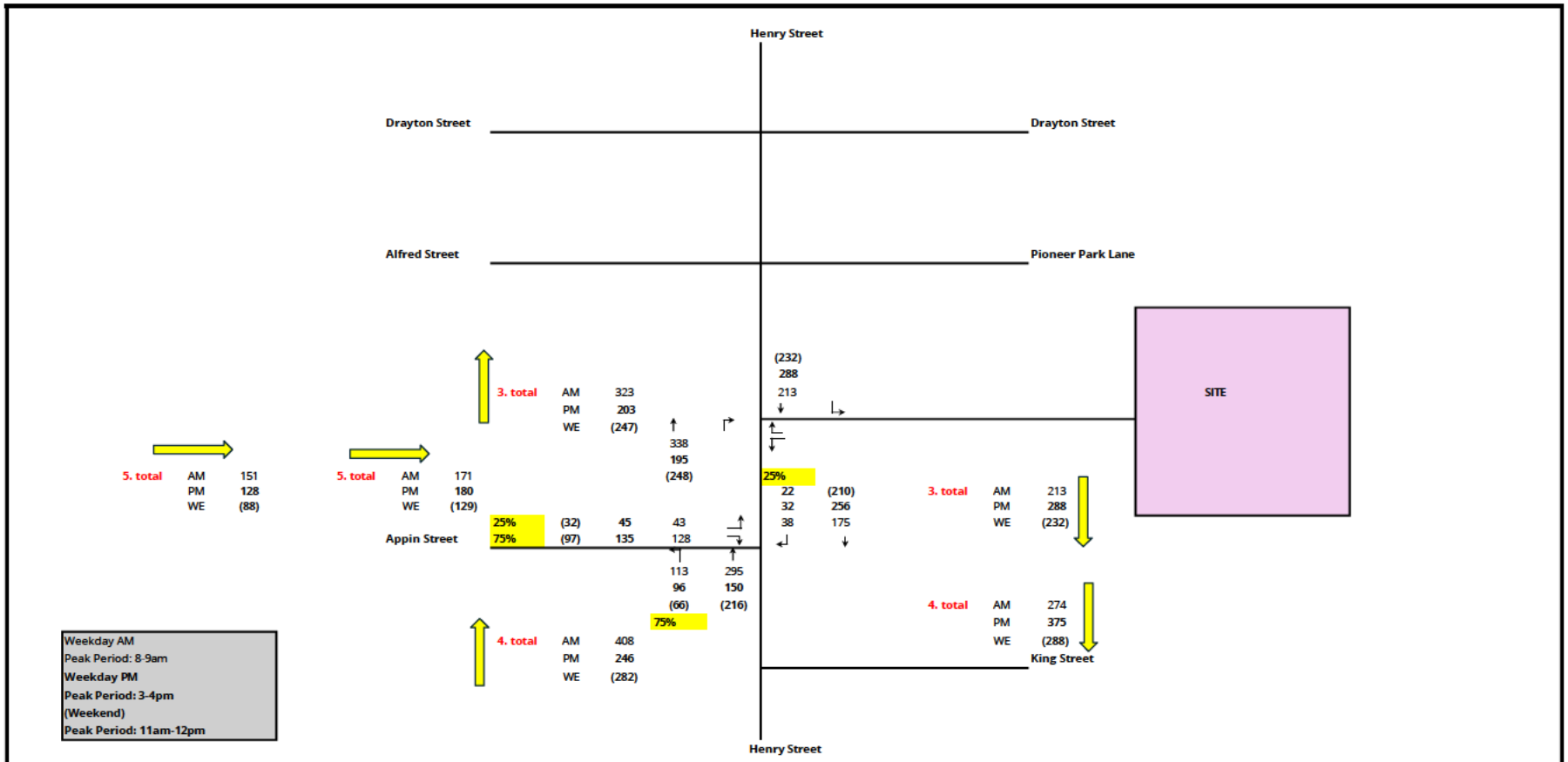
Figure No: B25525-SK-002

Scale: AS SHOWN | A1

File Ref: SEE BELOW | Sheet Size

F:\Jobs\B25500\B25525\Drawings\Traffic\B25525-SK-001.dwg

Appendix C – Traffic Network Diagrams



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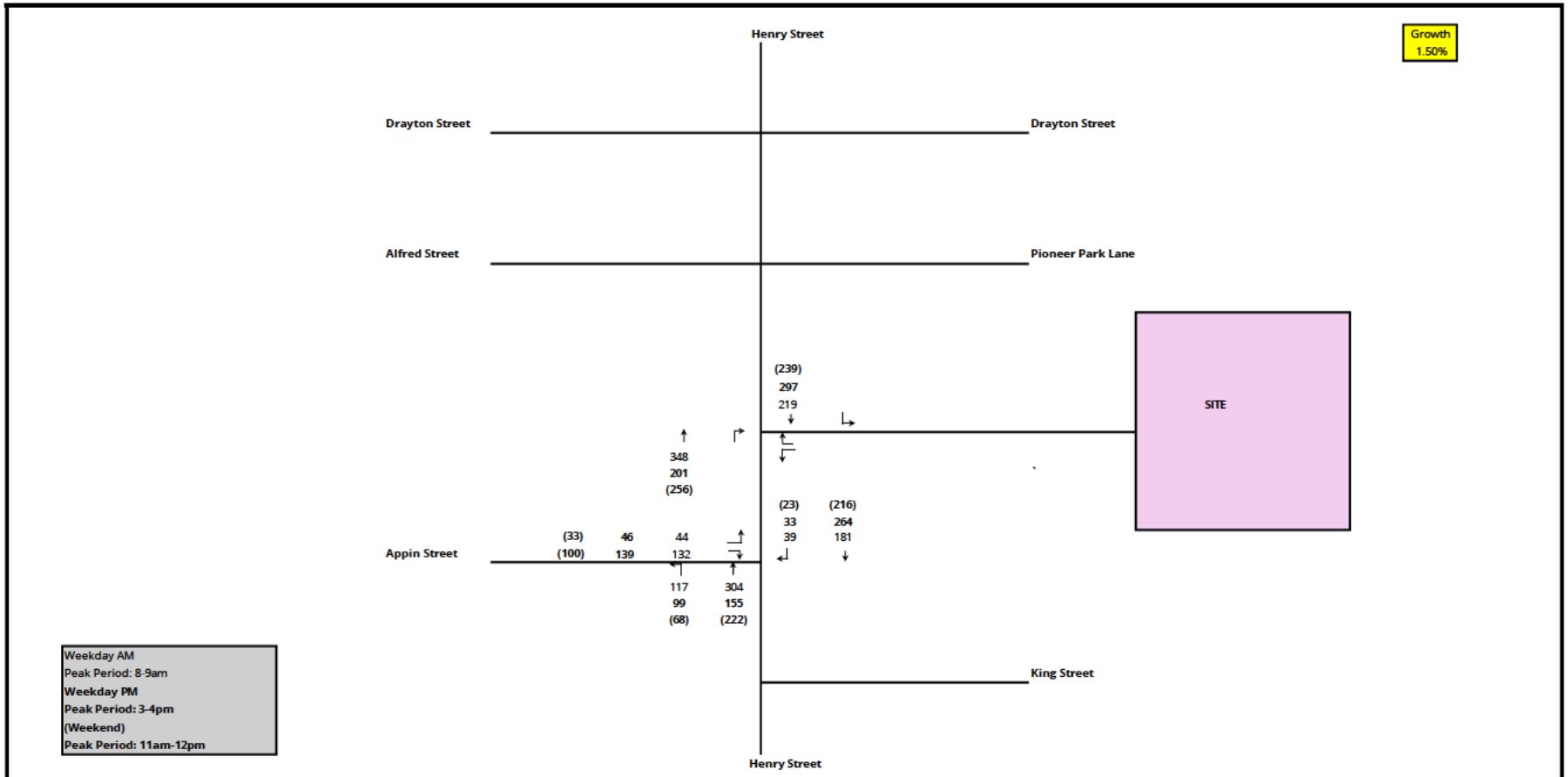
Address:	8 HENRY STREET, NANANGO QLD 4615			
Client:	MCDONALD'S AUSTRALIA LIMITED	Prepared: OM	Rev: A Date:	



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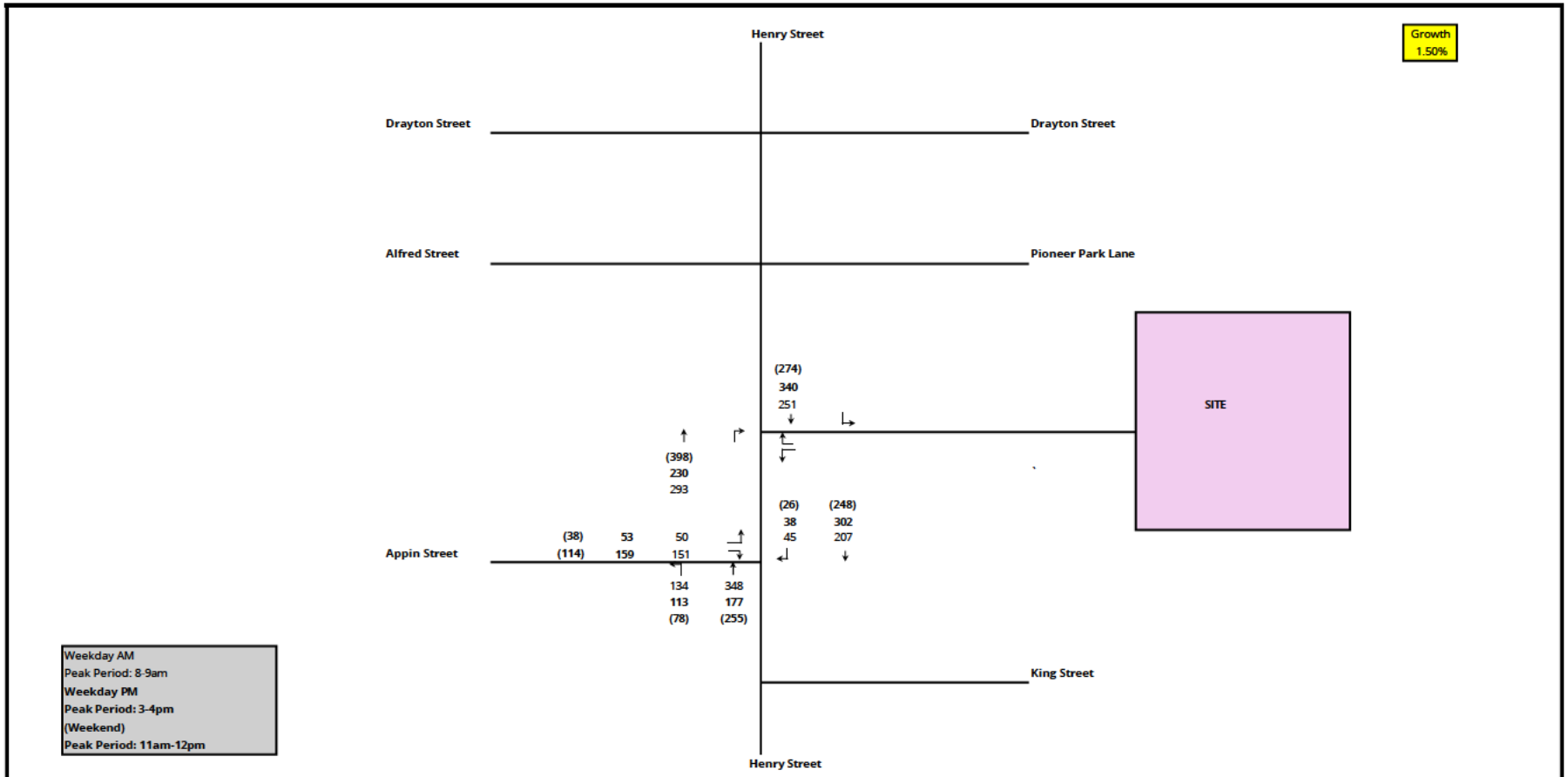
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	



