PROPOSED DEVELOPMENT OF LOT 14 OF THE FLAGSTONE LOGISTICS ESTATE

Traffic Impact Assessment

CH Hydrangea Pty Ltd

20th July 2025

FOR INFORMATION ONLY

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1. INTRODUCTION

1.1 Overview

This Traffic Impact Assessment has been prepared on behalf of CH Hydrangea Pty Ltd (Applicant) in support of a development application over part of the land at 4499-4651 Mount Lindesay Highway, North Maclean QLD 4280 and described as part of Lot 39 on SP338781 (site). This PDA Development Application seeks approval for a Development Permit for a Material Change of Use for a Warehouse (Distribution Centre) and Low impact industry.

The proposed development will function as distribution centre for the tenant, for the receival, warehousing, storing and distribution of products, and will include a facility that enables material to be printed for distribution and limited storage of dangerous goods. The proposed development will operate 24 hours a day, 7 days a week and will be located within Stage 2 of the overarching PDA Development Approval for the Flagstone Logistics Estate (EDQ Reference: DEV2018/961/18).

1.2 Background

Bitzios Consulting provided traffic engineering advice as part of the minor change to the overarching PDA Development Approval for the application associated with the Flagstone Logistics Estate (EDQ Reference: DEV2018/961/12). As part of this approval, a significant amount of transport planning documentation, intersections analysis, etc was completed based on a non-specified industrial / warehouse development. Consideration was given to the development that would ultimately occupy the subject site as well as the broader area. Accordingly, refence is made to the approval material where relevant herein.

1.3 Development Details

Key development details affecting or relating to traffic and transport are outlined below:

- **Yield:** 141,056m^2 gross floor area (GFA)
- **Access:** via four (4) driveway crossovers onto Connect Way
- **Parking:** 644 car parking spaces including seven (7) PWD spaces
- **Servicing:** Provision for up to 20m Articulated Vehicles (AVs).

A copy of the development plans is included at **Appendix A**.

1.4 Scope of Works

The scope of this Traffic Impact Assessment (TIA) included the following tasks:

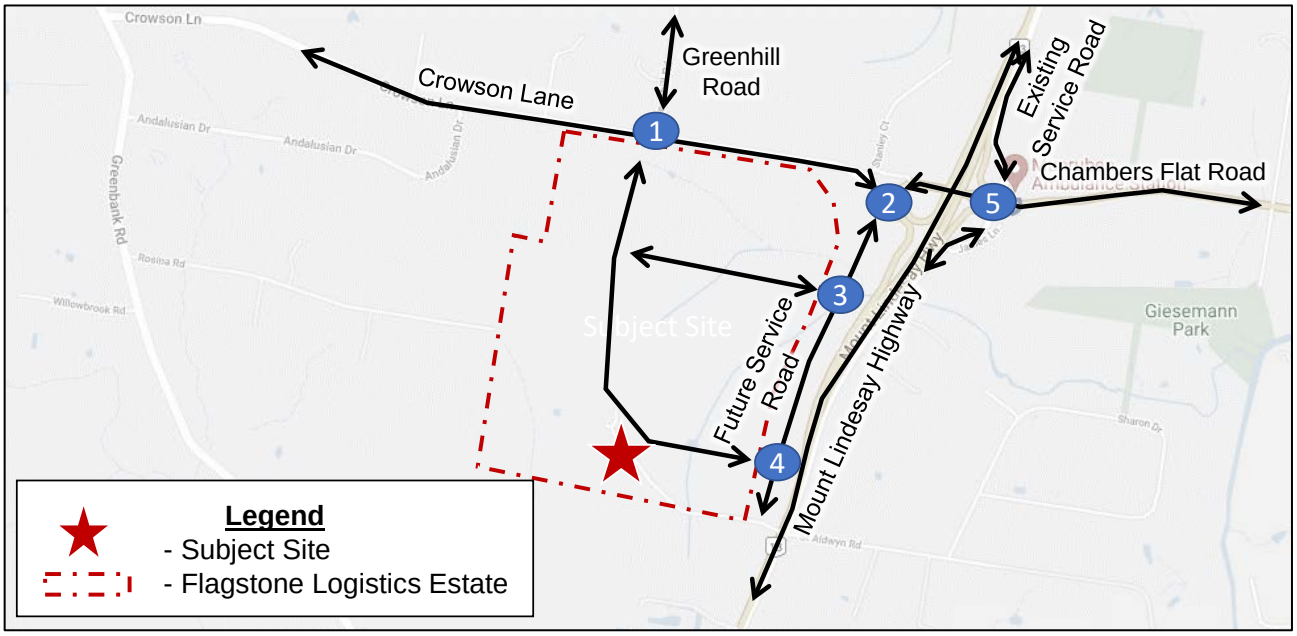
- Reviewing the proposed access arrangement against Council's 'Servicing, Access and Parking Code' (SAP Code) and / or relevant Australian Standards (AS2890)
- Reviewing the proposed car parking provisions against Council's SAP Code
- Reviewing the internal car park layout against Council's SAP Code and / or AS2890
- Reviewing the proposed servicing arrangements against Council's SAP Code and / or AS2890, including preparing swept path diagrams
- Estimating development peak hour traffic demands and comparing them to those estimated as part of the overarching DA traffic analysis.

It is noted that Council documents / requirements have been utilised in absence of EDQ specific material.

2. EXISTING CONDITIONS

2.1 Road Network Overview

Figure 2.1 illustrates key elements of the existing road network close to the subject site.



Source: Google Maps

Figure 2.1: Road Network

Table 2.1 provides a summary of the key roads located near the subject site.

Table 2.1: Key Roads

Road Name	Jurisdiction	Hierarchy	Cross Section	Posted Speed
Crowson Lane	Council	Arterial	2 lanes undivided	80km/h
Future Mount Lindesay Highway Service Road	TMR	Trunk Connector	2 lanes undivided	60km/h
Chambers Flat Road	Council	Arterial	2 lanes undivided	80km/h
Mount Lindesay Highway	TMR [1]	Highway	2 lanes divided	90km/h
Greenhill Road	Council	Rural Collector	2 lanes undivided	60km/h

1. TMR = Department of Transport and Main Roads

Table 2.2 provides a summary of the key intersections located near the subject site.

Table 2.2: Key Intersections

ID	Name	Jurisdiction	Control
1	Crowson Lane / Greenhill Road / New Internal Road	Council	Priority [1]
2	Mount Lindesay Highway / Crowson Lane / Chambers Flat Road / Service Road	TMR [2]	Roundabout
3	Service Road / New Internal Road	TMR [2]	Priority
4	Service Road / New Internal Road	TMR [2]	Priority
5	Crowson Lane / Chambers Flat Road / Mount Lindesay Highway Service Road	TMR [2]	Roundabout

1. Intersection 1 to be upgraded to signal control as part of the Flagstone Logistics Estate
2. TMR = Department of Transport and Main Roads

2.2 Greater Flagstone Priority Development Area

The subject site is located within the Greater Flagstone Priority Development Area (GFPDA) and is part of the North Maclean Industry and Business Zone.

Figure 2.2 illustrates the location of the subject site within the surrounding GFPDA.

Source: Nearmaps

Figure 2.2: Greater Flagstone Priority Development Area

2.3 Road Network Planning

It is understood that Crowson Lane is proposed to be upgraded to a four (4) lane arterial road, which will provide a primary connection between Flagstone and the Mount Lindesay Highway. Land acquisition has already commenced to allow for the widening of Crowson Lane, however, timing of the upgrades is still yet to be confirmed. It is understood that the ultimate connection will accommodate in the order of 30,000 vehicles per day by 2041.

Noting that a 2041 design horizon exceeds the proposed development year of opening and 10-year design horizon, an assessment scenario adopting 30,000 vehicles per day along Crowson Lane has not been considered herein.

Figure 2.3 presents the proposed layout of Crowson Lane along the frontage of the subject site which has been supplied by Council/EDQ.

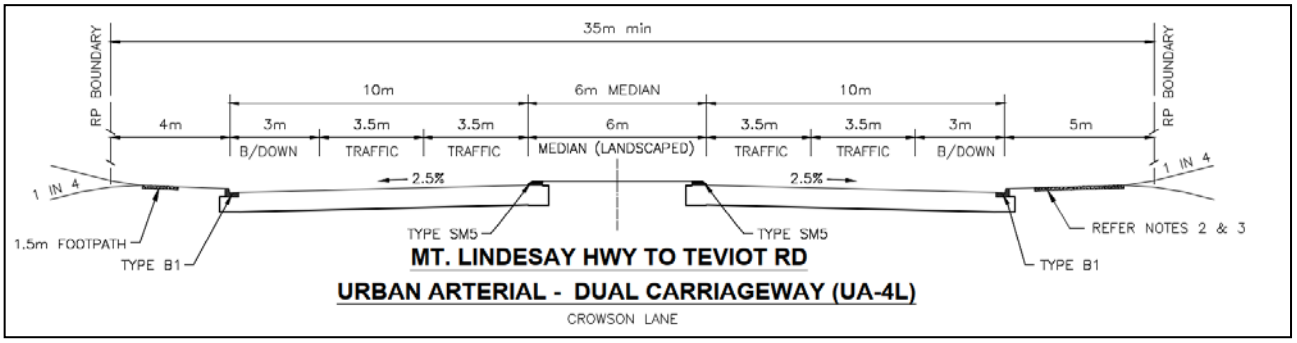


Figure 2.3: Crowson Road Layout

3. TRAFFIC GENERATION RATE

3.1 Overview

Detailed traffic analysis was undertaken as part of the previous PDA development approval (EDQ Reference: DEV2018/961/12). This analysis considered amongst other things, the expected traffic generation of the precinct and informed the provision of the local road and intersection infrastructure.

However, at the time of assessment there was uncertainty regarding the potential developments that would ultimately occupy the Flagstone Logistics Estate. As such, assumptions were made to estimate the development traffic generation potential of the estate and the future southern planned catchment within the PDA.

In accordance with the Rytenskild Traffic Engineering report, prepared as part of the original approval over the Flagstone Logistics Estate (EDQ Reference: DEV2018/961), a 0.4 trips per 100m^2 GFA traffic generation rate was adopted. This was to ensure consistency with the previously approved traffic engineering application material.

Since this assessment in 2018 / 2019, further traffic generation survey data has been captured. A review has been undertaken of the more recent publicly available traffic generation data to determine if the adopted 0.4 trips per 100m^2 traffic generation rate is appropriate.

TMR's Guide to Traffic Impact Assessments (GTIA) outlines the preferred hierarchy of data sources for traffic generation rates. The preferred hierarchy which is reproduced in order of preference below:

1. Traffic generation survey of an existing development similar to the proposed development in terms of its land use, scale, location and so on
2. Traffic generation data – 2006-2017 (Queensland Open Data)
3. Guide to Traffic Generating Developments (GTGD) Updated traffic surveys, RMS (2013)
4. Guide to Traffic Generating Developments (GTGD), RTA (2002)
5. NZ Trips Database Bureau, 2010 (NZ database)
6. First principles assessment preferably based on forecast usage data
7. Trip Generation Manual, 9th edition, ITE 2012 (USA database).

Data has been sourced and reviewed, which aligns with hierarchy one (1) and two (2). Additionally, the NSW Government recently released the Guide to Transport Impact Assessments, which supersedes the previous Guide to Traffic Generating Developments (Hierarchy three (3) and four (4)). The NSW Guide to Transport Impact Assessments traffic generation rate has also been reviewed herein.

3.2 Traffic Generation Surveys of Existing Similar Developments (Hierarchy 1)

The Redbank Motorway Estate – Stage 4 (RME4) is a 45.53ha industrial development within the Ipswich City Council. As part of the RME4 development application (Ipswich Council Ref: 4252/2022/CA), a review was undertaken of six (6) existing warehouse developments from earlier stages of the Redbank Motorway Estate.

Table 3.1 provides a summary of the surveyed sites.

Table 3.1: Surveyed Site Details

ID	Use	Customer / Tenant	Gross Floor Area
1	Distribution Centre	DB Schenker	37,220m^2
2	Distribution Centre	Zenexus	9,000m^2
3	Distribution Centre	Northline	13,307m^2

ID	Use	Customer / Tenant	Gross Floor Area
4	Distribution Centre	Tyres4U	10,000m^2
5	Warehouse / Distribution Centre	Beaumont Tiles	13,164m^2
6	Distribution Centre	Kmart	51,746m^2

The survey results identified the following peak hour traffic generation rates:

- On average, the AM peak hour trip rate was 0.131 trips per 100m^2 GFA
- On average, the PM peak hour trip rate was 0.116 trips per 100m^2 GFA

3.3 Queensland Open Data 2006-2017 (Hierarchy 2)

A review of the Queensland Open Data surveys identified that of the "Industrial Estate" land uses surveyed, only one (1) development had a yield greater than 100,000m^2 GFA. This was the industrial estate accessed via Magnesium Drive in Crestmead, which is reported as having a total floor area of 415,293m^2. Noting all other surveyed sites had a maximum floor area of 80,000m^2, which is smaller than some individual lots proposed within the Flagstone Logistics Estate, these surveys were not considered representative of the development site.

Seven (7) day traffic volume surveys are available for the Crestmead Estate from 2008. They survey results identified the following weekday peak hour traffic generation rates:

- On average, the AM peak hour trip rate was 0.282 trips per 100m^2 GFA
- On average, the PM peak hour trip rate was 0.287 trips per 100m^2 GFA.

It should be noted that the survey data available from 2008 is 17 years old and is likely to be somewhat outdated and unlikely to consider the modernisation of large scale industrial.

3.4 Guide to Traffic Generating Developments (Hierarchy 3 and 4)

NSW Government recently released the Guide to Transport Impact Assessments (GTIA), which supersedes the previous Guide to Traffic Generating Developments (Hierarchy three (3) and four (4)).

The NSW GTIA includes a specific traffic generation rate for "Large Format Warehousing". The traffic generation rate was derived from surveys across 11 sites in 2024 and the inclusion of a further two (2) sites that were recorded in 2012. The larger estates were reported as comprising multiple warehouses and tenancies, which aligns with the approved Flagstone Logistics Estate.

The survey results identified the following peak hour traffic generation rates, for developments with >100,000m^2 GFA:

- The network AM peak hour traffic generation rate was 0.14 trips per 100m^2 GFA
- The network PM peak hour traffic generation rate was also 0.14 trips per 100m^2 GFA.

3.5 Summary

In summary:

- Based on traffic generation surveys of an existing similar development (Hierarchy 1) undertaken in 2017, an industrial estate >100,000m^2 is expected to generate 0.131 and 0.116 trips per 100m^2 during the weekday AM and PM peaks, respectively
- Based on Queensland Open Data survey data (Hierarchy 2) undertaken in 2008, an industrial estate >100,000m^2 is expected to generate 0.282 and 0.287 trips per 100m^2 during the weekday AM and PM peaks, respectively. However, it should be noted that the survey data is nearly 17 years old
- Based on the NSW Government Guide to Transport Impact Assessments, which supersedes the Guide to Traffic Generating Development (Hierarchy 3 and 4), undertaken primarily in 2024, an industrial estate >100,000m^2 is expected to generate 0.14 and 0.14 trips per 100m^2 during the weekday AM and PM peaks, respectively

- Based on the average of traffic generation data from hierarchy 1, 2, and 3, an industrial estate >100,000m^2 is expected to generate 0.184 and 0.181 trips per 100m^2 during the weekday AM and PM peaks, respectively. It should be noted that the average traffic generation rate is significantly increased by the 2008 data, whereas the 2017 and 2024 traffic generation rates generally align.

Noting the above, a 0.2 trips per 100m^2 GFA traffic generation rate has been adopted for the Flagstone Logistics Estate and the future southern industrial estate. This has been allowed for as part of the assessment herein.

4. DESIGN TRAFFIC VOLUMES

4.1 Background Traffic Volumes

4.1.1 Traffic Survey Data

Peak hour traffic survey data was obtained at the following intersections on Tuesday 4th February 2025 from 6:00am to 10:00am and from 3:00pm to 7:00pm.

- **Intersection 1:** Crowson Lane / Greenhill Road
- **Intersection 2:** Mount Lindesay Highway / Crowson Lane / Chambers Flat Road / Service Road
- **Intersection 5:** Crowson Lane / Chambers Flat Road / Mount Lindesay Highway Service Road.

A copy of the traffic survey data is provided at **Appendix B.**

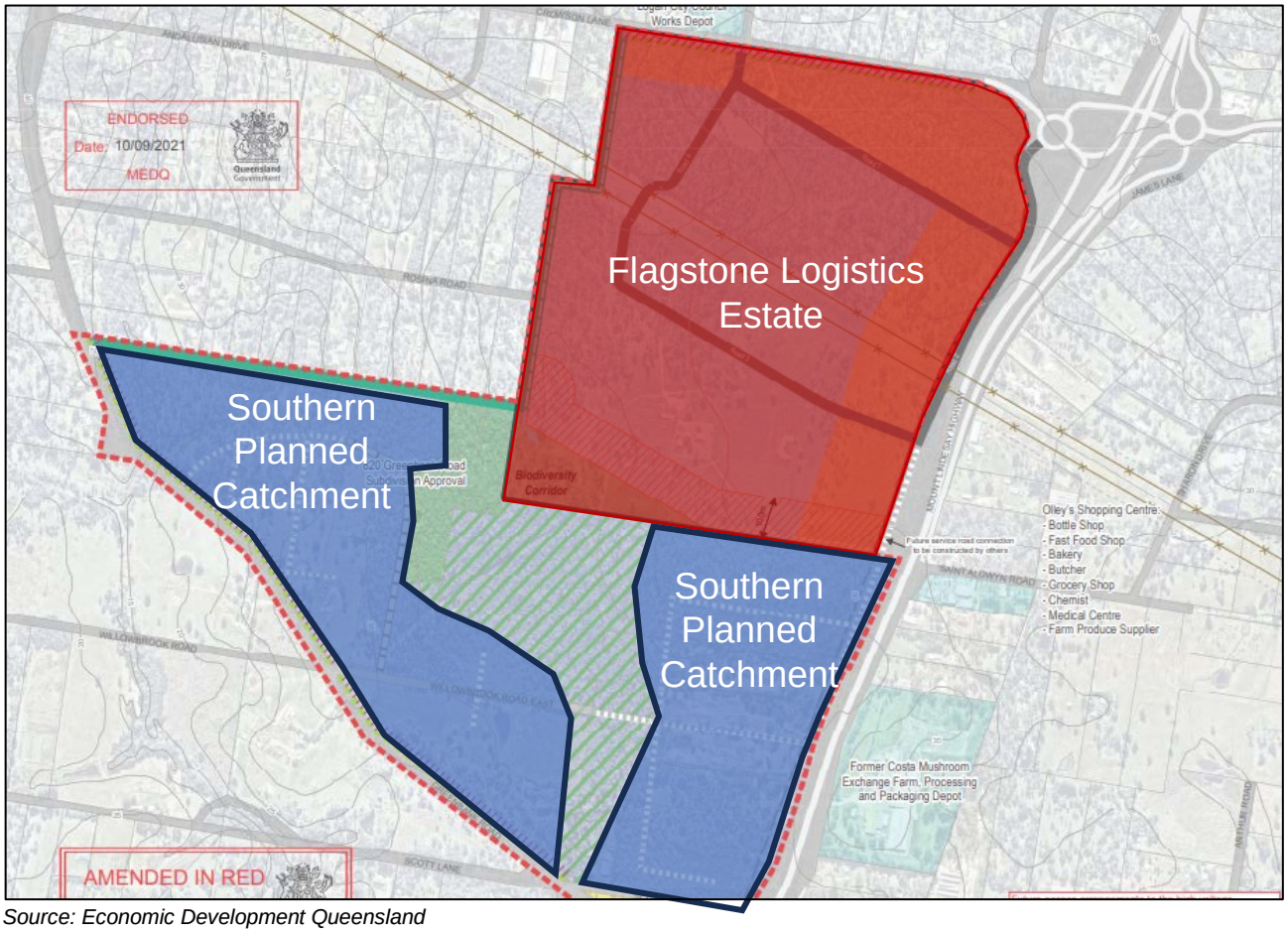
4.1.2 Traffic Growth Rate

TMR's segment data for the Mount Lindesay Highway at site 10098 shows a 1.66% p.a. linear growth rate for background traffic over the past 10 years. This has been adopted for our analysis.

4.1.3 Surrounding Developments

As the Flagstone Logistics Estate and service road have not yet been constructed, we are unable to undertake turning movement surveys at the new intersections to determine the expected background traffic volumes. Alternatively, we have undertaken a review of the catchment to the south (Southern Planned Catchment) and of the proposed Flagstone Logistics Estate traffic volumes.

Figure 4.1 illustrates the endorsed master planning for the area including the Flagstone Logistics Estate and the industry and business zone to the south.



Source: Economic Development Queensland

Figure 4.1: Surrounding Future Developments

4.1.4 Flagstone Logistics Estate

All traffic generation and distribution assumptions are consistent with the previously approved assessment, except for the amended traffic generation rate, which is based on the findings outlined in Section 3.

Table 4.1 identifies the peak hour generation rate adopted for the Flagstone Logistics Estate.

Table 4.1: Trip Generation Rate – Flagstone Logistics Estate

Land Use	AM Peak Hour Rate	PM Peak Hour Rate
Industry & Warehouse	0.20 trips / 100m^2 GFA	0.20 trips / 100m^2 GFA

Table 4.2 summarises the adopted directional splits for the Flagstone Logistics Estate traffic.

Table 4.2: Directional Splits – Flagstone Logistics Estate

Land Use	AM Inbound	AM Outbound	PM Inbound	PM Outbound
Industry & Warehouse	70%	30%	40%	60%

Table 4.3 summarises the traffic generation estimated as part of the Flagstone Logistics Estate.

Table 4.3:Estimated Traffic Generation – Flagstone Logistics Estate

Land Use	Estimated Yield	AM Peak (Trips)			PM Peak (Trips)		
		In	Out	Total	In	Out	Total
Industry & Warehouse	520,000m^2	728	312	1,040	416	624	1,040

In summary, the Flagstone Logistics Estate is expected to generate in the order of 1,040 peak hour trips.

4.1.5 Southern Planned Catchment

All traffic generation and distribution assumptions are consistent with the previously approved assessment, except for the amended traffic generation rate, which is based on the findings outlined in Section 3.

Table 4.4 identifies the peak hour generation rate adopted for the Southern Planned Catchment.

Table 4.4: Trip Generation Rate – Southern Planned Catchment

Land Use	AM Peak Hour Rate	PM Peak Hour Rate
Business, Industry & Warehouse	0.20 trips / 100m^2 GFA	0.20 trips / 100m^2 GFA

Table 4.5 summarises the adopted directional splits for the Southern Planned Catchment traffic.

Table 4.5: Directional Splits – Southern Planned Catchment

Land Use	AM Inbound	AM Outbound	PM Inbound	PM Outbound
Business, Industry & Warehouse	50%	50%	50%	50%

Table 4.6 summarises the traffic generation estimated as part of the Southern Planned Catchment.

Table 4.6:Estimated Traffic Generation – Southern Planned Catchment

Land Use	Estimated Lot Size	Plot Ratio	Estimated Yield	AM Peak (Trips)			PM Peak (Trips)		
				In	Out	Total	In	Out	Total
Business, Industry & Warehouse	~910,000m^2	40%	364,000m^2	364	364	728	364	364	728

Table 4.7 summarises the traffic generation estimated as part of the Southern Planned Catchment.

Table 4.7:Estimated Traffic Generation on Service Road – Southern Planned Catchment

Land Use	Directional Factor	AM Peak (Trips)			PM Peak (Trips)		
		In	Out	Total	In	Out	Total
Business, Industry & Warehouse	10% North	36	36	73	36	36	73

In summary, the Southern Planned Catchment is expected to generate in the order of 728 peak hour trips, with 73 of these trips (i.e. 10%) utilising the Service Road along the subject site's frontage.

4.2 Development Traffic Generation

4.2.1 Assumed Development Traffic

As part of the Flagstone Logistics Estate assessment, an allowance was made for traffic to be generated by the subject site. All traffic generation and distribution assumptions are consistent with the previously approved assessment, except for the amended traffic generation rate, which is based on the findings outlined in Section 3.

Table 4.8 identifies the peak hour generation rate adopted for the expected development.

Table 4.8: Trip Generation Rate – Expected Development

Land Use	AM Peak Hour Rate	PM Peak Hour Rate
Industry & Warehouse	0.20 trips / 100m^2 GFA	0.20 trips / 100m^2 GFA

Table 4.9 summarises the adopted directional splits for the expected development.

Table 4.9: Directional Splits – Expected Development

Land Use	AM Inbound	AM Outbound	PM Inbound	PM Outbound
Industry & Warehouse	70%	30%	40%	60%

Table 4.10 summarises the traffic generation estimated as part of the expected development.

Table 4.10:Estimated Traffic Generation – Expected Development

Land Use	Lot Size	Plot Ratio	Estimated Yield	AM Peak (Trips)			PM Peak (Trips)		
				In	Out	Total	In	Out	Total
Industry & Warehouse	103,450m^2	40%	41,380m^2	58	25	83	33	50	83

In summary, as part of the traffic estimated to be generated by the Flagstone Logistics Estate, an allowance was made for 83 peak hour trips to be generated by the subject site.

4.2.2 Proposed Development Traffic

Table 4.11 provides a summary of the key traffic generation information provided by the tenant.

Table 4.11:Adopted Operational Assumptions

Scenario	Time	Trips		Comment
		Inbound	Outbound	
Light Vehicles				
Night Shift Departure	4:00am to 5:00am	-	420	Outside of AM network peak scenario - Not Assessed
Day Shift Arrival	7:00am to 8:00am	568	-	Conflicts with AM network peak - Assessed
Day Shift Departure	5:00pm to 6:00pm	-	568	Highest outbound concentration of traffic - Assessed
Night Shift Arrival	6:00pm to 7:00pm	420	-	Outside of PM Peak - Not Assessed
Heavy Vehicles				
Day Shift	6:00am to 4:00pm	45 / hr	45 / hr	Conflicts with all peaks - Assessed
Night Shift	4:00pm to 6:00am	8 / hr	8 / hr	Conflicts with PM 2 peak - Assessed

Noting the high concentration of outbound traffic during the 'Day Shift Departure' scenario, a third peak period assessment has been undertaken from 6:00pm to 7:00pm (PM 2). It has been assumed that the surrounding development peaks (i.e. Flagstone Logistics Estate and the Southern Planned Catchment) will also align with the PM 2. This is considered conservative as these development peaks are more likely to coincide with PM 1 network peak (i.e. 3:15pm to 4:15pm) and cannot coincide with both.

The AM peak network peak coincides with the day shift arrival and as such, a secondary AM assessment scenario is not considered warranted.

Table 4.12 summarises the traffic generation estimated as part of the expected development.

Table 4.12:Net Development Traffic Generation

Scenario	AM Peak (Trips)			PM 1 Peak (Trips)			PM 2 Peak (Trips)		
	In	Out	Total	In	Out	Total	In	Out	Total
Proposed Development	613	45	658	45	45	90	8	576	584
Allowed For Development	58	25	83	33	50	83	33	50	83
Assessed Vols (difference)	**555**	**20**	**575**	**12**	**-5**	**7**	**-25**	**526**	**501**

In summary, the proposed development is expected to generate an additional 575 trips during the AM network peak, an additional seven (7) trips during the PM network peak (PM 1), and an additional 501 trips during the PM development peak (PM2).

4.3 Network Distribution

Table 4.13 summarises the road network distributions for the proposed development, which aligns with the approved network distributions adopted as part of the Flagstone Logistics Estate assessment.

Table 4.13:Traffic Distribution

North	South	East	West
65%	10%	10%	15%

4.4 Design Traffic Volumes

For the purposes of the traffic assessment, we have assumed the following:

- **Year of Opening**: 2029
- **10-year Post Opening Design Horizon**: 2039.

It is understood the applicant is planning to commence operations in 2028 instead of 2029. However, 2029 has been adopted as the year of opening to align with the completion of the Flagstone Logistics Estate (i.e. all surrounding developments are online).

Design traffic volumes have been derived for the year of opening and 10-year design horizon allowing for a 1.66% per annum growth rate on Crowson Lane and the Mount Lindesay Highway traffic volumes. Design traffic volumes are included at **Appendix C**.

5. STATE TRAFFIC ASSESSMENT

5.1 Overview

The traffic assessment has been undertaken generally in accordance with TMR's Guide to Traffic Impact Assessment (GTIA). The GTIA defines the 'impact assessment area' for 'intersection delay' analysis as follows:

> *"All intersections where the development traffic exceeds 5% of the base traffic for any movement in the design peak periods in the year of opening of each stage."*

The GTIA defines the 'impact assessment year' for 'intersection delay' analysis at external intersections as follows:

> *"Year of opening of each stage including the final stage."*

The GTIA defines the 'impact assessment years' for 'intersection delay' analysis at 'access and frontage' intersections as follows:

> *"Year of opening of each stage including the final stage and 10 years after the year of opening of the final stage for access intersections (both new and amended accesses)."*

Accordingly, the following intersections have been assessed:

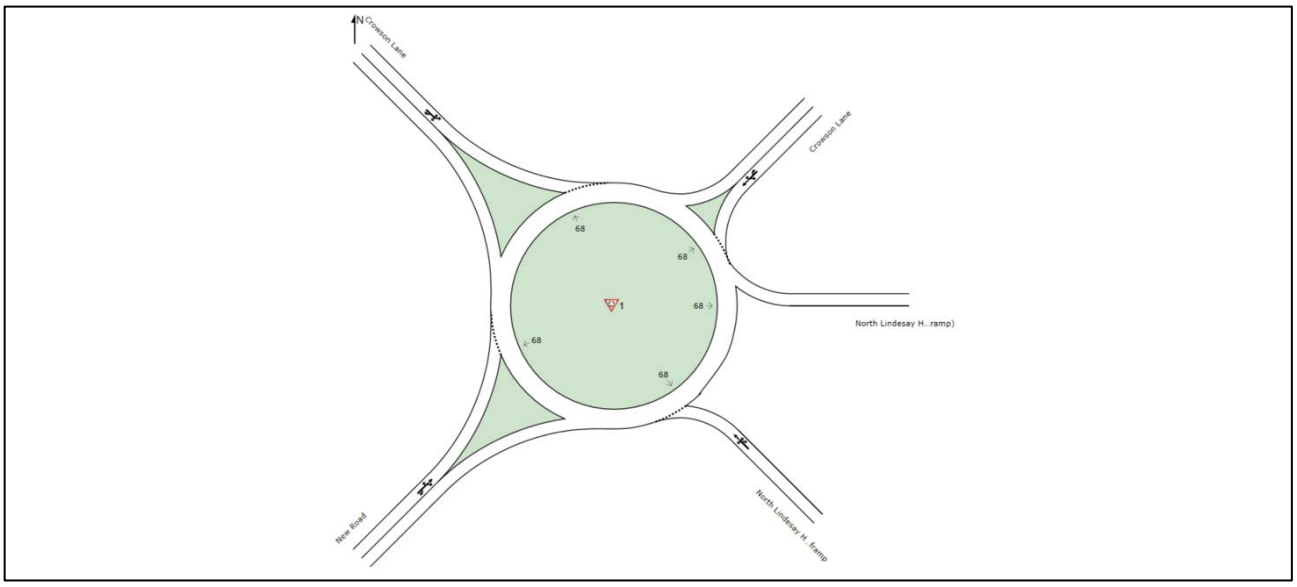
- **Intersection 2:** Mount Lindesay Highway / Crowson Lane / Chambers Flat Road / Service Road
- **Intersection 5:** Crowson Lane / Chambers Flat Road / Mount Lindesay Highway Service Road.

The intersections have been assessed for the following traffic volume scenarios:

- **2029 Background:** Survey Data + Flagstone Logistics Estate + Planned Southern Catchment
- **2029 With Development:** 2029 Background + Net Development Traffic

5.2 Intersection 2 SIDRA Assessment

Figure 5.1 illustrates the existing Intersection 2 configuration which was assessed in SIDRA.



Source: SIDRA

Figure 5.1: Assessed Intersection 2 Configuration – Existing

The SIDRA analysis results based on the existing Intersection 2 configuration are summarised in Table 5.1 with detailed outputs provided at **Appendix D**.

Table 5.1: Intersection 2 – Existing Configuration SIDRA Results

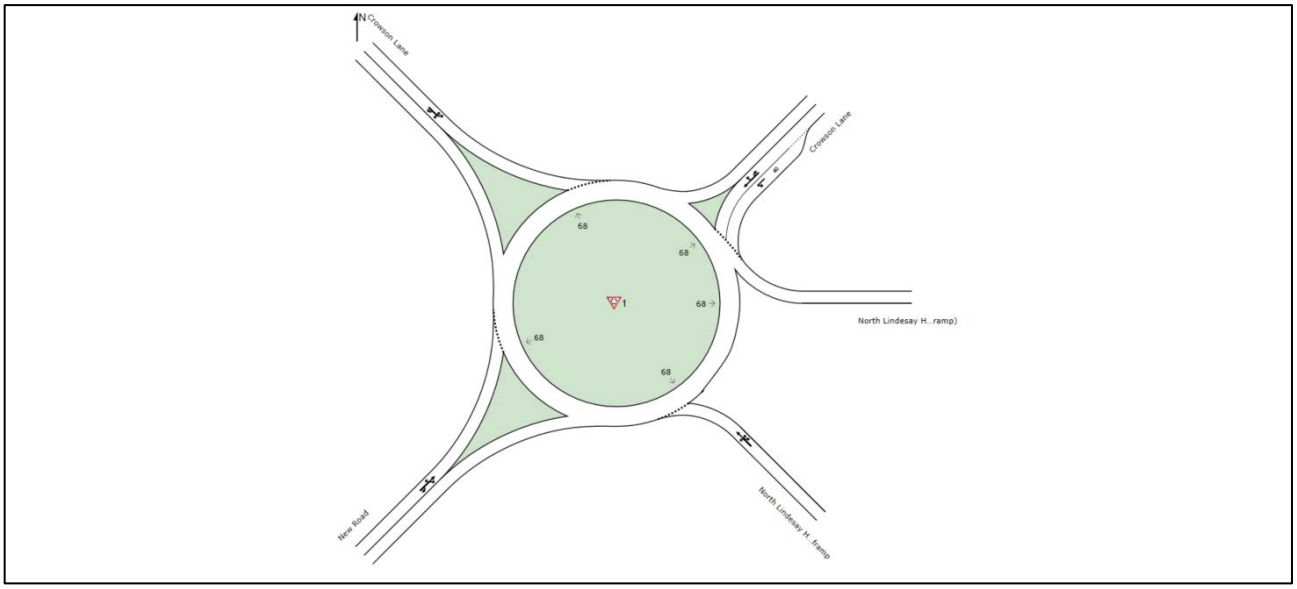
Year	Peak	Scenario	Total Vehicles	Degree of Saturation (DOS)	Critical Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	BG	1,557	0.63	16	A	50
	PM 1		1,656	0.62	18	A	53
	PM 2		1,405	0.53	16	A	36
2029	AM	BG+DEV	2,069	1.01	53	C	401
	PM 1		1,662	0.63	18	A	54
	PM 2		1,853	0.80	33	B	102

The results indicate that the 2029 'BG+DEV' scenario would:

- Exceed the typically adopted performance threshold for a roundabout intersection (i.e. DOS<0.85)
- Exceed TMR's acceptable delay threshold of 42 seconds
- Exceed the acceptable queue provisions, including queues extending back into Intersection 5.

Accordingly, a potential upgrade has been identified to offset these development impacts in accordance with TMR's GTIA. The upgrade involves the provision of a 20m short left turn lane on the north eastern Crowson Lane approach.

Figure 5.2 illustrates the upgraded Intersection 2 configuration which was assessed in SIDRA.



Source: SIDRA

Figure 5.2:Assessed Intersection 2 Configuration – Upgraded

Table 5.2 summarises background traffic volume scenario SIDRA results based on the existing intersection configuration, and Background + Development traffic volume scenario SIDRA results based on the upgraded intersection configuration.

Detailed SIDRA outputs are provided at **Appendix D**.

Table 5.2: Intersection 2 – Upgraded Configuration SIDRA Results

Year	Peak	Scenario	Total Vehicles	Degree of Saturation (DOS)	Critical Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	BG (Existing Configuration)	1,557	0.63	16	A	50
	PM 1		1,656	0.62	18	A	53
	PM 2		1,405	0.53	16	A	36

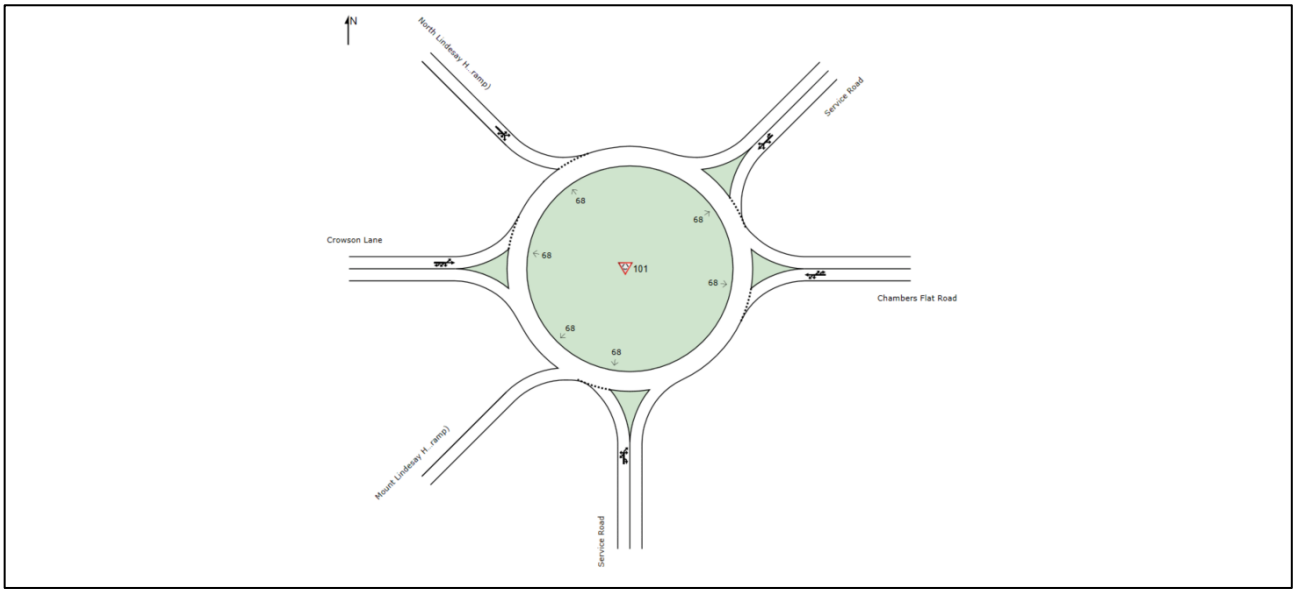
Year	Peak	Scenario	Total Vehicles	Degree of Saturation (DOS)	Critical Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	BG+DEV (Upgraded Configuration)	2,069	0.73	30	A	76
	PM 1		1,662	0.44	17	A	28
	PM 2		1,853	0.73	23	B	75

The results indicate that with the inclusion of the 20m short left turn lane, the intersection would:

- Operate below the typically adopted performance threshold for a roundabout intersection (i.e. DOS<0.85)
- Retain all critical delays below TMR's acceptable delay threshold of 42 seconds
- Retain all queues at acceptable lengths.

