

# **Transport Assessment**

Planning Proposal, 93 Bridge Road Pty Ltd atf Bridge Road Unit Trust

93 Bridge Road, Westmead NSW 2138

16/02/2024

P0898-2

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**APPENDICES**

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**Appendix A. Modelling Report**

# Glossary

Acronym	Description
AGRD	Austroads Guide to Road Design
AGTM	Austroads Guide to Traffic Management
CC	Construction Certificate
Council	City of Parramatta Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
FSR	Floor space ratio
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
TfNSW Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)



- 93 Bridge Road, Westmead – Explanatory Note (file reference: P0898-2l02v01 Note\_ 93 Bridge Rd, Westmead); and
- Transport Modelling Methodology Report (file reference: P0898-2l01v01 Bridge Road, Westmead Modelling Methodology Report)

The Site is located within the Parramatta Council Local Government Area and is therefore subject to that Council's controls.

## 1.2 Transport Assessment Objectives

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The broad objective of this Study is to carry out preliminary investigations into the traffic and transport impacts of the PP. More precisely, the investigations undertaken include:

- Review of relevant background studies and assessments;
- A review of the existing traffic conditions, public transport and pedestrian accessibility surrounding the Site;
- An assessment of the proposed car parking provision against State and Council planning controls and proposed measures to reduce car parking to manage traffic demand.
- An assessment of the traffic generation and distribution characteristics of the Proposal.
- A network performance assessment with consideration to the future impacts of the Proposal.

## 1.3 Reference Documents

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In preparing this TA, Ason Group has referenced the following key planning documents:

- Parramatta Development Control Plan 2023 (PDCP)
- Parramatta Local Environmental Plan 2023 (PLEP)

Ason Group has also referenced the following policies and guidelines relevant to the assessment:

- Australian Standard 2890.1:2004 Parking Facilities – Off-Street Car Parking (AS2890.1:2004);
- Australian Standard 2890.2:2018 Parking Facilities – Off-Street Commercial Vehicle Facilities (AS2890.2:2018);
- Australian Standard 2890.3:2015 Parking Facilities – Bicycle Parking (AS2890.3:2015);
- Australian Standard 2890.6:2022 Parking Facilities – Off-Street Parking for People with a Disability (AS 2890.6:2022);
- Transport for New South Wales Guide to Traffic Generating Developments Updated Traffic Surveys, August 2013 (TfNSW Guide Update);
- TfNSW (formerly Roads and Traffic Authority) Guide to Traffic Generating Developments, October 2002 (RTA Guide); and
- Disability (Access to Premises – Buildings) Standards 2010 (Access to Premises Standards).

- *Integrated Public Transport Service Planning Guidelines*, Sydney Metropolitan Area Transport for New South Wales (TfNSW, December 2013)

Furthermore, a Modelling Report accompanies this document, detailing the SIDRA Intersection modelling undertaken as part of this PP, included as **Appendix A**.

- Transport Modelling Report (file reference: P0898-2r02v1 Modelling Report, 93 Bridge Rd, Westmead, Issue)

## 2 The Proposal

### 2.1 Overview

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#### 2.1.1 LEP Amendment

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The PP seeks to modify the maximum permissible Floor Space Ratio (FSR) and the maximum building height. The proposed rezoning will increase the maximum height of buildings from 20m to 69m (up to 20 storeys) and the FSR from 1.7:1 to 4.25:1 FSR.

#### 2.1.2 Reference Scheme

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The Reference Design envisages a high-density residential development which can accommodate the following.

- 486 high density residential dwellings, comprised of 75 (15%) affordable housing units and 411 (85%) market housing units as follows:
  - 75 affordable housing units, consisting of:
    - 37 x 1 bedroom apartments
    - 38 x 2 bedroom apartments
  - 411 market housing units, consisting of:
    - 193 x 1 bedroom apartments
    - 193 x 2 bedroom apartments
    - 25 x 3 bedroom apartments
- Ancillary retail uses of 260m<sup>2</sup> on the ground floor.



## 3 Existing Conditions

### 3.1 Site Context

The Site is legally described as SP 31019. It is located on the eastern side of Bridge Road and is within the area identified as the Westmead health, education and research precinct. Vehicular access is from a private road which forms a roundabout intersection with Bridge Road. The Site has a total area of 8,663m<sup>2</sup> and is currently occupied by 31 semi-detached single storey dwellings.

Coles supermarket and other shopping is located north (north) of the Site, Westmead Private Hospital is located to the north-east (400m) and Mother Teresa Primary School to the east (300m). Generally, the other developments in the vicinity are primarily residential in nature.

At a regional level, the Site is located approximately 22 kilometres west of the Sydney CBD and 2.6 kilometres north-west of the Parramatta CBD and is zoned R4 High Density Residential. A Site Plan is presented in **Figure 2** which provides the existing conditions.







Figure 2: Site Plan (source: Sixmaps)

### 3.2 Road Network

The key roads and road hierarchy around the Site are shown by Figure 3 and summarised below.



**TABLE 1: ROAD HIERARCHY**

Road	Description	Typical Road Characteristics
<b>Bridge Road</b>	<p>A Collector Road that runs in the north-south direction along the western frontage of the Site. This road connects Darcy Road to the north to the Great Western Highway to the south and generally provides two lanes of unrestricted parking and two lanes of traffic bidirectionally with a speed limit of 50km/h.</p> <p>It is noted Bridge Road is to be upgraded, with construction having commenced in January 2024. An additional southbound lane will be provided, extending beyond Wentworth Avenue to the north (see <b>Section 4.6</b>).</p>	
<b>Darcy Road</b>	<p>A Regional Road which generally runs in the east-west direction. It is a two-way, four lane road. This road connects to Hawkesbury Road to the south with an additional Transit Way (T-Way) running through the median between Institute Road and Hawkesbury Road. It is restricted to a speed limit of 50km/h in the vicinity of the Site.</p>	
<b>Byrne Street</b>	<p>A local road which provides two travel lanes and two parking lanes bidirectionally and is subject to a speed limit 50 km/h. There are unrestricted parking opportunities on both sides of the road.</p>	
<b>Access Road</b>	<p>A privately owned road that provides vehicular access to the Site and other properties, effectively operating as a Right of Way. This road runs along the southern boundary of the Site and forms a roundabout intersection with Bridge Road.</p>	



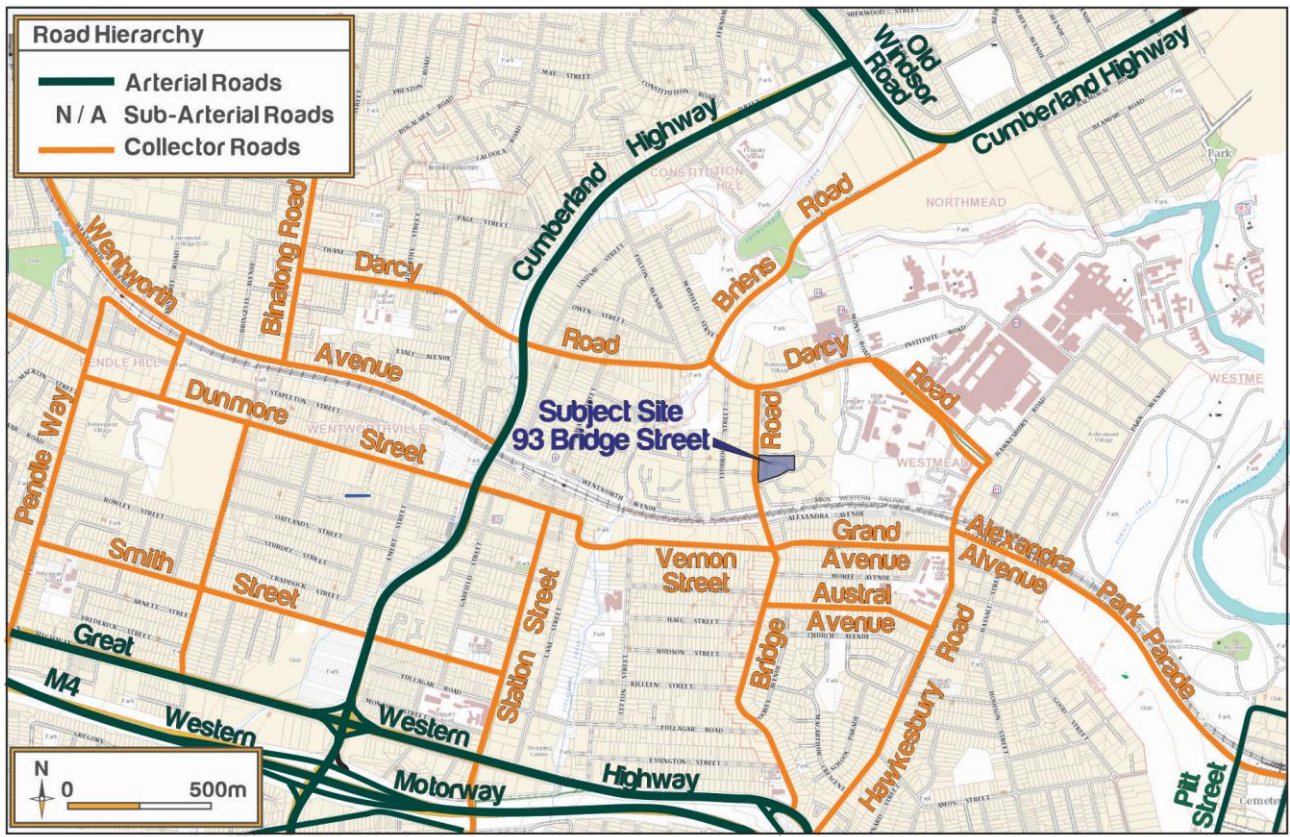


Figure 3: Road Hierarchy



## 3.3 Existing Traffic Generation and Distribution

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### 3.3.1 Traffic Generation

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Based on the RTA guide medium density trip rate of 0.5 vehicles per hour, and an apartment yield of 31, the existing Site could generate 16 vehicles during the peak hours.

## 3.4 Existing Road Network Operation

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### 3.4.1 Existing Traffic Volumes

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Traffic surveys were undertaken on Thursday 30 November 2023 and Friday 1 December 2023 to establish the baseline conditions on the surrounding road network. Site visits were also conducted on Friday 1 December 2023 and Tuesday 5 December 2023 to calibrate and validate the baseline model. The following key intersections have been assessed as part of this TA:

- Darcy Road / Bridge Road signalised intersection;
- Bridge Road / Access Road roundabout intersection;
- Bridge Road / Alexandra Avenue roundabout intersection;
- Bridge Road / Veron Street / Grand Avenue signalised intersection;
- Bridge Road / Wentworth Avenue priority controlled intersection; and
- Bridge Road / Byrne Street.

The existing traffic volumes of the peak periods on the study road network – derived from the traffic surveys – are presented below.

The Modelling Report (**Appendix A**) which accompanies this submission provides the full details of the modelling assessment undertaken.

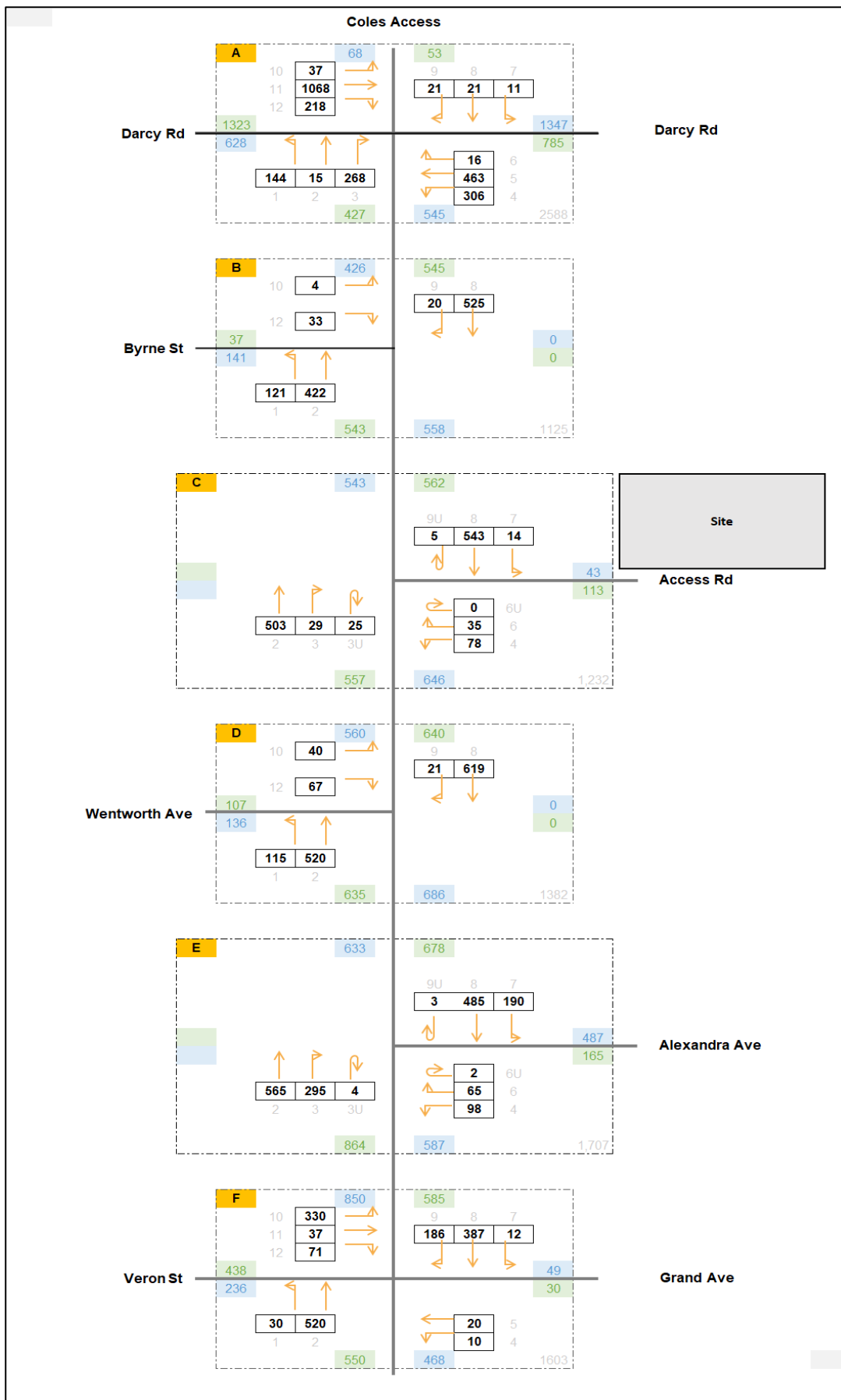


Figure 4: Baseline Traffic Volume - AM Peak

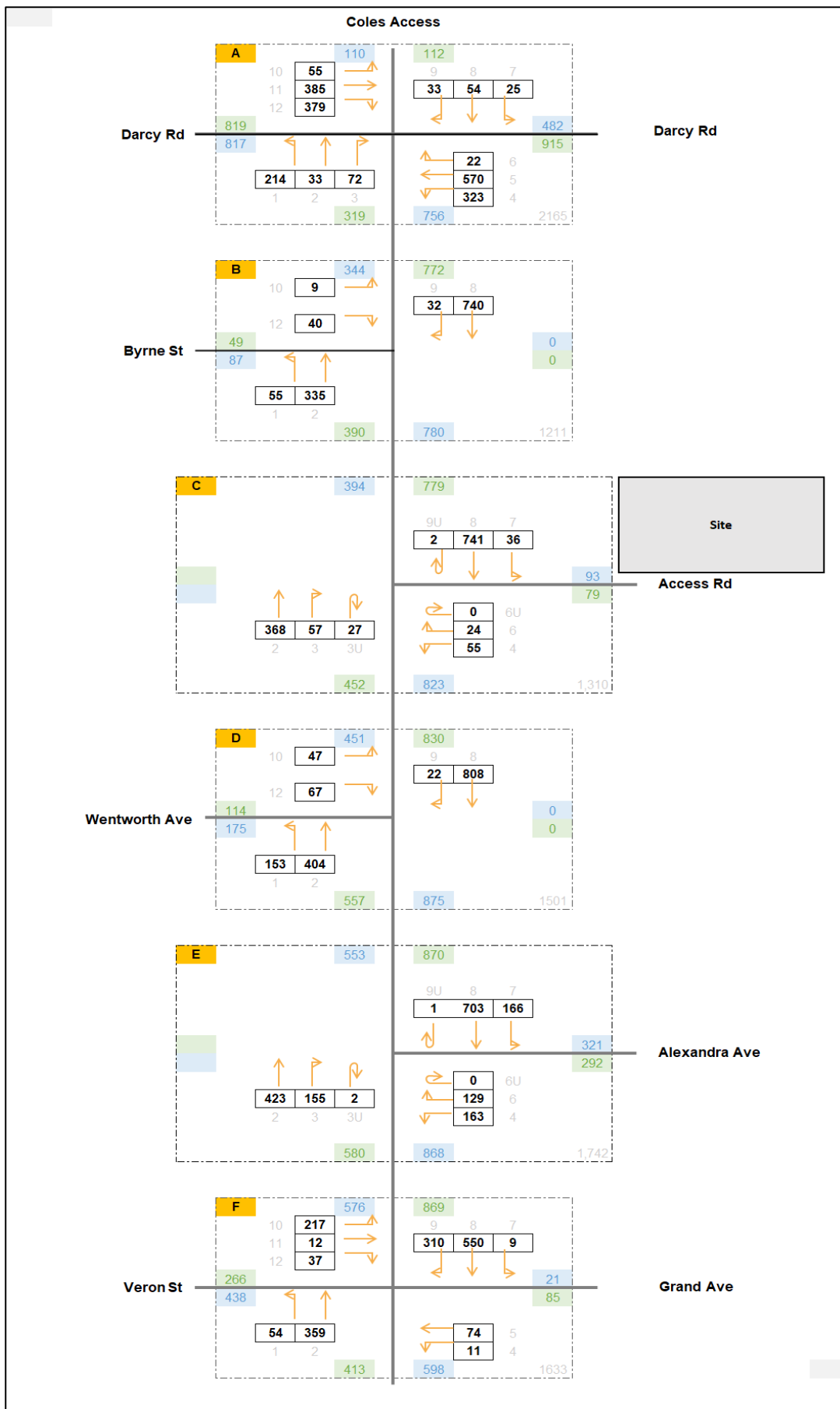


Figure 5: Baseline Traffic Volume - PM Peak

### 3.4.2 Intersection Performance

SIDRA intersection modelling has been undertaken to establish the baseline performance of the key intersections. In this regard, SIDRA modelling outputs a range of performance measures relevant to this assessment, including:

- *Degree of Saturation (DOS)* – The DOS is used to measure the performance of intersections where a value of 1.0 represents an intersection at theoretical capacity. As the performance of an intersection approaches DOS of 1.0, queue lengths and delays increase rapidly. It is recommended that DOS to be less than 0.9, with satisfactory intersection operation generally achieved with a DOS below 0.8.
- *Average Vehicle Delay (AVD)* – The AVD (or average delay per vehicle in seconds) for intersections also provides a measure of the operational performance and is used to determine an intersection's Level of Service (see below). For signalised intersections, the AVD reported relates to the average of all vehicle movements through the intersection. For priority (Give Way, Stop & Roundabout controlled) intersections, the AVD reported is that for the movement with the highest AVD.
- *Level of Service (LOS)* – This is a comparative measure that provides an indication of the operating performance, based on AVD.

The table below provides a recommended baseline for assessment as per the RMS Guide.

TABLE 2: LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS			
Level of Service	Average Delay per Vehicle (sec/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	More than 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode or major treatment.

### 3.4.3 Existing Intersection Performance

The results of the SIDRA analysis for the 6 intersections in the study area is shown below.

TABLE 3: BASELINE INTERSECTION PERFORMANCE				
Intersection	Period	DOS	AVD	LOS
Darcy Road / Bridge Road	AM	0.96	39.3	C
	PM	0.95	37.6	C
Bridge Road / Access Road	AM	0.47	10.0	A
	PM	0.68	12.6	A
Bridge Road / Alexandra Avenue	AM	0.98	47.1	D
	PM	0.95	21.3	B
Bridge Road / Veron Street / Grand Avenue	AM	0.96	35.3	C
	PM	0.98	23.3	B
Bridge Road / Wentworth Avenue	AM	0.72	26.6	B
	PM	0.92	36.7	C
Bridge Road / Byrne Street	AM	0.33	15.5	B
	PM	0.63	19.5	B

With reference to the above, the existing intersections are generally operating to a “satisfactory” level with a LOS of C or better with the exception of Bridge Road / Alexandra Avenue which is operating with a LOS of D or, “operating near capacity”.

It is noted the 2019 Ason TA identified all intersections within the network to operate at an LOS of A or B. Therefore, while the network is still operating within satisfactory levels, a degradation in its performance has been observed in the past 4 years.

### 3.5 Crash Statistics

Crash data was assessed based on publicly available datasets found on the TfNSW OpenData website. All available data was considered, covering a period between 2017 and 2022, inclusive. A total of 21 incidents were recorded, none of which resulted in any fatalities. The locations are shown in **Figure 6**, with ID numbers referring to detailed crash information provided in **Table 4**.

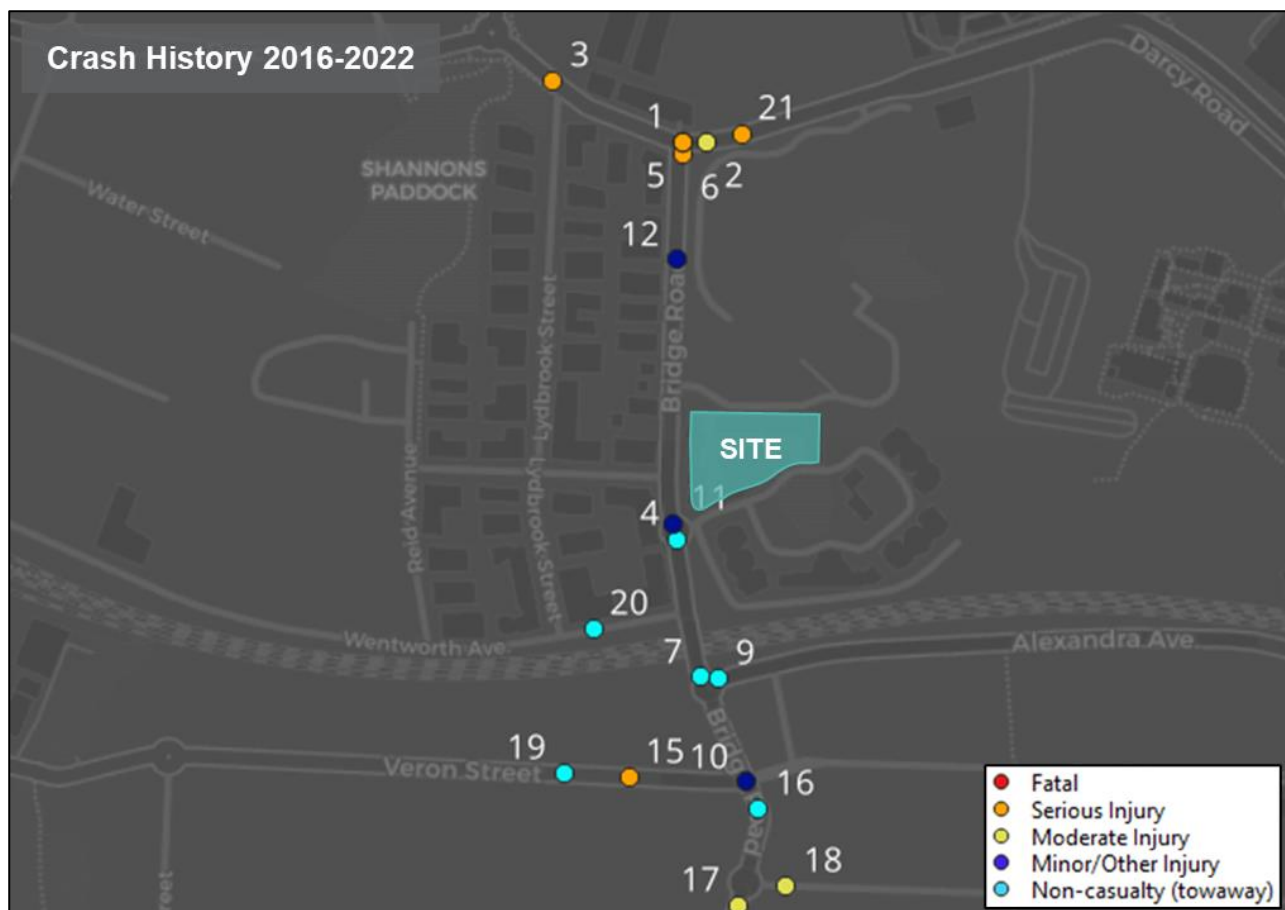


Figure 6: Crash Statistics Map

Almost half of the recorded crashes were recorded as 'Off rd left=>obj' (5 crashes) or 'Right through' (4 crashes).

Two crashes involved pedestrians, both resulting in serious injury, and both occurring on Darcy Road, either side of the Bridge Road intersection.

Two crashes were recorded at the Bridge Road/ Site Access Road Roundabout (ID 4 & ID 11). Both involved vehicles making right turn or U-turn movements at the roundabout, resulting in on minor injury and one non-casualty(towaway) incident.

Assessment of the crash year showed a declining crash rate, with a significantly higher number of incidents recorded in 2016 compared to subsequent years. A breakdown of crashes by year is shown below.

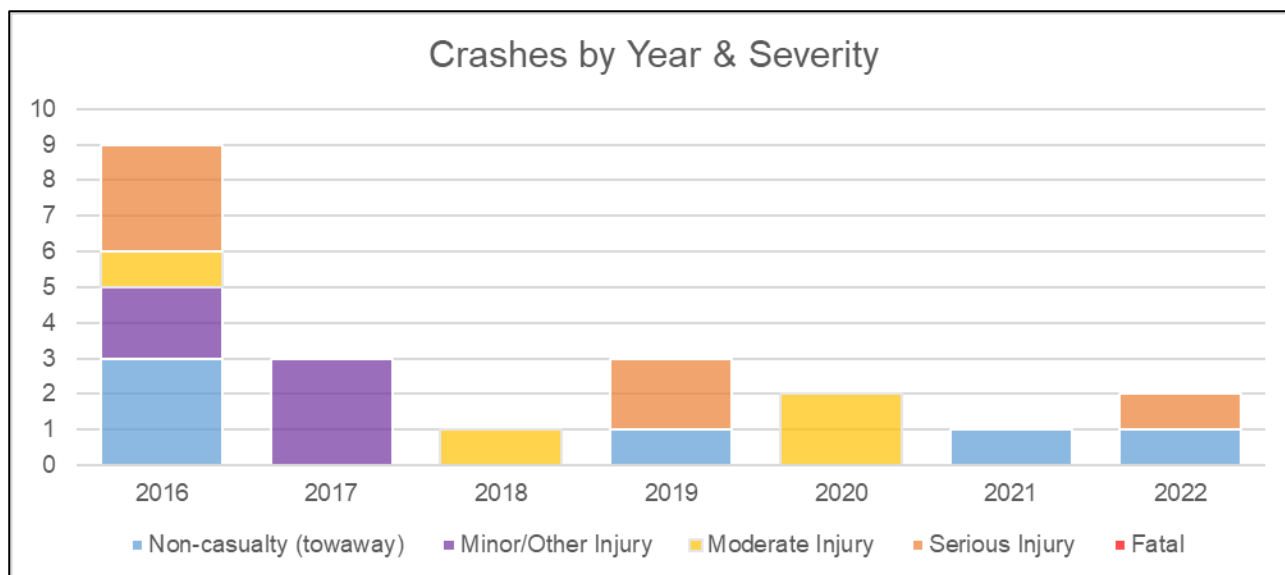


Figure 7: Crashes by Year and Severity

TABLE 4: RECORDED CRASHES ACROSS STUDY AREA				
Map ID	TfNSW Crash ID	Crash Year	Crash Severity	RUM Description
1	1098308	2016	Moderate Injury	Right through
2	1100296	2016	Serious Injury	Rear end
3	1101184	2016	Serious Injury	Ped nearside
4	1101734	2016	Non-casualty (towaway)	U turn
5	1104255	2016	Minor/Other Injury	Right through
6	1108674	2016	Serious Injury	U turn
7	1122885	2016	Non-casualty (towaway)	Off left/rt bnd=>obj
8	1127279	2016	Minor/Other Injury	Right/right
9	1130605	2016	Non-casualty (towaway)	Other straight
10	1134581	2017	Minor/Other Injury	Off rd left => obj
11	1154074	2017	Minor/Other Injury	Right through
12	1155031	2017	Minor/Other Injury	Other same direction
13	1180152	2018	Moderate Injury	Rear end
14	1199821	2018	Serious Injury	Right through
15	1208555	2019	Serious Injury	Leaving parking
16	1216577	2019	Non-casualty (towaway)	Off rd left => obj
17	1223471	2020	Moderate Injury	Off rd left => obj
18	1229676	2020	Moderate Injury	Off rd left => obj
19	1271113	2021	Non-casualty (towaway)	Pkd veh runaway=>obj
20	1300177	2022	Non-casualty (towaway)	Off rd left => obj
21	1310305	2022	Serious Injury	Ped far side



With reference to the above, no discernible patterns were identified within the immediate vicinity of the Site.

## 3.6 Existing Public Transport Infrastructure

The Site is well serviced by local public infrastructure as evidenced by the assessment below which evaluates transport accessibility for each mode. **Figure 9** provides an overview of the public transport networks in the vicinity of the Site.

### 3.6.1 Train Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area (TfNSW, December 2013) state that rail services influence the travel mode choices of areas within 800m walk (approximately 10 minutes) of a railway station. The Site is located approximately 800m (13 minute walk) to the north-west of Westmead Railway Station and 770m (13 minute walk) north-east of Wentworthville Railway Station. These two stations are serviced by T1 North Shore and Western Line and T5 Cumberland Line which provide connections to the Liverpool, Campbelltown, Fairfield, Bankstown, and Sydney CBD areas.

Train services and frequencies at Westmead Station are provided below.

**TABLE 5: TRAIN SERVICE & FREQUENCY**

Line	Destination	Number of services		
		AM (8am – 9am)	Midday (12pm – 1pm)	PM (5pm – 6pm)
T1	To City	7	6	9
	From City	8	6	8
T5	To Liverpool	2	4	4
	From Liverpool	2	4	4

Connections from Westmead Station to the broader network are shown below in **Figure 8**.



Figure 8: Rail Line

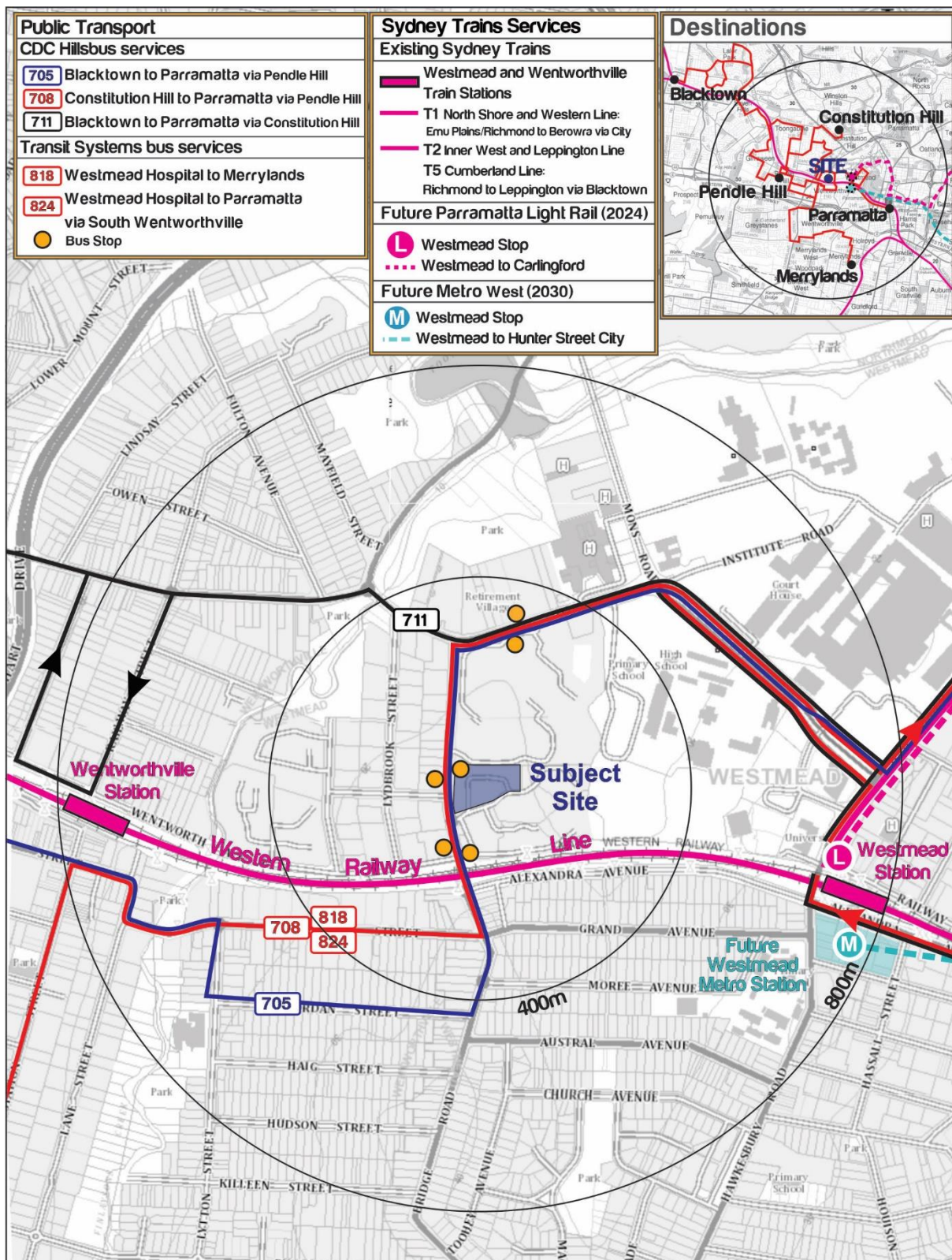


Figure 9: Public Transport Network

### 3.6.2 Bus Services

The TfNSW guidelines states that bus services influence the travel mode choices of areas within 400 metres walk (approximately 5 minutes) of a bus stop. In this regard, there are 2 bus stops within 400m walking distance to the Site along Bridge Road, the following details the bus routes servicing these stops.

**TABLE 6: BUS SERVICE & FREQUENCY**

Bus Route No.	Route Description	Number of services		
		AM (8am – 9am)	Midday (12pm – 1pm)	PM (5pm – 6pm)
705	Parramatta to Blacktown via Pendle Hill	1	2	2
	Blacktown to Parramatta via Pendle Hill	2	2	2
818	Merrylands to Westmead Hospitals	1	1	1
	Westmead Hospitals to Merrylands	1	1	1
824	Parramatta to Westmead Hospitals via South Wentworthville	2	2	2
	Westmead Hospitals to Parramatta via South Wentworthville	2	2	2

Within a broader context, it is noted there are existing bus stops servicing the North-West T-way approximately 600m north-east of the Site and at Westmead Station (Figure 9). The North-West T-way is a continuous series of bus-only lanes and bus roadways between Parramatta, Blacktown and Rouse Hill.

The figure below identifies the North-West T-Way route.



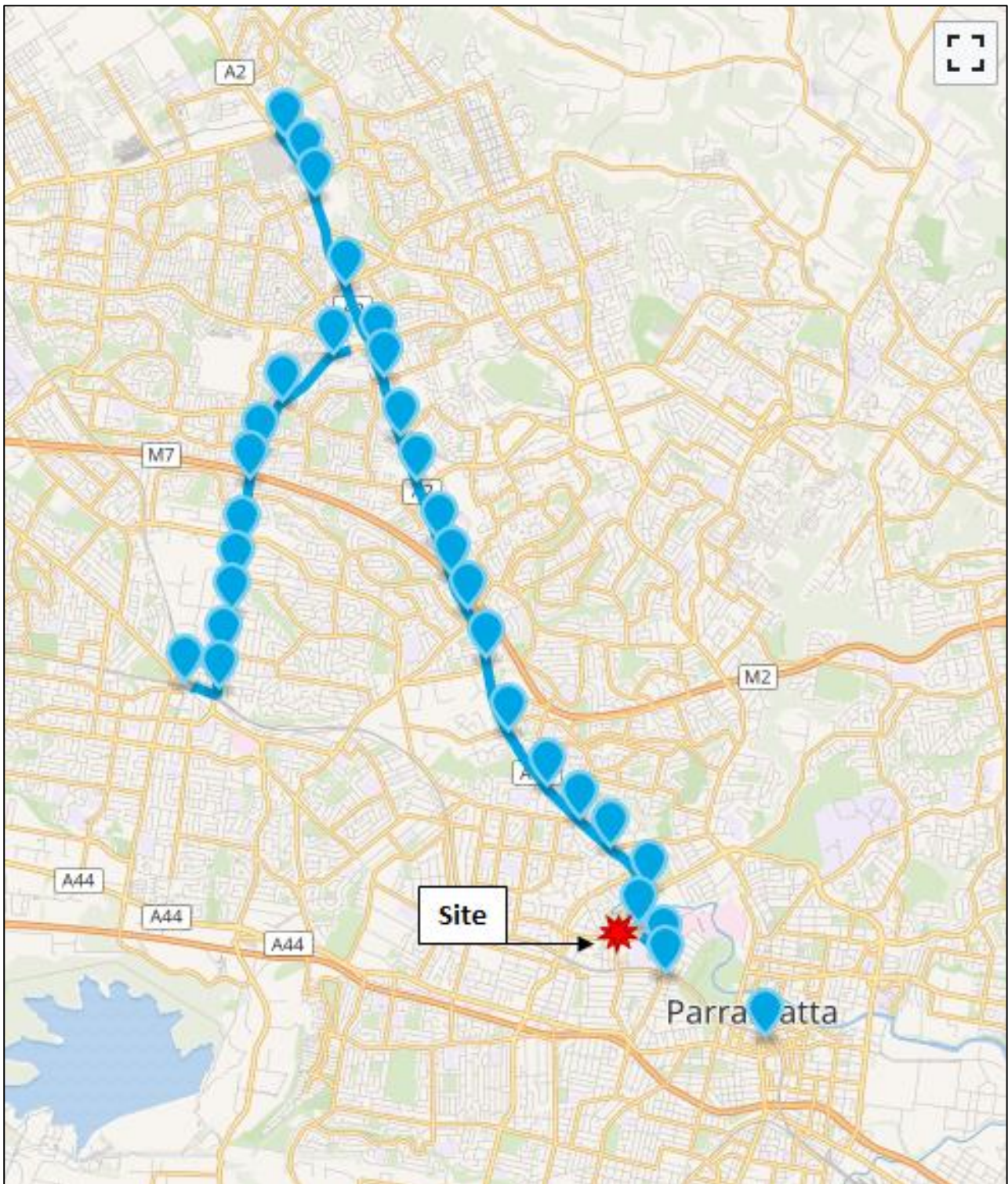
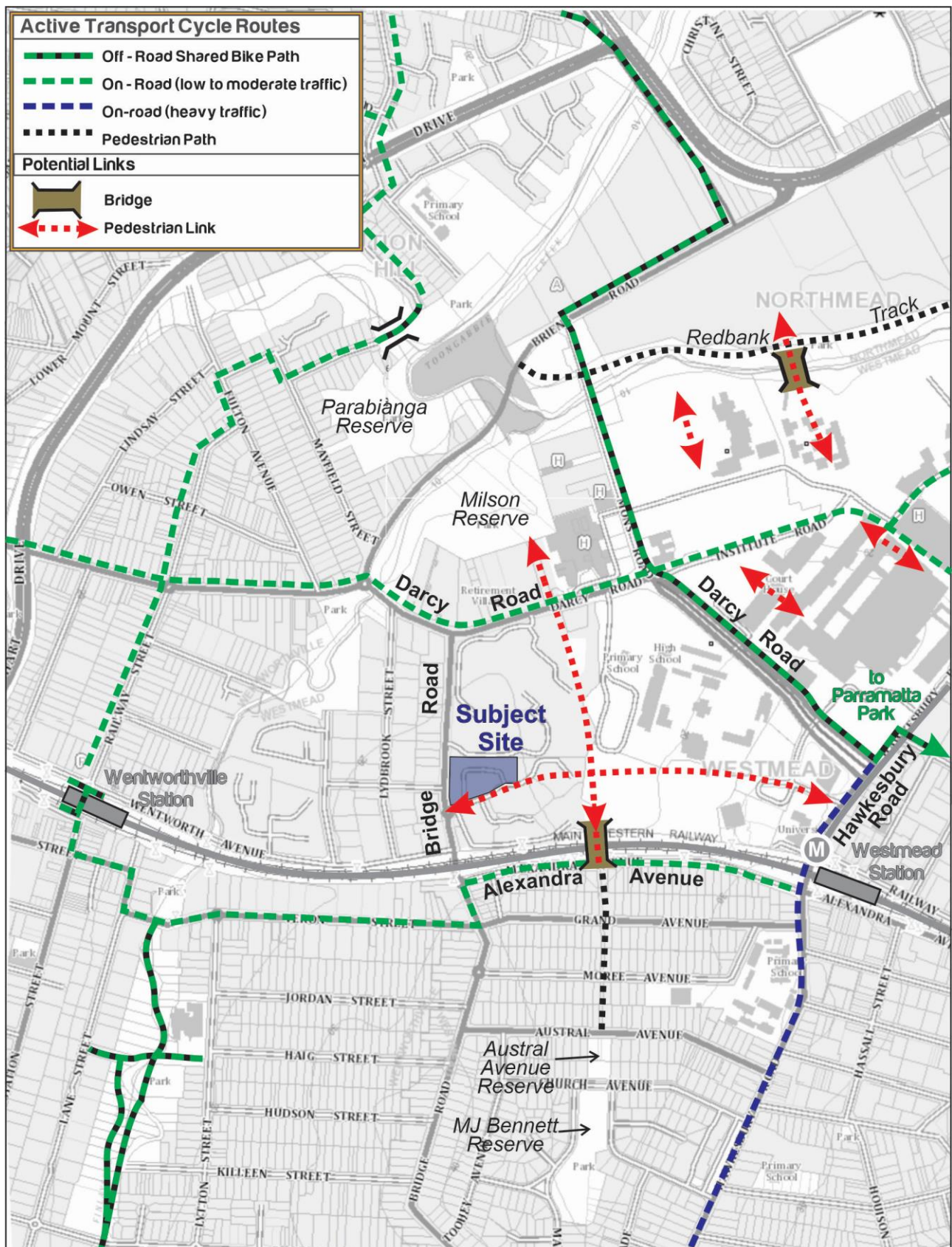


Figure 10: North-West T-Way Route

### 3.7 Existing Active Transport Infrastructure

**Figure 11** provides an overview of the active transport networks in the vicinity of the Site.





### 3.7.1 Cycle Routes

Existing bicycle infrastructure within the Site's context is shown above in Figure 11.

Within a broader context, Parramatta has an extensive network of cycleways including the:

- The Parramatta Valley Cycleway which follows the Parramatta River from Parramatta Park to Morrison Bay Park in Ryde and heads west along dedicated bike paths. Cyclists can continue to Parramatta CBD or utilise the connection to Sydney Olympic Park via the Silverwater Bridge.
- Transitways to the North-West and Liverpool both include shared pedestrian and cycle paths offering a good route to Liverpool via Wetherill Park and Rouse Hill adjacent to Old Windsor Road.
- M4 Motorway Viaduct Route links Auburn, Granville, Holroyd and the Parramatta CBD via Good Street or Mays Hill.
- Parramatta to Liverpool Rail Trail is nearly 17km long and runs parallel to the railway line through Merrylands, Yennora and Fairfield to Liverpool.

### 3.7.2 Future Cycle Routes

It is noted Council currently has a Draft Bike Plan 2023, with proposed upgrades to the existing cycling infrastructure, as seen below.

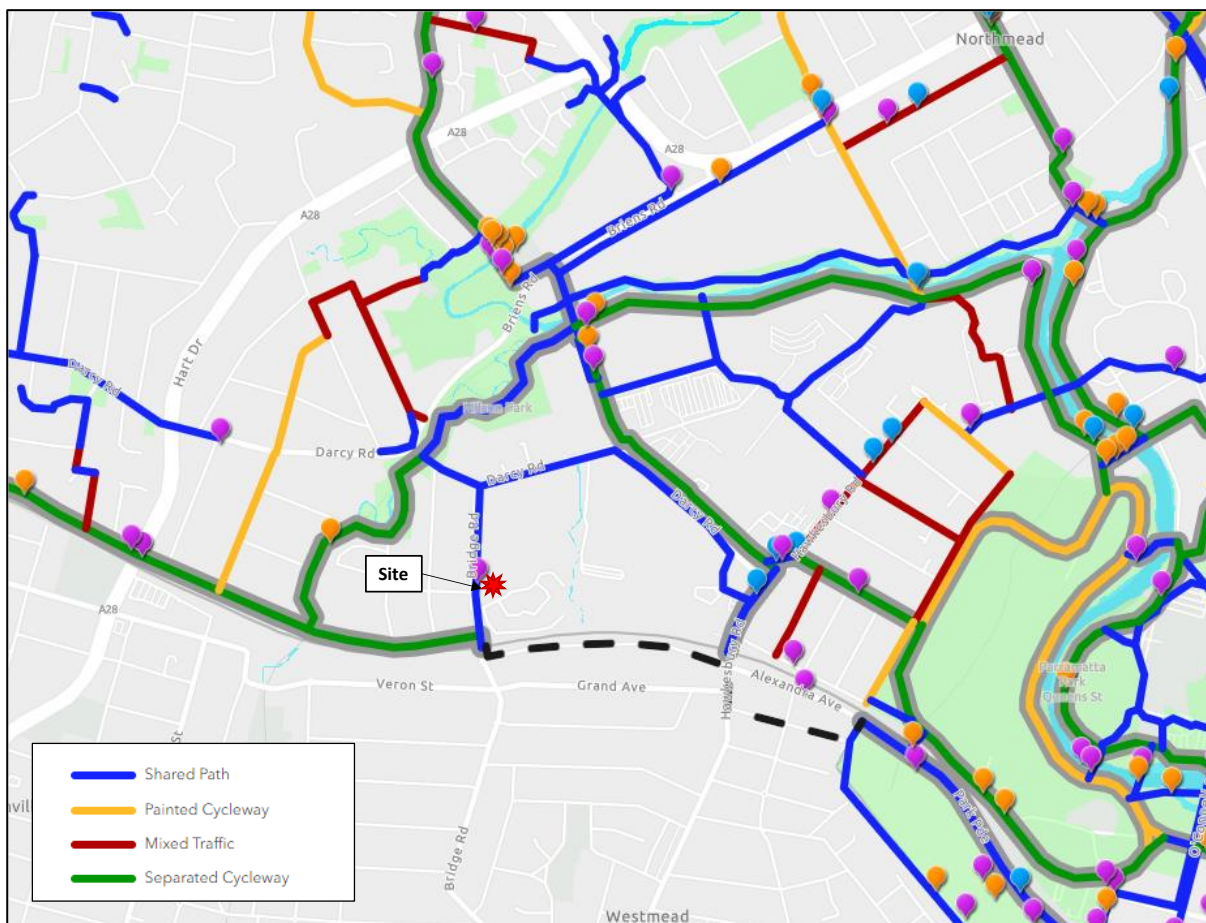


Figure 12: Draft Parramatta Bike Plan 2023

As seen above, the Draft Parramatta Bike Plan 2023 indicates shared path access from the Site to Westmead Station via Bridge Road and Darcy Road, with a separated cycleway along Wentworth Avenue providing a connection to Wentworthville Station.

Furthermore, as indicated in Figure 11, two potential mid-block active transport connections running east-west along the Site's southern boundary and north-south to the Site's east have been identified. These have been identified as part of the Westmead Place-Based Transport Strategy discussed in Section 4.5.

Considering the limited cycling infrastructure within the immediate vicinity of the Site, the proposed upgrades stipulated in the Draft Parramatta Bike Plan 2023 and Westmead Place-Based Transport Strategy have the potential to create a significant modal shift towards active transport.

### 3.7.3 Pedestrian Accessibility

There are currently pedestrian footpaths within the general vicinity of the Site, on at least one side of the road, approximately 1.5m in width, allowing for pedestrian travel to and from the available public transport options.

## 3.8 Existing Travel Behaviour

### 3.8.1 Mode Share

An analysis of the ABS Census Data was undertaken for 2016 and 2021 to determine travel mode behaviour of people travelling from Northmead Statistical Area Level 2 (SA2) for work. The results are presented below and have been filtered for only those people who travelled to work, noting that the August 2021 census date was impacted by a Covid-19 related lockdown imposed by the NSW Government for all non-essential trips.

**TABLE 7: EXISTING MODE SHARE FOR RESIDENTS IN 125041491**

Travel Mode <sup>1</sup>	Percentage (%) of total trips	
	2016	2021
Car (as driver)	59%	65%
Car (as passenger)	3%	5%
Train	20%	12%
Bus	10%	4%
Bicycle	0%	0%
Walked only	6%	9%
Other	2%	3%

*Note: 1. Total mode share excludes persons which worked from home or did not go to work*

The above table demonstrates a predominant modal dependency on private vehicle usage when considering both census years, with public transport usage taking a notable decline of 16% in 2021. Regarding mode share for 2021, the census was undertaken during the height of a COVID-19 lockdown in August 2021, with the lockdown period between June and September.



As such, the vast majority of workers travelling to and from work were essential workers, with public transport patronage reducing significantly to reduce the spread of the virus. The 2021 data is therefore not considered an accurate depiction of current mode share with the 2016 data being used for reference.



# 4 Strategic Context

## 4.1 Introduction

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Given the significance of the Westmead Precinct (the Precinct), as identified by the Department of Planning & Environment, reference has been made to the state, regional and local planning documents that are considered relevant to the context of the Site. These key reference documents and policies are discussed in the following sections.