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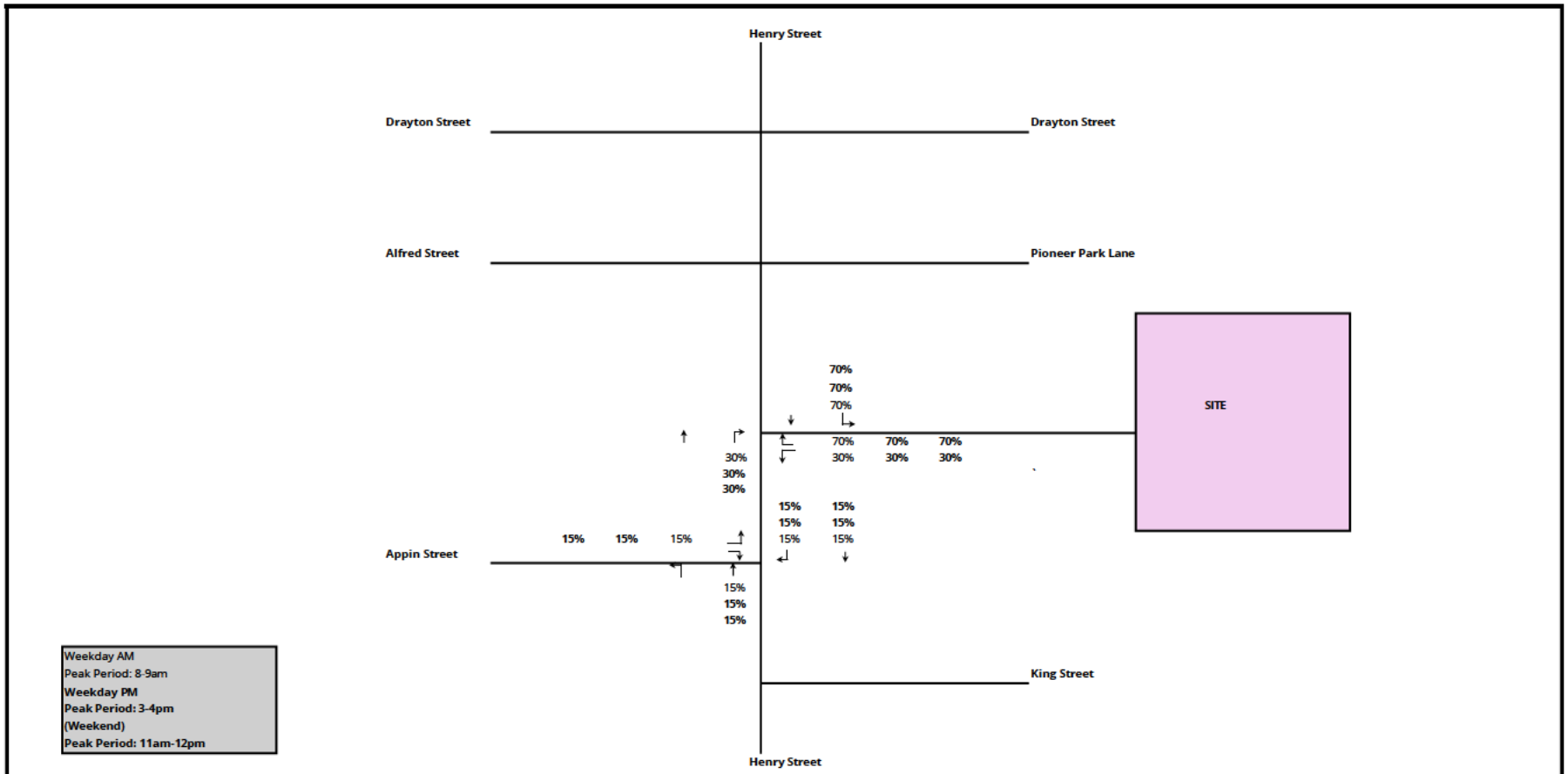
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	



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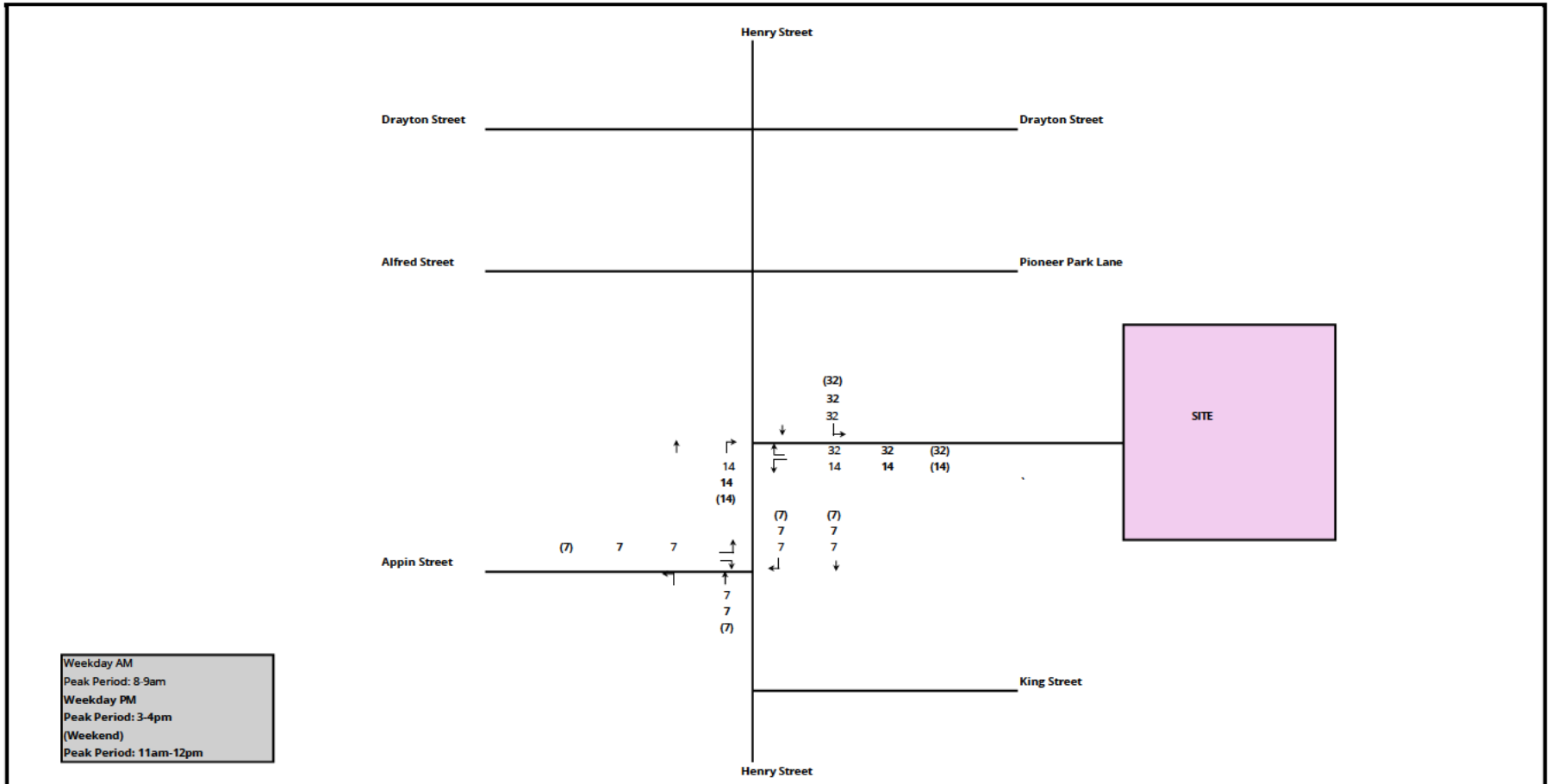
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	