5.3 Intersection 5 SIDRA Assessment

Figure 5.1 illustrates the existing Intersection 5 configuration which was assessed in SIDRA.



Source: SIDRA

Figure 5.3: Assessed Intersection 5 Configuration – Existing

The SIDRA analysis results based on the existing Intersection 5 configuration are summarised in Table 5.1 with detailed outputs provided at **Appendix D**.

Table 5.3: Intersection 5 – Existing Configuration SIDRA Results

Year	Peak	Scenario	Total Vehicles	Degree of Saturation (DOS)	Critical Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	BG	1,262	0.49	18	A	28
	PM 1		1,409	0.50	18	A	29
	PM 2		1,122	0.41	17	A	22
2029	AM	BG+DEV	1,704	0.79	45	B	96
	PM 1		1,418	0.51	18	A	29
	PM 2		1,214	0.43	18	A	23

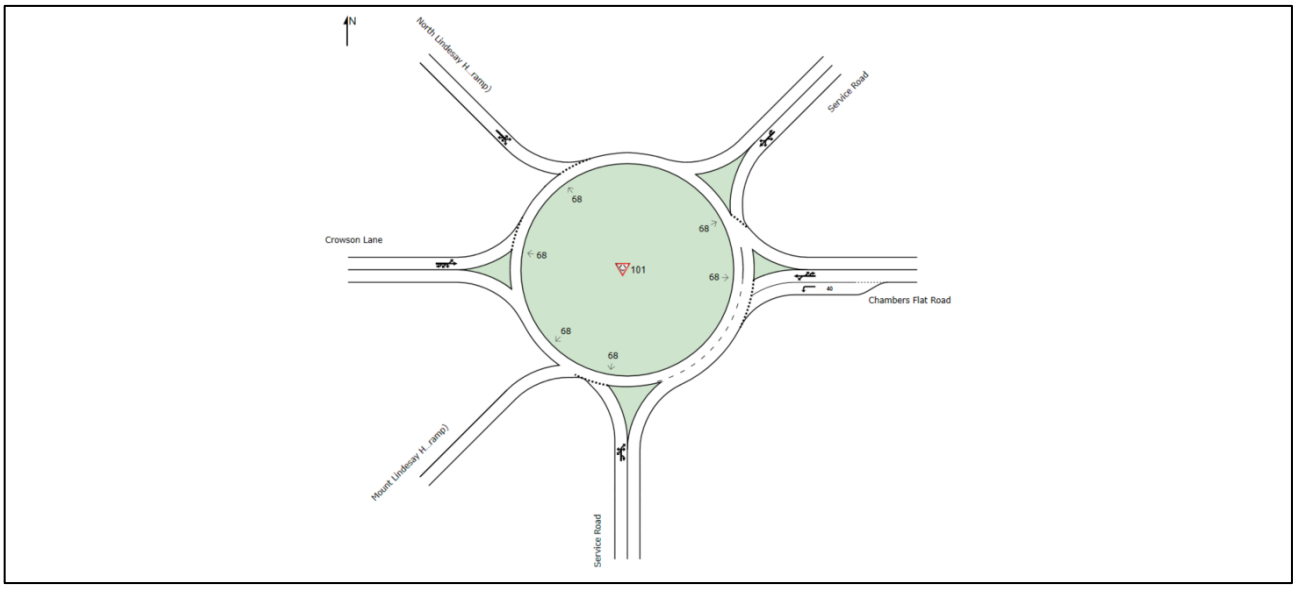
The results indicate that the 2029 'BG+DEV' scenario would:

- Operate below the typically adopted performance threshold for a roundabout intersection (i.e. DOS<0.85)
- Exceed TMR's acceptable delay threshold of 42 seconds

- Retain all queues at acceptable lengths.

Accordingly, a potential upgrade has been identified to offset these development impacts in accordance with TMR's GTIA. The upgrade involves the provision of a 20m short left turn lane on the eastern Chambers Flat Road approach.

Figure 5.2 illustrates the upgraded Intersection 5 configuration which was assessed in SIDRA.



Source: SIDRA

Figure 5.4:Assessed Intersection 5 Configuration – Upgraded

Table 5.2 summarises background traffic volume scenario SIDRA results based on the existing intersection configuration, and Background + Development traffic volume scenario SIDRA results based on the upgraded intersection configuration.

Detailed SIDRA outputs are provided at **Appendix D**.

Table 5.4: Intersection 5 – Upgraded Configuration SIDRA Results

Year	Peak	Scenario	Total Vehicles	Degree of Saturation (DOS)	Critical Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	BG (Existing Configuration)	1,262	0.49	18	A	28
	PM 1		1,409	0.50	18	A	29
	PM 2		1,122	0.41	17	A	22
2029	AM	BG+DEV (Upgraded Configuration)	1,704	0.79	33	B	96
	PM 1		1,418	0.51	18	A	29
	PM 2		1,214	0.43	18	A	23

The results indicate that with the inclusion of the 20m short left turn lane, the intersection would:

- Operate below the typically adopted performance threshold for a roundabout intersection (i.e. DOS<0.85)
- Retain all critical delays below TMR's acceptable delay threshold of 42 seconds
- Retain all queues at acceptable lengths and prevent any queues extending back into Intersection 5.

5.4 Network Delay Assessment

Table 5.5 presents the State-controlled network delay assessment considering the upgraded Intersection 2 and 5 configuration analysis results.

Table 5.5: Delay Assessment Considering Upgrades

Intersection ID	Background			Background + Development*		Impact	
	Demand	Delay (sec/veh)	Delay (veh-mins)	Delay (sec/veh)	Delay (veh-mins)	Delay (veh-mins)	%
AM Peak							
2	1,557	6.9	180.1	8.3	216.4	36.3	20.15%
5	1,262	10.0	209.9	15.7	330.3	120.3	57.33%
PM 1 Peak							
2	1,662	9.2	254.2	7.9	218.1	-36.1	-14.19%
5	1,409	9.0	210.2	8.8	206.4	-3.8	-1.80%
PM 2 Peak							
2	1,405	8.2	191.9	11.4	267.6	75.6	39.39%
5	1,122	8.7	163.6	9.1	169.9	6.4	3.88%
TOTAL	**8,417**	**8.6**	**1,210**	**10.0**	**1,409**	**198.7**	**16.42%**

The above results indicate that development traffic may increase background traffic delays at Intersections 2 and 5 by more than 5%. However, the proposed operations are considered suitable for the following reasons:

- The assessment undertaken includes allowance for all developments within the North Maclean PDA (i.e. the remainder of the Flagstone Logistics Estate and the planned Southern Catchment)
- As a result of the upgrades proposed, both Intersection 2 and 5:
  - Operate with a maximum degree of saturation of 0.79, which is below the typically adopted threshold of 0.85 for a roundabout intersection
  - Have a critical delay of 33 seconds, which is well below TMR's acceptable delay threshold of 42 seconds for a priority-controlled movement
  - Operate with a maximum queue of 96m, which occurs on the northern Mount Lindesay Highway off ramp approach to Intersection 5. This off ramp is >400m long and has ample capacity to accommodate the 96m of queueing
  - A safety assessment has been undertaken (refer to Section 5.5), which demonstrates that no additional upgrades are warranted from a safety perspective.

Based on the above, Intersection 2 and 5 are expected to operate below capacity while considering the development potential of the remainder of the Noth Maclean PDA.

Further, it is expected that any additional upgrades beyond what is proposed would only be short term fixes that would need to be addressed as part of the future four-lane upgrade of Crowson Lane. It is understood that Council predict ~30,000 vehicles per day will use Crowson Lane, which suggests a new interchange would likely be required. As such, it is expected that TMR would have planning in the near future to provide a new interchange that is suitable to accommodate the demands expected from the Council upgrade.

5.5 Safety Assessment

5.5.1 Overview

In terms of road safety, TMR's GTIA states:

"Development should ensure that a road's safety is not significantly worsened as a result of development and that any pre-existing or development-introduced unacceptable safety risk is addressed. 'Significantly worsened' is defined in terms of the change in the safety risk rating (for example, from low to medium or from medium to high)."

Figure 5.5 illustrates the recommended safety risk score matric outlined in the GTIA.

		Potential consequence				
		Property only (1)	Minor injury (2)	Medical treatment (3)	Hospitalisation (4)	Fatality (5)
Potential likelihood	Almost certain (5)	M	M	H	H	H
	Likely (4)	M	M	M	H	H
	Moderate (3)	L	M	M	M	H
	Unlikely (2)	L	L	M	M	M
	Rare (1)	L	L	L	M	M

Figure 5.5:Safety Risk Score Matrix

Based on the above, the following key safety risk at intersection 2 and 5 have been identified:

- **Risk 1:** Increased turning movement volumes resulting in excessive delays
- **Risk 2:** Increased turning movement volumes resulting in excessive queues.

5.6 Crash Review

A review of the last 10 years of publicly available crash data (QLD Globe) has been undertaken, which identified no crashes have been reported in the last 10 years at Intersection 2 or 5.

5.7 Risk 1: Excessive Delays

5.7.1 Overview

The key risk associated with the development increasing turning movements at Intersection 2 and 5 is the potential for increases in delays, and as a result motorists decide to accept shorter gaps in traffic / perform unsafe manoeuvres.

5.7.2 Review

The following key points are noted regarding Risk #1:

- No crashes have been recorded at either intersection in the last 10 years
- All critical delays remain below TMR's acceptable delay threshold of 42 seconds in all 'with development' scenarios.

Table 5.6 summarises our safety risk review as per the GTIA. It is important to note that:

- The potential consequence has been judged as "Minor Injury" noting the relatively low travel speeds expected at the roundabouts
- In the "Without Development" scenario, the likelihood has been judged to be "Rare" given the low crash history
- In the "With Development" scenario, the likelihood has also been judged to be "Rare" given that all critical delays remain below TMR's acceptable delay threshold.

Table 5.6: Risk Assessment - Risk #1

Risk Item	Without Development			With Development		
	Likelihood	Consequence	Risk Score	Likelihood	Consequence	Risk Score
Risk #1: Increased turning movement volumes resulting in excessive delays.	1	2	L	1	2	L

In summary, the risk score does not change from "Low". As such, no further safety mitigation is warranted in accordance with the GTIA for Risk #1.

5.8 Risk 2: Excessive Queues

5.8.1 Overview

The other key risk associated with the development increasing turning movements at Intersection 2 and 5 is the potential for increases in queues, which may result in vehicles queuing back onto the Mount Lindesay Highway or through adjacent intersections.

5.8.2 Review

The following key points are noted regarding Risk #2:

- No crashes have been recorded at either intersection in the last 10 years
- All queues remain clear of upstream intersections, with critical queues summarised below:
  - The critical queue at Intersection 1 is 76m, which occurs on the north eastern Crowson Lane approach. This approach has >250m of queue provisions
  - The critical queue at Intersection 2 is 96m, which occurs on the north western Mount Lindesay Highway off ramp. This approach has >400m of queue provisions.

Table 5.6 summarises our safety risk review as per the GTIA. It is important to note that:

- The potential consequence has been judged as "Hospitalisation" noting potential crash speeds if a vehicle were to queue onto the highway
- In the "Without Development" scenario, the likelihood has been judged to be "Rare" given the low crash history
- In the "With Development" scenario, the likelihood has also been judged to be "Rare" given that all queues remain clear of upstream conflict points.

Table 5.7: Risk Assessment - Risk #2

Risk Item	Without Development			With Development		
	Likelihood	Consequence	Risk Score	Likelihood	Consequence	Risk Score
Risk #2: Increased turning movement volumes resulting in excessive queues.	1	4	M	1	4	M

In summary, the risk score does not change from "Medium". As such, no further safety mitigation is warranted in accordance with the GTIA for Risk #2.

6. COUNCIL TRAFFIC ASSESSMENT

6.1 Assessed Traffic Volumes / Scenarios

The development traffic impacts have been assessed for the year of opening (2029) and the 10-year design horizon (2039) in accordance with Council's Planning Scheme requirements.

The following intersections have been assessed:

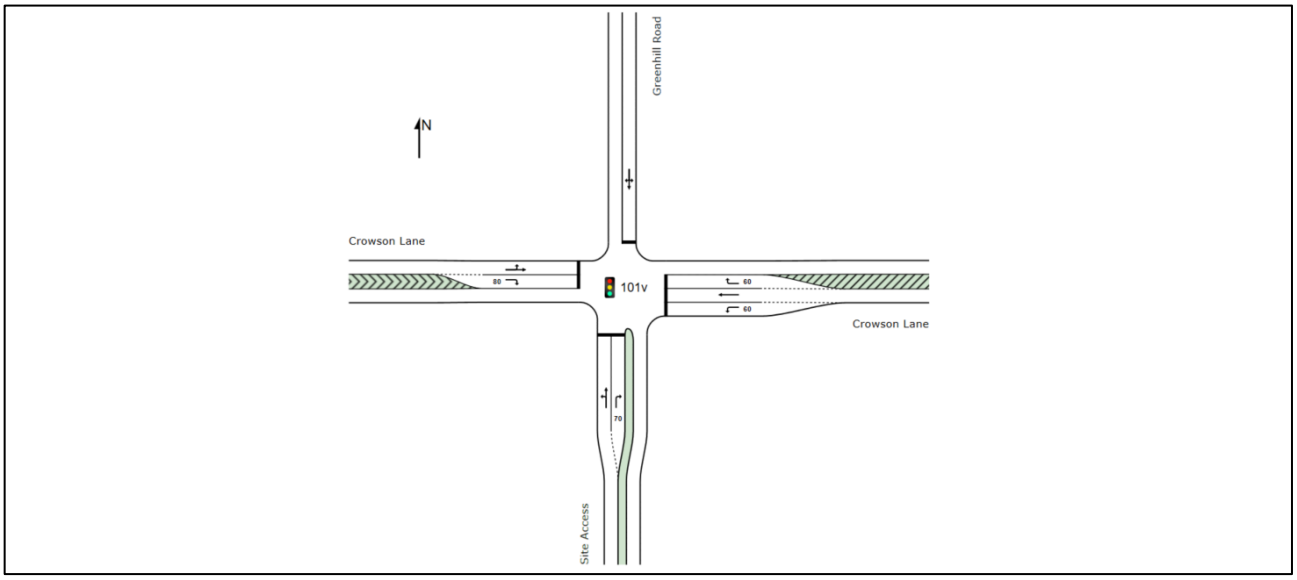
- **Intersection 1:** Crowson Lane / Greenhill Road / New Internal Road
- **Intersection 3:** Service Road / New Northern Internal Road
- **Intersection 4:** Service Road / New Southern Internal Road.

The intersections have been assessed for the following traffic volume scenarios:

- **2029 With Development:** Survey Data + Flagstone Logistics Estate + Planned Southern Catchment + Net Development Traffic
- **2039 With Development:** Survey Data + Flagstone Logistics Estate + Planned Southern Catchment + Net Development Traffic

6.2 Intersection 1 SIDRA Assessment

Figure 6.1 illustrates the modelled geometry of the Intersection 1.



Source: SIDRA

Figure 6.1: Assessed Intersection 1 Configuration

Table 6.1 summarises the SIDRA results for Intersection 1. Detailed SIDRA outputs have been included at **Appendix E**.

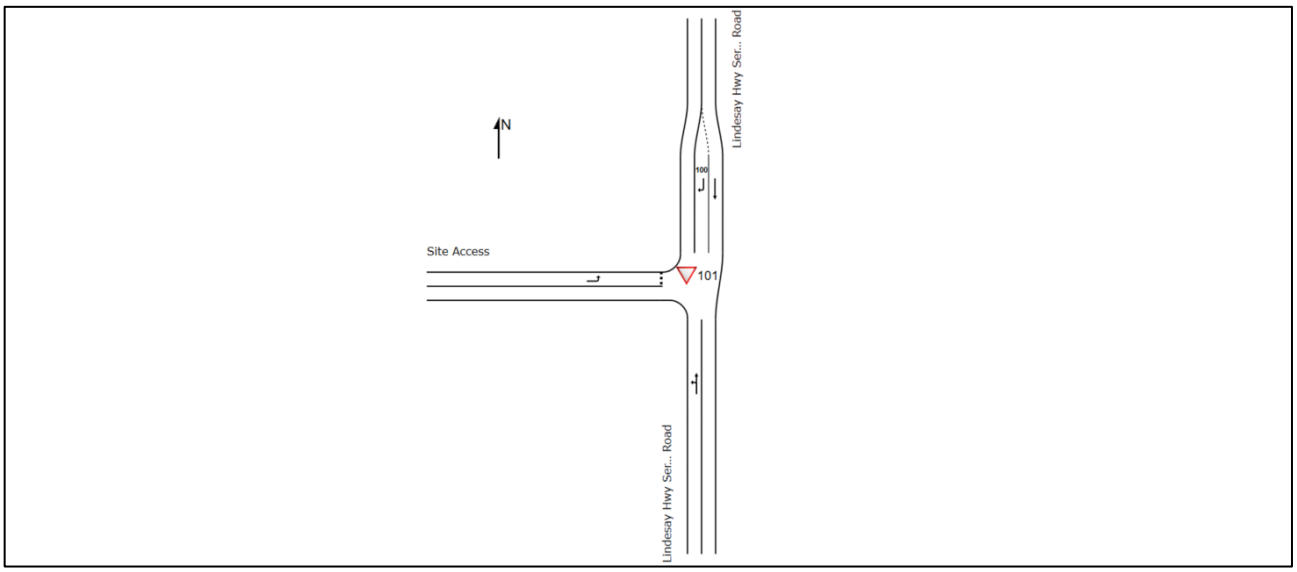
Table 6.1: SIDRA Results: Intersection 1

Year	Peak	Scenario	Volume (vph)	Degree of Saturation	Average Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	With Development	959	0.67	28	C	62
	PM 1		863	0.44	32	C	42
	PM 2		828	0.45	33	C	61
2039	AM		1,026	0.54	30	C	78
	PM 1		946	0.49	32	C	49
	PM 2		879	0.47	33	C	62

In summary, the study intersection operates within typically adopted performance thresholds (DOS <0.9) during all relevant design horizons and as such is considered suitable to support the development. Furthermore, in all scenarios, 95th percentile queuing does not exceed the provided channelised lanes, ensuring reduced likelihood of any overflow impacting through lanes.

6.3 Intersection 3 SIDRA Assessment

Figure 6.1 illustrates the modelled geometry of the Intersection 3.



Source: SIDRA

Figure 6.2: Assessed Intersection 3 Configuration

Table 6.1 summarises the SIDRA results for Intersection 3. Detailed SIDRA outputs have been included at **Appendix E**.

Table 6.2: SIDRA Results: Intersection 3

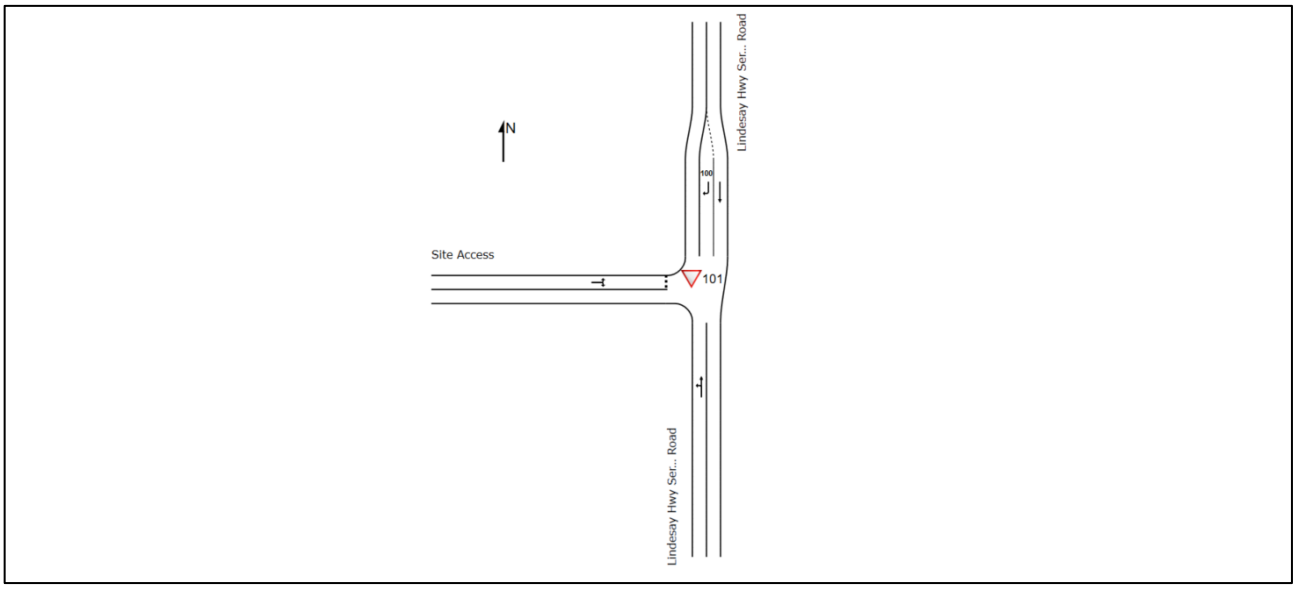
Year	Peak	Scenario	Volume (vph)	Degree of Saturation	Critical Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	With Development	1,268	0.45	7	A	10
	PM 1		734	0.20	7	A	8
	PM 2		1,213	0.49	16	B	21
2039	AM		1,268	0.45	7	A	10
	PM 1		734	0.20	7	A	8
	PM 2		1,213	0.49	16	B	21

In summary, the study intersection operates within typically adopted performance thresholds (DOS <0.8) during all relevant design horizons and as such is considered suitable to support the development. Furthermore, in all scenarios, the critical delay does not exceed TMR's acceptable delay threshold of 42 seconds.

It is noted that the 2029 and 2039 traffic volumes are consistent as it has been assumed that all of the surrounding developments allowed for will be online as part of the 2029 year of opening (i.e. no staging between 2029 and 2039 resulting in no growth). This is consistent timing with the ROL and expected to be a somewhat conservative assumption.

6.4 Intersection 4 SIDRA Assessment

Figure 6.1 illustrates the modelled geometry of the Intersection 4.



Source: SIDRA

Figure 6.3: Assessed Intersection 4 Configuration

Table 6.1 summarises the SIDRA results for Intersection 4. Detailed SIDRA outputs have been included at **Appendix E**.

Table 6.3: SIDRA Results: Intersection 4

Year	Peak	Scenario	Volume (vph)	Degree of Saturation	Critical Delay (s)	Level of Service	95th Percentile Queue (m)
2029	AM	With Development	884	0.46	25	B	30
	PM 1		466	0.17	9	A	7
	PM 2		831	0.46	10	A	27
2039	AM		884	0.46	25	B	30
	PM 1		466	0.17	9	A	7
	PM 2		831	0.46	10	A	27

In summary, the study intersection operates within typically adopted performance thresholds (DOS <0.8) during all relevant design horizons and as such is considered suitable to support the development. Furthermore, in all scenarios, the critical delay does not exceed TMR's acceptable delay threshold of 42 seconds.

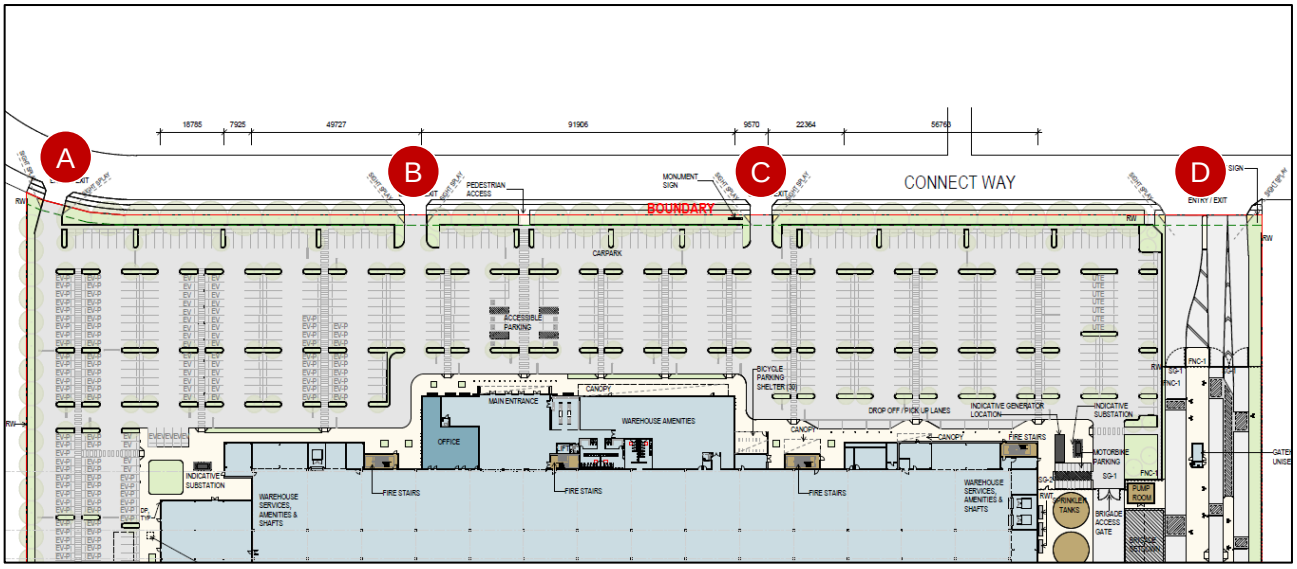
It is noted that the 2029 and 2039 traffic volumes are consistent as it has been assumed that all of the surrounding developments allowed for will be online as part of the 2029 year of opening (i.e. no staging between 2029 and 2039 resulting in no growth). This is consistent timing with the ROL and expected to be a somewhat conservative assumption.

7. Traffic Design Review

7.1 Access Review

7.1.1 Overview

The proposed development includes four (4) access locations, all proposed on Connect Way. Figure 7.1 illustrates the proposed vehicular site access arrangements.



Source: SBA

Figure 7.1:Access Arrangements

The proposed access arrangements are summarised below:

- **Access A, B, and C:** 6.5m Type A driveway crossovers (light vehicles only)
- **Access D:** 23.9m Type C driveway crossover (heavy vehicles)

A review of the proposed vehicular access arrangement has been undertaken as detailed herein.

7.1.2 Configuration

Table 7.1 summarises our review of the proposed configuration against AS2890 and IPWEA requirements.

Table 7.1:Driveway Configuration Review

ID	Design Vehicle	Required Configuration	Proposed Configuration	Compliant
A	B99	6.0m to 9.0m Type A	6.5m Type A	Yes
B			6.5m Type A	Yes
C			6.5m Type A	Yes
D	20m Articulated Vehicle (AV)	9.0m Type B2	Type C2 (11.5m Entry & 10.8m Exit)	Yes

In summary, the proposed access driveway configurations comply with AS2890 and IPWEA requirements. Furthermore, swept path diagrams have been prepared which demonstrate that the relevant design vehicle can independently access and exit the site.

A copy of the swept path diagrams is included at **Appendix F**.

7.1.3 Location

Table 7.2 summarises our review of the proposed driveway locations against AS2890 requirements.

Table 7.2: Driveway Location Review

ID	Adjacent Feature	Required Separation	Actual Separation	Compliant
A	Intersection	6m along kerb	>6m	Yes
B			>6m	Yes
C			>6m	Yes
D			>6m	Yes

In summary, the proposed access locations comply with AS2890 requirements.

7.1.4 Sight Distance

Table 7.3 summarises our review of expected sight distances at each of the access locations against AS2890 requirements. It should be noted that Connect Way has not yet been constructed and as such, we are unable to complete a detailed review of the available sight lines. The assessment undertaken herein is based on the horizontal road alignment identified on the architectural drawings and the assumption that there are will not be any vertical alignment related sight line obstructions.

Table 7.3: Sight Distance Review

Access ID	Posted Speed	Direction	Available	AS2890 Requirements		Compliant
				Desirable	Minimum	
A	50km/h	East	>69m	69m	45m	Yes
		West	>45m			Yes
B		East	>69m			Yes
		West	>69m			Yes
C		East	>69m			Yes
		West	>69m			Yes
D		East	>69m			Yes
		West	>69m			Yes

In summary, available sight distances at the proposed access driveways are expected to comply with AS2890 requirements.

7.2 Car Parking Provision

The proposed development consists of 662 parking spaces, consisting of 644 car parking spaces and 18 motorbike parking spaces.

Table 7.4 summarises our review of the car parking provision against Council's SAP Code.

Table 7.4: Car Parking Provision Review

Land Use	Yield	SAP Provision Rate	Required Spaces	Proposed Spaces	Compliant
Warehouse	141,569m^2	1 space per 100m^2 GFA	1,415	644	See below
Low Impact Industry		1 space per 50m^2 GFA up to 500m^2 + 1 space per 100m^2 GFA thereafter	1,420		See below

Tenant specific staffing numbers and operating times have been provided to assist in determining the expected maximum parking demand. The following key points are noted:

- The day shift will operate from 8:00am to 5:00pm with a maximum of 568 staff
- The night shift will operate from 7:00pm to 4:00am with a maximum of 420 staff

- All staff are assumed to arrive within one (1) hour prior to their shift time and depart the site within one (1) hour of their shift end time
- The day and night shift crossover is staged to prevent significant crossover of staff between shifts (e.g. staff arriving for the night shift before day shift staff are departed).

Based on the above, the maximum number of staff expected on site at any given time is 568. If it is conservatively assumed that no staff members will carpool or use active / public transport, the maximum parking demand would be 568 parking spaces.

In summary, the provision of 644 parking spaces is considered suitable to accommodate the maximum staff parking demand of 568 staff, with a further 76 parking spaces available for any unforeseen additional staff.

7.3 Bike Parking Provision

The proposed development consists of 30 bike parking spaces.

Table 7.5 summarises our review of the bike parking provision against Council's SAP Code.

Table 7.5: Bike Parking Provision Review – Council Requirements

Land Use	Yield	SAP Provision Rate	Required Spaces	Proposed Spaces	Compliant
Warehouse	141,569m^2	NA	-	30	Yes
Low Impact Industry		1 space per 800m^2 GFA	177		See below

The proposed development is not expected to operate as per a traditional warehouse / low impact industry development and as such, a standard bike parking rate per GFA is not considered appropriate. Alternatively, the rates outlined in the QLD Development Code: Mandatory Part 4.1 – Sustainable Buildings have been adopted, which are based on the maximum site occupancy.

Table 7.6 summarises our review of the car parking provision against the QLD Development Code.

Table 7.6: Bike Parking Provision Review – QLD Development Code Requirements

Land Use	Yield	QLD Development Code Rate	Required Spaces	Proposed Spaces	Compliant
Warehouse	568 staff	5% of Maximum Occupancy	28	30	Yes
Low Impact Industry					Yes

In summary, the proposed bike parking provisions are compliant with the QLD Development Code and as such, are considered appropriate from a traffic engineering perspective.

7.4 Site Layout

Table 7.7 summarises our review of the proposed site layout against the requirements in AS2890.

Table 7.7:Site Layout Review

Design Element	Proposed	AS2890 Requirement	Compliant
Parking Spaces (Staff)	2.4m x 5.4m	2.4m x 5.4m	Yes
Parking Spaces (PWD)	2.4m x 5.4m with shared zone	2.4m x 5.4m with shared zone	Yes
Light Vehicle Parking Aisle	6.2m	5.8m	Yes
Height Clearance (Parking Spaces)	Unrestricted	General Spaces – 2.2m PWD Spaces – 2.5m	Yes
Height Clearance (Loading Zone)	>4.5m	4.5m	Yes

7.5 Servicing

The development makes provision for servicing by AV's and smaller design service vehicles.

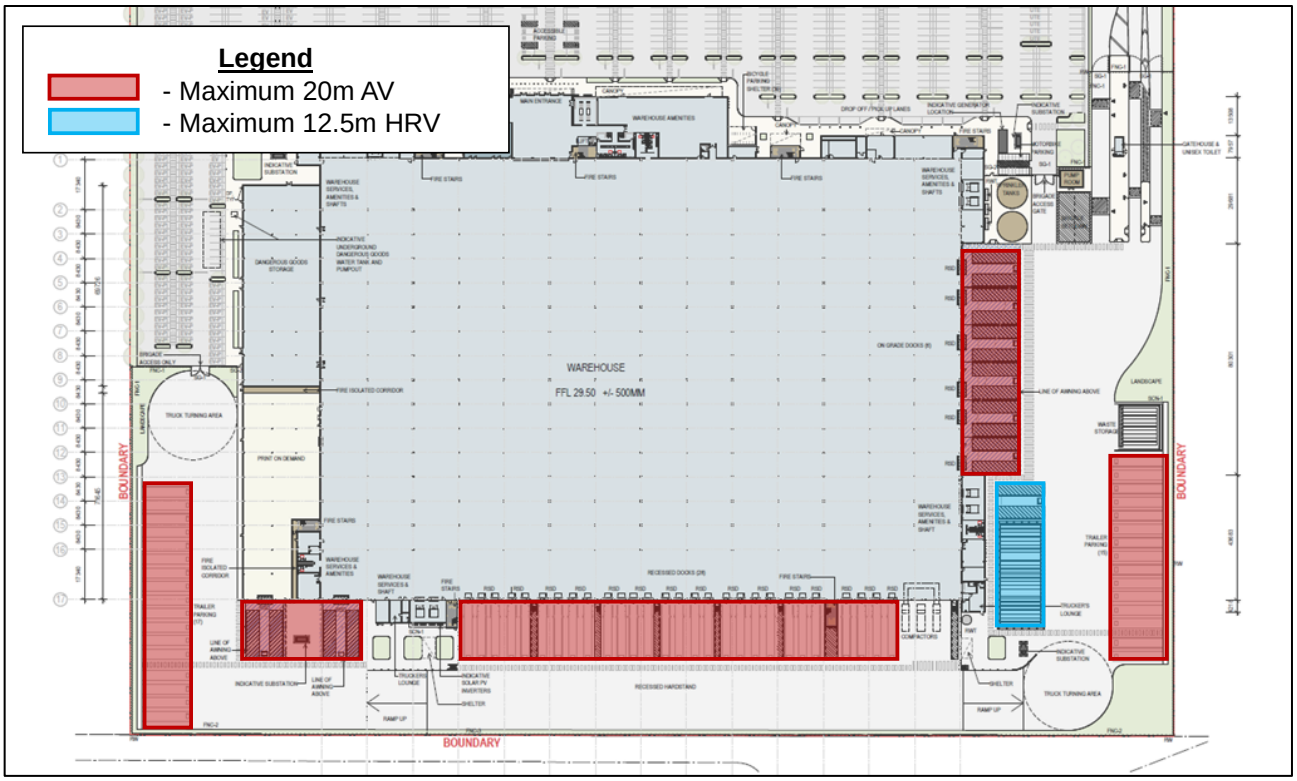
Table 7.8 outlines the regular access service vehicle required by the SAP code.

Table 7.8: Service Vehicle Requirements

Land Use	SAP Code Regular Access Service Vehicle	Compliant
Warehouse / Low Impact Industry	AV/HRV	Yes

Swept path diagrams have been prepared which confirm that AVs and smaller service vehicles (e.g. 12.5m Heavy Rigid Vehicles) can enter the site in a forward gear, access all designated loading bays, and then exit the site in a forward gear.

Figure 7.2 illustrates the designated maximum design vehicle for each service bay / parking area.



Source: Inertia

Figure 7.2: Servicing Arrangements

Refuse collection is proposed adjacent to the two (2) AV loading docks and is expected to occur outside of peak hours. This arrangement is considered appropriate and will allow all vehicles to service the site whilst refuse collection occurs.

A copy of our swept path diagrams is included in **Appendix F**.

In summary, the proposed servicing provisions comply with Council's SAP Code and are considered acceptable from a traffic engineering perspective.

8. SUMMARY

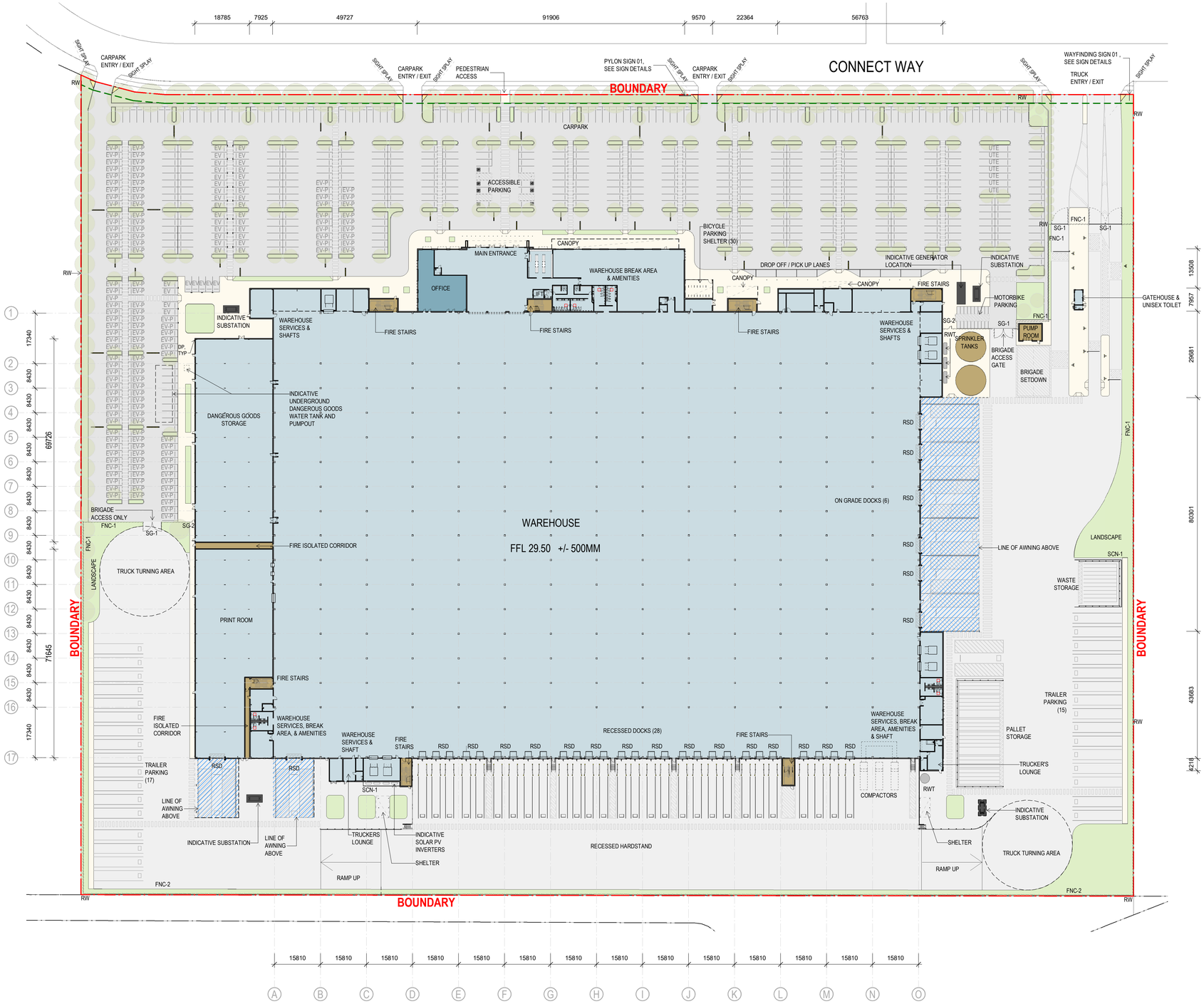
In summary:

- The applicant seeks approval for a warehouse / low impact industry development over part of the land at 4499-4651 Mount Lindesay highway, North Maclean
- A review of the approved Flagstone Logistics Estate traffic generation rate was undertaken, which identified that a 0.2 trips per 100m^2 rate was considered applicable. An amended assessment has been undertaken considering this rate for background traffic
- A delay and safety assessment was completed generally in accordance with TMR's GTIA at the Crowson Lane / Mount Lindesay Highway interchange roundabouts, which identified:
  - **Western Roundabout (Intersection 2):** A short left turn lane with 20m of storage capacity is warranted on the north eastern Crowson Lane approach to ensure the intersection operates below typically adopted capacity and safety thresholds
  - **Eastern Roundabout (Intersection 5):** A short left turn lane with 20m of storage capacity is warranted on the eastern Logan Reserve Road approach to ensure the intersection operates below typically adopted capacity and safety thresholds.
- SIDRA analysis was undertaken at the Flagstone Logistics Estate access intersections, which identified that no mitigation measures are required
- The proposed access, servicing, and car parking layout are generally designed in accordance with relevant standards
- The car parking provision falls short of Council's parking requirements. However, the proposed parking provision is considered suitable from a traffic engineering perspective noting it exceeds the expected maximum number of staff expected on site.