## 4.2 Westmead Precinct

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West Precinct (the Precinct) is one of the largest health, education, research and training precincts in Australia and a key provider of jobs for the greater Parramatta and Western Sydney region. The Precinct includes the following key services as shown in **Figure 13**:

- Westmead Hospital
- The Children's Hospital at Westmead
- Cumberland Hospital
- Pathology West - ICPMR Westmead
- The University of Sydney
- The Westmead Institute for Medical Research
- Children's Medical Research Institute
- Westmead Research Hub
- Westmead Private Hospital
- Western Sydney University
- Ronald McDonald House at Westmead

The Precinct is located in the south-east section of the Western Sydney Local Area Health District (WSLHD), with the associated primary health catchment currently extending to the west and north.

An increasing number of specialist services and expanding state-of-the-art research and teaching facilities planned for the Precinct would attract staff, students and visitors from a broader catchment, including areas on a regional, national, and global scale.

The development of the public transport facilities would ultimately provide the Site with better access to public transport.





Figure 13: Westmead Precinct Key Services



## 4.3 Westmead Hospital Redevelopment

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At the local, precinct wide level, more than \$3.4 billion has been committed by government, universities and the private sector to upgrade and expand the Precinct's health services, education and medical research facilities over the coming years.

Westmead has been identified by the NSW Government as a State Significant Development site due to the size, economic value and importance to Parramatta and Western Sydney. By 2036 the number of full-time staff working across Westmead will increase to more than 30,000 and the number of students will expand to more than 10,000.

An important part of the Westmead Redevelopment is developing a transport solution that makes Westmead more workable, liveable and accessible. Throughout 2015 a comprehensive review of transport options was undertaken across the Precinct and the region. A range of future transport solutions are being analysed against the needs of the Precinct including the Parramatta Light Rail, City of Parramatta's proposed Western Sydney Regional Ring Road, cross-regional bus routes to strengthen the reach of public transport as well as improvements to the walking and cycling networks with a focus on connecting the Precinct with the Westmead train station and Parramatta CBD.

## 4.4 Westmead 2036 Place Strategy

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The Westmead 2036 Place Strategy, August 2022 (Place Strategy) provides the precinct's land-use vision for the years through to 2036. The Place Strategy outlines a plan to guide the future development of Westmead to drive new jobs in health, education, and innovation. Once the Place Strategy is adopted, DPE will work with the Cumberland City and City of Parramatta Councils through "collaborative planning" to prepare studies and strategies to guide future development and drive quality place outcomes.

The Westmead Precinct has been divided into seven sub-precincts to facilitate the improvement initiatives and actions catered towards each of the sub-precincts (with their own distinct purposes and characters). **Figure 14** below shows the division of the seven sub-precincts and the relative location of the Site within Sub-Precinct 2.

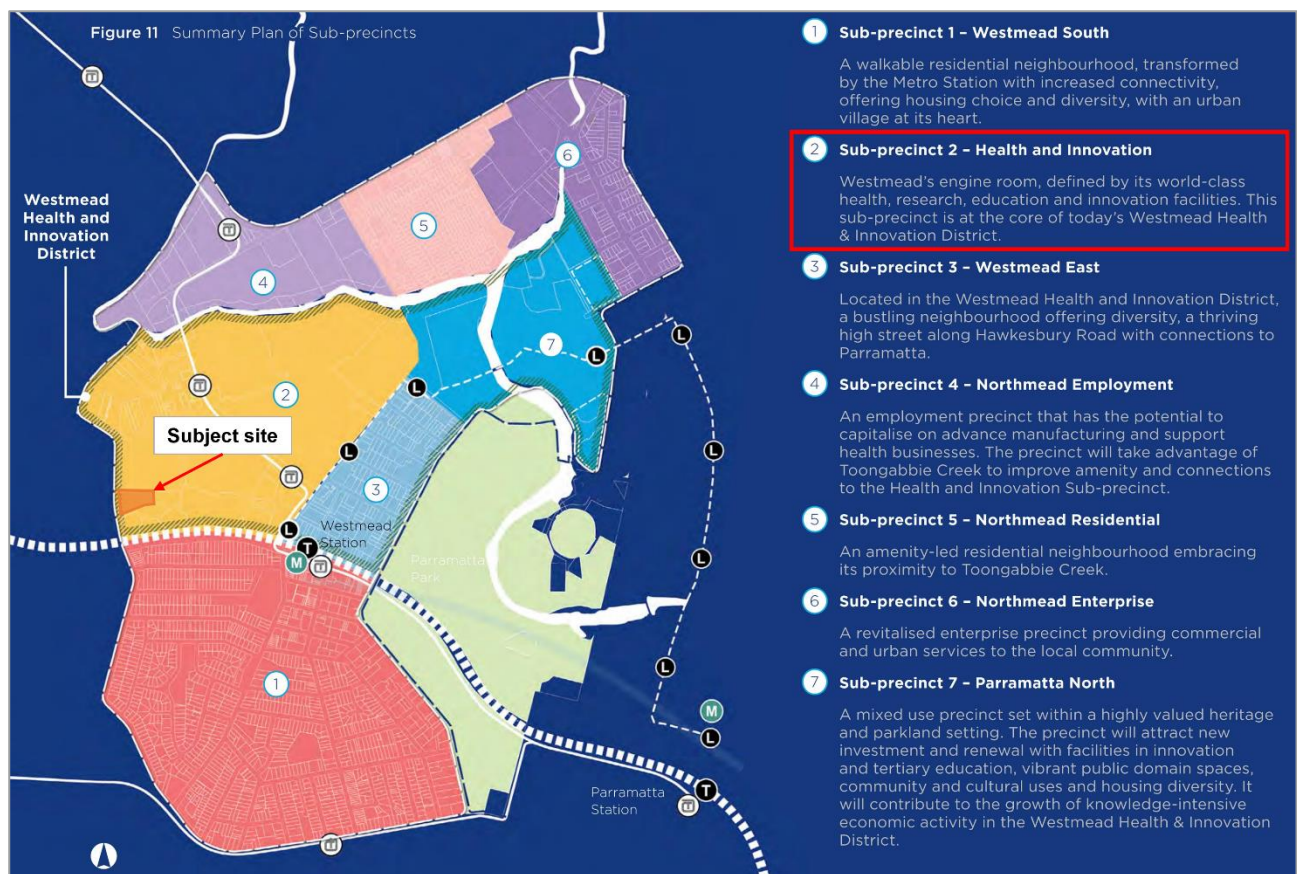


Figure 14: Summary Plan of Sub-Precincts Within the Westmead Precinct, & the Site Within Sub-Precinct 2<sup>1</sup>

Within Sub-Precinct 2, the key place-based outcomes to work towards are visually labelled below. The high-level vision of the place-based outcomes for Sub-Precinct 2 include an increased number of potential green streets / links, several activity nodes to promote the provision of local amenities, several key "place" opportunities, and many potential pedestrian links.

<sup>1</sup> [https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub\\_pdf/Keelie+Drupal+Documents/1.+Westmead+Place+Strategy.PDF](https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/Keelie+Drupal+Documents/1.+Westmead+Place+Strategy.PDF)

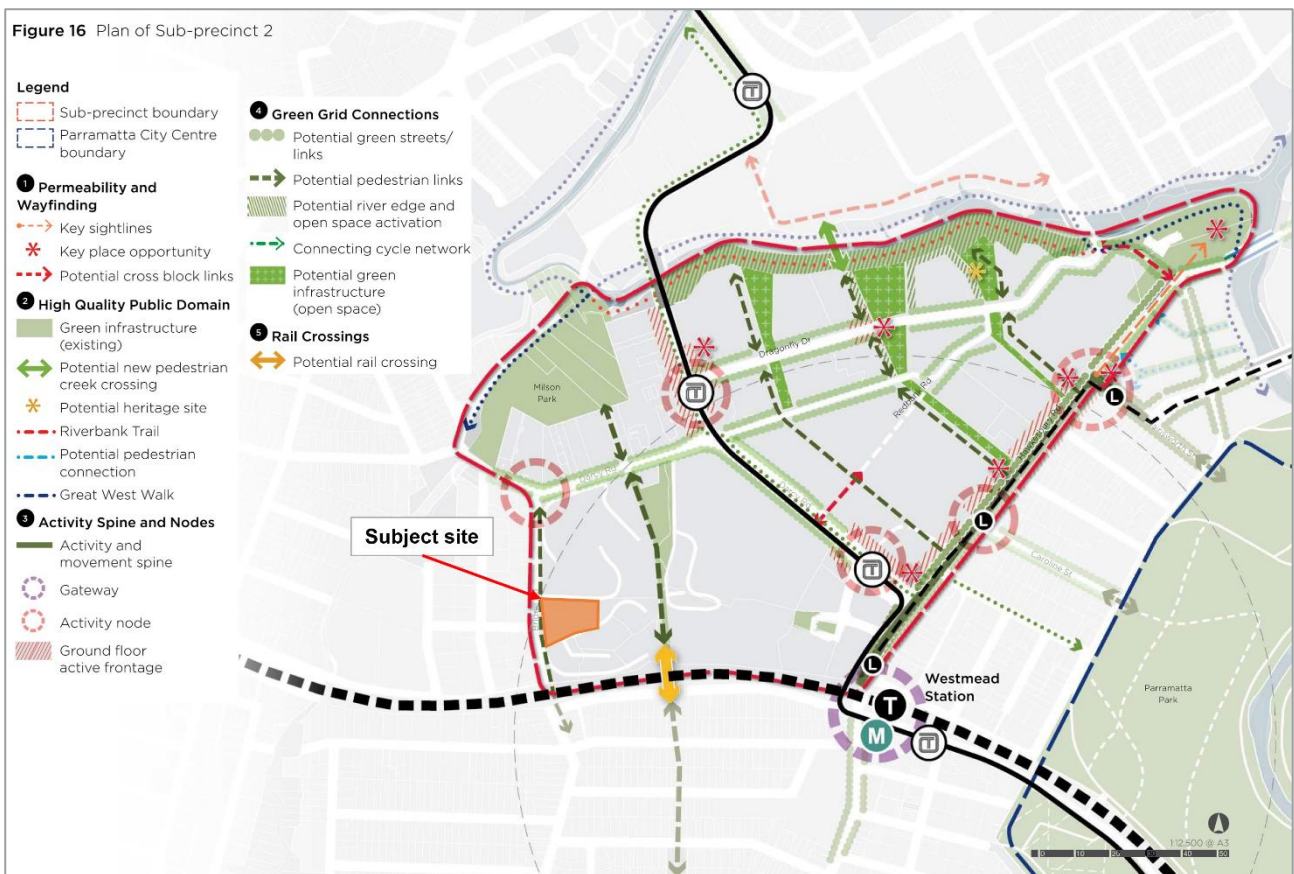


Figure 15: Map of Sub-Precinct 2 and its Key Place-Based Outcomes

In terms of the Site, an activity node to the immediate north is shown, with potential north-south aligned pedestrian links along Bridge Road and towards the Site's east, with a potential rail crossing to the southeast. These considerations are parts of the "five Big Moves" towards the Westmead Place Strategy's fifth vision – to "capitalise on transport connectivity and reduce car dependency."

## 4.5 Westmead Place-Based Transport Strategy

The NSW Government's vision for Westmead Precinct is for it to become *Australia's premier health and innovation district* by 2036. The Westmead Place-Based Transport Strategy (TfNSW, 2022) (Westmead Transport Strategy) therefore provides the overarching strategic transport network and vision that will guide future transport planning in the Westmead Precinct.

It is a supporting plan of the TfNSW Future Transport Strategy and sits alongside the Westmead 2036 Place Strategy. It is noted the transport vision in the Strategy was built on what was previously identified in the Westmead 2036 Place Strategy, as such, the vision identified in the Westmead Place-Based Transport Strategy expands upon the Westmead 2036 Place Strategy.

The strategy indicates Bridge Road is currently at or above capacity in sections during the AM peak hour, with performance likely to worsen to "above capacity" for the entirety of the corridor in 2041. It is noted there is limited room for expansion besides minor interventions, indicating a modal shift is required.

The below identifies the strategy's structure plan.



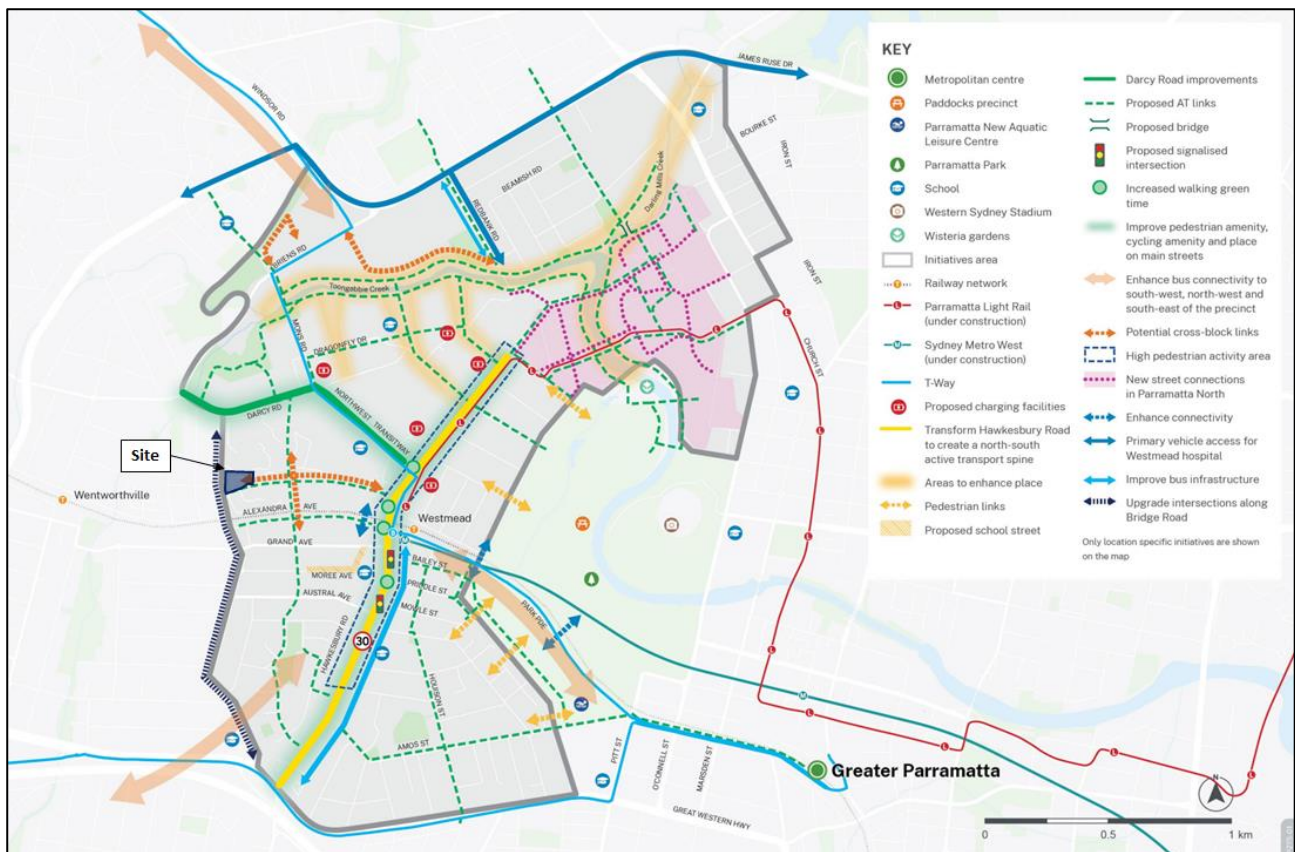


Figure 16: Westmead Transport Strategy Structure Plan<sup>2</sup>

As seen above, the strategy remains consistent with the Westmead Place Strategy 2036 by recommending an active transport link running north-south to the Site's east and along Bridge Road. It also recommends an additional active transport link travelling east-west along the southern boundary of the Site.

## 4.6 Bridge Road Upgrade

Sydney Trains is upgrading the portion of Bridge Road travelling over the railway at Westmead. Key features of the project include:

- an upgraded bridge with three traffic lanes, one northbound and two southbound lanes to ease morning peak hour traffic, this is inclusive of a dedicated southbound left turn into Alexandra Avenue, with the lane extending 15-20m beyond Wentworth Avenue.
- a new shared path on the eastern side and an upgraded footpath on the western side of the bridge.

Main construction works commenced in January 2024, with the project expected to take 3 and a half years to complete.

A plan of the proposed upgrade is presented below.

<sup>2</sup> <https://www.future.transport.nsw.gov.au/documents/westmead-place-based-transport-strategy>

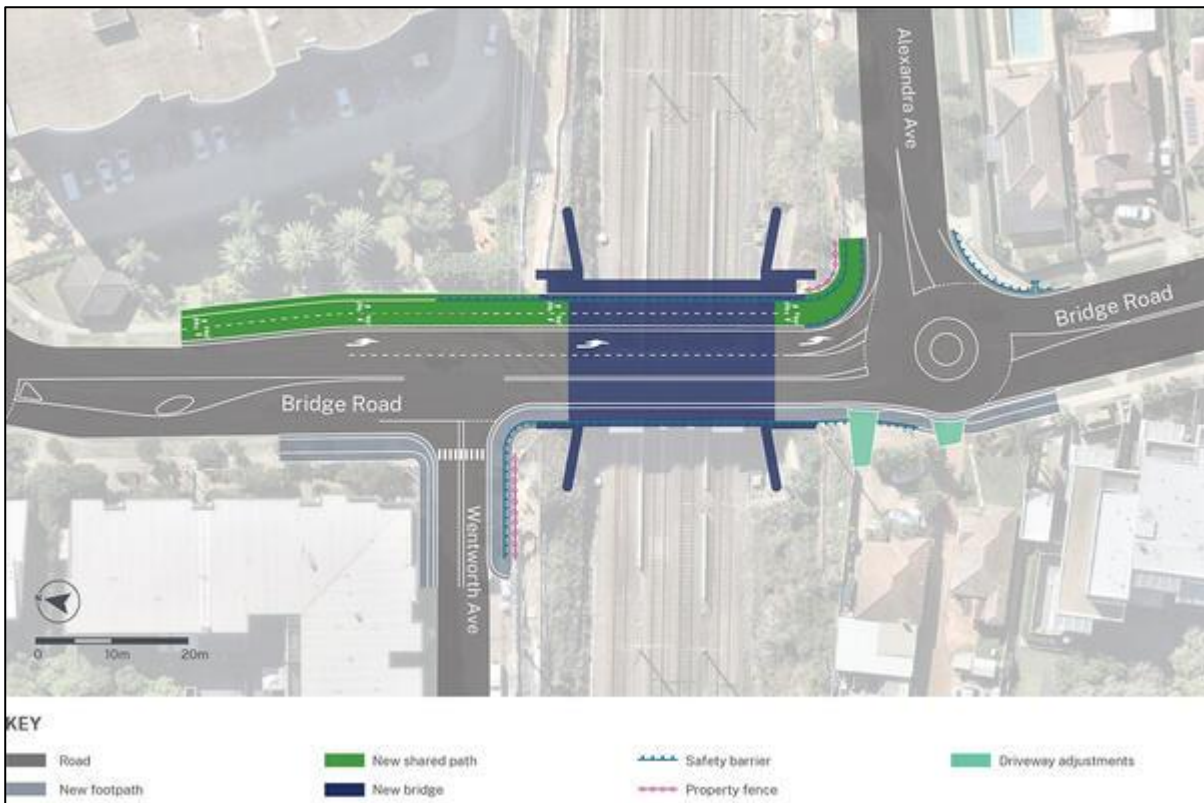


Figure 17: Bridge Road Upgrade

## 4.7 Greater Sydney Regional Plan (2018)

The Greater Sydney Region Plan: *A metropolis of Three Cities – connecting people* (2018) has been produced by the Greater Sydney Commission. Its purpose is to:

*“...rebalance growth and deliver its benefits more equally and equitably to residents across Greater Sydney. The plan aligns land use, transport and infrastructure planning to reshape greater Sydney as three unique cities”*

Based on a vision of three connected cities – the Eastern Harbour City, the Central River City and the Western Parklands City – the Region Plan is structured around strategies for infrastructure, collaboration, liveability, productivity, sustainability and implementation across Greater Sydney. **Figure 18** identifies the key strategies to achieve the outcomes for the Central River City, where the Site is located.

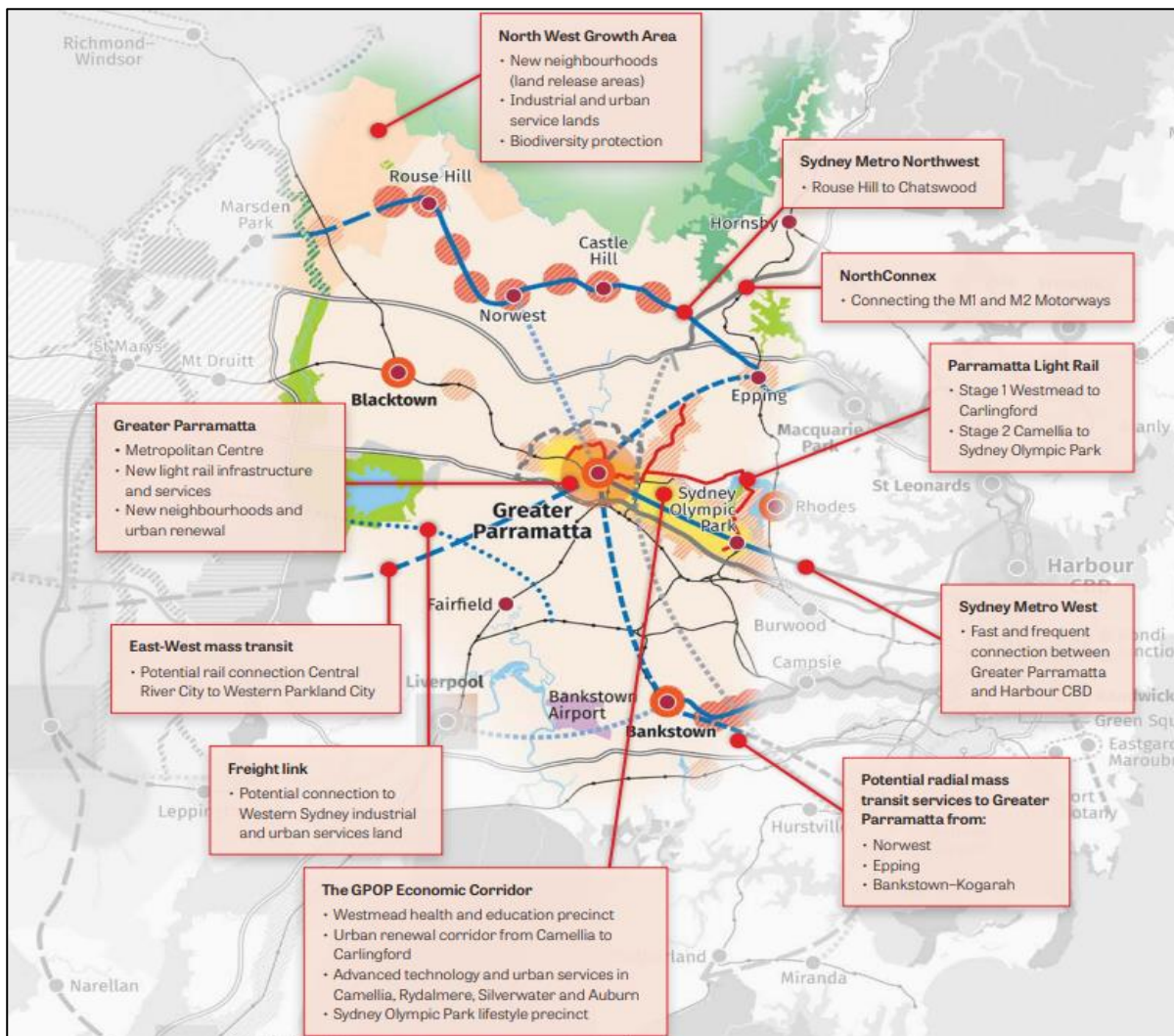


Figure 18: Central River City – Key Strategies

The Region Plan was prepared concurrently with the future Transport Strategy 2056 and the State Infrastructure Strategy to ensure the alignment of land use, transport and infrastructure outcomes for Greater Sydney. It seeks to encourage residential development in close proximity to employment areas to deliver a series of 30-minute cities, providing better access to jobs, schools, and health within 30 minutes of people's homes.

Objective 10 of the Region Plan focuses on “housing the city”, with 0-5 year housing supply targets (2016-2021) for the Central City District set at 53,500 and the 20-year strategic housing target (2016-2036) set to 207,500. As is noted by the Region Plan, good strategic planning can provide new homes in the right places linked with infrastructure:

*“Accommodating homes needs to be linked to local infrastructure – both to optimise existing infrastructure and to maximise investment in new infrastructure.”*

Objective 14 of the Region Plan aims to integrate land use and transport to create walkable and 30-minute cities. One element required to achieve this aim is to co-locate activities in metropolitan, strategic and local centres and attract housing in and around centres to create walkable neighbourhoods.

The Site is ideally located to align with the aims of the Region Plan as it located close to Westmead's residential areas, within the Westmead Precinct which is working to deliver “world-class health, education and research services” (Westmead Alliance) and is less than 3 kilometres from Parramatta CBD making it readily accessible by bus and train. The Site's relationship with the surrounding land uses mean that travel



by non-car modes can easily be encouraged with access to jobs and key services possible within 30 minutes.

Further, a key consideration in the design of the Proposal was creating an enhanced walkable and permeable network. As discussed in the Urban Design report prepared by RobertsDay, a key vision for the Site is to enhance the Green Grid:

*“At the forefront of our proposal is to positively contribute to the community life and liveability factor of Westmead, improving the overall quality of life for future and existing residents. Enhancing the existing green grid connections identified in the Parramatta Ways Walking Strategy and the relationships between open spaces within WID at a micro scale. This will create a more liveable, comfortable and enjoyable places. **New public open spaces, additional tree canopy and improved pedestrian connections will provide greater access to green spaces & promote happier and healthier communities.**”*

## 4.8 Sydney’s Bus Future

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Sydney’s Bus Future, December 2013 outlines the NSW Government’s long term plan for the bus network to meet customer needs. The proposed upgrade for the Sydney bus network will include the addition of new rapid bus routes while maintaining and improving elements of the existing bus network, such as cross-city services on Metro bus routes.

Rapid bus routes will offer faster and more reliable bus travel for commuters between major city centres as extra services are planned to be implemented and bus stops to be further dispersed along routes (generally spaced 800 metres to one kilometre apart). Existing suburban and local service routes will continue to provide commuter access to local, neighbourhood destinations. An additional 20 suburban routes are to be introduced. Proposed network upgrades would fill the gaps in the heavy rail network, strengthening links from the Parramatta region to areas including Norwest, Castle Hill, Macquarie Park, Ryde, Bankstown, and Liverpool.

The proposed rapid bus routes include:

- Castle Hill to Liverpool via Parramatta
- Parramatta to Sydney CBD via Ryde
- Rouse Hill to Hurstville via Parramatta and Bankstown
- Mona Vale to Sydney CBD
- Maroubra Junction to the Sydney CBD
- North Bondi to the Sydney CBD
- Castle Hill to the Sydney CBD.

The proposed rapid bus routes connecting with Parramatta are shown in **Figure 19**.

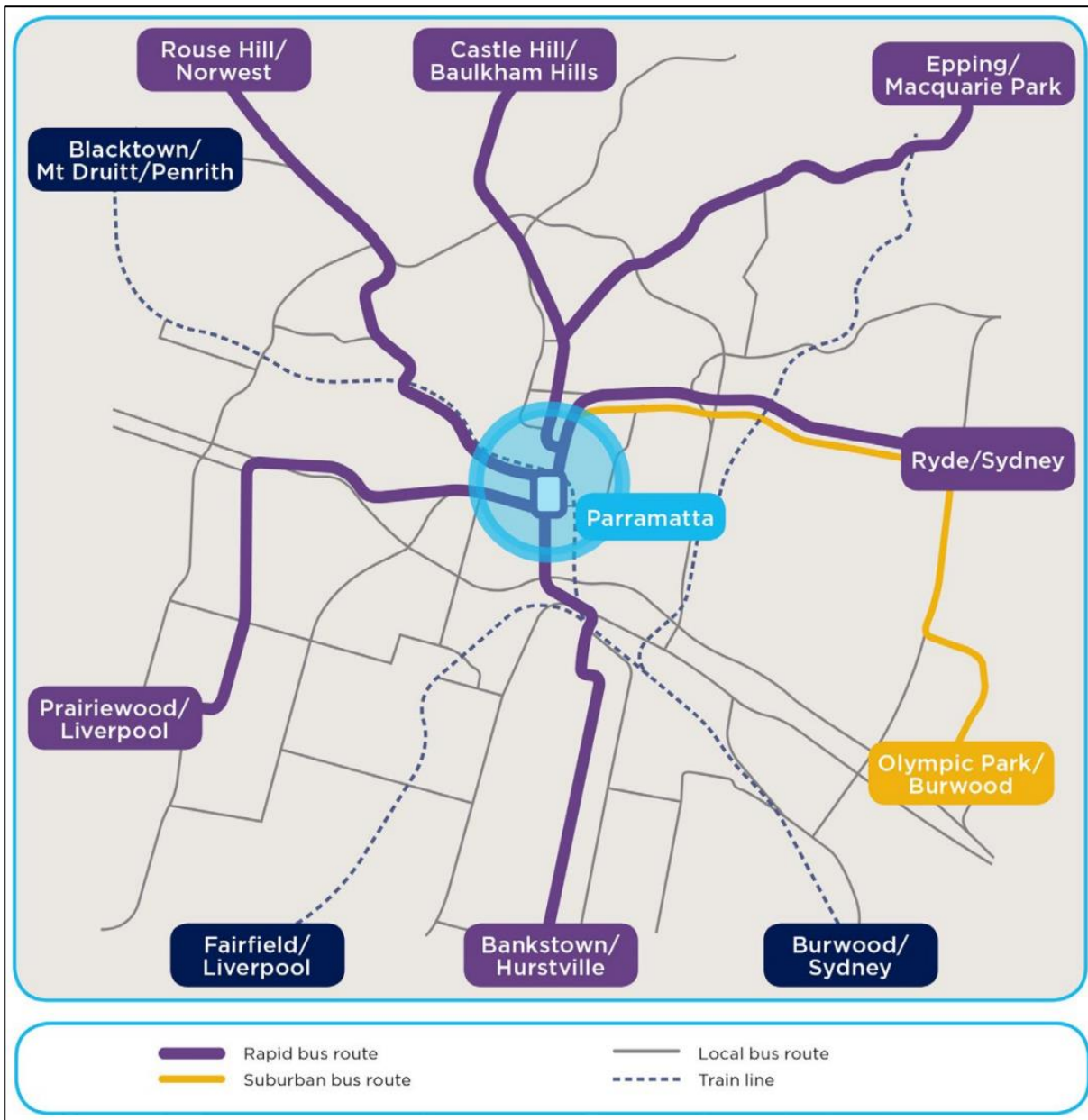


Figure 19: Rapid and Suburban Bus Routes Supporting Parramatta

Transport for NSW (TfNSW) has indicated that future bus timetabling is expected to include significant increases to the number of bus services along the North-West T-way, which extends along Mons Road, east of the Site, and continues down Darcy Road towards Parramatta.

## 4.9 Parramatta Light Rail

Parramatta Light Rail (PLR) is one of the NSW Government's latest major infrastructure projects being delivered to serve a growing Sydney. Stage 1 will connect Westmead to Carlingford via Parramatta CBD and Camellia with a two-way track spanning 12 kilometres. This will be the first stage of the Parramatta Light Rail project and is expected to open in mid-2024, with testing to take place in the first half of 2024. The route will link Parramatta's CBD and Train Station to the Precinct, Parramatta North Urban Transformation Program, the new Western Sydney Stadium, the Camellia Precinct, the new Powerhouse Museum and Riverside

Theatres Cultural Hub, the private and social housing redevelopment at Telopea, Rosehill Gardens Racecourse and three Western Sydney University campuses.

**Figure 20** shows the Stage 1 stops in relation to the Precinct and Site.

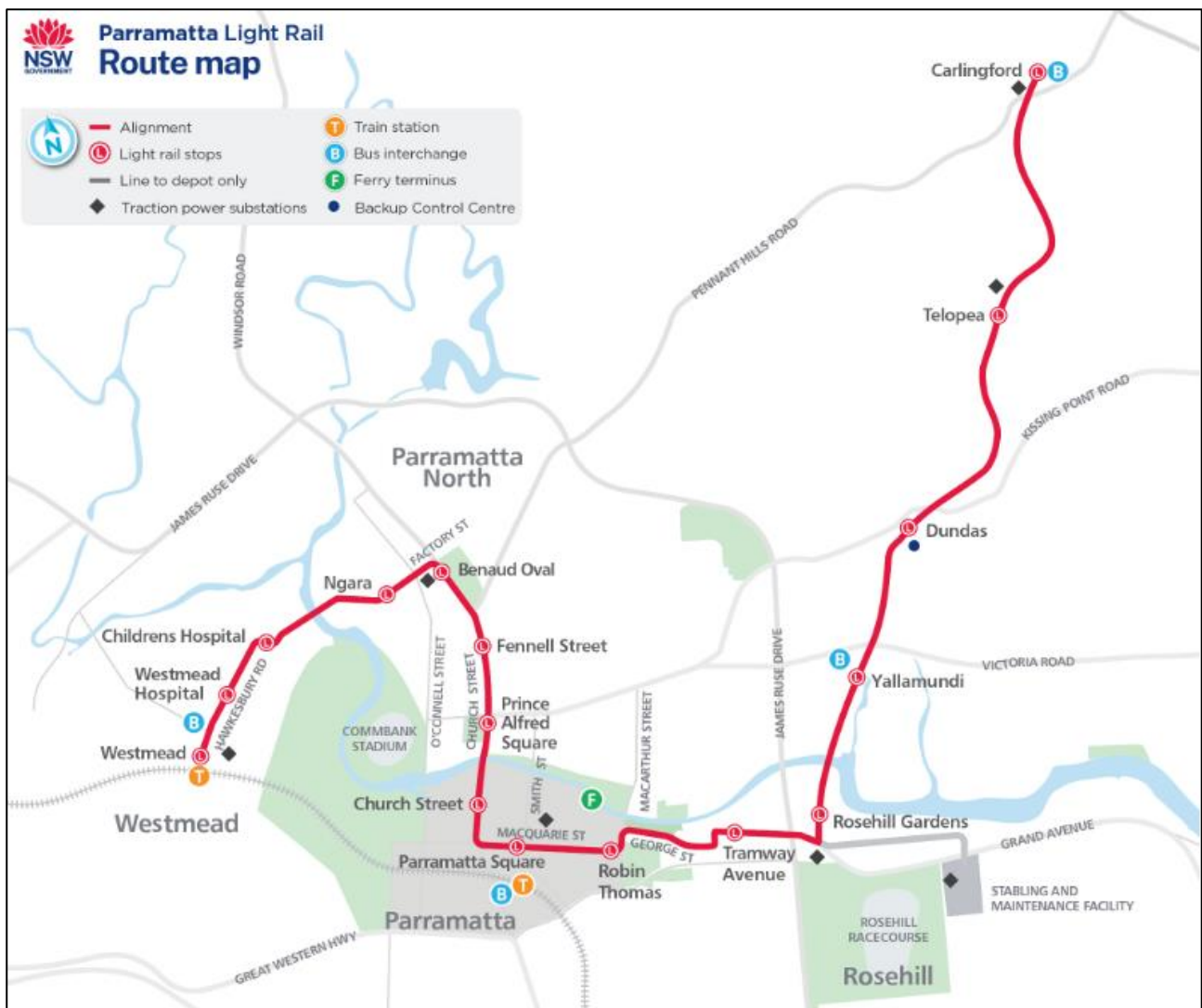


Figure 20: Parramatta Light Rail – Stage 1

In October 2017 the NSW government announced the preferred route for PLR Stage 2, which will connect to Stage 1 and run north of the Parramatta River through the rapidly developing suburbs of Ermington, Melrose Park and Wentworth Point to Sydney Olympic Park, providing a new public transport option to this booming sport, entertainment and employment hub. An option for extending east through Camellia before crossing the Parramatta River to Rydalmere is being considered. Stage 2 will be further developed through consultation with the community and stakeholders. Construction is expected to commence in 2026, with completion expected in 2033.

**Figure 21** shows the proposed routes for Stages 1 and 2, with minor proposed changes under consideration for Stage 2 also shown.

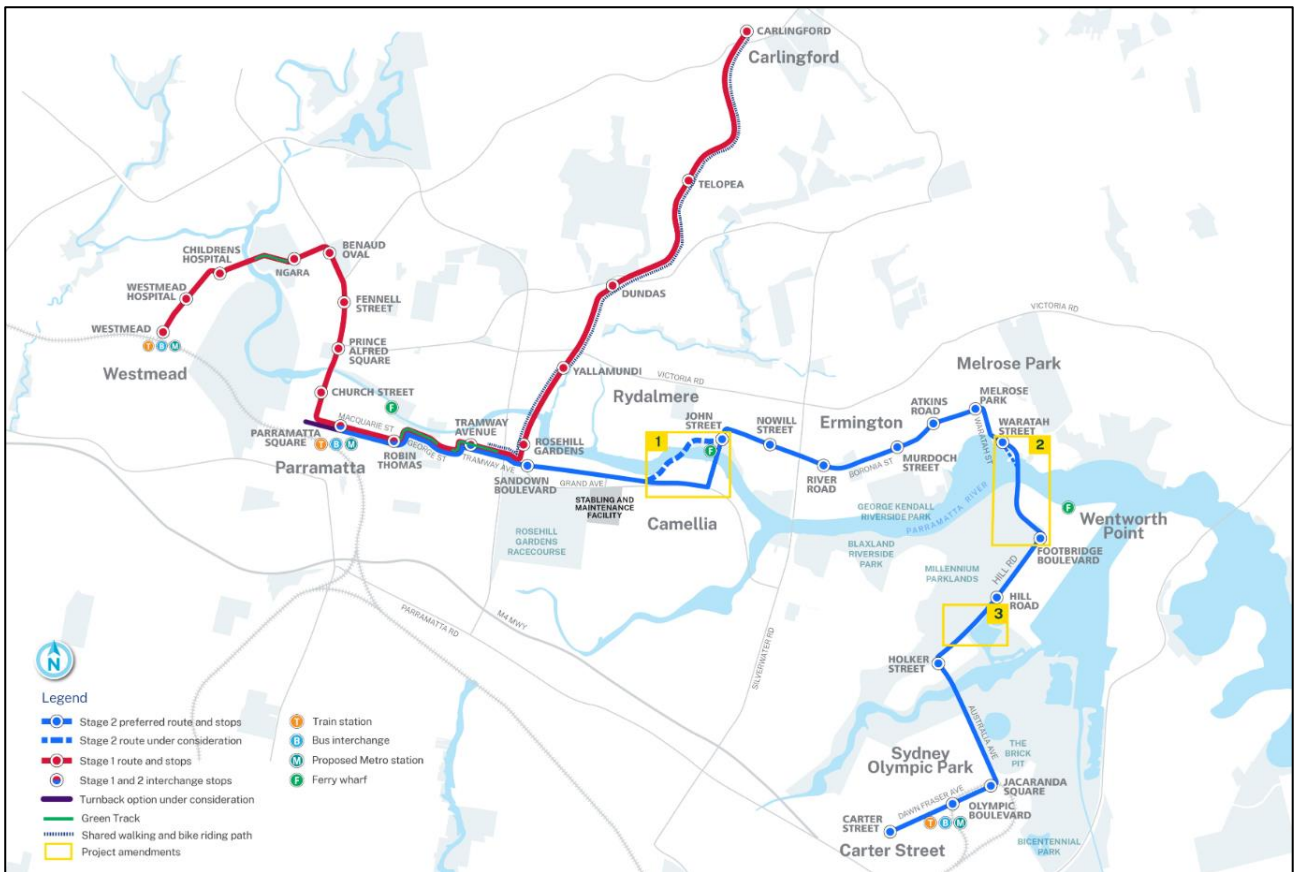


Figure 21: Parramatta Light Rail – Stages 1 and 2

## 4.10 Sydney Metro West

The Sydney Metro West is underground rail system announced by the NSW Government on November 2016. The project aims to provide a high level of connectivity between the key precincts of Greater Parramatta, Sydney Olympic Park, The Bays Precinct and the Sydney CBD. More specifically, the project is a 24-kilometre metro line with stations confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street in the Sydney CBD with construction commencing in 2020, and a forecasted completion in 2032.

**Figure 22** identifies the confirmed stations and route for the Sydney Metro West network.



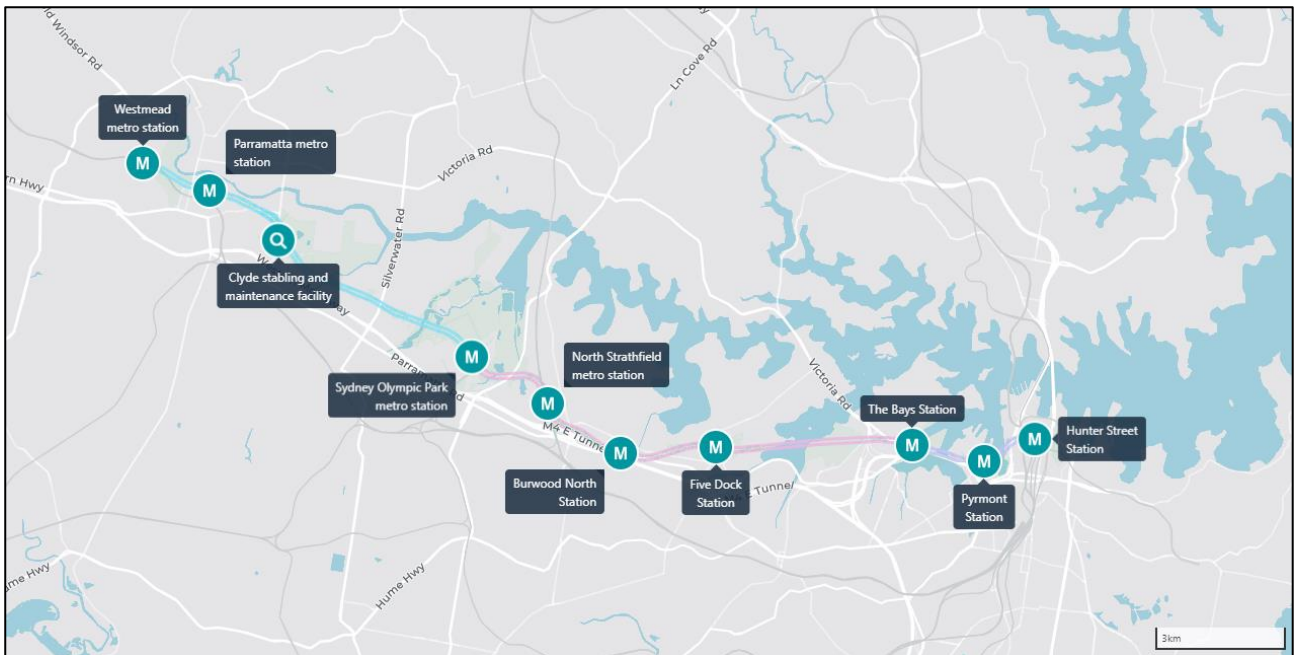


Figure 22: Sydney Metro West Confirmed Route and Stations

## 4.11 Greater Parramatta Growth Area

Greater Parramatta has been recognised as undergoing rapid growth and being currently planned for within the Interim Land Use and Infrastructure Implementation Plan (the Interim Plan). This document was developed in conjunction by the Department of Planning and Environment (DPE), Parramatta Council and the Greater Sydney Commission (GSC). The Interim Plan recognises the strategies, plans and policies to provide a connected, vibrant city with emphasis on homes, jobs, infrastructure, public and active transport.

Locally, Westmead is one of the twelve precincts identified as part of the Greater Parramatta Growth Area to be investigated. The Interim Plan forecasts an increase of approximately 30,000 jobs by 2036 but did not include housing forecasts, noting that planning for the Westmead District is ongoing. For the purpose of consistency, the Interim Plan proposes to establish the Greater Parramatta Priority Growth Area (shown in **Figure 23**) by including it in the State Environmental Planning Policy (Sydney Region Growth Centres) 2006.

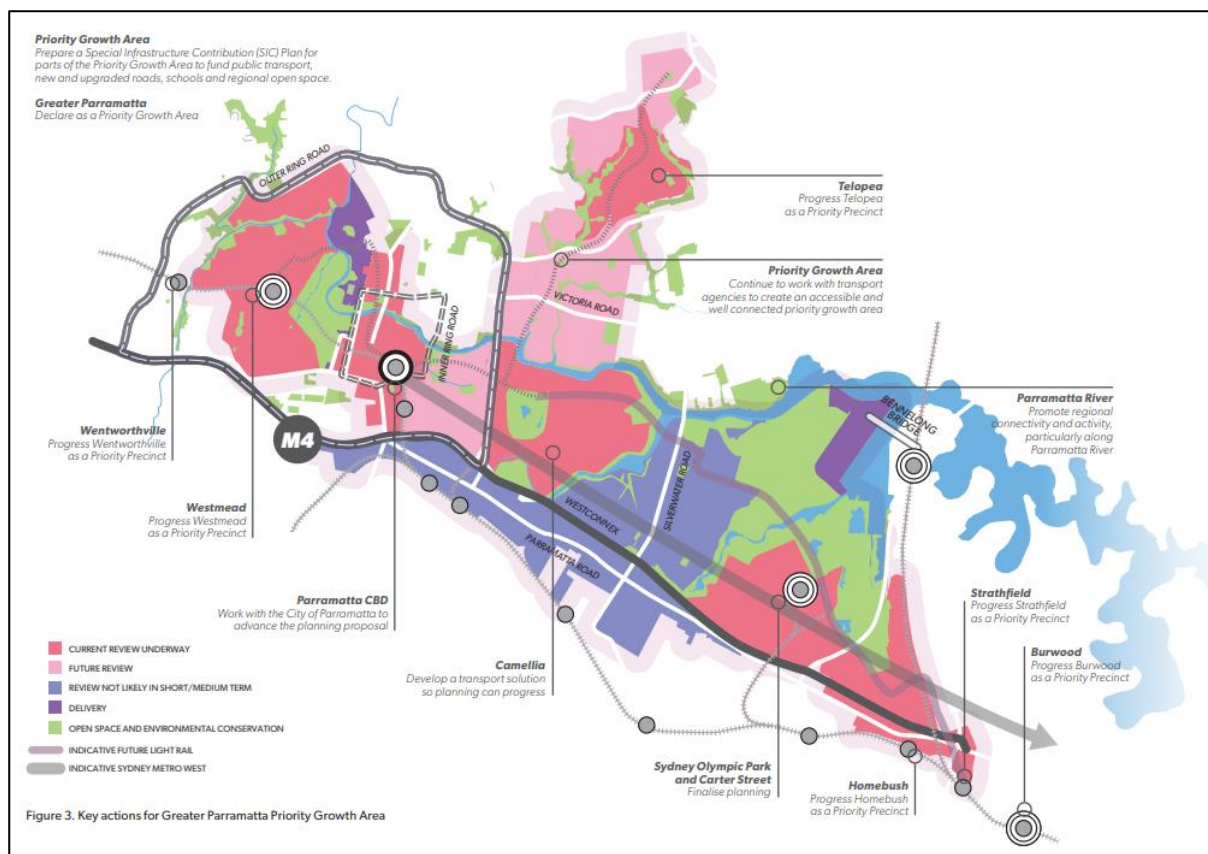


Figure 23: Great Parramatta Growth Area

## 4.12 Greater Parramatta to the Olympic Peninsula (GPOP)

The Greater Parramatta to the Olympic Peninsula (GPOP) has been recognised as undergoing rapid growth and being currently planned for within the Interim Land Use and Infrastructure Implementation Plan (the Interim Plan). This document was developed in conjunction by the Department of Planning and Environment (DPE), Parramatta Council and the Greater Sydney Commission (GSC). The Interim Plan recognises the strategies, plans and policies to provide a connected, vibrant city with emphasis on homes, jobs, infrastructure, public and active transport.

GPOP has been recognised as a growing city by the Greater Sydney Commission (the Commission), with the intention of providing a 20 year plan to ensure that the area can be a successful inner-urban hub. The GPOP area is divided into four areas, as outlined in **Figure 24**:

- Parramatta CBD and Westmead Health and Education Super Precinct;
- Next Generation Living from Camellia to Carlingford;
- Essential Urban Services, Advanced Technology and Knowledge Sectors in Camellia, Rydalmere, Silverwater and Auburn; and
- Olympic Park Lifestyle Super Precinct.

The Commission has collaborated with City of Parramatta Council, institutions, business and the local community throughout 2016 to gather input and feedback for future planning. This approach, named the Growth Infrastructure Compacts, intends to prepare for forecast job and housing growth with a timely and cost effective delivery method.

The Site is located in the Parramatta CBD and Westmead Health and Education Super Precinct. A key objective of the area is to create a '30-minute city,' which is characterised by providing strong connectivity to all areas within the catchment area. It is planned to utilise all forms of transport, such as heavy rail, metro, light rail, road, ferry, cycling and walking.