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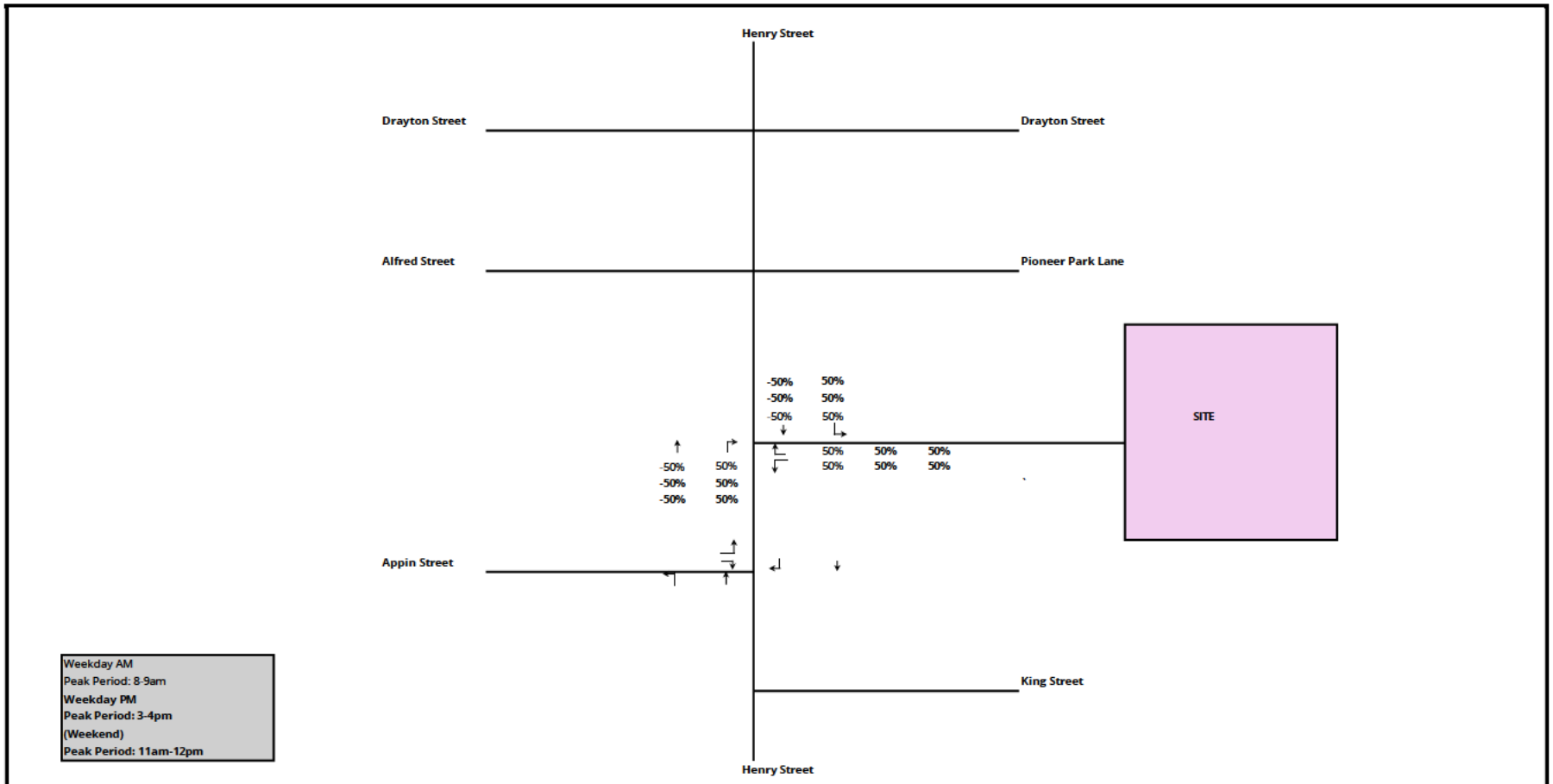
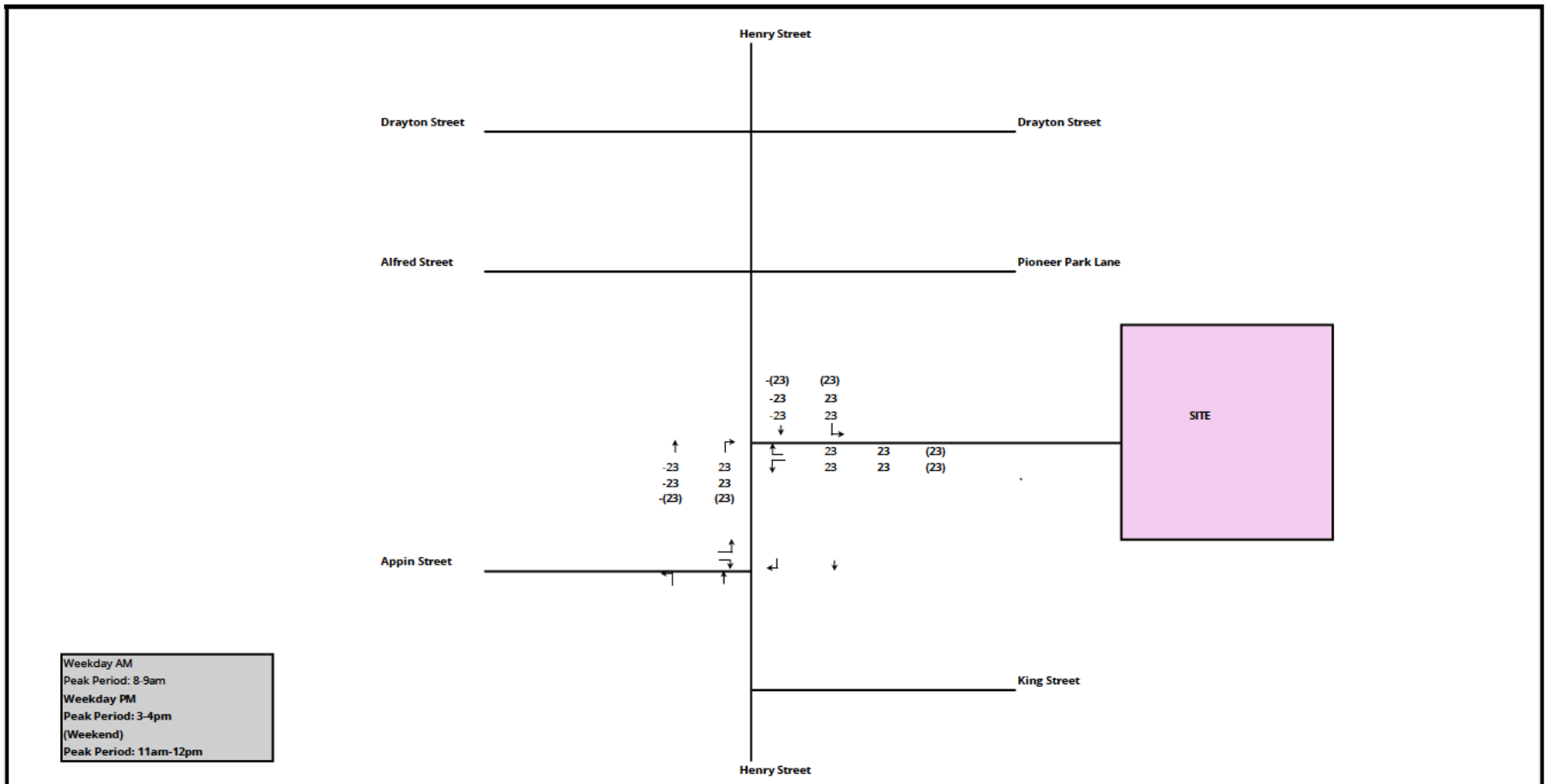
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	



Project Number:	B25417	Title:			Figure Number:
Project Name:	PROPOSED MCDONALDS RESTURANT	Development Traffic Distribution Drop In Trips			C6
Address:	8 HENRY STREET, NANANGO QLD 4615				
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	



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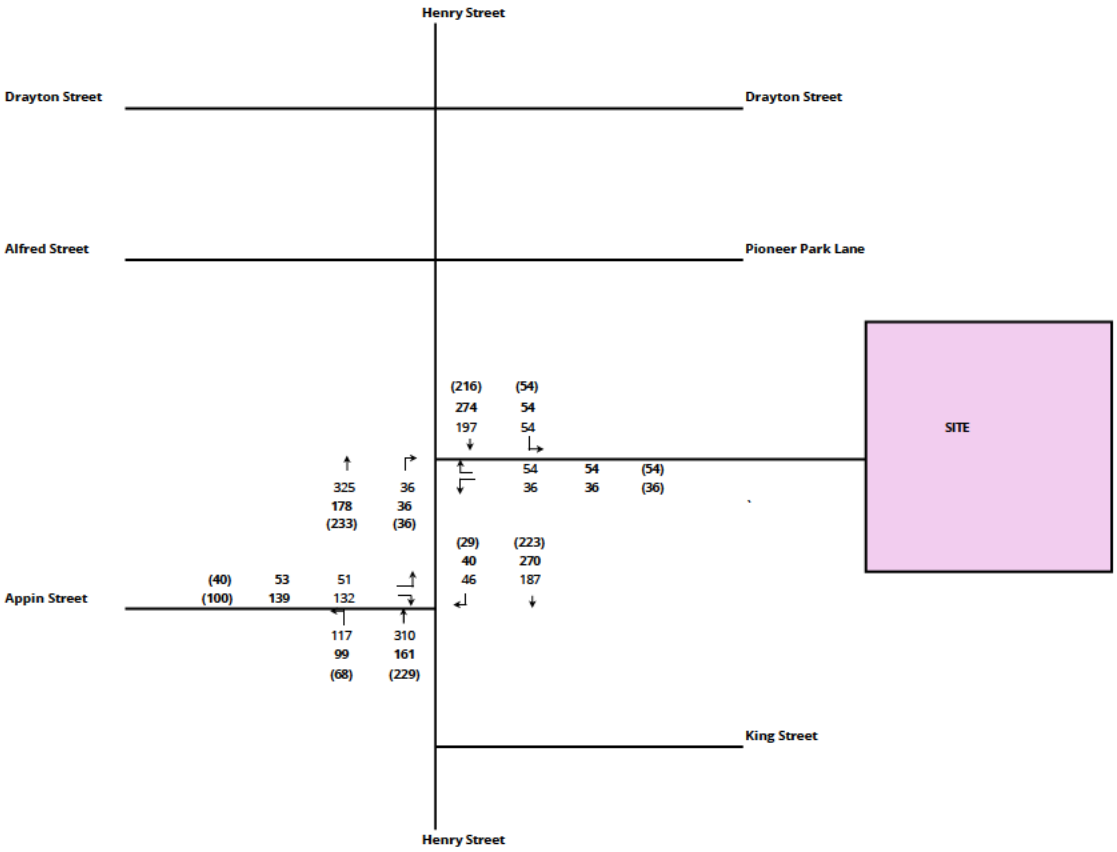
Address:	8 HENRY STREET, NANANGO QLD 4615				
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	