Appendix A: Development Plans

REVISIONS

REV	DESCRIPTION	DATE
1	FOR INFORMATION	23.04.2025
2	WORK IN PROGRESS	30.04.2025
3	WORK IN PROGRESS	14.05.2025
4	DRAFT	19.05.2025
5	DRAFT	23.05.2025
A	ISSUE FOR DA	28.05.2025



1 SITE PLAN 1 : 750

GENERAL NOTES

ALL CAR DRIVE AISLES, PARKING SPACES, AND DISABLED PARKING SPACES IN ACCORDANCE WITH CITY OF LOGAN, LOGAN PLANNING SCHEME 2015 AND AUSTRALIAN STANDARDS AS 2890.

ALL NEW DRIVEWAYS AND CROSS OVERS SHALL BE IN ACCORDANCE WITH LOCAL COUNCIL AND AUSTRALIAN STANDARDS REQUIREMENTS .

SITE STORMWATER DRAINAGE IN ACCORDANCE WITH LOCAL AUTHORITY & COUNCIL REQUIREMENTS.

BICYCLE PARKING AND END OF TRIP FACILITIES TO MEET QUEENSLAND DEVELOPMENT CODE AND AUSTRALIAN STANDARDS REQUIREMENTS

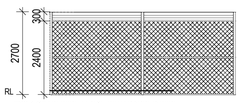
DEVELOPMENT SCHEDULE

SITE AREA	99,592 m²
TOTAL GFA	141,056 m²
SITE COVERAGE *INCLUDES:* - CANOPIES - AWNINGS - PUMP HOUSE - GATE HOUSE *EXCLUDES:* - WATER TANKS - SUBSTATIONS - GENERATOR	44.77%
LANDSCAPE AREA	5.81%
TOTAL CAR PARKING SPACES *INCLUDES:* *- ACCESSIBLE PARKING (7)* *- UTE (7)* *- ELECTRICAL VEHICLE PARKING (39)* *- ELECTRICAL VEHICLE PARKING - FUTURE PROVISION (126)*	644
MOTORBIKE PARKING	18
BICYCLE PARKING	30
TRAILER PARKING	32

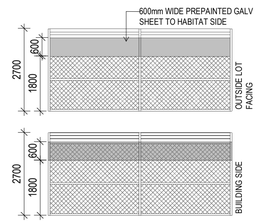
LEGEND

- SITE BOUNDARY
- LANDSCAPE SETBACK
- FNC-1
- FNC-2
- LANDSCAPE AREA
- OFFICE AREA
- WAREHOUSE AREA
- FIRE SERVICES & EGRESS
- HEAVY DUTY PAVEMENT
- LIGHT DUTY PAVEMENT
- PEDESTRIAN PAVEMENT
- AWNING ABOVE
- INDICATIVE LANDSCAPE

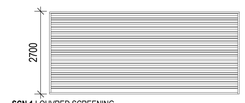
RSD - ROLLER SHUTTER DOOR
DP - DOWNPIPES
RW - RETAINING WALL
TYP - (TYPICAL)
SG1 - SWING GATE
SG2 - SWING GATE - PEDESTRIAN
SCN - SCREEN
RWT - RAINWATER TANK
EV - ELECTRIC VEHICLE PARKING
EV-P - ELECTRIC VEHICLE PARKING (FUTURE PROVISION)
UTE - UTILITY OR LONG WHEEL LIGHT VEHICLE



FNC-1 CHAIN WIRE FENCE WITH BARBED WIRE
ELEVATION SCALE 1:100



FNC-2 FAUNA EXCLUSION FENCING
ELEVATION SCALE 1:100



SCN-1 LOUVRED SCREENING
ELEVATION SCALE 1:100

ISSUE FOR DA

sba

WAREHOUSE & LOW IMPACT INDUSTRY DEVELOPMENT
QUEENSLAND

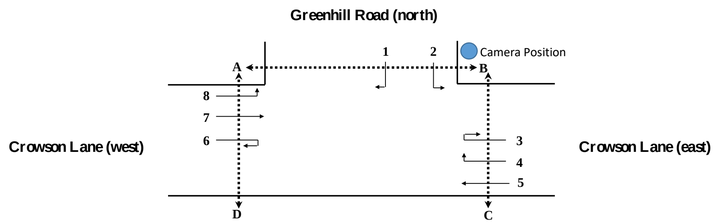
SITE PLAN

Date 28.05.2025 Scale As indicated@A1 Project No 25133 **DA03** **A**

Appendix B: Traffic Survey Data

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine
Location: Crowson Lane/Greenhill Road, North Maclean
Day/Date: Tuesday, 4 February 2025
AM Peak: *Hour ending - 8:00 AM*
PM Peak: *Hour ending - 4:15 PM*

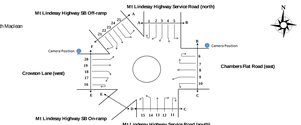


TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements											
																																	A - B		B - A		B - C		C - B		D - A		A - D	
	Light Vehicles	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*
6:15 AM	2	0	**2**	0	4	4	**8**	0	0	0	**0**	0	9	1	**10**	0	15	4	**19**	0	0	0	**0**	0	43	4	**47**	0	2	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	**1**	0	7	5	**12**	0	0	0	**0**	0	6	1	**7**	0	17	4	**21**	0	0	0	**0**	0	38	3	**41**	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	**1**	0	4	2	**6**	0	0	0	**0**	0	4	0	**4**	0	13	2	**15**	0	0	0	**0**	0	49	10	**59**	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	2	0	**2**	0	7	4	**11**	0	0	0	**0**	0	4	0	**4**	0	13	4	**17**	0	0	0	**0**	0	49	6	**55**	0	2	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	6	0	**6**	0	8	3	**11**	0	0	0	**0**	0	3	2	**5**	0	9	2	**11**	0	0	0	**0**	0	55	0	**55**	0	1	1	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	1	**2**	0	5	4	**9**	0	0	0	**0**	0	3	1	**4**	0	14	2	**16**	0	0	0	**0**	0	69	3	**72**	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	**0**	0	10	3	**13**	0	0	0	**0**	0	3	0	**3**	0	12	0	**12**	0	0	0	**0**	0	67	5	**72**	0	2	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	3	2	**5**	0	6	2	**8**	0	0	0	**0**	0	4	2	**6**	0	14	2	**16**	0	0	0	**0**	0	52	3	**55**	0	4	1	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	1	**3**	0	5	1	**6**	0	0	0	**0**	0	4	0	**4**	0	19	5	**24**	0	0	0	**0**	0	45	1	**46**	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	2	0	**2**	0	3	0	**3**	0	0	0	**0**	0	2	1	**3**	0	22	1	**23**	0	0	0	**0**	0	34	0	**34**	0	6	1	**7**	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	4	0	**4**	0	7	1	**8**	0	0	0	**0**	0	2	1	**3**	0	28	1	**29**	0	0	0	**0**	0	35	9	**44**	0	6	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	4	0	**4**	0	2	0	**2**	0	0	0	**0**	0	6	1	**7**	0	19	6	**25**	0	0	0	**0**	0	33	5	**38**	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	4	0	**4**	0	5	0	**5**	0	0	0	**0**	0	4	0	**4**	0	16	4	**20**	0	0	0	**0**	0	24	3	**27**	0	2	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	2	0	**2**	0	3	2	**5**	0	0	0	**0**	0	2	0	**2**	0	18	2	**20**	0	0	0	**0**	0	24	8	**32**	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	2	0	**2**	0	8	1	**9**	0	0	0	**0**	0	4	3	**7**	0	16	3	**19**	0	0	0	**0**	0	15	6	**21**	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	3	1	**4**	0	6	3	**9**	0	0	0	**0**	0	5	0	**5**	0	10	3	**13**	0	0	0	**0**	0	17	2	**19**	0	5	1	**6**	0	0	0	0	0	0	0	0	0	0	0	0	0
4 hr Total	**39**	**5**	**44**	**0**	**90**	**35**	**125**	**0**	**0**	**0**	**0**	**0**	**65**	**13**	**78**	**0**	**255**	**45**	**300**	**0**	**0**	**0**	**0**	**0**	**649**	**68**	**717**	**0**	**33**	**4**	**37**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AM Peak	**10**	**3**	**13**	**0**	**29**	**12**	**41**	**0**	**0**	**0**	**0**	**0**	**13**	**5**	**18**	**0**	**49**	**6**	**55**	**0**	**0**	**0**	**0**	**0**	**243**	**11**	**254**	**0**	**7**	**2**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements											
																																	A - B		B - A		B - C		C - B		D - A		A - D	
	Light Vehicles	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*
3:15 PM	4	0	**4**	0	3	2	**5**	0	0	0	**0**	0	8	6	**14**	0	27	5	**32**	0	0	0	**0**	0	26	4	**30**	0	3	1	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	4	0	**4**	0	3	0	**3**	0	0	0	**0**	0	7	4	**11**	0	52	4	**56**	0	0	0	**0**	0	34	5	**39**	0	2	1	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	12	0	**12**	0	24	1	**25**	0	0	0	**0**	0	9	1	**10**	0	40	2	**42**	0	0	0	**0**	0	34	4	**38**	0	6	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	5	1	**6**	0	9	2	**11**	0	0	0	**0**	0	11	6	**17**	0	51	3	**54**	0	0	0	**0**	0	27	2	**29**	0	2	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	5	1	**6**	0	8	4	**12**	0	0	0	**0**	0	5	3	**8**	0	36	6	**42**	0	0	0	**0**	0	22	2	**24**	0	3	1	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	4	1	**5**	0	3	0	**3**	0	0	0	**0**	0	7	0	**7**	0	38	1	**39**	0	0	0	**0**	0	15	4	**19**	0	3	2	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	**1**	0	6	0	**6**	0	0	0	**0**	0	6	0	**6**	0	34	2	**36**	0	0	0	**0**	0	19	2	**21**	0	4	0	**4**	0	0	0	1	0	0	0	0	0	0	0	0	0
5:00 PM	6	0	**6**	0	5	1	**6**	0	0	0	**0**	0	6	0	**6**	0	41	0	**41**	0	0	0	**0**	0	34	1	**35**	0	3	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	11	0	**11**	0	5	1	**6**	0	0	0	**0**	0	7	0	**7**	0	46	1	**47**	0	0	0	**0**	0	17	4	**21**	0	2	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	9	0	**9**	0	2	0	**2**	0	0	0	**0**	0	4	0	**4**	0	38	1	**39**	0	0	0	**0**	0	19	0	**19**	0	7	0	**7**	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	5	0	**5**	0	5	0	**5**	0	0	0	**0**	0	7	1	**8**	0	31	0	**31**	0	0	0	**0**	0	7	1	**8**	0	6	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	2	0	**2**	0	5	1	**6**	0	0	0	**0**	0	2	0	**2**	0	28	1	**29**	0	0	0	**0**	0	14	1	**15**	0	3	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	1	0	**1**	0	2	0	**2**	0	0	0	**0**	0	2	0	**2**	0	20	2	**22**	0	0	0	**0**	0	11	0	**11**	0	3	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	3	0	**3**	0	3	0	**3**	0	0	0	**0**	0	5	0	**5**	0	20	1	**21**	0	0	0	**0**	0	9	0	**9**	0	4	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	4	0	**4**	0	4	0	**4**	0	0	0	**0**	0	4	0	**4**	0	11	0	**11**	0	0	0	**0**	0	15	0	**15**	0	4	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	5	1	**6**	0	1	0	**1**	0	0	0	**0**	0	4	0	**4**	0	15	0	**15**	0	0	0	**0**	0	10	0	**10**	0	2	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0
4 hr Total	**81**	**4**	**85**	**0**	**88**	**12**	**100**	**0**	**0**	**0**	**0**	**0**	**94**	**21**	**115**	**0**	**528**	**29**	**557**	**0**	**0**	**0**	**0**	**0**	**313**	**30**	**343**	**0**	**57**	**5**	**62**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PM Peak	**26**	**2**	**28**	**0**	**44**	**7**	**51**	**0**	**0**	**0**	**0**	**0**	**32**	**14**	**46**	**0**	**179**	**15**	**194**	**0**	**0**	**0**	**0**	**0**	**117**	**13**	**130**	**0**	**13**	**2**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine
Location: Mt Lindsay Highway/Crowson Lane, North MacKean
Day/Date: Tuesday, 4 February 2025
AM Peak: *Hour ending - 8:15 AM*
PM Peak: *Hour ending - 4:15 PM*

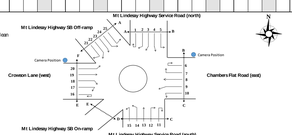


TIME (Ending every 15 min)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8			
	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	4	14	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	15	0
6:45 AM	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	3	17	0
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	18	0
7:15 AM	0	0	0	0	4	0	4	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	18	2	20	0
7:30 AM	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	2	19	0
7:45 AM	0	0	0	0	5	1	6	0	7	0	7	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	18	1	19	0
8:00 AM	0	0	0	0	2	1	3	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	12	2	14	0
8:15 AM	0	0	0	0	0	0	0	0	4	0	4	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	25	2	27	0
8:30 AM	0	0	0	0	4	0	4	0	1	0	1	0	2	0	2	0	1	0	1	0	0	0	0	0	1	0	1	0	19	7	26	0
8:45 AM	0	0	0	0	2	0	2	0	3	1	4	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	20	2	22	0
9:00 AM	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	23	0
9:15 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	14	0	14	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	0
9:45 AM	0	0	0	0	1	0	1	0	1	0	1	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	18	2	20	0
10:00 AM	0	0	0	0	3	0	3	0	1	0	1	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0	0	9	7	16	0
Hr Total	0	0	0	0	32	4	36	0	42	1	43	0	21	2	23	0	8	0	8	0	0	0	0	0	2	0	2	0	291	35	326	0
AM Peak	0	0	0	0	10	2	12	0	21	0	21	0	7	1	8	0	4	0	4	0	0	0	0	0	1	0	1	0	76	7	83	0

TIME (Ending every 15 min)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8			
	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS
3:15 PM	0	0	0	0	2	0	2	0	1	0	1	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	21	0
3:30 PM	0	0	0	0	2	0	2	0	1	0	1	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	25	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	19	0
4:00 PM	0	0	0	0	1	0	1	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	36	7	43	0
4:15 PM	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	24	5	29	0
4:30 PM	0	0	0	0	2	1	3	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	24	2	26	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	21	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	21	0
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	29	0
5:30 PM	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	22	1	23	0
5:45 PM	0	0	0	0	4	0	4	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2	0	23	0	23	0
6:00 PM	0	0	0	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	11	0	11	0
6:15 PM	0	0	0	0	1	0	1	0	1	0	1	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	14	0	14	0
6:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	0
6:45 PM	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	0
7:00 PM	1	0	1	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	13	0
Hr Total	1	0	1	0	22	1	23	0	9	0	9	0	21	0	21	0	3	0	3	0	1	0	1	0	3	0	3	0	291	12	303	0
PM Peak	0	0	0	0	8	1	9	0	3	0	3	0	8	0	8	0	1	0	1	0	0	0	0	0	1	0	1	0	96	10	106	0

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine
Location: Mt Lindsay Highway/Crowson Lane, North MacKean
Day/Date: Tuesday, 4 February 2025
AM Peak: *Hour ending - 8:15 AM*
PM Peak: *Hour ending - 4:15 PM*

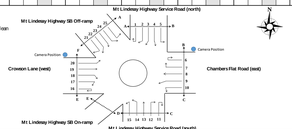


TIME (Ending every 15 min)	Movement 9				Movement 10				Movement 11				Movement 12				Movement 13				Movement 14				Movement 15				Movement 16			
	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS
6:15 AM	4	1	5	0	3	0	3	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
6:30 AM	12	1	13	0	1	2	3	0	0	0	0	0	1	1	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	4	1	5	0	3	1	4	0	0	0	0	0	1	1	2	0	0	0	0	0	6	1	7	0	0	0	0	0	0	0	0	0
7:00 AM	5	1	6	0	1	0	1	0	0	0	0	0	2	1	3	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	5	2	7	0	6	1	7	0	0	0	0	0	3	0	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	13	0	13	0	3	1	4	0	0	0	0	0	3	0	3	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	12	1	13	0	7	2	9	0	0	0	0	0	7	0	7	0	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0
8:00 AM	16	0	16	0	1	1	2	0	0	0	0	0	2	0	2	0	1	0	1	0	3	0	3	0	1	0	1	0	0	0	0	0
8:15 AM	17	4	21	0	3	0	3	0	1	0	1	0	0	0	0	0	2	0	2	0	9	0	9	0	0	0	0	0	1	0	1	0
8:30 AM	13	2	15	0	3	1	4	0	0	0	0	0	3	0	3	0	1	0	1	0	13	1	14	0	0	0	0	0	0	0	0	0
8:45 AM	23	1	24	0	1	0	1	0	0	0	0	0	5	1	6	0	0	0	0	0	10	0	10	0	1	0	1	0	1	0	1	0
9:00 AM	17	0	17	0	5	1	6	0	0	0	0	0	2	0	2	0	1	0	1	0	7	0	7	0	0	0	0	0	0	0	0	0
9:15 AM	8	0	8	0	6	0	6	0	1	0	1	0	2	0	2	0	0	0	0	0	9	1	10	0	0	0	0	0	0	0	0	0
9:30 AM	8	0	8	0	3	0	3	0	0	0	0	0	5	0	5	0	1	0	1	0	7	0	7	0	0	0	0	0	0	0	0	0
9:45 AM	6	0	6	0	4	0	4	0	0	0	0	0	1	0	1	0	1	0	1	0	8	1	9	0	0	0	0	0	0	0	0	0
10:00 AM	8	0	8	0	3	0	3	0	0	0	0	0	3	0	3	0	1	0	1	0	6	0	6	0	0	0	0	0	0	0	0	0
Hr Total	136	15	151	0	62	10	72	0	4	0	4	0	40	4	44	0	14	0	14	0	96	6	102	0	3	0	3	0	2	0	2	0
AM Peak	58	7	65	0	15	2	17	0	2	0	2	0	15	1	16	0	5	0	5	0	35	3	38	0	1	0	1	0	1	0	1	0

TIME (Ending every 15 min)	Movement 9				Movement 10				Movement 11				Movement 12				Movement 13				Movement 14				Movement 15				Movement 16			
	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS
3:15 PM	12	1	13	0	7	0	7	0	0	0	0	0	4	0	4	0	2	0	2	0	10	0	10	0	0	0	0	0	0	0	0	0
3:30 PM	22	0	22	0	9	0	9	0	0	0	0	0	4	0	4	0	3	0	3	0	15	0	15	0	0	0	0	0	0	0	0	0
3:45 PM	13	0	13	0	10	0	10	0	0	0	0	0	2	0	2	0	2	0	2	0	13	0	13	0	0	0	0	0	0	0	0	0
4:00 PM	15	1	16	0	10	0	10	0	0	0	0	0	6	0	6	0	4	0	4	0	14	0	14	0	0	0	0	0	0	0	0	0
4:15 PM	10	0	10	0	9	2	11	0	0	0	0	0	4	0	4	0	0	0	0	0	14	0	14	0	0	0	0	0	0	0	0	0
4:30 PM	16	0	16	0	11	2	13	0	0	0	0	0	5	1	6	0	0	0	0	0	6	2	8	0	1	0	1	0	0	0	0	0
4:45 PM	10	1	11	0	9	1	10	0	0	0	0	0	2	0	2	0	1	0	1	0	8	1	9	0	1	0	1	0	0	0	0	0
5:00 PM	10	0	10	0	8	0	8	0	0	0	0	0	2	0	2	0	0	0	0	0	6	1	7	0	0	0	0	0	1	0	1	0
5:15 PM	9	0	9	0	9	0	9	0	0	0	0	0	3	0	3	0	2	0	2	0	9	1	10	0	0	0	0	0	0	0	0	0
5:30 PM	7	0	7	0	14	0	14	0	0	0	0	0	4	0	4	0	3	0	3	0	10	0	10	0	1	0	1	0	0	0	0	0
5:45 PM	7	0	7	0	9	0	9	0	0	0	0	0	2	0	2	0	1	0	1	0	9	0	9	0	1	0	1	0	0	0	0	0
6:00 PM	9	0	9	0	2	0	2	0	0	0	0	0	2	0	2	0	2	0	2	0	5	0	5	0	0	0	0	0	0	0	0	0
6:15 PM	9	1	10	0	4	0	4	0	0	0	0	0	4	0	4	0	1	0	1	0	4	0	4	0	0	0	0	0	1	0	1	0
6:30 PM	6	1	7	0	5	0	5	0	0	0	0	0	5	0	5	0	1	0	1	0	4	0	4	0	0	0	0	0	0	0	0	0
6:45 PM	2	0	2	0	5	0	5	0	0	0	0	0	2	0	2	0	2	0	2	0	4	1	5	0	0	0	0	0	0	0	0	0
7:00 PM	4	0	4	0	5	0	5	0	0	0	0	0	3	0	3	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
Hr Total	157	4	161	0	124	5	129	0	0	0	0	0	54	1	55	0	23	0	23	0	117	5	122	0	5	0	5	0	3	0	3	0
PM Peak	40	2	42	0	38	2	40	0	0	0	0	0	15	1	16	0	6	0	6	0	35	2	37	0	3	0	3	0	1	0	1	0

AUSTRAFFIC VIDEO INTERSECTION COUNT

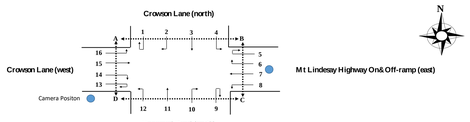
Site No.: 3 **Weather:** Fine
Location: Mt Lindsay Highway/Crowson Lane, North MacKean
Day/Date: Tuesday, 4 February 2025
AM Peak: *Hour ending - 8:15 AM*
PM Peak: *Hour ending - 4:15 PM*



TIME (Ending every 15 min)	Movement 17				Movement 18				Movement 19				Movement 20				Movement 21				Movement 22				Movement 23				Movement 24				Movement 25				Pedestrian Movements															
																																					A - B		B - A		B - C		C - B		C - D		D - C		D - E		E - D		E - F		F - E		F - A		A - F	
	LIGHT VEHICLES	HEAVY VEHICLES	Total	CYCLISTS

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 4 **Weather:** Fine
Location: Mt Lindesay Highway/Crowson Lane, North Maclean
Day/Date: Tuesday, 4 February 2025
AM Peak: *Hour ending - 7:00 AM*
PM Peak: *Hour ending - 4:15 PM*

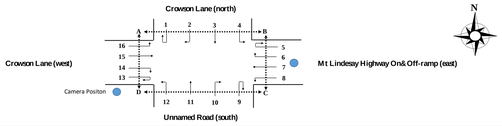


TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8			
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists
6:15 AM	0	0	0	0	26	5	31	0	2	0	2	0	26	2	28	0	0	0	0	0	10	1	11	0	10	3	13	0	1	0	1	0
6:30 AM	0	0	0	0	29	6	35	0	1	0	1	0	14	6	20	0	0	0	0	0	13	1	14	0	7	0	7	0	0	0	0	0
6:45 AM	0	0	0	0	18	1	19	0	2	0	2	0	15	3	18	0	1	0	1	0	16	1	17	0	6	0	6	0	0	0	0	0
7:00 AM	0	0	0	0	9	1	10	0	0	0	0	0	14	3	17	0	0	0	0	0	8	3	11	0	9	0	9	0	0	0	0	0
7:15 AM	0	0	0	0	13	2	15	0	0	0	0	0	20	1	21	0	0	0	0	0	8	1	9	0	1	1	2	0	0	0	0	0
7:30 AM	0	0	0	0	11	4	15	0	0	0	0	0	14	4	18	0	0	0	0	0	8	1	9	0	6	2	8	0	0	0	0	0
7:45 AM	0	0	0	0	13	0	13	0	0	0	0	0	16	3	19	0	1	0	1	0	8	2	10	0	5	1	6	0	0	0	0	0
8:00 AM	0	0	0	0	8	3	11	0	0	0	0	0	15	3	18	0	0	1	1	0	5	0	5	0	9	2	11	0	0	0	0	0
8:15 AM	0	0	0	0	18	4	22	0	0	0	0	0	19	0	19	0	0	0	0	0	16	1	17	0	7	1	8	0	0	0	0	0
8:30 AM	0	0	0	0	16	7	23	0	0	2	2	0	21	3	24	0	0	0	0	0	10	0	10	0	6	1	7	0	0	0	0	0
8:45 AM	0	0	0	0	24	2	26	0	0	2	2	0	17	1	18	0	0	0	0	0	5	0	5	0	11	1	12	0	0	0	0	0
9:00 AM	0	0	0	0	14	1	15	0	0	0	0	0	21	0	21	0	0	0	0	0	10	2	12	0	10	1	11	0	0	0	0	0
9:15 AM	0	0	0	0	11	1	12	0	0	0	0	0	14	2	16	0	0	1	1	0	10	0	10	0	9	3	12	0	0	0	0	0
9:30 AM	0	0	0	0	17	1	18	0	0	0	0	0	12	2	14	0	0	0	0	0	7	0	7	0	1	2	3	0	0	0	0	0
9:45 AM	0	0	0	0	18	3	21	0	0	1	1	0	14	2	16	0	0	0	0	0	10	1	11	0	7	2	9	0	0	0	0	0
10:00 AM	0	0	0	0	11	3	14	0	1	5	6	0	15	1	16	0	0	0	0	0	2	0	2	0	6	1	7	0	0	0	0	0
4 hr Total	0	0	0	0	256	44	300	0	6	10	16	0	267	36	303	0	2	2	4	0	146	14	160	0	110	21	131	0	1	0	1	0
AM Peak	0	0	0	0	82	13	95	0	5	0	5	0	69	14	83	0	1	0	1	0	47	6	53	0	32	3	35	0	1	0	1	0

TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8			
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists
3:15 PM	0	0	0	0	23	2	25	0	0	0	0	0	11	0	11	0	0	0	0	0	6	0	6	0	9	0	18	0	0	0	0	0
3:30 PM	1	0	1	0	39	1	40	0	0	0	0	0	15	0	15	0	0	0	0	0	16	1	17	0	25	3	28	0	0	1	1	0
3:45 PM	0	0	0	0	37	2	39	0	0	3	3	0	12	4	16	0	0	1	1	0	10	1	11	0	7	1	8	0	0	0	0	0
4:00 PM	0	0	0	0	45	4	49	0	0	3	3	0	16	0	16	0	0	0	0	0	14	0	14	0	22	4	26	0	0	0	0	0
4:15 PM	0	0	0	0	37	6	43	0	1	0	1	0	11	3	14	0	0	0	0	0	7	1	8	0	8	2	10	0	0	0	0	0
4:30 PM	0	0	0	0	32	4	36	0	0	0	0	0	13	1	14	0	0	0	0	0	15	0	15	0	12	0	12	0	0	0	0	0
4:45 PM	1	0	1	0	32	3	35	0	0	0	0	0	10	2	12	0	0	0	0	0	8	1	9	0	11	0	11	0	0	0	0	0
5:00 PM	0	0	0	0	34	1	35	0	0	0	0	0	11	1	12	0	0	0	0	0	7	1	8	0	10	0	10	0	0	0	0	0
5:15 PM	0	0	0	0	40	1	41	0	0	0	0	0	8	1	9	0	0	0	0	0	12	1	13	0	13	0	13	0	0	0	0	0
5:30 PM	0	0	0	0	33	1	34	0	0	0	0	0	10	0	10	0	1	0	1	0	6	0	6	0	7	0	7	0	0	0	0	0
5:45 PM	0	0	0	0	39	1	40	0	0	0	0	0	11	0	11	0	0	0	0	0	8	1	9	0	3	0	3	0	1	0	1	0
6:00 PM	0	0	0	0	23	5	28	0	0	0	0	0	6	2	8	0	0	0	0	0	10	0	10	0	9	0	9	0	0	0	0	0
6:15 PM	1	0	1	0	22	1	23	0	0	0	0	0	12	1	13	0	0	0	0	0	7	0	7	0	3	0	3	0	0	0	0	0
6:30 PM	0	0	0	0	19	2	21	0	0	0	0	0	6	0	6	0	0	0	0	0	9	2	11	0	7	0	7	0	0	0	0	0
6:45 PM	0	0	0	0	10	0	10	0	0	0	0	0	9	1	10	0	0	0	0	0	6	0	6	0	2	0	2	0	0	0	0	0
7:00 PM	0	0	0	0	14	0	14	0	0	0	0	0	6	1	7	0	0	0	0	0	6	0	6	0	4	0	4	0	0	0	0	0
4 hr Total	3	0	3	0	479	34	513	0	1	6	7	0	167	17	184	0	1	1	2	0	147	9	156	0	162	10	172	0	1	1	2	0
PM Peak	1	0	1	0	158	13	171	0	1	6	7	0	54	7	61	0	0	1	1	0	47	3	50	0	62	10	72	0	0	1	1	0

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 4 **Weather:** Fine
Location: Mt Lindesay Highway/Crowson Lane, North Maclean
Day/Date: Tuesday, 4 February 2025
AM Peak: *Hour ending - 7:00 AM*
PM Peak: *Hour ending - 4:15 PM*



TIME (1/4 hr end)	Movement 9				Movement 10				Movement 11				Movement 12				Movement 13				Movement 14				Movement 15				Movement 16			
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	18	0	30	5	35	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	1	17	0	29	5	34	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20	0	29	7	36	0
7:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	2	24	0	38	10	48	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0	26	0	36	3	39	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	28	1	29	0	44	6	50	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	1	34	0	47	8	55	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0	26	0	38	4	42	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	18	0	34	1	35	0
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	16	1	17	0	23	0	23	0
8:45 AM	0	0	0	0	0	2	2	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	18	0	26	4	30	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	18	0	18	0	19	5	24	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	7	0	22	1	23	0
9:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	11	0	17	6	23	0
9:45 AM	1	0	1	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	6	2	8	0	17	6	23	0
10:00 AM	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	1	1	0	0	0	0	0	8	1	9	0	19	3	22	0
4 hr Total	3	0	3	0	2	2	4	0	0	10	10	0	1	1	2	0	1	1	2	0	1	4	5	0	284	16	300	0	468	74	542	0
AM Peak	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	4	79	0	126	27	153	0

TIME (1/4 hr end)	Pedestrian Movements																			
	A - B		B - A		B - C		C - B		C - D		D - C		D - A		A - D	
	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TIME (1/4 hr end)	Movement 9				Movement 10				Movement 11				Movement 12				Movement 13				Movement 14				Movement 15				Movement 16			
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists
3:15 PM	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	13	1	14	0	21	0	21	0
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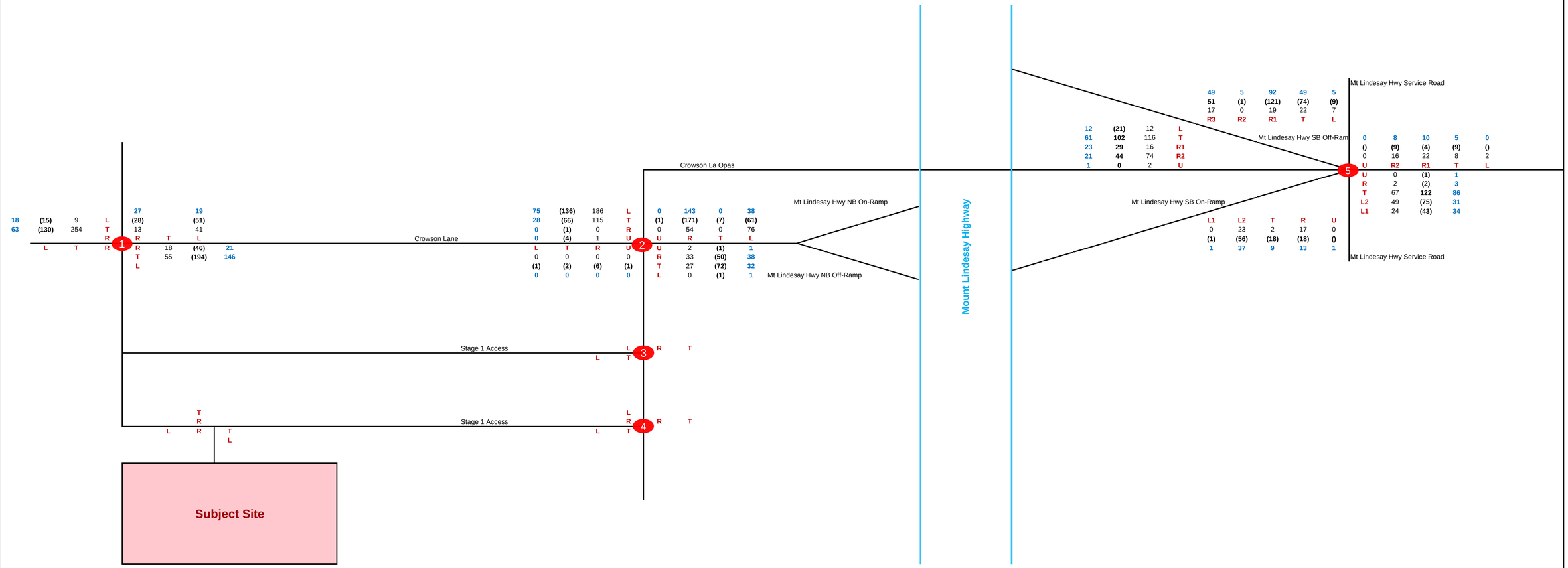
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	11	1	12	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	10	0	15	2	17	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	7	0	7	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	11	0	11	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	16	0	16	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	13	0	13	0
4 hr Total	1	0	1	0	4	5	9	0	2	3	5	0	2	1	3	0	3	3	6	0	1	0	1	0	137	13	150	0	320	29	357	0
PM Peak	1	0	1	0	2	4	6	0	0	2	2	0	0	1	1	0	2	2	4	0	1	0	1	0	63	3	66	0	123	13	136	0

TIME (1/4 hr end)	Pedestrian Movements																			
	A - B		B - A		B - C		C - B		C - D		D - C		D - A		A - D	
	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 hr Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
PM Peak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C: Design Traffic Volumes



Scenario: 2025 Survey Data

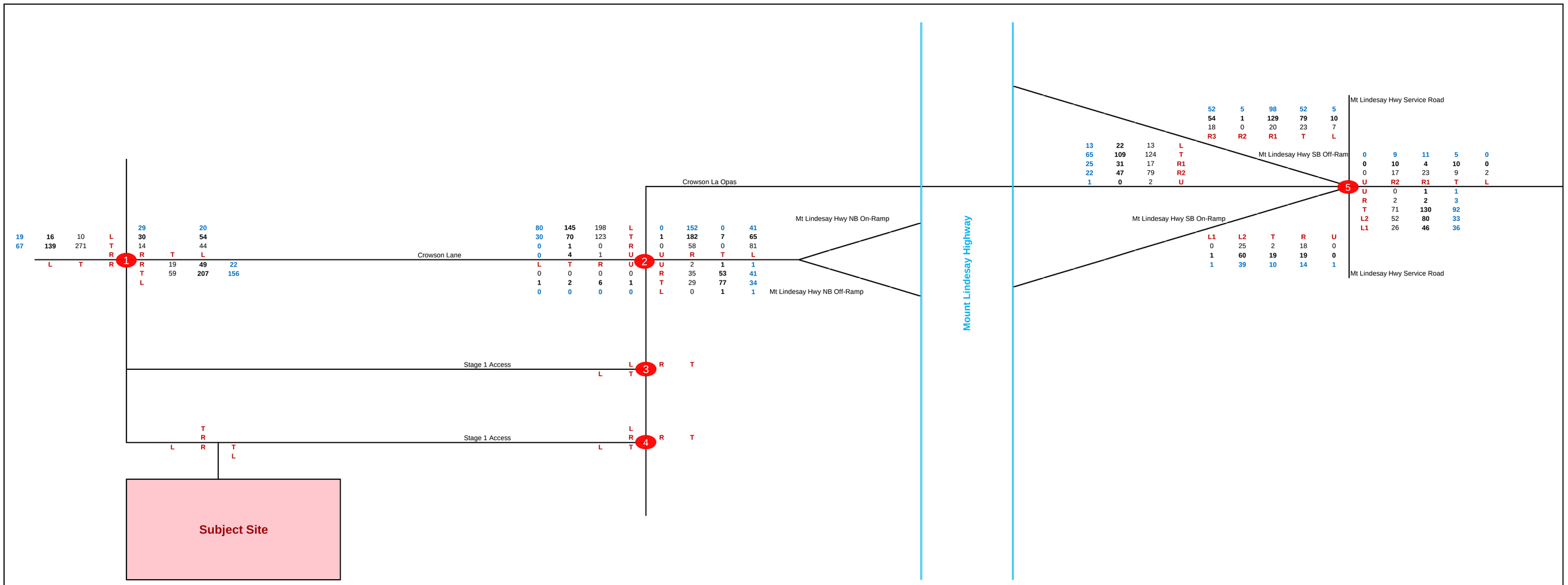
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: 2029 Background Volumes

Sheet Notes:

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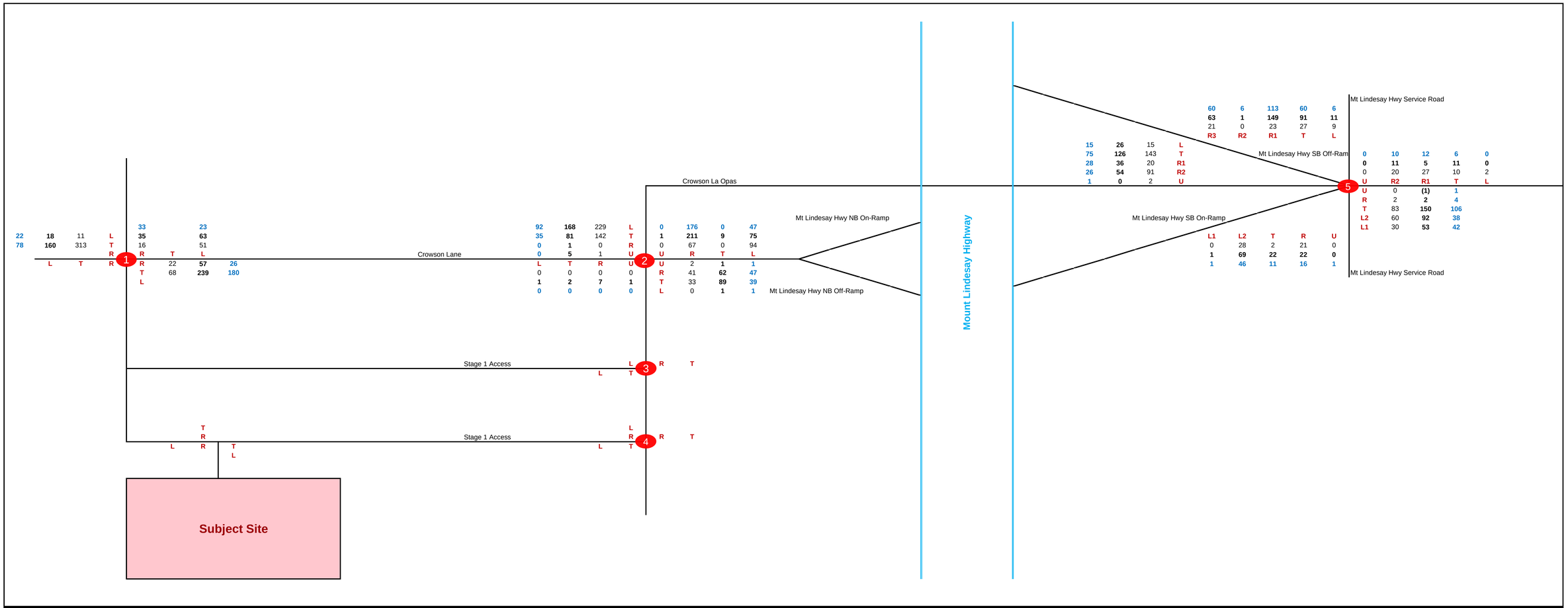
Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: 2039 Background Volumes

Sheet Notes:

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Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement

Approved Estate ROL Traffic Generation Volumes

Table 1.1. Adopted Trip Generation Rates

Land Use	AM Peak	PM Peak	Unit
Industrial	0.2	0.2	Trips/ 100sqm GFA

Table 1.2. Adopted Directional Distribution

Land Use	AM Peak		PM Peak	
	Inbound	Outbound	Inbound	Outbound
Industrial	70%	30%	40%	60%

Table 1.3. Yields

Stage	Yield (sqm)
1	186,017
2	208,817
3	125,167
Total	520,001

Table 1.4. Total Expansion Traffic Volumes

Stage	AM			PM		
	Inbound	Outbound	Total	Inbound	Outbound	Total
1	260	112	372	149	223	372
2	292	125	418	167	251	418
3	175	75	250	100	150	250
Total	**728**	**312**	**1,040**	**416**	**624**	**1,040**

Table 1.5. External Traffic Distribution

Direction	%
To / from north on Mt Lindesay	65%
To / from south on Mt Lindesay	10%
To / from east on Chambers Flat	10%
To / from west on Crowson	15%

Future Southern Catchment Traffic Generation

Table 2.1. Adopted Trip Generation Rates

Land Use	AM Peak	PM Peak	Unit
Future Dev	0.2	0.2	Trips/ 100sqm GFA

Table 2.2. Adopted Directional Distribution

Land Use	AM Peak		PM Peak	
	Inbound	Outbound	Inbound	Outbound
Future Dev	50%	50%	50%	50%

Table 2.3. Yields

Land Use	Yield (sqm)
Future Dev	910,000

Table 2.4. Future Southern Catchment Traffic Volumes

Land Use	Plot Ratio	AM			PM		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Future Dev	40%	364	364	728	364	364	728
Total		**364**	**364**	**728**	**364**	**364**	**728**

Table 2.5. Service Road Traffic Distribution

Direction	%
To / from north on Service Road	10%
To / from east, west, or south	90%

Table 2.6. External Traffic Distribution

Direction	%
To / from north on Mt Lindesay	65%
To / from south on Mt Lindesay	10%
To / from east on Chambers Flat	10%
To / from west on Crowson	15%

Background Traffic Growth Rate

Table 4: Growth Factors

Scenario	Year	%	Factor	Source
Survey	2025	1.66%	1.00	TMR Segment Data Site ID: 10098
Opening Year	2029	1.66%	1.07	
10-Year Design	2039	1.66%	1.23	
10-Year Design	2041	1.66%	1.27	

Assumed Development Traffic Generation Volumes Allowed for in ROL

Table 3.1. Adopted Trip Generation Rates

Land Use	AM Peak	PM Peak	Unit
Industrial	0.2	0.2	Trips/ 100sqm GFA

Table 3.2. Adopted Directional Distribution

Land Use	AM Peak		PM Peak	
	Inbound	Outbound	Inbound	Outbound
Industrial	70%	30%	40%	60%

Table 3.3. Yields

Yield (sqm)
41,380

Table 3.4. Assumed Development Traffic Volumesallowed for in ROL

Yield (sqm)	AM			PM		
	Inbound	Outbound	Total	Inbound	Outbound	Total
41,380	58	25	83	33	50	83

Proposed Development Traffic

Table 4.1. User Provided Traffic Data

Scenario	Time	Trips		Comments
		Inbound	Outbound	
Light Vehicles				
Night Shift Departure	4:00am to 5:00am	-	420	Outside of AM network peak scenario - Not Assessed
Day Shift Arrival	7:00am to 8:00am	568	-	Conflicts with Amnetwork peak - Assessed
Day Shift Departure	5:00pm to 6:00pm	-	568	Outside of PM network peak - Assessed
Night Shift Arrival	6:00pm to 7:00pm	420	-	Outside of PM Peak - Not Assessed
Heavy Vehicles				
Day Shift	6:00am to 4:00pm	45 / hour	45 / hour	Conflicts with AM and PM Peak - Assessed
Night Shift	4:00pm to 6:00am	8 / hour	8 / hour	Outside of AM and PM Peak - Not Assessed

Table 4.2. Assessed Traffic Volumes

Scenario	AM			PM 1			PM 2		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Proposed Development	613	45	658	45	45	90	8	576	584
Allowed For Development	58	25	83	33	50	83	33	50	83
Assesed Vols (difference)	555	20	575	12	-5	7	-25	526	501

Table 4.3. External Traffic Distribution

Direction	%
To / from north on Mt Lindesay	65%
To / from south on Mt Lindesay	10%
To / from east on Chambers Flat	10%
To / from west on Crowson	15%

Scenario: Calculations

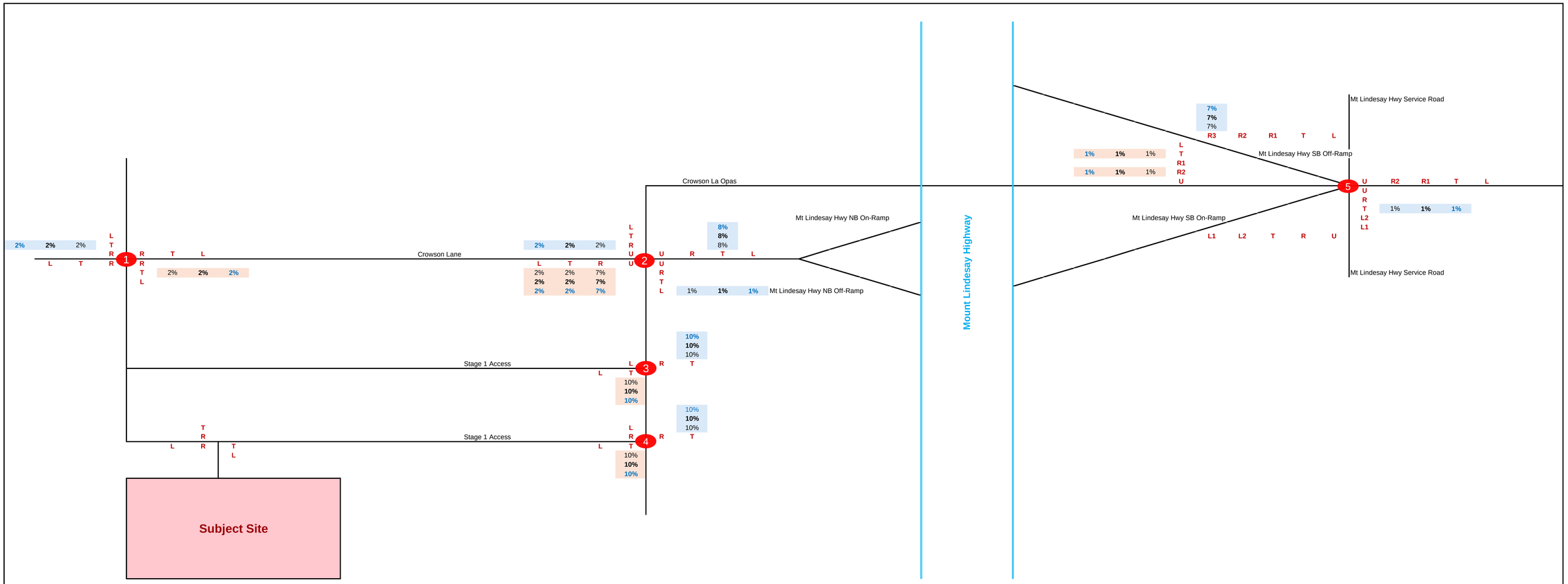
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: Future Southern Development Distribution

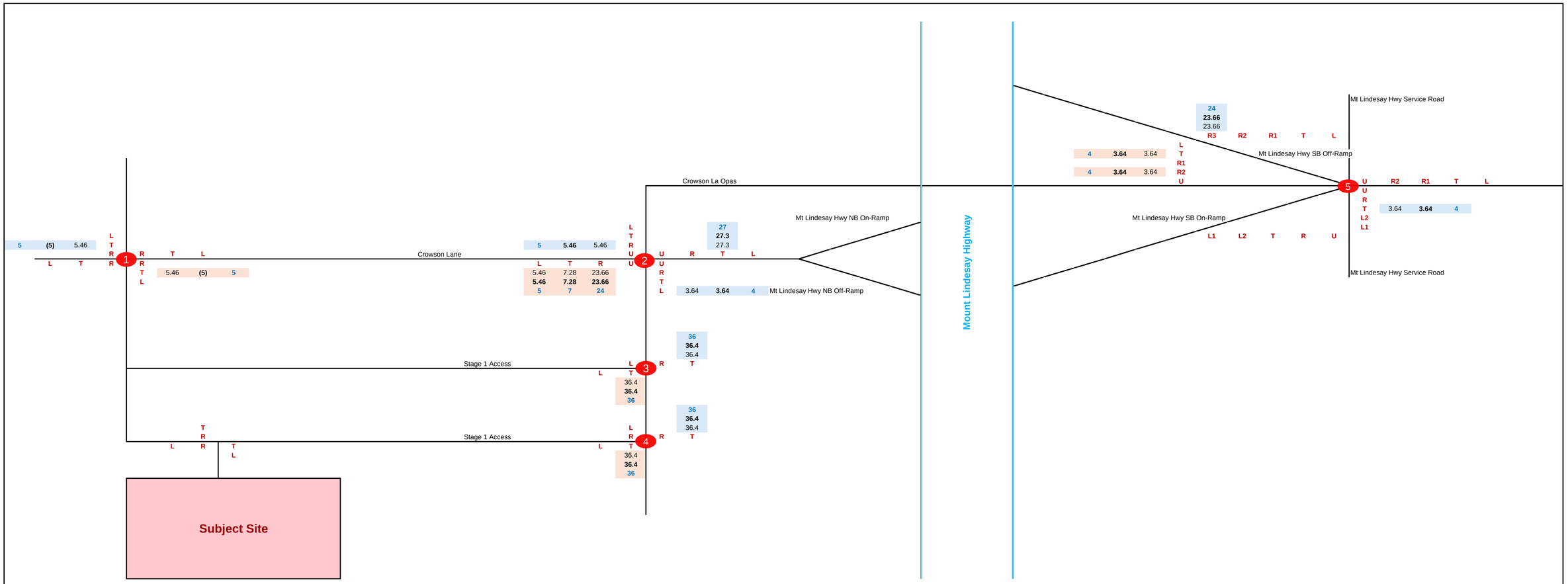
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: Future Southern Development Volumes

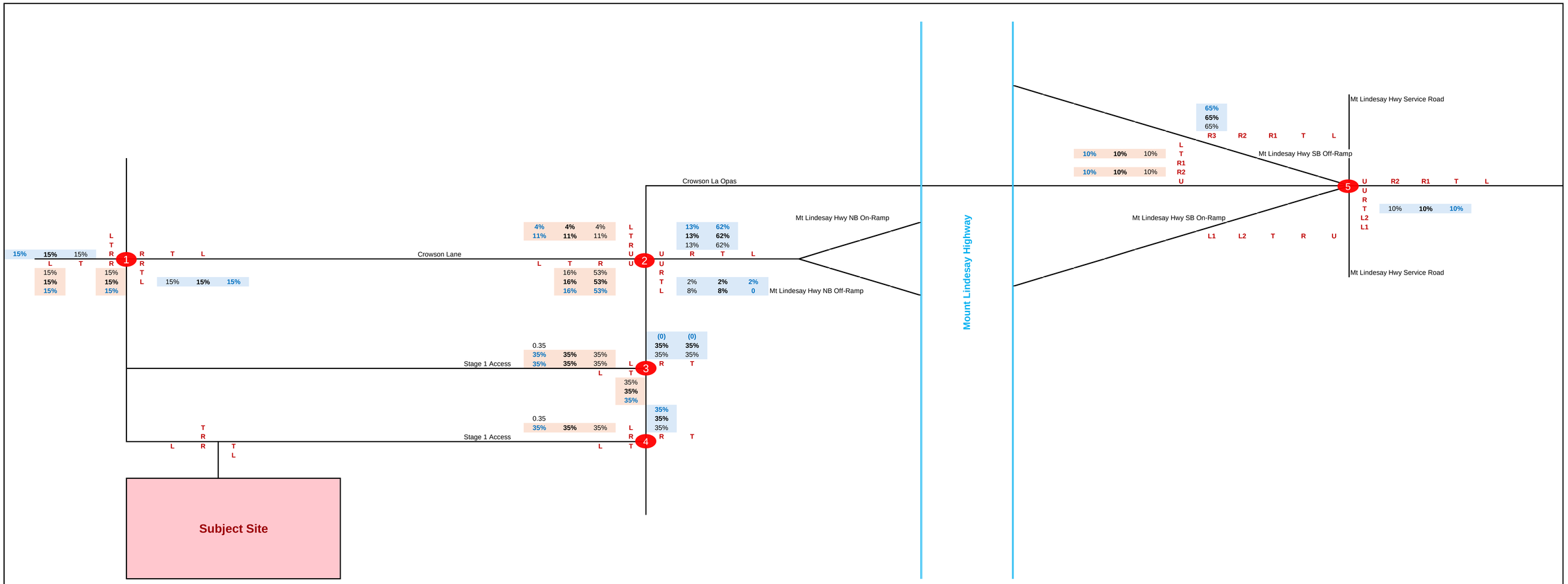
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: Approved ROL Distribution

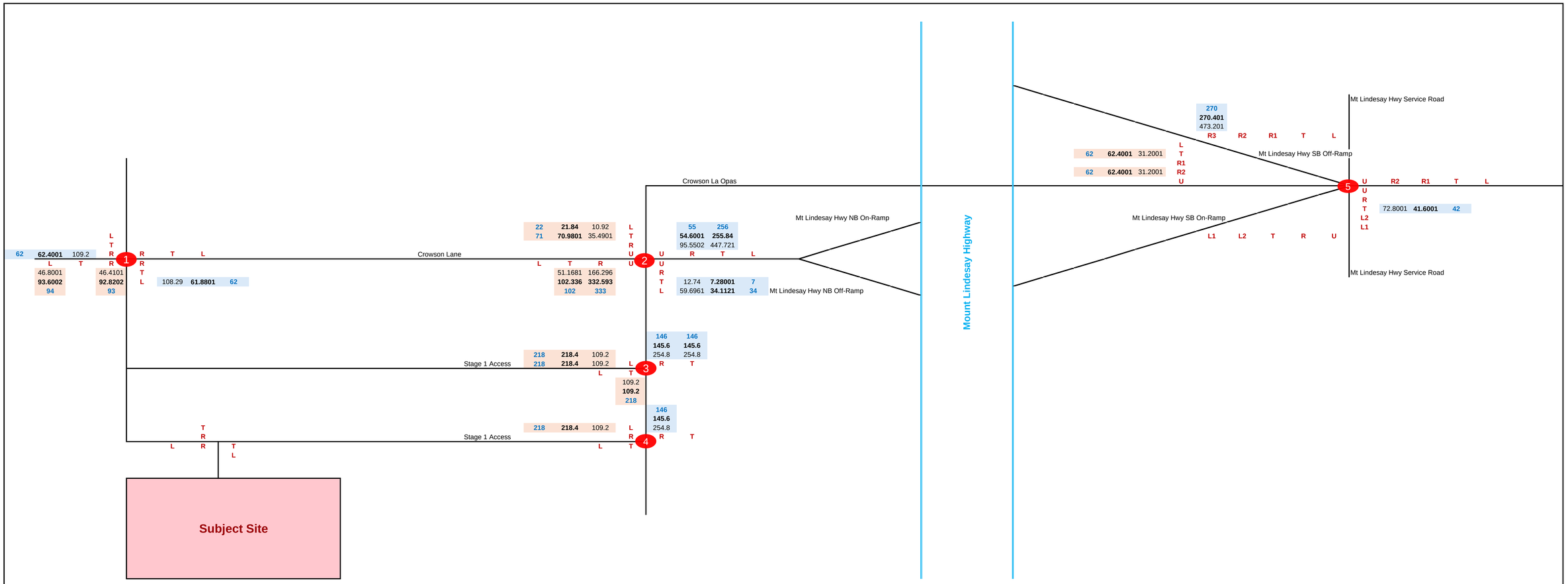
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: Approved ROL Volumes

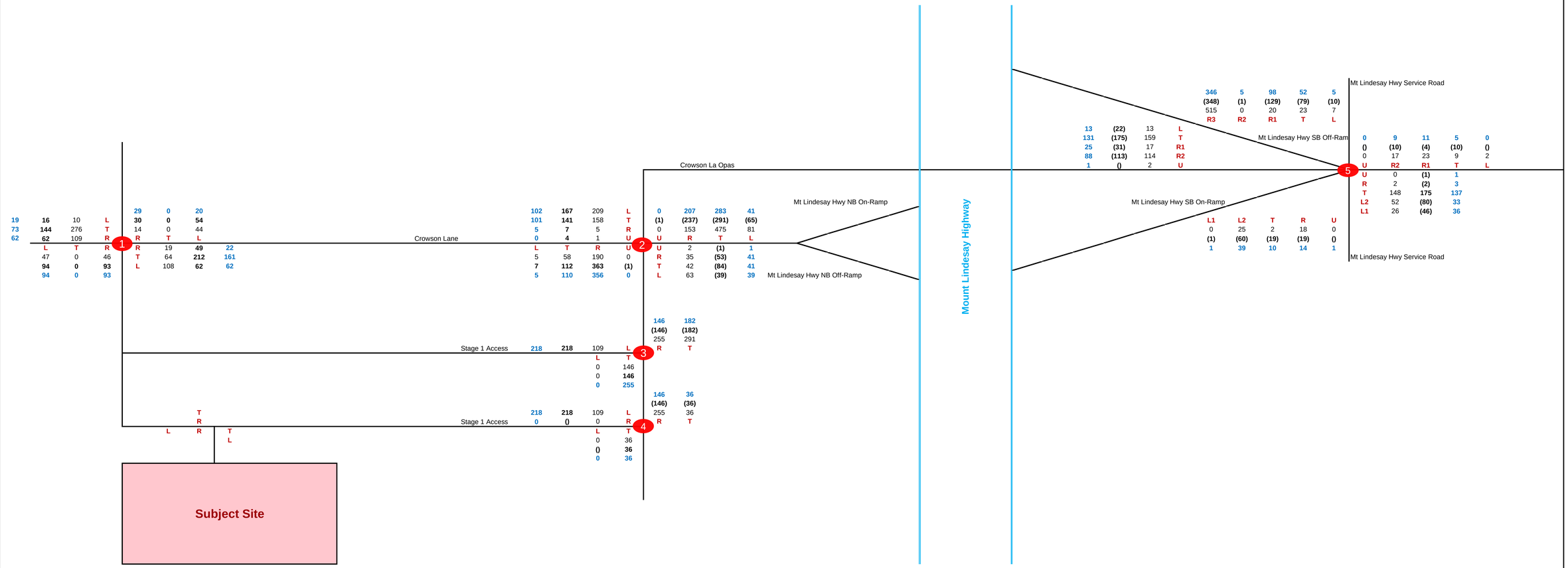
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: 2029 Background + Southern Development + Approved ROL Volumes

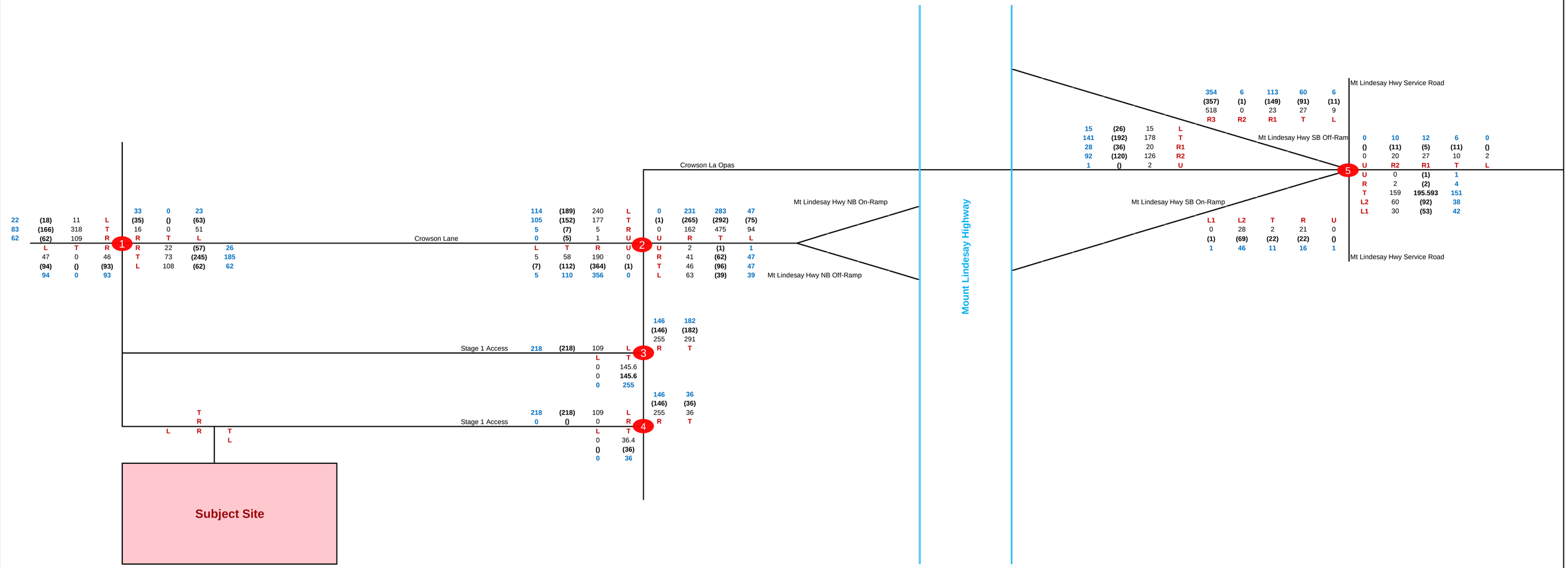
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: 2039 Background + Southern Development + Approved ROL Volumes

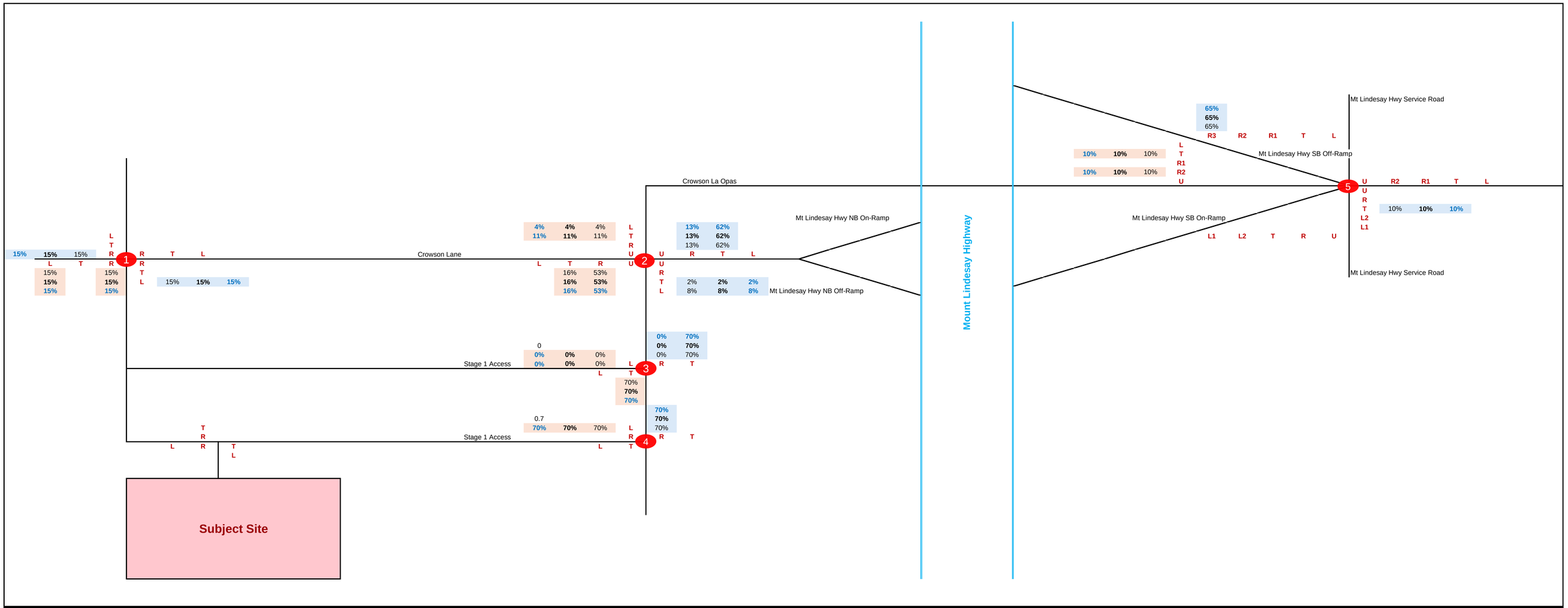
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: Proposed Development Distribution

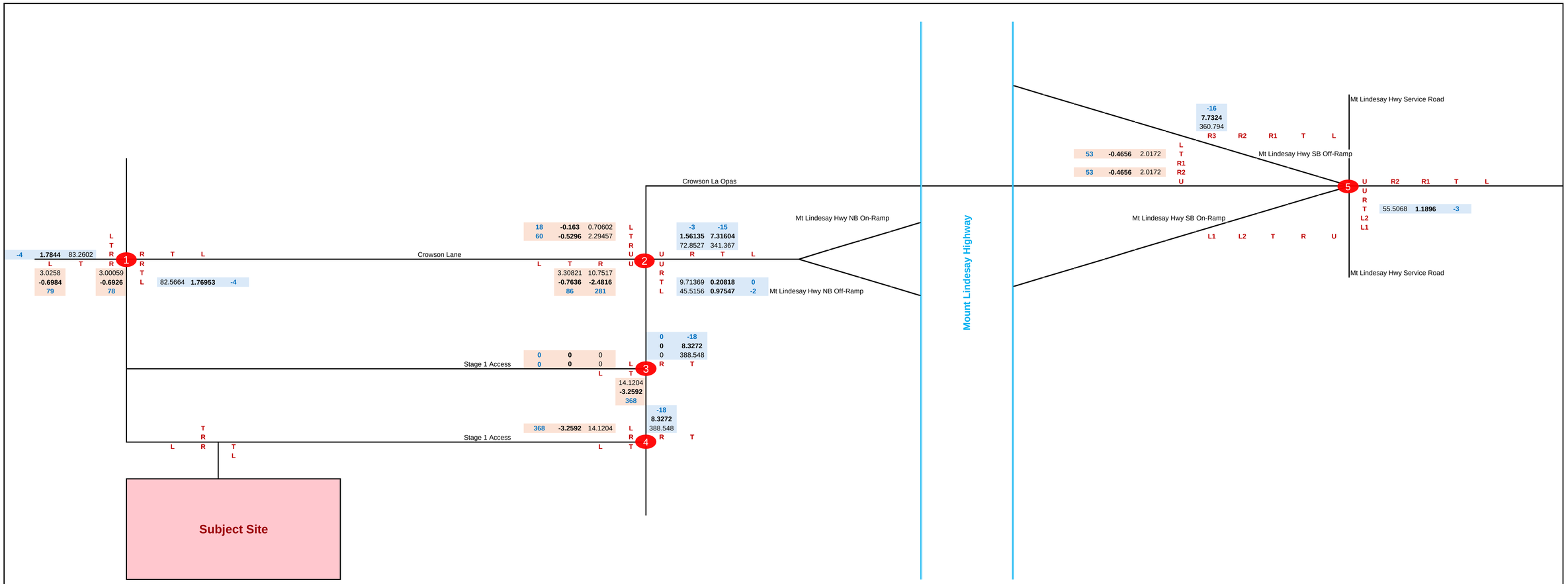
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: Proposed Development Volumes

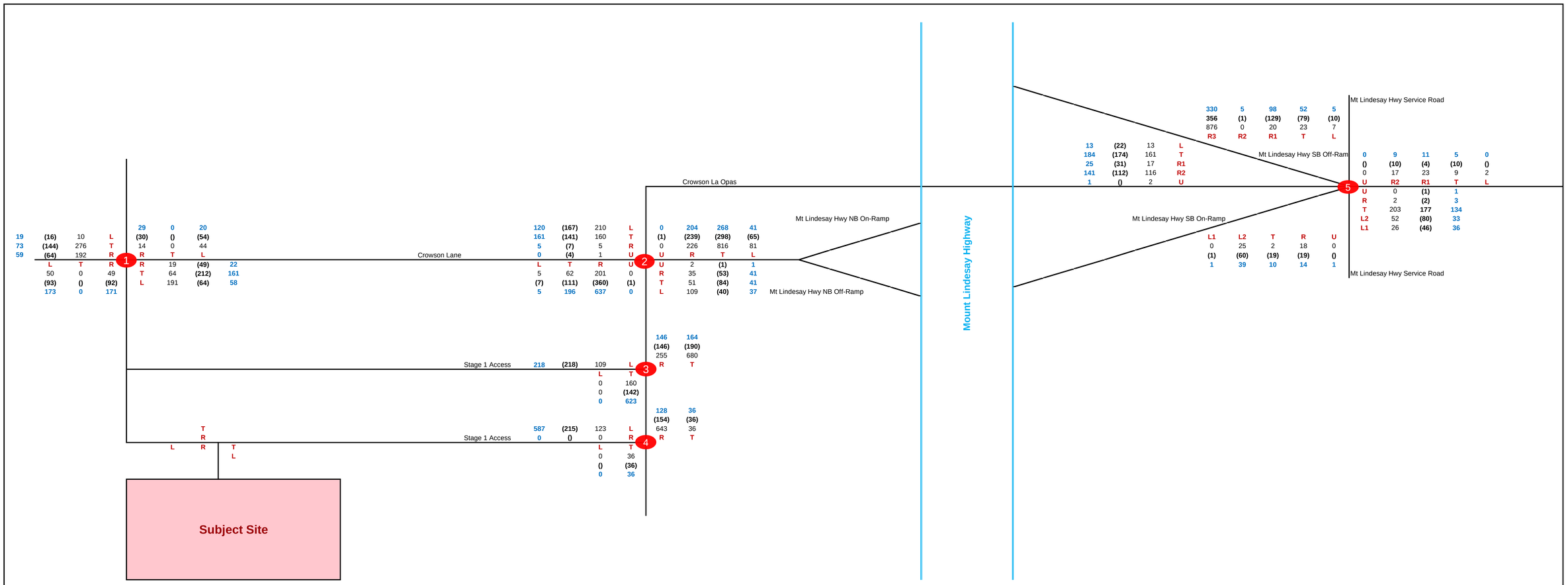
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: 2029 Background + Southern Development + Approved ROL Volumes + Development Generated Traffic

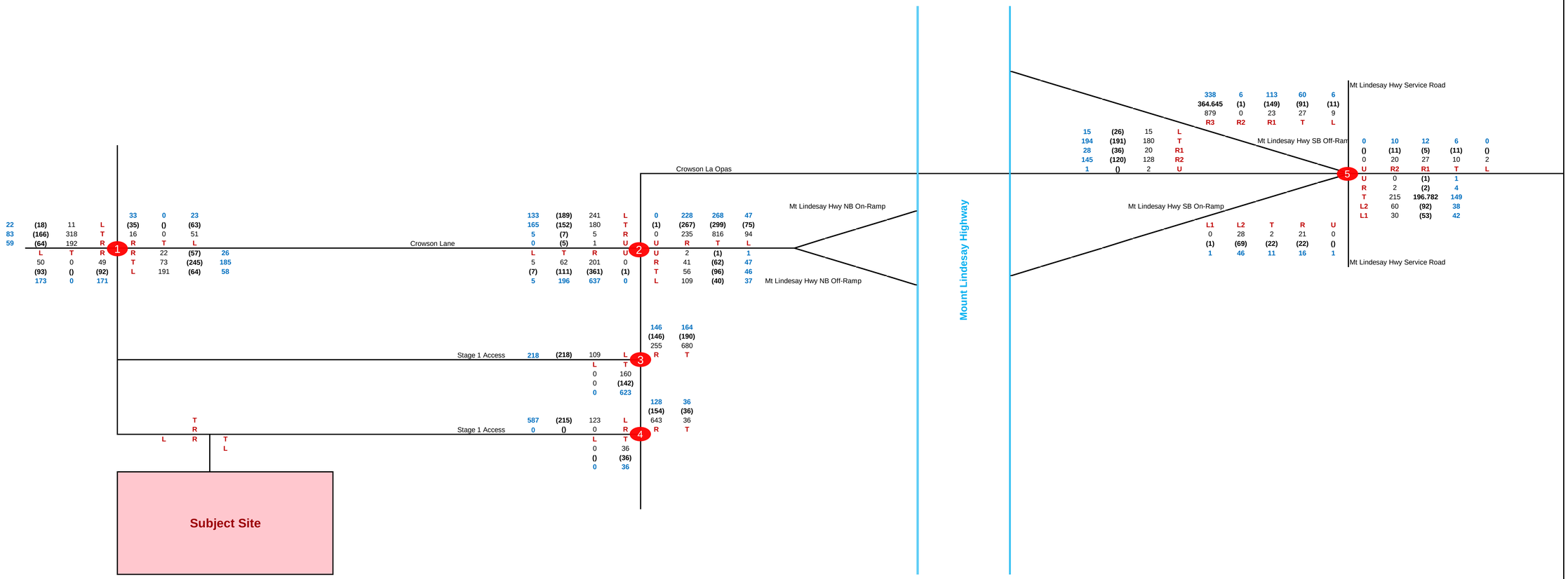
Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement



Scenario: 2039 Background + Southern Development + Approved ROL Volumes + Development Generated Traffic

Sheet Notes:

Document Control

Job Number:	P5708	**Prepared Date:**	13/06/2025
Prepared By:	SL	**Reviewed Date:**	13/06/2025
Reviewed By:	FJ	**File Path:**	P:\P6983 Lot 14 No
Job Name:	North Maclean Industrial Estate TES		

Legend

##	AM Peak Period	L	Left Turn Movement
(##)	PM Peak Period	T	Through Movement
1	Intersection ID	R	Right Turn Movement

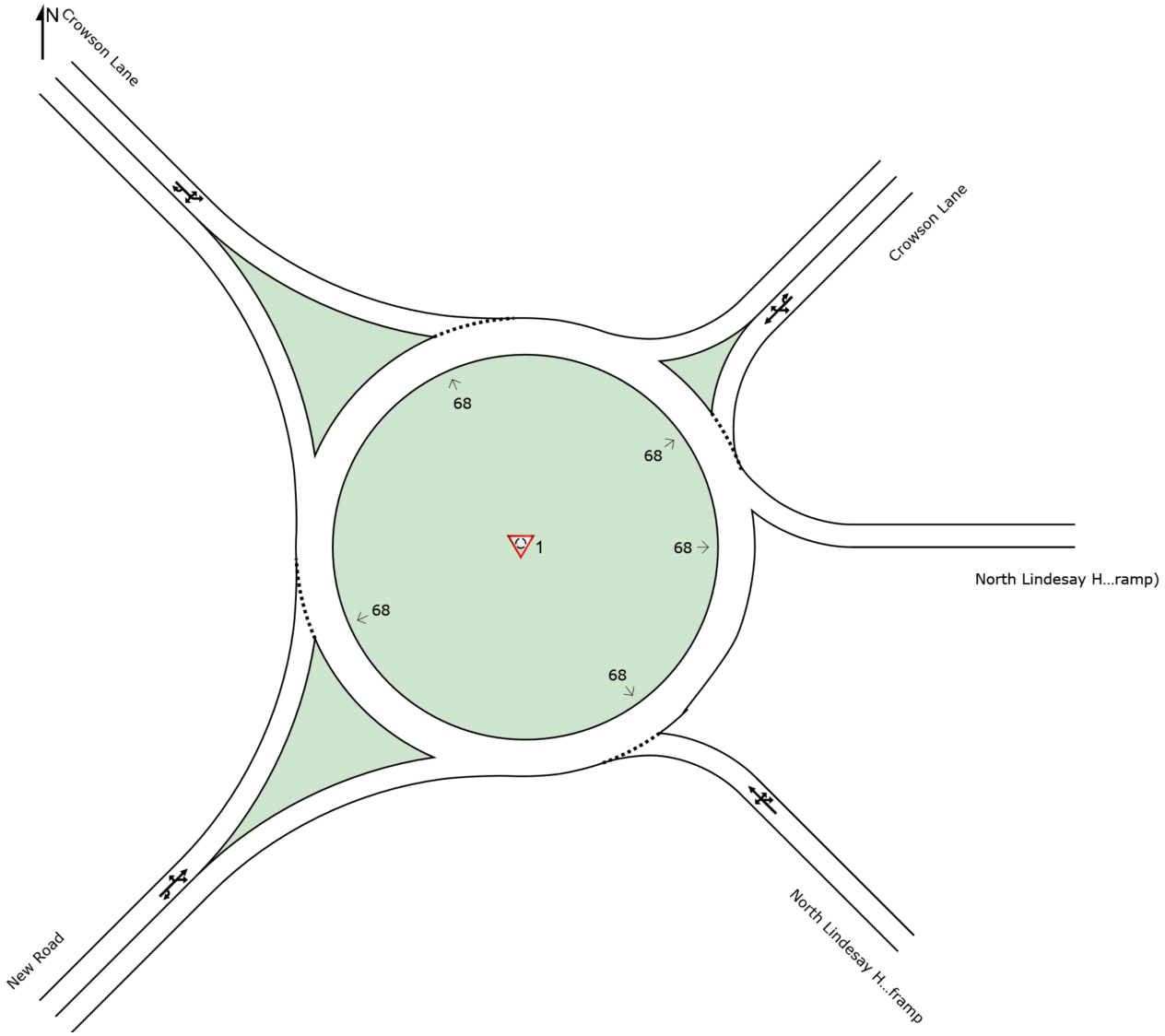
Appendix D: State SIDRA Outputs

SITE LAYOUT

Site: 1 [Int_2_2029AM_BG+ROL (Site Folder: General)]