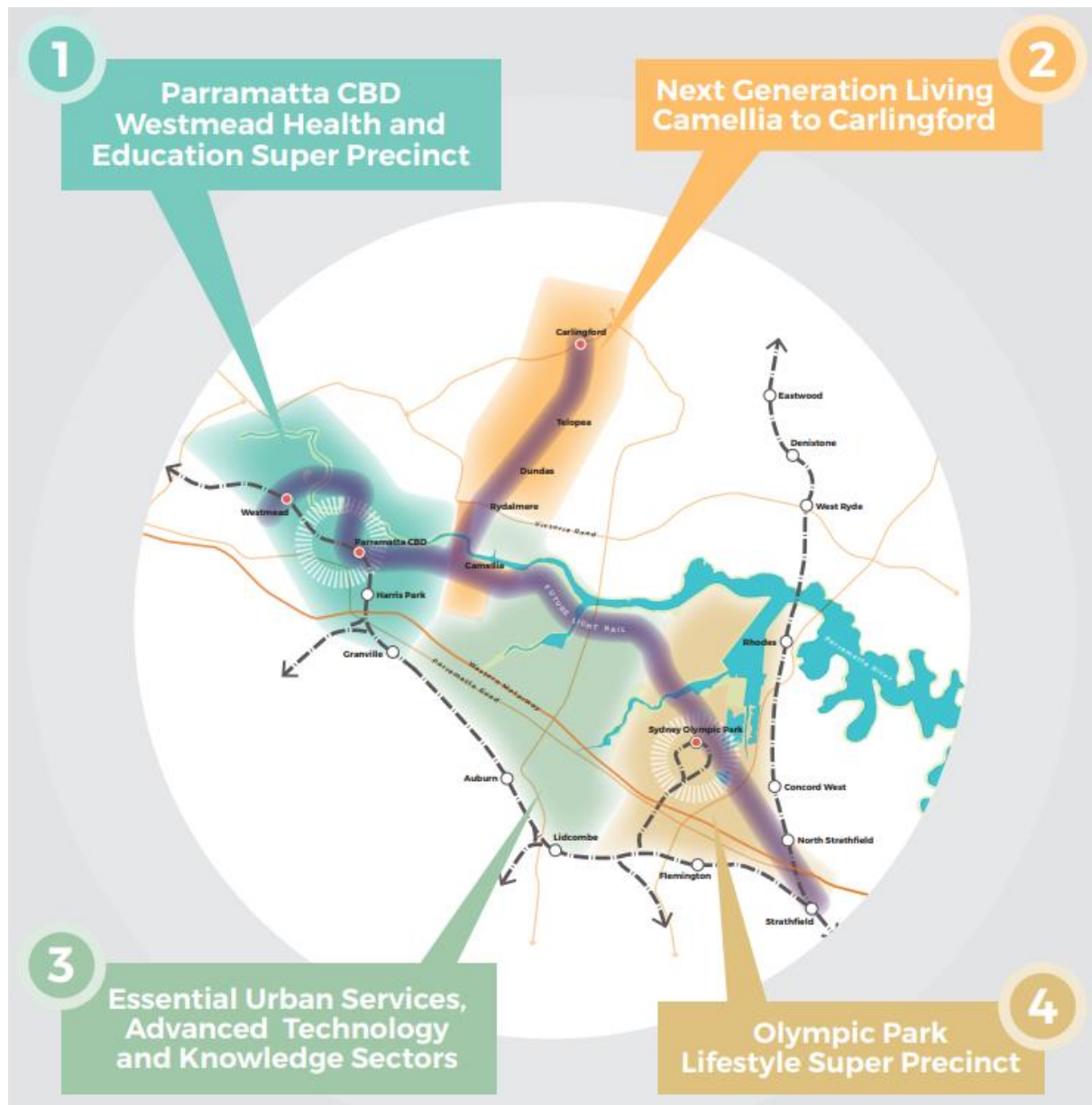


Figure 24: Greater Parramatta to the Olympic Peninsula (GPOP)

## 4.13 TfNSW Future Transport Strategy

The TfNSW Future Transport Strategy, 2022 (FTS) presents the vision for transport in NSW. This strategy is being considered adjacently to the planning directions for the relative Westmead Precinct and GPA strategies. The vision for the FTS is built around 3 state-wide outcomes to aim for, which are the high-level directions the transport infrastructure deliveries within Westmead Precinct (and hence within the vicinity of our Site) should also aim for:

- Connecting our customers' whole lives;
- Successful places for communities; and
- Enabling economic activity.

The FTS provides the following future directions to investigate, relevant to Westmead:

- Apply the "movement and place" approach to match road function with user groups and create better places and communities;
- Aim to plan centres with a greater focus on walking and cycling, as well as public transport priority options;
- Ensure all infrastructure and vehicles are physically accessible by applying inclusive design principles and standards to all infrastructure and service upgrades and new investments;
- Provide safe, quick, and convenient services that offer journey times competitive with private cars;
- Physically separate different road user groups with an expanded network of bus lanes and freight priority where possible; and
- Improve service provision for people with little or no access to transport through the development of flexible, on-demand, and personalised service models.

## 4.14 TfNSW Active Transport Strategy

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The TfNSW Active Transport Strategy, 2022 (ATS) focuses on 5 areas of active transport for NSW's next 20 years. These are also the high-level visions that the deliveries of transport infrastructure within the Westmead Precinct (and hence the vicinity of our subject site) should aim for. These 5 focus areas are listed below:

- Enable 15-minute neighbourhoods (a 15-minute walking trip covers approximately 1km in travel distance);
- Deliver continuous and connected cycling networks;
- Provide safer and better precincts and main streets;
- Promote walking and cycling, and encourage behaviour change; and
- Support our partners and accelerate change.



## 5 Parking Requirements

### 5.1 Car Parking

#### 5.1.1 Council Car Parking Rates

It is noted that, as a PP, consideration to the adequate provision of parking is to be given during the future Development Application stages, at such a time a detailed proposal is developed.

Nevertheless, consideration to the appropriate rates has been given. Reference has been made to the PDCP, Table 6.2.1 – *Minimum car parking rates*, which stipulates the following car parking rates applicable to the market housing component of the Proposal.

**TABLE 8: CAR PARKING RATES**

Use	Parramatta DCP (not within an accessible area)	Parramatta DCP (within an accessible area)
Studio	0.6 spaces per unit	-
1-bedroom	1.0 spaces per unit	0.6 spaces per unit
2-bedroom	1.25 spaces per unit	0.9 spaces per unit
3-bedroom	1.5 spaces per unit	1.4 spaces per unit
Visitors	0.25 spaces per unit	0.2 spaces per unit

With respect to the public transport network, the Site currently meets criteria for being land within an accessible area, noting that it is 800m from Westmead Station:

*“within 800 metres walking distance of a train station or light rail stop, or not within 400 metres walking distance of a transitway bus stop”*

It is also noted the active transport connections identified in the Westmead Place Based Transport Strategy will create mid-block connections reducing the distances to Westmead Station and the T-Way stop, facilitating a shift towards active and public transport usage.

Further, as mentioned in Section 4.6, the Site is currently serviced by excellent bus connections, being within 600m walking distance of a T-Way stop and within 400m walking distance of a bus stop.

As such, the Site being classified for “within an accessible area” car parking rates are deemed appropriate for the Site. Restrictive parking policies assist in travel mode shifts towards active and public transport usage. Given that the Site is well serviced by public transport, and the connectivity it has to the wider Westmead Precinct (which provides numerous amenities), adoption of more restrictive rates is considered appropriate.

#### 5.1.2 State Environmental Planning Policy

Section 18 (Non-discretionary development standards) of Part 2 (Development for affordable housing) within Chapter 2 of the State Environmental Planning Policy (Housing) 2021 (Housing SEPP) is the applicable planning instrument for the affordable housing component of the Proposal, which outlines the parking rates per dwelling.

With respect to the public transport network, the Site currently meets criteria for being within an accessible area, that is:

*“(c) 400m walking distance of a bus stop used by a regular bus service, within the meaning of the Passenger Transport Act 1990, that has at least 1 bus per hour servicing the bus stop between—*

*(i) 6am and 9pm each day from Monday to Friday, both days inclusive, and*

*(ii) 8am and 6pm on each Saturday and Sunday.”*

As such, the following car parking rates are applicable to the affordable housing component of the Proposal.

TABLE 9: SEPP CAR PARKING RATES	
Use	Rate
1-bedroom	At least 0.4 spaces per unit
2-bedroom	At least 0.5 spaces per unit
3-bedroom	At least 1.0 space per unit

### 5.1.3 Accessible Car Parking

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The PDGP Section 6.2, Control C.28 references the National Construction Code (NCC 2019) for provision of accessible parking. Table D3.5 of the NCC 2019 requires that accessible parking be provided at a rate of 1 space per 50 carparking spaces or part thereof.

### 5.1.4 Car Share

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The PDGP, Section 6.1.1, states the following controls relevant to the Site:

*“C.01: 1 carshare parking space is to be provided for any residential development containing more than 50 residential units and is within the Parramatta City Centre, Epping, Westmead, Granville and Harris Park town centres where maximum parking rates are applied.*

*C.04: 1 carshare space can be provided in lieu of 3 car parking spaces.”*

### 5.1.5 Electric Vehicle (EV) Charging

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The PDGP does not state any requirements for dedicated EV charging spaces. Section 6.1.3, Control C.01 a) does however state the following:

*“All residential accommodation (excluding dwelling houses, secondary dwellings and dual occupancy) car parking must:*

- a) provide an EV ready connection to at least one car space for each dwelling/apartment*
- d) All car share spaces and spaces allocated to visitors must have a shared EV connection”*

While it is a consideration for a future DA stage, EV charging will be provided for within any future development.

## 5.2 Bicycle Parking

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Reference is made to the PDCP, Table 6.3.1 – Minimum bicycle parking rates, which stipulates the following minimum bicycle parking rates applicable to the Site.

- Residential flat buildings and the residential component of Mixed-use development - 1 space per dwelling, plus 1 space per 10 dwellings for visitors.

In accordance with Control C.02, all numbers shall be rounded up to the nearest whole number.

# 6 Transport Assessment

## 6.1 Person Trips

In considering the overall transport impact of the development, the total person trips expected to be generated by the Reference Scheme have been considered.

Reference has been made to the TfNSW Guide Update for considering the expected person trips for the Proposal. Of specific consideration in determining appropriate sites for the was proximity to public transport, shopping, an expectation of trips spread more evenly throughout the day (see Section 6.1.1) and its high-density residential nature.

With reference to the site selection criteria outlined above, the person trip rates from the following developments were used:

- 13 Herbert Street, St Leonards;
- 8-12 Waratah Street, Cronulla; and
- 2 Everton Road, Strathfield.

A summary of the trip rates is provided in **Table 10**.

TABLE 10: PERSON TRIP RATE SUMMARY		
Estate	AM Site Person Trip Rate per Unit	PM Site Person Trip Rate per Unit
St Leonards	0.64	0.54
Cronulla	0.32	0.14
Strathfield	0.52	0.42
Average	0.49	0.37

Application of the above rates to the provision of 398 apartments as envisaged for the Planning Proposal yields the following peak person trips for the Proposal:

- AM Peak: 252 person trips per unit
- PM Peak: 187 person trips per unit

### 6.1.1 Future Mode Share

The 2030 mode share for peak hour commuter trips to and from the Proposal have been assumed with consideration to the following:

- Noting the Site is within the Westmead Precinct, a high proportion of residents are expected to work within the Precinct and more specifically in health, as such a there is an expectation there will be a high proportion of shift workers, reducing vehicular travel during the peak periods.



- The Site has good pedestrian connectivity as mentioned in Section 3.7.3, with further upgrades proposed to the active transport infrastructure surrounding the Site (Section 3.7.2), a shift towards higher public transport and active transport usage is therefore expected.
- With a high proportion of residents expected to work within the Precinct, it is also expected there will be a higher proportion of residents carpooling with each other to reach their workplace within the Precinct.
- The completion of the Parramatta Light Rail Stage 1 and the Sydney Metro West project (Section 4.10), likely to facilitate higher train usage for workers travelling to major employment hubs such as Parramatta and the Sydney CBD.

**Table 11** compares the 2031 forecasted site mode share with the 2016 SA2 mode share (omitting “other”, approximately 2% of the mode share) and the Westmead Place Based Transport Strategy 2031 mode share target.

**TABLE 11: MODE SHARE COMPARISON**

Travel Mode <sup>1</sup>	2016 SA2 Mode Share	Transport Strategy 2031 Mode Share	2031 Site Mode Share
Car (as driver)	60%	45%	40%
Car (as passenger)	3%	24%	14%
Active Transport	16%	13%	17%
Public Transport	30%	18%	24%

With reference to the above, the forecasted mode share for the Site is expected to be generally in between the 2016 ABS Census and 2031 Transport Strategy.

The table applies the 2031 site mode share to the forecasted person trips stipulated above in Section 6.1.

**TABLE 12: FORECASTED MODE SHARE**

Travel Mode <sup>1</sup>	Mode Share %	AM Trips	PM Trips
Car (as driver)	40%	101	75
Car (as passenger)	14%	35	26
Active Transport	17%	43	32
Public Transport	24%	60	45

## 6.2 Active Transport

As mentioned in 4.5, the Westmead Place Based Transport Strategy identified potential active transport links within close proximity of the Site, with an east-west connection along the southern boundary and a north-south connection to the east. This presents an opportunity for the Proposal to contribute to these links as they will reduce travel times to and from Westmead Station, creating a more permeable environment.

Furthermore, it is noted Bridge Road acts as one of the main vehicle movement corridors within Westmead. The current lack of pedestrian crossing opportunities mean that Bridge Road acts a barrier to pedestrian movement.

The Site is located to the east of Bridge Road, with public transport amenity and the vast majority of the Westmead Precinct located further east. It is therefore strategically well placed to deliver higher density residential development.

## 6.3 Public Transport

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With reference to Table 12, an additional 60 people in the AM peak and 45 people in the PM peak are expected to use public transport. With the majority of these trips expected to be via train (consistent with the existing mode share in 3.8.1), these additional trips are expected to have a negligible impact on the existing public transport network mentioned in 3.6.

Further to the above, the existing pedestrian network identified in 3.7.3 currently provides sufficient connections to the existing public transport services.

# 7 Traffic Impact Assessment

## 7.1 Trip Generation

The traffic generation rates for adoption for documented in the MMR submitted to both Council and TfNSW. These rates were derived from the TfNSW Guide Update, which stipulates trip rates for high density residential flat buildings.

The relevant rates are as follows:

- Vehicle trips per unit:
  - AM Peak: 0.19 veh/h
  - PM Peak: 0.15 veh/h

No commentary was received on the MMR, therefore it is considered that adoption of the above rates is appropriate.

Application of the above rates to the proposed yield of 486 apartments results in the following traffic generation:

**TABLE 13: FORECAST TRAFFIC GENERATION**

Use	Yield	Peak Period	Trip Generation Rate	Trips
Trips per Unit	486 Apartments	AM	0.19 trips per unit	92
		PM	0.15 trips per unit	73

With reference to the above, the forecasted trips are consistent with the forecasted car as driver trips for 2031 of 101 in the AM peak and 75 in the PM peak, mentioned in Section 6.1.1.

While the Proposal is expected to generate 92 trips in the AM peak and 73 trips in the PM peak, it is noted the SIDRA intersection modelling undertaken for the future cases (see Section 7.3) is based on a previous, more conservative apartment yield of 510 apartments.

Application of the above rates to the previous yield of 510 apartments results in the following traffic generation:

**TABLE 14: CONSERVATIVE TRAFFIC GENERATION**

Use	Yield	Peak Period	Trip Generation Rate	Trips
Trips per Unit	510 Apartments	AM	0.19 trips per unit	97
		PM	0.15 trips per unit	77

Taking into account the existing traffic generation of the Site (16 veh/hr in the peak period), the following total trips has been assessed as part of the SIDRA analysis undertaken:

- 81 veh/hr during the morning peak; and
- 61 veh/hr during the evening peak.

## 7.2 Development Trip Distribution and Assignment

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With regard to the local road network, the trips have been distributed onto the surrounding road network based on the following information:

- Access to the major movement corridors surrounding the Site.
- Traffic surveys undertaken on Thursday 30 November 2023 and Friday 1 December 2023.
- TfNSW Strategic Traffic Forecasting Model (STFM) outputs.

The following Inbound/Outbound splits have been assumed to distribute the trips.

- AM Peak:
  - 25% Inbound
  - 75% Outbound
- PM Peak:
  - 75% Inbound
  - 25% Outbound

**Figure 25** and **Figure 26** below identify the trip distribution based on the above assumptions.



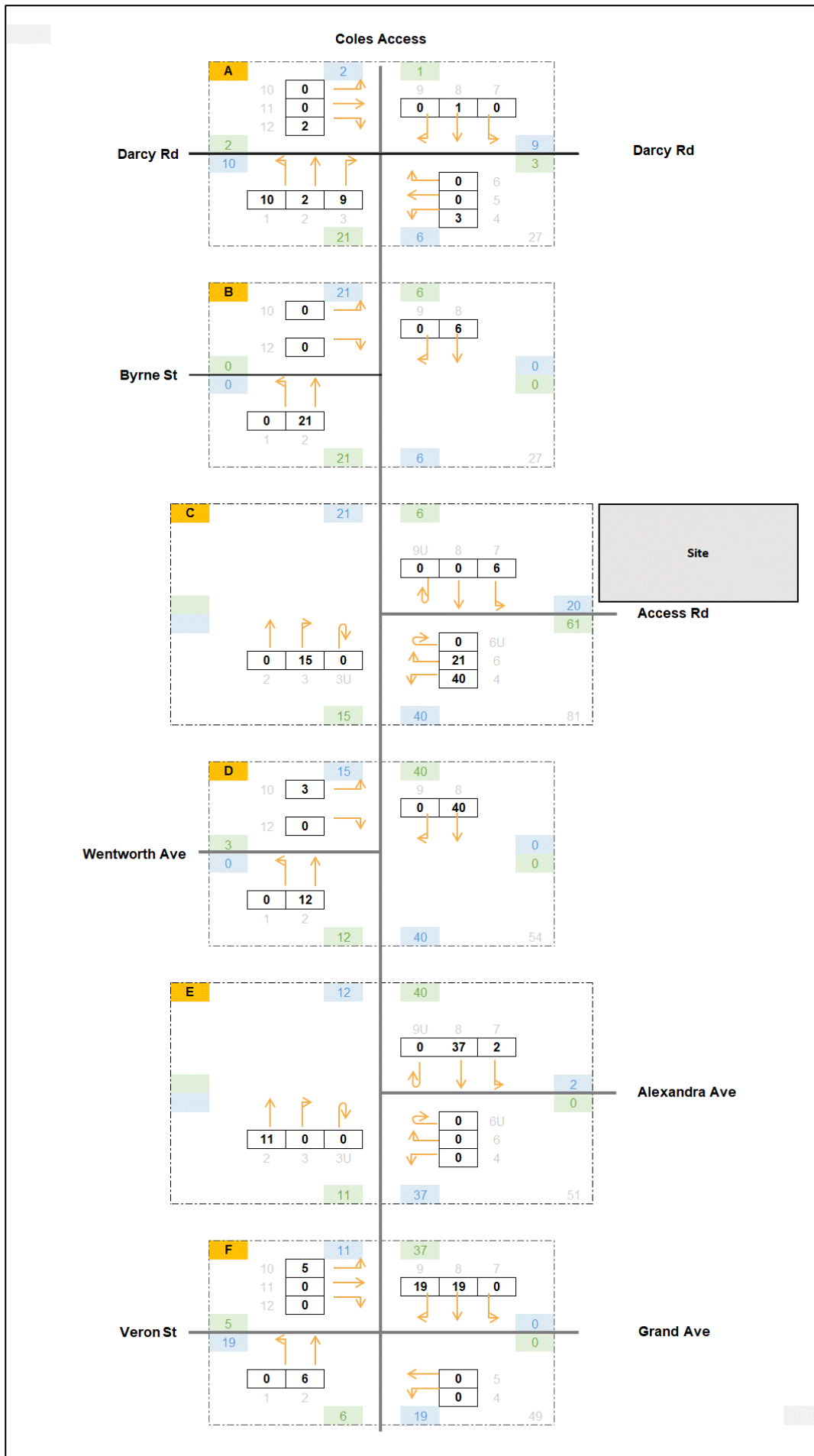
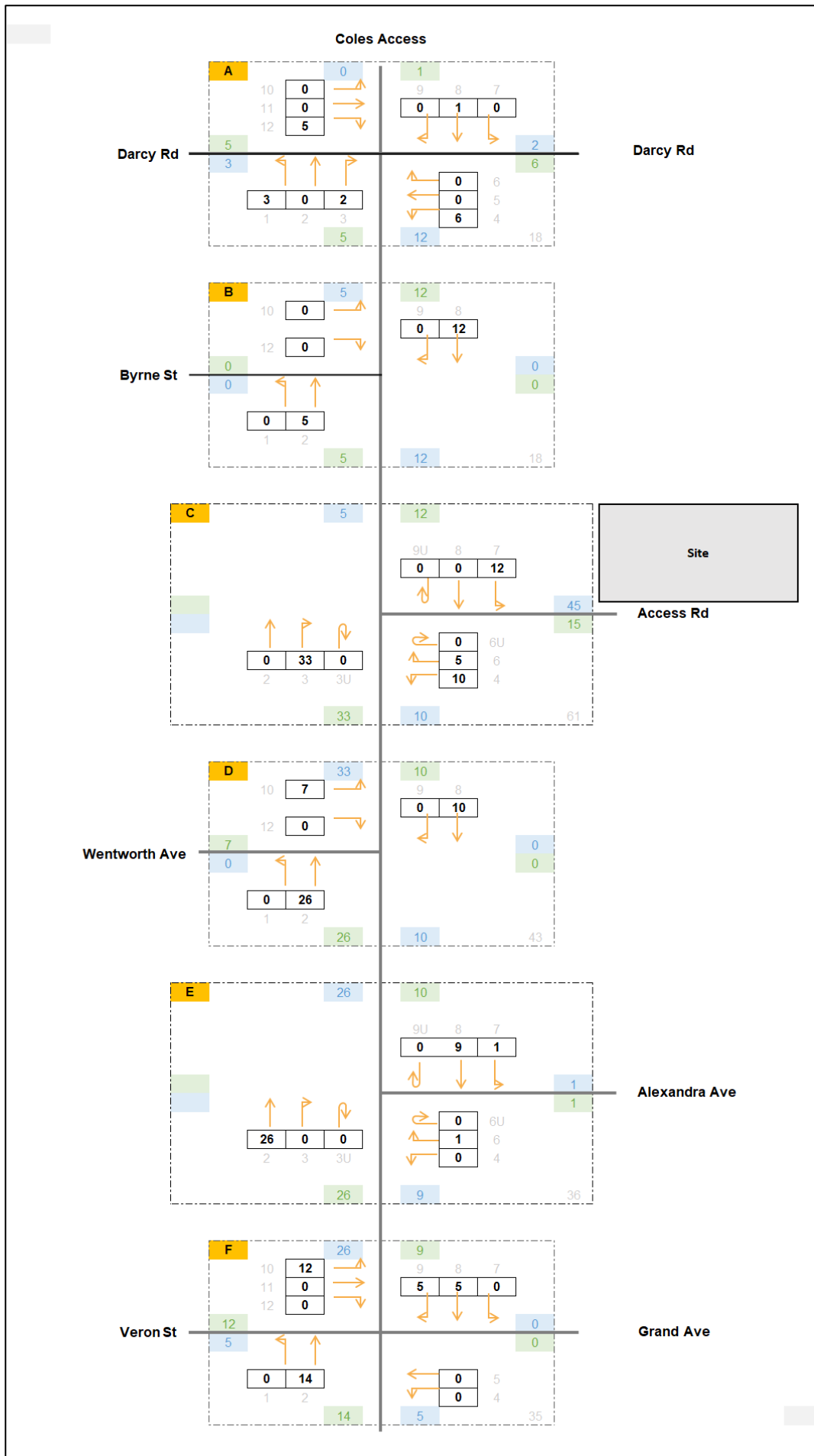


Figure 25: Trip Distribution - AM Peak

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## 7.3 SIDRA Intersection Analysis

### 7.3.1 Scenarios

As per the Modelling Report, the following scenarios have been assessed:

- Base Case – Existing Baseline (see Section 3.4).
- Future Base Case 2026 – Existing Baseline (2023) + Background Growth.
- Project Case 2026 – Existing Baseline (2023) + Background Growth + Development Traffic.
- Future Base Case 2036 – Existing Baseline (2023) + Background Growth
- Project Case 2036 – Existing Baseline (2023) + Background Growth + Development Traffic.
- Project Case 2026 and 2036 with Mitigations – Existing Baseline (2023) + Background Growth + Development Traffic + Mitigations.

It is noted the existing configuration of the road network has been modelled given the Bridge Road upgrade is expected to commence in early 2024, becoming operational in 2027.

### 7.3.2 Future Base Case 2026

The performance of the key intersections for the future baseline (2026) scenario are presented below.

TABLE 15: 2026 BASELINE INTERSECTION PERFORMANCE				
Intersection	Period	DOS	AVD	LOS
Darcy Road / Bridge Road	AM	0.85	47.8	D
	PM	0.77	37.0	C
Bridge Road / Access Road	AM	0.50	10.4	A
	PM	0.71	13.1	A
Bridge Road / Alexandra Avenue	AM	1.00	57.4	E
	PM	1.32	304.3	F
Bridge Road / Veron Street / Grand Avenue	AM	0.90	30.6	C
	PM	1.02	35.4	C
Bridge Road / Wentworth Avenue	AM	0.80	32.4	C
	PM	0.96	60.1	E
Bridge Road / Byrne Street	AM	0.35	16.4	B
	PM	0.67	20.9	B

The SIDRA analysis indicates that, the Bridge Road / Alexandra Avenue will operate at “capacity” in the AM peak and perform “unsatisfactorily” the PM peak with reference to the RTA Guidelines. Of note is also the Bridge Road / Wentworth Avenue intersection operating at “capacity” during the PM peak, and Darcy Road / Bridge Road, operating “near capacity” during the AM peak.



This can primarily be attributed to southbound queues forming along Bridge Road due to insufficient capacity of the Alexandria Avenue roundabout and the signalised intersection at Grand Avenue and Veron Street.

### 7.3.3 Project Case 2026

The performance of the key intersections for the for the Project Case 2026 is provided below.

TABLE 16: 2026 PROJECT CASE INTERSECTION PERFORMANCE				
Intersection	Period	DOS	AVD	LOS
Darcy Road / Bridge Road	AM	0.88	41.3	C
	PM	0.86	33.4	C
Bridge Road / Access Road	AM	0.52	10.7	A
	PM	0.76	13.2	A
Bridge Road / Alexandra Avenue	AM	1.08	108.0	F
	PM	1.33	305.2	F
Bridge Road / Veron Street / Grand Avenue	AM	0.85	31.4	C
	PM	0.86	32.3	C
Bridge Road / Wentworth Avenue	AM	0.89	42.3	D
	PM	1.04	98.2	F
Bridge Road / Byrne Street	AM	0.37	16.9	B
	PM	0.77	21.6	B

The 2026 results highlight that the performance of several intersections, forecasted to operate beyond their design capacity in the base case, experiences a slight deterioration in terms of the degree of saturation; even though the additional trips are relatively modest when compared to the overall traffic volumes.

Specifically, the priority-controlled intersection at Wentworth Avenue exhibits poor performance (also observed in Base Case), primarily attributed to right-turning vehicles unable to find suitable gaps due queues along Bridge Road in both directions. Whilst the upgrade to Bridge Road will assist in alleviating congestion along Bridge Road, the future 2036 cases assessed (discussed below) still demonstrate that both the left and right movements out of Wentworth Avenue would operate poorly, with the addition of the right turn into Wentworth Avenue also performing poorly. Therefore, wider consideration by Council would likely be required as to the treatment of the intersection (i.e. a ban of right-turn movements).

The Alexandria Avenue roundabout operates beyond its design capacity. As discussed, the congested nature of the intersection relates to the southbound movements and queues from the Vernon Road signals. The upgrade to Bridge Road, across the railway bridge, will assist in alleviating its congestion. This is occurring regardless of the development.

### 7.3.4 Future Base Case 2036

The performance of the key intersections for the future baseline (2036) scenario is presented in Table 17.

As previously mentioned, the modelling was completed with the existing configuration of the road network, not incorporating the Bridge Road upgrade.

**TABLE 17: 2036 BASELINE INTERSECTION PERFORMANCE**

Intersection	Period	DOS	AVD	LOS
Darcy Road / Bridge Road	AM	1.00	75.0	F
	PM	0.89	45.3	D
Bridge Road / Access Road	AM	1.12	116.8	F
	PM	0.80	15.0	B
Bridge Road / Alexandra Avenue	AM	1.14	150.8	F
	PM	1.40	371.0	F
Bridge Road / Veron Street / Grand Avenue	AM	0.97	38.1	C
	PM	1.14	57.2	E
Bridge Road / Wentworth Avenue	AM	1.12	154.5	F
	PM	1.53	520.3	F
Bridge Road / Byrne Street	AM	0.38	21.7	B
	PM	1.00	27.1	B

The SIDRA analysis indicates the road network will operate poorly irrespective of any development traffic when compared to the 2026 baseline scenario. The Darcy Road / Bridge Road and Bridge Road / Access Road intersections will operate “unsatisfactorily” in 2036 in the AM Peak with Bridge Road / Wentworth Avenue and Bridge Road/ Alexandra Avenue expected to operate “unsatisfactorily” during both peak periods. As mentioned, this is due to congestion and extensive southbound queues along Bridge Road.

### 7.3.5 Project Case 2036

The performance of the key intersections for the for the Project Case 2036 is provided below.

**TABLE 18: 2036 PROJECT CASE INTERSECTION PERFORMANCE**

Intersection	Period	DOS	AVD	LOS
Darcy Road / Bridge Road	AM	1.06	102.7	F
	PM	0.89	47.2	D
Bridge Road / Access Road	AM	1.12	115.6	F
	PM	1.63	572.9	F
Bridge Road / Alexandra Avenue	AM	1.22	222.3	F
	PM	1.11	115.4	F
Bridge Road / Veron Street / Grand Avenue	AM	0.87	37.2	C
	PM	0.87	33.4	C
Bridge Road / Wentworth Avenue	AM	1.19	211.5	F
	PM	0.75	26.3	B
Bridge Road / Byrne Street	AM	0.37	21.4	B

	PM	1.02	29.6	C
--	----	------	------	---

In 2036, most intersections along Bridge Road show poor performance due to extensive southbound queuing. The Darcy Road / Bridge Road signalised intersection fails during the morning peak due to northbound queues and high eastbound demands, operating at a LOS F.

While the Site Access roundabout possesses sufficient capacity to accommodate anticipated future traffic volumes, the efficacy of its performance is compromised by queuing issues along Bridge Road, stemming from capacity constrained upstream intersections. Consequently, the Site Access roundabout also registers a LOS F due to the adverse impact of these upstream conditions.

### 7.3.6 SIDRA Intersection Modelling Summary

**Table 19** presents a summary of the impacts of the Proposal's traffic in 2026 and 2031, under the existing conditions (i.e. no Bridge Road upgrade).

TABLE 19: PROPOSAL IMPACTS IN 2026 AND 2036							
Intersection	Period	Difference (2026)			Difference (2036)		
		DOS	AVD	LOS	DOS	AVD	LOS
Darcy Road / Bridge Road	AM	0.02	-7	D to C	0.06	28	
	PM	0.08	-4		0.00	2	
Bridge Road / Access Road	AM	0.02	0		0.00	-1	
	PM	0.06	0		0.83	558	B to F
Bridge Road / Alexandra Avenue	AM	0.08	51	E to F	0.09	72	
	PM	0.00	1		-0.29	-256	
Bridge Road / Veron Street / Grand Avenue	AM	-0.05	1		-0.10	-1	
	PM	-0.16	-3		-0.27	-24	E to C
Bridge Road / Wentworth Avenue	AM	0.09	10	C to D	0.07	57	
	PM	0.08	38	E to F	-0.79	-494	F to B
Bridge Road / Byrne Street	AM	0.02	1		-0.01	0	
	PM	0.11	1		0.02	3	B to C

The Proposal's development traffic is expected to have a minor impact overall on the surrounding road network, contributing to increased delays and queueing. There is an increase of 558 seconds to the Bridge Road / Access Road intersection, primarily due to southbound traffic along Bridge Road extending to the intersection, indicated by a reduction to the Bridge Road / Wentworth Avenue intersection by 494 seconds and the bridge Road Alexandra Avenue by 256 seconds.

It is however noted the network is expected to be congested regardless of the Proposal's traffic, with upgrades required.

### 7.3.7 Project Case 2026 and 2036 with Mitigations

Noting that Bridge is being upgraded, an assessment of the road network has also been undertaken which account for these upgrades. The analysis undertaken has demonstrates that parking restrictions along Bridge Road would further assist in alleviating congestion. Noting that Bridge Road is expected to form a movement corridor, it is expected that parking restrictions, or implementation of clearways during peak hours, would be entirely appropriate.

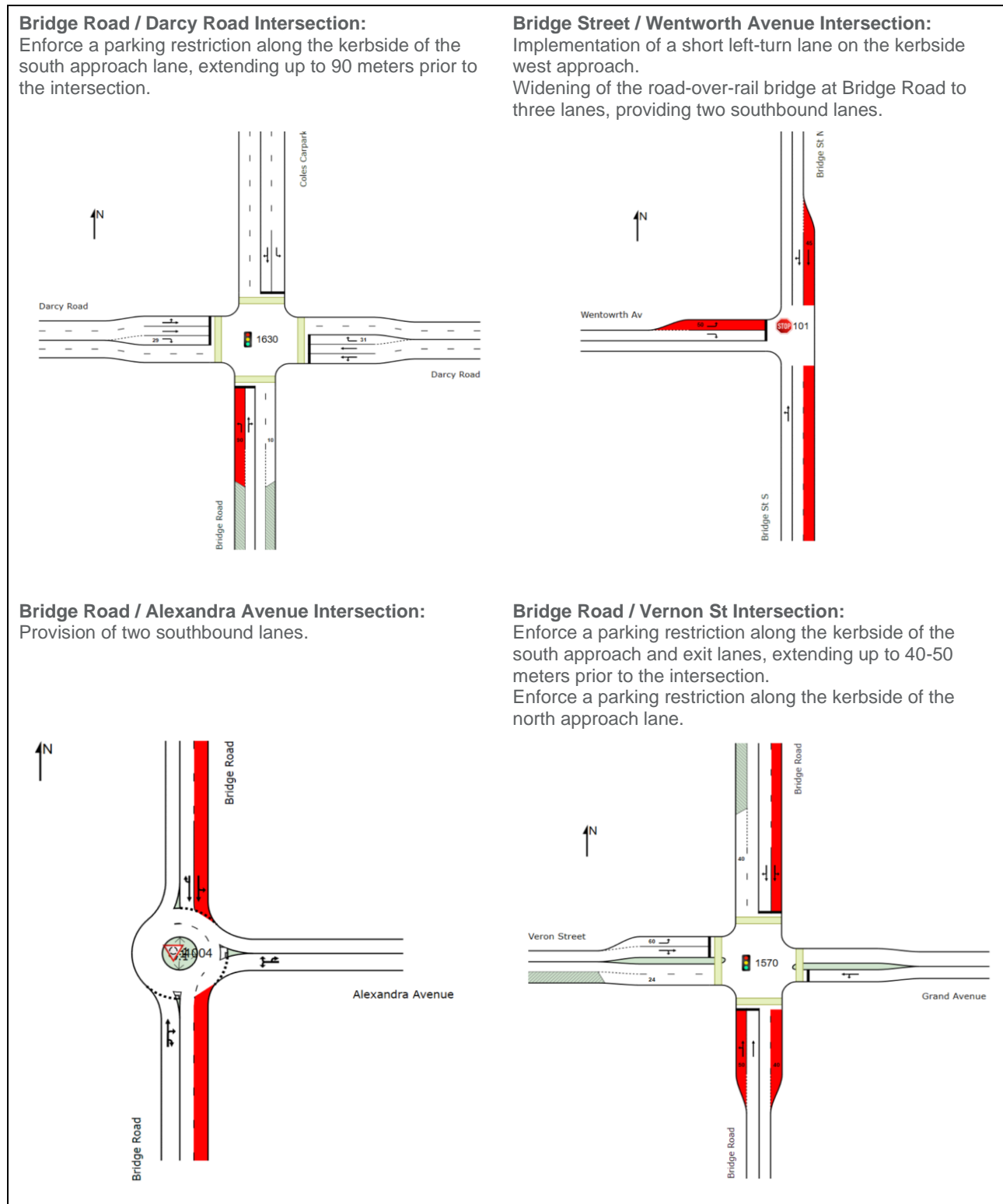


Figure 27: Mitigation Measures



The below table provides the SIDRA results summaries of the mitigated scenarios.

TABLE 20: PROPOSAL IMPACTS IN 2026 AND 2036							
Intersection	Period	2026 Project Case with Mitigations			2036 Project Case with Mitigations		
		DoS	AVD	LOS	DoS	AVD	LOS
Darcy Road / Bridge Road	AM	0.86	29.8	C	0.97	66.4	E
	PM	0.86	33.4	C	0.90	51.3	D
Bridge Road / Access Road	AM	0.54	11.0	A	0.62	12.4	A
	PM	0.76	13.2	A	0.85	14.9	B
Bridge Road / Alexandra Avenue	AM	0.66	9.3	A	0.77	10.7	A
	PM	0.60	13.3	A	0.70	16.9	B
Bridge Road / Veron Street / Grand Avenue	AM	0.81	19.2	B	0.74	20.6	B
	PM	0.85	21.6	B	0.86	27.8	B
Bridge Road / Wentworth Avenue	AM	0.68	44.7	D	1.20	190.3	F
	PM	0.67	51.9	C	1.82	454.9	F
Bridge Road / Byrne Street	AM	0.44	21.6	B	0.44	21.6	B
	PM	1.02	30.1	C	1.02	30.1	C

In 2026, the performance of most intersections is satisfactory with the implemented mitigation measures, operating at a LOS ranging from A to C. The exception is the stop-sign controlled Bridge Road / Wentworth intersection, projected to operate at a LOS D during the morning peak.

In 2036, the performance of most intersections remains acceptable with the additional mitigation measures, operating at a LOS A to C. The proposed parking restrictions on the south approach at the Darcy Road / Bridge Road intersection would improve the overall performance from a LOS F, operating at a LOS E during the AM peak. The proposed interventions are largely consistent with the Bridge Road upgrade, mentioned in Section 4.6.

However, the Bridge Road / Wentworth Avenue intersection is projected to operate at an unacceptable LOS F during both the AM and PM peaks. This failure is attributed to southbound traffic flow, causing challenges for right-turning southbound vehicles from Wentworth Avenue to find suitable gaps. As already discussed, this could be alleviated by prohibiting the right turn into Bridge Road. This would be subject to Council intervention and is not a direct result of the development.

As mentioned in Section 3.2, Bridge Road is expected to be upgraded, with the key change relating to an additional southbound lane. This is largely consistent with the mitigation measures undertaken as part of this study, with the key change relating to additional parking restrictions proposed along Bridge Road, extending between Alexandra Avenue and Grand Avenue. Given the function of Bridge Road as a high-volume corridor, it is expected the parking restrictions, or clearway conditions, would be appropriate.

The Proposal is therefore supportable on traffic grounds.

## 8 Conclusions

Ason Group has been engaged by Townsquare Consultants on behalf of 93 Bridge Road Pty Ltd atf Bridge Road Unit Trust to prepare a Transport Assessment in relation to the Proposal Planning (PP) for a mixed-use development located on 93 Bridge Road, Westmead (the Site).

Further to a preliminary assessment of all relevant traffic and transport issues, Ason Group provides the following conclusions:

- The PP seeks to modify the maximum permissible Floor Space Ratio (FSR) and maximum building height permitted by the Parramatta Local Environment Plan (2023).
- The Site is within close proximity to a number of amenities including Westmead Station (800m walking distance), supermarkets, Mother Teresa Primary School and Westmead Public Hospital.
- There Site is well serviced by pedestrian connections providing access to the available public transport options, which provide connections to the broader Sydney area (Liverpool, Campbelltown, Fairfield, Bankstown, and Sydney CBD).
- The Site is strategically well located within Westmead Precinct (the Precinct). The PP therefore seeks to align with key objectives of not only the Westmead Precinct but also the wider Government strategic objectives of providing additional housing within close proximity to amenities.
- Furthermore, noting Bridge Road, to the Site's immediate west currently serves as a barrier for active transport, the Site is therefore strategically well placed when considering the expected pedestrian destinations are to the east.

Parking for the market housing component is to be provided in accordance with the minimum parking rates within the PDCP which consider the sites proximity to excellent public transport connections currently available, and the future active transport connections stipulated in the Westmead Place based Transport Strategy.

Parking for the affordable housing component is to be provided in accordance with the minimum parking rates within the State Environmental Planning Policy 2021 (Housing SEPP) which consider the Site to be in an "accessible area", and therefore require the lower car parking rates.

- The following vehicle trip rates per unit, based on the TfNSW Guide Update, have been adopted:
  - AM Peak: 0.19 veh/h
  - PM Peak: 0.15 veh/h

Application of the above rates to the Proposal yields a traffic generation of 92 and 73 vehicles in the respective AM and PM peaks.

It is noted SIDRA Intersection modelling was undertaken based on a previous, more conservative yield of 510 apartments. Application of the above rates to the previous yield results in a traffic generation of 97 and 77 vehicles in the respective AM and PM peaks.

Noting there is an existing residential development generating 16 vehicles in each peak period, this results in a net increase of 81 vehicles in the AM peak and 61 vehicles in the PM peak.

- SIDRA Intersection modelling was completed to assess the traffic impacts of the Proposal's development traffic on the road network. The baseline conditions were found to be operating satisfactorily. However, it is noted that there has been deterioration to the road network performance when compared against the assessment completed for the Site in 2019 (0898r01v2 TA 93 Bridge Road, Westmead, Issue II).

Modelling undertaken of the 2026 and 2036 base cases indicates the network is anticipated to operate beyond capacity in the future, even without considering the additional trips generated by the Proposal.

The future project case model results show that several intersections, will experience a marginal deterioration in operational performance, even though the additional trips generated by the Project are relatively modest when compared to the overall traffic volumes. This is a result of the already congested

nature of the road network. It is noted this modelling was undertaken with consideration of the existing road network layout.

Specifically, the priority-controlled intersection at Wentworth Avenue exhibits poor performance, primarily attributed to vehicles attempting to turn into Bridge Road unable to find suitable gaps due to queues along Bridge Road in both directions of travel. The Alexandra Avenue roundabout operates beyond its design capacity.

In 2036, the Darcy Road signalised intersection fails during the morning peak due to northbound queues and high eastbound demands, operating at a LOS F in both the base and project cases.

While the roundabout providing access to the Site possesses sufficient capacity to accommodate anticipated future traffic volumes, the efficacy of its performance is compromised by the queuing issues along Bridge Road, stemming from capacity constrained upstream intersections. Consequently, the roundabout also registers a LOS F due to the adverse impact of these upstream conditions.

However, it is noted that these results were based on the existing configuration of the network and not inclusive of the upgrade to Bridge Road (with construction having commenced In January 2024). Therefore, an assessment has also been undertaken of the road network, which includes the upgrade to Bridge Road, as well as further mitigation in the form of parking restrictions, therefore not requiring any costs beyond signage and line marking. These proposed upgrades will effectively provide for two southbound lanes along Bridge Road.

The mitigations include:

- Bridge Road / Darcy Road Intersection

Enforce a parking restriction along the kerbside of the south approach lane, extending up to 90 metres prior to the intersection.

- Bridge Street / Wentworth Avenue Intersection (committed upgrades being undertaken by Sydney Trains)

Implementation of a short left-turn lane on the west approach to allow a dedicated right-turn lane. Widening of the road-over-rail bridge at Bridge Road to three lanes, providing two southbound lanes and one northbound lane.

- Bridge Road / Alexandra Avenue intersection

Provision of two southbound lanes due to the road-over-rail bridge widening.

- Bridge Road / Vernon St Intersection:

Enforce a parking restriction along the kerbside of the south approach and exit lanes, extending up to 40-50 meters prior to the intersection.

Enforce a parking restriction along the kerbside of the north approach lane.

In 2026, the performance of most intersections is satisfactory assuming the implementation of the proposed interventions, the LOS ranges from A to D.

In 2036, the performance of most intersections remains acceptable with the proposed interventions, operating at a LOS A to C.

The proposed parking restrictions on the south approach at the Darcy Road / Bridge Road intersection would improve the overall performance to an acceptable LOS E during the AM peak. These mitigations are largely consistent with the confirmed Bridge Road upgrade, with an expectation of becoming operational in mid-2027.

The key changes relate to additional parking restrictions proposed along Bridge Road, extending between Alexandra Avenue and Grand Avenue. Given the function of Bridge Road as a high-volume

corridor, it is expected the parking restrictions will be in place regardless, nevertheless the proponent can liaise with the authorities as required.

It is noted the Bridge Road / Wentworth Avenue intersection is projected to operate at a LOS F during both the AM and PM peaks. This failure is attributed to southbound traffic flow, causing challenges for right-turning southbound vehicles from Wentworth Avenue to find suitable gaps. This could be alleviated by prohibiting the right turn into Bridge Road. This would be subject to Council intervention and is not a direct result of the development.

Based on the above, it is concluded that the Proposal is therefore supportable on traffic grounds.



# Appendix A. Modelling Report



## **Transport Modelling Report**

Planning Proposal, 93 Bridge Road Pty Ltd atf Bridge Road Unit Trust

93 Bridge Road, Westmead NSW 2138

31/01/2024

P0898-2

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## Document Control

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01	22/12/2023	Issue	J. Muller	J. Muller
02	31/01/2024	Issue	J. Muller	J. Muller

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# Glossary

Acronym	Description
AGRД	Austrоads Guide to Road Design
AGTM	Austrоads Guide to Traffic Management
CC	Construction Certificate
Council	City of Parramatta Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPIE	Department of Planning, Industry and Environment
FSR	Floor space ratio
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TDT 2013/04a	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)

# 1 Introduction

## 1.1 Project Background

---

Ason Group has been commissioned by Townsquare Consultants on behalf of 93 Bridge Road Pty Ltd atf Bridge Road Unit Trust, to revisit a previous transport impact assessment report prepared in 2019 for the proposed mixed-use development, the Bridge Road Micro Hub, at 93 Bridge Street, Westmead.

The revised regional planning in the area, including the Westmead Place Strategy, requires a review of the Transport Assessment previously carried out by Ason Group in support of the revised Planning Proposal (PP) for the Site.

Ason Group has been requested to provide transport consultancy services including:

- Review of the Transport Assessment (TA) and
- Preparation of an explanatory note for the TfNSW Strategic Land Use team,
- Review of TfNSW's modelling and methodology guidance, and preparation of a Modelling and Methodology Report for endorsement.

The Planning Proposal (PP) seeks to modify the maximum permissible Floor Space Ratio (FSR), the maximum building height, provision of an Additional Permitted Use (APU) for short-term accommodation, and Allied Health and education uses. The proposed rezoning will increase the maximum height of buildings from 20m to 75m (up to 22 storeys) and the FSR from 1.7:1 to 4.5:1 FSR with the aim to facilitate the creation of a micro innovation centre on the Site that complements the Westmead Health and Education Precinct.

A Scoping Report and Urban Design Report for the new PP, which addresses the Joint Regional Planning Panel's comments on the previous Proposal, was submitted to Parramatta City Council on 9 November 2022.

This revised PP is currently entering the pre-lodgement stage with Council and TfNSW providing their comments on the scoping report. Early engagement with TfNSW to date has not resulted in clear direction in relation to the nature of the required studies to support the PP.

## 1.2 Stakeholders

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The key stakeholders of this project and transport study are:

- City of Parramatta
- Cumberland City Council
- Department of Planning and Environment (DPE)
- Transport for New South Wales (TfNSW)



## 1.3 Project Description

---

The Site is situated at 93 Bridge Road, Westmead and is legally described as SP 31019. It is located on the eastern side of Bridge Road and is within the area identified as the Westmead health, education, and research precinct. Vehicular access is from a private road which forms a roundabout intersection with Bridge Road. The Site has a total area of 8,663m<sup>2</sup> and is currently occupied by 31 semi-detached single storey dwellings.

Westmead Private Hospital is located to the north-east of the Site and Mother Teresa Primary School to the east. Generally, the other developments in the vicinity are primarily residential in nature.

At a regional level, the Site is located approximately 22 kilometres west of the Sydney CBD and 2.6 kilometres north-west of the Parramatta CBD and is zoned R4 High Density Residential. A Site Plan is presented in **Figure 1**.



Figure 1: Site and Road Hierarchy



## 1.4 Study Area

To evaluate the potential impact of the proposed development, the previous study conducted SIDRA modelling at specific intersections, including:

- Bridge Road / Darcy Road
- Bridge Road / Access Road
- Bridge Road / Alexandra Avenue
- Bridge Road / Veron Street / Grand Avenue.

For the pre-gateway SIDRA assessment study, Parramatta Council has advised to expand the scope of the study area by including additional intersections, listed below.

- Bridge Road / Wentworth Avenue
- Bridge Road / Byrne Street

The modelled network comprises the above six intersections are shown in **Figure 2**.



Figure 2: Model Network

## 1.5 Study Objectives

---

The PP will be accompanied by a TA study to address trip generation magnitude (with independent peer review) and articulate how the proposal integrates within the precinct together with local and regional aspirations for the creation of walkable and liveable places.

This TA seeks to achieve and demonstrate the following key objectives:

- Undertake a traffic generation assessment to identify the traffic generating capabilities of the revised scheme and any resulting impacts on the surrounding road network.
- Review the parking provision for the proposal to confirm the Site's capability to accommodate compliance with Council's Development Control Plan and therefore appropriate levels of car parking could be provided.
- Assess the Site's accessibility to public transport and demonstrate that the Site is strategically well located to achieve the public transport goals of the Greater Sydney Region Plan, in particular the 30-minute city principles.
- Evaluate the Site's ability to align with the objectives of the Westmead Precinct objectives.

## 2 Existing Conditions

The Site is situated at 93 Bridge Road, Westmead and is legally described as SP 31019. It is located on the eastern side of Bridge Road and is within the area identified as the Westmead health, education, and research precinct. Vehicular access is from a private road which forms a roundabout intersection with Bridge Road. The Site has a total area of 8,663m<sup>2</sup> and is currently occupied by 31 semi-detached single storey dwellings.

Coles supermarket and other shopping is located north of the Site, Westmead Private Hospital is located to the north-east (400m) and Mother Teresa Primary School to the east (300m). Generally, the other developments in the vicinity are primarily residential in nature.

At a regional level, the Site is located approximately 22 kilometres west of the Sydney CBD and 2.6 kilometres north-west of the Parramatta CBD and is zoned R4 High Density Residential.