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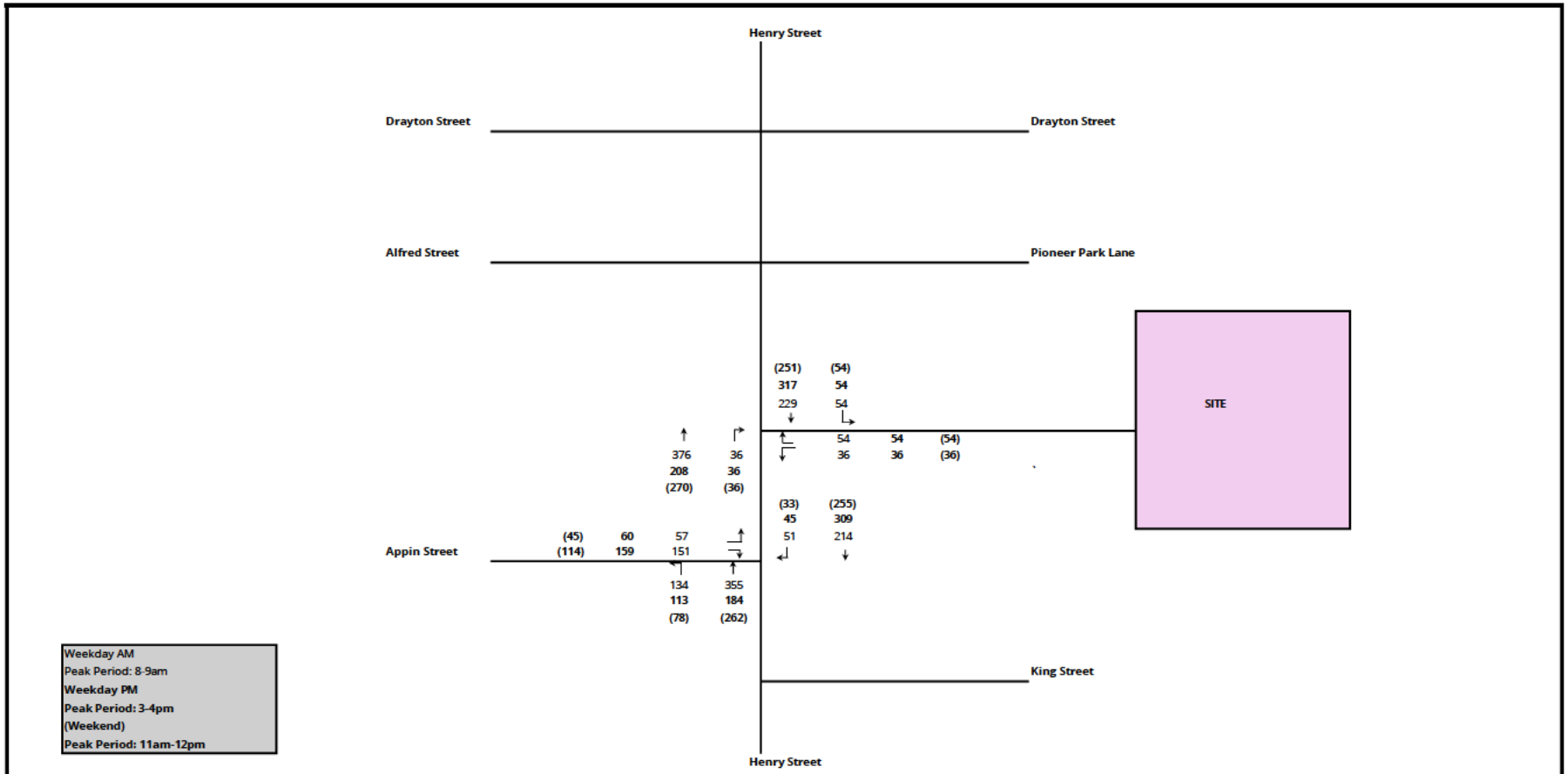
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	



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Project Name:	PROPOSED MCDONALDS RESTURANT	Design Traffic 2037			C9
Address:	8 HENRY STREET, NANANGO QLD 4615				
Client:	MCDONALD'S AUSTRALIA LIMITED		Prepared: OM	Rev: A Date:	

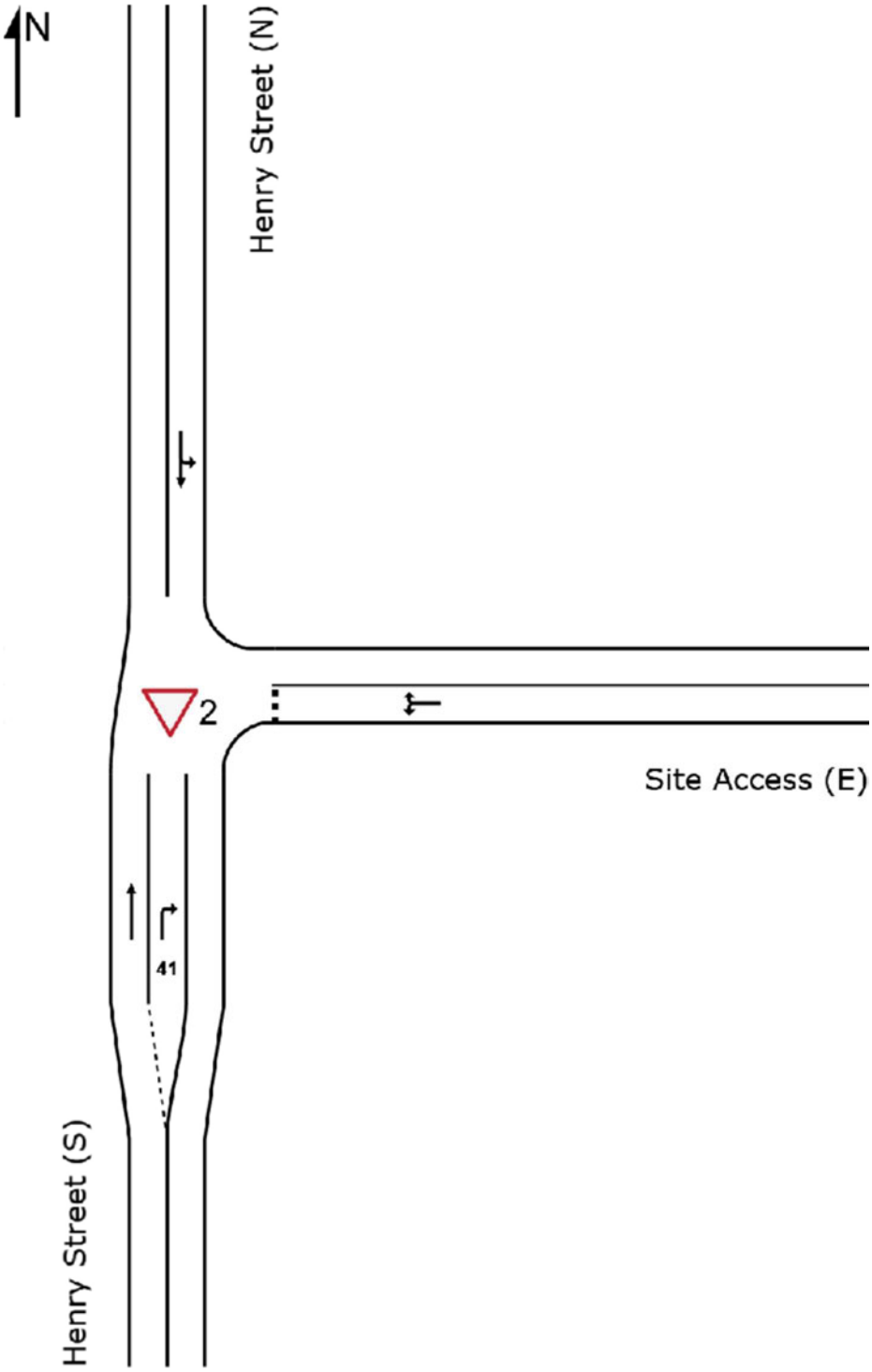
Appendix D – SIDRA Results

SITE LAYOUT

Site: [2] 2027 DT AM (Henry Street / Site Access CHRs)

New 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: [2] 2027 DT AM (Henry Street / Site Access CHRs)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New 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: Henry Street (S)															
2	T1	All MCs	342	0.0	342	0.0	0.175	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	38	0.0	38	0.0	0.027	6.3	LOS A	0.1	0.8	0.35	0.58	0.35	51.7
Approach			380	0.0	380	0.0	0.175	0.7	NA	0.1	0.8	0.03	0.06	0.03	59.0
East: Site Access (E)															
4	L2	All MCs	38	0.0	38	0.0	0.129	6.2	LOS A	0.5	3.5	0.50	0.68	0.50	50.5
6	R2	All MCs	57	0.0	57	0.0	0.129	10.4	LOS B	0.5	3.5	0.50	0.68	0.50	50.3
Approach			95	0.0	95	0.0	0.129	8.7	LOS A	0.5	3.5	0.50	0.68	0.50	50.4
North: Henry Street (N)															
7	L2	All MCs	57	0.0	57	0.0	0.137	5.6	LOS A	0.0	0.0	0.00	0.13	0.00	56.4
8	T1	All MCs	207	0.0	207	0.0	0.137	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	58.8
Approach			264	0.0	264	0.0	0.137	1.2	NA	0.0	0.0	0.00	0.13	0.00	58.2
All Vehicles			739	0.0	739	0.0	0.175	1.9	NA	0.5	3.5	0.08	0.16	0.08	57.5

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.

MOVEMENT SUMMARY

Site: [2 (2)] 2027 DT PM (Henry Street / Site Access CHRs)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New 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: Henry Street (S)															
2	T1	All MCs	187	0.0	187	0.0	0.096	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	All MCs	38	0.0	38	0.0	0.029	6.6	LOS A	0.1	0.9	0.41	0.60	0.41	51.6
Approach			225	0.0	225	0.0	0.096	1.1	NA	0.1	0.9	0.07	0.10	0.07	58.4
East: Site Access (E)															
4	L2	All MCs	38	0.0	38	0.0	0.122	6.5	LOS A	0.5	3.3	0.50	0.70	0.50	50.8
6	R2	All MCs	57	0.0	57	0.0	0.122	9.5	LOS A	0.5	3.3	0.50	0.70	0.50	50.6
Approach			95	0.0	95	0.0	0.122	8.3	LOS A	0.5	3.3	0.50	0.70	0.50	50.7
North: Henry Street (N)															
7	L2	All MCs	57	0.0	57	0.0	0.179	5.6	LOS A	0.0	0.0	0.00	0.10	0.00	56.6
8	T1	All MCs	288	0.0	288	0.0	0.179	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	59.0
Approach			345	0.0	345	0.0	0.179	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.6
All Vehicles			665	0.0	665	0.0	0.179	2.1	NA	0.5	3.3	0.09	0.19	0.09	57.2

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.