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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



MOVEMENT SUMMARY

Site: 1 [Int_2_2029AM_BG+ROL (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	66	15.0	66	15.0	0.182	5.8	LOS A	1.3	10.6	0.80	0.66	0.80	52.2
22	T1	All MCs	44	22.0	44	22.0	0.182	6.4	LOS A	1.3	10.6	0.80	0.66	0.80	52.4
23	R2	All MCs	37	12.0	37	12.0	0.182	13.3	LOS B	1.3	10.6	0.80	0.66	0.80	48.6
23b	R3	All MCs	2	50.0	2	50.0	0.182	16.0	LOS B	1.3	10.6	0.80	0.66	0.80	50.7
Approach			149	16.8	149	16.8	0.182	8.0	LOS A	1.3	10.6	0.80	0.66	0.80	51.5
NorthEast: Crowson Lane															
24b	L3	All MCs	85	15.0	85	15.0	0.629	6.4	LOS A	6.3	49.7	0.76	0.67	0.85	50.1
25	T1	All MCs	500	15.0	500	15.0	0.629	6.4	LOS A	6.3	49.7	0.76	0.67	0.85	50.7
26	R2	All MCs	161	17.0	161	17.0	0.629	13.6	LOS B	6.3	49.7	0.76	0.67	0.85	49.6
26u	U	All MCs	1	0.0	1	0.0	0.629	15.9	LOS B	6.3	49.7	0.76	0.67	0.85	47.3
Approach			747	15.4	747	15.4	0.629	7.9	LOS A	6.3	49.7	0.76	0.67	0.85	50.4
NorthWest: Crowson Lane															
27	L2	All MCs	220	15.0	220	15.0	0.318	3.7	LOS A	2.1	16.5	0.54	0.43	0.54	53.2
27a	L1	All MCs	166	15.0	166	15.0	0.318	3.8	LOS A	2.1	16.5	0.54	0.43	0.54	54.7
29	R2	All MCs	5	1.0	5	1.0	0.318	11.0	LOS B	2.1	16.5	0.54	0.43	0.54	54.0
29u	U	All MCs	1	0.0	1	0.0	0.318	13.8	LOS B	2.1	16.5	0.54	0.43	0.54	54.0
Approach			393	14.8	393	14.8	0.318	3.9	LOS A	2.1	16.5	0.54	0.43	0.54	54.0
SouthWest: New Road															
30	L2	All MCs	5	15.0	5	15.0	0.209	3.3	LOS A	1.3	10.2	0.47	0.53	0.47	52.1
31	T1	All MCs	61	15.0	61	15.0	0.209	3.7	LOS A	1.3	10.2	0.47	0.53	0.47	50.6
32a	R1	All MCs	200	15.0	200	15.0	0.209	9.5	LOS A	1.3	10.2	0.47	0.53	0.47	51.3
32u	U	All MCs	1	15.0	1	15.0	0.209	13.7	LOS B	1.3	10.2	0.47	0.53	0.47	51.3
Approach			267	15.0	267	15.0	0.209	8.1	LOS A	1.3	10.2	0.47	0.53	0.47	51.2
All Vehicles			1557	15.3	1557	15.3	0.629	7.0	LOS A	6.3	49.7	0.66	0.59	0.70	51.5

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

MOVEMENT SUMMARY

Site: 1 [Int_2_2029PM 1_BG+ROL (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	41	15.0	41	15.0	0.201	5.1	LOS A	1.5	11.3	0.76	0.60	0.76	52.1
22	T1	All MCs	88	15.0	88	15.0	0.201	5.5	LOS A	1.5	11.3	0.76	0.60	0.76	52.3
23	R2	All MCs	56	6.0	56	6.0	0.201	12.4	LOS B	1.5	11.3	0.76	0.60	0.76	49.2
23b	R3	All MCs	1	10.0	1	10.0	0.201	14.0	LOS B	1.5	11.3	0.76	0.60	0.76	51.4
Approach			186	12.3	186	12.3	0.201	7.5	LOS A	1.5	11.3	0.76	0.60	0.76	51.4
NorthEast: Crowson Lane															
24b	L3	All MCs	68	11.0	68	11.0	0.622	8.3	LOS A	6.7	52.5	0.88	0.80	1.07	48.4
25	T1	All MCs	306	15.0	306	15.0	0.622	8.4	LOS A	6.7	52.5	0.88	0.80	1.07	48.8
26	R2	All MCs	249	15.0	249	15.0	0.622	15.6	LOS B	6.7	52.5	0.88	0.80	1.07	47.8
26u	U	All MCs	1	1.0	1	1.0	0.622	17.9	LOS B	6.7	52.5	0.88	0.80	1.07	45.1
Approach			625	14.5	625	14.5	0.622	11.3	LOS B	6.7	52.5	0.88	0.80	1.07	48.4
NorthWest: Crowson Lane															
27	L2	All MCs	176	15.0	176	15.0	0.348	5.4	LOS A	2.6	20.4	0.77	0.59	0.77	51.8
27a	L1	All MCs	148	15.0	148	15.0	0.348	5.4	LOS A	2.6	20.4	0.77	0.59	0.77	53.5
29	R2	All MCs	7	10.0	7	10.0	0.348	12.8	LOS B	2.6	20.4	0.77	0.59	0.77	52.6
29u	U	All MCs	4	50.0	4	50.0	0.348	16.9	LOS B	2.6	20.4	0.77	0.59	0.77	51.7
Approach			336	15.3	336	15.3	0.348	5.7	LOS A	2.6	20.4	0.77	0.59	0.77	52.7
SouthWest: New Road															
30	L2	All MCs	7	15.0	7	15.0	0.451	4.6	LOS A	3.4	27.1	0.70	0.61	0.70	51.2
31	T1	All MCs	118	15.0	118	15.0	0.451	5.0	LOS A	3.4	27.1	0.70	0.61	0.70	49.6
32a	R1	All MCs	382	15.0	382	15.0	0.451	10.8	LOS B	3.4	27.1	0.70	0.61	0.70	50.4
32u	U	All MCs	1	15.0	1	15.0	0.451	15.0	LOS B	3.4	27.1	0.70	0.61	0.70	50.4
Approach			508	15.0	508	15.0	0.451	9.4	LOS A	3.4	27.1	0.70	0.61	0.70	50.3
All Vehicles			1656	14.6	1656	14.6	0.622	9.2	LOS A	6.7	52.5	0.79	0.68	0.86	50.2

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

MOVEMENT SUMMARY

Site: 1 [Int_2_2029PM 2_BG+ROL (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	41	15.0	41	15.0	0.129	4.6	LOS A	0.9	6.7	0.69	0.58	0.69	52.4
22	T1	All MCs	43	15.0	43	15.0	0.129	5.1	LOS A	0.9	6.7	0.69	0.58	0.69	52.6
23	R2	All MCs	43	5.0	43	5.0	0.129	12.0	LOS B	0.9	6.7	0.69	0.58	0.69	49.7
23b	R3	All MCs	1	0.0	1	0.0	0.129	13.3	LOS B	0.9	6.7	0.69	0.58	0.69	52.0
Approach			128	11.5	128	11.5	0.129	7.3	LOS A	0.9	6.7	0.69	0.58	0.69	51.7
NorthEast: Crowson Lane															
24b	L3	All MCs	43	8.0	43	8.0	0.528	6.1	LOS A	4.6	35.9	0.79	0.68	0.85	49.5
25	T1	All MCs	298	15.0	298	15.0	0.528	6.4	LOS A	4.6	35.9	0.79	0.68	0.85	49.9
26	R2	All MCs	218	15.0	218	15.0	0.528	13.5	LOS B	4.6	35.9	0.79	0.68	0.85	48.9
26u	U	All MCs	1	0.0	1	0.0	0.528	15.9	LOS B	4.6	35.9	0.79	0.68	0.85	46.5
Approach			560	14.4	560	14.4	0.528	9.2	LOS A	4.6	35.9	0.79	0.68	0.85	49.5
NorthWest: Crowson Lane															
27	L2	All MCs	107	15.0	107	15.0	0.220	4.9	LOS A	1.5	11.7	0.69	0.55	0.69	52.2
27a	L1	All MCs	106	15.0	106	15.0	0.220	5.0	LOS A	1.5	11.7	0.69	0.55	0.69	53.9
29	R2	All MCs	5	10.0	5	10.0	0.220	12.4	LOS B	1.5	11.7	0.69	0.55	0.69	52.9
29u	U	All MCs	1	0.0	1	0.0	0.220	14.9	LOS B	1.5	11.7	0.69	0.55	0.69	53.2
Approach			220	14.8	220	14.8	0.220	5.2	LOS A	1.5	11.7	0.69	0.55	0.69	53.1
SouthWest: New Road															
30	L2	All MCs	5	15.0	5	15.0	0.408	3.9	LOS A	3.0	23.7	0.61	0.57	0.61	51.5
31	T1	All MCs	116	15.0	116	15.0	0.408	4.3	LOS A	3.0	23.7	0.61	0.57	0.61	50.0
32a	R1	All MCs	375	15.0	375	15.0	0.408	10.1	LOS B	3.0	23.7	0.61	0.57	0.61	50.8
32u	U	All MCs	1	15.0	1	15.0	0.408	14.3	LOS B	3.0	23.7	0.61	0.57	0.61	50.8
Approach			497	15.0	497	15.0	0.408	8.7	LOS A	3.0	23.7	0.61	0.57	0.61	50.6
All Vehicles			1405	14.4	1405	14.4	0.528	8.2	LOS A	4.6	35.9	0.70	0.61	0.72	50.6

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

MOVEMENT SUMMARY

Site: 1 [Int_2_2029AM_Design (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	115	15.0	115	15.0	0.570	23.3	LOS C	6.1	48.9	1.00	1.03	1.30	42.9
22	T1	All MCs	54	22.0	54	22.0	0.570	24.1	LOS C	6.1	48.9	1.00	1.03	1.30	43.0
23	R2	All MCs	37	12.0	37	12.0	0.570	30.7	LOS C	6.1	48.9	1.00	1.03	1.30	38.7
23b	R3	All MCs	2	50.0	2	50.0	0.570	34.6	LOS C	6.1	48.9	1.00	1.03	1.30	41.9
Approach			207	16.6	207	16.6	0.570	24.9	LOS C	6.1	48.9	1.00	1.03	1.30	42.3
NorthEast: Crowson Lane															
24b	L3	All MCs	85	15.0	85	15.0	1.010	43.3	LOS D	50.6	400.9	1.00	2.15	3.26	32.1
25	T1	All MCs	859	15.0	859	15.0	1.010	43.3	LOS D	50.6	400.9	1.00	2.15	3.26	32.3
26	R2	All MCs	238	17.0	238	17.0	1.010	50.6	LOS E	50.6	400.9	1.00	2.15	3.26	31.9
26u	U	All MCs	1	0.0	1	0.0	1.010	52.5	LOS E	50.6	400.9	1.00	2.15	3.26	27.7
Approach			1183	15.4	1183	15.4	1.010	44.8	LOS D	50.6	400.9	1.00	2.15	3.26	32.2
NorthWest: Crowson Lane															
27	L2	All MCs	221	15.0	221	15.0	0.327	3.8	LOS A	2.2	17.6	0.57	0.45	0.57	53.1
27a	L1	All MCs	168	15.0	168	15.0	0.327	3.9	LOS A	2.2	17.6	0.57	0.45	0.57	54.6
29	R2	All MCs	5	10.0	5	10.0	0.327	11.3	LOS B	2.2	17.6	0.57	0.45	0.57	53.6
29u	U	All MCs	1	0.0	1	0.0	0.327	13.9	LOS B	2.2	17.6	0.57	0.45	0.57	53.9
Approach			396	14.9	396	14.9	0.327	4.0	LOS A	2.2	17.6	0.57	0.45	0.57	53.8
SouthWest: New Road															
30	L2	All MCs	5	15.0	5	15.0	0.242	3.8	LOS A	1.6	12.8	0.58	0.56	0.58	51.7
31	T1	All MCs	65	15.0	65	15.0	0.242	4.2	LOS A	1.6	12.8	0.58	0.56	0.58	50.1
32a	R1	All MCs	212	15.0	212	15.0	0.242	10.0	LOS A	1.6	12.8	0.58	0.56	0.58	50.9
32u	U	All MCs	1	15.0	1	15.0	0.242	14.2	LOS B	1.6	12.8	0.58	0.56	0.58	50.9
Approach			283	15.0	283	15.0	0.242	8.5	LOS A	1.6	12.8	0.58	0.56	0.58	50.8
All Vehicles			2069	15.4	2069	15.4	1.010	30.0	LOS C	50.6	400.9	0.86	1.49	2.18	38.4

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

MOVEMENT SUMMARY

Site: 1 [Int_2_2029PM 1_Design (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	42	15.0	42	15.0	0.204	5.2	LOS A	1.5	11.6	0.77	0.61	0.77	52.1
22	T1	All MCs	88	15.0	88	15.0	0.204	5.6	LOS A	1.5	11.6	0.77	0.61	0.77	52.3
23	R2	All MCs	56	6.0	56	6.0	0.204	12.5	LOS B	1.5	11.6	0.77	0.61	0.77	49.2
23b	R3	All MCs	1	10.0	1	10.0	0.204	14.0	LOS B	1.5	11.6	0.77	0.61	0.77	51.4
Approach			187	12.3	187	12.3	0.204	7.6	LOS A	1.5	11.6	0.77	0.61	0.77	51.4
NorthEast: Crowson Lane															
24b	L3	All MCs	68	11.0	68	11.0	0.629	8.4	LOS A	6.8	53.9	0.88	0.81	1.08	48.3
25	T1	All MCs	314	15.0	314	15.0	0.629	8.5	LOS A	6.8	53.9	0.88	0.81	1.08	48.8
26	R2	All MCs	252	15.0	252	15.0	0.629	15.7	LOS B	6.8	53.9	0.88	0.81	1.08	47.8
26u	U	All MCs	1	1.0	1	1.0	0.629	18.0	LOS B	6.8	53.9	0.88	0.81	1.08	45.0
Approach			635	14.5	635	14.5	0.629	11.4	LOS B	6.8	53.9	0.88	0.81	1.08	48.3
NorthWest: Crowson Lane															
27	L2	All MCs	176	15.0	176	15.0	0.347	5.3	LOS A	2.6	20.3	0.77	0.59	0.77	51.8
27a	L1	All MCs	148	15.0	148	15.0	0.347	5.4	LOS A	2.6	20.3	0.77	0.59	0.77	53.5
29	R2	All MCs	7	10.0	7	10.0	0.347	12.8	LOS B	2.6	20.3	0.77	0.59	0.77	52.6
29u	U	All MCs	4	50.0	4	50.0	0.347	16.9	LOS B	2.6	20.3	0.77	0.59	0.77	51.7
Approach			336	15.3	336	15.3	0.347	5.7	LOS A	2.6	20.3	0.77	0.59	0.77	52.7
SouthWest: New Road															
30	L2	All MCs	7	10.0	7	10.0	0.448	4.5	LOS A	3.4	26.9	0.70	0.61	0.70	51.2
31	T1	All MCs	117	15.0	117	15.0	0.448	5.0	LOS A	3.4	26.9	0.70	0.61	0.70	49.6
32a	R1	All MCs	379	15.0	379	15.0	0.448	10.8	LOS B	3.4	26.9	0.70	0.61	0.70	50.4
32u	U	All MCs	1	10.0	1	10.0	0.448	14.9	LOS B	3.4	26.9	0.70	0.61	0.70	50.5
Approach			504	14.9	504	14.9	0.448	9.4	LOS A	3.4	26.9	0.70	0.61	0.70	50.3
All Vehicles			1662	14.6	1662	14.6	0.629	9.2	LOS A	6.8	53.9	0.79	0.68	0.87	50.2

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

MOVEMENT SUMMARY

Site: 1 [Int_2_2029PM 2_Design (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	39	15.0	39	15.0	0.129	4.5	LOS A	0.9	7.0	0.71	0.58	0.71	52.4
22	T1	All MCs	43	15.0	43	15.0	0.129	4.9	LOS A	0.9	7.0	0.71	0.58	0.71	52.6
23	R2	All MCs	43	5.0	43	5.0	0.129	11.9	LOS B	0.9	7.0	0.71	0.58	0.71	49.6
23b	R3	All MCs	1	0.0	1	0.0	0.129	13.1	LOS B	0.9	7.0	0.71	0.58	0.71	51.9
Approach			126	11.5	126	11.5	0.129	7.2	LOS A	0.9	7.0	0.71	0.58	0.71	51.6
NorthEast: Crowson Lane															
24b	L3	All MCs	43	8.0	43	8.0	0.797	23.2	LOS C	13.0	102.4	1.00	1.25	1.82	39.7
25	T1	All MCs	282	15.0	282	15.0	0.797	23.5	LOS C	13.0	102.4	1.00	1.25	1.82	40.0
26	R2	All MCs	215	15.0	215	15.0	0.797	30.7	LOS C	13.0	102.4	1.00	1.25	1.82	39.3
26u	U	All MCs	1	0.0	1	0.0	0.797	32.7	LOS C	13.0	102.4	1.00	1.25	1.82	35.5
Approach			541	14.4	541	14.4	0.797	26.3	LOS C	13.0	102.4	1.00	1.25	1.82	39.7
NorthWest: Crowson Lane															
27	L2	All MCs	126	15.0	126	15.0	0.529	12.9	LOS B	5.4	42.6	1.00	0.92	1.21	47.1
27a	L1	All MCs	169	15.0	169	15.0	0.529	13.0	LOS B	5.4	42.6	1.00	0.92	1.21	49.5
29	R2	All MCs	5	10.0	5	10.0	0.529	20.3	LOS C	5.4	42.6	1.00	0.92	1.21	48.7
29u	U	All MCs	1	0.0	1	0.0	0.529	22.6	LOS C	5.4	42.6	1.00	0.92	1.21	48.9
Approach			302	14.9	302	14.9	0.529	13.1	LOS B	5.4	42.6	1.00	0.92	1.21	48.6
SouthWest: New Road															
30	L2	All MCs	5	15.0	5	15.0	0.726	6.2	LOS A	9.4	74.6	0.85	0.72	0.97	50.6
31	T1	All MCs	206	15.0	206	15.0	0.726	6.6	LOS A	9.4	74.6	0.85	0.72	0.97	48.9
32a	R1	All MCs	671	15.0	671	15.0	0.726	12.4	LOS B	9.4	74.6	0.85	0.72	0.97	49.9
32u	U	All MCs	1	15.0	1	15.0	0.726	16.7	LOS B	9.4	74.6	0.85	0.72	0.97	49.9
Approach			883	15.0	883	15.0	0.726	11.0	LOS B	9.4	74.6	0.85	0.72	0.97	49.7
All Vehicles			1853	14.6	1853	14.6	0.797	15.6	LOS B	13.0	102.4	0.91	0.90	1.24	46.6

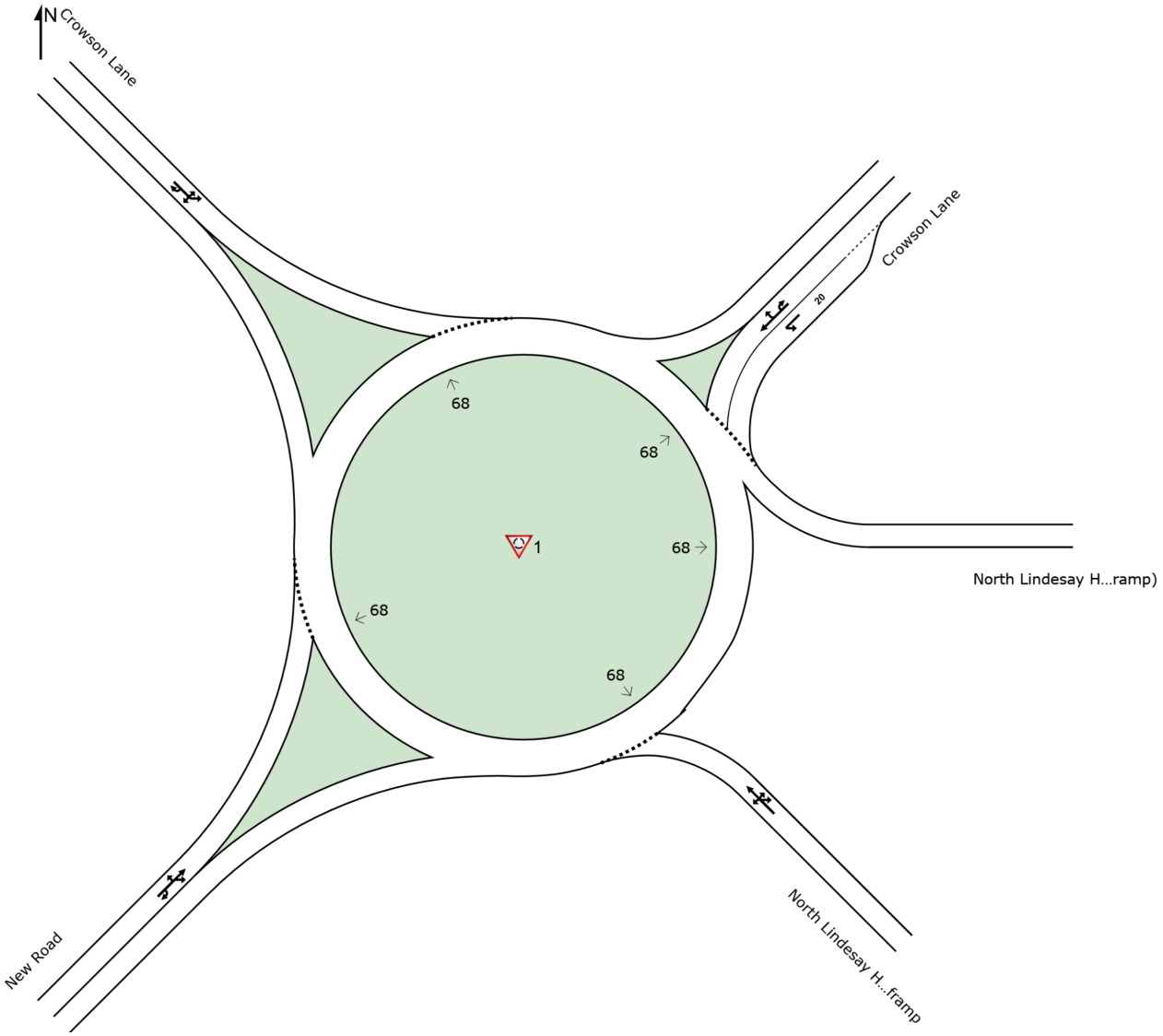
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay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

SITE LAYOUT

Site: 1 [Int_2_2029AM_Design - 20m short (Site Folder: General)]

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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



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MOVEMENT SUMMARY

Site: 1 [Int_2_2029AM_Design - 20m short (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	115	15.0	115	15.0	0.501	18.4	LOS B	5.0	40.1	1.00	0.97	1.22	45.4
22	T1	All MCs	54	22.0	54	22.0	0.501	19.2	LOS B	5.0	40.1	1.00	0.97	1.22	45.5
23	R2	All MCs	37	12.0	37	12.0	0.501	25.8	LOS C	5.0	40.1	1.00	0.97	1.22	41.2
23b	R3	All MCs	2	50.0	2	50.0	0.501	29.6	LOS C	5.0	40.1	1.00	0.97	1.22	44.2
Approach			207	16.6	207	16.6	0.501	20.0	LOS C	5.0	40.1	1.00	0.97	1.22	44.7
NorthEast: Crowson Lane															
24b	L3	All MCs	85	15.0	85	15.0	0.071	4.5	LOS A	0.4	3.1	0.51	0.51	0.51	53.3
25	T1	All MCs	859	15.0	859	15.0	0.733	6.8	LOS A	9.6	76.1	0.80	0.74	0.94	50.4
26	R2	All MCs	238	17.0	238	17.0	0.733	14.1	LOS B	9.6	76.1	0.80	0.74	0.94	49.2
26u	U	All MCs	1	0.0	1	0.0	0.733	16.4	LOS B	9.6	76.1	0.80	0.74	0.94	47.0
Approach			1183	15.4	1183	15.4	0.733	8.1	LOS A	9.6	76.1	0.78	0.72	0.91	50.2
NorthWest: Crowson Lane															
27	L2	All MCs	221	15.0	221	15.0	0.327	3.8	LOS A	2.2	17.5	0.57	0.45	0.57	53.1
27a	L1	All MCs	168	15.0	168	15.0	0.327	3.9	LOS A	2.2	17.5	0.57	0.45	0.57	54.6
29	R2	All MCs	5	10.0	5	10.0	0.327	11.3	LOS B	2.2	17.5	0.57	0.45	0.57	53.6
29u	U	All MCs	1	0.0	1	0.0	0.327	13.9	LOS B	2.2	17.5	0.57	0.45	0.57	53.9
Approach			396	14.9	396	14.9	0.327	4.0	LOS A	2.2	17.5	0.57	0.45	0.57	53.8
SouthWest: New Road															
30	L2	All MCs	5	15.0	5	15.0	0.240	3.8	LOS A	1.5	12.2	0.56	0.56	0.56	51.7
31	T1	All MCs	65	15.0	65	15.0	0.240	4.2	LOS A	1.5	12.2	0.56	0.56	0.56	50.2
32a	R1	All MCs	212	15.0	212	15.0	0.240	10.0	LOS A	1.5	12.2	0.56	0.56	0.56	51.0
32u	U	All MCs	1	15.0	1	15.0	0.240	14.2	LOS B	1.5	12.2	0.56	0.56	0.56	51.0
Approach			283	15.0	283	15.0	0.240	8.6	LOS A	1.5	12.2	0.56	0.56	0.56	50.8
All Vehicles			2069	15.4	2069	15.4	0.733	8.6	LOS A	9.6	76.1	0.73	0.67	0.83	50.2

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

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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\2 x Mount Lindesay Hwy.sip9

MOVEMENT SUMMARY

Site: 1 [Int_2_2029PM 1_Design - 20m short (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	42	15.0	42	15.0	0.199	5.2	LOS A	1.4	11.0	0.75	0.60	0.75	52.2
22	T1	All MCs	88	15.0	88	15.0	0.199	5.6	LOS A	1.4	11.0	0.75	0.60	0.75	52.3
23	R2	All MCs	56	6.0	56	6.0	0.199	12.5	LOS B	1.4	11.0	0.75	0.60	0.75	49.2
23b	R3	All MCs	1	10.0	1	10.0	0.199	14.0	LOS B	1.4	11.0	0.75	0.60	0.75	51.5
Approach			187	12.3	187	12.3	0.199	7.6	LOS A	1.4	11.0	0.75	0.60	0.75	51.5
NorthEast: Crowson Lane															
24b	L3	All MCs	68	11.0	68	11.0	0.062	4.9	LOS A	0.4	3.0	0.63	0.56	0.63	52.9
25	T1	All MCs	314	15.0	314	15.0	0.425	5.1	LOS A	3.6	28.1	0.76	0.58	0.76	50.1
26	R2	All MCs	252	15.0	252	15.0	0.425	12.3	LOS B	3.6	28.1	0.76	0.58	0.76	49.1
26u	U	All MCs	1	1.0	1	1.0	0.425	14.8	LOS B	3.6	28.1	0.76	0.58	0.76	46.6
Approach			635	14.5	635	14.5	0.425	8.0	LOS A	3.6	28.1	0.75	0.58	0.75	50.0
NorthWest: Crowson Lane															
27	L2	All MCs	176	15.0	176	15.0	0.346	5.3	LOS A	2.6	20.2	0.77	0.59	0.77	51.8
27a	L1	All MCs	148	15.0	148	15.0	0.346	5.4	LOS A	2.6	20.2	0.77	0.59	0.77	53.5
29	R2	All MCs	7	10.0	7	10.0	0.346	12.8	LOS B	2.6	20.2	0.77	0.59	0.77	52.6
29u	U	All MCs	4	50.0	4	50.0	0.346	16.9	LOS B	2.6	20.2	0.77	0.59	0.77	51.7
Approach			336	15.3	336	15.3	0.346	5.7	LOS A	2.6	20.2	0.77	0.59	0.77	52.7
SouthWest: New Road															
30	L2	All MCs	7	15.0	7	15.0	0.444	4.6	LOS A	3.3	26.2	0.69	0.61	0.69	51.2
31	T1	All MCs	117	15.0	117	15.0	0.444	5.0	LOS A	3.3	26.2	0.69	0.61	0.69	49.6
32a	R1	All MCs	379	15.0	379	15.0	0.444	10.8	LOS B	3.3	26.2	0.69	0.61	0.69	50.5
32u	U	All MCs	1	15.0	1	15.0	0.444	15.0	LOS B	3.3	26.2	0.69	0.61	0.69	50.5
Approach			504	15.0	504	15.0	0.444	9.4	LOS A	3.3	26.2	0.69	0.61	0.69	50.3
All Vehicles			1662	14.6	1662	14.6	0.444	7.9	LOS A	3.6	28.1	0.73	0.59	0.73	50.8

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

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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\2 x Mount Lindesay Hwy.sip9

MOVEMENT SUMMARY

Site: 1 [Int_2_2029PM 2_Design - 20m short (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: North Lindesay Highway offramp															
21	L2	All MCs	39	15.0	39	15.0	0.129	4.5	LOS A	0.9	7.0	0.71	0.58	0.71	52.4
22	T1	All MCs	43	15.0	43	15.0	0.129	4.9	LOS A	0.9	7.0	0.71	0.58	0.71	52.6
23	R2	All MCs	43	5.0	43	5.0	0.129	11.9	LOS B	0.9	7.0	0.71	0.58	0.71	49.6
23b	R3	All MCs	1	0.0	1	0.0	0.129	13.1	LOS B	0.9	7.0	0.71	0.58	0.71	51.9
Approach			126	11.5	126	11.5	0.129	7.2	LOS A	0.9	7.0	0.71	0.58	0.71	51.6
NorthEast: Crowson Lane															
24b	L3	All MCs	43	8.0	43	8.0	0.050	6.9	LOS A	0.4	3.1	0.89	0.66	0.89	51.5
25	T1	All MCs	282	15.0	282	15.0	0.537	9.5	LOS A	6.2	48.7	1.00	0.83	1.14	48.0
26	R2	All MCs	215	15.0	215	15.0	0.537	16.7	LOS B	6.2	48.7	1.00	0.83	1.14	47.0
26u	U	All MCs	1	0.0	1	0.0	0.537	19.0	LOS B	6.2	48.7	1.00	0.83	1.14	44.3
Approach			541	14.4	541	14.4	0.537	12.1	LOS B	6.2	48.7	0.99	0.82	1.12	47.8
NorthWest: Crowson Lane															
27	L2	All MCs	126	15.0	126	15.0	0.529	12.9	LOS B	5.4	42.6	1.00	0.92	1.21	47.1
27a	L1	All MCs	169	15.0	169	15.0	0.529	13.0	LOS B	5.4	42.6	1.00	0.92	1.21	49.5
29	R2	All MCs	5	10.0	5	10.0	0.529	20.3	LOS C	5.4	42.6	1.00	0.92	1.21	48.7
29u	U	All MCs	1	0.0	1	0.0	0.529	22.6	LOS C	5.4	42.6	1.00	0.92	1.21	48.9
Approach			302	14.9	302	14.9	0.529	13.1	LOS B	5.4	42.6	1.00	0.92	1.21	48.6
SouthWest: New Road															
30	L2	All MCs	5	15.0	5	15.0	0.726	6.2	LOS A	9.4	74.5	0.85	0.72	0.97	50.6
31	T1	All MCs	206	15.0	206	15.0	0.726	6.6	LOS A	9.4	74.5	0.85	0.72	0.97	48.9
32a	R1	All MCs	671	15.0	671	15.0	0.726	12.4	LOS B	9.4	74.5	0.85	0.72	0.97	49.9
32u	U	All MCs	1	15.0	1	15.0	0.726	16.7	LOS B	9.4	74.5	0.85	0.72	0.97	49.9
Approach			883	15.0	883	15.0	0.726	11.0	LOS B	9.4	74.5	0.85	0.72	0.97	49.7
All Vehicles			1853	14.6	1853	14.6	0.726	11.4	LOS B	9.4	74.5	0.91	0.77	1.03	49.1

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

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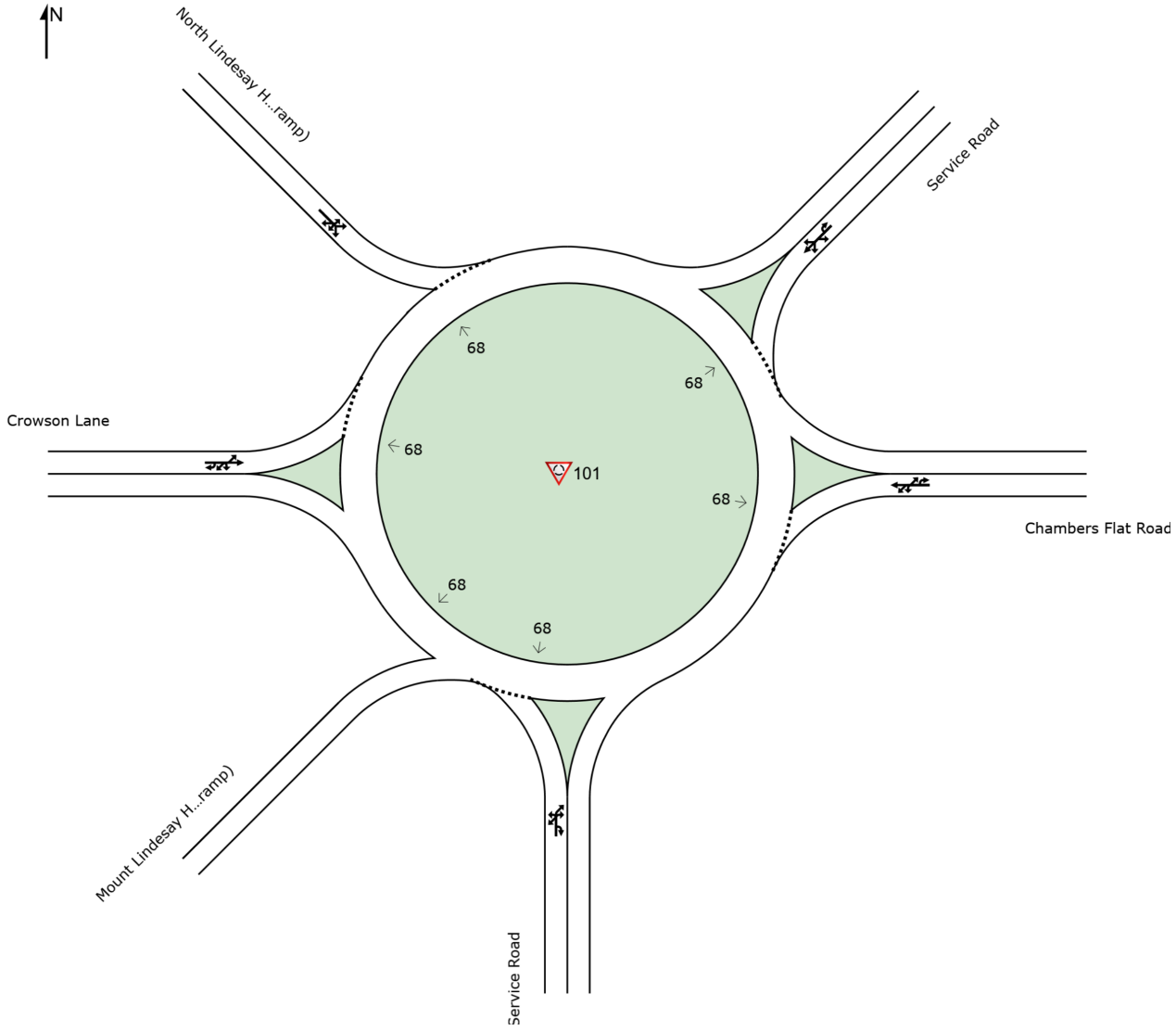
Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\2 x Mount Lindesay Hwy.sip9

SITE LAYOUT

Site: 101 [Int_5_2029AM_BG+ROL (Site Folder: General)]

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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