### 2.1 Road Network Infrastructure

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The key roads in the vicinity of the site are summarised below:

- Bridge Road – a collector road that runs in the north-south direction along the western frontage of the Site. This road connects Darcy Road to the north to the Great Western Highway to the south and generally provides two lanes of unrestricted parking and two lanes of traffic bidirectionally with a speed limit of 50km/h.
- Darcy Road – a regional road which generally runs in the east-west direction. It is a two-way, four lane road. This road connects to Hawkesbury Road to the south with an additional Transit Way (T-Way) running through the median between Institute Road and Hawkesbury Road. It is restricted to a speed limit of 50km/h in the vicinity of the Site.
- Byrne Street – a local road which provides two travel lanes and two parking lanes bidirectionally and is subject to a speed limit 50 km/h. There are unrestricted parking opportunities on both sides of the road.
- Access Road – a privately owned road that provides vehicular access to the Site and other properties, effectively operating as a Right of Way. This road runs along the southern boundary of the Site and forms a roundabout intersection with Bridge Road.

### 2.2 Public Transport

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The Sydney Metro West system will provide a new underground station at Westmead, which seeks to support the growth and development of the Westmead Precinct. Parramatta Light Rail (PLR) is being delivered to serve the Westmead precinct. Stage 1 will connect Westmead to Carlingford via Parramatta CBD and Camellia. Stage 2 will connect to Stage 1 and run north of the Parramatta River through the rapidly developing suburbs of Ermington, Melrose Park, and Wentworth Point to Sydney Olympic Park.

**Figure 3** and **Figure 4** identify the Site in relation to the Sydney Metro West, Sydney Trains, and Parramatta Light Rail Westmead stations which are about 800m away, existing bus routes, and active transport provisions.



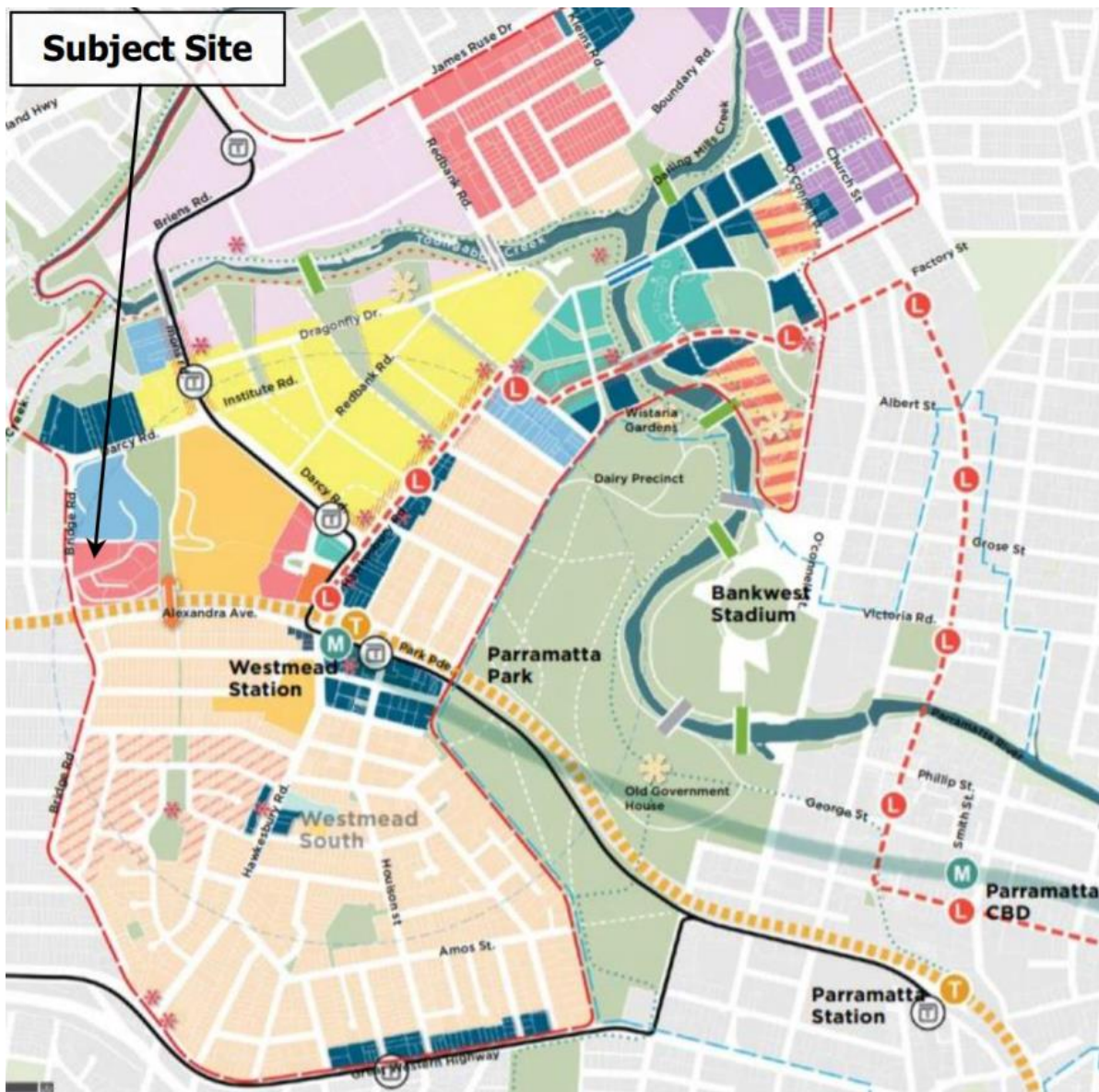


Figure 3: Future Public Transport Network

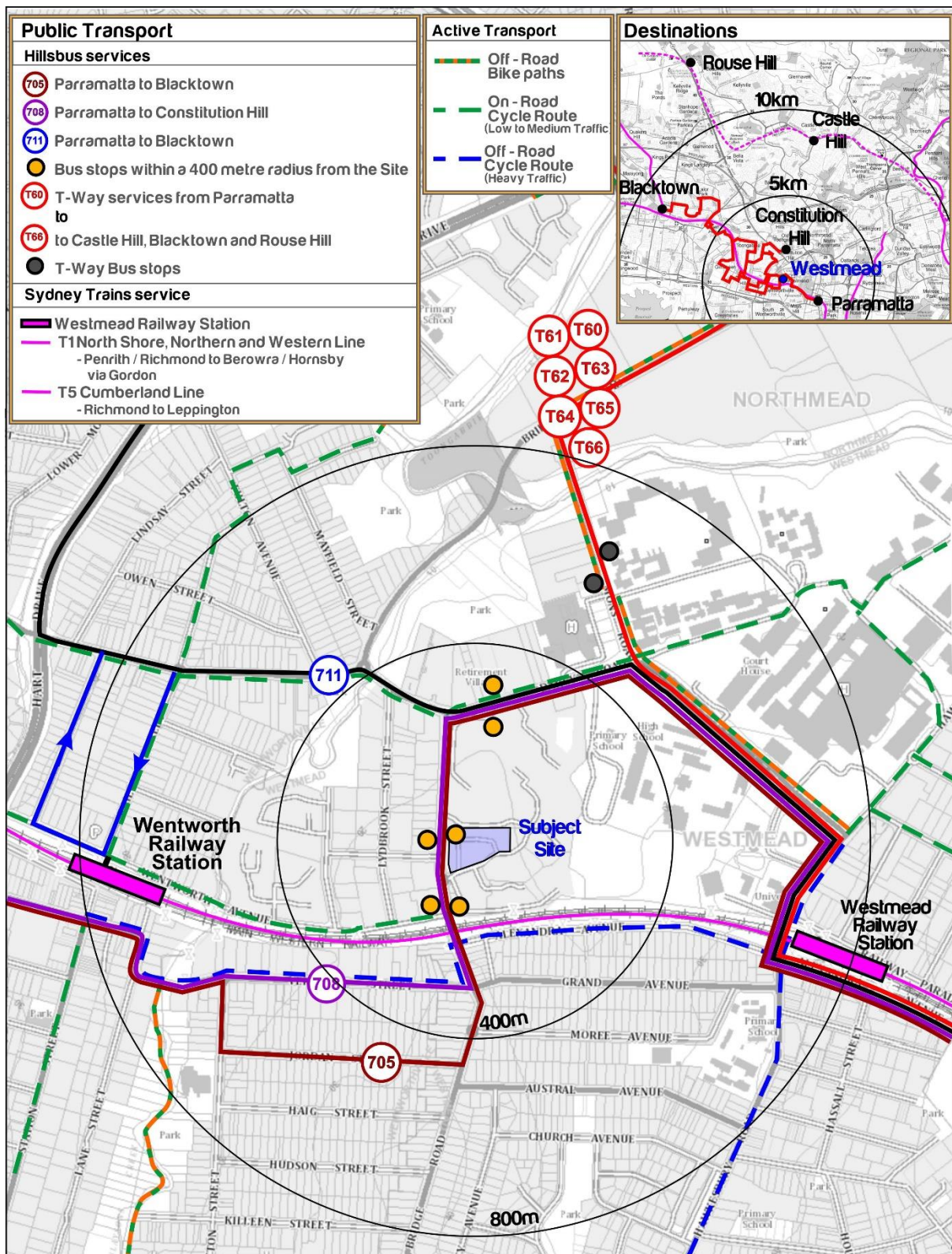


Figure 4: Existing Public and Active Transport Network



## 2.3 Site Visit

A site visit was undertaken on Thursday 30 November 2023 and Friday 1 December 2023 in conjunction with the traffic surveys.

## 2.4 Traffic Survey Data

Traffic surveys were conducted at all six intersections within the study area. Data was collected for the following time periods:

- 7:00am and 9:00am & 4:00pm and 6:00pm.
- 30<sup>th</sup> of November 2023 & 1<sup>st</sup> of December 2023.

Data included:

- **Vehicle Turn Counts**, classified by Austroads Classes 1-12 & aggregated by 15-minute intervals.
- **Queue Length** by lane, aggregated by 5-minute intervals.
- **Pedestrian Crossing Volumes** for each intersection leg, aggregated by 15-minute intervals.

## 2.5 Traffic Profile and Peak Hours

Surveyed turn flows were aggregated across all intersections and movements for each 15-minute interval. The resulting network demand profile is presented in **Figure 5**. Generally, Thursday (30/11/23) recorded the high volumes. In the AM peak, the peak hour was observed to occur between 7.45am and 8.45am on both surveyed days. The PM peak hour occurred between 4:45pm and 5:45pm on Thursday. The Friday surveys showed a later PM peak hour, between 5.00pm and 6.00pm.

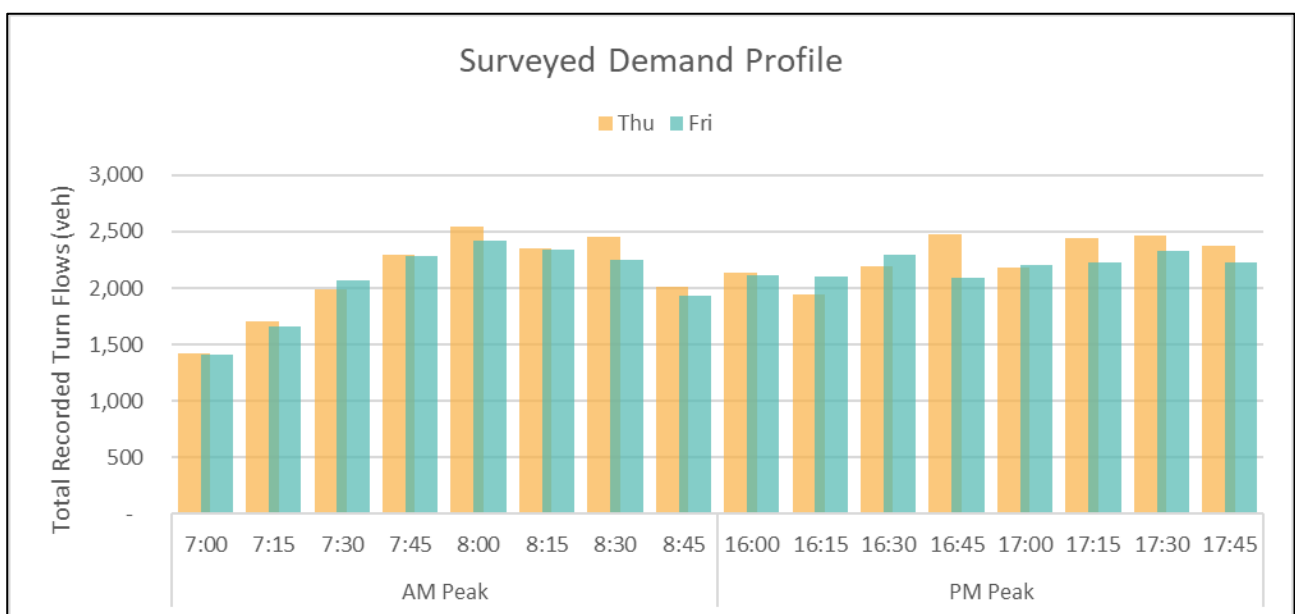


Figure 5: Surveyed Network Demand Profile

## 2.6 Crash Data Analysis

Crash data was assessed based on publicly available datasets found on the TfNSW OpenData website. All available data was considered, covering a period between 2017 and 2022, inclusive. A total of 21 incidents were recorded, none of which resulted in any fatalities. The locations are shown in **Figure 6**, with ID numbers referring to detailed crash information provided in **Table 1**.

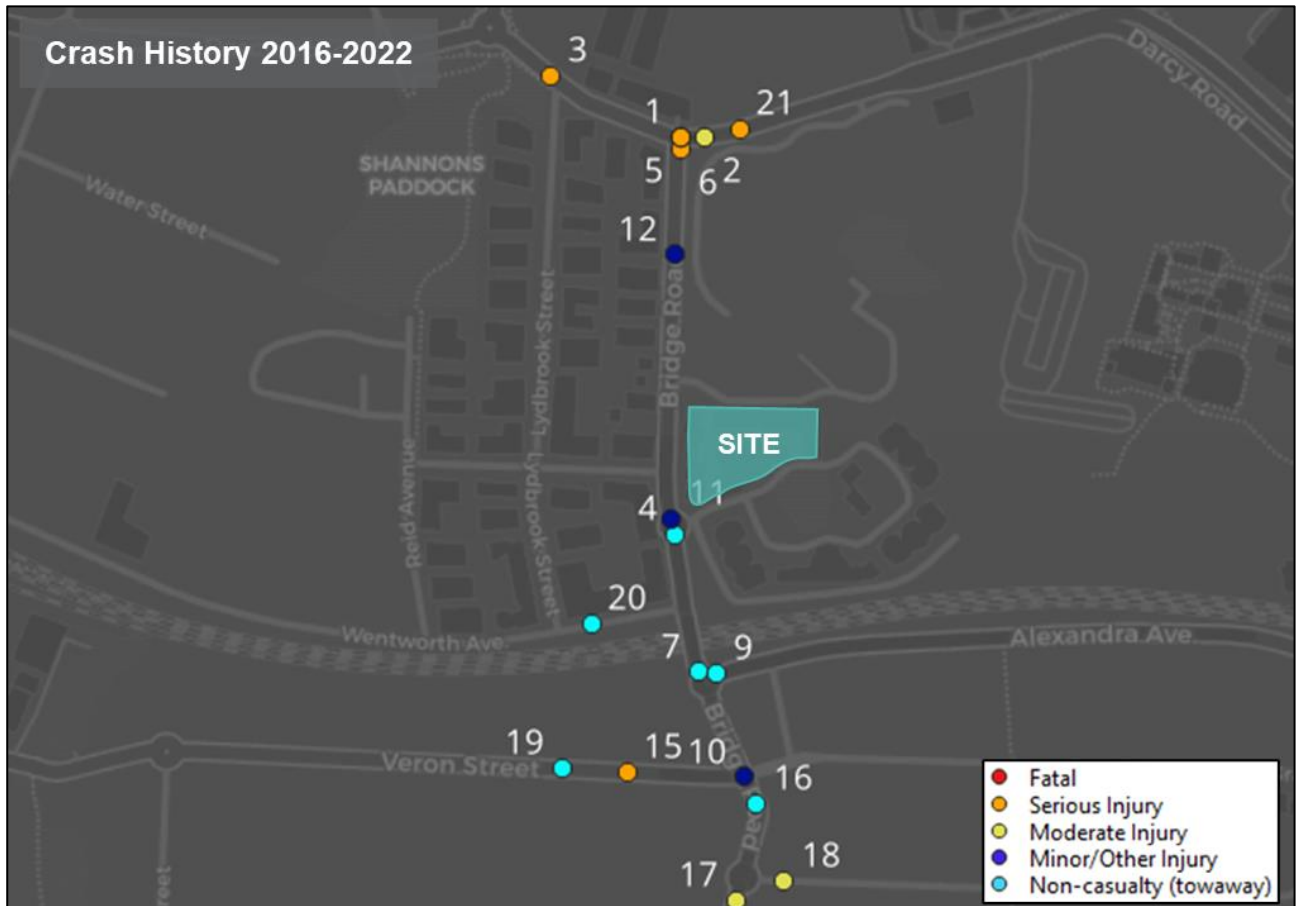


Figure 6: Crash Locations & Severity

Almost half of the recorded crashes were recorded as 'Off rd left=>obj' (5 crashes) or 'Right through' (4 crashes).

Two crashes involved pedestrians, both resulting in serious injury, and both occurring on Darcy Road, either side of the Bridge Road intersection.

Two crashes were recorded at the Bridge Road/ Site Access Road Roundabout (ID 4 & ID 11). Both involved vehicles making right turn or U-turn movements at the roundabout, resulting in on minor injury and one non-casualty(towaway) incident.

Assessment of the crash year showed a declining crash rate, with a significantly higher number of incidents recorded in 2016 compared to subsequent years. A breakdown of crashes by year is shown in **Figure 7**.

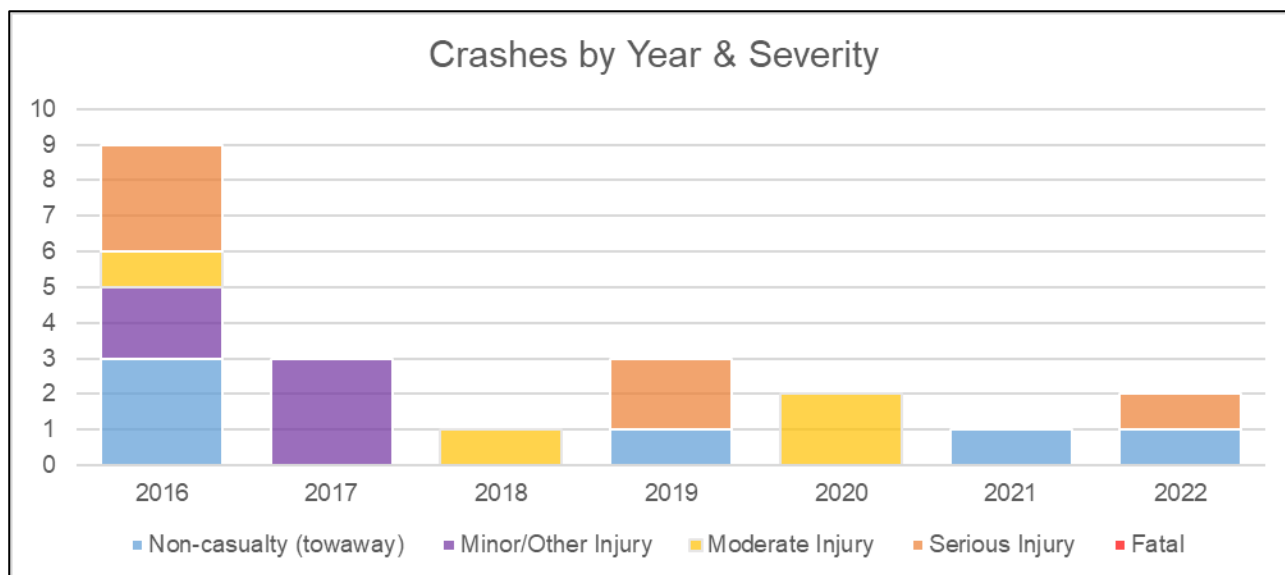


Figure 7: Crashes by Severity & Year

TABLE 1 RECORDED CRASHES ACROSS STUDY AREA				
Map ID	TfNSW Crash ID	Crash Year	Crash Severity	RUM Description
1	1098308	2016	Moderate Injury	Right through
2	1100296	2016	Serious Injury	Rear end
3	1101184	2016	Serious Injury	Ped nearside
4	1101734	2016	Non-casualty (towaway)	U turn
5	1104255	2016	Minor/Other Injury	Right through
6	1108674	2016	Serious Injury	U turn
7	1122885	2016	Non-casualty (towaway)	Off left/rt bnd=>obj
8	1127279	2016	Minor/Other Injury	Right/right
9	1130605	2016	Non-casualty (towaway)	Other straight
10	1134581	2017	Minor/Other Injury	Off rd left => obj
11	1154074	2017	Minor/Other Injury	Right through
12	1155031	2017	Minor/Other Injury	Other same direction
13	1180152	2018	Moderate Injury	Rear end
14	1199821	2018	Serious Injury	Right through
15	1208555	2019	Serious Injury	Leaving parking
16	1216577	2019	Non-casualty (towaway)	Off rd left => obj
17	1223471	2020	Moderate Injury	Off rd left => obj
18	1229676	2020	Moderate Injury	Off rd left => obj
19	1271113	2021	Non-casualty (towaway)	Pkd veh runaway=>obj
20	1300177	2022	Non-casualty (towaway)	Off rd left => obj
21	1310305	2022	Serious Injury	Ped far side



## 3 Model Assumptions and Inputs

### 3.1 Modelling Platform

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The Westmead and surrounding precincts road strategy is currently under review by TfNSW as part of the Westmead Place-based Strategy (WPBS), with regards to DPE's updated Common Planning Assumptions for Westmead.

For this purpose, it is understood that TfNSW developed an AIMSUN operational model to explore various yield options and infrastructure requirements across the area, including a fundamental review of land use input assumptions for future year forecasting model years.

Furthermore, the WPBS review envisages the Hawkesbury Road corridor to be transformed into a public and active transport corridor, which may increase pressure on parallel routes such as Bridge Rd to cater to general traffic movement. It is understood that the recently released STFM LU22 forecasts might not adequately account for the anticipated growth in background traffic volumes in parts and across the Westmead and Westmead South precincts.

TfNSW has recently published the WPBS, and the second phase of the strategy is likely to include an AIMSUN operational foundation model that will identify various yield options and infrastructure requirements across the precinct, the model is due for completion in October 2023.

To progress **pre-gateway** planning for this study, Ason Group has conducted localised SIDRA 9.1 network modelling, with an expanded study area which include additional intersections, compared to the previous assessment completed by Ason Group in 2019.

Given the modelled intersections proximity to each other, assessment was undertaken using the software's Network modelling functionality to ensure the interaction between adjacent intersections was captured.

It is anticipated that a further assessment of network performance will be required **post-gateway**. This assessment will utilise and build upon TfNSW's AIMSUN foundation model, which is expected to be available by the end of 2023.

### 3.2 Modelling Years

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The proposed assessment years will be the base year of 2023 and the future horizon years of 2026 (the expected development opening year) and 2036 (opening year + 10 years).

### 3.3 Time Periods

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As identified in **Section 2.5**, the following peak periods will be captured in both the existing and future year models; AM commuter peak (07.45am to 08.45am), and the PM Commuter Peak (4.45pm to 5.45pm).

### 3.4 Modelling Scenarios

Modelling has been conducted for the AM and PM peak hours periods on Thursday, 30 November 2023, when the traffic survey data were undertaken.

**Table 2** provides an overview of the traffic modelling scenarios that have been evaluated as part of this study.

TABLE 2 MODEL SCENARIOS			
#	Scenario	Year	Comment
1	Existing Conditions	2023	Current (Based on CIC data)
2	Future Base Case (Opening Year)	2026	Future Baseline
3	Future Project Case (Opening Year)	2026	With Project
4	Future Project Case, Mitigation (if needed)	2026	Mitigation
5	Future Base Case (Opening Year + 10 years)	2036	Future Baseline +10 years
6	Future Project Case (Opening Year + 10 years)	2036	With Project +10 years
7	Future Project Case (Opening Year + 10 years) + Mitigation	2036	Mitigation +10 years

### 3.5 Model Parameters

For input into the SIDRA models, the following PCU factors have been adopted, based on the survey data classification.

- Light Vehicles: 1.0 PCU
- Heavy Vehicles: 2.0 PCU

The SIDRA default value was utilised for light vehicles. PCU values for heavy vehicles. PCU values for rigid and articulated vehicles were sourced from National Transport Commission, as shown below.

Table 3 PCU values for AUSTROADS classes		
AUSTROADS VEHICLE TYPE	AUSTROADS Class	PCU VALUE
Medium (short + trailer or Rigid) 5.5m – 14.5m	2-5	2
Long (articulated) 11.5m – 19m	6-9	3
Medium Combination 17.5m - 36.5m	10-11	4
Road Trains > 33m	12	5
Tram (Bombardier Flexity)		4

Reference: National Transport Commission (NTC) Third Heavy Vehicle Road Pricing Determination: Technical Report – Appendix B Table 47, October 2005, Melbourne, Australia.

Figure 8: Heavy vehicle PCU values

The settings of all models are:

- 'Current Setup' was set to New South Wales.
- Site Level of Service Method was set to 'Delay (RTA NSW)'.
- Physical features of the intersections were determined based on the latest aerial imagery available on NearMap, as well as site visit observations.
- Speed limits were input as per existing posted speed limits/ school zones.
- Default values for Basic Saturation Flow were used.
- Default values/setting were used for gap acceptance and follow-up headway for all turns.

## 3.6 SIDRA Key Assessment Parameters

Key modelling outputs utilised for the performance assessment of the SIDRA Network models are as follows:

- AVD: Average vehicle delay in seconds. The critical delay is measured across all vehicles in a signalised intersection, and for the worst movement in a priority-controlled intersection.
- LoS: Level of Service, an indication of critical delay in any intersection, denoted by the letters A to F. Delays in the range of LoS A up to LoS D are considered acceptable.
- DoS: Degree of Saturation — ratio of volume to theoretical capacity. The maximum acceptable DoS for signalised and priority-controlled intersections are 0.90 and 0.80, respectively.
- QSR: Queue Storage Ratio — proportion of length of the longest 95th percentile BoQ to the corresponding approach length. This provides an indication of queue storage capacity of that approach (for example, a QSR of 0.5 means the length of the longest Queue is equal to the 50% of the approach length, whereas a QSR of 1.0 indicates the back of longest Queue reaches the upstream intersection). It should be noted that short lanes are not included in determining Queue storage ratios.

**Table 3** details the intersection LoS criteria, as outlined in the *TfNSW Traffic Modelling Guidelines*.

**TABLE 3 TFNSW LEVEL OF SERVICE CRITEREA**

LoS	Average Delay per Vehicle (sec/veh)	Traffic Signals/ Roundabout	Give Way/ Stop Signs
A	Less than 14	Good Operation	Good Operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity, at signals, incidents will cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	Greater than 70	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode or major treatment

When applying the above criteria, it is recommended that for traffic signals, the LoS should be calculated based on the weighted average vehicle delay for all movements, whereas for roundabouts and priority-controlled intersections, the LoS represents the movement with the highest delay.

## 3.7 Model Limitations

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Modelling of link performance between intersections is limited in a SIDRA Network model. As such, the models do not capture the impact on various link capacity constraints identified across the network, listed below:

- Impact of bus stopping patterns and dwell times throughout the network.
- Impact of traffic calming measures.
- Impact of on-street parking manoeuvres.
- Geometric link delays driven by narrow lane widths, steep gradients, and/or poor visibility.
- Impact of school zones, not on approach to the modelled intersections.

The models, and subsequent findings, focus primarily on intersection performance and delays.

## 4 Existing Base Model

### 4.1 SIDRA Network Layout

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The existing SIDRA network model is shown in **Figure 9**, containing the following intersections.

- Bridge Road / Darcy Road
- Bridge Road / Byrne Street
- Bridge Road / Access Road
- Bridge Road / Alexandra Avenue
- Bridge Road / Veron Street / Grand Avenue.
- Bridge Road / Wentworth Avenue



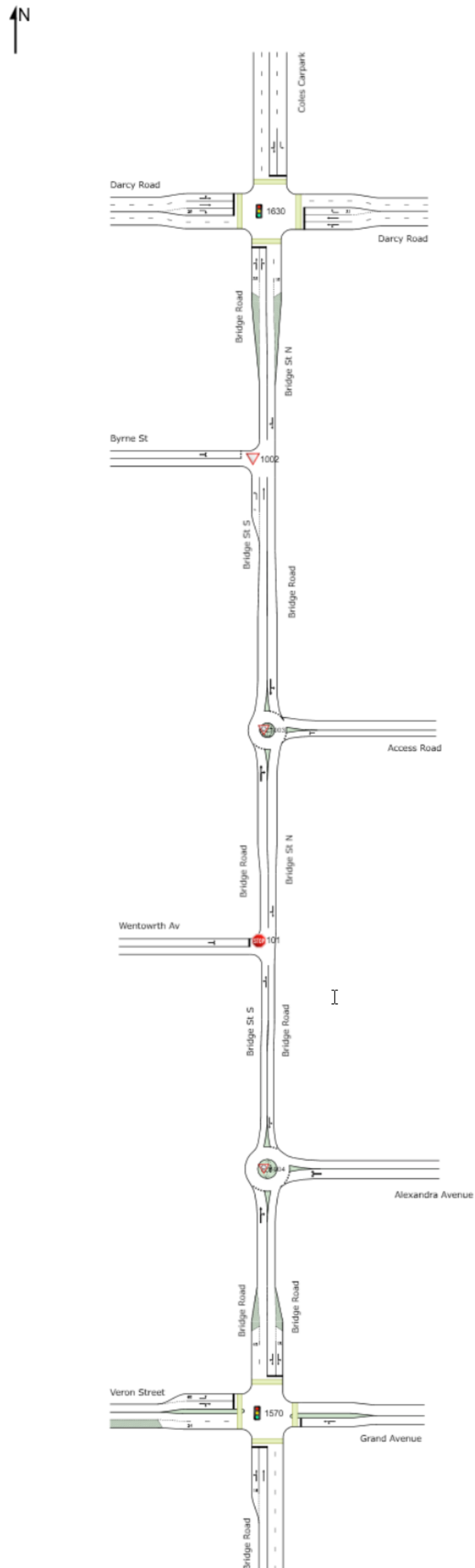


Figure 9: Existing SIDRA Model Network

## 4.2 Existing Traffic Demand

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Vehicle volumes were extracted from the intersection surveys collected on Thursday, 30<sup>th</sup> of November 2023, covering the following peak periods:

- AM Peak: 7.45-8.45am
- PM Peak: 4.45-5.45pm

Vehicle volumes have been split into light vehicles and heavy vehicles.

Network diagrams, showing turn flows at all intersections, are provided in **Figure 10** and **Figure 11**.

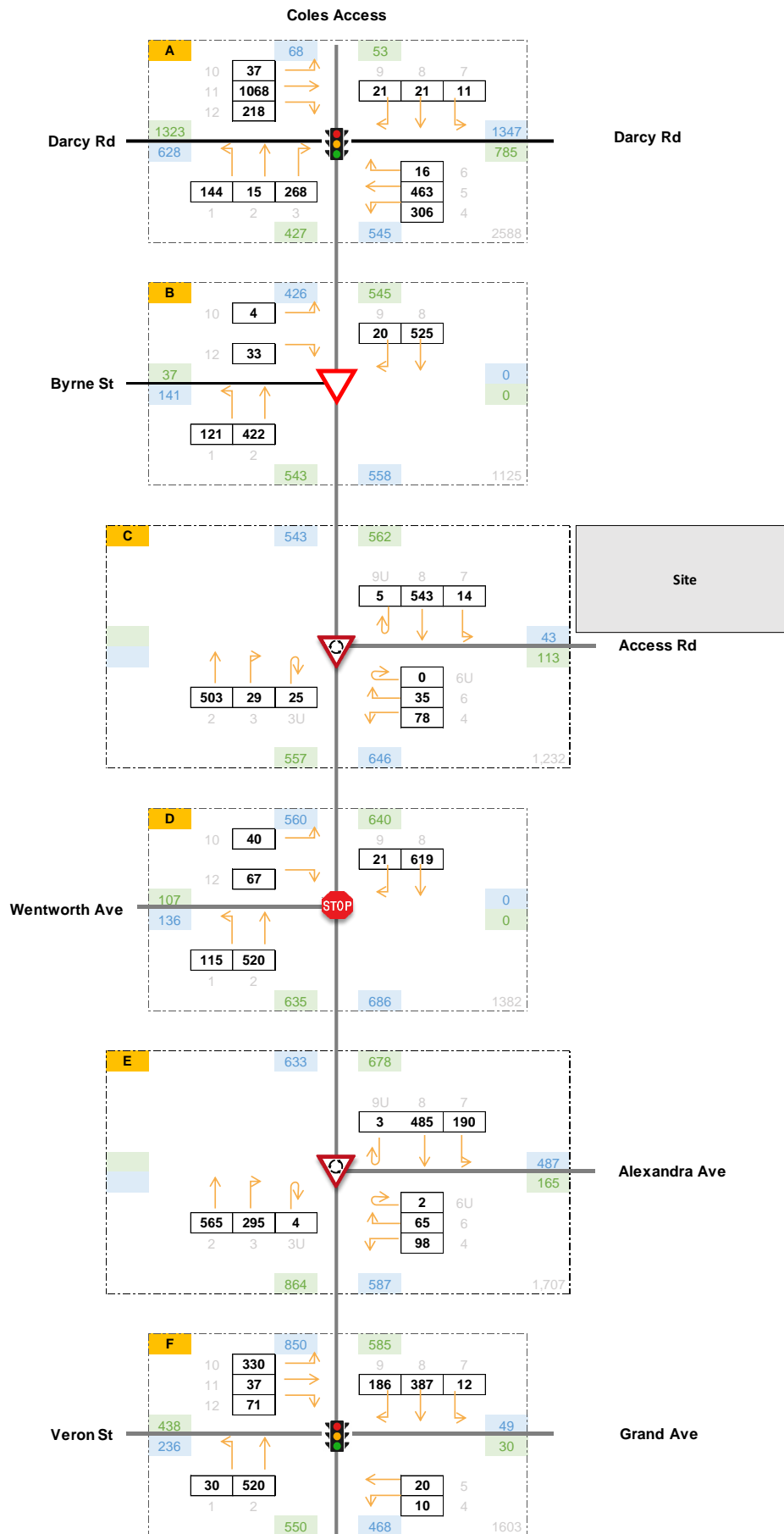


Figure 10: AM Peak, Surveyed Turn Volumes (Vehicles)

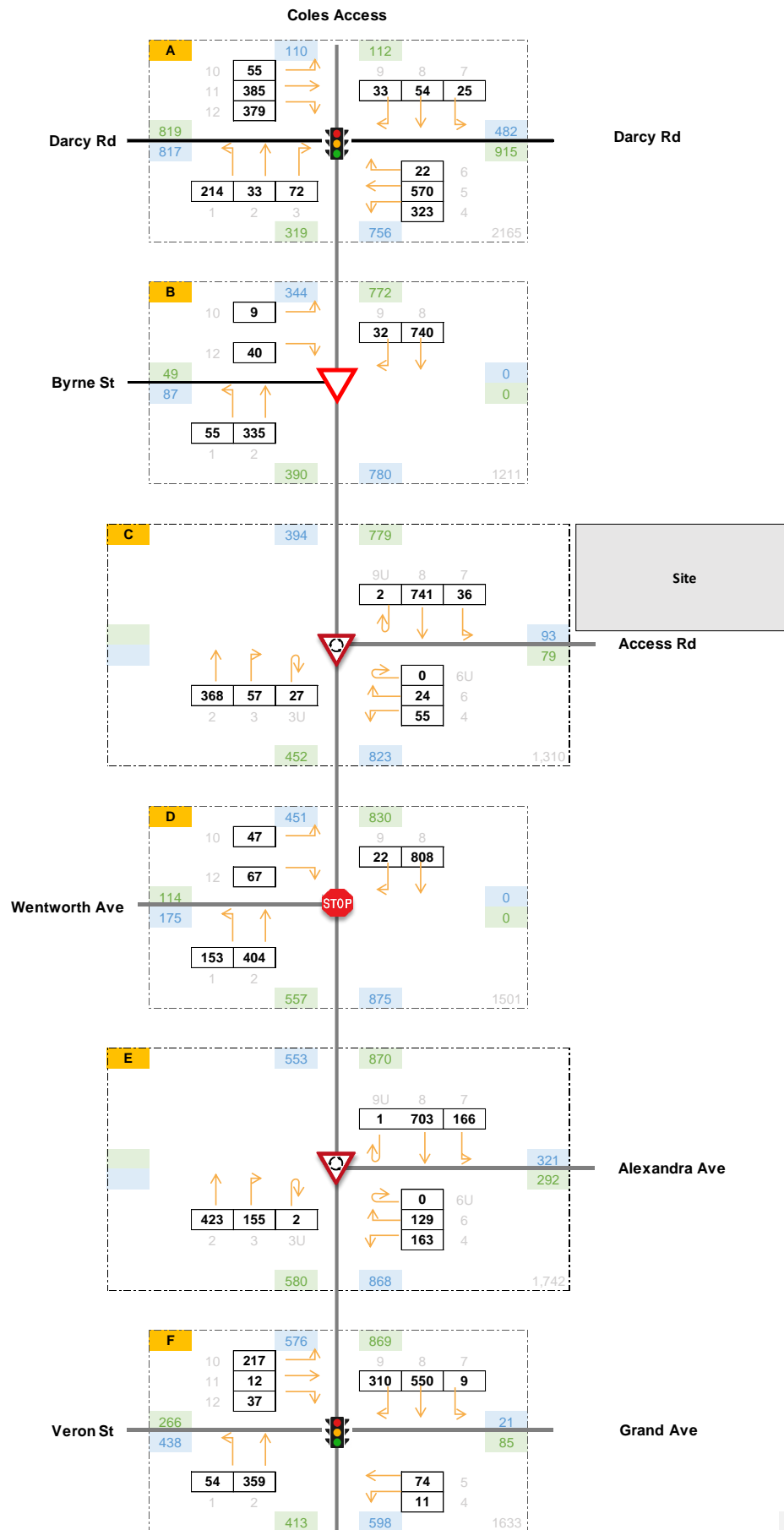


Figure 11: PM Peak, Surveyed Turn Volumes (Vehicles)

## 4.3 Pedestrian Demand

Pedestrian movement data was collected alongside the intersection surveys and were included in the SIDRA modelling.

## 4.4 Signal Phasing & Timing

Signal phasing and cycle times were included as per site observations as well as analysis of the survey footage collected. The phasing observed for the Darcy Road/ Bridge Road intersection is shown in **Figure 12**. The controller was observed to alternate between the C and C1 phase, dependant on demand for the westbound right turn. Cycle times were observed to be relatively consistent across both peak hours. These ranged between 105 and 118 seconds in the AM peak, and between 107 and 128 seconds in the PM peak. The SIDRA models were coded with a user given cycle time of 110 and 115 seconds for the AM and PM peaks respectively, the average of all observed values. The software was allowed to optimise phase splits.

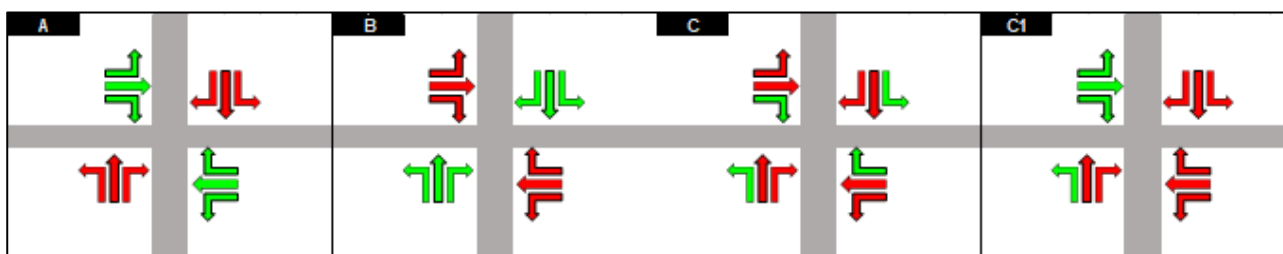


Figure 12: Darcy Road/ Bridge Road Observed Signal Phasing

Observed phasing for the Bridge Road/ Veron Street intersection is shown in **Figure 13**. Cycle times were observed to fluctuate more at this intersection, with the controller observed to 'double cycle' frequently in both peaks. In the AM peak, cycle times ranged between 33 and 78 seconds, with the average time of 50 seconds input into the SIDRA model. The signal operated similarly in the PM peak, with cycle times ranging between 28 and 69 seconds. A cycle time of 45 seconds was set in the SIDRA model.

Observations showed that the controller likely has a cycle time of 60 seconds, with the ability to run two cycles within this time depending on demand actuations. As SIDRA only models one typical cycle time, the reduced cycle times are intended to reflect the observed proportion between 60 second and 30 second cycles.

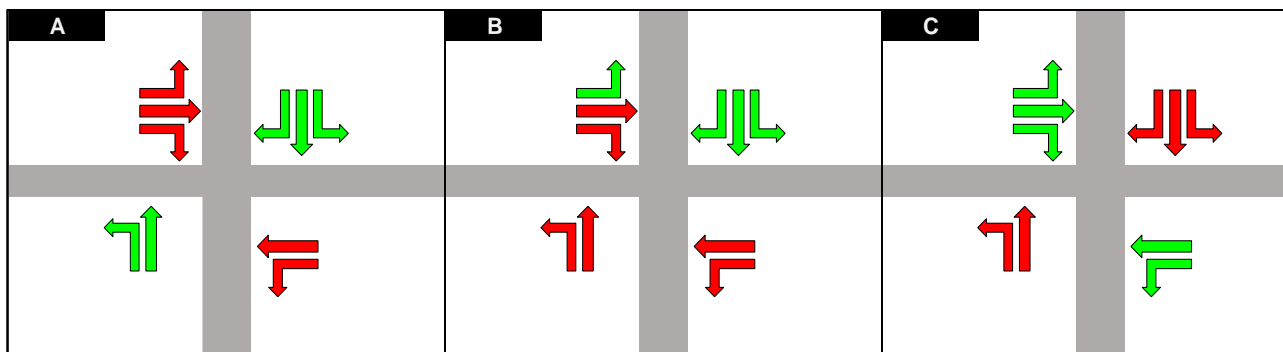


Figure 13: Bridge Road/ Grand Avenue/ Veron Street Observed Signal Phasing



## 4.5 Current Operational Performance

**Table 4** outlines model performance across the 2023 AM and PM peak base case scenarios.

**TABLE 4 EXISTING BASE CASE INTERSECTION PERFORMANCE**

Intersection	7:45-8:45am			4:45-5:45pm		
	DoS	AVD	LoS	DoS	AVD	LoS
Darcy Road/ Bridge Road	0.96	39.8	C	0.95	38.1	C
Bridge Road / Byrne Street	0.33	15.5	B	0.63	19.5	B
Bridge Road / Site Access Road	0.54	10.1	A	0.77	12.6	A
Bridge Road/ Wentworth Avenue	0.69	26.6	B	0.84	36.7	C
Bridge Road/ Alexandra Avenue	0.98	47.1	D	0.95	20.7	B
Bridge Road/ Grand Avenue/ Veron Street	0.96	35.6	C	0.98	23.3	B

While all intersections demonstrate satisfactory performance in terms of average delay and level of service (LoS), certain movements are operating at capacity, resulting in elevated Degrees of Saturation (DoS).

During both peak periods, the signalised Darcy Road / Bridge Road intersection experiences higher DoS of 96 percent and delays (LoS F) on the Bridge Street south approach, specifically in the shared right-turn and through lane. This is attributed to an observed overallocation of green time to Darcy Road, potentially with the intention to discourage northbound traffic on Bridge Road, leading to northbound queues on the Bridge Road south approach, particularly prominent in the AM peak.

The priority-controlled Bridge Road / Byrne Street, the Site Access Road roundabout, and the stop-controlled Bridge Road/ Wentworth Avenue intersections operate adequately. However, occasional queues along Bridge Road, particularly in the southbound direction during the AM peak, are noted, primarily caused by the signalised Bridge Road/ Grand Avenue/ Veron Street intersection.

While the latter intersection exhibits satisfactory performance, the propagation of the southbound queue formed at this point results in the closely spaced downstream Bridge Road/ Alexandra Avenue intersection operating at a LoS D and DoS of 98 percent during the AM peak.

## 4.6 Calibration & Validation

During the traffic surveys at the two signalised intersections (Bridge Road with Darcy Road and with Grand Avenue/Veron Street), as well as the Site Access Road roundabout, average queue lengths by lane were collected to facilitate the calibration process. The calibration involved aligning the modelled values with the observed values obtained during the surveys and site visits, achieved by adjusting green phase splits.

- **Figure 14** and **Figure 15** present the comparison for the Bridge Road / Darcy Road intersection during the AM and PM peaks, respectively.
- **Figure 16** and **Figure 17** present the comparison for the Bridge Road / Access Road intersection during the AM and PM peaks, respectively.

- **Figure 18 and Figure 19** present the comparison for the Bridge Road / Grand Avenue/ Veron Street intersection during the AM and PM peak, respectively.

The comparison between average modelled and observed values generally reveals a satisfactory match. It is noted that at the Site Access roundabout, the modelled queue lengths are slightly underestimated compared to the recorded values. This discrepancy is likely attributed to observed queues along Bridge Road that displayed a more dynamic, rolling nature, which is not classified as a queue in the SIDRA software.

SIDRA predominantly considers stationary queues, contributing to the variation in reported lengths, whereas the recorded queue was potentially overestimated due to the video analysis technology, considering slow-moving queues as stationary.