MOVEMENT SUMMARY

Site: [2 (3)] 2027 DT WE (Henry Street / Site Access CHRs)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New 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: Henry Street (S)															
2	T1	All MCs	245	0.0	245	0.0	0.126	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	38	0.0	38	0.0	0.027	6.3	LOS A	0.1	0.8	0.37	0.59	0.37	51.7
Approach			283	0.0	283	0.0	0.126	0.9	NA	0.1	0.8	0.05	0.08	0.05	58.7
East: Site Access (E)															
4	L2	All MCs	38	0.0	38	0.0	0.119	6.3	LOS A	0.5	3.3	0.48	0.67	0.48	50.9
6	R2	All MCs	57	0.0	57	0.0	0.119	9.4	LOS A	0.5	3.3	0.48	0.67	0.48	50.7
Approach			95	0.0	95	0.0	0.119	8.2	LOS A	0.5	3.3	0.48	0.67	0.48	50.8
North: Henry Street (N)															
7	L2	All MCs	57	0.0	57	0.0	0.147	5.6	LOS A	0.0	0.0	0.00	0.12	0.00	56.5
8	T1	All MCs	227	0.0	227	0.0	0.147	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	58.9
Approach			284	0.0	284	0.0	0.147	1.1	NA	0.0	0.0	0.00	0.12	0.00	58.4
All Vehicles			662	0.0	662	0.0	0.147	2.0	NA	0.5	3.3	0.09	0.18	0.09	57.3

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.

MOVEMENT SUMMARY

Site: [2 (4)] 2037 DT AM (Henry Street / Site Access CHRs)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New 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: Henry Street (S)															
2	T1	All MCs	396	0.0	396	0.0	0.203	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	38	0.0	38	0.0	0.028	6.4	LOS A	0.1	0.8	0.37	0.59	0.37	51.7
Approach			434	0.0	434	0.0	0.203	0.6	NA	0.1	0.8	0.03	0.05	0.03	59.1
East: Site Access (E)															
4	L2	All MCs	38	0.0	38	0.0	0.144	6.4	LOS A	0.6	3.9	0.55	0.71	0.55	50.0
6	R2	All MCs	57	0.0	57	0.0	0.144	11.6	LOS B	0.6	3.9	0.55	0.71	0.55	49.8
Approach			95	0.0	95	0.0	0.144	9.5	LOS A	0.6	3.9	0.55	0.71	0.55	49.9
North: Henry Street (N)															
7	L2	All MCs	57	0.0	57	0.0	0.154	5.6	LOS A	0.0	0.0	0.00	0.11	0.00	56.5
8	T1	All MCs	241	0.0	241	0.0	0.154	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	58.9
Approach			298	0.0	298	0.0	0.154	1.1	NA	0.0	0.0	0.00	0.11	0.00	58.4
All Vehicles			826	0.0	826	0.0	0.203	1.8	NA	0.6	3.9	0.08	0.15	0.08	57.6

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.

MOVEMENT SUMMARY

Site: [2 (5)] 2037 DT PM (Henry Street / Site Access CHRs)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New 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: Henry Street (S)															
2	T1	All MCs	219	0.0	219	0.0	0.112	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	38	0.0	38	0.0	0.031	6.8	LOS A	0.1	0.9	0.44	0.62	0.44	51.5
Approach			257	0.0	257	0.0	0.112	1.0	NA	0.1	0.9	0.06	0.09	0.06	58.5
East: Site Access (E)															
4	L2	All MCs	38	0.0	38	0.0	0.134	6.7	LOS A	0.5	3.6	0.54	0.74	0.54	50.4
6	R2	All MCs	57	0.0	57	0.0	0.134	10.4	LOS B	0.5	3.6	0.54	0.74	0.54	50.1
Approach			95	0.0	95	0.0	0.134	9.0	LOS A	0.5	3.6	0.54	0.74	0.54	50.2
North: Henry Street (N)															
7	L2	All MCs	57	0.0	57	0.0	0.202	5.6	LOS A	0.0	0.0	0.00	0.09	0.00	56.7
8	T1	All MCs	334	0.0	334	0.0	0.202	0.1	LOS A	0.0	0.0	0.00	0.09	0.00	59.1
Approach			391	0.0	391	0.0	0.202	0.9	NA	0.0	0.0	0.00	0.09	0.00	58.7
All Vehicles			742	0.0	742	0.0	0.202	1.9	NA	0.5	3.6	0.09	0.17	0.09	57.4

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.

MOVEMENT SUMMARY

Site: [2 (6)] 2037 DT WE (Henry Street / Site Access CHRs)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New 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: Henry Street (S)															
2	T1	All MCs	284	0.0	284	0.0	0.146	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	38	0.0	38	0.0	0.028	6.5	LOS A	0.1	0.9	0.39	0.60	0.39	51.6
Approach			322	0.0	322	0.0	0.146	0.8	NA	0.1	0.9	0.05	0.07	0.05	58.8
East: Site Access (E)															
4	L2	All MCs	38	0.0	38	0.0	0.130	6.4	LOS A	0.5	3.5	0.52	0.71	0.52	50.5
6	R2	All MCs	57	0.0	57	0.0	0.130	10.3	LOS B	0.5	3.5	0.52	0.71	0.52	50.3
Approach			95	0.0	95	0.0	0.130	8.8	LOS A	0.5	3.5	0.52	0.71	0.52	50.4
North: Henry Street (N)															
7	L2	All MCs	57	0.0	57	0.0	0.166	5.6	LOS A	0.0	0.0	0.00	0.11	0.00	56.6
8	T1	All MCs	264	0.0	264	0.0	0.166	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	59.0
Approach			321	0.0	321	0.0	0.166	1.0	NA	0.0	0.0	0.00	0.11	0.00	58.5
All Vehicles			738	0.0	738	0.0	0.166	1.9	NA	0.5	3.5	0.09	0.17	0.09	57.5

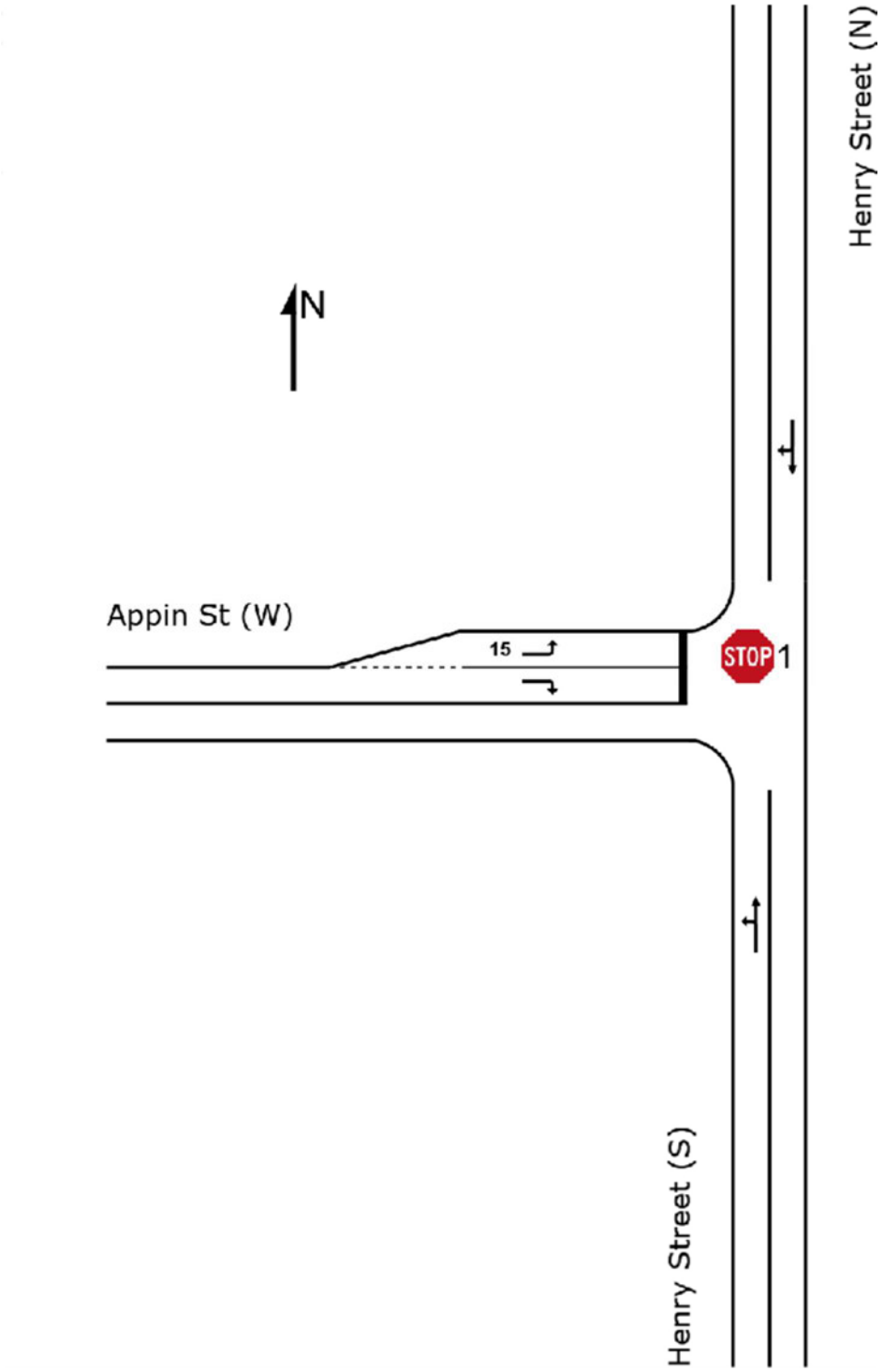
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of 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.