MOVEMENT SUMMARY

Site: 101 [Int_5_2029AM_BG+ROL (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.067	8.1	LOS A	0.5	3.7	0.85	0.71	0.85	50.3
1	L2	All MCs	26	17.0	26	17.0	0.067	8.4	LOS A	0.5	3.7	0.85	0.71	0.85	48.4
3a	R1	All MCs	2	0.0	2	0.0	0.067	13.9	LOS B	0.5	3.7	0.85	0.71	0.85	50.0
3	R2	All MCs	19	0.0	19	0.0	0.067	15.3	LOS B	0.5	3.7	0.85	0.71	0.85	50.0
3u	U	All MCs	1	0.0	1	0.0	0.067	18.1	LOS B	0.5	3.7	0.85	0.71	0.85	50.0
Approach			49	9.0	49	9.0	0.067	11.4	LOS B	0.5	3.7	0.85	0.71	0.85	49.2
East: Chambers Flat Road															
4	L2	All MCs	27	21.0	27	21.0	0.293	7.2	LOS A	2.2	17.0	0.84	0.68	0.84	52.4
4a	L1	All MCs	55	6.0	55	6.0	0.293	6.8	LOS A	2.2	17.0	0.84	0.68	0.84	52.7
5	T1	All MCs	156	15.0	156	15.0	0.293	7.4	LOS A	2.2	17.0	0.84	0.68	0.84	51.0
6b	R3	All MCs	2	0.0	2	0.0	0.293	15.5	LOS B	2.2	17.0	0.84	0.68	0.84	52.0
6u	U	All MCs	1	0.0	1	0.0	0.293	16.9	LOS B	2.2	17.0	0.84	0.68	0.84	52.0
Approach			241	13.4	241	13.4	0.293	7.4	LOS A	2.2	17.0	0.84	0.68	0.84	51.6
NorthEast: Service Road															
24b	L3	All MCs	2	50.0	2	50.0	0.078	10.1	LOS B	0.6	4.4	0.86	0.71	0.86	50.4
24a	L1	All MCs	9	13.0	9	13.0	0.078	8.3	LOS A	0.6	4.4	0.86	0.71	0.86	51.3
25	T1	All MCs	24	5.0	24	5.0	0.078	8.3	LOS A	0.6	4.4	0.86	0.71	0.86	51.3
26a	R1	All MCs	18	25.0	18	25.0	0.078	14.9	LOS B	0.6	4.4	0.86	0.71	0.86	46.0
26u	U	All MCs	1	0.0	1	0.0	0.078	18.1	LOS B	0.6	4.4	0.86	0.71	0.86	50.7
Approach			55	14.6	55	14.6	0.078	10.7	LOS B	0.6	4.4	0.86	0.71	0.86	49.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	7	21.0	7	21.0	0.486	4.5	LOS A	3.5	27.7	0.63	0.65	0.63	49.6
27a	L1	All MCs	24	9.0	24	9.0	0.486	4.3	LOS A	3.5	27.7	0.63	0.65	0.63	49.8
29a	R1	All MCs	21	21.0	21	21.0	0.486	10.8	LOS B	3.5	27.7	0.63	0.65	0.63	48.8
29	R2	All MCs	1	0.0	1	0.0	0.486	11.6	LOS B	3.5	27.7	0.63	0.65	0.63	49.2
29b	R3	All MCs	542	15.0	542	15.0	0.486	13.4	LOS B	3.5	27.7	0.63	0.65	0.63	45.8
Approach			596	15.0	596	15.0	0.486	12.8	LOS B	3.5	27.7	0.63	0.65	0.63	46.1
West: Crowson Lane															
10a	L1	All MCs	14	25.0	14	25.0	0.197	2.4	LOS A	1.3	10.7	0.14	0.43	0.14	52.8
11	T1	All MCs	167	15.0	167	15.0	0.197	2.7	LOS A	1.3	10.7	0.14	0.43	0.14	52.9
12	R2	All MCs	18	31.0	18	31.0	0.197	10.0	LOS B	1.3	10.7	0.14	0.43	0.14	51.3
12b	R3	All MCs	120	15.0	120	15.0	0.197	11.3	LOS B	1.3	10.7	0.14	0.43	0.14	51.7
12u	U	All MCs	2	0.0	2	0.0	0.197	12.5	LOS B	1.3	10.7	0.14	0.43	0.14	50.0
Approach			321	16.2	321	16.2	0.197	6.3	LOS A	1.3	10.7	0.14	0.43	0.14	52.3
All Vehicles			1262	14.8	1262	14.8	0.486	10.0	LOS A	3.5	27.7	0.56	0.61	0.56	48.8

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

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MOVEMENT SUMMARY

Site: 101 [Int_5_2029PM 1_BG+ROL (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.118	6.6	LOS A	0.8	6.0	0.77	0.67	0.77	51.9
1	L2	All MCs	63	9.0	63	9.0	0.118	6.5	LOS A	0.8	6.0	0.77	0.67	0.77	50.4
3a	R1	All MCs	20	11.0	20	11.0	0.118	12.7	LOS B	0.8	6.0	0.77	0.67	0.77	51.3
3	R2	All MCs	20	0.0	20	0.0	0.118	13.7	LOS B	0.8	6.0	0.77	0.67	0.77	51.6
3u	U	All MCs	1	0.0	1	0.0	0.118	16.5	LOS B	0.8	6.0	0.77	0.67	0.77	51.6
Approach			105	7.5	105	7.5	0.118	9.1	LOS A	0.8	6.0	0.77	0.67	0.77	50.9
East: Chambers Flat Road															
4	L2	All MCs	48	7.0	48	7.0	0.353	6.1	LOS A	2.7	20.5	0.83	0.66	0.83	52.7
4a	L1	All MCs	84	4.0	84	4.0	0.353	6.1	LOS A	2.7	20.5	0.83	0.66	0.83	52.9
5	T1	All MCs	184	15.0	184	15.0	0.353	6.8	LOS A	2.7	20.5	0.83	0.66	0.83	51.3
6b	R3	All MCs	2	50.0	2	50.0	0.353	16.7	LOS B	2.7	20.5	0.83	0.66	0.83	51.1
6u	U	All MCs	1	0.0	1	0.0	0.353	16.3	LOS B	2.7	20.5	0.83	0.66	0.83	52.2
Approach			320	11.1	320	11.1	0.353	6.6	LOS A	2.7	20.5	0.83	0.66	0.83	52.0
NorthEast: Service Road															
24b	L3	All MCs	1	0.0	1	0.0	0.037	8.3	LOS A	0.3	2.0	0.87	0.68	0.87	50.8
24a	L1	All MCs	11	0.0	11	0.0	0.037	7.9	LOS A	0.3	2.0	0.87	0.68	0.87	51.1
25	T1	All MCs	4	0.0	4	0.0	0.037	8.3	LOS A	0.3	2.0	0.87	0.68	0.87	51.1
26a	R1	All MCs	11	11.0	11	11.0	0.037	14.4	LOS B	0.3	2.0	0.87	0.68	0.87	47.2
26u	U	All MCs	1	0.0	1	0.0	0.037	18.2	LOS B	0.3	2.0	0.87	0.68	0.87	50.4
Approach			27	4.2	27	4.2	0.037	10.9	LOS B	0.3	2.0	0.87	0.68	0.87	49.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	11	0.0	11	0.0	0.501	4.4	LOS A	3.7	28.7	0.68	0.65	0.68	50.4
27a	L1	All MCs	83	15.0	83	15.0	0.501	4.9	LOS A	3.7	28.7	0.68	0.65	0.68	50.4
29a	R1	All MCs	136	5.0	136	5.0	0.501	10.7	LOS B	3.7	28.7	0.68	0.65	0.68	49.8
29	R2	All MCs	1	0.0	1	0.0	0.501	12.0	LOS B	3.7	28.7	0.68	0.65	0.68	49.9
29b	R3	All MCs	366	15.0	366	15.0	0.501	13.8	LOS B	3.7	28.7	0.68	0.65	0.68	46.4
Approach			597	12.4	597	12.4	0.501	11.7	LOS B	3.7	28.7	0.68	0.65	0.68	47.9
West: Crowson Lane															
10a	L1	All MCs	23	5.0	23	5.0	0.227	2.4	LOS A	1.6	12.2	0.20	0.43	0.20	52.8
11	T1	All MCs	184	15.0	184	15.0	0.227	2.8	LOS A	1.6	12.2	0.20	0.43	0.20	52.7
12	R2	All MCs	33	14.0	33	14.0	0.227	9.9	LOS A	1.6	12.2	0.20	0.43	0.20	51.6
12b	R3	All MCs	119	16.0	119	16.0	0.227	11.4	LOS B	1.6	12.2	0.20	0.43	0.20	51.5
12u	U	All MCs	1	0.0	1	0.0	0.227	12.6	LOS B	1.6	12.2	0.20	0.43	0.20	49.8
Approach			360	14.6	360	14.6	0.227	6.3	LOS A	1.6	12.2	0.20	0.43	0.20	52.2
All Vehicles			1409	12.1	1409	12.1	0.501	8.9	LOS A	3.7	28.7	0.60	0.60	0.60	50.0

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

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MOVEMENT SUMMARY

Site: 101 [Int_5_2029PM 2_BG+ROL (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.069	5.5	LOS A	0.4	3.2	0.68	0.63	0.68	52.4
1	L2	All MCs	41	11.0	41	11.0	0.069	5.4	LOS A	0.4	3.2	0.68	0.63	0.68	51.0
3a	R1	All MCs	11	0.0	11	0.0	0.069	11.3	LOS B	0.4	3.2	0.68	0.63	0.68	52.1
3	R2	All MCs	15	0.0	15	0.0	0.069	12.7	LOS B	0.4	3.2	0.68	0.63	0.68	52.1
3u	U	All MCs	1	0.0	1	0.0	0.069	15.5	LOS B	0.4	3.2	0.68	0.63	0.68	52.1
Approach			68	6.6	68	6.6	0.069	8.0	LOS A	0.4	3.2	0.68	0.63	0.68	51.5
East: Chambers Flat Road															
4	L2	All MCs	38	0.0	38	0.0	0.223	5.1	LOS A	1.5	11.6	0.72	0.58	0.72	53.3
4a	L1	All MCs	35	0.0	35	0.0	0.223	5.2	LOS A	1.5	11.6	0.72	0.58	0.72	53.4
5	T1	All MCs	144	15.0	144	15.0	0.223	5.9	LOS A	1.5	11.6	0.72	0.58	0.72	51.9
6b	R3	All MCs	3	0.0	3	0.0	0.223	14.1	LOS B	1.5	11.6	0.72	0.58	0.72	52.7
6u	U	All MCs	1	0.0	1	0.0	0.223	15.5	LOS B	1.5	11.6	0.72	0.58	0.72	52.7
Approach			221	9.8	221	9.8	0.223	5.8	LOS A	1.5	11.6	0.72	0.58	0.72	52.4
NorthEast: Service Road															
24b	L3	All MCs	1	0.0	1	0.0	0.031	6.5	LOS A	0.2	1.5	0.77	0.62	0.77	51.6
24a	L1	All MCs	5	0.0	5	0.0	0.031	6.2	LOS A	0.2	1.5	0.77	0.62	0.77	52.0
25	T1	All MCs	12	0.0	12	0.0	0.031	6.5	LOS A	0.2	1.5	0.77	0.62	0.77	52.0
26a	R1	All MCs	9	0.0	9	0.0	0.031	12.2	LOS B	0.2	1.5	0.77	0.62	0.77	49.5
26u	U	All MCs	1	0.0	1	0.0	0.031	16.5	LOS B	0.2	1.5	0.77	0.62	0.77	51.3
Approach			28	0.0	28	0.0	0.031	8.7	LOS A	0.2	1.5	0.77	0.62	0.77	51.2
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	5	20.0	5	20.0	0.412	4.0	LOS A	2.8	21.6	0.55	0.61	0.55	50.4
27a	L1	All MCs	55	8.0	55	8.0	0.412	3.9	LOS A	2.8	21.6	0.55	0.61	0.55	50.6
29a	R1	All MCs	103	4.0	103	4.0	0.412	9.9	LOS A	2.8	21.6	0.55	0.61	0.55	49.9
29	R2	All MCs	5	0.0	5	0.0	0.412	11.2	LOS B	2.8	21.6	0.55	0.61	0.55	50.0
29b	R3	All MCs	364	15.0	364	15.0	0.412	12.9	LOS B	2.8	21.6	0.55	0.61	0.55	46.6
Approach			533	12.1	533	12.1	0.412	11.3	LOS B	2.8	21.6	0.55	0.61	0.55	47.8
West: Crowson Lane															
10a	L1	All MCs	14	8.0	14	8.0	0.168	2.3	LOS A	1.1	8.3	0.15	0.44	0.15	52.9
11	T1	All MCs	138	15.0	138	15.0	0.168	2.7	LOS A	1.1	8.3	0.15	0.44	0.15	52.8
12	R2	All MCs	26	17.0	26	17.0	0.168	9.9	LOS A	1.1	8.3	0.15	0.44	0.15	51.6
12b	R3	All MCs	93	15.0	93	15.0	0.168	11.3	LOS B	1.1	8.3	0.15	0.44	0.15	51.7
12u	U	All MCs	1	1.0	1	1.0	0.168	12.6	LOS B	1.1	8.3	0.15	0.44	0.15	49.8
Approach			272	14.8	272	14.8	0.168	6.3	LOS A	1.1	8.3	0.15	0.44	0.15	52.3
All Vehicles			1122	11.6	1122	11.6	0.412	8.8	LOS A	2.8	21.6	0.50	0.56	0.50	49.9

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

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MOVEMENT SUMMARY

Site: 101 [Int_5_2029AM_Design (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.169	23.4	LOS C	1.5	11.2	1.00	0.89	1.00	41.8
1	L2	All MCs	26	17.0	26	17.0	0.169	24.6	LOS C	1.5	11.2	1.00	0.89	1.00	38.9
3a	R1	All MCs	2	0.0	2	0.0	0.169	29.2	LOS C	1.5	11.2	1.00	0.89	1.00	41.6
3	R2	All MCs	19	0.0	19	0.0	0.169	30.6	LOS C	1.5	11.2	1.00	0.89	1.00	41.6
3u	U	All MCs	1	0.0	1	0.0	0.169	33.4	LOS C	1.5	11.2	1.00	0.89	1.00	41.6
Approach			49	9.0	49	9.0	0.169	27.2	LOS C	1.5	11.2	1.00	0.89	1.00	40.3
East: Chambers Flat Road															
4	L2	All MCs	27	21.0	27	21.0	0.714	35.8	LOS D	9.8	76.3	1.00	1.23	1.74	38.5
4a	L1	All MCs	55	6.0	55	6.0	0.714	34.9	LOS C	9.8	76.3	1.00	1.23	1.74	38.6
5	T1	All MCs	214	15.0	214	15.0	0.714	35.9	LOS D	9.8	76.3	1.00	1.23	1.74	35.4
6b	R3	All MCs	2	0.0	2	0.0	0.714	43.4	LOS D	9.8	76.3	1.00	1.23	1.74	38.3
6u	U	All MCs	1	0.0	1	0.0	0.714	44.9	LOS D	9.8	76.3	1.00	1.23	1.74	38.3
Approach			299	13.7	299	13.7	0.714	35.8	LOS D	9.8	76.3	1.00	1.23	1.74	36.4
NorthEast: Service Road															
24b	L3	All MCs	2	50.0	2	50.0	0.174	23.9	LOS C	1.5	12.0	1.00	0.87	1.00	43.6
24a	L1	All MCs	9	13.0	9	13.0	0.174	20.7	LOS C	1.5	12.0	1.00	0.87	1.00	44.3
25	T1	All MCs	24	5.0	24	5.0	0.174	20.4	LOS C	1.5	12.0	1.00	0.87	1.00	44.4
26a	R1	All MCs	18	25.0	18	25.0	0.174	27.7	LOS C	1.5	12.0	1.00	0.87	1.00	39.2
26u	U	All MCs	1	0.0	1	0.0	0.174	30.0	LOS C	1.5	12.0	1.00	0.87	1.00	43.9
Approach			55	14.6	55	14.6	0.174	23.2	LOS C	1.5	12.0	1.00	0.87	1.00	42.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	7	21.0	7	21.0	0.793	9.0	LOS A	12.2	96.1	0.88	0.86	1.14	47.7
27a	L1	All MCs	24	9.0	24	9.0	0.793	8.7	LOS A	12.2	96.1	0.88	0.86	1.14	47.9
29a	R1	All MCs	21	21.0	21	21.0	0.793	15.2	LOS B	12.2	96.1	0.88	0.86	1.14	47.0
29	R2	All MCs	1	0.0	1	0.0	0.793	15.8	LOS B	12.2	96.1	0.88	0.86	1.14	47.4
29b	R3	All MCs	922	15.0	922	15.0	0.793	17.8	LOS B	12.2	96.1	0.88	0.86	1.14	43.8
Approach			976	15.0	976	15.0	0.793	17.5	LOS B	12.2	96.1	0.88	0.86	1.14	44.1
West: Crowson Lane															
10a	L1	All MCs	14	25.0	14	25.0	0.200	2.4	LOS A	1.4	11.3	0.15	0.43	0.15	52.8
11	T1	All MCs	169	15.0	169	15.0	0.200	2.7	LOS A	1.4	11.3	0.15	0.43	0.15	52.8
12	R2	All MCs	18	31.0	18	31.0	0.200	10.0	LOS B	1.4	11.3	0.15	0.43	0.15	51.2
12b	R3	All MCs	122	15.0	122	15.0	0.200	11.3	LOS B	1.4	11.3	0.15	0.43	0.15	51.7
12u	U	All MCs	2	0.0	2	0.0	0.200	12.5	LOS B	1.4	11.3	0.15	0.43	0.15	49.9
Approach			325	16.2	325	16.2	0.200	6.4	LOS A	1.4	11.3	0.15	0.43	0.15	52.3
All Vehicles			1704	14.8	1704	14.8	0.793	19.0	LOS B	12.2	96.1	0.77	0.85	1.05	43.6

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

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MOVEMENT SUMMARY

Site: 101 [Int_5_2029PM 1_Design (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.120	6.7	LOS A	0.8	6.1	0.77	0.67	0.77	51.9
1	L2	All MCs	63	9.0	63	9.0	0.120	6.6	LOS A	0.8	6.1	0.77	0.67	0.77	50.3
3a	R1	All MCs	20	11.0	20	11.0	0.120	12.8	LOS B	0.8	6.1	0.77	0.67	0.77	51.3
3	R2	All MCs	20	0.0	20	0.0	0.120	13.8	LOS B	0.8	6.1	0.77	0.67	0.77	51.5
3u	U	All MCs	1	0.0	1	0.0	0.120	16.6	LOS B	0.8	6.1	0.77	0.67	0.77	51.5
Approach			105	7.5	105	7.5	0.120	9.2	LOS A	0.8	6.1	0.77	0.67	0.77	50.8
East: Chambers Flat Road															
4	L2	All MCs	48	7.0	48	7.0	0.359	6.2	LOS A	2.7	20.9	0.83	0.66	0.83	52.7
4a	L1	All MCs	84	4.0	84	4.0	0.359	6.2	LOS A	2.7	20.9	0.83	0.66	0.83	52.9
5	T1	All MCs	186	15.0	186	15.0	0.359	6.9	LOS A	2.7	20.9	0.83	0.66	0.83	51.2
6b	R3	All MCs	2	50.0	2	50.0	0.359	16.8	LOS B	2.7	20.9	0.83	0.66	0.83	51.1
6u	U	All MCs	1	0.0	1	0.0	0.359	16.3	LOS B	2.7	20.9	0.83	0.66	0.83	52.2
Approach			322	11.1	322	11.1	0.359	6.7	LOS A	2.7	20.9	0.83	0.66	0.83	52.0
NorthEast: Service Road															
24b	L3	All MCs	1	0.0	1	0.0	0.038	8.3	LOS A	0.3	2.1	0.87	0.68	0.87	50.7
24a	L1	All MCs	11	0.0	11	0.0	0.038	8.0	LOS A	0.3	2.1	0.87	0.68	0.87	51.1
25	T1	All MCs	4	0.0	4	0.0	0.038	8.4	LOS A	0.3	2.1	0.87	0.68	0.87	51.1
26a	R1	All MCs	11	11.0	11	11.0	0.038	14.5	LOS B	0.3	2.1	0.87	0.68	0.87	47.2
26u	U	All MCs	1	0.0	1	0.0	0.038	18.3	LOS B	0.3	2.1	0.87	0.68	0.87	50.4
Approach			27	4.2	27	4.2	0.038	11.0	LOS B	0.3	2.1	0.87	0.68	0.87	49.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	11	0.0	11	0.0	0.508	4.4	LOS A	3.8	29.3	0.68	0.65	0.68	50.4
27a	L1	All MCs	83	15.0	83	15.0	0.508	4.9	LOS A	3.8	29.3	0.68	0.65	0.68	50.4
29a	R1	All MCs	136	5.0	136	5.0	0.508	10.7	LOS B	3.8	29.3	0.68	0.65	0.68	49.7
29	R2	All MCs	1	0.0	1	0.0	0.508	12.0	LOS B	3.8	29.3	0.68	0.65	0.68	49.8
29b	R3	All MCs	375	15.0	375	15.0	0.508	13.8	LOS B	3.8	29.3	0.68	0.65	0.68	46.4
Approach			605	12.5	605	12.5	0.508	11.7	LOS B	3.8	29.3	0.68	0.65	0.68	47.9
West: Crowson Lane															
10a	L1	All MCs	23	5.0	23	5.0	0.225	2.4	LOS A	1.5	12.2	0.20	0.43	0.20	52.8
11	T1	All MCs	183	15.0	183	15.0	0.225	2.8	LOS A	1.5	12.2	0.20	0.43	0.20	52.7
12	R2	All MCs	33	14.0	33	14.0	0.225	9.9	LOS A	1.5	12.2	0.20	0.43	0.20	51.6
12b	R3	All MCs	118	16.0	118	16.0	0.225	11.4	LOS B	1.5	12.2	0.20	0.43	0.20	51.5
12u	U	All MCs	1	0.0	1	0.0	0.225	12.6	LOS B	1.5	12.2	0.20	0.43	0.20	49.8
Approach			358	14.5	358	14.5	0.225	6.3	LOS A	1.5	12.2	0.20	0.43	0.20	52.2
All Vehicles			1418	12.2	1418	12.2	0.508	9.0	LOS A	3.8	29.3	0.61	0.60	0.61	50.0

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

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MOVEMENT SUMMARY

Site: 101 [Int_5_2029PM 2_Design (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.071	5.8	LOS A	0.5	3.4	0.71	0.64	0.71	52.3
1	L2	All MCs	41	11.0	41	11.0	0.071	5.7	LOS A	0.5	3.4	0.71	0.64	0.71	50.8
3a	R1	All MCs	11	0.0	11	0.0	0.071	11.5	LOS B	0.5	3.4	0.71	0.64	0.71	51.9
3	R2	All MCs	15	0.0	15	0.0	0.071	12.9	LOS B	0.5	3.4	0.71	0.64	0.71	51.9
3u	U	All MCs	1	0.0	1	0.0	0.071	15.8	LOS B	0.5	3.4	0.71	0.64	0.71	51.9
Approach			68	6.6	68	6.6	0.071	8.3	LOS A	0.5	3.4	0.71	0.64	0.71	51.3
East: Chambers Flat Road															
4	L2	All MCs	38	0.0	38	0.0	0.229	5.4	LOS A	1.6	12.2	0.75	0.60	0.75	53.1
4a	L1	All MCs	35	0.0	35	0.0	0.229	5.5	LOS A	1.6	12.2	0.75	0.60	0.75	53.3
5	T1	All MCs	141	15.0	141	15.0	0.229	6.3	LOS A	1.6	12.2	0.75	0.60	0.75	51.7
6b	R3	All MCs	3	0.0	3	0.0	0.229	14.4	LOS B	1.6	12.2	0.75	0.60	0.75	52.5
6u	U	All MCs	1	0.0	1	0.0	0.229	15.8	LOS B	1.6	12.2	0.75	0.60	0.75	52.5
Approach			218	9.7	218	9.7	0.229	6.2	LOS A	1.6	12.2	0.75	0.60	0.75	52.3
NorthEast: Service Road															
24b	L3	All MCs	1	0.0	1	0.0	0.035	7.6	LOS A	0.3	1.8	0.83	0.66	0.83	51.1
24a	L1	All MCs	5	0.0	5	0.0	0.035	7.2	LOS A	0.3	1.8	0.83	0.66	0.83	51.5
25	T1	All MCs	12	0.0	12	0.0	0.035	7.6	LOS A	0.3	1.8	0.83	0.66	0.83	51.5
26a	R1	All MCs	9	0.0	9	0.0	0.035	13.3	LOS B	0.3	1.8	0.83	0.66	0.83	48.9
26u	U	All MCs	1	0.0	1	0.0	0.035	17.5	LOS B	0.3	1.8	0.83	0.66	0.83	50.8
Approach			28	0.0	28	0.0	0.035	9.8	LOS A	0.3	1.8	0.83	0.66	0.83	50.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	5	20.0	5	20.0	0.433	4.8	LOS A	3.0	23.2	0.64	0.65	0.64	50.1
27a	L1	All MCs	55	8.0	55	8.0	0.433	4.6	LOS A	3.0	23.2	0.64	0.65	0.64	50.3
29a	R1	All MCs	103	4.0	103	4.0	0.433	10.6	LOS B	3.0	23.2	0.64	0.65	0.64	49.7
29	R2	All MCs	5	0.0	5	0.0	0.433	11.9	LOS B	3.0	23.2	0.64	0.65	0.64	49.7
29b	R3	All MCs	347	15.0	347	15.0	0.433	13.7	LOS B	3.0	23.2	0.64	0.65	0.64	46.3
Approach			516	12.0	516	12.0	0.433	12.0	LOS B	3.0	23.2	0.64	0.65	0.64	47.6
West: Crowson Lane															
10a	L1	All MCs	14	8.0	14	8.0	0.235	2.3	LOS A	1.6	12.6	0.16	0.44	0.16	52.7
11	T1	All MCs	194	15.0	194	15.0	0.235	2.7	LOS A	1.6	12.6	0.16	0.44	0.16	52.7
12	R2	All MCs	26	17.0	26	17.0	0.235	9.9	LOS A	1.6	12.6	0.16	0.44	0.16	51.4
12b	R3	All MCs	148	15.0	148	15.0	0.235	11.3	LOS B	1.6	12.6	0.16	0.44	0.16	51.5
12u	U	All MCs	1	0.0	1	0.0	0.235	12.6	LOS B	1.6	12.6	0.16	0.44	0.16	49.7
Approach			383	14.8	383	14.8	0.235	6.5	LOS A	1.6	12.6	0.16	0.44	0.16	52.1
All Vehicles			1214	11.9	1214	11.9	0.433	9.0	LOS A	3.0	23.2	0.52	0.58	0.52	49.9

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

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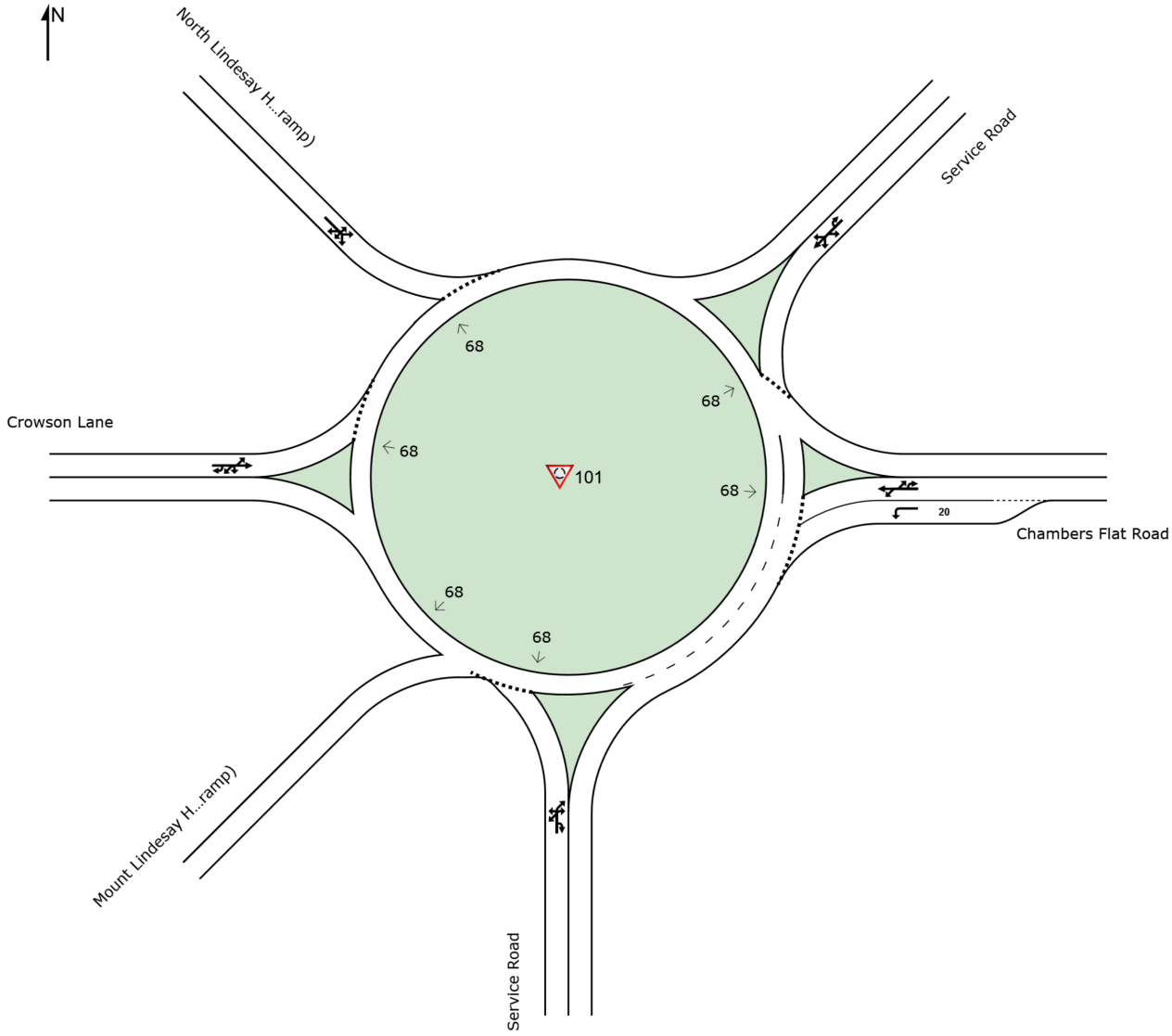
SITE LAYOUT

Site: 101 [Int_5_2029AM_Design - 20m short (Site Folder: General)]

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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



MOVEMENT SUMMARY

Site: 101 [Int_5_2029AM_Design - 20m short (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.169	23.4	LOS C	1.5	11.2	1.00	0.89	1.00	41.8
1	L2	All MCs	26	17.0	26	17.0	0.169	24.6	LOS C	1.5	11.2	1.00	0.89	1.00	38.9
3a	R1	All MCs	2	0.0	2	0.0	0.169	29.2	LOS C	1.5	11.2	1.00	0.89	1.00	41.6
3	R2	All MCs	19	0.0	19	0.0	0.169	30.6	LOS C	1.5	11.2	1.00	0.89	1.00	41.6
3u	U	All MCs	1	0.0	1	0.0	0.169	33.4	LOS C	1.5	11.2	1.00	0.89	1.00	41.6
Approach			49	9.0	49	9.0	0.169	27.2	LOS C	1.5	11.2	1.00	0.89	1.00	40.3
East: Chambers Flat Road															
4	L2	All MCs	27	21.0	27	21.0	0.082	13.6	LOS B	0.6	4.6	0.96	0.82	0.96	48.7
4a	L1	All MCs	55	6.0	55	6.0	0.576	20.6	LOS C	6.5	50.2	1.00	1.04	1.37	45.1
5	T1	All MCs	214	15.0	214	15.0	0.576	21.4	LOS C	6.5	50.2	1.00	1.04	1.37	42.4
6b	R3	All MCs	2	0.0	2	0.0	0.576	29.3	LOS C	6.5	50.2	1.00	1.04	1.37	44.6
6u	U	All MCs	1	0.0	1	0.0	0.576	30.7	LOS C	6.5	50.2	1.00	1.04	1.37	44.6
Approach			299	13.7	299	13.7	0.576	20.6	LOS C	6.5	50.2	1.00	1.02	1.33	43.6
NorthEast: Service Road															
24b	L3	All MCs	2	50.0	2	50.0	0.174	23.9	LOS C	1.5	12.0	1.00	0.87	1.00	43.6
24a	L1	All MCs	9	13.0	9	13.0	0.174	20.7	LOS C	1.5	12.0	1.00	0.87	1.00	44.3
25	T1	All MCs	24	5.0	24	5.0	0.174	20.4	LOS C	1.5	12.0	1.00	0.87	1.00	44.4
26a	R1	All MCs	18	25.0	18	25.0	0.174	27.7	LOS C	1.5	12.0	1.00	0.87	1.00	39.2
26u	U	All MCs	1	0.0	1	0.0	0.174	30.0	LOS C	1.5	12.0	1.00	0.87	1.00	43.9
Approach			55	14.6	55	14.6	0.174	23.2	LOS C	1.5	12.0	1.00	0.87	1.00	42.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	7	21.0	7	21.0	0.793	9.0	LOS A	12.2	96.1	0.88	0.86	1.14	47.7
27a	L1	All MCs	24	9.0	24	9.0	0.793	8.7	LOS A	12.2	96.1	0.88	0.86	1.14	47.9
29a	R1	All MCs	21	21.0	21	21.0	0.793	15.2	LOS B	12.2	96.1	0.88	0.86	1.14	47.0
29	R2	All MCs	1	0.0	1	0.0	0.793	15.8	LOS B	12.2	96.1	0.88	0.86	1.14	47.4
29b	R3	All MCs	922	15.0	922	15.0	0.793	17.8	LOS B	12.2	96.1	0.88	0.86	1.14	43.8
Approach			976	15.0	976	15.0	0.793	17.5	LOS B	12.2	96.1	0.88	0.86	1.14	44.1
West: Crowson Lane															
10a	L1	All MCs	14	25.0	14	25.0	0.200	2.4	LOS A	1.4	11.3	0.15	0.43	0.15	52.8
11	T1	All MCs	169	15.0	169	15.0	0.200	2.7	LOS A	1.4	11.3	0.15	0.43	0.15	52.8
12	R2	All MCs	18	31.0	18	31.0	0.200	10.0	LOS B	1.4	11.3	0.15	0.43	0.15	51.2
12b	R3	All MCs	122	15.0	122	15.0	0.200	11.3	LOS B	1.4	11.3	0.15	0.43	0.15	51.7
12u	U	All MCs	2	0.0	2	0.0	0.200	12.5	LOS B	1.4	11.3	0.15	0.43	0.15	49.9
Approach			325	16.2	325	16.2	0.200	6.4	LOS A	1.4	11.3	0.15	0.43	0.15	52.3

All Vehicles	1704	14.8	1704	14.8	0.793	16.4	LOS B	12.2	96.1	0.77	0.81	0.98	45.1

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

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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\2 x Mount Lindesay Hwy.sip9

MOVEMENT SUMMARY

Site: 101 [Int_5_2029PM 1_Design - 20m short (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.120	6.7	LOS A	0.8	6.1	0.77	0.67	0.77	51.9
1	L2	All MCs	63	9.0	63	9.0	0.120	6.6	LOS A	0.8	6.1	0.77	0.67	0.77	50.3
3a	R1	All MCs	20	11.0	20	11.0	0.120	12.8	LOS B	0.8	6.1	0.77	0.67	0.77	51.3
3	R2	All MCs	20	0.0	20	0.0	0.120	13.8	LOS B	0.8	6.1	0.77	0.67	0.77	51.5
3u	U	All MCs	1	0.0	1	0.0	0.120	16.6	LOS B	0.8	6.1	0.77	0.67	0.77	51.5
Approach			105	7.5	105	7.5	0.120	9.2	LOS A	0.8	6.1	0.77	0.67	0.77	50.8
East: Chambers Flat Road															
4	L2	All MCs	48	7.0	48	7.0	0.069	6.0	LOS A	0.4	2.8	0.67	0.62	0.67	54.3
4a	L1	All MCs	84	4.0	84	4.0	0.280	5.3	LOS A	1.9	14.9	0.75	0.57	0.75	53.1
5	T1	All MCs	186	15.0	186	15.0	0.280	5.9	LOS A	1.9	14.9	0.75	0.57	0.75	51.6
6b	R3	All MCs	2	50.0	2	50.0	0.280	15.5	LOS B	1.9	14.9	0.75	0.57	0.75	51.3
6u	U	All MCs	1	0.0	1	0.0	0.280	15.5	LOS B	1.9	14.9	0.75	0.57	0.75	52.4
Approach			322	11.1	322	11.1	0.280	5.8	LOS A	1.9	14.9	0.74	0.58	0.74	52.4
NorthEast: Service Road															
24b	L3	All MCs	1	0.0	1	0.0	0.038	8.3	LOS A	0.3	2.1	0.87	0.68	0.87	50.7
24a	L1	All MCs	11	0.0	11	0.0	0.038	8.0	LOS A	0.3	2.1	0.87	0.68	0.87	51.1
25	T1	All MCs	4	0.0	4	0.0	0.038	8.4	LOS A	0.3	2.1	0.87	0.68	0.87	51.1
26a	R1	All MCs	11	11.0	11	11.0	0.038	14.5	LOS B	0.3	2.1	0.87	0.68	0.87	47.2
26u	U	All MCs	1	0.0	1	0.0	0.038	18.3	LOS B	0.3	2.1	0.87	0.68	0.87	50.4
Approach			27	4.2	27	4.2	0.038	11.0	LOS B	0.3	2.1	0.87	0.68	0.87	49.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	11	0.0	11	0.0	0.508	4.4	LOS A	3.8	29.3	0.68	0.65	0.68	50.4
27a	L1	All MCs	83	15.0	83	15.0	0.508	4.9	LOS A	3.8	29.3	0.68	0.65	0.68	50.4
29a	R1	All MCs	136	5.0	136	5.0	0.508	10.7	LOS B	3.8	29.3	0.68	0.65	0.68	49.7
29	R2	All MCs	1	0.0	1	0.0	0.508	12.0	LOS B	3.8	29.3	0.68	0.65	0.68	49.8
29b	R3	All MCs	375	15.0	375	15.0	0.508	13.8	LOS B	3.8	29.3	0.68	0.65	0.68	46.4
Approach			605	12.5	605	12.5	0.508	11.7	LOS B	3.8	29.3	0.68	0.65	0.68	47.9
West: Crowson Lane															
10a	L1	All MCs	23	5.0	23	5.0	0.225	2.4	LOS A	1.5	12.2	0.20	0.43	0.20	52.8
11	T1	All MCs	183	15.0	183	15.0	0.225	2.8	LOS A	1.5	12.2	0.20	0.43	0.20	52.7
12	R2	All MCs	33	14.0	33	14.0	0.225	9.9	LOS A	1.5	12.2	0.20	0.43	0.20	51.6
12b	R3	All MCs	118	16.0	118	16.0	0.225	11.4	LOS B	1.5	12.2	0.20	0.43	0.20	51.5
12u	U	All MCs	1	0.0	1	0.0	0.225	12.6	LOS B	1.5	12.2	0.20	0.43	0.20	49.8
Approach			358	14.5	358	14.5	0.225	6.3	LOS A	1.5	12.2	0.20	0.43	0.20	52.2

All Vehicles	1418 12.2	1418 12.2	0.508	8.8	LOS A	3.8	29.3	0.58	0.58	0.58	50.1

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

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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\2 x Mount Lindesay Hwy.sip9

MOVEMENT SUMMARY

Site: 101 [Int_5_2029PM 2_Design - 20m short (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Project No.: P6168
Project Name: 4653-4691 Mount Lindesay Hwy North Maclean TES
Intersection: Chambers Flat Road / Crowson Lane / Mount Lindesay Highway
Site Category: (None)
Roundabout