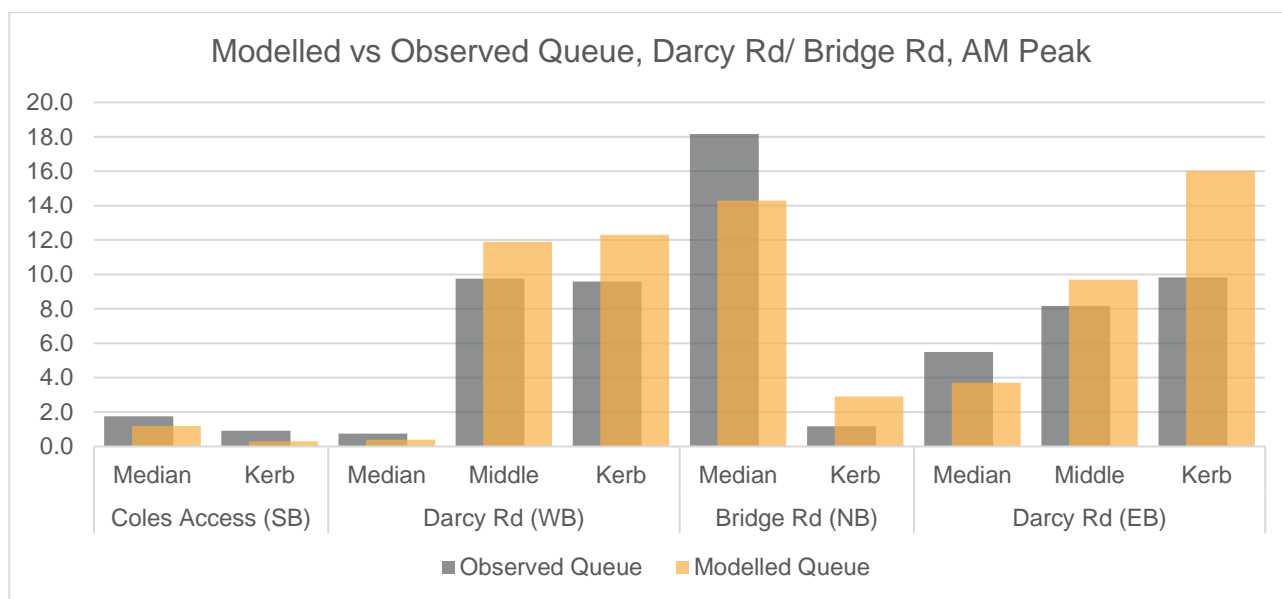


Figure 14: Observed vs Modelled Queues (veh) by Approach and Lane, Bridge Road / Darcy Road, AM

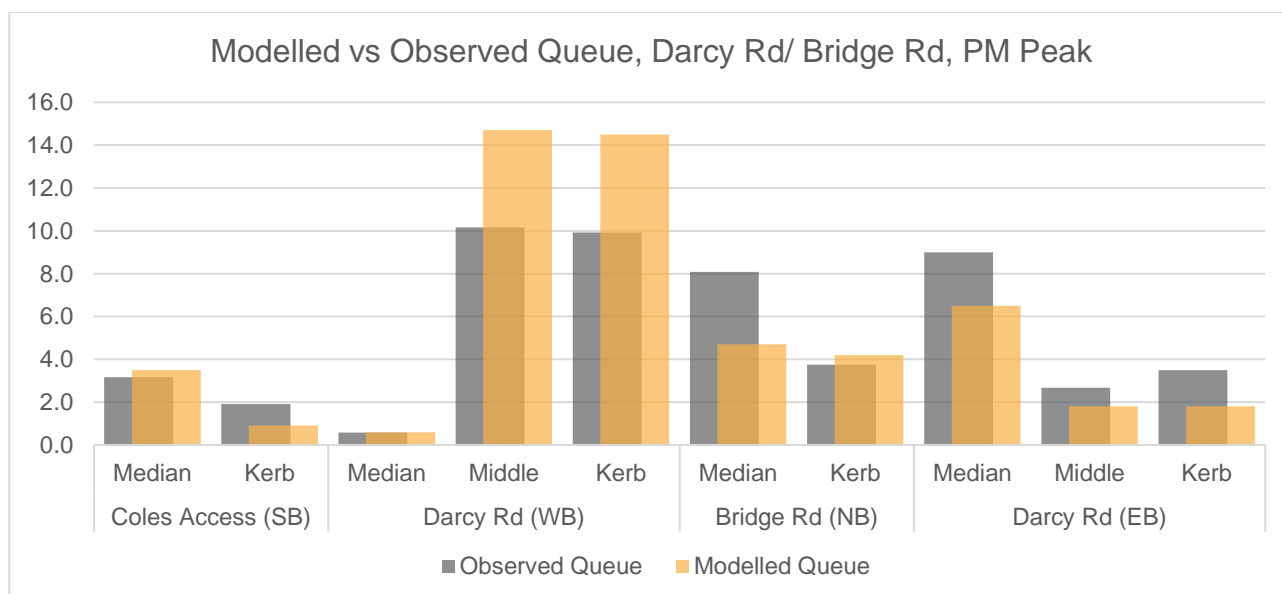


Figure 15: Observed vs Modelled Queues (veh) by Approach and Lane, Bridge Road / Darcy Road, PM

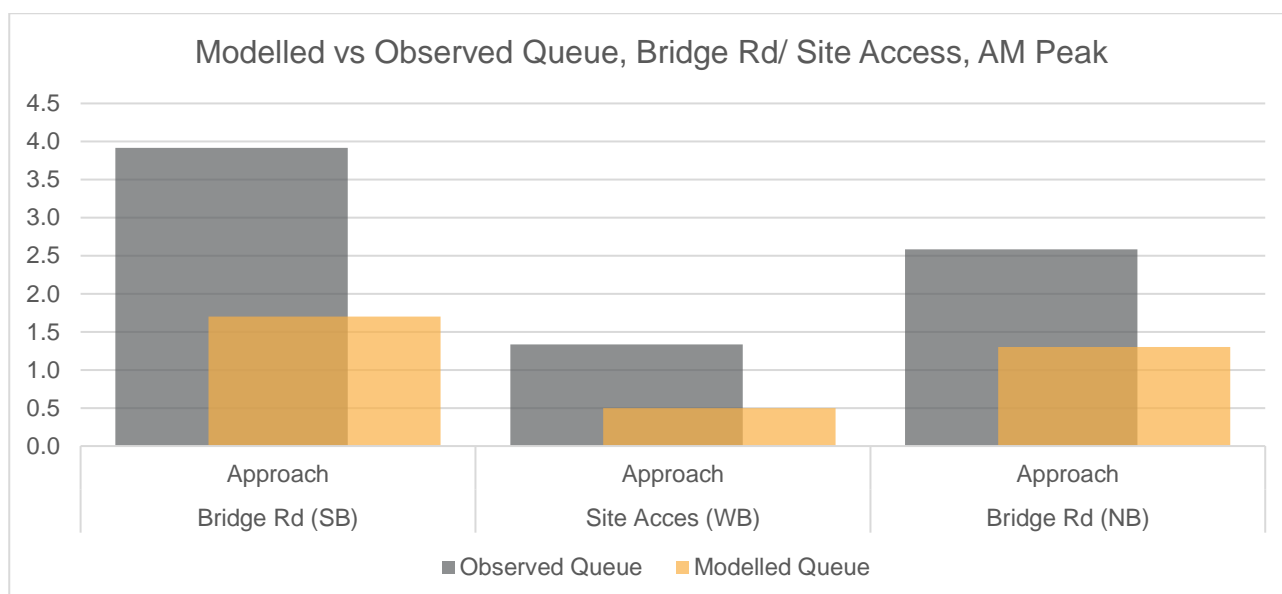


Figure 16: Observed vs Modelled Queues (veh) by Approach, Bridge Road / Access Road, AM

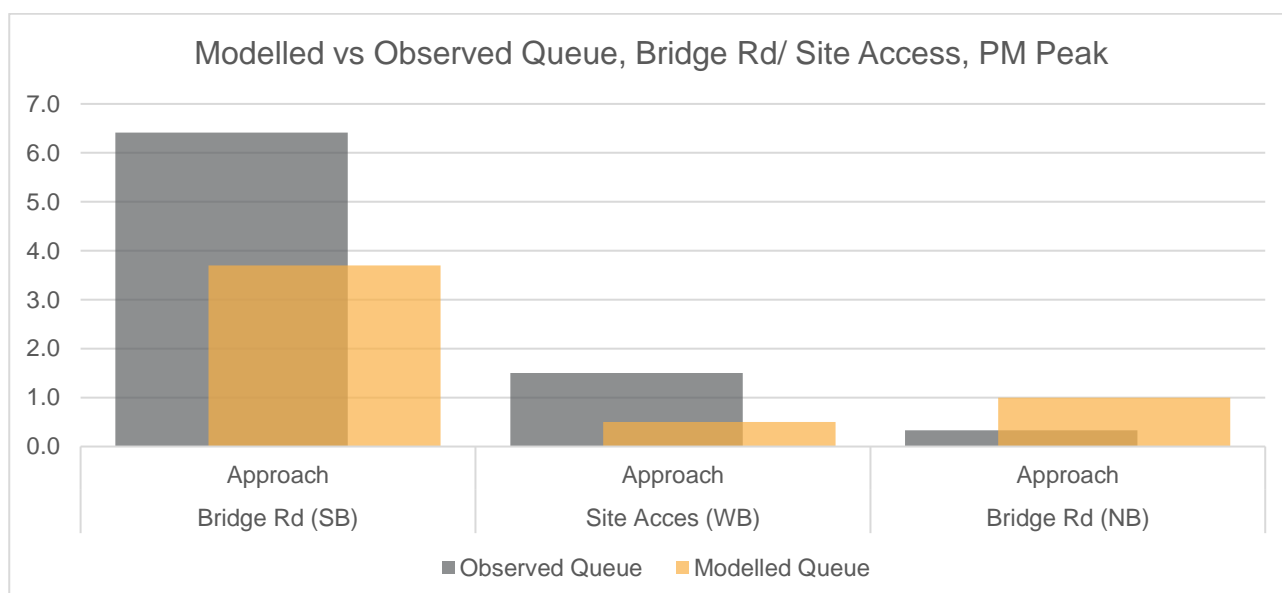


Figure 17: Observed vs Modelled Queues (veh) by Approach, Bridge Road / Access Road, PM

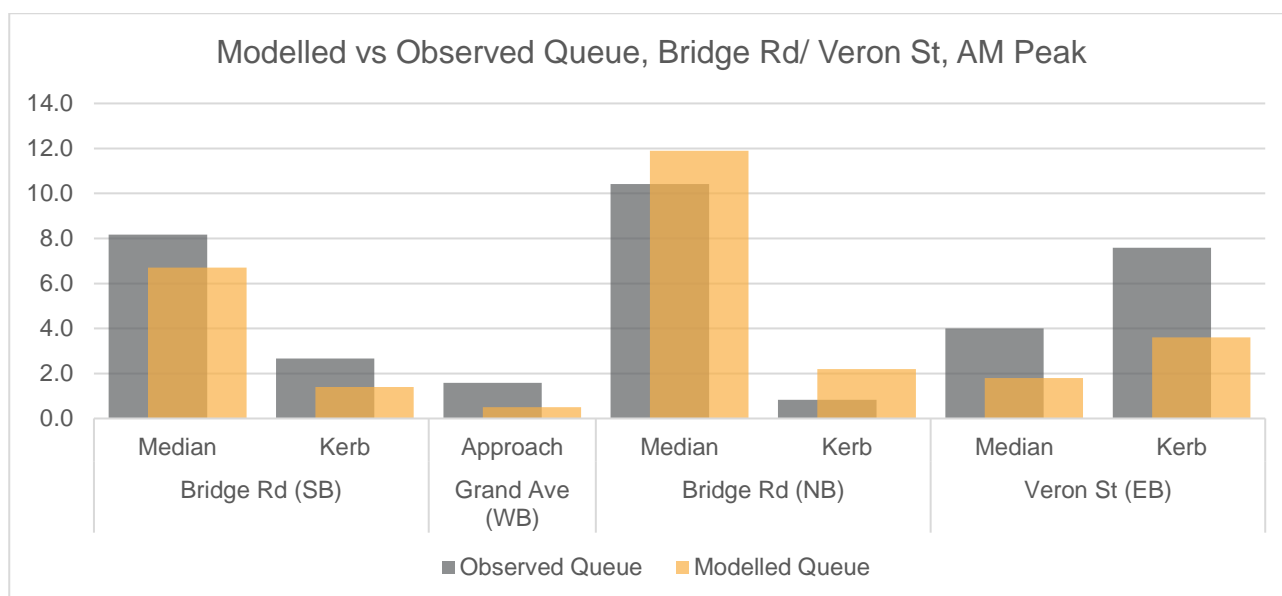


Figure 18: Observed vs Modelled Queues (veh) by Approach and Lane, Bridge Road / Vernon St, AM

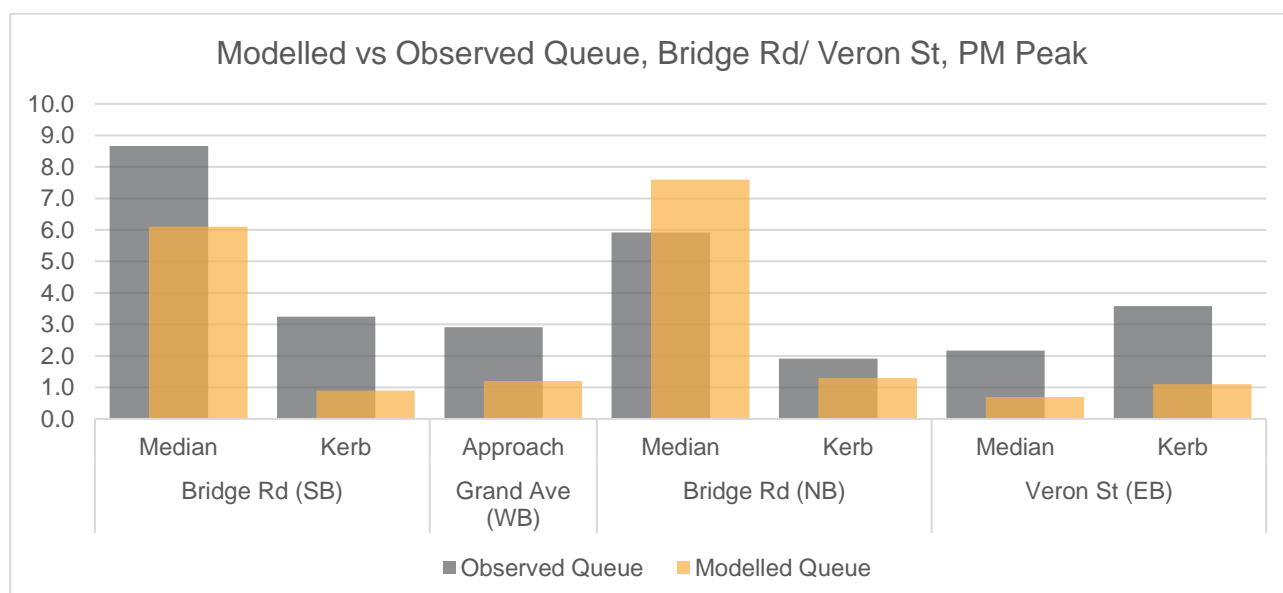


Figure 19: Observed vs Modelled Queues (veh) by Approach and Lane, Bridge Road / Vernon St, PM

# 5 Future Demand Forecast

## 5.1 TfNSW Strategic Projection

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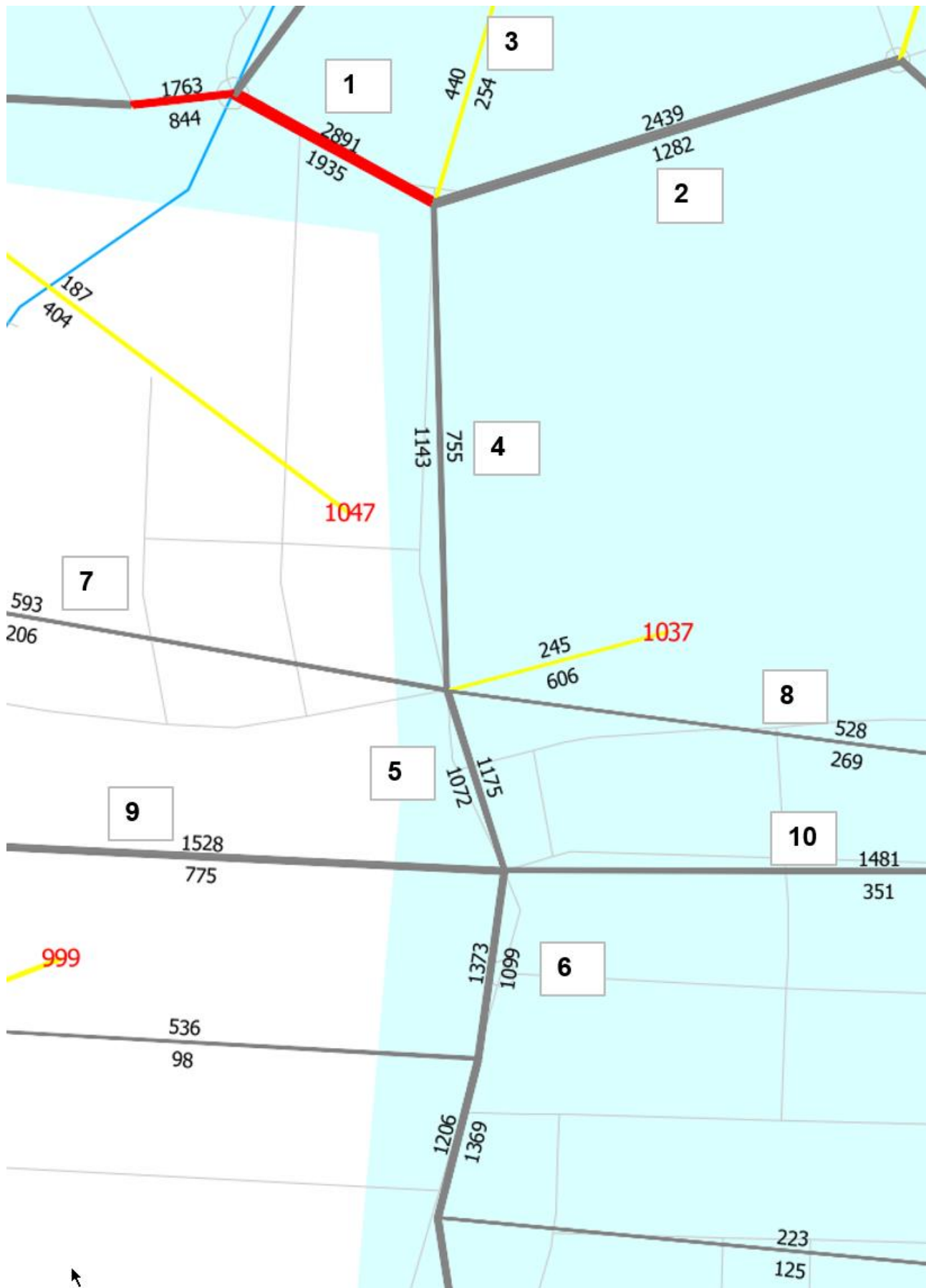
- TfNSW provided Ason Group with STFM link total volumes plots for the years 2021 and 2041.

Demand data from the Sydney Strategic Transport Forecast Model (STFM), accessible via the EMME platform, was collected from TfNSW. These data sets pertained to typical weekday morning and evening peak hours for the years 2021 and 2041. A cartographic representation of the STFM cordon zonal system is visually presented in **Figure 20**.

The integration of STFM demand insights facilitated the forecasting of background traffic volumes and enabled the allocation of these travel movements across the wider network. Notably, the STFM dataset, is based on the latest LU22 projections, procured from TfNSW on 4 December 2023.

- Approach link volumes have been extracted for all the intersections in the study area.
- Annual growth rates have been calculated considering the 2021 and 2041 percentage difference, between 2041 and 2021 strategic model volumes.
- Finally, the growth rates in approach total volume will be applied on pro-rata based on the surveyed turn counts to predict the 2026/2036 Base Case turn volumes.





## 5.2 Future Base Case Traffic Demand

The future 2026 and 2036 base case turn volumes are presented in **Appendix A**.

## 5.3 Development Trips

### 5.3.1 Trip Rates and Generation

Reference is made to the TfNSW Guide Update, which stipulates trip rates for high density residential flat buildings.

The relevant rates are as follows:

- 0.19 trips per unit during the AM peak
- 0.15 trips per unit in the PM peak.

These rates are consistent with those provided in the Modelling Methodology Report.

Application of the above rates to the proposed yield of 510 apartments results in the following traffic generation shown in **Table 5**.

**TABLE 5 PROPOSED TRAFFIC GENERATION**

Use	Yield	Peak Period	Trip Generation Rate	Trips
Trips per Unit	510 Apartments	AM	0.19 trips per unit	97
		PM	0.15 trips per unit	77

Considering the existing traffic generation of the Site (16 veh/hr in the peak period), the Proposal could generate the following total trips:

- 81 veh/hr during the morning peak; and
- 61 veh/hr during the evening peak.

### 5.3.2 Arrival and Departure Split

The following splits were adopted:

- AM Peak: 75% arrival and 25% departure.
- PM Peak: 25% arrival and 75% departure.

### 5.3.3 Directional Distribution

Based on a review of the road network layout and the likely direction of travel of residents and visitors to the Site, a review of the cordon matrices provided by TfNSW were analysed to derive the distribution. Zone 1037 was selected to represent the Site.

The resulting distributions is depicted in **Figure 21** for the AM and PM peak. These directional splits have been applied to the traffic generated by the Proposal.

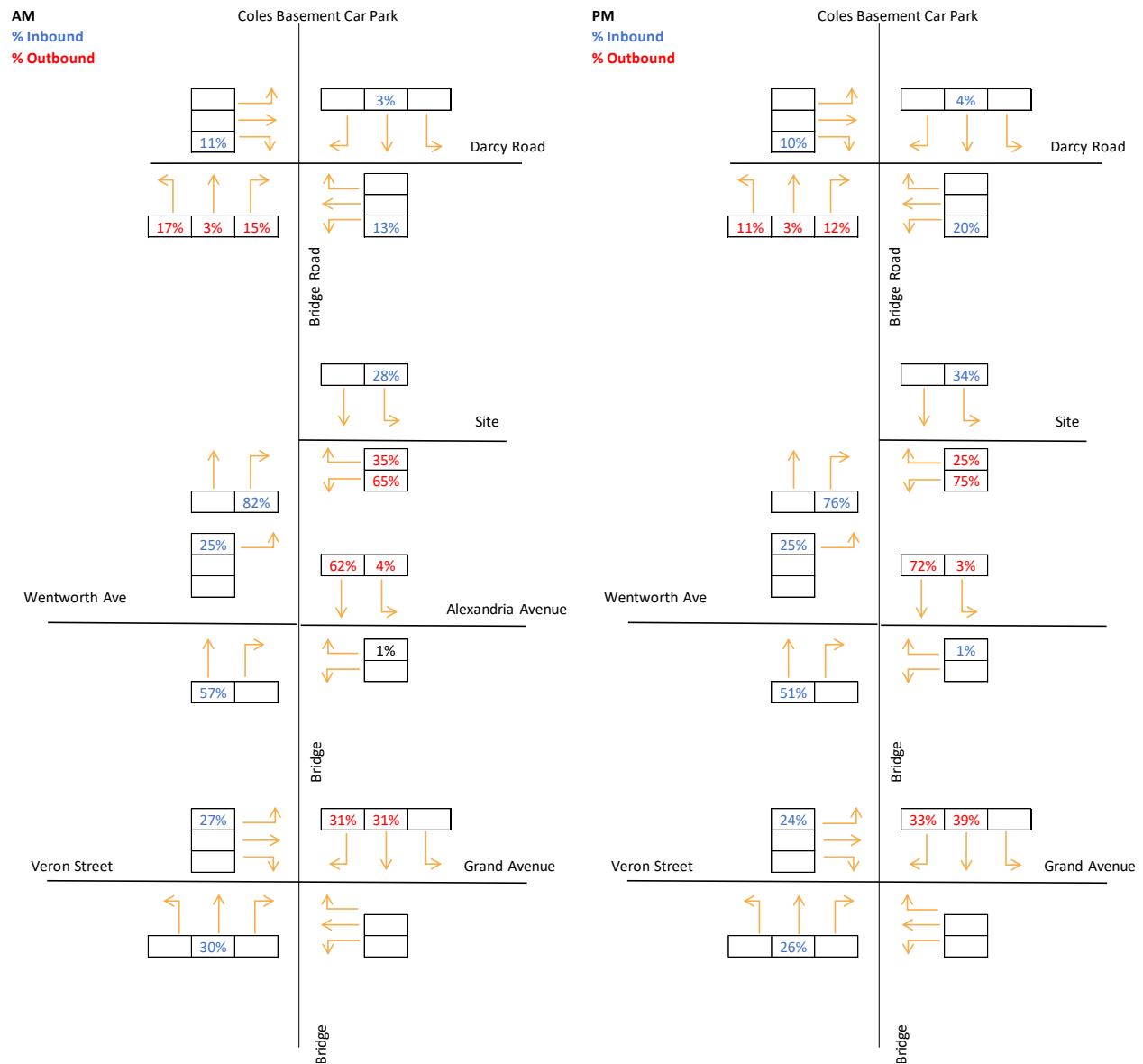


Figure 21: Directional Trip Distribution

### 5.3.4 Contribution of Development Traffic

An assessment of development traffic's contribution to the broader transportation network has been carried out using a first principles approach. **Table 6** provides a detailed breakdown of this contribution by illustrating the proportion of development-related traffic concerning the total volume of intersections during both the morning (AM) and afternoon (PM) peak hours.

The table reveals that most intersections are expected to experience a relatively minimal influx of development-related traffic, ranging from 1% to 4% of the total volume. In essence, these intersections are anticipated to be minimally affected by the proposed development.

As expected, higher contributions of project-related trips are primarily concentrated at the Bridge Road / Site Access Road roundabout, ranging from 4 to 6.3 percent.

**TABLE 6 PERCENTAGE CONTRIBUTION OF DEVELOPMENT TRAFFIC**

#	Intersection	Peak	2026	2036
1	Darcy Road/ Bridge Road	AM	1.0%	0.9%
		PM	0.8%	0.7%
2	Bridge Road / Byrne Street	AM	2.3%	2.0%
		PM	1.4%	1.3%
3	Bridge Road / Site Access Road	AM	6.3%	5.5%
		PM	4.5%	4.0%
4	Bridge Road/ Wentworth Avenue	AM	3.8%	3.3%
		PM	2.7%	2.5%
5	Bridge Road/ Alexandra Avenue	AM	2.9%	2.5%
		PM	2.0%	1.8%
6	Bridge Road/ Grand Avenue/ Veron Street	AM	2.9%	2.6%
		PM	2.1%	1.8%

### 5.3.5 Development Traffic Demands

The development generated traffic volumes are presented in **Appendix B**.

## 5.4 Future Project Case Traffic Demand

The future 2026 and 2036 project case turn volumes are presented in **Appendix C**.

## 6 Future Year Operational Assessment

Future year modelling was undertaken based on the intersection turn volumes developed in **Section 5** of this report. The following scenarios were assessed:

- Future Base Case – Assessing the road network under forecast background growth.
- Future Project Case – Assessing the road network under forecast background growth + additional development trips.
- Future Project Case with Mitigations – Assessing the road network under forecast background growth + additional development trips + additional mitigation measures.

### 6.1 Future Base Case Performance

**Table 7** presents the future base case SIDRA intersection assessment results without the additional Site-generated traffic, for assessment years 2026 and 2036.

**TABLE 7 FUTURE BASE CASE INTERSECTION PERFORMANCE**

Intersection	Year	2026			2036		
	Peak	DoS	AVD	LoS	DoS	AVD	LoS
Darcy Road / Bridge Road	AM	0.85	47.8	D	1.00	75.0	F
	PM	0.77	37.0	C	0.89	45.3	D
Bridge Road / Byrne Street	AM	0.35	16.4	B	0.38	21.7	B
	PM	0.67	20.9	B	1.00	27.1	B
Bridge Road / Site Access Road	AM	0.50	10.4	A	1.12	116.8	F
	PM	0.71	13.1	A	0.80	15.0	B
Bridge Road/ Wentworth Avenue	AM	0.80	32.4	C	1.12	154.5	F
	PM	0.96	60.1	E	1.53	520.3	F
Bridge Road / Alexandra Avenue	AM	1.00	57.4	E	1.14	150.8	F
	PM	1.32	304.3	F	1.40	371.0	F
Bridge Road/ Grand Avenue/ Veron Street	AM	0.90	30.6	C	0.97	38.1	C
	PM	1.02	35.4	C	1.14	57.2	E

The results indicate that several intersections are projected to operate beyond their capacity. Several priority-controlled intersections along Bridge Road are expected to experience high delays and degrees of saturation, particularly in the 2036 assessment year. This can primarily be attributed to southbound queues forming along Bridge Road due to insufficient capacity of the Alexandria Avenue roundabout and the signalised intersection at Grand Avenue and Veron Street.

In summary, the network is anticipated to operate beyond capacity in the future, even without considering the additional trips generated by the Proposal.



## 6.2 Future Project Case Performance

**Table 8** and **Table 9** present the future project case SIDRA intersection assessment results with the additional development traffic, for assessment years 2026 and 2036, respectively.

**TABLE 8 2026 FUTURE PROJECT CASE INTERSECTION PERFORMANCE**

Intersection	Year	2026 Future Project Case			Future Project vs. Base Case		
	Peak	DoS	AVD	LoS	DoS	AVD	LoS
Darcy Road / Bridge Road	AM	0.88	41.3	C	0.02	-7	D to C
	PM	0.86	33.4	C	0.08	-4	
Bridge Road / Byrne Street	AM	0.37	16.9	B	0.02	1	
	PM	0.77	21.6	B	0.11	1	
Bridge Road / Site Access Road	AM	0.52	10.7	A	0.02	0	
	PM	0.76	13.2	A	0.06	0	
Bridge Road/ Wentworth Avenue	AM	0.89	42.3	D	0.09	10	C to D
	PM	1.04	98.2	F	0.08	38	E to F
Bridge Road / Alexandra Avenue	AM	1.08	108.0	F	0.08	51	E to F
	PM	1.33	305.2	F	0.00	1	
Bridge Road/ Grand Avenue/ Veron Street	AM	0.85	31.4	C	-0.05	1	
	PM	0.86	32.3	C	-0.16	-3	

The 2026 results highlight that the performance of several intersections, forecasted to operate beyond their design capacity in the base case, experiences a slight deterioration in terms of the degree of saturation, even though the additional trips are relatively modest when compared to the overall traffic volumes. Specifically, the priority-controlled intersections at Wentworth Avenue exhibit poor performance, primarily attributed to right-turning vehicles unable to find suitable gaps due to southbound queues along Bridge Road. The Alexandra Avenue roundabout operates beyond its design capacity.

**TABLE 9 2036 FUTURE PROJECT CASE INTERSECTION PERFORMANCE**

Intersection	Year	2036 Future Project Case			Future Project vs. Base Case		
	Peak	DoS	AVD	LoS	DoS	AVD	LoS
Darcy Road / Bridge Road	AM	1.06	102.7	F	0.06	28	
	PM	0.89	47.2	D	0.00	2	
Bridge Road / Byrne Street	AM	0.37	21.4	B	-0.01	0	
	PM	1.02	29.6	C	0.02	3	B to C
Bridge Road / Site Access Road	AM	1.12	115.6	F	0.00	-1	
	PM	1.63	572.9	F	0.83	558	B to F
Bridge Road/ Wentworth Avenue	AM	1.19	211.5	F	0.07	57	
	PM	0.75	26.3	B	-0.79	-494	F to B
Bridge Road / Alexandra Avenue	AM	1.22	222.3	F	0.09	72	
	PM	1.11	115.4	F	-0.29	-256	
Bridge Road/ Grand Avenue/ Veron Street	AM	0.87	37.2	C	-0.10	-1	
	PM	0.87	33.4	C	-0.27	-24	E to C

In 2036, most intersections along Bridge Road show poor performance due to extensive southbound queuing. The Bridge Road Darcy Road signalised intersection fails during the morning peak due to northbound queues and high eastbound demands, operating at a LoS F.

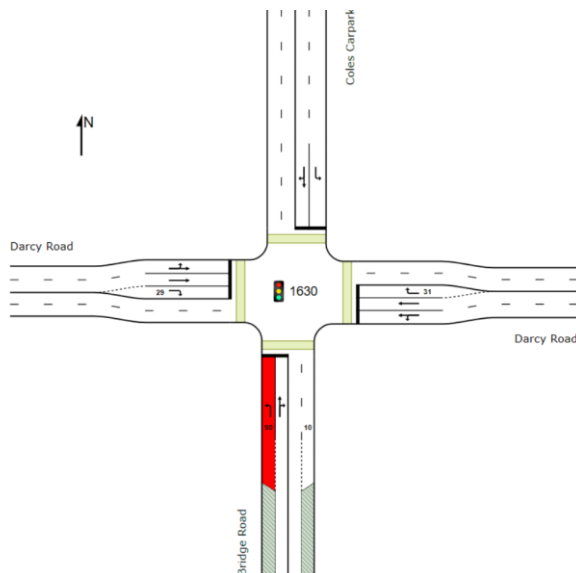
While the Site Access roundabout possesses sufficient capacity to accommodate anticipated future traffic volumes, the efficacy of its performance is compromised by queuing issues along Bridge Road, stemming from capacity constrained upstream intersections. Consequently, the Site Access roundabout also registers a LoS F due to the adverse impact of these upstream conditions.

## 6.3 Future Project Case with Mitigation Performance

**Figure 22** represent interventions proposed to address and improve reported intersection performance issues along Bridge Road, to enhance traffic flow, reduce congestion, and improve overall operational efficiency at the identified intersections.

### Bridge Road / Darcy Road Intersection:

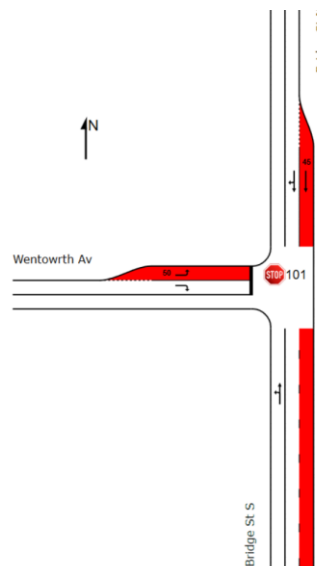
Enforce a parking restriction along the kerbside of the south approach lane, extending up to 90 meters prior to the intersection.



### Bridge Street / Wentworth Avenue Intersection:

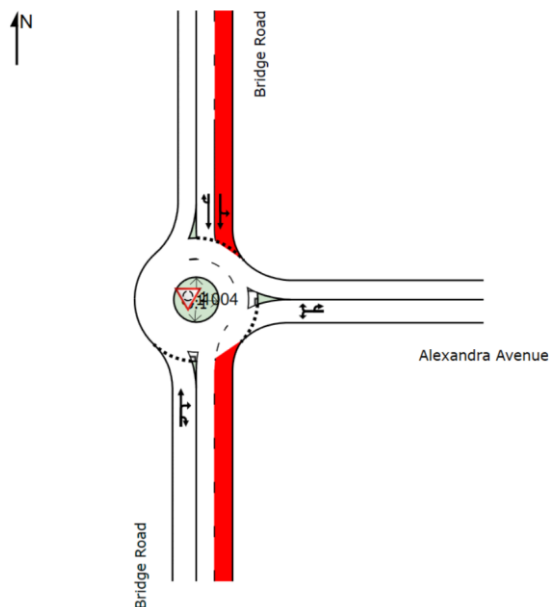
Implementation of a short left-turn lane on the kerbside west approach.

Widening of the road-over-rail bridge at Bridge Road to three lanes, providing two southbound lanes.



### Bridge Road / Alexandra Avenue Intersection:

Provision of two southbound lanes.



### Bridge Road / Vernon St Intersection:

Enforce a parking restriction along the kerbside of the south approach and exit lanes, extending up to 40-50 meters prior to the intersection.

Enforce a parking restriction along the kerbside of the north approach lane.

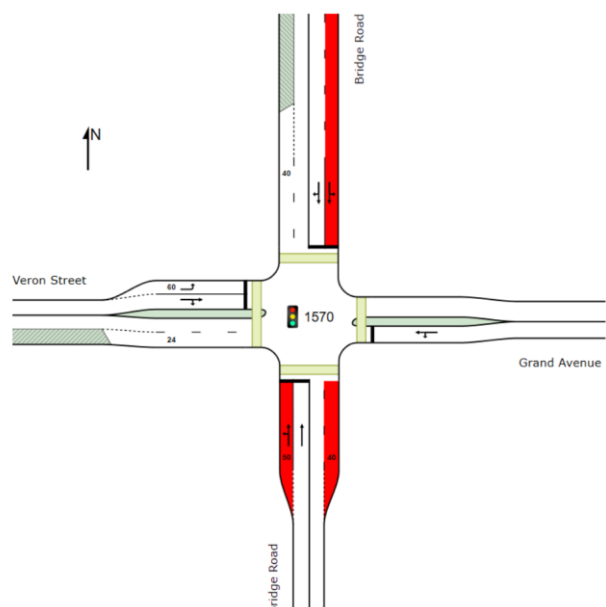


Figure 22: Mitigation Measures

Table 10 and Table 11 present the future project case SIDRA intersection assessment results with the additional mitigation measures, for assessment years 2026 and 2036, respectively.

**TABLE 10 2026 FUTURE PROJECT CASE WITH MITIGATIONS INTERSECTION PERFORMANCE**

Intersection	Year	2026 Future Project Case with Mitigations			2026 Future Project Case with Mitigations vs Project Case		
	Peak	DoS	AVD	LoS	DoS	AVD	LoS
Darcy Road / Bridge Road	AM	0.86	29.8	C	-0.02	-12	D to C
	PM	0.86	33.4	C	0.00	0	
Bridge Road / Byrne Street	AM	0.35	17.0	B	-0.03	0	
	PM	0.75	21.7	B	-0.02	0	
Bridge Road / Site Access Road	AM	0.54	11.0	A	0.02	0	
	PM	0.76	13.2	A	0.00	0	
Bridge Road/ Wentworth Avenue	AM	0.68	44.7	D	-0.21	2	C to D
	PM	0.67	51.9	C	-0.37	-46	E to C
Bridge Road / Alexandra Avenue	AM	0.66	9.3	A	-0.42	-99	E to A
	PM	0.60	13.3	A	-0.72	-292	F to A
Bridge Road/ Grand Avenue/ Veron Street	AM	0.81	19.2	B	-0.04	-12	C to B
	PM	0.85	21.6	B	-0.01	-11	C to B

In 2026, the performance of most intersections is satisfactory with the implemented mitigation measures, operating at a LoS ranging from A to C. The exception is the stop-sign controlled Bridge Road / Wentworth intersection, projected to operate at a LoS D during the morning peak.

**TABLE 11 2036 FUTURE PROJECT CASE WITH MITIGATIONS INTERSECTION PERFORMANCE**

Intersection	Year	2036 Future Project Case with Mitigations			2036 Future Project Case with Mitigations vs Project Case		
	Peak	DoS	AVD	LoS	DoS	AVD	LoS
Darcy Road / Bridge Road	AM	0.97	66.4	E	-0.10	-36	F to E
	PM	0.90	51.3	D	0.01	0	
Bridge Road / Byrne Street	AM	0.44	21.6	B	0.07	0	
	PM	1.02	30.1	C	0.00	0	
Bridge Road / Site Access Road	AM	0.62	12.4	A	-0.50	0	F to A
	PM	0.85	14.9	B	-0.78	-512	F to B
Bridge Road/ Wentworth Avenue	AM	1.20	190.3	F	0.01	-248	
	PM	1.82	454.9	F	1.07	430	B to F
Bridge Road / Alexandra Avenue	AM	0.77	10.7	A	-0.46	-212	F to A
	PM	0.70	16.9	B	-0.41	-26	F to B
Bridge Road/ Grand Avenue/ Veron Street	AM	0.74	20.6	B	-0.14	-36	C to B
	PM	0.86	27.8	B	-0.01	-7	C to B

In 2036, the performance of most intersections remains acceptable with the additional mitigation measures, operating at a LoS A to C. The proposed parking restrictions on the south approach at the Darcy Road / Bridge Road intersection would improve the overall performance from a LoS F, operating at a LoS E during the AM peak.

However, the Bridge Road / Wentworth intersection is projected to operate at an unacceptable LoS F during both the AM and PM peaks. This failure is attributed to improved southbound traffic flow resulting from the railway bridge widening, causing challenges for right-turning southbound vehicles from Wentworth Avenue to find suitable gaps. Banning the right-turn movement would alleviate this issue.

## 7 Conclusions

Ason Group has been engaged by the Townsquare Consultants on behalf of 93 Bridge Road Pty Ltd atf Bridge Road Unit Trust to prepare a Transport Assessment in relation to the Proposal Planning for a mixed-use development located on 93 Bridge Road, Westmead (the Site).

Further to a preliminary assessment of all relevant traffic and transport issues, Ason Group provides the following conclusions:

Reference is made to the TfNSW Guide to establish the adopted trip generation rate analysis of the Proposal.

- AM Peak: 0.19 veh/h
- PM Peak: 0.15 veh/h

Applying these rates, the Proposal is forecast to yield a traffic generation of 97 and 77 vehicles in the AM and PM peak hours. Noting there is an existing residential development generating 16 vehicles in each peak period, this results in a net increase of 81 vehicles in the AM peak and 61 vehicles in the PM peak.

The development traffic as a percentage of total intersection volume is summarised in **Table 6**. The analysis reveals that most intersections are expected to experience a relatively minimal influx of development-related traffic, ranging from 1% to 4% of the total volume. In essence, these intersections are anticipated to be minimally affected by the proposed development.

SIDRA Intersection modelling was completed to assess the traffic impacts of the Proposal's development traffic on the existing configuration of the Darcy Road / Bridge Road, Bridge Road / Access Road, Bridge Road / Alexandra Avenue, Bridge Road / Veron Street / Grand Avenue, Bridge Road / Wentworth Avenue and Bridge Road / Byrne Street intersections.

The future base case (scenario assuming no project) model results indicate that several intersections along Bridge Road are projected to operate beyond their capacity, particularly in the 2036 assessment year. The poor performance can primarily be attributed to southbound queues forming along Bridge Road due to insufficient capacity of the Alexandria Avenue roundabout and the signalised intersection at Grand Avenue and Veron Street.

In summary, the network is anticipated to operate beyond capacity in the future, even without considering the additional trips generated by the Proposal.

The future project case model results show that several intersections, will experience a slight deterioration in operational performance, even though the additional trips are generated by the Project are relatively modest when compared to the overall traffic volumes. Specifically, the priority-controlled intersections at Wentworth Avenue exhibit poor performance, primarily attributed to right-turning vehicles unable to find suitable gaps due to southbound queues along Bridge Road. The Alexandra Avenue roundabout operates beyond its design capacity.

In 2036, the Darcy Road signalised intersection fails during the morning peak due to northbound queues and high eastbound demands, operating at a LoS F.

While the roundabout providing access to the Site possesses sufficient capacity to accommodate anticipated future traffic volumes, the efficacy of its performance is compromised by the queuing issues along Bridge Road, stemming from capacity constrained upstream intersections. Consequently, the roundabout also registers a LoS F due to the adverse impact of these upstream conditions.

Several interventions have been proposed to address and improve the reported intersection performance issues along Bridge Road, to enhance traffic flow, reduce congestion, and improve overall operational efficiency at the identified intersections.

These interventions include:

- Bridge Road / Darcy Road Intersection

Enforce a parking restriction along the kerbside of the south approach lane, extending up to 90 meters prior to the intersection.

- Bridge Street / Wentworth Avenue Intersection

Implementation of a short left-turn lane on the west approach to allow a dedicated right-turn lane. Widening of the road-over-rail bridge at Bridge Road to three lanes, providing two southbound lanes and one northbound lane.

- Bridge Road / Alexandra Avenue Intersection

Provision of two southbound lanes due to the road-over-rail bridge widening.

- Bridge Road / Vernon St Intersection:

Enforce a parking restriction along the kerbside of the south approach and exit lanes, extending up to 40-50 meters prior to the intersection.

Enforce a parking restriction along the kerbside of the north approach lane.

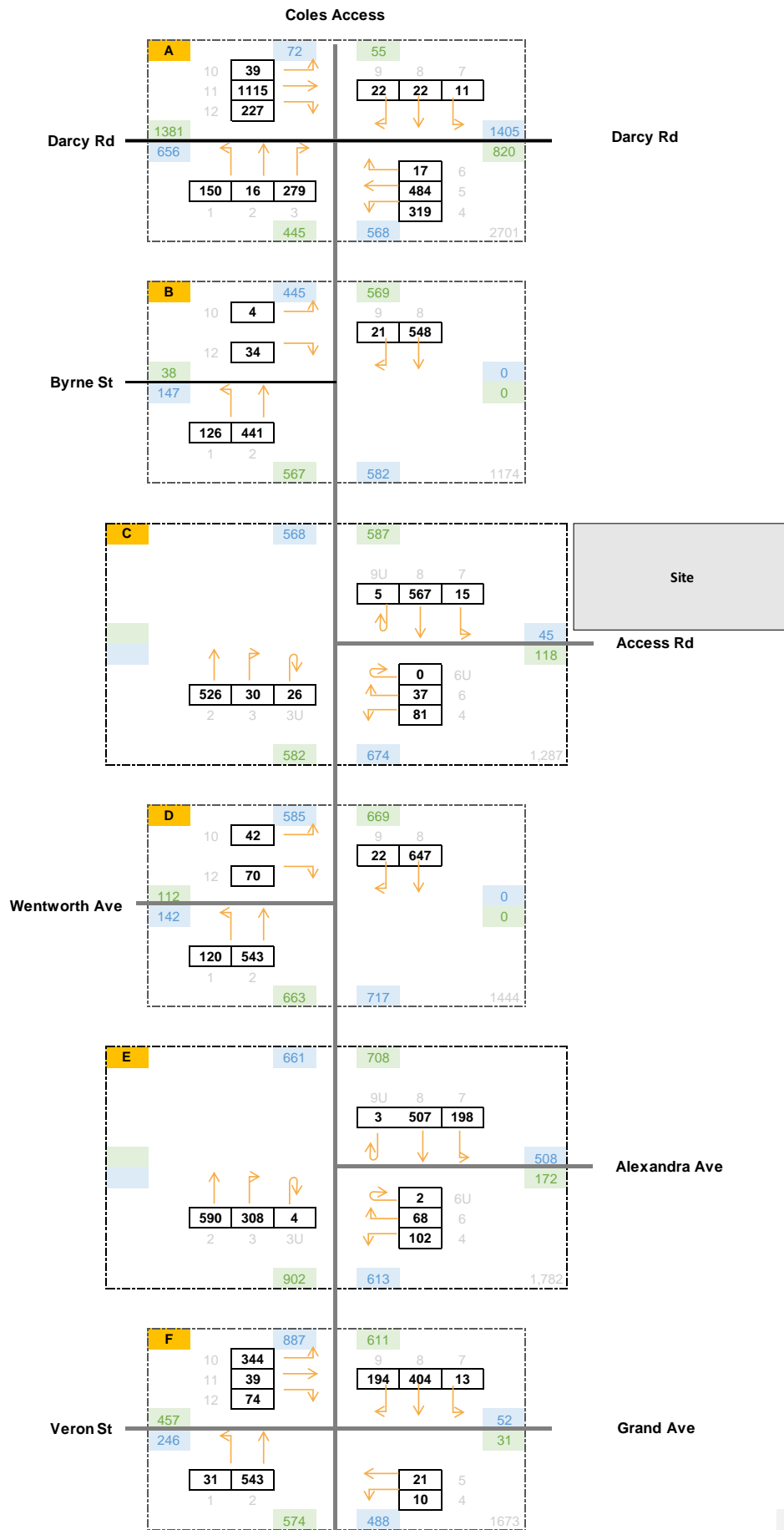
In 2026, the performance of most intersections is satisfactory assuming the implementation of the proposed interventions, the LoS ranges from A to D.

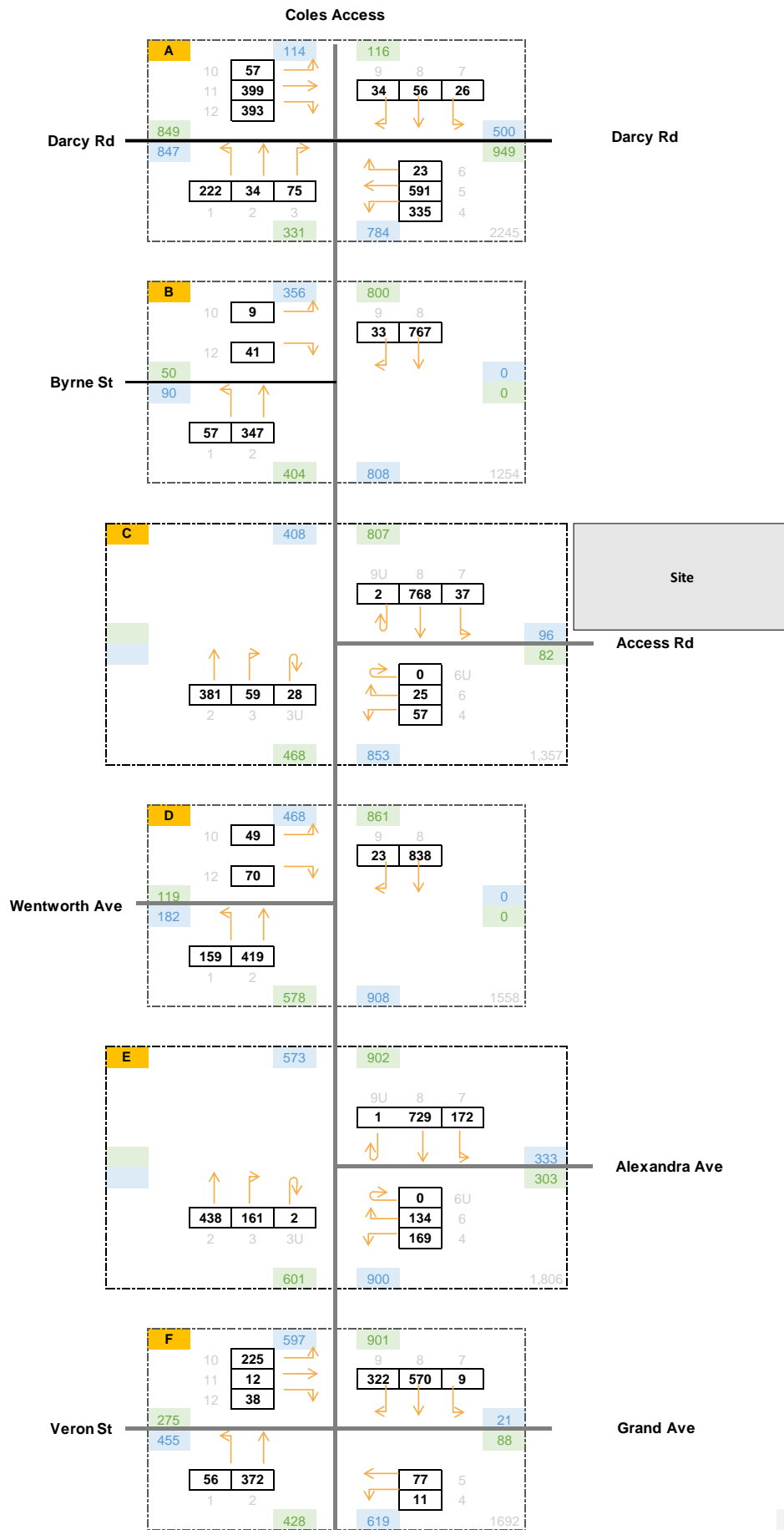
In 2036, the performance of most intersections remains acceptable with the proposed interventions, operating at a LoS A to C. The proposed parking restrictions on the south approach at the Darcy Road / Bridge Road intersection would improve the overall performance to an acceptable LoS E during the AM peak.

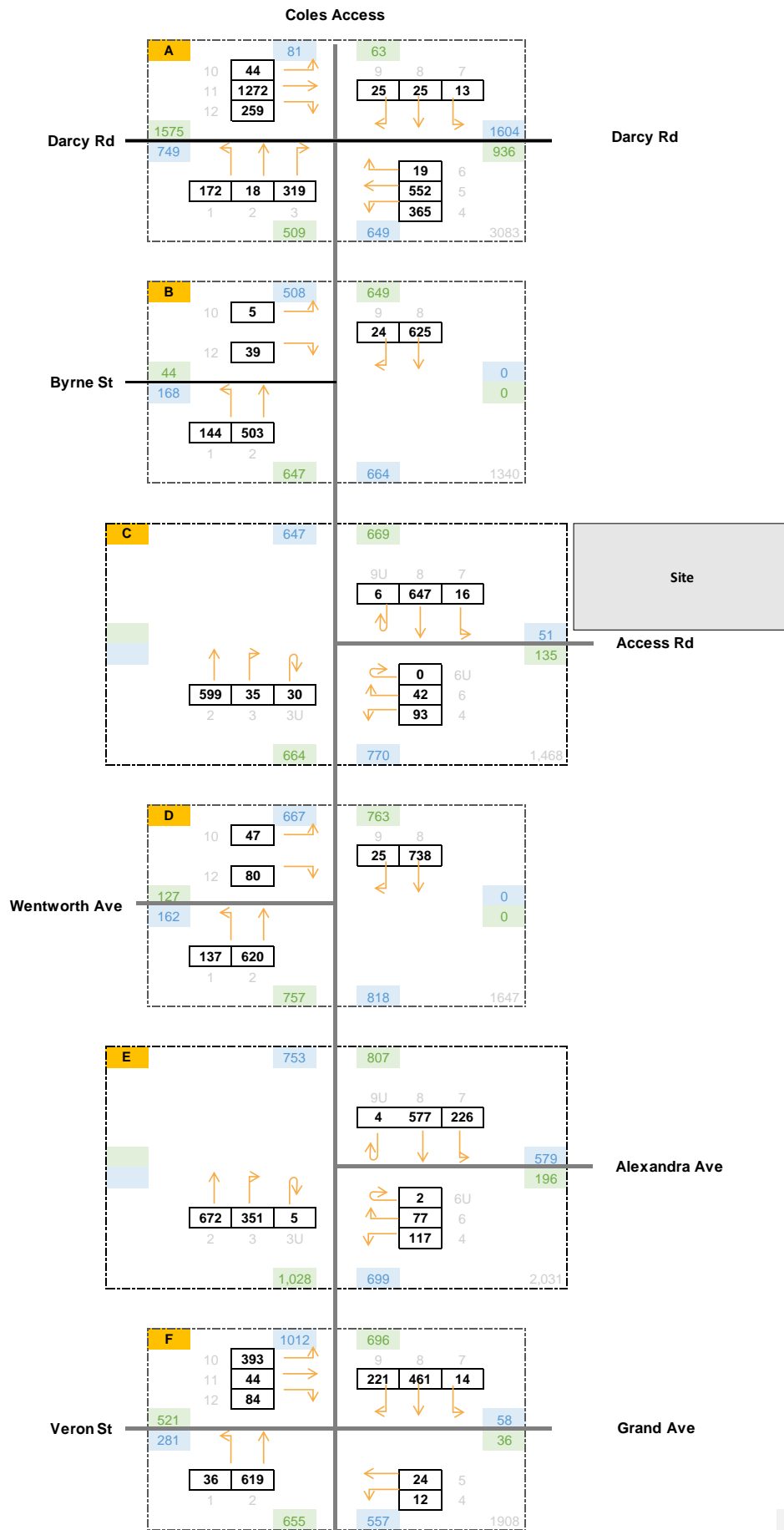
However, the Bridge Road / Wentworth intersection is projected to operate at an unacceptable LoS F during both the AM and PM peaks. This failure is attributed to improved southbound traffic flow resulting from the railway bridge widening, causing challenges for right-turning southbound vehicles from Wentworth Avenue to find suitable gaps. Banning the right-turn movement would alleviate this issue.