SITE LAYOUT

Site: [1] 2027 BG AM (Henry Street / Appin St)

New Site
Site Category: (None)
Stop (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] 2027 BG AM (Henry Street / Appin St)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Stop (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: Henry Street (S)															
1	L2	All MCs	123	0.0	123	0.0	0.230	5.6	LOS A	0.0	0.0	0.00	0.17	0.00	56.0
2	T1	All MCs	320	0.0	320	0.0	0.230	0.1	LOS A	0.0	0.0	0.00	0.17	0.00	58.4
Approach			443	0.0	443	0.0	0.230	1.6	NA	0.0	0.0	0.00	0.17	0.00	57.7
North: Henry Street (N)															
8	T1	All MCs	191	0.0	191	0.0	0.134	0.5	LOS A	0.4	2.6	0.21	0.25	0.21	58.2
9	R2	All MCs	41	0.0	41	0.0	0.134	7.3	LOS A	0.4	2.6	0.21	0.25	0.21	55.7
Approach			232	0.0	232	0.0	0.134	1.7	NA	0.4	2.6	0.21	0.25	0.21	57.7
West: Appin St (W)															
10	L2	All MCs	46	0.0	46	0.0	0.045	9.4	LOS A	0.2	1.2	0.39	0.87	0.39	50.7
12	R2	All MCs	139	0.0	139	0.0	0.235	11.8	LOS B	0.8	5.9	0.56	1.01	0.58	48.9
Approach			185	0.0	185	0.0	0.235	11.2	LOS B	0.8	5.9	0.52	0.97	0.54	49.3
All Vehicles			860	0.0	860	0.0	0.235	3.7	NA	0.8	5.9	0.17	0.36	0.17	55.7

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 (2)] 2027 BG PM (Henry Street / Appin St)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Stop (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: Henry Street (S)															
1	L2	All MCs	104	0.0	104	0.0	0.140	5.6	LOS A	0.0	0.0	0.00	0.23	0.00	55.6
2	T1	All MCs	163	0.0	163	0.0	0.140	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	57.9
Approach			267	0.0	267	0.0	0.140	2.2	NA	0.0	0.0	0.00	0.23	0.00	57.0
North: Henry Street (N)															
8	T1	All MCs	278	0.0	278	0.0	0.168	0.2	LOS A	0.3	1.9	0.10	0.12	0.10	59.0
9	R2	All MCs	35	0.0	35	0.0	0.168	6.5	LOS A	0.3	1.9	0.10	0.12	0.10	56.4
Approach			313	0.0	313	0.0	0.168	0.9	NA	0.3	1.9	0.10	0.12	0.10	58.7
West: Appin St (W)															
10	L2	All MCs	48	0.0	48	0.0	0.039	8.6	LOS A	0.2	1.1	0.27	0.87	0.27	51.0
12	R2	All MCs	146	0.0	146	0.0	0.221	10.9	LOS B	0.8	5.5	0.52	0.97	0.52	49.5
Approach			195	0.0	195	0.0	0.221	10.3	LOS B	0.8	5.5	0.46	0.95	0.46	49.8
All Vehicles			775	0.0	775	0.0	0.221	3.7	NA	0.8	5.5	0.16	0.37	0.16	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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MOVEMENT SUMMARY

Site: [1 (3)] 2027 BG WE (Henry Street / Appin St)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Stop (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: Henry Street (S)															
1	L2	All MCs	72	0.0	72	0.0	0.158	5.6	LOS A	0.0	0.0	0.00	0.14	0.00	56.3
2	T1	All MCs	234	0.0	234	0.0	0.158	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	58.7
Approach			305	0.0	305	0.0	0.158	1.3	NA	0.0	0.0	0.00	0.14	0.00	58.1
North: Henry Street (N)															
8	T1	All MCs	227	0.0	227	0.0	0.135	0.2	LOS A	0.2	1.4	0.10	0.11	0.10	59.1
9	R2	All MCs	24	0.0	24	0.0	0.135	6.6	LOS A	0.2	1.4	0.10	0.11	0.10	56.5
Approach			252	0.0	252	0.0	0.135	0.8	NA	0.2	1.4	0.10	0.11	0.10	58.8
West: Appin St (W)															
10	L2	All MCs	35	0.0	35	0.0	0.030	8.9	LOS A	0.1	0.8	0.33	0.86	0.33	50.9
12	R2	All MCs	105	0.0	105	0.0	0.157	10.6	LOS B	0.5	3.7	0.50	0.97	0.50	49.6
Approach			140	0.0	140	0.0	0.157	10.2	LOS B	0.5	3.7	0.45	0.94	0.45	49.9
All Vehicles			697	0.0	697	0.0	0.158	2.9	NA	0.5	3.7	0.13	0.29	0.13	56.5

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)] 2027 DT AM (Henry Street / Appin St)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Stop (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: Henry Street (S)															
1	L2	All MCs	123	0.0	123	0.0	0.234	5.6	LOS A	0.0	0.0	0.00	0.16	0.00	56.1
2	T1	All MCs	326	0.0	326	0.0	0.234	0.1	LOS A	0.0	0.0	0.00	0.16	0.00	58.4
Approach			449	0.0	449	0.0	0.234	1.6	NA	0.0	0.0	0.00	0.16	0.00	57.8
North: Henry Street (N)															
8	T1	All MCs	197	0.0	197	0.0	0.144	0.6	LOS A	0.4	3.1	0.24	0.28	0.24	58.0
9	R2	All MCs	48	0.0	48	0.0	0.144	7.3	LOS A	0.4	3.1	0.24	0.28	0.24	55.5
Approach			245	0.0	245	0.0	0.144	2.0	NA	0.4	3.1	0.24	0.28	0.24	57.5
West: Appin St (W)															
10	L2	All MCs	54	0.0	54	0.0	0.052	9.4	LOS A	0.2	1.4	0.40	0.87	0.40	50.7
12	R2	All MCs	139	0.0	139	0.0	0.241	12.1	LOS B	0.9	6.1	0.57	1.01	0.61	48.7
Approach			193	0.0	193	0.0	0.241	11.3	LOS B	0.9	6.1	0.52	0.97	0.55	49.2
All Vehicles			887	0.0	887	0.0	0.241	3.8	NA	0.9	6.1	0.18	0.37	0.19	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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MOVEMENT SUMMARY

Site: [1 (5)] 2027 DT PM (Henry Street / Appin St)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Stop (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: Henry Street (S)															
1	L2	All MCs	104	0.0	104	0.0	0.143	5.6	LOS A	0.0	0.0	0.00	0.23	0.00	55.6
2	T1	All MCs	169	0.0	169	0.0	0.143	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	57.9
Approach			274	0.0	274	0.0	0.143	2.1	NA	0.0	0.0	0.00	0.23	0.00	57.0
North: Henry Street (N)															
8	T1	All MCs	284	0.0	284	0.0	0.177	0.2	LOS A	0.3	2.4	0.12	0.14	0.12	58.8
9	R2	All MCs	42	0.0	42	0.0	0.177	6.5	LOS A	0.3	2.4	0.12	0.14	0.12	56.2
Approach			326	0.0	326	0.0	0.177	1.0	NA	0.3	2.4	0.12	0.14	0.12	58.4
West: Appin St (W)															
10	L2	All MCs	56	0.0	56	0.0	0.046	8.7	LOS A	0.2	1.3	0.27	0.87	0.27	51.0
12	R2	All MCs	146	0.0	146	0.0	0.227	11.1	LOS B	0.8	5.6	0.53	0.98	0.53	49.3
Approach			202	0.0	202	0.0	0.227	10.4	LOS B	0.8	5.6	0.46	0.95	0.46	49.8
All Vehicles			802	0.0	802	0.0	0.227	3.8	NA	0.8	5.6	0.17	0.37	0.17	55.5

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 (6)] 2027 DT WE (Henry Street / Appin St)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Stop (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: Henry Street (S)															
1	L2	All MCs	72	0.0	72	0.0	0.162	5.6	LOS A	0.0	0.0	0.00	0.14	0.00	56.3
2	T1	All MCs	241	0.0	241	0.0	0.162	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	58.7
Approach			313	0.0	313	0.0	0.162	1.3	NA	0.0	0.0	0.00	0.14	0.00	58.1
North: Henry Street (N)															
8	T1	All MCs	235	0.0	235	0.0	0.144	0.2	LOS A	0.3	1.8	0.12	0.13	0.12	58.9
9	R2	All MCs	31	0.0	31	0.0	0.144	6.7	LOS A	0.3	1.8	0.12	0.13	0.12	56.3
Approach			265	0.0	265	0.0	0.144	1.0	NA	0.3	1.8	0.12	0.13	0.12	58.6
West: Appin St (W)															
10	L2	All MCs	42	0.0	42	0.0	0.037	9.0	LOS A	0.1	1.0	0.33	0.86	0.33	50.9
12	R2	All MCs	105	0.0	105	0.0	0.161	10.8	LOS B	0.5	3.8	0.51	0.97	0.51	49.5
Approach			147	0.0	147	0.0	0.161	10.3	LOS B	0.5	3.8	0.46	0.94	0.46	49.9
All Vehicles			725	0.0	725	0.0	0.162	3.0	NA	0.5	3.8	0.14	0.30	0.14	56.4

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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Appendix E - Net Delay Assessment

Net Delay Assessment

	AM	PM	WE
BC	3188.2	2869.7	2031.5
WD	3249	2903.7	2058.4
ID	60.8	34	26.9
ID%	1.91%	1.18%	1.32%

TOTAL
8089.4
8211.1
121.7
1.50%

2027 BG AM

Vehicle Movement Performance							
Mov ID	Turn	Demand Flows [Total veh/h	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue Dist] m	Movement Delay (veh mins)
South: Henry Street (S)							
1	L2	123	0.23	5.6	LOS A	0	688.8
2	T1	320	0.23	0.1	LOS A	0	32
Approach		443	0.23	1.6	NA	0	
North: Henry Street (N)							
8	T1	191	0.134	0.5	LOS A	2.6	95.5
9	R2	41	0.134	7.3	LOS A	2.6	299.3
Approach		232	0.134	1.7	NA	2.6	
West: Appin St (W)							
10	L2	46	0.045	9.4	LOS A	1.2	432.4
12	R2	139	0.235	11.8	LOS B	5.9	1640.2
Approach		185	0.235	11.2	LOS B	5.9	
All Vehicles		860	0.235	3.7	NA	5.9	

2027 BG PM

Vehicle Movement Performance							
Mov ID	Turn	Demand Flows [Total veh/h	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue Dist] m	Movement Delay (veh mins)
South: Henry Street (S)							
1	L2	104	0.14	5.6	LOS A	0	582.4
2	T1	163	0.14	0	LOS A	0	0
Approach		267	0.14	2.2	NA	0	
North: Henry Street (N)							
8	T1	278	0.168	0.2	LOS A	1.9	55.6
9	R2	35	0.168	6.5	LOS A	1.9	227.5
Approach		313	0.168	0.9	NA	1.9	
West: Appin St (W)							
10	L2	48	0.039	8.6	LOS A	1.1	412.8
12	R2	146	0.221	10.9	LOS B	5.5	1591.4
Approach		195	0.221	10.3	LOS B	5.5	
All Vehicles		775	0.221	3.7	NA	5.5	

2027 BG WE

Vehicle Movement Performance							
Mov ID	Turn	Demand Flows [Total veh/h	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue Dist] m	Movement Delay (veh mins)
South: Henry Street (S)							
1	L2	72	0.158	5.6	LOS A	0	403.2
2	T1	234	0.158	0	LOS A	0	0
Approach		305	0.158	1.3	NA	0	
North: Henry Street (N)							
8	T1	227	0.135	0.2	LOS A	1.4	45.4
9	R2	24	0.135	6.6	LOS A	1.4	158.4
Approach		252	0.135	0.8	NA	1.4	
West: Appin St (W)							
10	L2	35	0.03	8.9	LOS A	0.8	311.5
12	R2	105	0.157	10.6	LOS B	3.7	1113
Approach		140	0.157	10.2	LOS B	3.7	
All Vehicles		697	0.158	2.9	NA	3.7	