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Service Road															
1b	L3	All MCs	1	0.0	1	0.0	0.071	5.8	LOS A	0.5	3.4	0.71	0.64	0.71	52.3
1	L2	All MCs	41	11.0	41	11.0	0.071	5.7	LOS A	0.5	3.4	0.71	0.64	0.71	50.8
3a	R1	All MCs	11	0.0	11	0.0	0.071	11.5	LOS B	0.5	3.4	0.71	0.64	0.71	51.9
3	R2	All MCs	15	0.0	15	0.0	0.071	12.9	LOS B	0.5	3.4	0.71	0.64	0.71	51.9
3u	U	All MCs	1	0.0	1	0.0	0.071	15.8	LOS B	0.5	3.4	0.71	0.64	0.71	51.9
Approach			68	6.6	68	6.6	0.071	8.3	LOS A	0.5	3.4	0.71	0.64	0.71	51.3
East: Chambers Flat Road															
4	L2	All MCs	38	0.0	38	0.0	0.049	5.4	LOS A	0.3	1.8	0.64	0.59	0.64	54.5
4a	L1	All MCs	35	0.0	35	0.0	0.175	4.8	LOS A	1.1	8.6	0.68	0.53	0.68	53.4
5	T1	All MCs	141	15.0	141	15.0	0.175	5.4	LOS A	1.1	8.6	0.68	0.53	0.68	51.9
6b	R3	All MCs	3	0.0	3	0.0	0.175	13.6	LOS B	1.1	8.6	0.68	0.53	0.68	52.7
6u	U	All MCs	1	0.0	1	0.0	0.175	15.1	LOS B	1.1	8.6	0.68	0.53	0.68	52.7
Approach			218	9.7	218	9.7	0.175	5.5	LOS A	1.1	8.6	0.67	0.54	0.67	52.7
NorthEast: Service Road															
24b	L3	All MCs	1	0.0	1	0.0	0.035	7.6	LOS A	0.3	1.8	0.83	0.66	0.83	51.1
24a	L1	All MCs	5	0.0	5	0.0	0.035	7.2	LOS A	0.3	1.8	0.83	0.66	0.83	51.5
25	T1	All MCs	12	0.0	12	0.0	0.035	7.6	LOS A	0.3	1.8	0.83	0.66	0.83	51.5
26a	R1	All MCs	9	0.0	9	0.0	0.035	13.3	LOS B	0.3	1.8	0.83	0.66	0.83	48.9
26u	U	All MCs	1	0.0	1	0.0	0.035	17.5	LOS B	0.3	1.8	0.83	0.66	0.83	50.8
Approach			28	0.0	28	0.0	0.035	9.8	LOS A	0.3	1.8	0.83	0.66	0.83	50.7
NorthWest: North Lindesay Highway (off ramp)															
27	L2	All MCs	5	20.0	5	20.0	0.433	4.8	LOS A	3.0	23.2	0.64	0.65	0.64	50.1
27a	L1	All MCs	55	8.0	55	8.0	0.433	4.6	LOS A	3.0	23.2	0.64	0.65	0.64	50.3
29a	R1	All MCs	103	4.0	103	4.0	0.433	10.6	LOS B	3.0	23.2	0.64	0.65	0.64	49.7
29	R2	All MCs	5	0.0	5	0.0	0.433	11.9	LOS B	3.0	23.2	0.64	0.65	0.64	49.7
29b	R3	All MCs	347	15.0	347	15.0	0.433	13.7	LOS B	3.0	23.2	0.64	0.65	0.64	46.3
Approach			516	12.0	516	12.0	0.433	12.0	LOS B	3.0	23.2	0.64	0.65	0.64	47.6
West: Crowson Lane															
10a	L1	All MCs	14	8.0	14	8.0	0.235	2.3	LOS A	1.6	12.6	0.16	0.44	0.16	52.7
11	T1	All MCs	194	15.0	194	15.0	0.235	2.7	LOS A	1.6	12.6	0.16	0.44	0.16	52.7
12	R2	All MCs	26	17.0	26	17.0	0.235	9.9	LOS A	1.6	12.6	0.16	0.44	0.16	51.4
12b	R3	All MCs	148	15.0	148	15.0	0.235	11.3	LOS B	1.6	12.6	0.16	0.44	0.16	51.5
12u	U	All MCs	1	0.0	1	0.0	0.235	12.6	LOS B	1.6	12.6	0.16	0.44	0.16	49.7
Approach			383	14.8	383	14.8	0.235	6.5	LOS A	1.6	12.6	0.16	0.44	0.16	52.1

All Vehicles	1214	11.9	1214	11.9	0.433	8.8	LOS A	3.0	23.2	0.50	0.56	0.50	50.0

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

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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\2 x Mount Lindesay Hwy.sip9

Appendix E: Council SIDRA Outputs

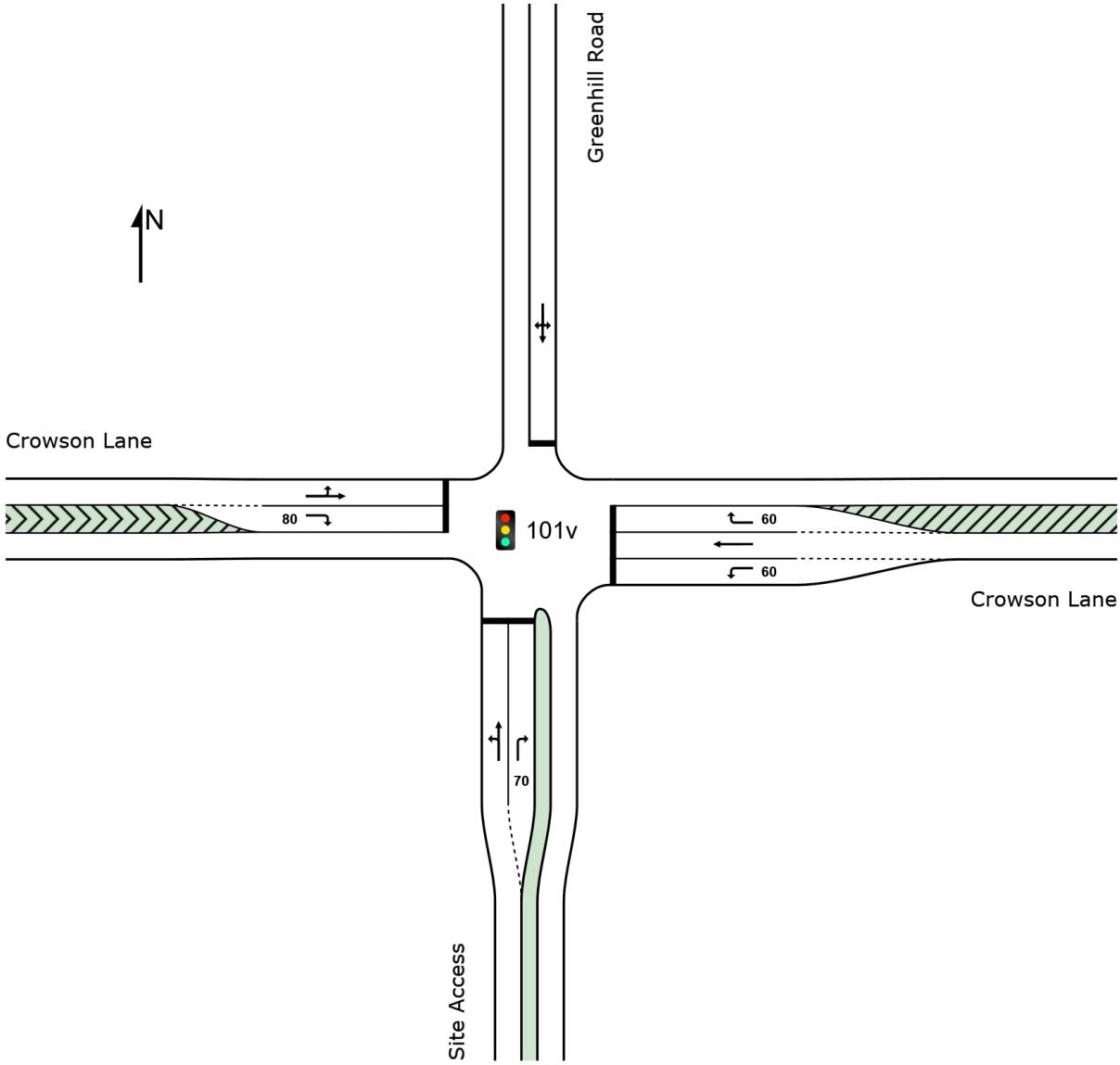
SITE LAYOUT

Site: 101v [2029 AM - BG+DEV - Interim - 2 Lanes (Site Folder: General)]

- P5708
- North Maclean Industrial Estate
- Prepared By: FJ

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101v [2029 AM - BG+DEV - Interim - 2 Lanes (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

- P5708
- North Maclean Industrial Estate
- Prepared By: FJ

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Optimum Cycle Time - Minimum Delay)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Site Access															
1	L2	All MCs	53	33.0	53	33.0	0.416	41.8	LOS D	1.9	17.1	0.99	0.75	0.99	33.7
2	T1	All MCs	1	33.0	1	33.0	* 0.416	35.8	LOS D	1.9	17.1	0.99	0.75	0.99	35.8
3	R2	All MCs	52	33.0	52	33.0	0.400	41.7	LOS D	1.8	16.4	0.98	0.75	0.98	33.8
Approach			105	33.0	105	33.0	0.416	41.7	LOS D	1.9	17.1	0.98	0.75	0.98	33.8
East: Crowson Lane															
4	L2	All MCs	201	33.0	201	33.0	* 0.669	24.0	LOS C	3.9	35.3	0.97	0.84	1.06	45.1
5	T1	All MCs	67	10.0	67	10.0	0.184	13.5	LOS B	1.1	8.3	0.86	0.65	0.86	61.8
6	R2	All MCs	20	10.0	20	10.0	0.115	39.5	LOS D	0.7	5.0	0.94	0.70	0.94	37.9
Approach			288	26.0	288	26.0	0.669	22.6	LOS C	3.9	35.3	0.94	0.78	1.00	47.5
North: Greenhill Road															
7	L2	All MCs	46	10.0	46	10.0	0.418	41.1	LOS D	2.2	16.6	0.99	0.75	0.99	36.1
8	T1	All MCs	1	10.0	1	10.0	* 0.418	35.5	LOS D	2.2	16.6	0.99	0.75	0.99	35.9
9	R2	All MCs	15	10.0	15	10.0	0.418	41.1	LOS D	2.2	16.6	0.99	0.75	0.99	36.1
Approach			62	10.0	62	10.0	0.418	41.0	LOS D	2.2	16.6	0.99	0.75	0.99	36.1
West: Crowson Lane															
10	L2	All MCs	11	10.0	11	10.0	0.427	24.4	LOS C	7.7	58.2	0.78	0.67	0.78	49.5
11	T1	All MCs	291	10.0	291	10.0	0.427	17.2	LOS B	7.7	58.2	0.78	0.67	0.78	57.9
12	R2	All MCs	202	33.0	202	33.0	* 0.672	37.9	LOS D	6.9	62.1	0.98	0.85	1.06	38.5
Approach			503	19.2	503	19.2	0.672	25.7	LOS C	7.7	62.1	0.86	0.74	0.89	48.0
All Vehicles			959	22.2	959	22.2	0.672	27.5	LOS C	7.7	62.1	0.91	0.76	0.94	44.8

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

* Critical Movement (Signal Timing)

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MOVEMENT SUMMARY

Site: 101v [2029 PM 1 - BG+DEV - Interim - 2 lanes (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

- P5708
- North Maclean Industrial Estate
- Prepared By: FJ

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Site Access															
1	L2	All MCs	98	33.0	98	33.0	0.423	44.6	LOS D	4.1	36.9	0.95	0.78	0.95	32.9
2	T1	All MCs	1	33.0	1	33.0	* 0.423	38.7	LOS D	4.1	36.9	0.95	0.78	0.95	34.8
3	R2	All MCs	97	33.0	97	33.0	0.414	44.5	LOS D	4.0	36.1	0.95	0.78	0.95	32.9
Approach			196	33.0	196	33.0	0.423	44.5	LOS D	4.1	36.9	0.95	0.78	0.95	32.9
East: Crowson Lane															
4	L2	All MCs	67	33.0	67	33.0	0.161	22.8	LOS C	1.5	13.7	0.79	0.74	0.79	45.8
5	T1	All MCs	223	10.0	223	10.0	* 0.439	16.6	LOS B	5.5	41.9	0.87	0.72	0.87	58.7
6	R2	All MCs	52	10.0	52	10.0	0.298	49.5	LOS D	2.2	16.8	0.96	0.75	0.96	34.4
Approach			342	14.5	342	14.5	0.439	22.7	LOS C	5.5	41.9	0.87	0.73	0.87	50.5
North: Greenhill Road															
7	L2	All MCs	57	10.0	57	10.0	0.422	46.9	LOS D	3.8	29.0	0.97	0.77	0.97	34.1
8	T1	All MCs	1	10.0	1	10.0	* 0.422	41.3	LOS D	3.8	29.0	0.97	0.77	0.97	33.9
9	R2	All MCs	32	10.0	32	10.0	0.422	46.9	LOS D	3.8	29.0	0.97	0.77	0.97	34.1
Approach			89	10.0	89	10.0	0.422	46.9	LOS D	3.8	29.0	0.97	0.77	0.97	34.1
West: Crowson Lane															
10	L2	All MCs	17	10.0	17	10.0	0.260	29.3	LOS C	5.3	40.0	0.75	0.64	0.75	46.1
11	T1	All MCs	152	10.0	152	10.0	0.260	22.2	LOS C	5.3	40.0	0.75	0.64	0.75	53.3
12	R2	All MCs	67	33.0	67	33.0	* 0.403	50.1	LOS D	2.9	26.3	0.97	0.76	0.97	34.1
Approach			236	16.6	236	16.6	0.403	30.7	LOS C	5.3	40.0	0.81	0.67	0.81	45.5
All Vehicles			863	18.8	863	18.8	0.439	32.4	LOS C	5.5	41.9	0.88	0.73	0.88	42.0

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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 Green.
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.

* Critical Movement (Signal Timing)

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MOVEMENT SUMMARY

Site: 101v [2029 PM 2 - BG+DEV - Interim - 2 lanes (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

- P5708
- North Maclean Industrial Estate
- Prepared By: FJ

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Site Access															
1	L2	All MCs	182	33.0	182	33.0	0.438	35.3	LOS D	6.8	60.7	0.87	0.80	0.87	35.8
2	T1	All MCs	1	33.0	1	33.0	* 0.438	29.4	LOS C	6.8	60.7	0.87	0.80	0.87	38.1
3	R2	All MCs	180	33.0	180	33.0	0.431	35.3	LOS D	6.6	59.5	0.87	0.79	0.87	35.9
Approach			363	33.0	363	33.0	0.438	35.3	LOS D	6.8	60.7	0.87	0.80	0.87	35.9
East: Crowson Lane															
4	L2	All MCs	61	33.0	61	33.0	0.183	26.1	LOS C	1.6	14.2	0.85	0.74	0.85	43.9
5	T1	All MCs	169	10.0	169	10.0	* 0.417	19.6	LOS B	4.6	35.3	0.90	0.73	0.90	56.0
6	R2	All MCs	23	10.0	23	10.0	0.200	52.6	LOS D	1.0	7.8	0.98	0.71	0.98	33.4
Approach			254	15.5	254	15.5	0.417	24.2	LOS C	4.6	35.3	0.89	0.73	0.89	49.6
North: Greenhill Road															
7	L2	All MCs	21	10.0	21	10.0	0.455	52.8	LOS D	2.4	18.3	1.00	0.75	1.00	32.4
8	T1	All MCs	1	10.0	1	10.0	* 0.455	47.1	LOS D	2.4	18.3	1.00	0.75	1.00	32.2
9	R2	All MCs	31	10.0	31	10.0	0.455	52.8	LOS D	2.4	18.3	1.00	0.75	1.00	32.3
Approach			53	10.0	53	10.0	0.455	52.7	LOS D	2.4	18.3	1.00	0.75	1.00	32.3
West: Crowson Lane															
10	L2	All MCs	20	10.0	20	10.0	0.166	30.7	LOS C	3.1	23.2	0.75	0.63	0.75	44.9
11	T1	All MCs	77	10.0	77	10.0	0.166	23.5	LOS C	3.1	23.2	0.75	0.63	0.75	51.7
12	R2	All MCs	62	33.0	62	33.0	* 0.413	51.2	LOS D	2.7	24.6	0.98	0.76	0.98	33.7
Approach			159	19.0	159	19.0	0.413	35.3	LOS D	3.1	24.6	0.84	0.68	0.84	42.1
All Vehicles			828	23.5	828	23.5	0.455	33.0	LOS C	6.8	60.7	0.88	0.75	0.88	40.2

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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 Green.
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.

* Critical Movement (Signal Timing)

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MOVEMENT SUMMARY

Site: 101v [2039 AM - BG+DEV - Interim - 2 lanes (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

- P5708
- North Maclean Industrial Estate
- Prepared By: FJ

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Site Access															
1	L2	All MCs	53	33.0	53	33.0	0.535	54.1	LOS D	2.5	22.6	1.00	0.77	1.04	30.3
2	T1	All MCs	1	33.0	1	33.0	* 0.535	48.2	LOS D	2.5	22.6	1.00	0.77	1.04	31.9
3	R2	All MCs	52	33.0	52	33.0	0.515	53.9	LOS D	2.4	21.6	1.00	0.76	1.03	30.4
Approach			105	33.0	105	33.0	0.535	54.0	LOS D	2.5	22.6	1.00	0.77	1.04	30.3
East: Crowson Lane															
4	L2	All MCs	201	33.0	201	33.0	* 0.523	24.2	LOS C	4.3	39.0	0.91	0.80	0.91	45.0
5	T1	All MCs	77	10.0	77	10.0	0.164	14.7	LOS B	1.5	11.1	0.81	0.63	0.81	60.6
6	R2	All MCs	23	10.0	23	10.0	0.100	44.8	LOS D	0.9	7.0	0.91	0.71	0.91	36.0
Approach			301	25.4	301	25.4	0.523	23.3	LOS C	4.3	39.0	0.88	0.75	0.88	47.2
North: Greenhill Road															
7	L2	All MCs	54	10.0	54	10.0	0.530	52.0	LOS D	3.3	24.8	1.00	0.77	1.02	32.6
8	T1	All MCs	1	10.0	1	10.0	* 0.530	46.3	LOS D	3.3	24.8	1.00	0.77	1.02	32.4
9	R2	All MCs	17	10.0	17	10.0	0.530	51.9	LOS D	3.3	24.8	1.00	0.77	1.02	32.6
Approach			72	10.0	72	10.0	0.530	51.9	LOS D	3.3	24.8	1.00	0.77	1.02	32.6
West: Crowson Lane															
10	L2	All MCs	12	10.0	12	10.0	0.416	24.8	LOS C	10.2	77.5	0.72	0.63	0.72	49.2
11	T1	All MCs	335	10.0	335	10.0	0.416	17.7	LOS B	10.2	77.5	0.72	0.63	0.72	57.5
12	R2	All MCs	202	33.0	202	33.0	* 0.504	38.4	LOS D	7.7	69.2	0.90	0.81	0.90	38.3
Approach			548	18.5	548	18.5	0.504	25.5	LOS C	10.2	77.5	0.78	0.70	0.78	48.4
All Vehicles			1026	21.4	1026	21.4	0.535	29.6	LOS C	10.2	77.5	0.85	0.72	0.85	43.9

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

* Critical Movement (Signal Timing)

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MOVEMENT SUMMARY

Site: 101v [2039 PM 1 - BG+DEV - Interim - 2 lanes (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

- P5708
- North Maclean Industrial Estate
- Prepared By: FJ

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Site Access															
1	L2	All MCs	98	33.0	98	33.0	0.455	45.8	LOS D	4.2	37.5	0.96	0.78	0.96	32.5
2	T1	All MCs	1	33.0	1	33.0	* 0.455	39.9	LOS D	4.2	37.5	0.96	0.78	0.96	34.4
3	R2	All MCs	97	33.0	97	33.0	0.446	45.7	LOS D	4.1	36.7	0.96	0.78	0.96	32.6
Approach			196	33.0	196	33.0	0.455	45.7	LOS D	4.2	37.5	0.96	0.78	0.96	32.5
East: Crowson Lane															
4	L2	All MCs	67	33.0	67	33.0	0.155	22.4	LOS C	1.5	13.7	0.78	0.74	0.78	46.0
5	T1	All MCs	258	10.0	258	10.0	* 0.488	16.6	LOS B	6.5	49.4	0.88	0.73	0.88	58.7
6	R2	All MCs	60	10.0	60	10.0	0.346	49.7	LOS D	2.6	19.7	0.97	0.75	0.97	34.3
Approach			385	14.0	385	14.0	0.488	22.8	LOS C	6.5	49.4	0.87	0.73	0.87	50.7
North: Greenhill Road															
7	L2	All MCs	66	10.0	66	10.0	0.451	46.1	LOS D	4.4	33.5	0.97	0.78	0.97	34.4
8	T1	All MCs	1	10.0	1	10.0	* 0.451	40.5	LOS D	4.4	33.5	0.97	0.78	0.97	34.2
9	R2	All MCs	37	10.0	37	10.0	0.451	46.1	LOS D	4.4	33.5	0.97	0.78	0.97	34.3
Approach			104	10.0	104	10.0	0.451	46.1	LOS D	4.4	33.5	0.97	0.78	0.97	34.4
West: Crowson Lane															
10	L2	All MCs	19	10.0	19	10.0	0.299	29.7	LOS C	6.2	46.8	0.76	0.65	0.76	45.9
11	T1	All MCs	175	10.0	175	10.0	0.299	22.6	LOS C	6.2	46.8	0.76	0.65	0.76	53.0
12	R2	All MCs	67	33.0	67	33.0	* 0.448	51.5	LOS D	3.0	26.8	0.98	0.76	0.98	33.7
Approach			261	15.9	261	15.9	0.448	30.5	LOS C	6.2	46.8	0.82	0.68	0.82	45.7
All Vehicles			946	18.0	946	18.0	0.488	32.2	LOS C	6.5	49.4	0.89	0.73	0.89	42.3

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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 Green.
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.

* Critical Movement (Signal Timing)

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MOVEMENT SUMMARY

Site: 101v [2039 PM 2 - BG+DEV - Interim - 2 lanes (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

- P5708
- North Maclean Industrial Estate
- Prepared By: FJ

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Site Access															
1	L2	All MCs	182	33.0	182	33.0	0.457	36.3	LOS D	6.9	61.8	0.88	0.80	0.88	35.5
2	T1	All MCs	1	33.0	1	33.0	* 0.457	30.4	LOS C	6.9	61.8	0.88	0.80	0.88	37.8
3	R2	All MCs	180	33.0	180	33.0	0.449	36.2	LOS D	6.7	60.6	0.88	0.80	0.88	35.6
Approach			363	33.0	363	33.0	0.457	36.3	LOS D	6.9	61.8	0.88	0.80	0.88	35.5
East: Crowson Lane															
4	L2	All MCs	61	33.0	61	33.0	0.174	25.8	LOS C	1.6	14.2	0.83	0.74	0.83	44.1
5	T1	All MCs	195	10.0	195	10.0	* 0.456	19.6	LOS B	5.4	41.0	0.90	0.74	0.90	56.0
6	R2	All MCs	27	10.0	27	10.0	0.237	52.8	LOS D	1.2	9.3	0.98	0.72	0.98	33.3
Approach			283	15.0	283	15.0	0.456	24.1	LOS C	5.4	41.0	0.90	0.74	0.90	49.8
North: Greenhill Road															
7	L2	All MCs	24	10.0	24	10.0	0.445	51.5	LOS D	2.7	20.5	0.99	0.75	0.99	32.7
8	T1	All MCs	1	10.0	1	10.0	* 0.445	45.8	LOS D	2.7	20.5	0.99	0.75	0.99	32.6
9	R2	All MCs	35	10.0	35	10.0	0.445	51.4	LOS D	2.7	20.5	0.99	0.75	0.99	32.7
Approach			60	10.0	60	10.0	0.445	51.3	LOS D	2.7	20.5	0.99	0.75	0.99	32.7
West: Crowson Lane															
10	L2	All MCs	23	10.0	23	10.0	0.190	30.9	LOS C	3.5	26.7	0.76	0.64	0.76	44.8
11	T1	All MCs	87	10.0	87	10.0	0.190	23.8	LOS C	3.5	26.7	0.76	0.64	0.76	51.5
12	R2	All MCs	62	33.0	62	33.0	* 0.465	52.7	LOS D	2.8	25.1	0.99	0.76	0.99	33.3
Approach			173	18.3	173	18.3	0.465	35.1	LOS D	3.5	26.7	0.84	0.68	0.84	42.3
All Vehicles			879	22.7	879	22.7	0.465	33.2	LOS C	6.9	61.8	0.89	0.75	0.89	40.3

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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 Green.
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.

* Critical Movement (Signal Timing)

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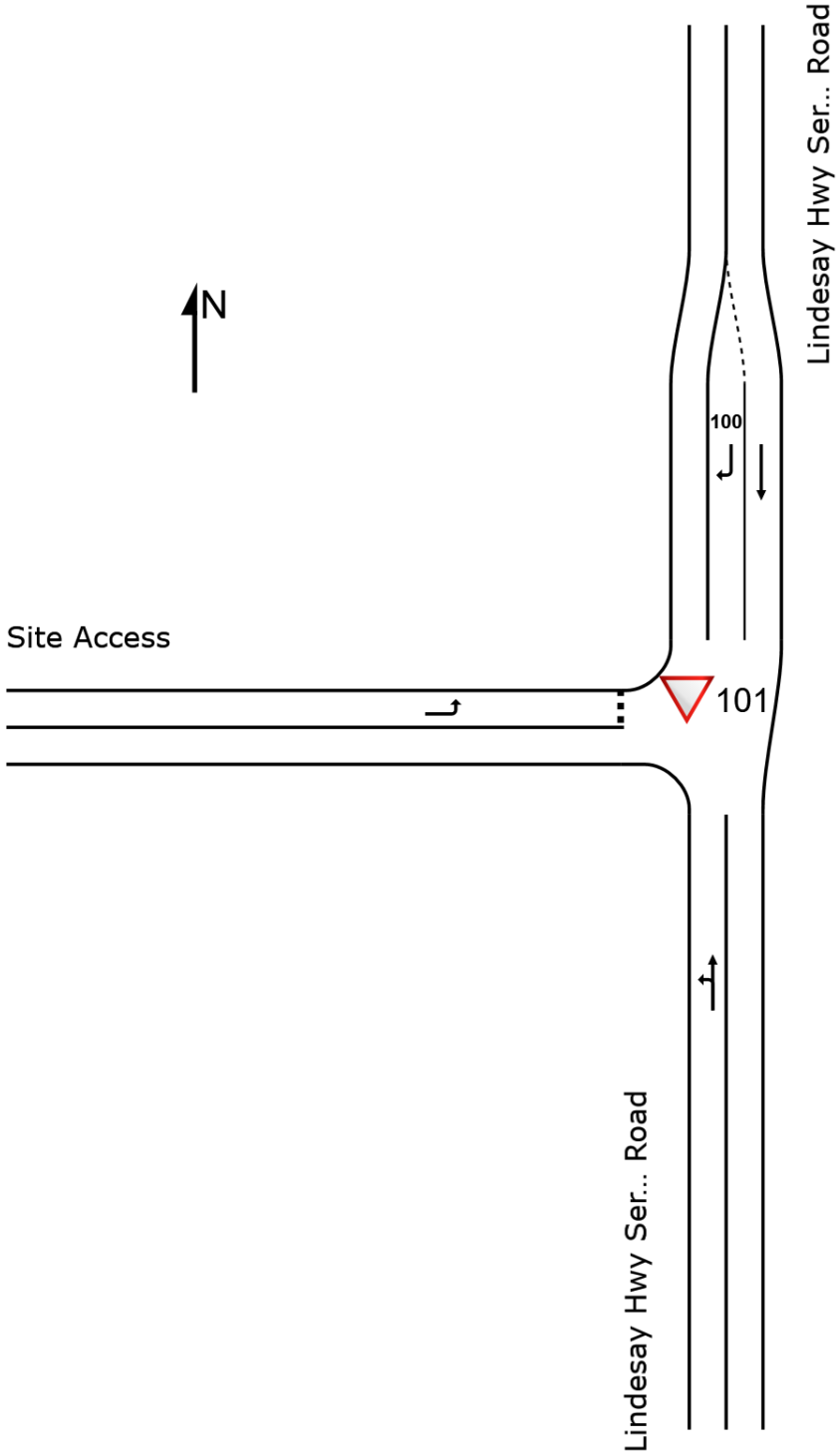
SITE LAYOUT

Site: 101 [2029 AM BG + DEV - No Right (Site Folder: General)]

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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



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MOVEMENT SUMMARY

Site: 101 [2029 AM BG + DEV - No Right (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.106	5.9	LOS A	0.0	0.0	0.00	0.00	0.00	55.8
2	T1	All MCs	168	33.0	168	33.0	0.106	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			169	33.0	169	33.0	0.106	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
North: Lindesay Hwy Service Road															
8	T1	All MCs	716	33.0	716	33.0	0.446	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
9	R2	All MCs	268	33.0	268	33.0	0.216	6.9	LOS A	1.1	9.8	0.37	0.61	0.37	50.3
Approach			984	33.0	984	33.0	0.446	2.0	NA	1.1	9.8	0.10	0.17	0.10	56.7
West: Site Access															
10	L2	All MCs	115	33.0	115	33.0	0.101	6.9	LOS A	0.4	3.7	0.32	0.58	0.32	50.6
Approach			115	33.0	115	33.0	0.101	6.9	LOS A	0.4	3.7	0.32	0.58	0.32	50.6
All Vehicles			1268	33.0	1268	33.0	0.446	2.2	NA	1.1	9.8	0.11	0.18	0.11	56.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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: 101 [2029 PM 1 BG + DEV - No Right (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.094	5.9	LOS A	0.0	0.0	0.00	0.00	0.00	55.8
2	T1	All MCs	149	33.0	149	33.0	0.094	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			151	33.0	151	33.0	0.094	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
North: Lindesay Hwy Service Road															
8	T1	All MCs	200	33.0	200	33.0	0.125	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	154	33.0	154	33.0	0.120	6.7	LOS A	0.6	5.1	0.32	0.59	0.32	50.4
Approach			354	33.0	354	33.0	0.125	2.9	NA	0.6	5.1	0.14	0.26	0.14	55.4
West: Site Access															
10	L2	All MCs	229	33.0	229	33.0	0.196	6.8	LOS A	0.9	7.9	0.32	0.58	0.32	50.6
Approach			229	33.0	229	33.0	0.196	6.8	LOS A	0.9	7.9	0.32	0.58	0.32	50.6
All Vehicles			734	33.0	734	33.0	0.196	3.6	NA	0.9	7.9	0.17	0.31	0.17	54.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\P5332.002M_ Intersection 3.sip9

MOVEMENT SUMMARY

Site: 101 [2029 PM 2 BG + DEV - No Right (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.409	6.1	LOS A	0.0	0.0	0.00	0.00	0.00	55.7
2	T1	All MCs	656	33.0	656	33.0	0.409	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			657	33.0	657	33.0	0.409	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.6
North: Lindesay Hwy Service Road															
8	T1	All MCs	173	33.0	173	33.0	0.108	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	154	33.0	154	33.0	0.309	14.1	LOS A	1.3	11.8	0.73	0.95	0.89	45.9
Approach			326	33.0	326	33.0	0.309	6.6	NA	1.3	11.8	0.34	0.45	0.42	52.4
West: Site Access															
10	L2	All MCs	229	33.0	229	33.0	0.492	16.2	LOS B	2.4	21.4	0.78	1.04	1.19	45.0
Approach			229	33.0	229	33.0	0.492	16.2	LOS B	2.4	21.4	0.78	1.04	1.19	45.0
All Vehicles			1213	33.0	1213	33.0	0.492	5.0	NA	2.4	21.4	0.24	0.32	0.34	54.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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: 101 [2039 AM BG + DEV - No Right (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.106	5.9	LOS A	0.0	0.0	0.00	0.00	0.00	55.8
2	T1	All MCs	168	33.0	168	33.0	0.106	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			169	33.0	169	33.0	0.106	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
North: Lindesay Hwy Service Road															
8	T1	All MCs	716	33.0	716	33.0	0.446	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
9	R2	All MCs	268	33.0	268	33.0	0.216	6.9	LOS A	1.1	9.8	0.37	0.61	0.37	50.3
Approach			984	33.0	984	33.0	0.446	2.0	NA	1.1	9.8	0.10	0.17	0.10	56.7
West: Site Access															
10	L2	All MCs	115	33.0	115	33.0	0.101	6.9	LOS A	0.4	3.7	0.32	0.58	0.32	50.6
Approach			115	33.0	115	33.0	0.101	6.9	LOS A	0.4	3.7	0.32	0.58	0.32	50.6
All Vehicles			1268	33.0	1268	33.0	0.446	2.2	NA	1.1	9.8	0.11	0.18	0.11	56.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\P5332.002M_ Intersection 3.sip9

MOVEMENT SUMMARY

Site: 101 [2039 PM 1 BG + DEV - No Right (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.094	5.9	LOS A	0.0	0.0	0.00	0.00	0.00	55.8
2	T1	All MCs	149	33.0	149	33.0	0.094	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			151	33.0	151	33.0	0.094	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
North: Lindesay Hwy Service Road															
8	T1	All MCs	200	33.0	200	33.0	0.125	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	154	33.0	154	33.0	0.120	6.7	LOS A	0.6	5.1	0.32	0.59	0.32	50.4
Approach			354	33.0	354	33.0	0.125	2.9	NA	0.6	5.1	0.14	0.26	0.14	55.4
West: Site Access															
10	L2	All MCs	229	33.0	229	33.0	0.196	6.8	LOS A	0.9	7.9	0.32	0.58	0.32	50.6
Approach			229	33.0	229	33.0	0.196	6.8	LOS A	0.9	7.9	0.32	0.58	0.32	50.6
All Vehicles			734	33.0	734	33.0	0.196	3.6	NA	0.9	7.9	0.17	0.31	0.17	54.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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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Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\P5332.002M_ Intersection 3.sip9

MOVEMENT SUMMARY

Site: 101 [2039 PM 2 BG + DEV - No Right (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.409	6.1	LOS A	0.0	0.0	0.00	0.00	0.00	55.7
2	T1	All MCs	656	33.0	656	33.0	0.409	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			657	33.0	657	33.0	0.409	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.6
North: Lindesay Hwy Service Road															
8	T1	All MCs	173	33.0	173	33.0	0.108	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	154	33.0	154	33.0	0.309	14.1	LOS A	1.3	11.8	0.73	0.95	0.89	45.9
Approach			326	33.0	326	33.0	0.309	6.6	NA	1.3	11.8	0.34	0.45	0.42	52.4
West: Site Access															
10	L2	All MCs	229	33.0	229	33.0	0.492	16.2	LOS B	2.4	21.4	0.78	1.04	1.19	45.0
Approach			229	33.0	229	33.0	0.492	16.2	LOS B	2.4	21.4	0.78	1.04	1.19	45.0
All Vehicles			1213	33.0	1213	33.0	0.492	5.0	NA	2.4	21.4	0.24	0.32	0.34	54.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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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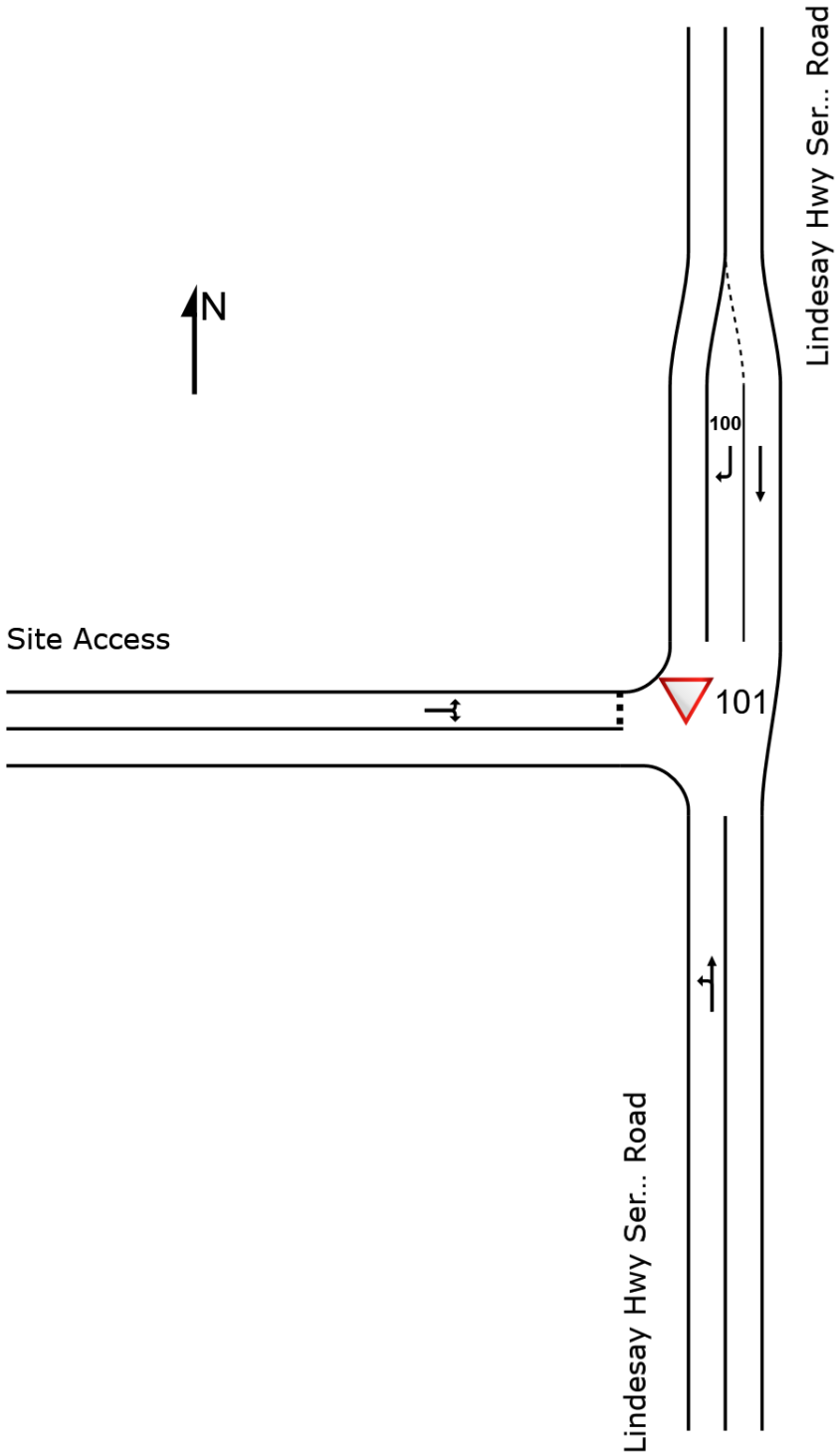
Project: P:\P6983 Lot 14 North Maclean Industrial Estate TIA\Technical\SIDRA\002_0.2 Rate\P5332.002M_ Intersection 3.sip9

SITE LAYOUT

Site: 101 [2029 AM BG + DEV (Site Folder: General)]

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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