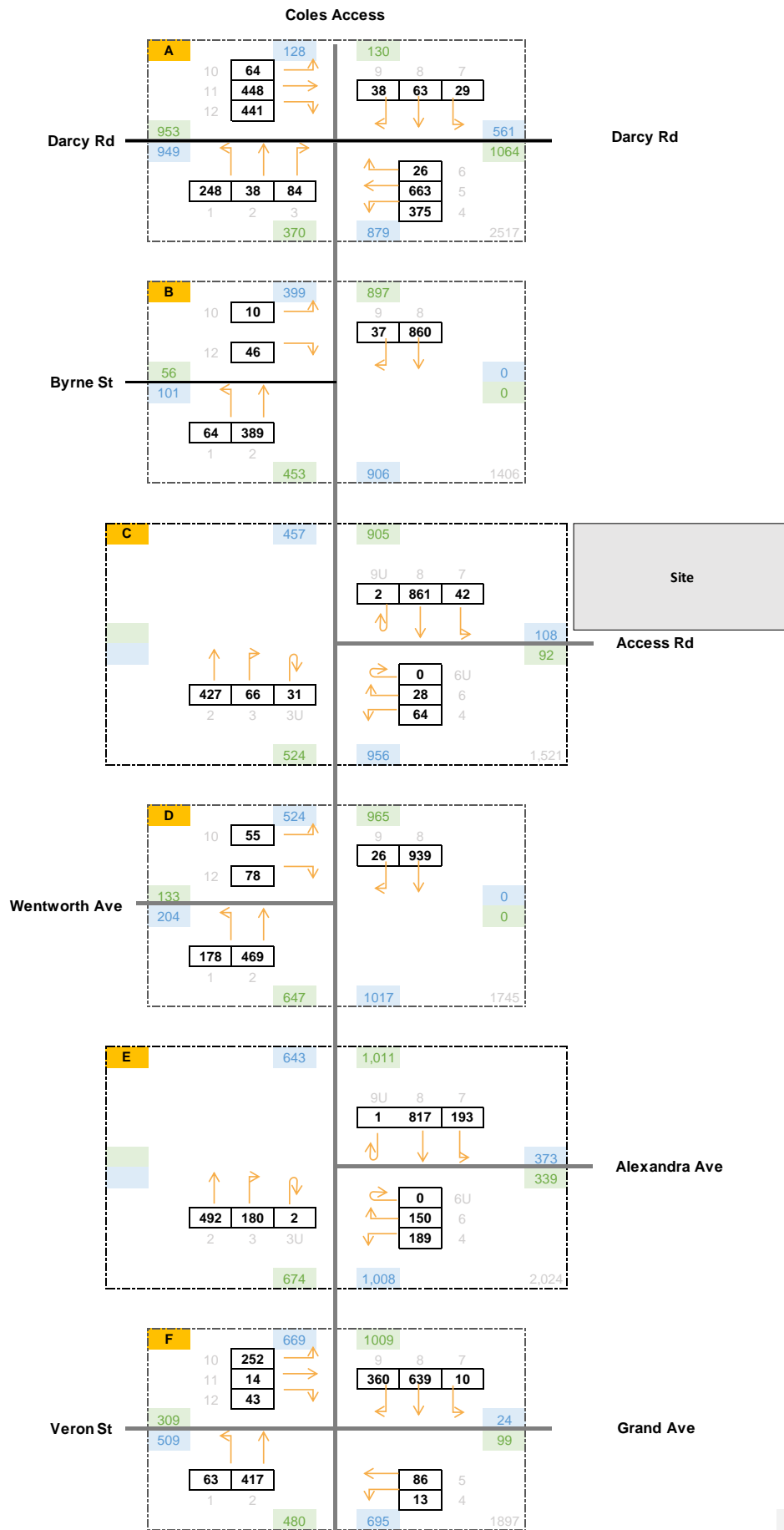


# **Appendix A. Future Base Case Turn Volumes**



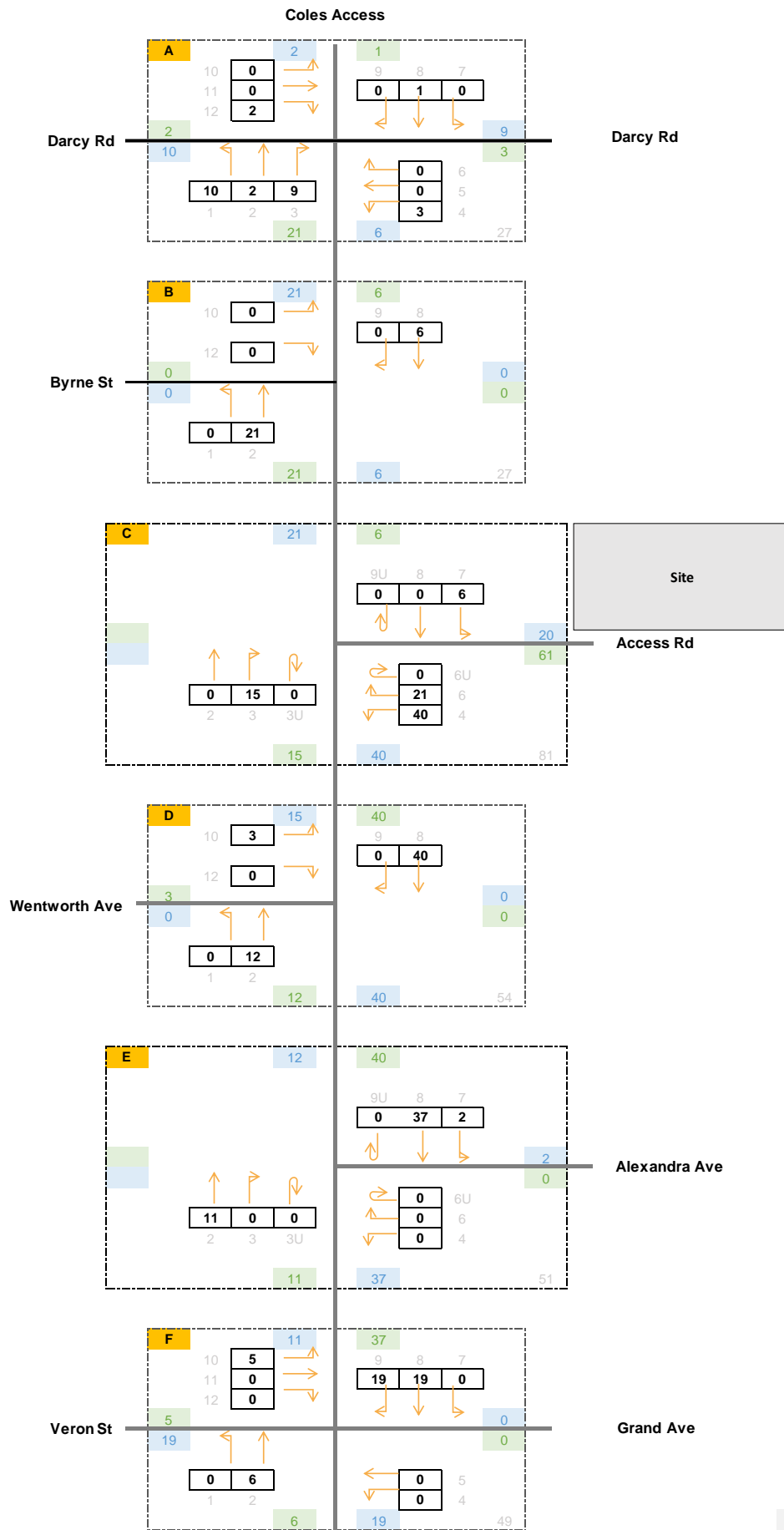


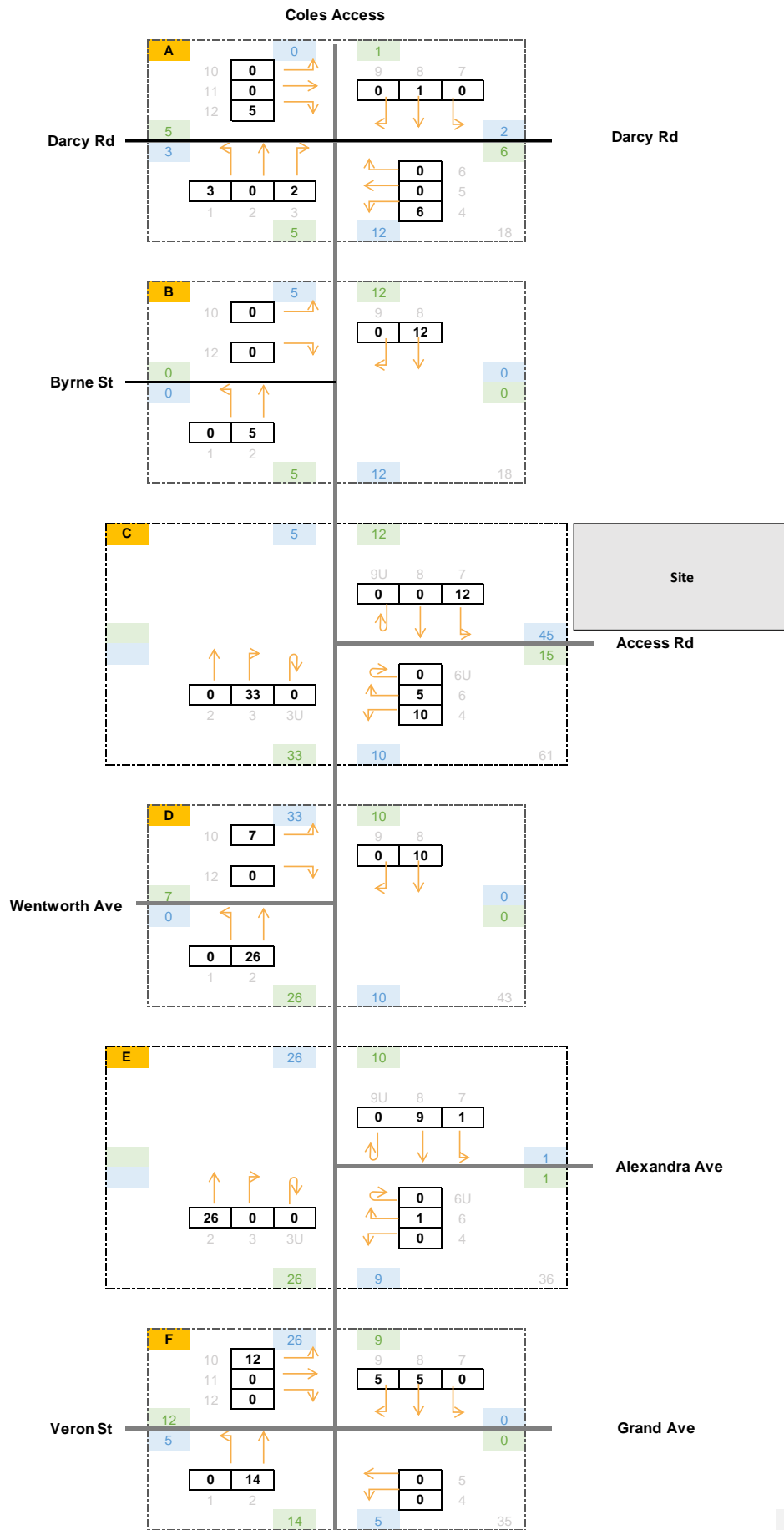




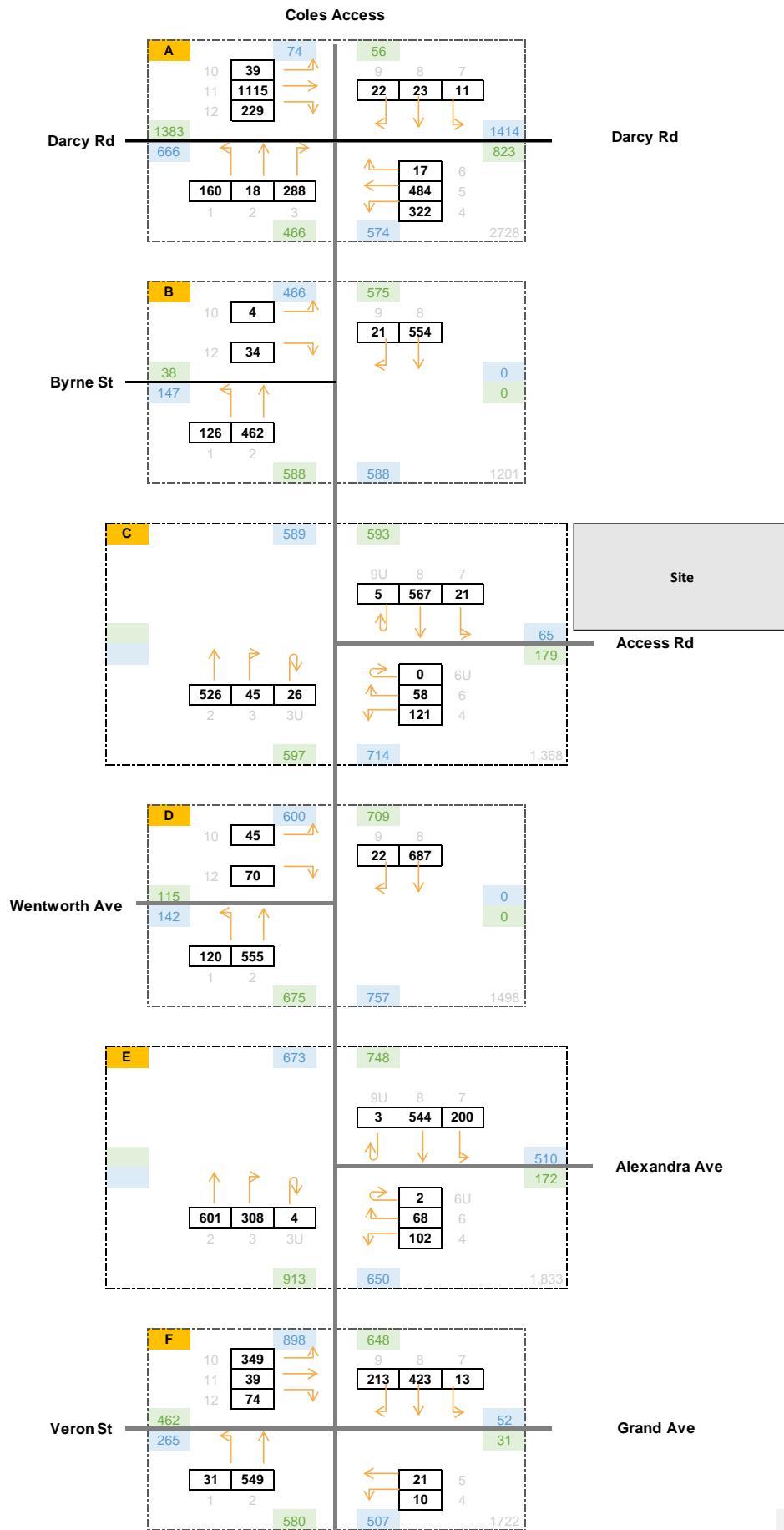


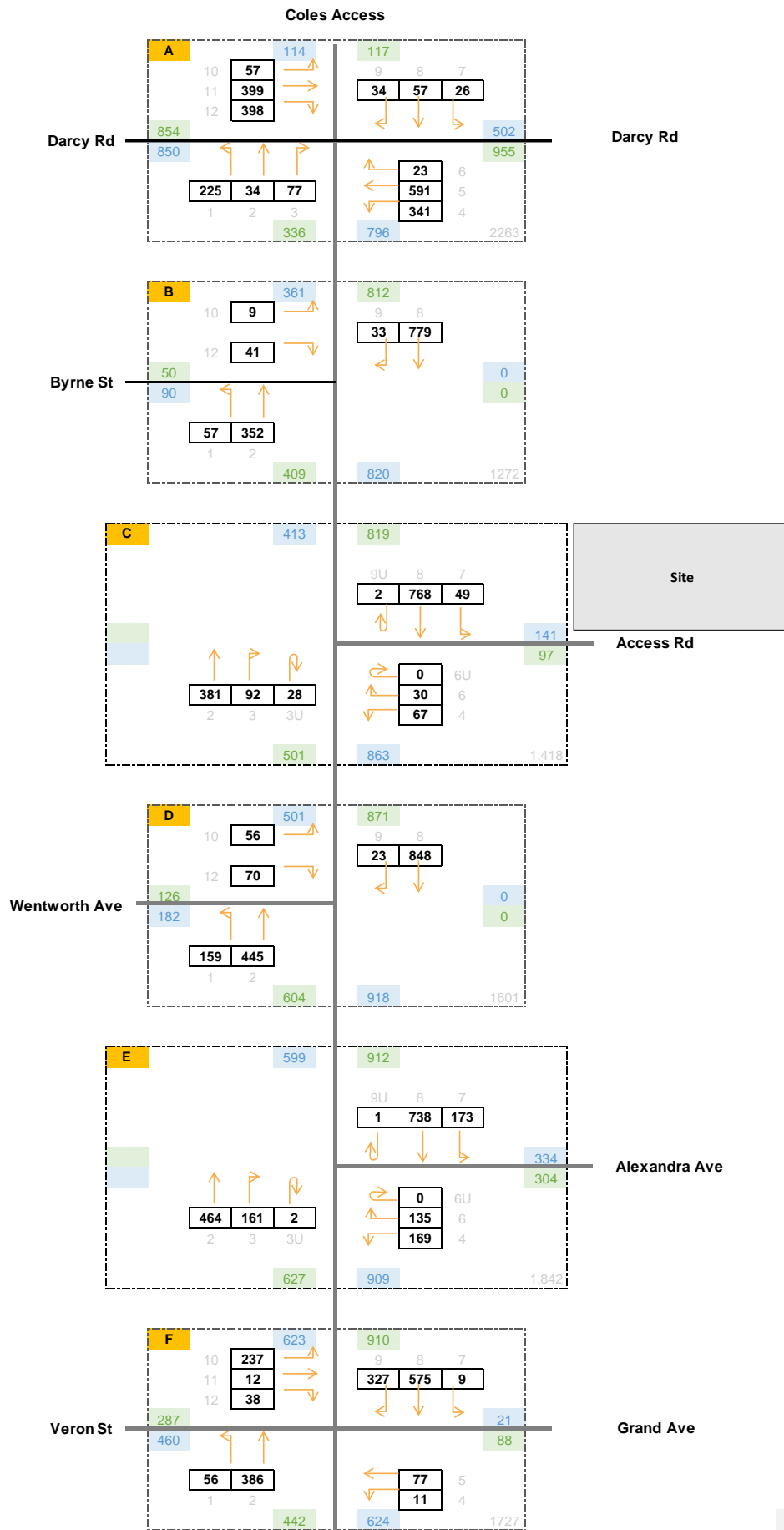
# **Appendix B. Development Generated Turn Volumes**



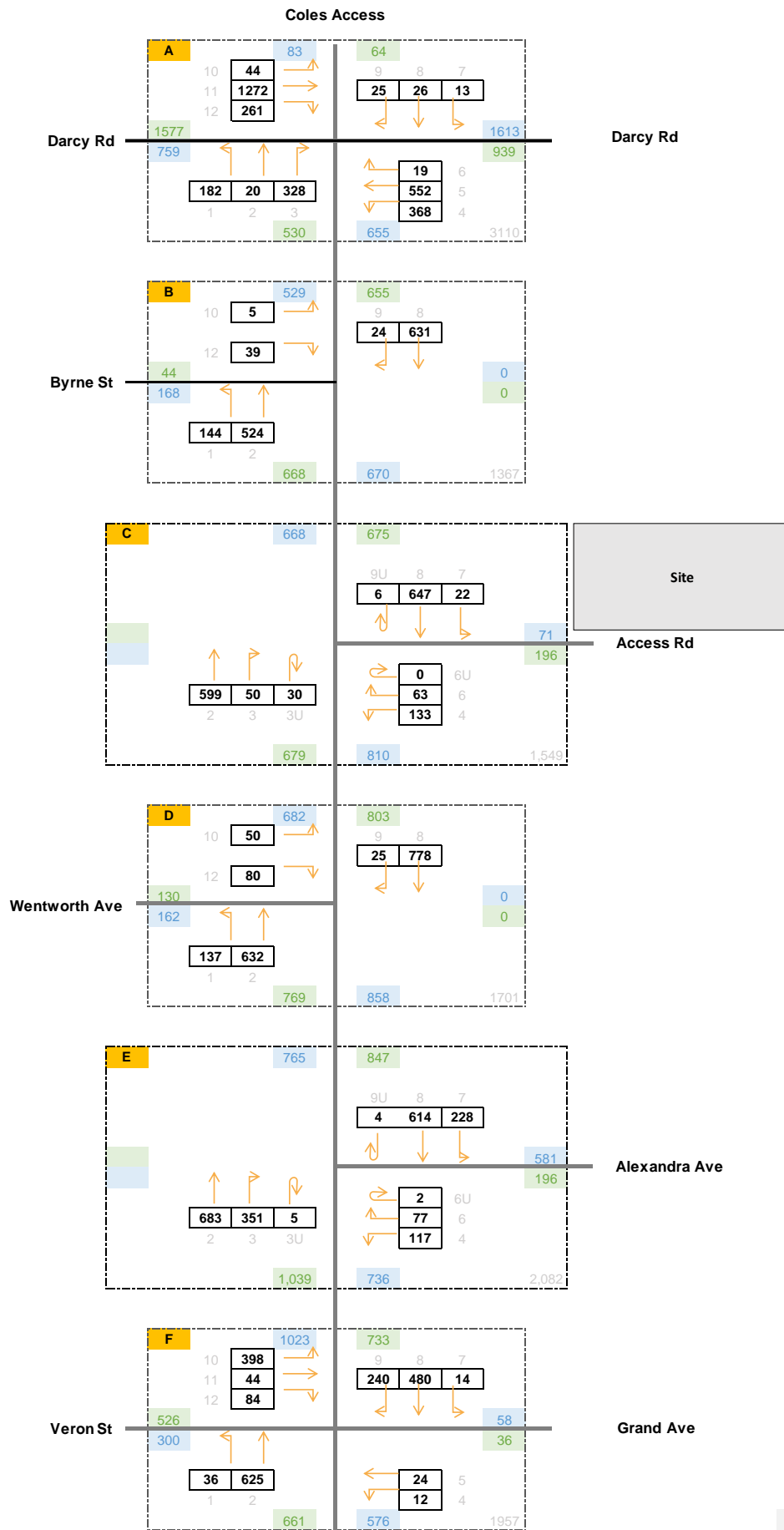


# **Appendix C. Future Project Case Turn Volumes**











# Appendix D. SIDRA Modelling Results

# USER REPORT FOR NETWORK SITE

 Project: 0898-2m03 SIDRA

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Template: Default Site User  
Report

 Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark AM Existing (Site Folder: AM Existing)]

 Network: 1 [AM Existing (Network Folder:  
General)]

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Survey Footage - Copy

Input Phase Sequence: A, B, C1

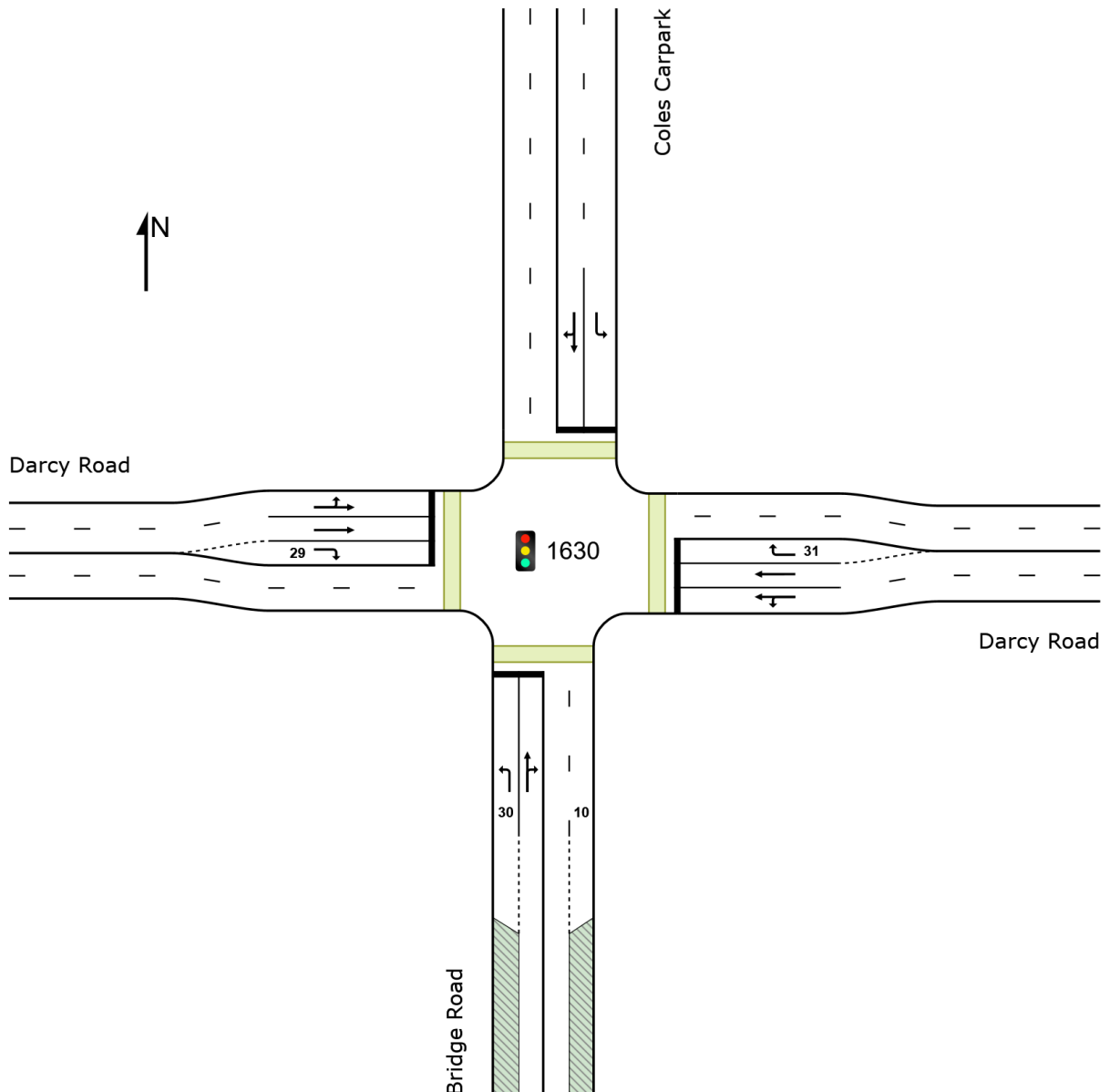
Output Phase Sequence: A, B, C1

Reference Phase: Phase A

Offset: NA

## Site Layout

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

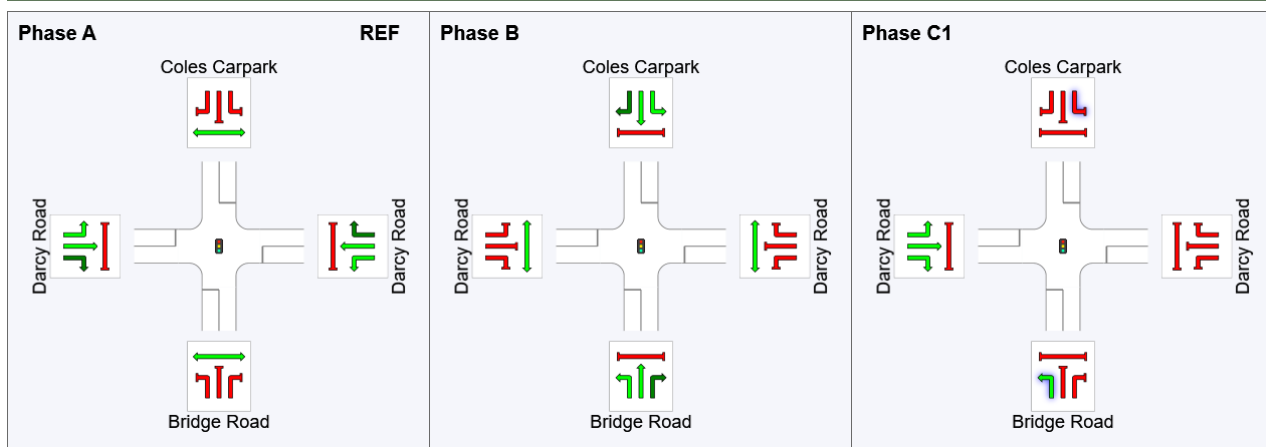




Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
1	L2	All MCs	152	2.8	152	2.8	0.165	45.0	LOS D	2.9	20.5	0.57	0.70	0.57	28.8
2	T1	All MCs	16	0.0	16	0.0	0.959	109.4	LOS F	14.3	103.4	1.00	1.13	1.48	12.4
3	R2	All MCs	282	3.7	282	3.7	*0.959	109.8	LOS F	14.3	103.4	1.00	1.13	1.48	17.0
Approach			449	3.3	449	3.3	0.959	87.9	LOS F	14.3	103.4	0.85	0.99	1.17	15.4
East: Darcy Road															
4	L2	All MCs	322	3.3	322	3.3	*0.649	41.0	LOS C	12.3	89.0	0.90	0.83	0.90	20.2
5	T1	All MCs	487	4.1	487	4.1	0.649	49.5	LOS D	12.3	89.0	0.89	0.79	0.89	26.0
6	R2	All MCs	17	0.0	17	0.0	0.106	55.4	LOS D	0.4	3.0	0.71	0.73	0.71	17.1
Approach			826	3.7	826	3.7	0.649	46.3	LOS D	12.3	89.0	0.89	0.80	0.89	20.7
North: Coles Carpark															
7	L2	All MCs	12	0.0	12	0.0	0.024	35.2	LOS C	0.3	2.1	0.77	0.54	0.77	16.7
8	T1	All MCs	22	0.0	22	0.0	0.117	35.0	LOS C	1.2	8.8	0.81	0.62	0.81	11.5
9	R2	All MCs	22	4.8	22	4.8	0.117	40.0	LOS C	1.2	8.8	0.81	0.62	0.81	13.8
Approach			56	1.9	56	1.9	0.117	37.0	LOS C	1.2	8.8	0.80	0.60	0.80	13.6
West: Darcy Road															
10	L2	All MCs	39	2.7	39	2.7	0.628	21.2	LOS B	16.0	113.6	0.68	0.63	0.68	16.4
11	T1	All MCs	1124	1.7	1124	1.7	0.628	17.7	LOS B	16.0	113.6	0.68	0.62	0.68	35.5
12	R2	All MCs	229	3.2	229	3.2	*0.472	28.2	LOS B	3.7	26.6	0.84	0.80	0.84	17.9
Approach			1393	2.0	1393	2.0	0.628	19.5	LOS B	16.0	113.6	0.70	0.65	0.70	30.3
All Vehicles			2724	2.7	2724	2.7	0.959	39.3	LOS C	16.0	113.6	0.79	0.75	0.84	22.3



## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C1
Phase Change Time (sec)	0	50	90
Green Time (sec)	44	34	24
Phase Time (sec)	50	40	30
Phase Split	42%	33%	25%
Phase Frequency (%)	100.0 <sup>1</sup>	100.0 <sup>1</sup>	100.0 <sup>1</sup>

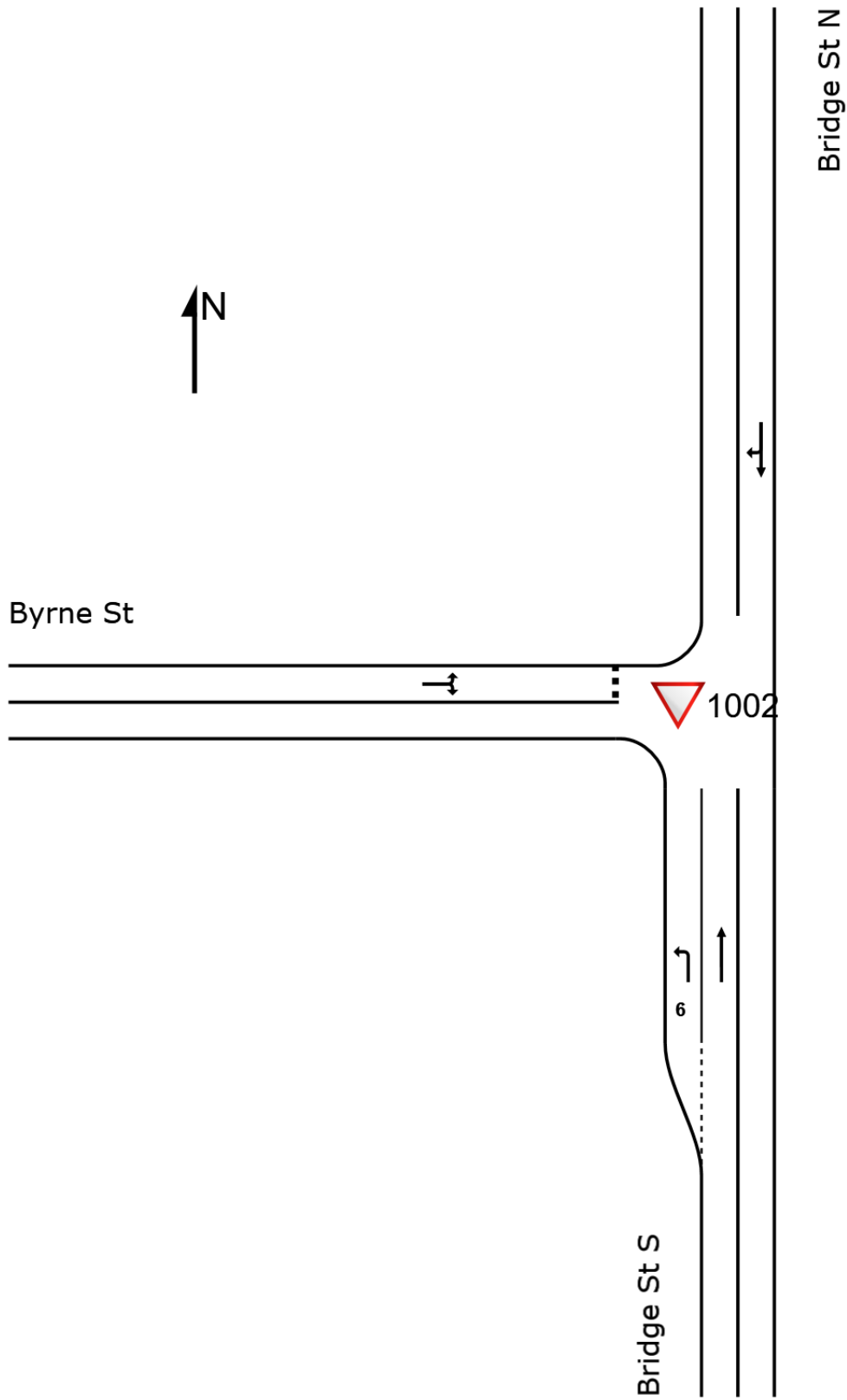
 **Site: 1002 [Bridge St - Byrne St AM Existing  
(Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder:  
General)]**

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge St S															
1	L2	All MCs	127	0.8	127	0.8	0.069	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	51.0
2	T1	All MCs	444	3.3	444	3.3	0.233	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			572	2.8	572	2.8	0.233	0.7	NA	0.0	0.0	0.00	0.12	0.00	52.6
North: Bridge St N															
8	T1	All MCs	553	3.0	553	3.0	0.328	0.3	LOS A	0.1	0.9	0.06	0.08	0.06	57.8
9	R2	All MCs	21	0.0	21	0.0	0.328	9.2	LOS A	0.1	0.9	0.06	0.08	0.06	55.7
Approach			574	2.9	574	2.9	0.328	0.6	NA	0.1	0.9	0.06	0.08	0.06	57.6
West: Byrne St															
10	L2	All MCs	4	0.0	4	0.0	0.119	7.2	LOS A	0.2	1.1	0.74	0.89	0.74	39.9
12	R2	All MCs	35	0.0	35	0.0	0.119	16.5	LOS B	0.2	1.1	0.74	0.89	0.74	39.9
Approach			39	0.0	39	0.0	0.119	15.5	LOS B	0.2	1.1	0.74	0.89	0.74	39.9
All Vehicles			1184	2.8	1184	2.8	0.328	1.1	NA	0.2	1.1	0.05	0.12	0.05	54.2



 **Site: 1003 [Bridge Rd - Site Access Rd AM Existing (Site Folder: AM Existing)]**

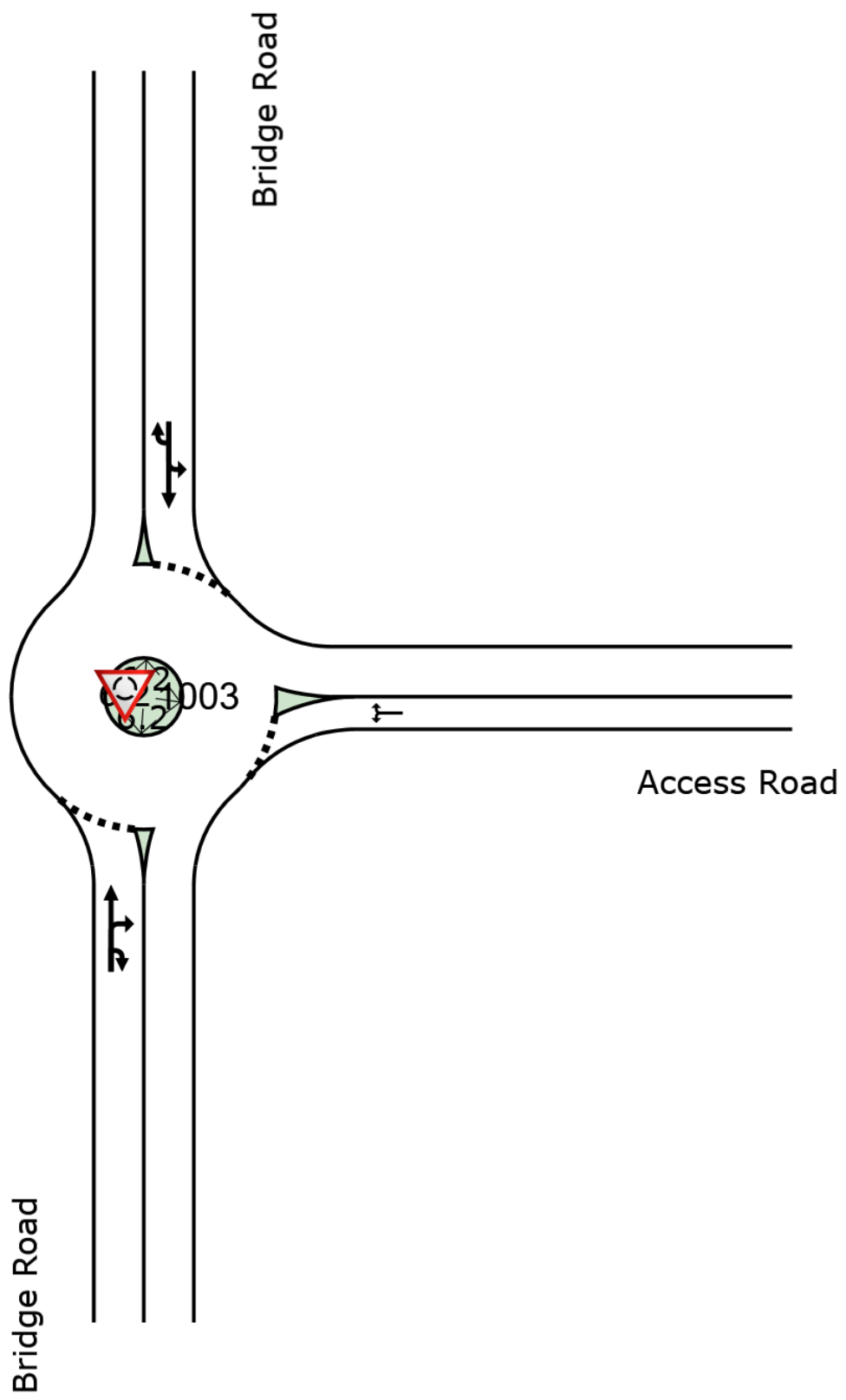
 **Network: 1 [AM Existing (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	529	3.0	529	3.0	0.391	3.6	LOS A	1.3	9.2	0.23	0.45	0.23	26.7
3	R2	All MCs	31	0.0	31	0.0	0.391	6.3	LOS A	1.3	9.2	0.23	0.45	0.23	38.0
3u	U	All MCs	26	0.0	26	0.0	0.391	7.8	LOS A	1.3	9.2	0.23	0.45	0.23	26.7
Approach			586	2.7	586	2.7	0.391	3.9	LOS A	1.3	9.2	0.23	0.45	0.23	28.2
East: Access Road															
4	L2	All MCs	82	0.0	82	0.0	0.166	9.2	LOS A	0.4	3.1	0.76	0.71	0.76	31.8
6	R2	All MCs	37	0.0	37	0.0	0.166	11.8	LOS A	0.4	3.1	0.76	0.71	0.76	31.8
Approach			119	0.0	119	0.0	0.166	10.0	LOS A	0.4	3.1	0.76	0.71	0.76	31.8
North: Bridge Road															
7	L2	All MCs	15	7.1	15	7.1	0.474	3.1	LOS A	1.5	10.8	0.30	0.41	0.30	39.0
8	T1	All MCs	572	2.8	572	2.8	0.474	2.9	LOS A	1.5	10.8	0.30	0.41	0.30	24.8
9u	U	All MCs	5	0.0	5	0.0	0.474	6.9	LOS A	1.5	10.8	0.30	0.41	0.30	24.8
Approach			592	2.8	592	2.8	0.474	2.9	LOS A	1.5	10.8	0.30	0.41	0.30	26.1
All Vehicles			1297	2.5	1297	2.5	0.474	4.0	LOS A	1.5	10.8	0.31	0.45	0.31	28.4





**Site: 101 [Bridge St - Wentworth Av AM  
Existing (Site Folder: AM Existing)]**



**Network: 1 [AM Existing (Network Folder:  
General)]**

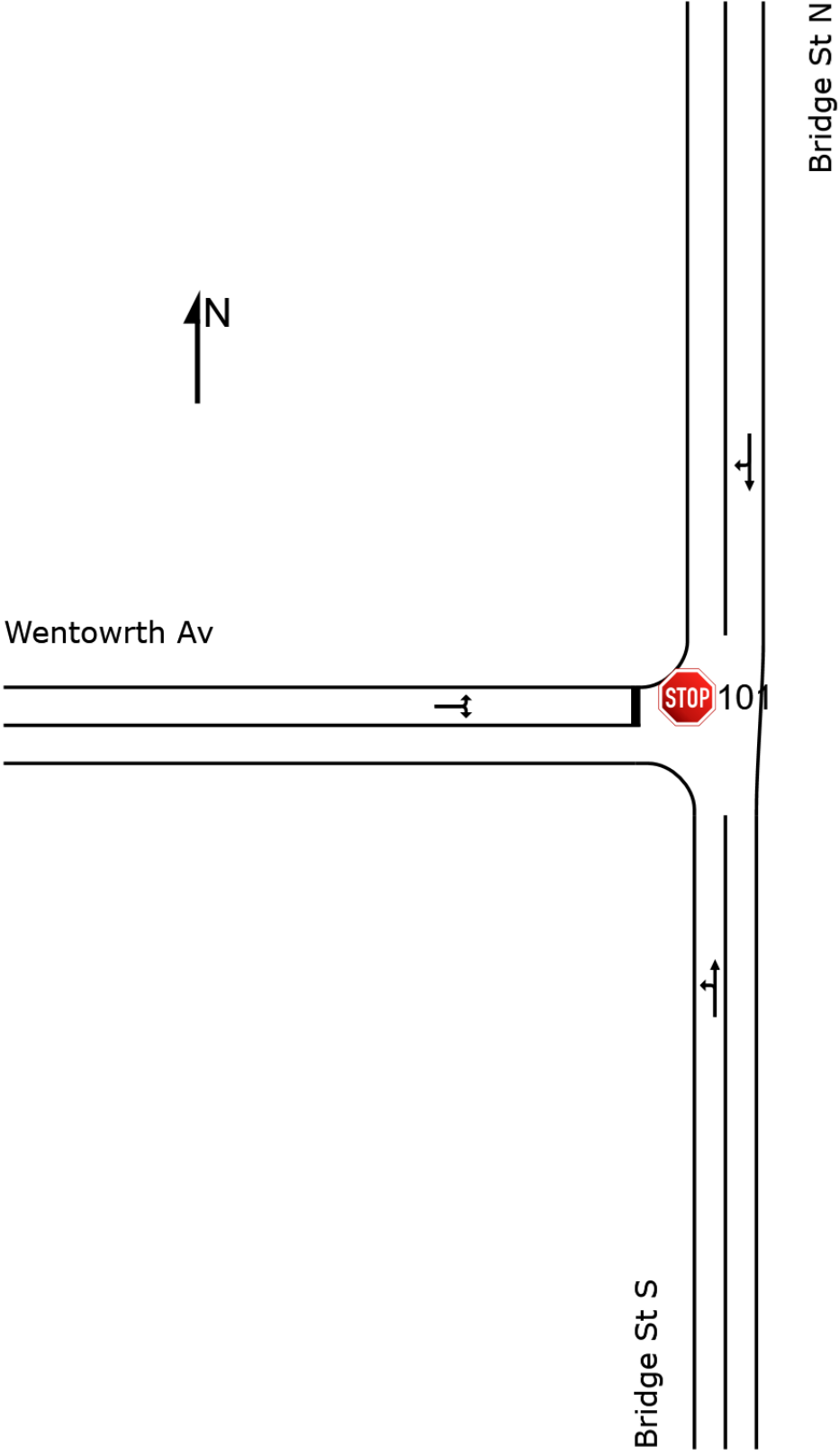
New Site

Site Category: (None)

Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	121	0.0	121	0.0	0.362	4.1	LOS A	0.0	0.0	0.00	0.10	0.00	54.4
2	T1	All MCs	547	2.9	547	2.9	0.362	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	50.1
Approach			668	2.4	668	2.4	0.362	0.8	NA	0.0	0.0	0.00	0.10	0.00	52.8
North: Bridge St N															
8	T1	All MCs	652	2.3	652	2.3	0.718	0.7	LOS A	0.3	2.3	0.08	0.10	0.17	47.7
9	R2	All MCs	22	0.0	22	0.0	0.718	9.4	LOS A	0.3	2.3	0.08	0.10	0.17	53.7
Approach			674	2.2	674	2.2	0.718	1.0	NA	0.3	2.3	0.08	0.10	0.17	48.9
West: Wentowrth Av															
10	L2	All MCs	42	2.5	42	2.5	0.685	16.3	LOS B	0.7	5.1	0.90	1.15	1.42	33.2
12	R2	All MCs	71	1.5	71	1.5	0.685	32.7	LOS C	0.7	5.1	0.90	1.15	1.42	33.2
Approach			113	1.9	113	1.9	0.685	26.6	LOS B	0.7	5.1	0.90	1.15	1.42	33.2
All Vehicles			1455	2.2	1455	2.2	0.718	2.9	NA	0.7	5.1	0.10	0.18	0.19	44.9