2027 DT AM

Vehicle Movement Performance							
Mov ID	Turn	Demand Flows [Total veh/h	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue Dist] m	
South: Henry Street (S)							
1	L2	123	0.234	5.6	LOS A	0	688.8
2	T1	326	0.234	0.1	LOS A	0	32
Approach		449	0.234	1.6	NA	0	
North: Henry Street (N)							
8	T1	197	0.144	0.6	LOS A	3.1	114.6
9	R2	48	0.144	7.3	LOS A	3.1	299.3
Approach		245	0.144	2	NA	3.1	
West: Appin St (W)							
10	L2	54	0.052	9.4	LOS A	1.4	432.4
12	R2	139	0.241	12.1	LOS B	6.1	1681.9
Approach		193	0.241	11.3	LOS B	6.1	
All Vehicles		887	0.241	3.8	NA	6.1	

2027 DT PM

Vehicle Movement Performance							
Mov ID	Turn	Demand Flows [Total veh/h	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue Dist] m	
South: Henry Street (S)							
1	L2	104	0.143	5.6	LOS A	0	582.4
2	T1	169	0.143	0	LOS A	0	0
Approach		274	0.143	2.1	NA	0	
North: Henry Street (N)							
8	T1	284	0.177	0.2	LOS A	2.4	55.6
9	R2	42	0.177	6.5	LOS A	2.4	227.5
Approach		326	0.177	1	NA	2.4	
West: Appin St (W)							
10	L2	56	0.046	8.7	LOS A	1.3	417.6
12	R2	146	0.227	11.1	LOS B	5.6	1620.6
Approach		202	0.227	10.4	LOS B	5.6	
All Vehicles		802	0.227	3.8	NA	5.6	

2027 DT WE

Vehicle Movement Performance							
Mov ID	Turn	Demand Flows [Total veh/h	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue Dist] m	
South: Henry Street (S)							
1	L2	72	0.162	5.6	LOS A	0	403.2
2	T1	241	0.162	0	LOS A	0	0
Approach		313	0.162	1.3	NA	0	
North: Henry Street (N)							
8	T1	235	0.144	0.2	LOS A	1.8	45.4
9	R2	31	0.144	6.7	LOS A	1.8	160.8
Approach		265	0.144	1	NA	1.8	
West: Appin St (W)							
10	L2	42	0.037	9	LOS A	1	315
12	R2	105	0.161	10.8	LOS B	3.8	1134
Approach		147	0.161	10.3	LOS B	3.8	
All Vehicles		725	0.162	3	NA	3.8	

Appendix F – State Code 1 Response

State code 1: Development in a state-controlled road environment

State Development Assessment Provisions guideline - State Code 1: Development in a state-controlled road environment. This guideline provides direction on how to address State Code 1.

Table 1.1 Development in general

Performance outcomes	Acceptable outcomes	Response
Buildings, structures, infrastructure, services and utilities		
PO1 The location of the development does not create a safety hazard for users of the **state-controlled road.**	**AO1.1** Development is not located in a **state-controlled road**. AND **AO1.2** Development can be maintained without requiring access to a **state-controlled road**.	Not applicable
PO2 The design and construction of the development does not adversely impact the **structural integrity** or physical condition of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	Not applicable
PO3 The location of the development does not obstruct **road transport infrastructure** or adversely impact the operating performance of the **state-controlled road**.	No acceptable outcome is prescribed.	Not applicable
PO4 The location, placement, design and operation of advertising devices, visible from the **state-controlled road**, do not create a	No acceptable outcome is prescribed.	Not for traffic response

Performance outcomes	Acceptable outcomes	Response
safety hazard for users of the **state-controlled road**.		
PO5 The design and construction of buildings and **structures** does not create a safety hazard by distracting users of the **state-controlled road**.	**AO5.1** Facades of buildings and **structures** fronting the **state-controlled road** are made of non-reflective materials. AND **AO5.2** Facades of buildings and **structures** do not direct or reflect point light sources into the face of oncoming traffic on the **state-controlled road**. AND **AO5.3** External lighting of buildings and **structures** is not directed into the face of oncoming traffic on the **state-controlled road**. AND **AO5.4** External lighting of buildings and **structures** does not involve flashing or laser lights.	Not for traffic response
PO6 Road, pedestrian and bikeway bridges over a **state-controlled road** are designed and constructed to prevent projectiles from being thrown onto the **state-controlled road**.	**AO6.1** Road, pedestrian and bikeway bridges over the **state-controlled road** include throw protection screens in accordance with section 4.11 of the Design Criteria for Bridges and Other Structures Manual, Department of Transport and Main Roads, 2020.	Not applicable
Landscaping		
PO7 The location of landscaping does not create a safety hazard for users of the **state-controlled road**.	**AO7.1** Landscaping is not located in a **state-controlled road**.	Not for traffic response

Performance outcomes	Acceptable outcomes	Response
	AND **AO7.2** Landscaping can be maintained without requiring access to a **state-controlled road**. AND **AO7.3** Landscaping does not block or obscure the sight lines for vehicular access to a **state-controlled road**.	
Stormwater and overland flow		
PO8 Stormwater run-off or overland flow from the development site does not create or exacerbate a safety hazard for users of the **state-controlled road**.	No acceptable outcome is prescribed.	Not for traffic response
PO9 Stormwater run-off or overland flow from the development site does not result in a material worsening of the operating performance of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	Not for traffic response
PO10 Stormwater run-off or overland flow from the development site does not adversely impact the **structural integrity** or physical condition of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	Not for traffic response
PO11 Development ensures that stormwater is lawfully discharged.	**AO11.1** Development does not create any new points of discharge to a **state-controlled road.** AND **AO11.2** Development does not concentrate flows to a **state-controlled road**. AND	Not for traffic response

Performance outcomes	Acceptable outcomes	Response
	AO11.3 Stormwater run-off is discharged to a **lawful point of discharge**. AND **AO11.4** Development does not worsen the condition of an existing **lawful point of discharge** to the **state-controlled road**.	
Flooding		
PO12 Development does not result in a material worsening of flooding impacts within a **state-controlled road**.	**AO12.1** For all flood events up to 1% **annual exceedance probability**, development results in negligible impacts (within +/- 10mm) to existing flood levels within a **state-controlled road**. AND **AO12.2** For all flood events up to 1% **annual exceedance probability**, development results in negligible impacts (up to a 10% increase) to existing peak velocities within a **state-controlled road**. AND **AO12.3** For all flood events up to 1% **annual exceedance probability**, development results in negligible impacts (up to a 10% increase) to existing time of submergence of a **state-controlled road**.	Not for traffic response
Drainage Infrastructure		

Performance outcomes	Acceptable outcomes	Response
PO13 Drainage infrastructure does not create a safety hazard for users in the **state-controlled road**.	**AO13.1** Drainage infrastructure is wholly contained within the development site, except at the **lawful point of discharge**. AND **AO13.2** Drainage infrastructure can be maintained without requiring access to a **state-controlled road**.	Not for traffic response
PO14 Drainage infrastructure associated with, or within, a **state-controlled road** is constructed, and designed to ensure the **structural integrity** and physical condition of existing drainage infrastructure and the surrounding drainage network.	No acceptable outcome is prescribed.	Not for traffic response

Table 1.2 Vehicular access, road layout and local roads

Performance outcomes	Acceptable outcomes	Response
Vehicular access to a state-controlled road or within 100 metres of a state-controlled road intersection		
PO15 The location, design and operation of a **new or changed access** to a **state-controlled road** does not compromise the safety of users of the **state-controlled road**.	No acceptable outcome is prescribed.	Complies with PO15. Refer to Section 4.6 and 3.2.1 in the Traffic Impact Assessment B25525TR001_RevA prepared by Lambert and Rehbein. The form of the new Henry Street / Site Access intersection provides suitable sight distance and will theoretically operate below capacity with acceptable queues and delays with development traffic.
PO16 The location, design and operation of a **new or changed access** does not adversely impact the **functional requirements** of the **state-controlled road**.	No acceptable outcome is prescribed.	Complies with PO16. Refer to Section 4.6 in the Traffic Impact Assessment B25525TR001_RevA prepared by Lambert and Rehbein. The form of the new Henry Street / Site Access intersection will theoretically operate below capacity with

Performance outcomes	Acceptable outcomes	Response
		acceptable queues and delays with development traffic.
PO17 The location, design and operation of a **new or changed access** is consistent with the **future intent** of the **state-controlled road**.	No acceptable outcome is prescribed.	Complies with PO17. Refer to Section 2.4 in the Traffic Impact Assessment B25525TR001_RevA prepared by Lambert and Rehbein. There are no future planned upgrades of state-controlled roads within close proximity of the site
PO18 New or changed access is consistent with the access for the relevant **limited access road policy**: 1. **LAR 1** where direct access is prohibited; or 2. **LAR 2** where access may be permitted, subject to assessment.	No acceptable outcome is prescribed.	Not applicable
PO19 New or changed access to a **local road** within 100 metres of an intersection with a **state-controlled road** does not compromise the safety of users of the **state-controlled road**.	No acceptable outcome is prescribed.	Not applicable
PO20 New or changed access to a **local road** within 100 metres of an intersection with a **state-controlled road** does not adversely impact on the operating performance of the intersection.	No acceptable outcome is prescribed.	Not applicable
Public passenger transport and active transport		
PO21 Development does not compromise the safety of users of **public passenger transport infrastructure**, **public passenger services** and **active transport infrastructure**.	No acceptable outcome is prescribed.	Complies with PO21. The development does not compromise the safety of users of public and active transport infrastructure.
PO22 Development maintains the ability for people to access **public passenger transport infrastructure, public passenger services** and **active transport infrastructure**.	No acceptable outcome is prescribed.	Complies with PO22.
PO23 Development does not adversely impact the operating performance of **public passenger**	No acceptable outcome is prescribed.	Complies with PO23

Performance outcomes	Acceptable outcomes	Response
transport infrastructure, public passenger services and **active transport infrastructure**.		
PO24 Development does not adversely impact the **structural integrity** or physical condition of **public passenger transport infrastructure** and **active transport infrastructure**.	No acceptable outcome is prescribed.	Not for traffic response