MOVEMENT SUMMARY

Site: 101 [2029 AM BG + DEV (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.024	5.9	LOS A	0.0	0.0	0.00	0.02	0.00	55.8
2	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.8
Approach			39	33.0	39	33.0	0.024	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Lindesay Hwy Service Road															
8	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	677	33.0	677	33.0	0.459	6.2	LOS A	3.4	30.1	0.22	0.55	0.22	50.7
Approach			715	33.0	715	33.0	0.459	5.8	NA	3.4	30.1	0.21	0.52	0.21	51.1
West: Site Access															
10	L2	All MCs	129	33.0	129	33.0	0.102	6.1	LOS A	0.4	3.8	0.14	0.54	0.14	51.1
12	R2	All MCs	1	33.0	1	33.0	0.102	25.0	LOS B	0.4	3.8	0.14	0.54	0.14	50.8
Approach			131	33.0	131	33.0	0.102	6.3	LOS A	0.4	3.8	0.14	0.54	0.14	51.1
All Vehicles			884	33.0	884	33.0	0.459	5.7	NA	3.4	30.1	0.19	0.50	0.19	51.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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: 101 [2029 PM 1 BG + DEV (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.024	5.9	LOS A	0.0	0.0	0.00	0.02	0.00	55.8
2	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.8
Approach			39	33.0	39	33.0	0.024	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Lindesay Hwy Service Road															
8	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	162	33.0	162	33.0	0.110	6.0	LOS A	0.5	4.8	0.15	0.56	0.15	50.8
Approach			200	33.0	200	33.0	0.110	4.9	NA	0.5	4.8	0.12	0.46	0.12	52.3
West: Site Access															
10	L2	All MCs	226	33.0	226	33.0	0.170	6.1	LOS A	0.8	7.0	0.14	0.54	0.14	51.1
12	R2	All MCs	1	33.0	1	33.0	0.170	8.7	LOS A	0.8	7.0	0.14	0.54	0.14	50.8
Approach			227	33.0	227	33.0	0.170	6.1	LOS A	0.8	7.0	0.14	0.54	0.14	51.1
All Vehicles			466	33.0	466	33.0	0.170	5.1	NA	0.8	7.0	0.12	0.46	0.12	52.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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: 101 [2029 PM 2 BG + DEV (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.024	5.9	LOS A	0.0	0.0	0.00	0.02	0.00	55.8
2	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.8
Approach			39	33.0	39	33.0	0.024	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Lindesay Hwy Service Road															
8	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	135	33.0	135	33.0	0.091	6.0	LOS A	0.4	3.9	0.15	0.56	0.15	50.8
Approach			173	33.0	173	33.0	0.091	4.7	NA	0.4	3.9	0.11	0.44	0.11	52.6
West: Site Access															
10	L2	All MCs	618	33.0	618	33.0	0.461	6.2	LOS A	3.0	27.0	0.20	0.53	0.20	51.0
12	R2	All MCs	1	33.0	1	33.0	0.461	9.6	LOS A	3.0	27.0	0.20	0.53	0.20	50.6
Approach			619	33.0	619	33.0	0.461	6.3	LOS A	3.0	27.0	0.20	0.53	0.20	51.0
All Vehicles			831	33.0	831	33.0	0.461	5.6	NA	3.0	27.0	0.18	0.49	0.18	51.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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: 101 [2039 AM BG + DEV (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.024	5.9	LOS A	0.0	0.0	0.00	0.02	0.00	55.8
2	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.8
Approach			39	33.0	39	33.0	0.024	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Lindesay Hwy Service Road															
8	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	677	33.0	677	33.0	0.459	6.2	LOS A	3.4	30.1	0.22	0.55	0.22	50.7
Approach			715	33.0	715	33.0	0.459	5.8	NA	3.4	30.1	0.21	0.52	0.21	51.1
West: Site Access															
10	L2	All MCs	129	33.0	129	33.0	0.102	6.1	LOS A	0.4	3.8	0.14	0.54	0.14	51.1
12	R2	All MCs	1	33.0	1	33.0	0.102	25.0	LOS B	0.4	3.8	0.14	0.54	0.14	50.8
Approach			131	33.0	131	33.0	0.102	6.3	LOS A	0.4	3.8	0.14	0.54	0.14	51.1
All Vehicles			884	33.0	884	33.0	0.459	5.7	NA	3.4	30.1	0.19	0.50	0.19	51.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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: 101 [2039 PM 1 BG + DEV (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.024	5.9	LOS A	0.0	0.0	0.00	0.02	0.00	55.8
2	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.8
Approach			39	33.0	39	33.0	0.024	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Lindesay Hwy Service Road															
8	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	162	33.0	162	33.0	0.110	6.0	LOS A	0.5	4.8	0.15	0.56	0.15	50.8
Approach			200	33.0	200	33.0	0.110	4.9	NA	0.5	4.8	0.12	0.46	0.12	52.3
West: Site Access															
10	L2	All MCs	226	33.0	226	33.0	0.170	6.1	LOS A	0.8	7.0	0.14	0.54	0.14	51.1
12	R2	All MCs	1	33.0	1	33.0	0.170	8.7	LOS A	0.8	7.0	0.14	0.54	0.14	50.8
Approach			227	33.0	227	33.0	0.170	6.1	LOS A	0.8	7.0	0.14	0.54	0.14	51.1
All Vehicles			466	33.0	466	33.0	0.170	5.1	NA	0.8	7.0	0.12	0.46	0.12	52.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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: 101 [2039 PM 2 BG + DEV (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

P5708
North Maclean Industrial Estate
Prepared by FJ & ME
Site Category: (None)
Give-Way (Two-Way)

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. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lindesay Hwy Service Road															
1	L2	All MCs	1	33.0	1	33.0	0.024	5.9	LOS A	0.0	0.0	0.00	0.02	0.00	55.8
2	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.8
Approach			39	33.0	39	33.0	0.024	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Lindesay Hwy Service Road															
8	T1	All MCs	38	33.0	38	33.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	135	33.0	135	33.0	0.091	6.0	LOS A	0.4	3.9	0.15	0.56	0.15	50.8
Approach			173	33.0	173	33.0	0.091	4.7	NA	0.4	3.9	0.11	0.44	0.11	52.6
West: Site Access															
10	L2	All MCs	618	33.0	618	33.0	0.461	6.2	LOS A	3.0	27.0	0.20	0.53	0.20	51.0
12	R2	All MCs	1	33.0	1	33.0	0.461	9.6	LOS A	3.0	27.0	0.20	0.53	0.20	50.6
Approach			619	33.0	619	33.0	0.461	6.3	LOS A	3.0	27.0	0.20	0.53	0.20	51.0
All Vehicles			831	33.0	831	33.0	0.461	5.6	NA	3.0	27.0	0.18	0.49	0.18	51.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
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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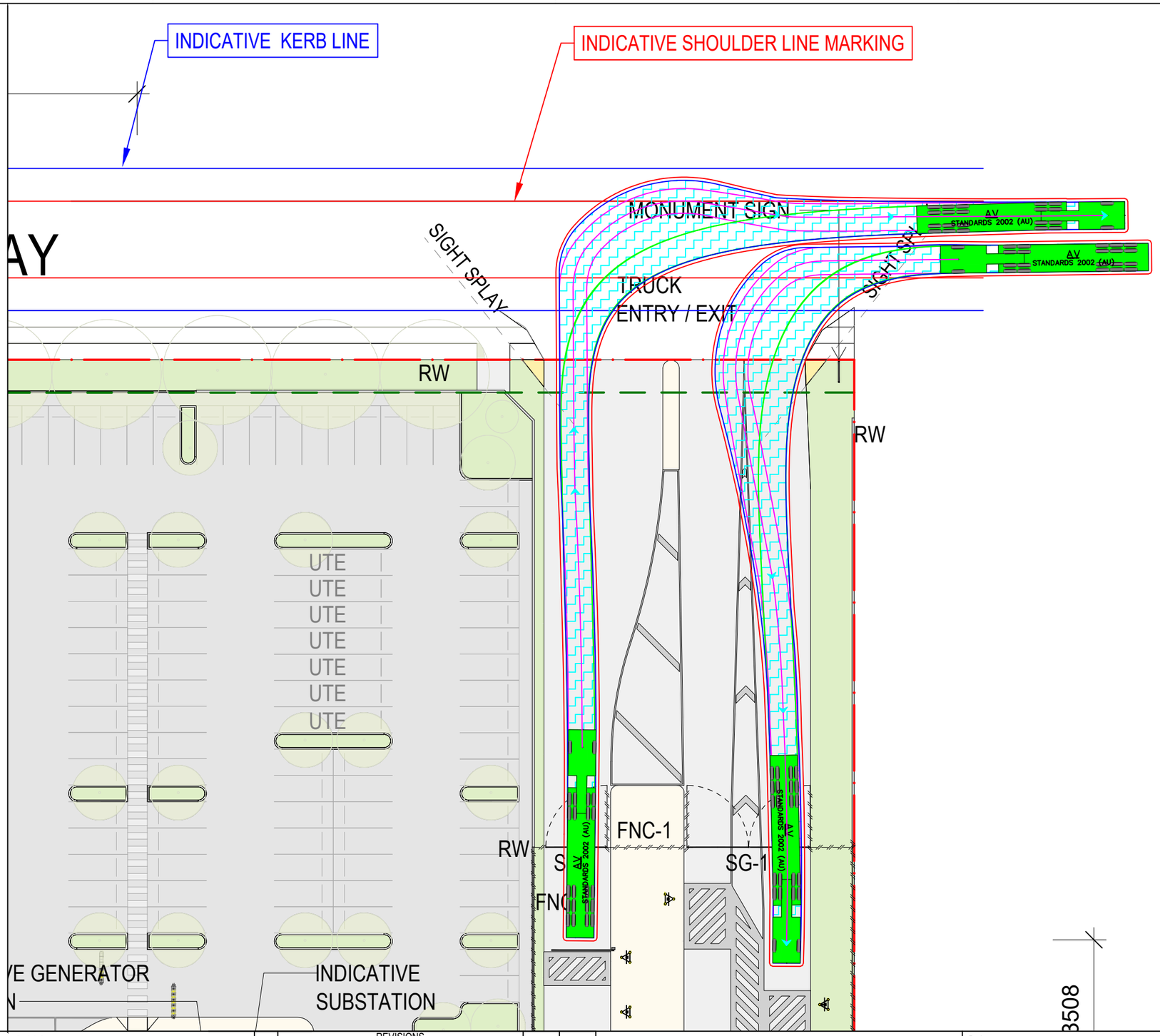
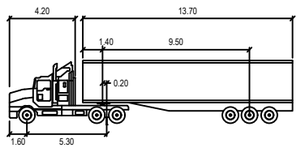
Appendix F: Swept Path Diagrams





AV (19.0m)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

BITZIOS consulting

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P: (02) 9557 6202

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 4 8 12 16 20 1:400

Name	Signature	No.	Date

Project: LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

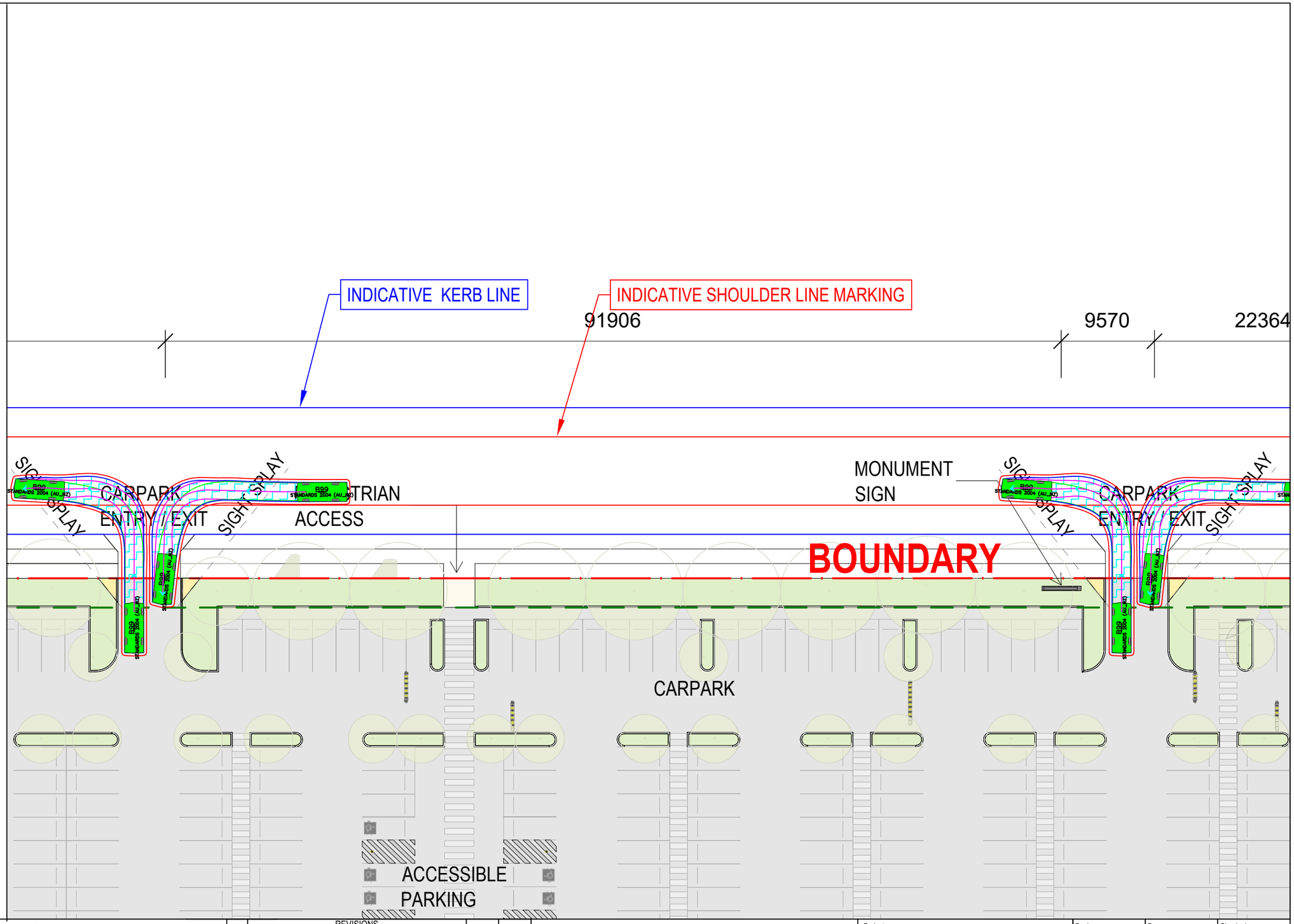
Title: AV ENTRY / EXIT SWEPT PATHS

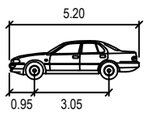
Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date: 20.06.2025

Project Number	Sheet Number	Issue
P6983	1	001





B99 meters

Width	:	1.94
Track	:	1.84
Lock to Lock Time	:	6.0
Steering Angle	:	38.0

DESIGN VEHICLE

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 4 8 12 16 20 1:400

Name	Signature	No.	Date

Project: LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

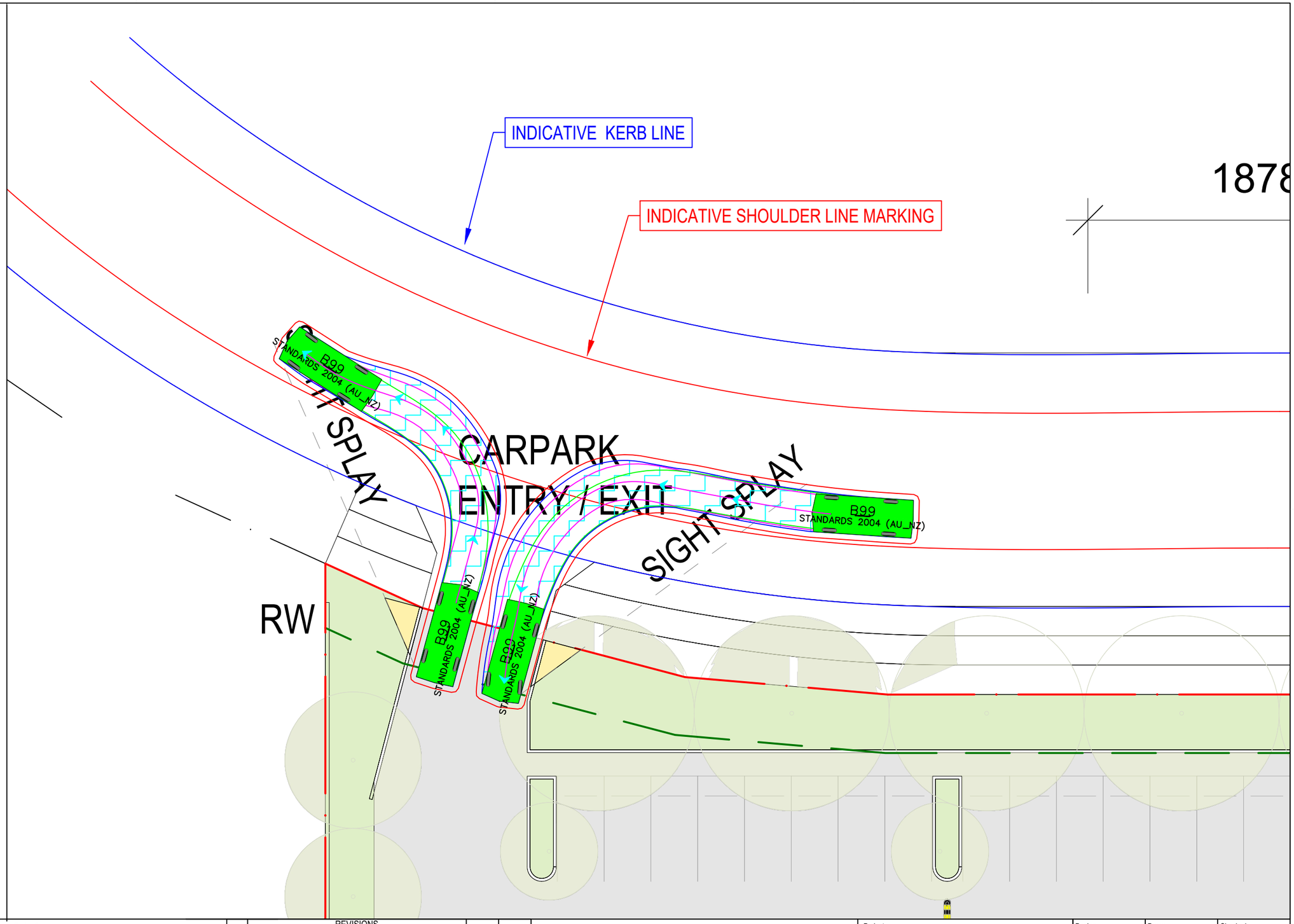
Title: B99 ENTRY / EXIT SWEPT PATHS #1

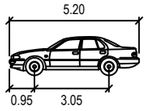
Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date: 20.06.2025

Project Number	Sheet Number	Issue
P6983	2	001





B99 meters

Width	:	1.94
Track	:	1.84
Lock to Lock Time	:	6.0
Steering Angle	:	38.0

DESIGN VEHICLE

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226
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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 2 4 6 8 10 1:200

Name	Signature	No.	Date

Project: LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

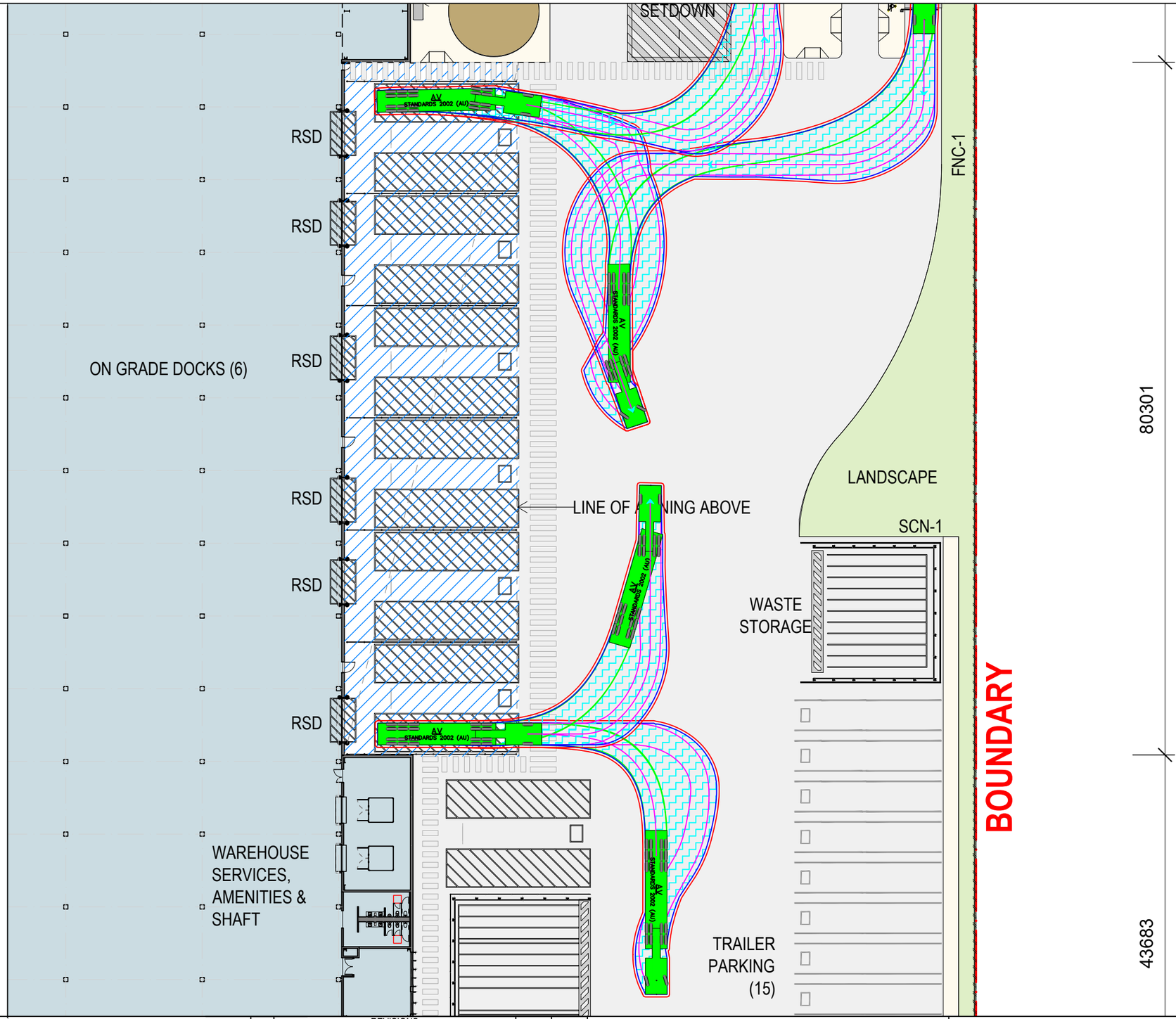
Title: B99 ENTRY / EXIT SWEPT PATHS #2

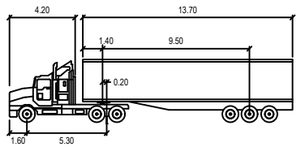
Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date: 20.06.2025

Project Number	Sheet Number	Issue
P6983	3	001





AV (19.0m)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

Gold Coast
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P: (02) 9557 6202

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 5 10 15 20 25 1:500

Name	Signature	No.	Date

Project: LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

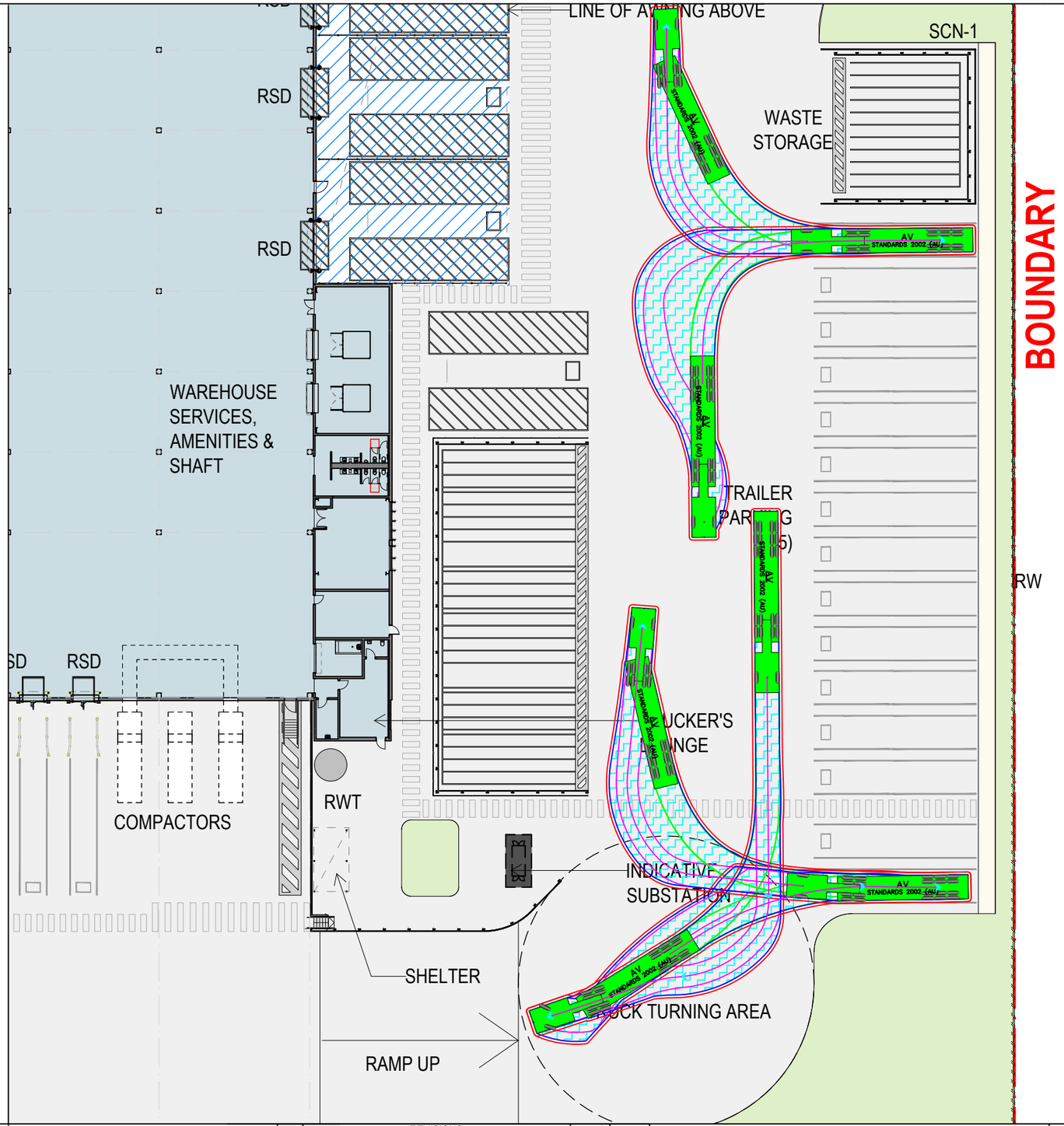
Title: CRITICAL AV SWEPT PATHS #1

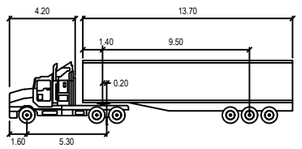
Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date: 20.06.2025

Project Number	Sheet Number	Issue
P6983	4	001





AV (19.0m)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 5 10 15 20 25 1:500

Name	Signature	No.	Date

Project: LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

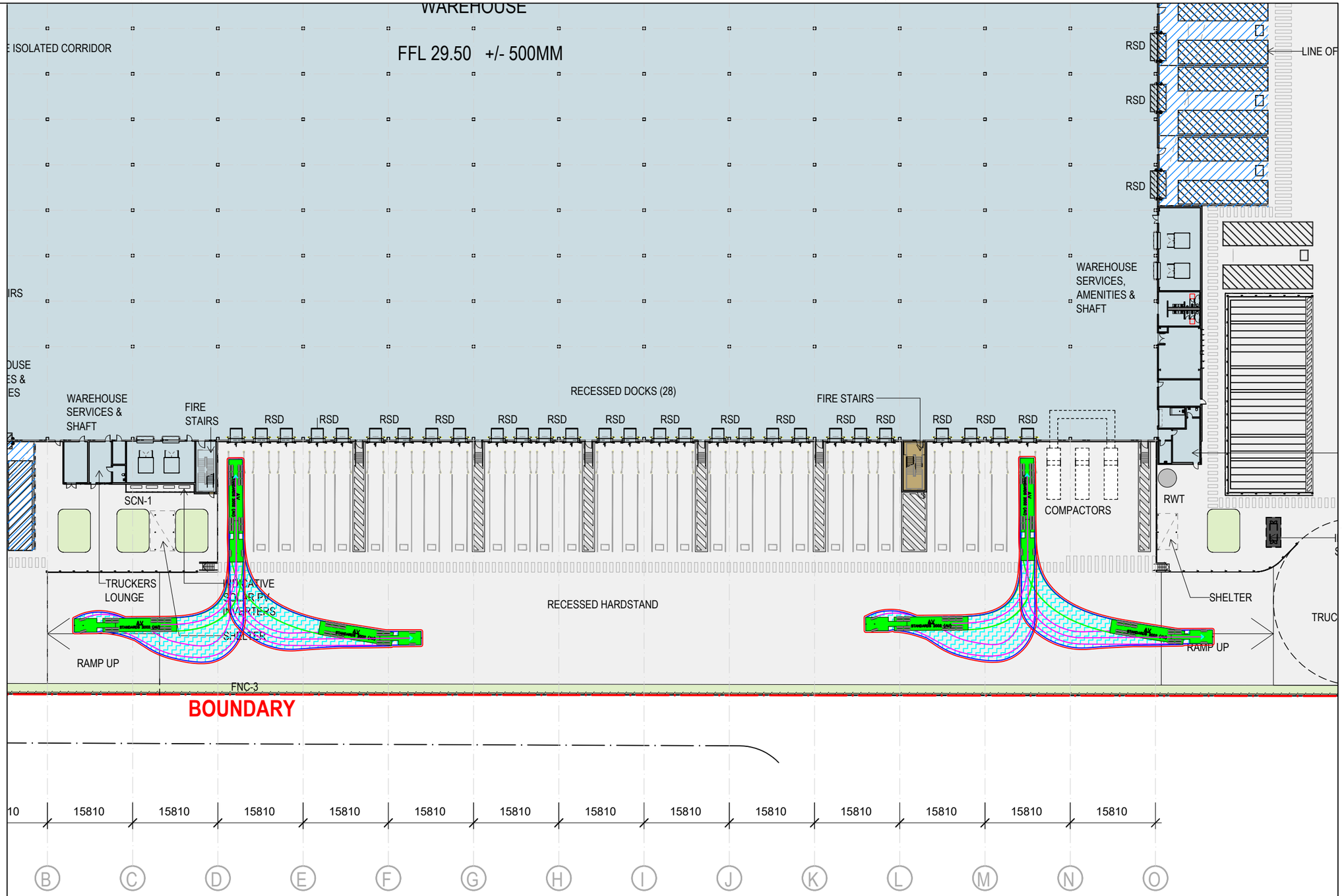
Title: CRITICAL AV SWEPT PATHS #2

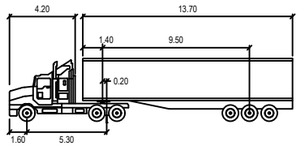
Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date: 20.06.2025

Project Number	Sheet Number	Issue
P6983	5	001





AV (19.0m)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 5 10 15 20 25 30 35 1:750

Name	Signature	No.	Date

Project: LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

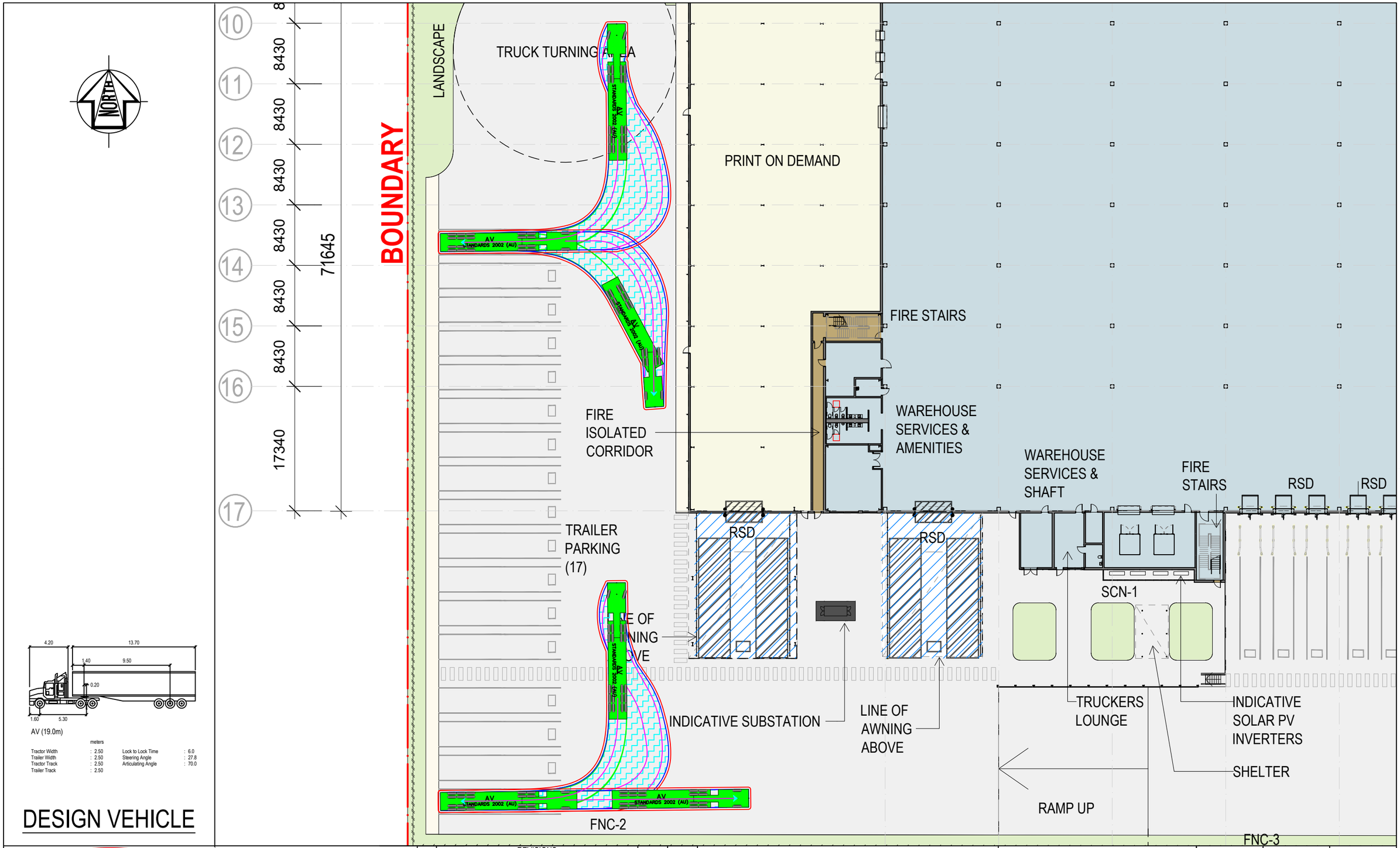
Title: CRITICAL AV SWEPT PATHS #3

Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date: 20.06.2025

Project Number	Sheet Number	Issue
P6983	6	001



AV (19.0m)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 5 10 15 20 25 1:500

Name	Signature	No.	Date

Project: LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

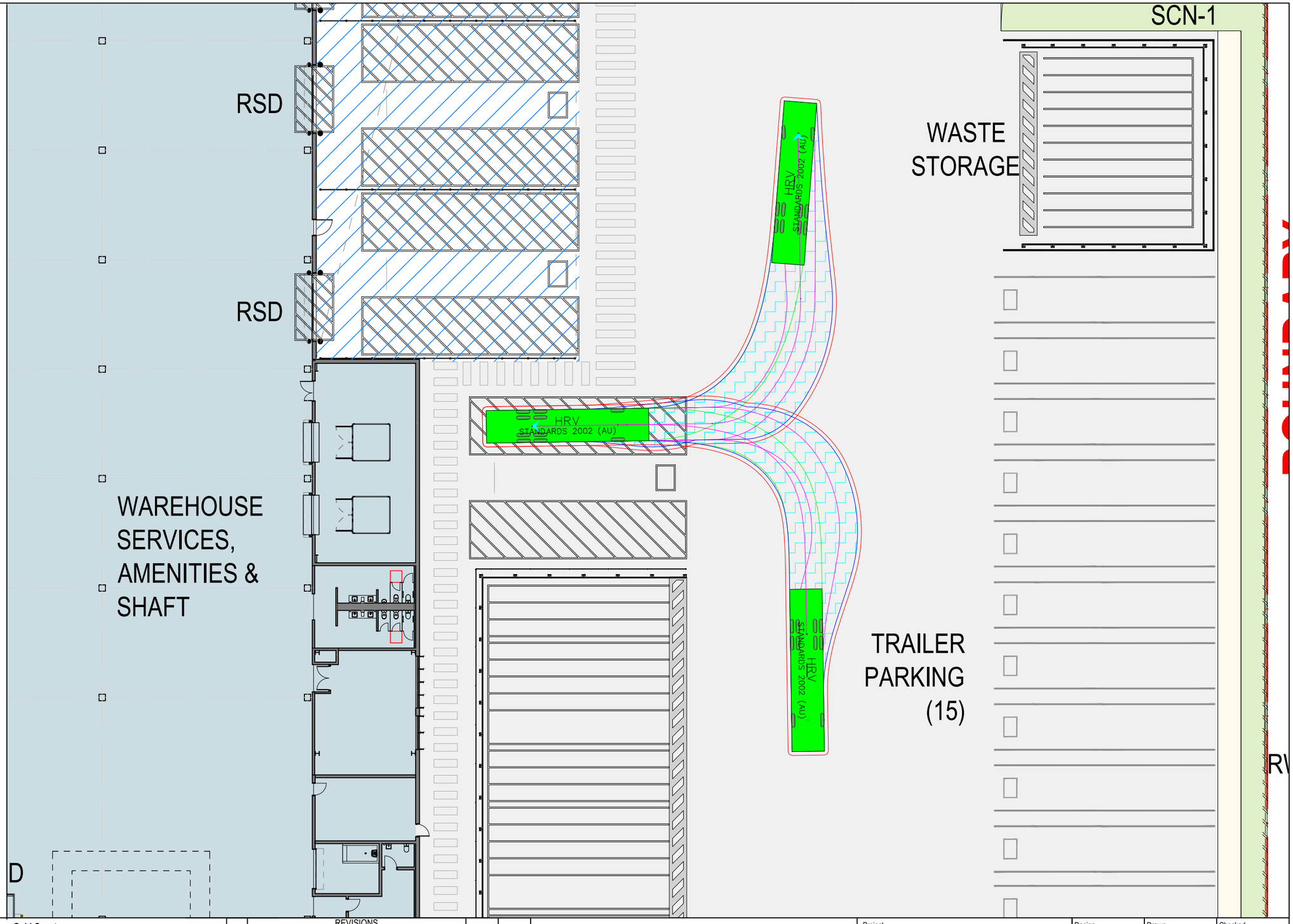
Title: CRITICAL AV SWEPT PATHS #4

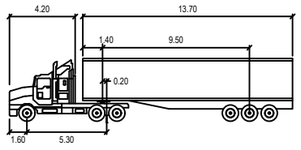
Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date: 20.06.2025

Project Number	Sheet Number	Issue
P6983	7	001





AV (19.0m)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATHS FOR TIA	J.K	20.06.2025

Scale @ A3 0 2 4 6 8 10 12 14 1:300

Name	Signature	No.	Date

Project
LOT 14 NORTH MACLEAN INDUSTRIAL ESTATE TIA

Title
CRITICAL HRV SWEPT PATHS

Design	Drawn	Checked
J.K	J.K	F.J

CONCEPT ONLY

Date 20.06.2025

Project Number	Sheet Number	Issue
P6983	8	001

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