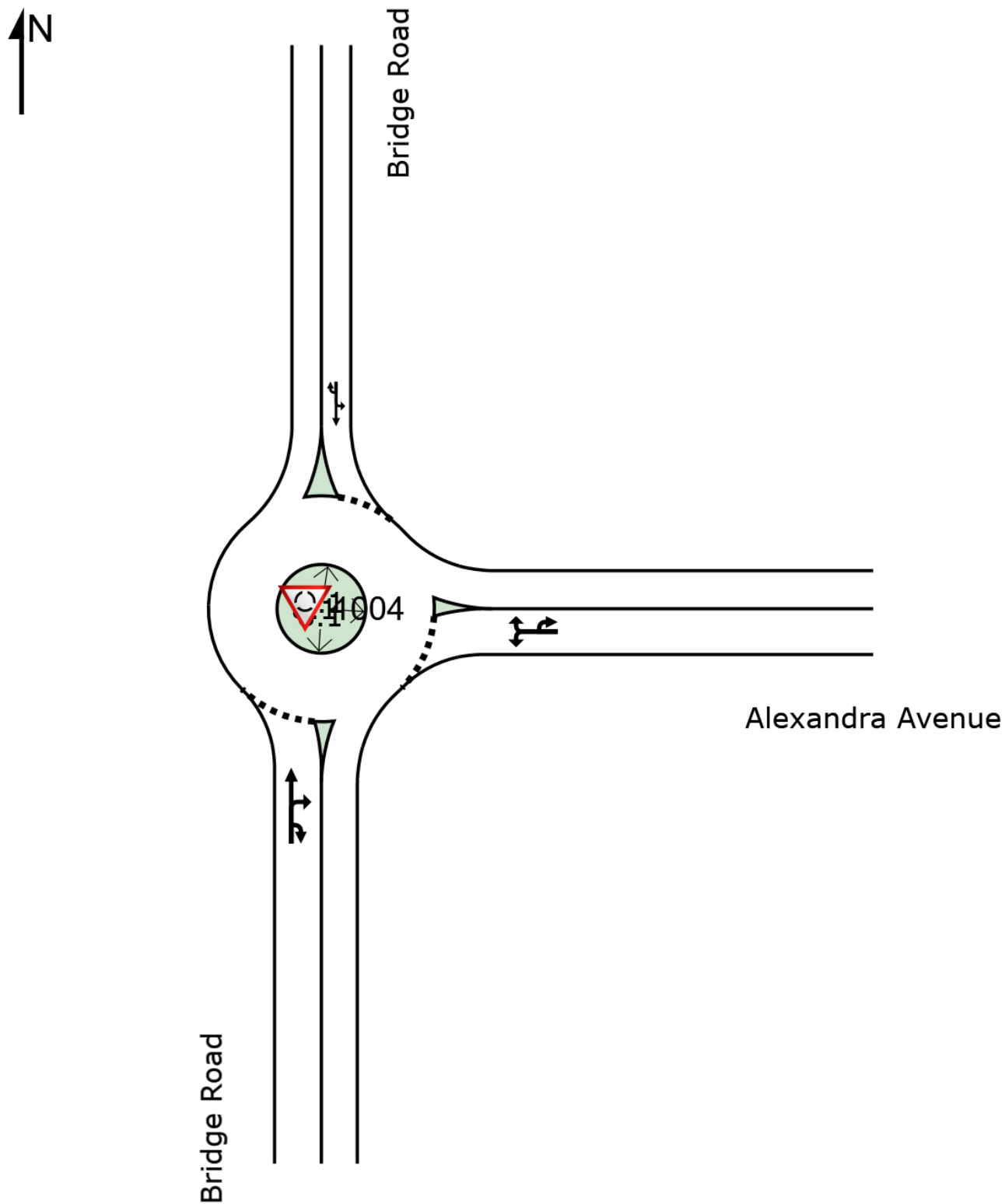
Site: 1004 [Bridge Rd - Alexandra Ave AM  
Existing (Site Folder: AM Existing)]

Network: 1 [AM Existing (Network Folder:  
General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
2	T1	All MCs	595	2.3	595	2.3	0.628	4.1	LOS A	2.6	18.5	0.29	0.51	25.8
3	R2	All MCs	311	0.7	311	0.7	0.628	7.2	LOS A	2.6	18.5	0.29	0.51	43.4
3u	U	All MCs	4	0.0	4	0.0	0.628	8.7	LOS A	2.6	18.5	0.29	0.51	25.8
Approach			909	1.7	909	1.7	0.628	5.2	LOS A	2.6	18.5	0.29	0.51	38.6
East: Alexandra Avenue														
4	L2	All MCs	103	5.1	103	5.1	0.293	7.8	LOS A	0.7	4.8	0.75	0.71	42.3
6	R2	All MCs	68	3.1	68	3.1	0.293	10.2	LOS A	0.7	4.8	0.75	0.71	42.3
6u	U	All MCs	2	0.0	2	0.0	0.293	12.6	LOS A	0.7	4.8	0.75	0.71	48.0
Approach			174	4.2	174	4.2	0.293	8.8	LOS A	0.7	4.8	0.75	0.71	42.4
North: Bridge Road														
7	L2	All MCs	200	0.5	200	0.5	0.983	47.1	LOS D	7.7	55.0	1.00	1.70	25.7
8	T1	All MCs	511	2.7	511	2.7	0.983	47.0	LOS D	7.7	55.0	1.00	1.70	4.8
9u	U	All MCs	3	0.0	3	0.0	0.983	51.3	LOS D	7.7	55.0	1.00	1.70	4.8
Approach			714	2.1	714	2.1	0.983	47.1	LOS D	7.7	55.0	1.00	1.70	13.8
All Vehicles			1797	2.1	1797	2.1	0.983	22.2	LOS B	7.7	55.0	0.62	1.00	25.0



 **Site: 1570 [Bridge Rd - Veron St - Grand Ave  
AM Existing (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder:  
General)]**

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Survey Observed

Input Phase Sequence: A, B, C

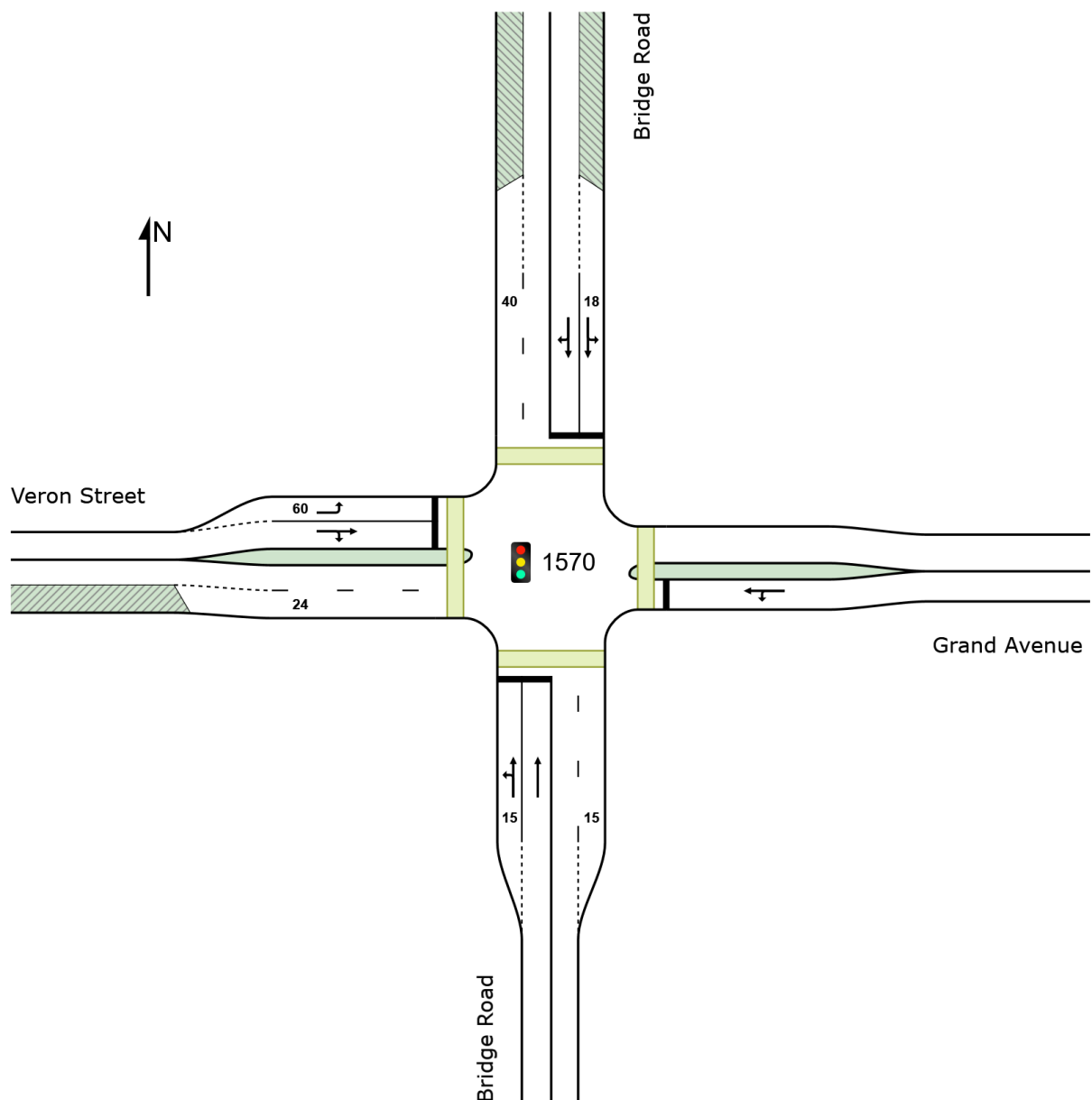
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

### Site Layout

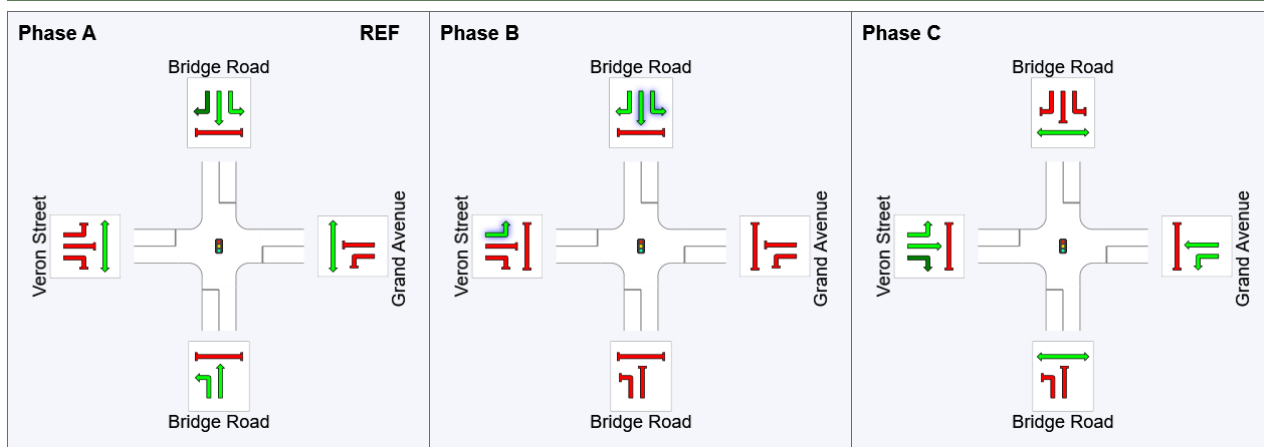
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
1	L2	All MCs	32	0.0	32	0.0	0.282	37.6	LOS C	2.2	15.3	0.82	0.68	0.82	32.2
2	T1	All MCs	547	1.0	547	1.0	*0.964	58.6	LOS E	11.9	84.2	0.96	1.24	1.58	6.0
Approach			579	0.9	579	0.9	0.964	57.5	LOS E	11.9	84.2	0.95	1.21	1.54	6.0
East: Grand Avenue															
4	L2	All MCs	11	0.0	11	0.0	0.077	25.8	LOS B	0.5	3.2	0.83	0.64	0.83	33.6
5	T1	All MCs	21	0.0	21	0.0	0.077	20.9	LOS B	0.5	3.2	0.83	0.64	0.83	38.8
Approach			32	0.0	32	0.0	0.077	22.6	LOS B	0.5	3.2	0.83	0.64	0.83	37.4
North: Bridge Road															
7	L2	All MCs	13	0.0	13	0.0	0.158	20.6	LOS B	1.4	10.0	0.47	0.41	0.47	43.1
8	T1	All MCs	407	2.6	407	2.6	0.764	20.7	LOS B	6.7	47.8	0.75	0.77	0.83	19.6
9	R2	All MCs	196	3.8	196	3.8	*0.764	45.7	LOS D	6.7	47.8	0.94	1.02	1.07	30.0
Approach			616	2.9	616	2.9	0.764	28.7	LOS C	6.7	47.8	0.81	0.84	0.90	20.5
West: Veron Street															
10	L2	All MCs	347	3.0	347	3.0	0.365	14.7	LOS B	3.6	26.1	0.62	0.73	0.62	35.7
11	T1	All MCs	39	0.0	39	0.0	*0.332	22.4	LOS B	1.8	12.7	0.89	0.74	0.89	37.6
12	R2	All MCs	75	1.4	75	1.4	0.332	27.0	LOS B	1.8	12.7	0.89	0.74	0.89	29.3
Approach			461	2.5	461	2.5	0.365	17.3	LOS B	3.6	26.1	0.68	0.74	0.68	34.8
All Vehicles			1687	2.1	1687	2.1	0.964	35.3	LOS C	11.9	84.2	0.82	0.93	1.06	19.0



## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	22	41
Green Time (sec)	17	13	13
Phase Time (sec)	23	19	18
Phase Split	38%	32%	30%
Phase Frequency (%)	95.8 <sup>2</sup>	100.0	81.8 <sup>2</sup>

# USER REPORT FOR NETWORK SITE

 **Project:** 0898-2m03 SIDRA

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template:** Default Site User  
Report

 **Site:** 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark PM Existing (Site Folder: PM Existing)]

 **Network:** 2 [PM Existing (Network Folder:  
General)]

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 116 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Survey Footage - Import

Input Phase Sequence: A, B, C1

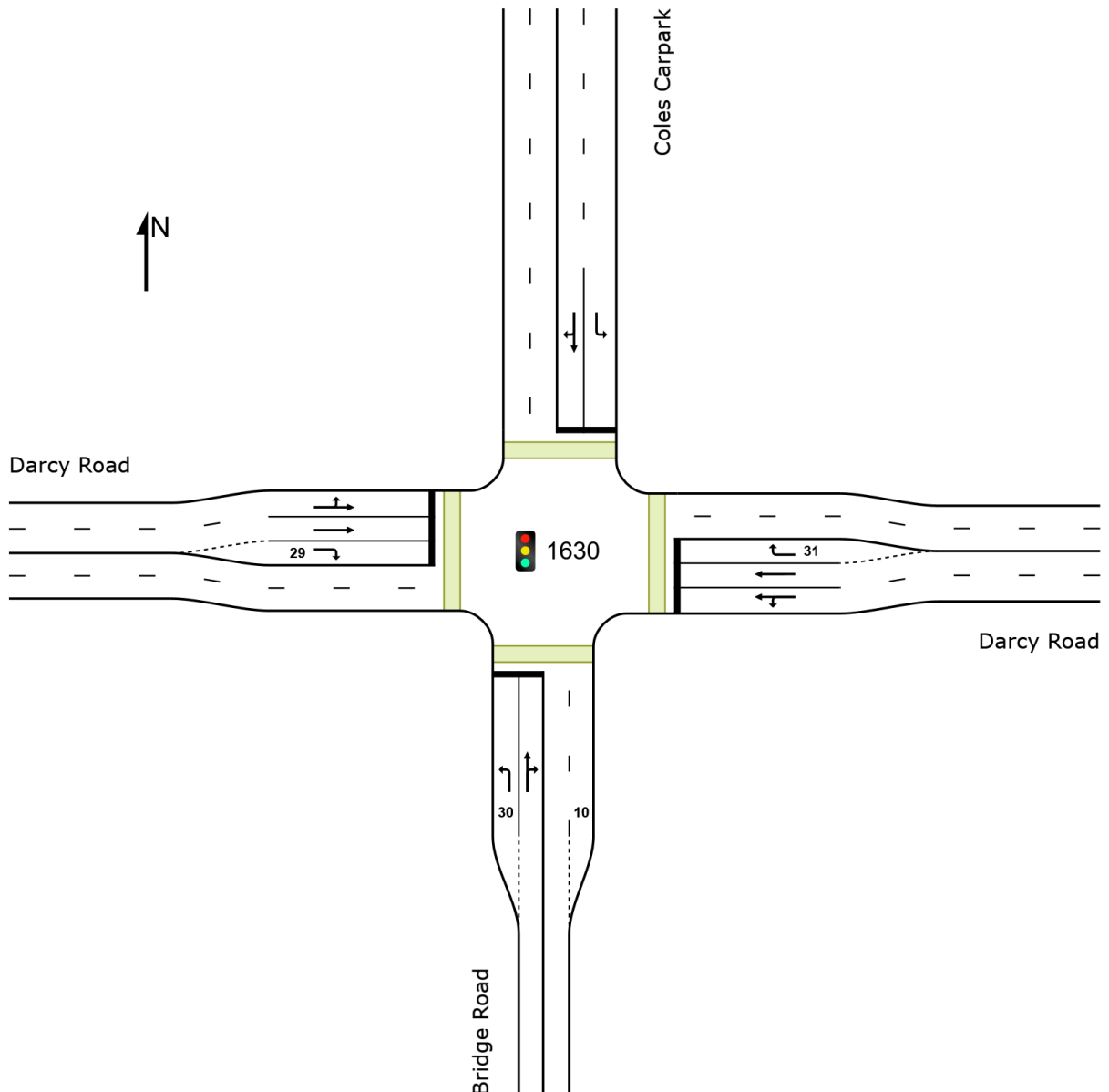
Output Phase Sequence: A, B, C1

Reference Phase: Phase A

Offset: NA

## Site Layout

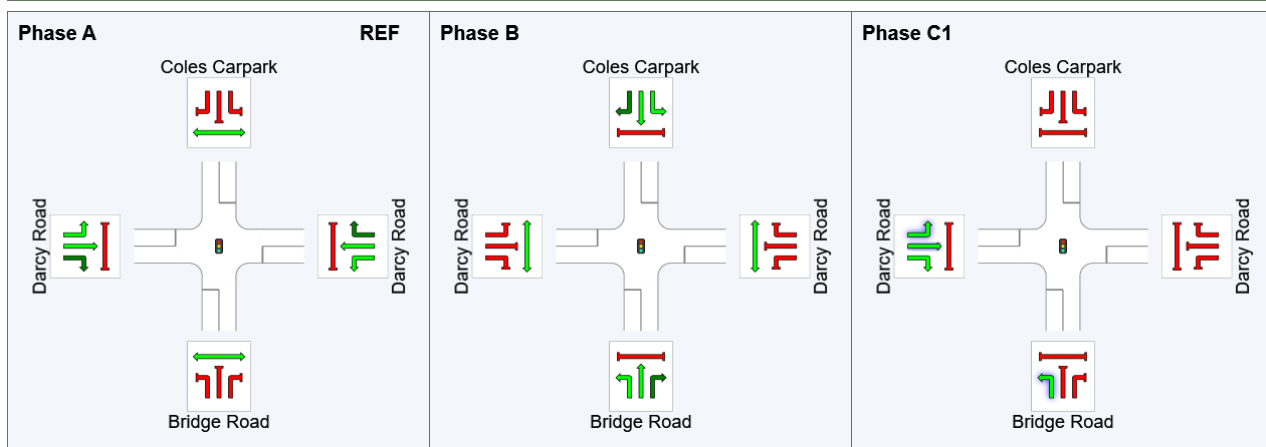
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.





Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	225	0.9	225	0.9	0.237	20.9	LOS B	4.2	29.8	0.59	0.72	29.0
2	T1	All MCs	35	0.0	35	0.0	*0.947	81.6	LOS F	4.7	34.6	1.00	1.09	12.5
3	R2	All MCs	76	6.9	76	6.9	0.947	85.7	LOS F	4.7	34.6	1.00	1.09	17.2
Approach			336	2.2	336	2.2	0.947	41.8	LOS C	4.7	34.6	0.72	0.84	20.8
East: Darcy Road														
4	L2	All MCs	340	1.9	340	1.9	*0.752	44.1	LOS D	14.5	102.7	0.95	0.87	19.6
5	T1	All MCs	600	0.9	600	0.9	0.752	53.5	LOS D	14.7	103.8	0.95	0.85	25.2
6	R2	All MCs	23	0.0	23	0.0	0.071	57.0	LOS E	0.6	3.9	0.72	0.72	17.2
Approach			963	1.2	963	1.2	0.752	50.3	LOS D	14.7	103.8	0.94	0.85	19.9
North: Coles Carpark														
7	L2	All MCs	26	0.0	26	0.0	0.163	54.7	LOS D	0.9	6.1	0.96	0.69	15.1
8	T1	All MCs	57	0.0	57	0.0	0.798	61.8	LOS E	3.5	24.4	1.00	1.03	9.9
9	R2	All MCs	35	0.0	35	0.0	0.798	69.9	LOS E	3.5	24.4	1.00	1.03	11.9
Approach			118	0.0	118	0.0	0.798	62.6	LOS E	3.5	24.4	0.99	0.96	11.7
West: Darcy Road														
10	L2	All MCs	58	0.0	58	0.0	0.157	8.9	LOS A	1.8	13.0	0.25	0.36	17.7
11	T1	All MCs	405	1.0	405	1.0	0.157	7.5	LOS A	1.8	13.0	0.25	0.28	45.6
12	R2	All MCs	399	1.3	399	1.3	*0.593	30.8	LOS C	6.5	46.1	0.79	0.87	17.4
Approach			862	1.1	862	1.1	0.593	18.4	LOS B	6.5	46.1	0.50	0.55	26.2
All Vehicles			2279	1.2	2279	1.2	0.947	37.6	LOS C	14.7	103.8	0.75	0.74	20.5

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C1
Phase Change Time (sec)	0	47	65
Green Time (sec)	41	12	45
Phase Time (sec)	47	18	51
Phase Split	41%	16%	44%
Phase Frequency (%)	100.0 <sup>1</sup>	100.0 <sup>1</sup>	100.0 <sup>1</sup>

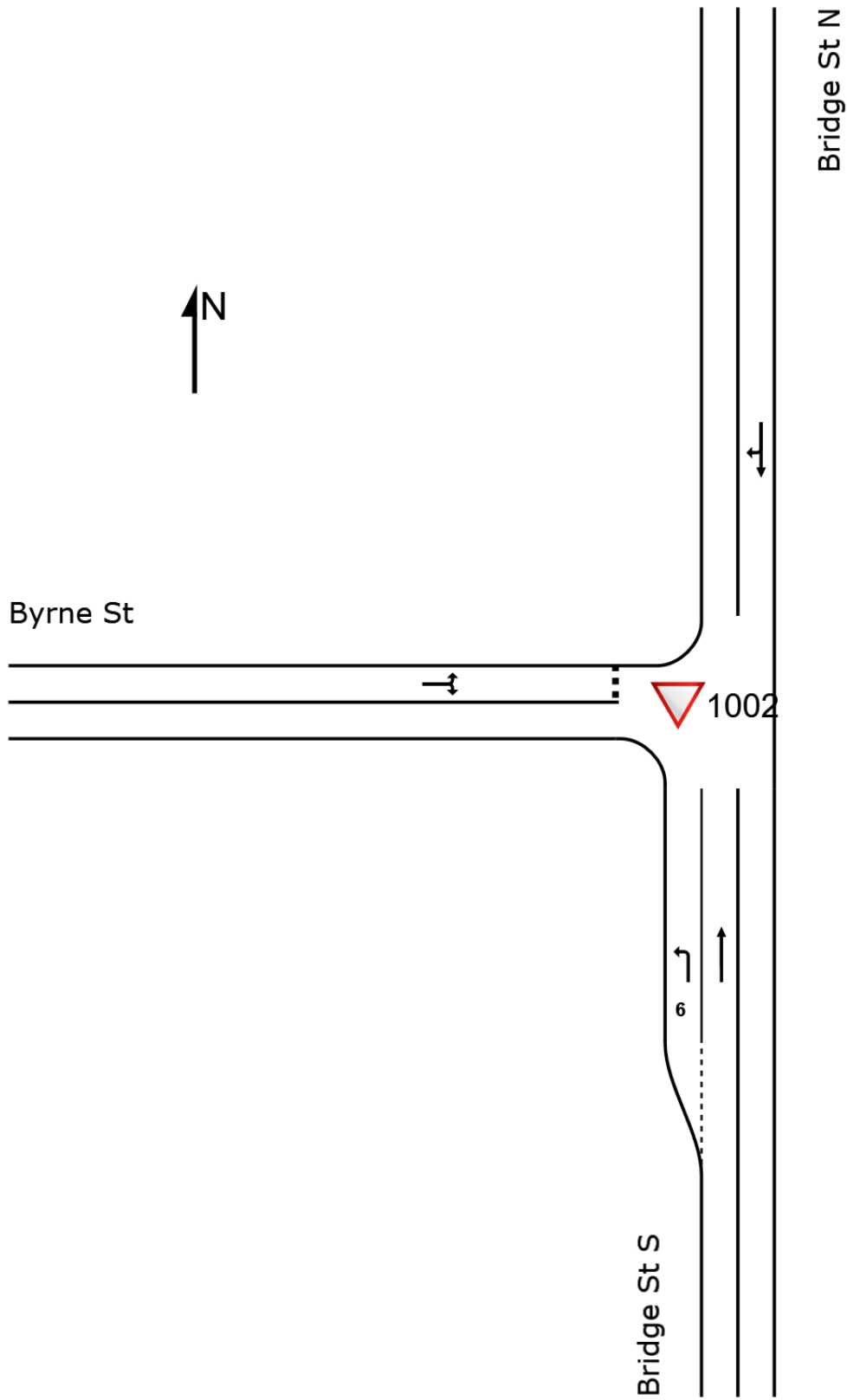
 **Site: 1002 [Bridge St - Byrne St PM Existing  
(Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder:  
General)]**

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h	
South: Bridge St S															
1	L2	All MCs	58	1.8	58	1.8	0.032	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	50.9
2	T1	All MCs	353	2.7	353	2.7	0.184	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			411	2.6	411	2.6	0.184	0.4	NA	0.0	0.0	0.00	0.07	0.00	53.4
North: Bridge St N															
8	T1	All MCs	779	1.5	779	1.5	0.632	0.5	LOS A	0.4	2.6	0.07	0.08	0.11	57.2
9	R2	All MCs	34	0.0	34	0.0	0.632	9.0	LOS A	0.4	2.6	0.07	0.08	0.11	55.4
Approach			813	1.4	813	1.4	0.632	0.8	NA	0.4	2.6	0.07	0.08	0.11	57.0
West: Byrne St															
10	L2	All MCs	9	0.0	9	0.0	0.253	7.6	LOS A	0.3	1.9	0.78	0.94	0.88	36.8
12	R2	All MCs	42	2.5	42	2.5	0.253	22.2	LOS B	0.3	1.9	0.78	0.94	0.88	36.8
Approach			52	2.0	52	2.0	0.253	19.5	LOS B	0.3	1.9	0.78	0.94	0.88	36.8
All Vehicles			1275	1.8	1275	1.8	0.632	1.4	NA	0.4	2.6	0.07	0.11	0.11	53.9



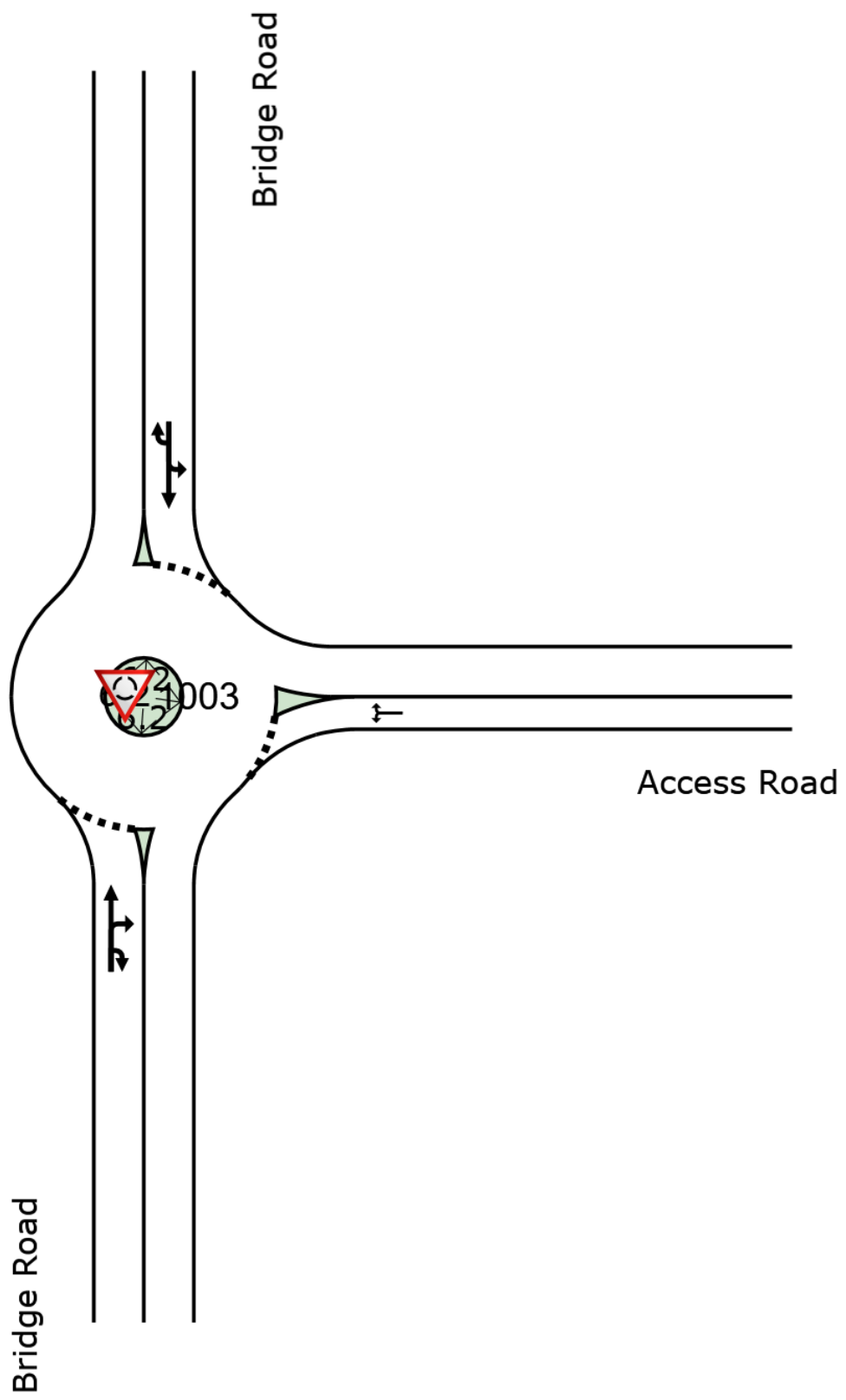
 **Site: 1003 [Bridge Rd - Site Access Rd PM Existing (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
2	T1	All MCs	387	2.4	387	2.4	0.309	3.5	LOS A	1.0	6.9	0.17	0.47	26.8
3	R2	All MCs	60	0.0	60	0.0	0.309	6.2	LOS A	1.0	6.9	0.17	0.47	38.1
3u	U	All MCs	28	0.0	28	0.0	0.309	7.7	LOS A	1.0	6.9	0.17	0.47	26.8
Approach			476	2.0	476	2.0	0.309	4.1	LOS A	1.0	6.9	0.17	0.47	30.1
East: Access Road														
4	L2	All MCs	58	0.0	58	0.0	0.157	11.7	LOS A	0.4	3.1	0.87	0.76	29.1
6	R2	All MCs	25	4.2	25	4.2	0.157	14.6	LOS B	0.4	3.1	0.87	0.76	29.1
Approach			83	1.3	83	1.3	0.157	12.6	LOS A	0.4	3.1	0.87	0.76	29.1
North: Bridge Road														
7	L2	All MCs	38	2.8	38	2.8	0.680	3.8	LOS A	3.0	21.0	0.51	0.45	38.1
8	T1	All MCs	780	1.5	780	1.5	0.680	3.6	LOS A	3.0	21.0	0.51	0.45	22.4
9u	U	All MCs	2	0.0	2	0.0	0.680	7.6	LOS A	3.0	21.0	0.51	0.45	22.4
Approach			820	1.5	820	1.5	0.680	3.6	LOS A	3.0	21.0	0.51	0.45	24.7
All Vehicles			1379	1.7	1379	1.7	0.680	4.3	LOS A	3.0	21.0	0.42	0.47	27.5





**Site: 101 [Bridge St - Wentworth Av PM  
Existing (Site Folder: PM Existing)]**

**Network: 2 [PM Existing (Network Folder:  
General)]**

New Site

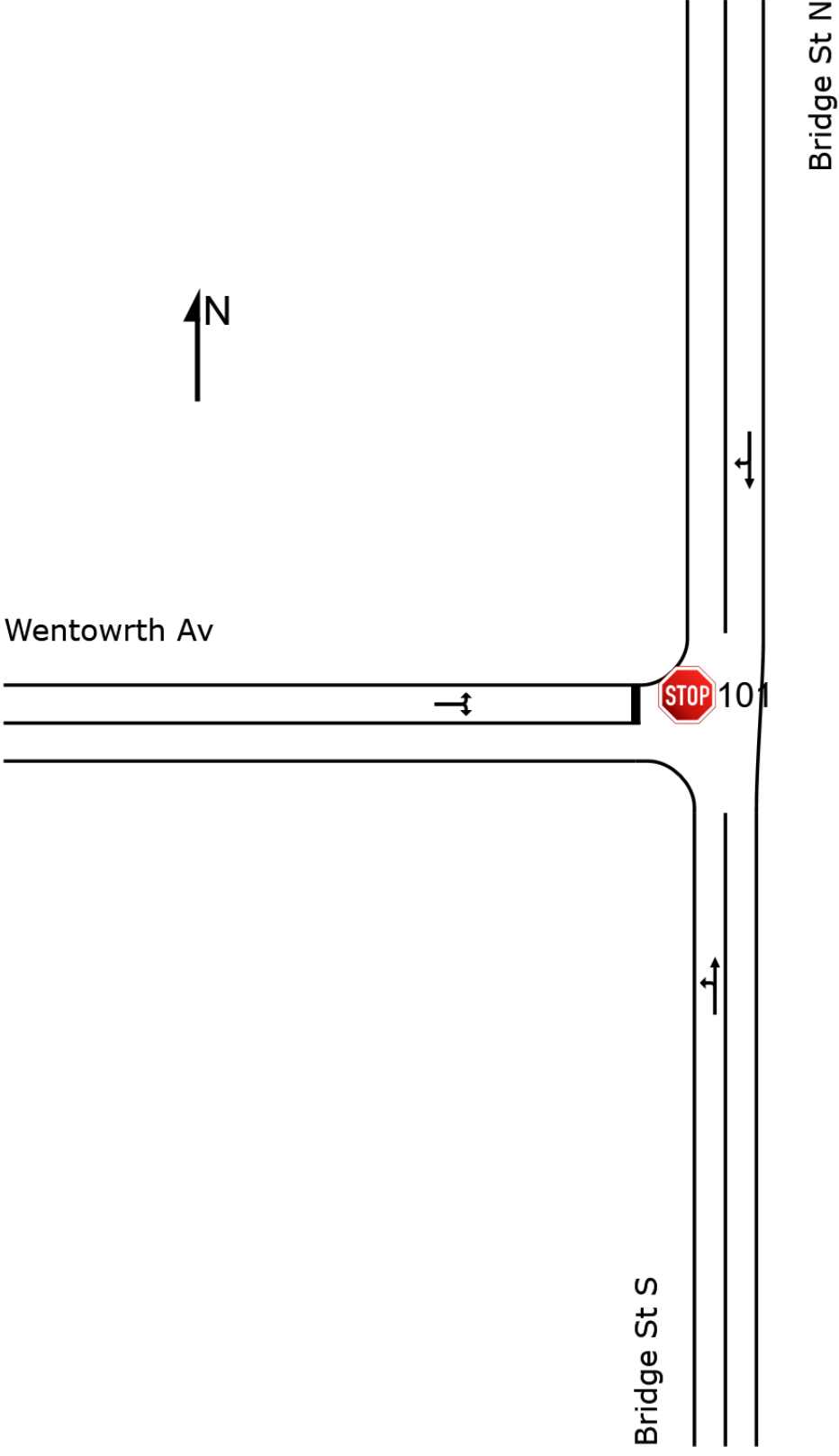
Site Category: (None)

Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	161	0.7	161	0.7	0.318	4.1	LOS A	0.0	0.0	0.00	0.16	53.8
2	T1	All MCs	425	2.2	425	2.2	0.318	0.0	LOS A	0.0	0.0	0.00	0.16	46.5
Approach			586	1.8	586	1.8	0.318	1.1	NA	0.0	0.0	0.00	0.16	51.9
North: Bridge St N														
8	T1	All MCs	851	1.4	851	1.4	0.916	1.3	LOS A	0.7	5.1	0.07	0.08	43.3
9	R2	All MCs	23	0.0	23	0.0	0.916	10.2	LOS A	0.7	5.1	0.07	0.08	53.0
Approach			874	1.3	874	1.3	0.916	1.5	NA	0.7	5.1	0.07	0.08	44.9
West: Wentowrth Av														
10	L2	All MCs	49	0.0	49	0.0	0.836	21.6	LOS B	1.1	7.6	0.95	1.31	28.1
12	R2	All MCs	71	0.0	71	0.0	0.836	47.3	LOS D	1.1	7.6	0.95	1.31	28.1
Approach			120	0.0	120	0.0	0.836	36.7	LOS C	1.1	7.6	0.95	1.31	28.1
All Vehicles			1580	1.4	1580	1.4	0.916	4.0	NA	1.1	7.6	0.11	0.20	41.5



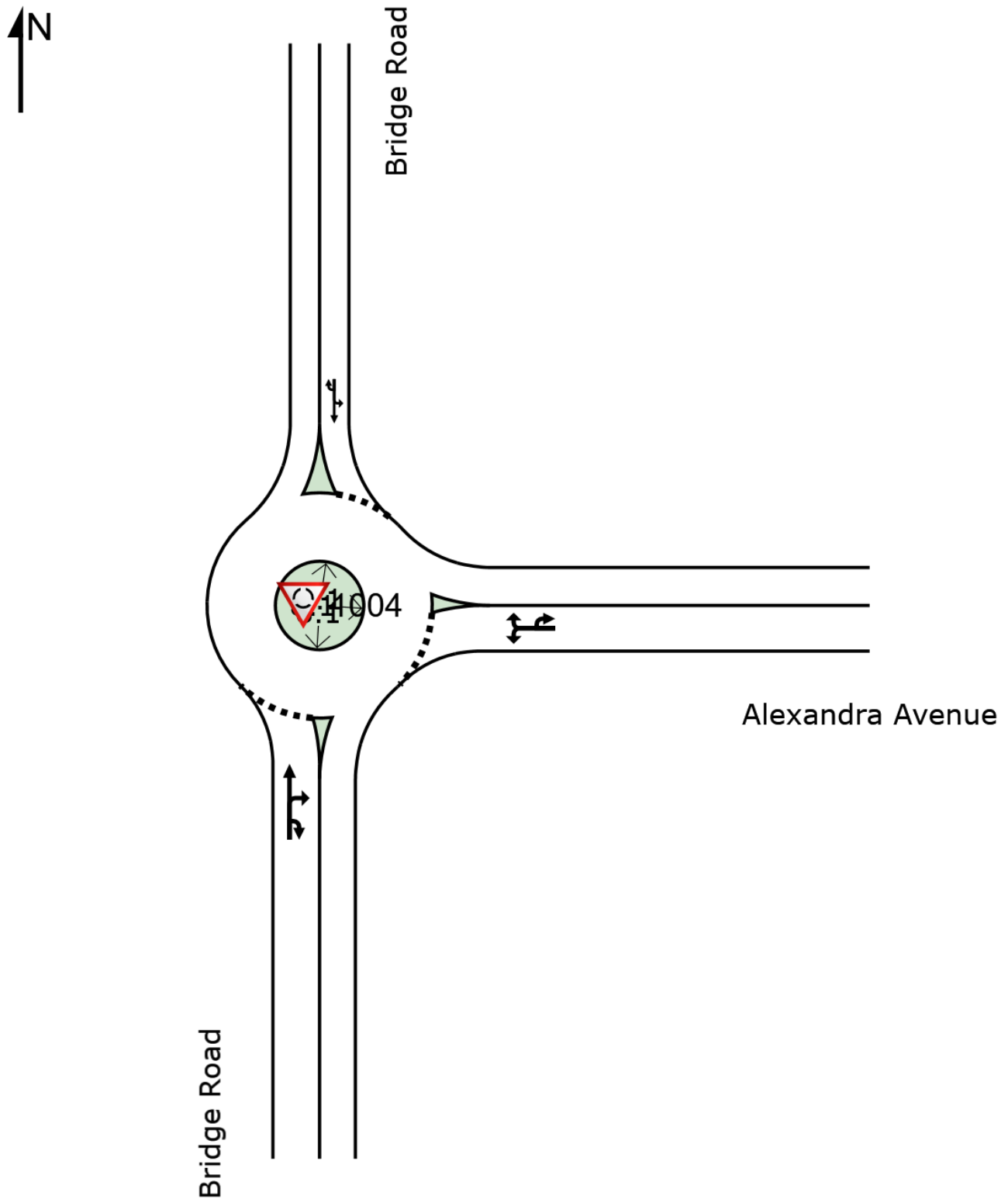
 **Site: 1004 [Bridge Rd - Alexandra Ave PM Existing (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: General)]**

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	445	2.4	445	2.4	0.477	4.4	LOS A	1.5	10.4	0.36	0.54	0.36	25.6
3	R2	All MCs	163	0.6	163	0.6	0.477	7.5	LOS A	1.5	10.4	0.36	0.54	0.36	43.4
3u	U	All MCs	2	0.0	2	0.0	0.477	9.0	LOS A	1.5	10.4	0.36	0.54	0.36	25.6
Approach			611	1.9	611	1.9	0.477	5.2	LOS A	1.5	10.4	0.36	0.54	0.36	37.2
East: Alexandra Avenue															
4	L2	All MCs	172	0.0	172	0.0	0.630	14.9	LOS B	2.3	15.9	0.99	0.95	1.28	37.5
6	R2	All MCs	136	0.0	136	0.0	0.630	17.4	LOS B	2.3	15.9	0.99	0.95	1.28	37.5
6u	U	All MCs	1	0.0	1	0.0	0.630	19.9	LOS B	2.3	15.9	0.99	0.95	1.28	44.7
Approach			308	0.0	308	0.0	0.630	16.0	LOS B	2.3	15.9	0.99	0.95	1.28	37.5
North: Bridge Road															
7	L2	All MCs	175	0.0	175	0.0	0.950	21.4	LOS B	7.8	55.0	1.00	1.05	1.41	34.6
8	T1	All MCs	740	1.3	740	1.3	0.950	21.2	LOS B	7.8	55.0	1.00	1.05	1.41	9.6
9u	U	All MCs	1	0.0	1	0.0	0.950	25.6	LOS B	7.8	55.0	1.00	1.05	1.41	9.6
Approach			916	1.0	916	1.0	0.950	21.3	LOS B	7.8	55.0	1.00	1.05	1.41	19.6
All Vehicles			1835	1.1	1835	1.1	0.950	15.0	LOS B	7.8	55.0	0.78	0.86	1.04	28.8





Site: 1570 [Bridge Rd - Veron St - Grand Ave  
PM Existing (Site Folder: PM Existing)]

Network: 2 [PM Existing (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 45 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Survey Observed - Import

Input Phase Sequence: A, B, C

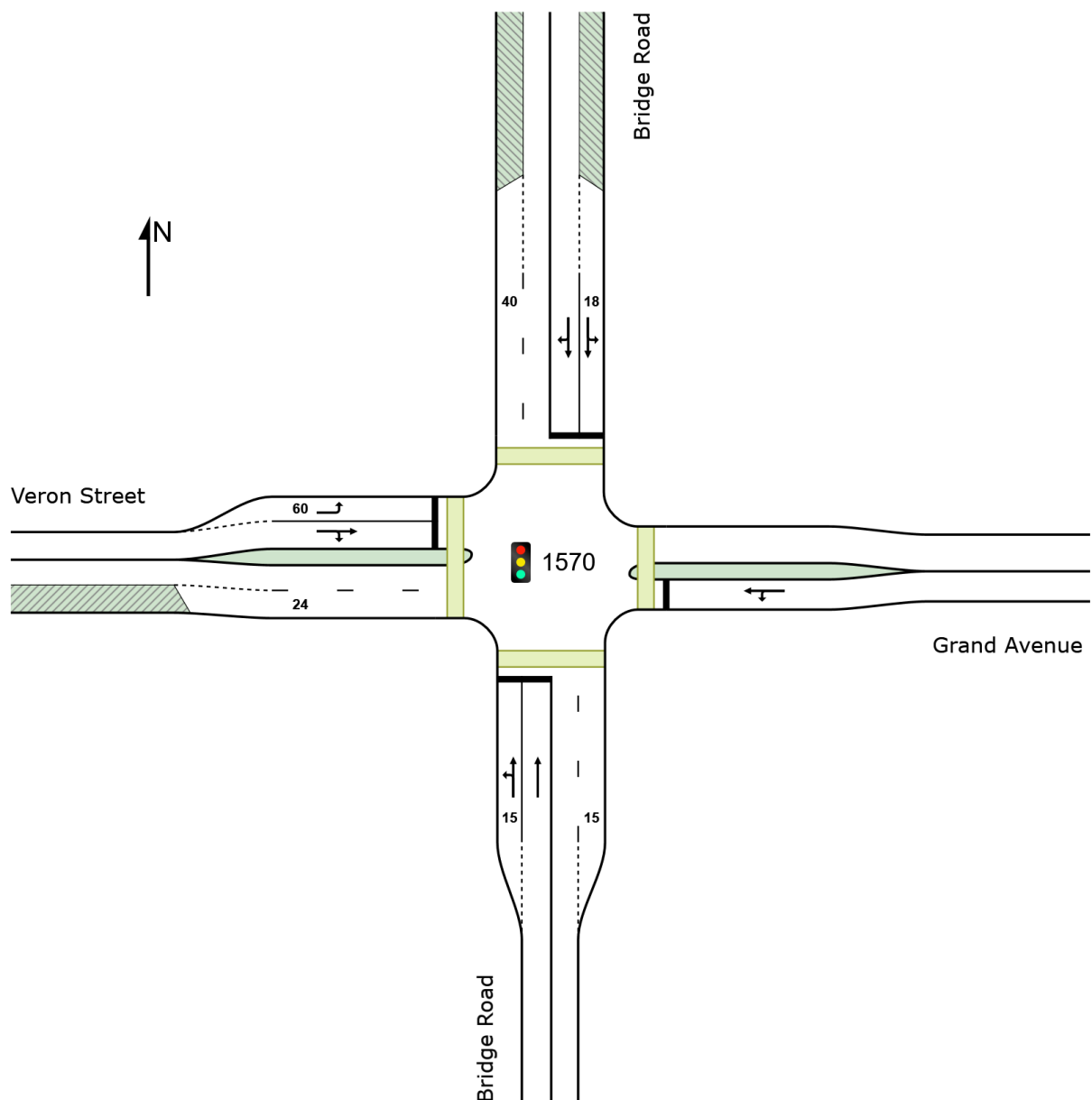
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

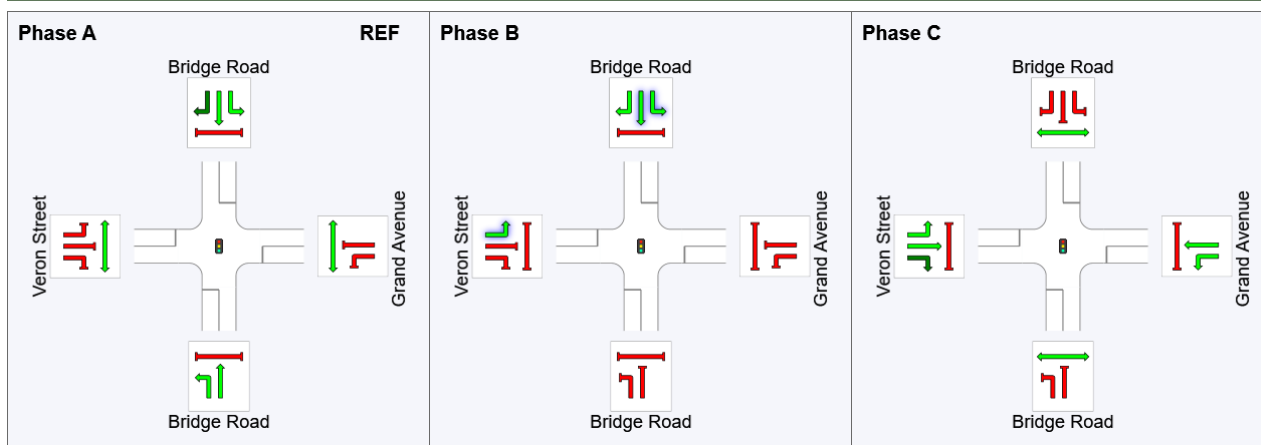
## Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	57	0.0	57	0.0	0.287	30.9	LOS C	1.3	9.1	0.89	0.73	31.9
2	T1	All MCs	378	2.2	378	2.2	*0.980	52.7	LOS D	7.6	54.4	0.99	1.38	5.9
Approach			435	1.9	435	1.9	0.980	49.8	LOS D	7.6	54.4	0.97	1.29	8.5
East: Grand Avenue														
4	L2	All MCs	12	9.1	12	9.1	0.353	26.2	LOS B	1.2	8.4	0.95	0.73	33.9
5	T1	All MCs	78	0.0	78	0.0	*0.353	21.3	LOS B	1.2	8.4	0.95	0.73	39.2
Approach			89	1.2	89	1.2	0.353	21.9	LOS B	1.2	8.4	0.95	0.73	38.7
North: Bridge Road														
7	L2	All MCs	9	0.0	9	0.0	0.150	12.2	LOS A	0.9	6.5	0.37	0.32	45.6
8	T1	All MCs	579	1.5	579	1.5	0.727	10.6	LOS A	6.1	43.3	0.64	0.68	27.9
9	R2	All MCs	326	0.3	326	0.3	*0.727	21.6	LOS B	6.1	43.3	0.77	0.85	37.5
Approach			915	1.0	915	1.0	0.727	14.5	LOS B	6.1	43.3	0.68	0.74	29.1
West: Veron Street														
10	L2	All MCs	228	1.4	228	1.4	0.184	8.0	LOS A	1.1	7.8	0.38	0.65	41.1
11	T1	All MCs	13	0.0	13	0.0	0.253	19.8	LOS B	0.7	4.8	0.93	0.72	38.1
12	R2	All MCs	39	0.0	39	0.0	0.253	25.4	LOS B	0.7	4.8	0.93	0.72	29.9
Approach			280	1.1	280	1.1	0.253	11.0	LOS A	1.1	7.8	0.48	0.66	38.7
All Vehicles			1719	1.3	1719	1.3	0.980	23.3	LOS B	7.6	54.4	0.74	0.87	25.0

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	11	33
Green Time (sec)	9	19	6
Phase Time (sec)	12	25	8
Phase Split	27%	56%	18%
Phase Frequency (%)	50.0 <sup>2</sup>	100.0	36.4 <sup>2</sup>