Table 1.3 Network impacts

Performance outcomes	Acceptable outcomes	Response
PO25 Development does not compromise the safety of users of the **state-controlled road** network.	No acceptable outcome is prescribed.	Complies with PO25. Refer to Section 3.2.1and 4.6 in the Traffic Impact Assessment B25525TR001_RevA prepared by Lambert and Rehbein. The proposed access provides suitable sight distance while the existing form of the Henry Street / Appin Street intersection will theoretically operate below capacity with acceptable queues and delays with development traffic.
PO26 Development ensures **no net worsening** of the operating performance of the **state-controlled road** network.	No acceptable outcome is prescribed.	Complies with PO26. Refer to Section 4.7 in the Traffic Impact Assessment B25525TR001_RevA prepared by Lambert and Rehbein. The net delay assessment found that the development generated traffic would increase the aggregate intersection delay for background traffic by approximately 1.50% which is below the notional GTIA threshold of 5%.
PO27 Traffic movements are not directed onto a **state-controlled road** where they can be accommodated on the **local road** network.	No acceptable outcome is prescribed.	Refer to Section 2.2 in the Traffic Impact Assessment B25525TR001_RevA. There are no local roads immediately surrounding the development site.
PO28 Development involving haulage exceeding 10,000 tonnes per year does not adversely impact the pavement of a **state-controlled road**.	No acceptable outcome is prescribed.	Not applicable

Performance outcomes	Acceptable outcomes	Response
PO29 Development does not impede delivery of **planned upgrades** of **state-controlled roads**.	No acceptable outcome is prescribed.	Complies with PO29. Refer to Section 2.4 in the Traffic Impact Assessment B25525TR001_RevA. prepared by Lambert and Rehbein. There are no future planned upgrades of state-controlled roads within close proximity of the site.
PO30 Development does not impede delivery of **corridor improvements** located entirely within the **state-controlled road corridor**.	No acceptable outcome is prescribed.	Not applicable

Table 1.4 Filling, excavation, building foundations and retaining structures

Performance outcomes	Acceptable outcomes	Response
PO31 Development does not create a safety hazard for users of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	Not for traffic response
PO32 Development does not adversely impact the operating performance of the **state-controlled road**.	No acceptable outcome is prescribed.	Not for traffic response
PO33 Development does not undermine, damage or cause subsidence of a **state-controlled road**.	No acceptable outcome is prescribed.	Not for traffic response
PO34 Development does not cause ground water disturbance in a **state-controlled road**.	No acceptable outcome is prescribed.	Not for traffic response
PO35 Excavation, boring, piling, blasting and fill compaction do not adversely impact the physical condition or **structural integrity** of a **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	Not for traffic response
PO36 Filling and excavation associated with the construction of **new or changed access** do not compromise the operation or capacity of existing drainage infrastructure for a **state-controlled road.**	No acceptable outcome is prescribed.	Not for traffic response

Table 1.5 Environmental emissions

Statutory note: Where a **state-controlled road** is co-located in the same transport corridor as a railway, the development should instead comply with Environmental emissions in State code 2: Development in a railway environment.

Performance outcomes	Acceptable outcomes	Response
Reconfiguring a lot		
Involving the creation of 5 or fewer new residential lots adjacent to a state-controlled road or type 1 multi-modal corridor		
PO37 Development minimises free field noise intrusion from a **state-controlled road.**	**AO37.1** Development provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO37.2** Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound. OR	Not applicable

Performance outcomes	Acceptable outcomes	Response
	AO37.3 Development provides a **solid gap-free fence** or other **solid gap-free structure** along the full extent of the boundary closest to the **state-controlled road**.	
Involving the creation of 6 or more new residential lots adjacent to a state-controlled road or type 1 multi-modal corridor		
PO38 Reconfiguring a lot minimises free field noise intrusion from a **state-controlled road.**	**AO38.1** Development provides noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO38.2** Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.	Not for traffic response
Material change of use (accommodation activity)		
Ground floor level requirements adjacent to a state-controlled road or type 1 multi-modal corridor		

Performance outcomes	Acceptable outcomes	Response
PO39 Development minimises noise intrusion from a **state-controlled road** in **private open space**.	**AO39.1** Development provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.2) for **private open space** at the ground floor level; 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO39.2** Development achieves the maximum free field acoustic level in reference table 2 (item 2.2) for **private open space** by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.	Not applicable
PO40 Development (excluding a **relevant residential building** or **relocated building)** minimises noise intrusion from a **state-controlled road** in **habitable rooms** at the facade.	**AO40.1** Development (excluding a **relevant residential building** or **relocated building**) provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum building façade acoustic level in reference table 1 (item 1.1) for **habitable rooms**;	Not applicable

Performance outcomes	Acceptable outcomes	Response
	2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO40.2** Development (excluding a **relevant residential building** or **relocated building**) achieves the maximum building façade acoustic level in reference table 1 (item 1.1) for **habitable rooms** by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.	
PO41 Habitable rooms (excluding a **relevant residential building** or **relocated building**) are designed and constructed using materials to achieve the maximum internal acoustic level in reference table 3 (item 3.1).	No acceptable outcome is provided.	Not applicable
Above ground floor level requirements (accommodation activity) adjacent to a state-controlled road or type 1 multi-modal corridor		
PO42 Balconies, podiums, and roof decks include: 1. a continuous **solid gap-free structure** or balustrade (excluding gaps required for drainage purposes to comply with the Building Code of Australia);	No acceptable outcome is provided.	Not applicable

Performance outcomes	Acceptable outcomes	Response
2. highly acoustically absorbent material treatment for the total area of the soffit above balconies, podiums, and roof decks.		
PO43 Habitable rooms (excluding a **relevant residential building** or **relocated building**) are designed and constructed using materials to achieve the maximum internal acoustic level in reference table 3 (item 3.1).	No acceptable outcome is provided.	Not applicable
Material change of use (other uses)		
Ground floor level requirements (childcare centre, educational establishment, hospital) adjacent to a state-controlled road or type 1 multi-modal corridor		
PO44 Development: 1. provides a noise barrier or earth mound that is designed, sited and constructed: a. to achieve the maximum free field acoustic level in reference table 2 (item 2.3) for all **outdoor education areas** and **outdoor play areas**; b. in accordance with: i. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; ii. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; iii. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or 2. achieves the maximum free field acoustic level in reference table 2 (item 2.3) for all **outdoor education areas** and **outdoor**	No acceptable outcome is provided.	Not applicable

Performance outcomes	Acceptable outcomes	Response
play areas by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.		
PO45 Development involving a **childcare centre** or **educational establishment**: 1. provides a noise barrier or earth mound that is designed, sited and constructed: 2. to achieve the maximum building facade acoustic level in reference table 1 (item 1.2); 3. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or 4. achieves the maximum building facade acoustic level in reference table 1 (item 1.2) by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.	No acceptable outcome is provided.	Not applicable
PO46 Development involving: 1. **indoor education areas** and **indoor play areas**; or 2. sleeping rooms in a **childcare centre**; or	No acceptable outcome is provided.	Not applicable

Performance outcomes	Acceptable outcomes	Response
3. **patient care areas** in a **hospital** achieves the maximum internal acoustic level in reference table 3 (items 3.2-3.4).		
Above ground floor level requirements (childcare centre, educational establishment, hospital) adjacent to a state-controlled road or type 1 multi-modal corridor		
PO47 Development involving a **childcare centre** or **educational establishment** which have balconies, podiums or elevated **outdoor play areas** predicted to exceed the maximum free field acoustic level in reference table 2 (item 2.3) due to noise from a **state-controlled road** are provided with: 1. a continuous **solid gap-free structure** or balustrade (excluding gaps required for drainage purposes to comply with the Building Code of Australia); 2. highly acoustically absorbent material treatment for the total area of the soffit above balconies or elevated **outdoor play areas**.	No acceptable outcome is provided.	Not applicable
PO48 Development including: 1. **indoor education areas** and **indoor play areas** in a **childcare centre** or **educational establishment**; or 2. sleeping rooms in a **childcare centre**; or 3. **patient care areas** in a **hospital** located above ground level, is designed and constructed to achieve the maximum internal acoustic level in reference table 3 (items 3.2-3.4).	No acceptable outcome is provided.	Not applicable
Air, light and vibration		

Performance outcomes	Acceptable outcomes	Response
PO49 Private open space, **outdoor education areas** and **outdoor play areas** are protected from air quality impacts from a **state-controlled road**.	**AO49.1** Each dwelling or unit has access to a **private open space** which is shielded from a **state-controlled road** by a building, **solid gap-free fence**, or other **solid gap-free structure**. OR **AO49.2** Each **outdoor education area** and **outdoor play area** is shielded from a **state-controlled road** by a building, **solid gap-free fence,** or other **solid gap-free structure**.	Not applicable
PO50 Patient care areas within **hospitals** are protected from vibration impacts from a **state-controlled road** or **type 1 multi-modal corridor**.	**AO50.1 Hospitals** are designed and constructed to ensure vibration in the patient treatment area does not exceed a vibration dose value of $0.1m/s^{1.75}$. AND **AO50.2 Hospitals** are designed and constructed to ensure vibration in the ward of a **patient care area** does not exceed a vibration dose value of $0.4m/s^{1.75}$.	Not applicable
PO51 Development is designed and sited to ensure light from infrastructure within, and from users of, a **state-controlled road** or **type 1 multi-modal corridor**, does not: 1. intrude into buildings during night hours (10pm to 6am); 2. create unreasonable disturbance during evening hours (6pm to 10pm).	No acceptable outcomes are prescribed.	Not applicable

Table 1.6: Development in a future state-controlled road environment

Performance outcomes	Acceptable outcomes	Response
PO52 Development does not impede delivery of a **future state-controlled road**.	**AO52.1** Development is not located in a **future state-controlled road**. OR ALL OF THE FOLLOWING APPLY: **AO52.2** Development does not involve filling and excavation of, or material changes to, a **future state-controlled road**. AND **AO52.3** The intensification of lots does not occur within a **future state-controlled road**. AND **AO52.4** Development does not result in the landlocking of parcels once a **future state-controlled road** is delivered.	Not applicable – there is no future state-controlled road within the vicinity of the site.
PO53 The location and design of **new or changed access** does not create a safety hazard for users of a **future state-controlled road**.	**AO53.1** Development does not include **new or changed access** to a **future state-controlled road**.	Not applicable
PO54 Filling, excavation, building foundations and **retaining structures** do not undermine, damage or cause subsidence of a **future state-controlled road**.	No acceptable outcome is prescribed.	Not applicable
PO55 Development does not result in a material worsening of stormwater, flooding, overland flow or drainage impacts in a **future state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	Not applicable

Performance outcomes	Acceptable outcomes	Response
PO56 Development ensures that stormwater is lawfully discharged.	**AO56.1** Development does not create any new points of discharge to a **future state-controlled road**. AND **AO56.2** Development does not concentrate flows to a **future state-controlled road**. AND **AO56.3** Stormwater run-off is discharged to a **lawful point of discharge**. AND **AO56.4** Development does not worsen the condition of an existing **lawful point of discharge** to the **future state-controlled road**.	Not applicable