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Project: C:\Users\Martin Li\Downloads\0898-2m03 SIDRA.sip9

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark AM 2026 FBC (Site Folder: AM 2026  
FBC)]**



**Network: 3 [AM 2026 FBC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 120 seconds (Site User-Given Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage**

**Input Phase Sequence: A, B, C, C1**

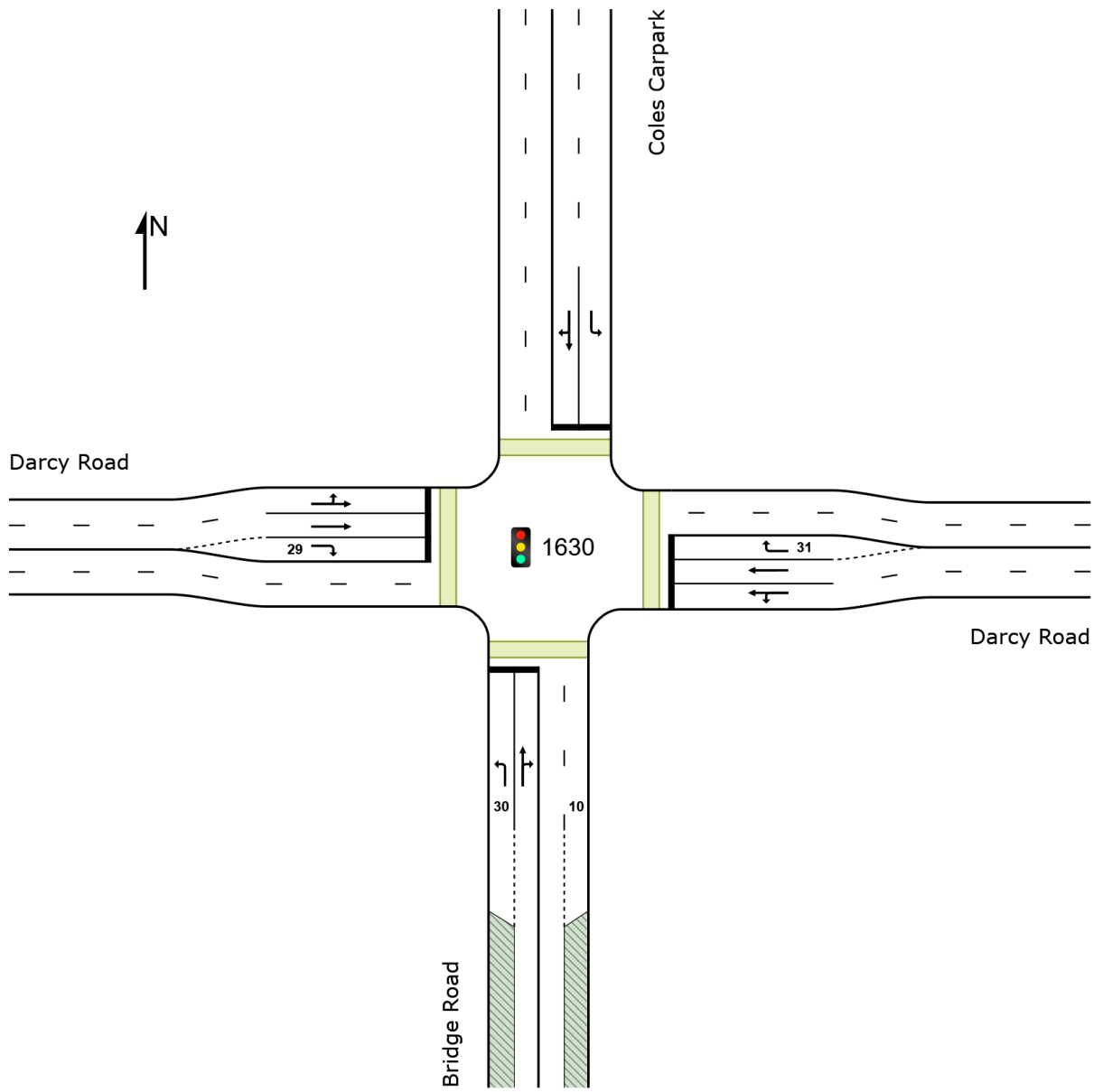
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

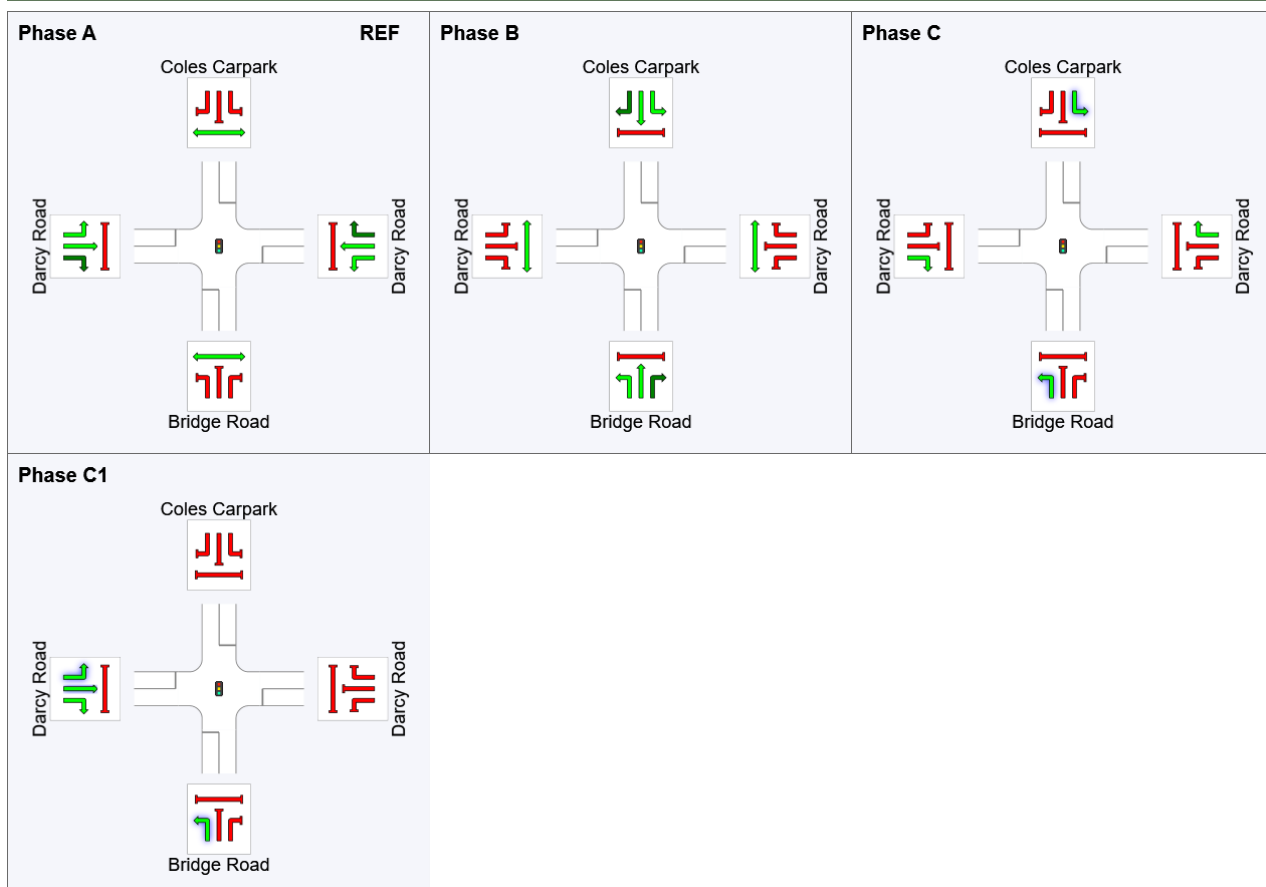
## Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	158	2.8	158	2.8	0.152	36.4	LOS C	2.6	18.5	0.49	0.68	31.2
2	T1	All MCs	16	0.0	16	0.0	0.806	70.5	LOS F	11.2	80.8	0.97	0.92	14.8
3	R2	All MCs	295	3.7	295	3.7	*0.806	69.8	LOS E	11.2	80.8	0.97	0.92	23.2
Approach			469	3.3	469	3.3	0.806	58.6	LOS E	11.2	80.8	0.81	0.84	19.7
East: Darcy Road														
4	L2	All MCs	336	3.3	336	3.3	0.736	45.6	LOS D	13.5	97.6	0.95	0.86	18.8
5	T1	All MCs	509	4.1	509	4.1	0.736	57.7	LOS E	13.6	99.8	0.95	0.84	24.5
6	R2	All MCs	18	0.0	18	0.0	*0.115	54.4	LOS D	0.3	2.2	0.88	0.70	17.5
Approach			863	3.7	863	3.7	0.736	53.0	LOS D	13.6	99.8	0.95	0.84	19.1
North: Coles Carpark														
7	L2	All MCs	12	0.0	12	0.0	0.016	22.2	LOS B	0.3	1.8	0.62	0.44	18.0
8	T1	All MCs	23	0.0	23	0.0	0.096	28.3	LOS B	1.1	8.2	0.73	0.56	12.1
9	R2	All MCs	23	4.8	23	4.8	0.096	32.1	LOS C	1.1	8.2	0.73	0.56	14.4
Approach			58	1.9	58	1.9	0.096	28.5	LOS C	1.1	8.2	0.71	0.54	14.3
West: Darcy Road														
10	L2	All MCs	41	2.7	41	2.7	0.853	39.5	LOS C	25.8	183.6	0.95	0.91	14.6
11	T1	All MCs	1174	1.7	1174	1.7	*0.853	42.1	LOS C	25.8	183.6	0.95	0.93	25.5
12	R2	All MCs	240	3.2	240	3.2	0.546	41.6	LOS C	4.6	33.1	0.89	0.81	16.2
Approach			1454	2.0	1454	2.0	0.853	42.0	LOS C	25.8	183.6	0.94	0.91	21.6
All Vehicles			2844	2.7	2844	2.7	0.853	47.8	LOS D	25.8	183.6	0.92	0.87	20.2

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	42	90	100
Green Time (sec)	40	42	4	16
Phase Time (sec)	46	48	8	18
Phase Split	38%	40%	7%	15%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

▼ Site: 1002 [Bridge St - Byrne St AM 2026  
FBC (Site Folder: AM 2026 FBC)]

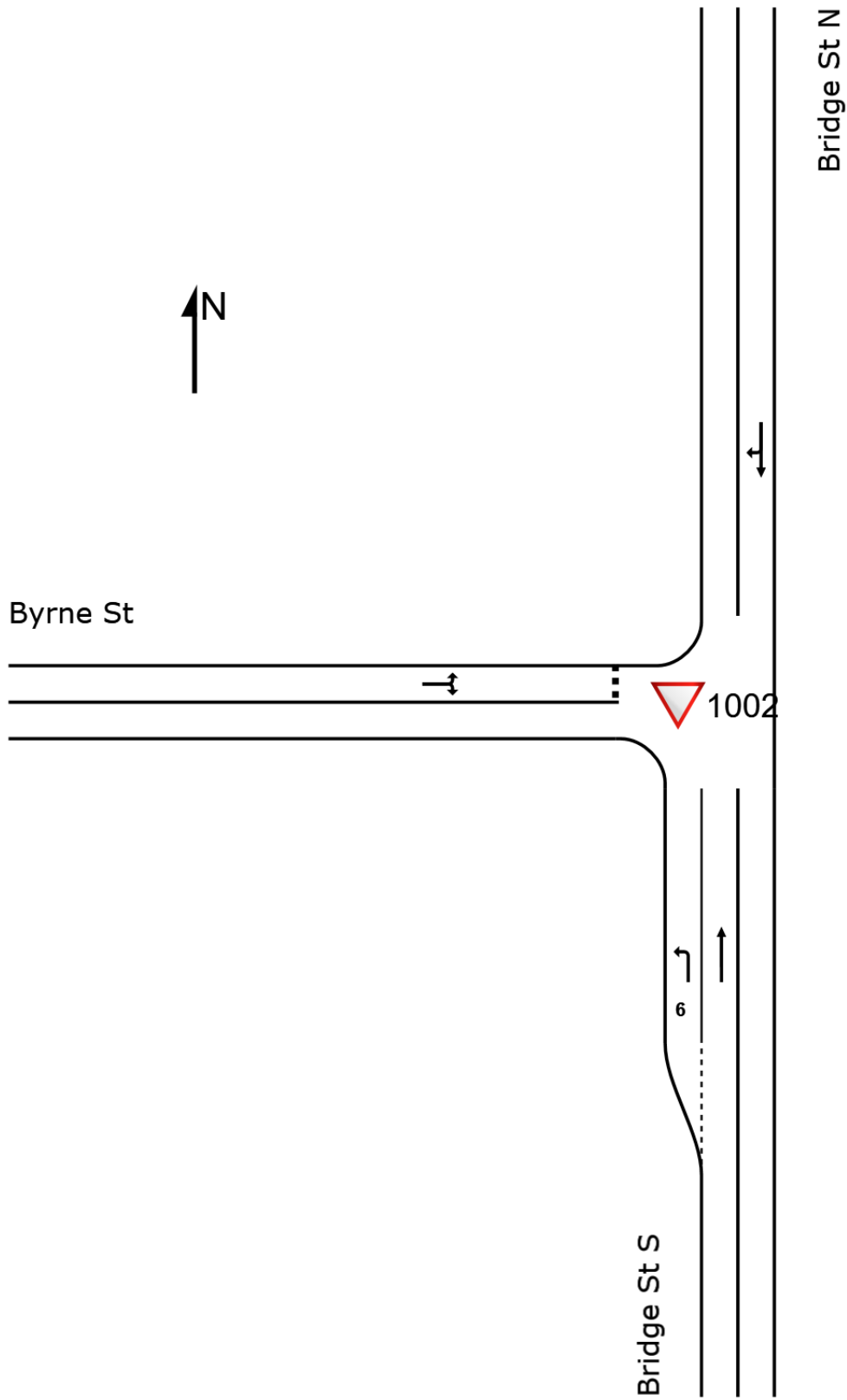
■ Network: 3 [AM 2026 FBC (Network Folder:  
General)]

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge St S															
1	L2	All MCs	133	0.8	133	0.8	0.072	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	51.0
2	T1	All MCs	464	3.3	464	3.3	0.243	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			597	2.8	597	2.8	0.243	0.7	NA	0.0	0.0	0.00	0.12	0.00	52.6
North: Bridge St N															
8	T1	All MCs	577	3.0	577	3.0	0.352	0.3	LOS A	0.1	0.9	0.07	0.08	0.07	57.7
9	R2	All MCs	22	0.0	22	0.0	0.352	9.5	LOS A	0.1	0.9	0.07	0.08	0.07	55.6
Approach			599	2.9	599	2.9	0.352	0.6	NA	0.1	0.9	0.07	0.08	0.07	57.5
West: Byrne St															
10	L2	All MCs	4	0.0	4	0.0	0.136	7.3	LOS A	0.2	1.3	0.76	0.90	0.76	39.2
12	R2	All MCs	36	0.0	36	0.0	0.136	17.5	LOS B	0.2	1.3	0.76	0.90	0.76	39.2
Approach			41	0.0	41	0.0	0.136	16.4	LOS B	0.2	1.3	0.76	0.90	0.76	39.2
All Vehicles			1236	2.8	1236	2.8	0.352	1.2	NA	0.2	1.3	0.06	0.13	0.06	54.1



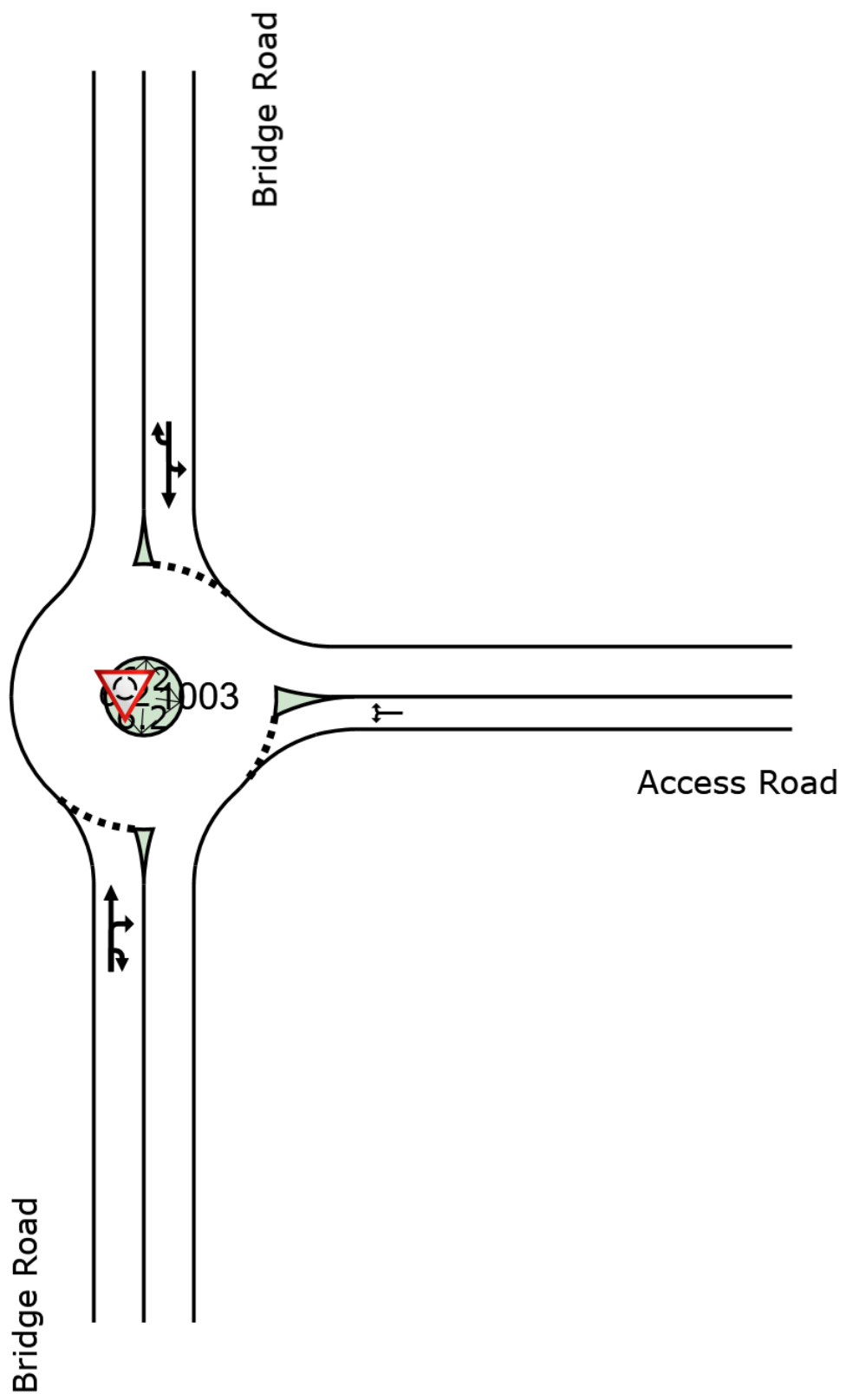
 **Site: 1003 [Bridge Rd - Site Access Rd AM 2026 FBC (Site Folder: AM 2026 FBC)]**

 **Network: 3 [AM 2026 FBC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
			veh/h		veh/h									km/h	
South: Bridge Road															
2	T1	All MCs	553	3.0	553	3.0	0.409	3.6	LOS A	1.4	9.9	0.25	0.45	0.25	26.5
3	R2	All MCs	32	0.0	32	0.0	0.409	6.3	LOS A	1.4	9.9	0.25	0.45	0.25	38.0
3u	U	All MCs	27	0.0	27	0.0	0.409	7.8	LOS A	1.4	9.9	0.25	0.45	0.25	26.5
Approach			612	2.7	612	2.7	0.409	3.9	LOS A	1.4	9.9	0.25	0.45	0.25	28.1
East: Access Road															
4	L2	All MCs	86	0.0	86	0.0	0.179	9.6	LOS A	0.5	3.4	0.78	0.72	0.78	31.4
6	R2	All MCs	38	0.0	38	0.0	0.179	12.1	LOS A	0.5	3.4	0.78	0.72	0.78	31.4
Approach			124	0.0	124	0.0	0.179	10.4	LOS A	0.5	3.4	0.78	0.72	0.78	31.4
North: Bridge Road															
7	L2	All MCs	15	7.1	15	7.1	0.496	3.2	LOS A	1.6	11.7	0.31	0.41	0.31	38.9
8	T1	All MCs	597	2.8	597	2.8	0.496	2.9	LOS A	1.6	11.7	0.31	0.41	0.31	24.6
9u	U	All MCs	5	0.0	5	0.0	0.496	7.0	LOS A	1.6	11.7	0.31	0.41	0.31	24.6
Approach			618	2.8	618	2.8	0.496	3.0	LOS A	1.6	11.7	0.31	0.41	0.31	25.9
All Vehicles			1354	2.5	1354	2.5	0.496	4.1	LOS A	1.6	11.7	0.33	0.46	0.33	28.2





**Site: 101 [Bridge St - Wentworth Av AM 2026 FBC (Site Folder: AM 2026 FBC)]**   **Network: 3 [AM 2026 FBC (Network Folder: General)]**

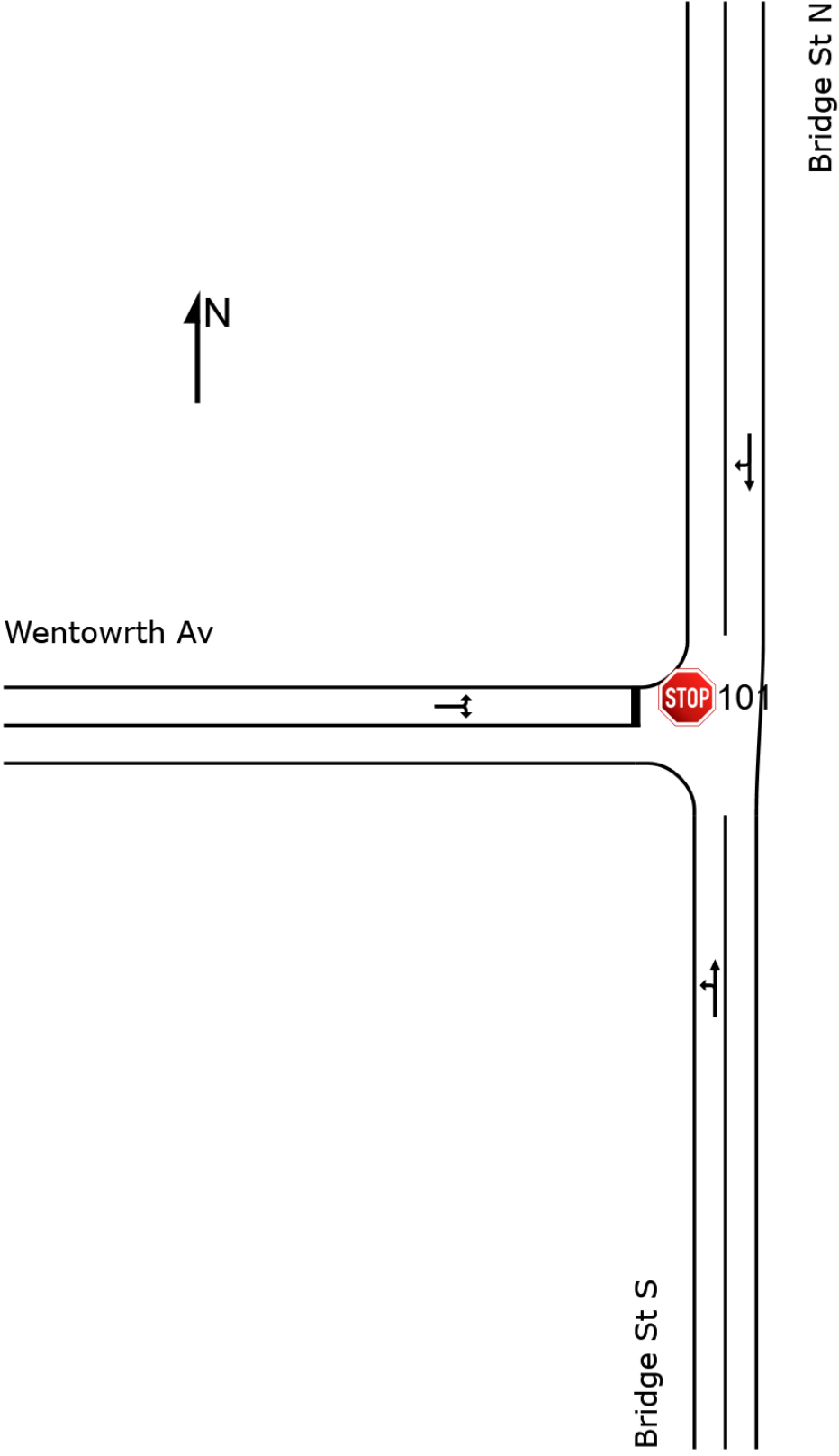
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New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge St S															
1	L2	All MCs	126	0.0	126	0.0	0.378	4.1	LOS A	0.0	0.0	0.00	0.10	0.00	54.3
2	T1	All MCs	572	2.9	572	2.9	0.378	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	50.1
Approach			698	2.4	698	2.4	0.378	0.8	NA	0.0	0.0	0.00	0.10	0.00	52.8
North: Bridge St N															
8	T1	All MCs	680	2.3	680	2.3	0.752	0.9	LOS A	0.4	2.8	0.08	0.10	0.20	46.0
9	R2	All MCs	23	0.0	23	0.0	0.752	9.9	LOS A	0.4	2.8	0.08	0.10	0.20	53.4
Approach			703	2.2	703	2.2	0.752	1.2	NA	0.4	2.8	0.08	0.10	0.20	47.5
West: Wentowrth Av															
10	L2	All MCs	44	2.5	44	2.5	0.797	20.3	LOS B	0.9	6.4	0.94	1.23	1.76	30.1
12	R2	All MCs	74	1.5	74	1.5	0.797	39.6	LOS C	0.9	6.4	0.94	1.23	1.76	30.1
Approach			118	1.9	118	1.9	0.797	32.4	LOS C	0.9	6.4	0.94	1.23	1.76	30.1
All Vehicles			1519	2.2	1519	2.2	0.797	3.4	NA	0.9	6.4	0.11	0.19	0.23	43.0



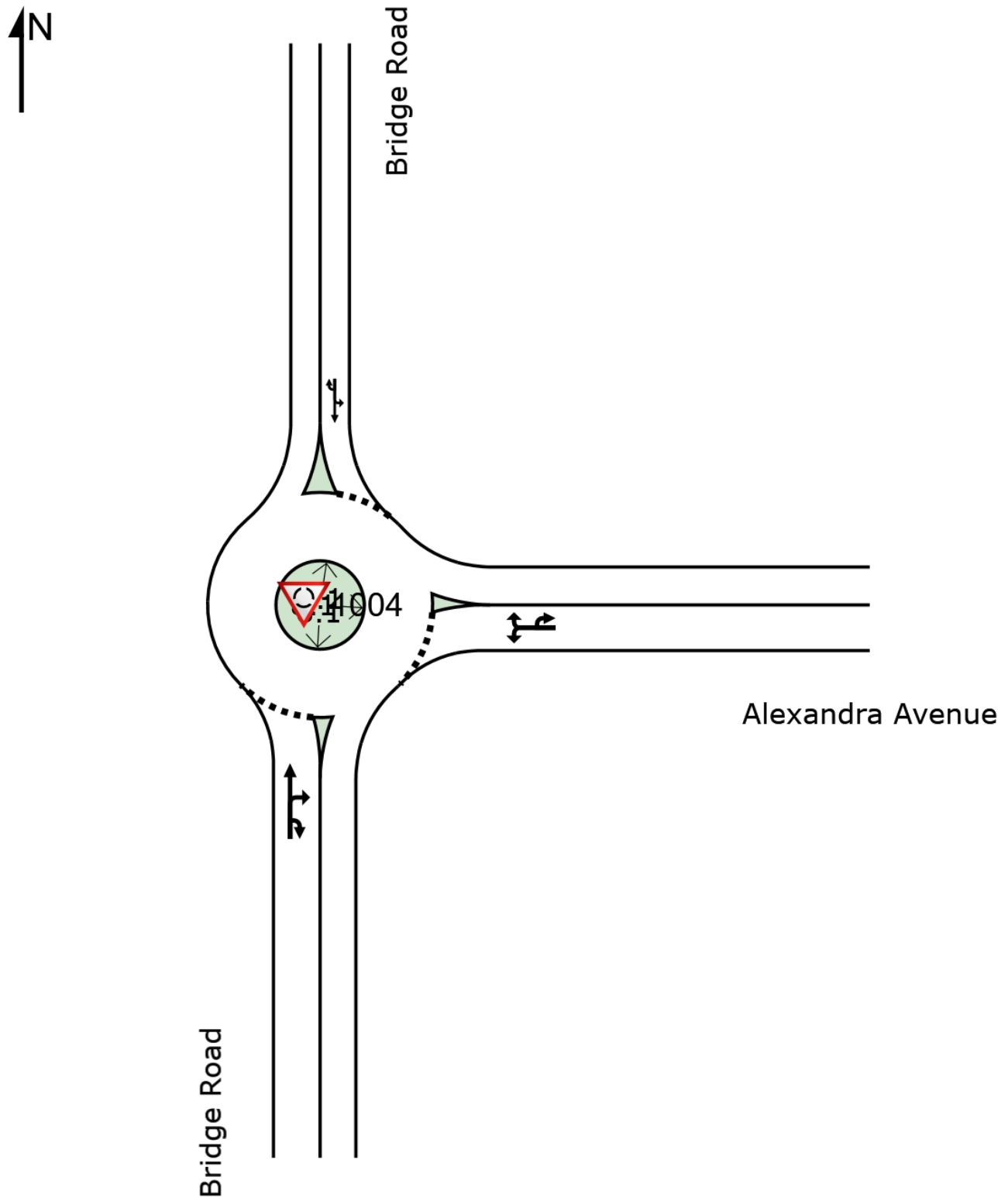
Site: 1004 [Bridge Rd - Alexandra Ave AM 2026 FBC (Site Folder: AM 2026 FBC)]

Network: 3 [AM 2026 FBC (Network Folder: General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	621	2.3	621	2.3	0.657	4.2	LOS A	2.9	20.7	0.31	0.52	0.31	25.7
3	R2	All MCs	324	0.7	324	0.7	0.657	7.3	LOS A	2.9	20.7	0.31	0.52	0.31	43.4
3u	U	All MCs	4	0.0	4	0.0	0.657	8.8	LOS A	2.9	20.7	0.31	0.52	0.31	25.7
Approach			950	1.7	950	1.7	0.657	5.2	LOS A	2.9	20.7	0.31	0.52	0.31	38.5
East: Alexandra Avenue															
4	L2	All MCs	108	5.1	108	5.1	0.304	8.0	LOS A	0.7	5.2	0.76	0.72	0.76	42.2
6	R2	All MCs	71	3.1	71	3.1	0.304	10.4	LOS A	0.7	5.2	0.76	0.72	0.76	42.2
6u	U	All MCs	2	0.0	2	0.0	0.304	12.8	LOS A	0.7	5.2	0.76	0.72	0.76	47.9
Approach			181	4.2	181	4.2	0.304	9.0	LOS A	0.7	5.2	0.76	0.72	0.76	42.3
North: Bridge Road															
7	L2	All MCs	209	0.5	209	0.5	1.003	57.5	LOS E	7.7	55.0	1.00	1.91	2.71	23.3
8	T1	All MCs	533	2.7	533	2.7	1.003	57.3	LOS E	7.7	55.0	1.00	1.91	2.71	4.0
9u	U	All MCs	3	0.0	3	0.0	1.003	61.7	LOS E	7.7	55.0	1.00	1.91	2.71	4.0
Approach			745	2.1	745	2.1	1.003	57.4	LOS E	7.7	55.0	1.00	1.91	2.71	11.9
All Vehicles			1876	2.1	1876	2.1	1.003	26.3	LOS B	7.7	55.0	0.63	1.09	1.31	23.0



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
AM 2026 FBC (Site Folder: AM 2026 FBC)]

Network: 3 [AM 2026 FBC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed

Input Phase Sequence: A, B, C

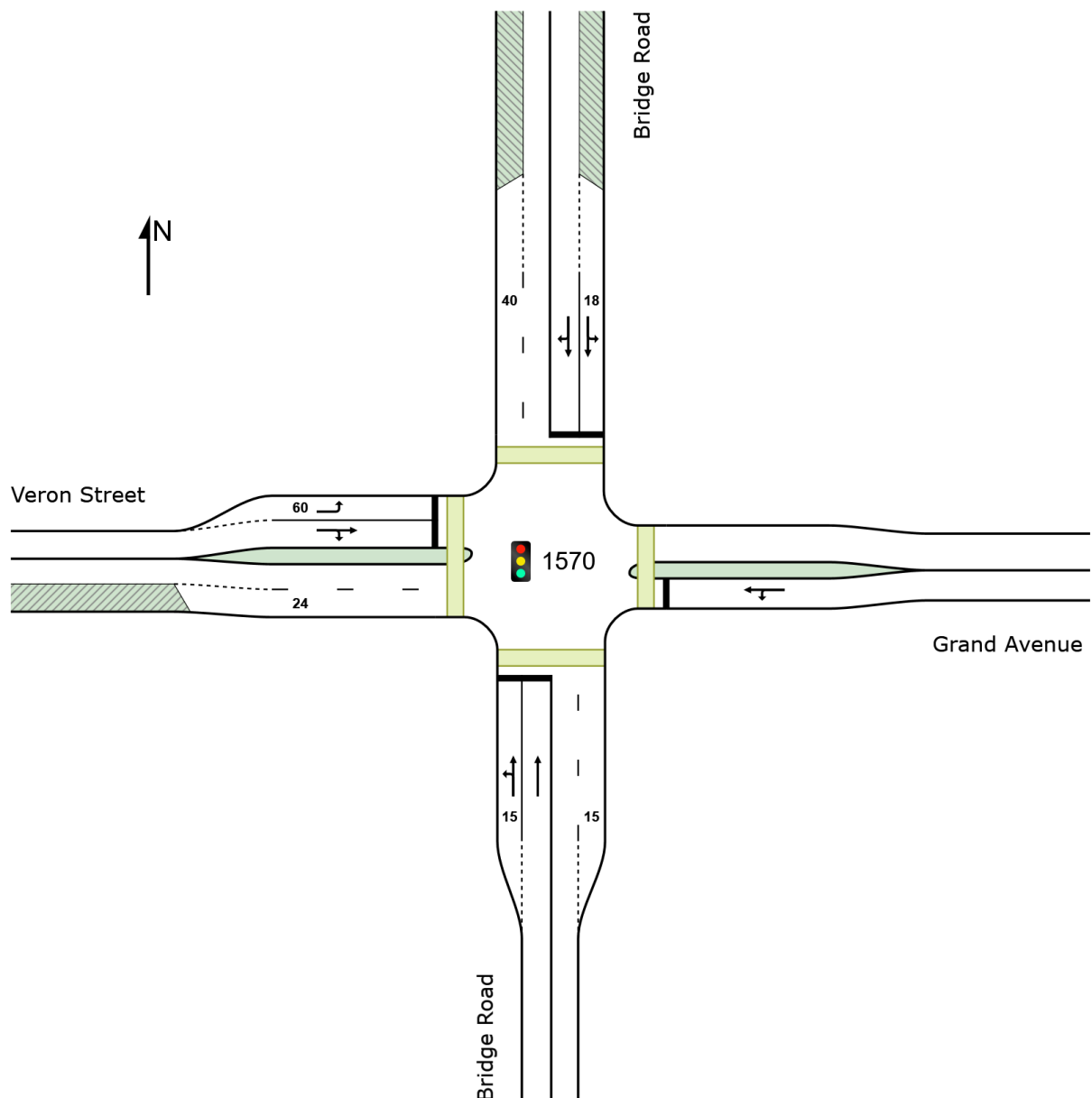
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

## Site Layout

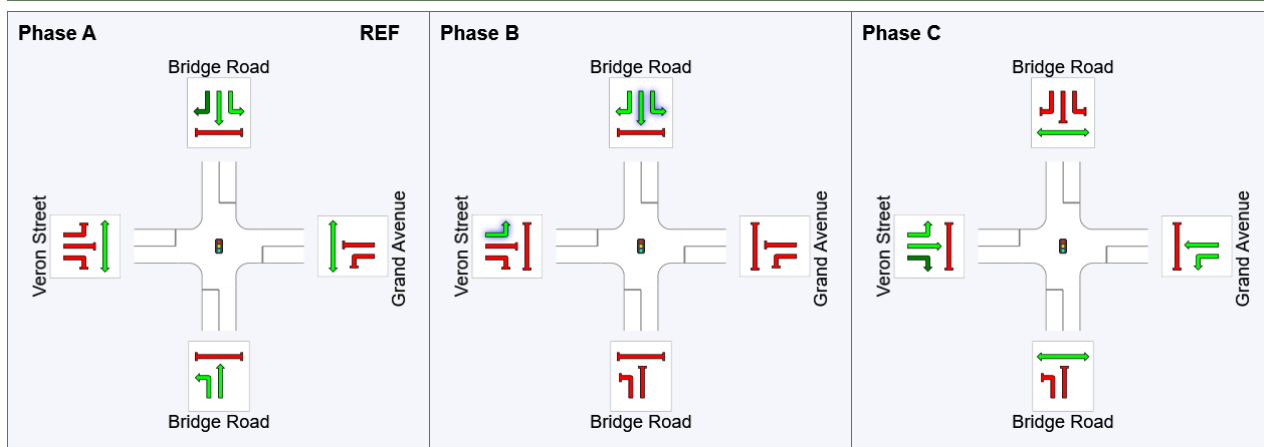
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.





Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	33	0.0	33	0.0	0.264	34.9	LOS C	2.2	15.2	0.79	0.66	33.1
2	T1	All MCs	572	1.0	572	1.0	*0.902	44.8	LOS D	10.3	72.7	0.95	1.07	8.0
Approach			604	0.9	604	0.9	0.902	44.2	LOS D	10.3	72.7	0.94	1.05	7.5
East: Grand Avenue														
4	L2	All MCs	11	0.0	11	0.0	0.130	31.2	LOS C	0.5	3.8	0.91	0.68	31.3
5	T1	All MCs	22	0.0	22	0.0	0.130	26.3	LOS B	0.5	3.8	0.91	0.68	36.8
Approach			33	0.0	33	0.0	0.130	27.9	LOS B	0.5	3.8	0.91	0.68	35.3
North: Bridge Road														
7	L2	All MCs	13	0.0	13	0.0	0.150	18.2	LOS B	1.2	8.8	0.39	0.35	44.5
8	T1	All MCs	425	2.6	424	2.6	0.727	17.1	LOS B	6.4	45.7	0.70	0.71	21.6
9	R2	All MCs	204	3.8	204	3.8	*0.727	43.4	LOS D	6.4	45.7	0.91	0.96	31.4
Approach			643	2.9	641	2.9	0.727	25.5	LOS B	6.4	45.7	0.76	0.78	21.9
West: Veron Street														
10	L2	All MCs	363	3.0	363	3.0	0.420	17.0	LOS B	4.3	30.7	0.69	0.76	34.2
11	T1	All MCs	41	0.0	41	0.0	*0.551	28.4	LOS B	2.2	15.2	0.98	0.79	35.5
12	R2	All MCs	78	1.4	78	1.4	0.551	33.0	LOS C	2.2	15.2	0.98	0.79	26.8
Approach			481	2.5	481	2.5	0.551	20.5	LOS B	4.3	30.7	0.76	0.77	32.9
All Vehicles			1762	2.1	1760	2.1	0.902	30.6	LOS C	10.3	72.7	0.83	0.87	20.8

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	25	46
Green Time (sec)	19	15	8
Phase Time (sec)	25	21	14
Phase Split	42%	35%	23%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark PM 2026 FBC (Site Folder: PM 2026  
FBC)]**



**Network: 4 [PM 2026 FBC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 115 seconds (Site User-Given Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage - Import (2)**

**Input Phase Sequence: A, B, C, C1**

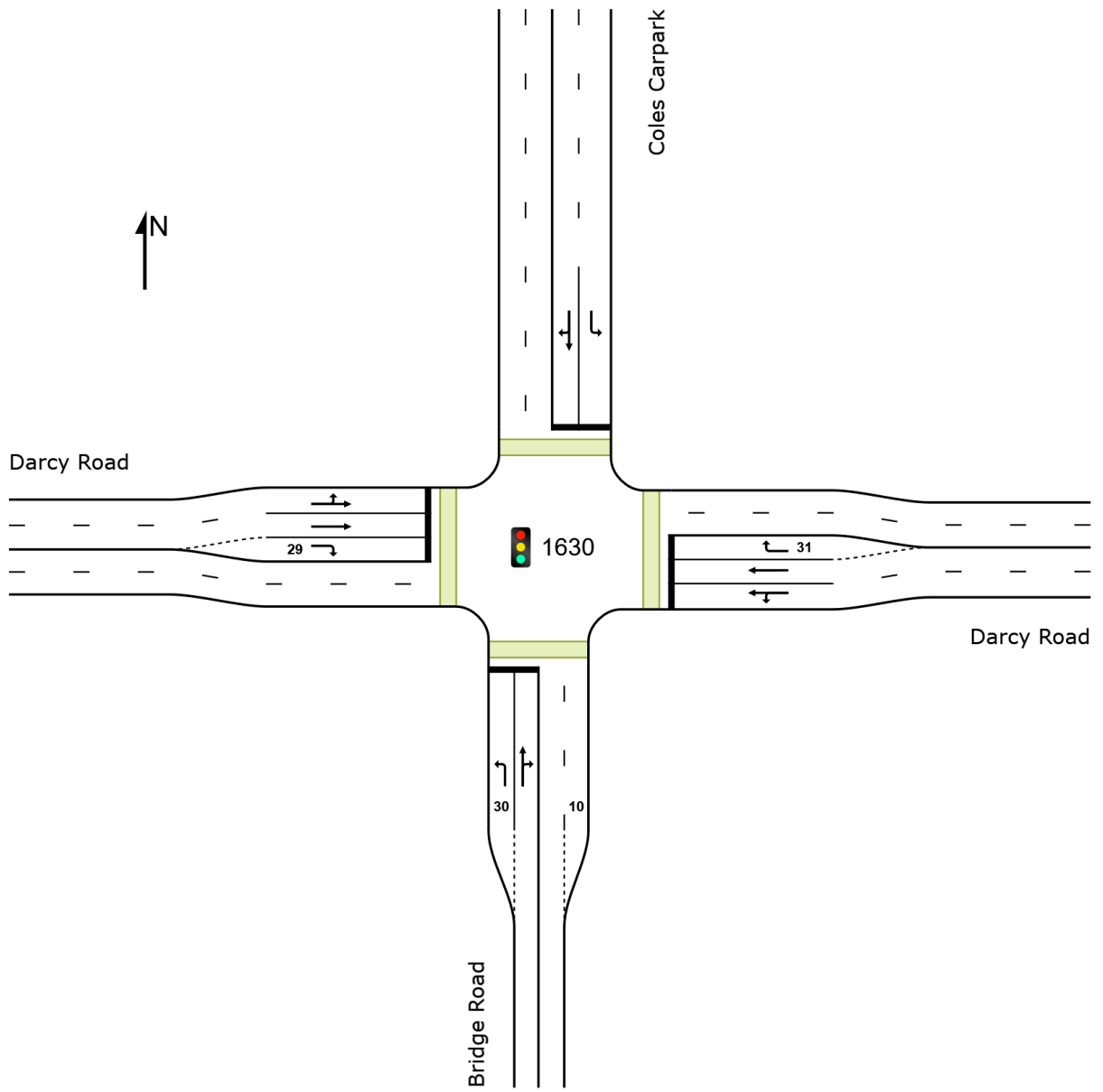
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

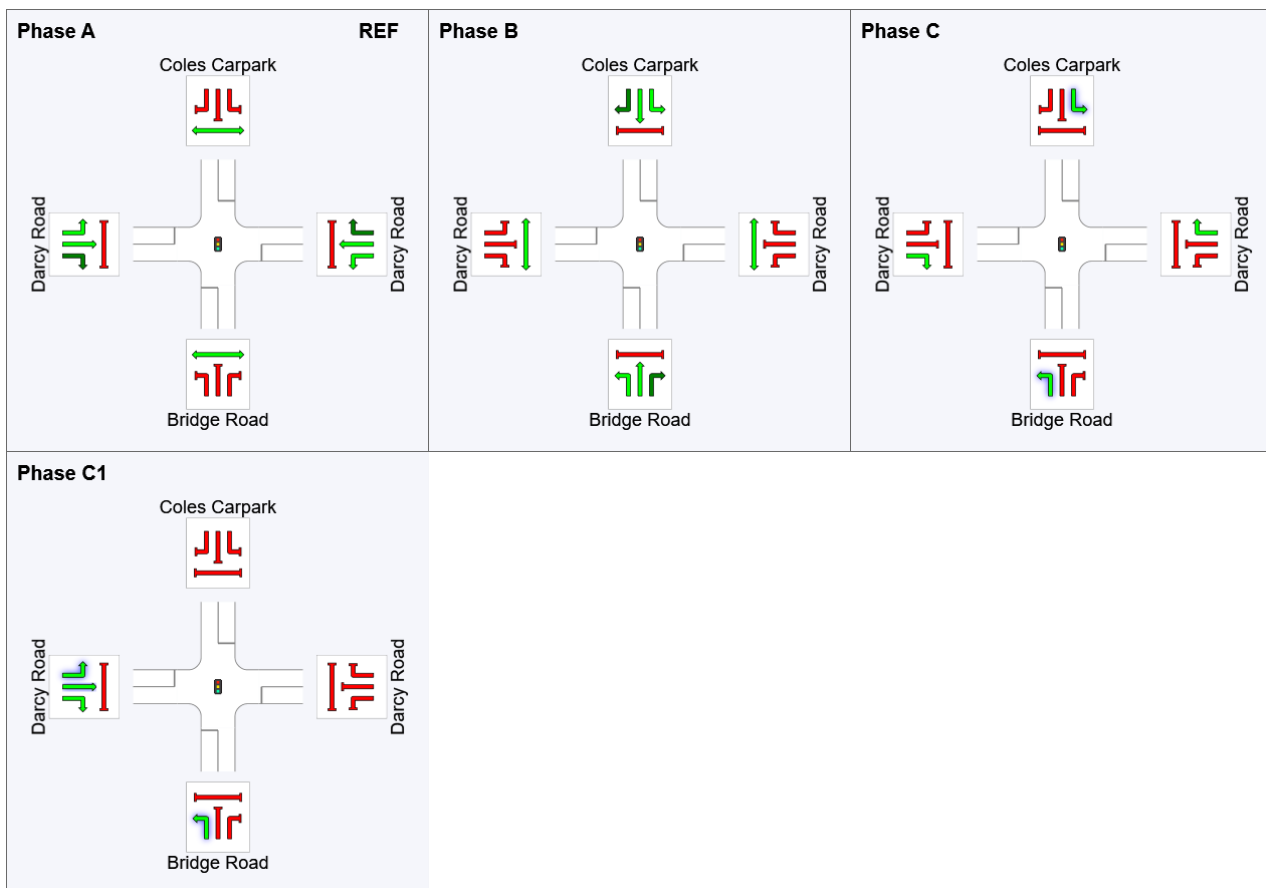
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
			veh/h		veh/h					veh	m				
South: Bridge Road															
1	L2	All MCs	234	0.9	232	0.9	0.231	18.8	LOS B	4.1	28.6	0.55	0.71	0.55	30.1
2	T1	All MCs	36	0.0	36	0.0	* 0.629	58.1	LOS E	3.9	28.8	1.00	0.82	1.04	14.0
3	R2	All MCs	79	6.9	78	6.9	0.629	61.7	LOS E	3.9	28.8	1.00	0.82	1.04	21.0
Approach			348	2.2	346	2.2	0.629	32.6	LOS C	4.1	28.8	0.70	0.74	0.71	23.2
East: Darcy Road															
4	L2	All MCs	353	1.9	353	1.9	* 0.774	44.8	LOS D	15.2	108.2	0.96	0.88	0.99	19.4
5	T1	All MCs	622	0.9	622	0.9	0.774	54.4	LOS D	15.5	109.2	0.95	0.87	0.99	24.9
6	R2	All MCs	24	0.0	24	0.0	0.053	40.1	LOS C	0.3	2.1	0.64	0.70	0.64	19.0
Approach			999	1.2	999	1.2	0.774	50.7	LOS D	15.5	109.2	0.95	0.87	0.98	19.8
North: Coles Carpark															
7	L2	All MCs	27	0.0	27	0.0	0.058	34.8	LOS C	0.7	4.9	0.79	0.58	0.79	16.7
8	T1	All MCs	59	0.0	59	0.0	0.510	51.1	LOS D	3.2	22.5	0.99	0.77	0.99	10.5
9	R2	All MCs	36	0.0	36	0.0	0.510	58.6	LOS E	3.2	22.5	0.99	0.77	0.99	12.6
Approach			122	0.0	122	0.0	0.510	49.7	LOS D	3.2	22.5	0.94	0.73	0.94	12.5
West: Darcy Road															
10	L2	All MCs	60	0.0	60	0.0	0.200	14.8	LOS B	3.3	23.3	0.44	0.48	0.44	16.9
11	T1	All MCs	420	1.0	420	1.0	0.200	13.1	LOS A	3.3	23.4	0.44	0.42	0.44	39.9
12	R2	All MCs	414	1.3	414	1.3	* 0.652	31.4	LOS C	7.6	53.7	0.84	0.88	0.84	16.8
Approach			894	1.1	894	1.1	0.652	21.7	LOS B	7.6	53.7	0.62	0.63	0.62	24.6
All Vehicles			2364	1.2	2362	1.2	0.774	37.0	LOS C	15.5	109.2	0.79	0.75	0.80	20.7

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	43	66	80
Green Time (sec)	41	17	8	31
Phase Time (sec)	47	23	12	33
Phase Split	41%	20%	10%	29%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

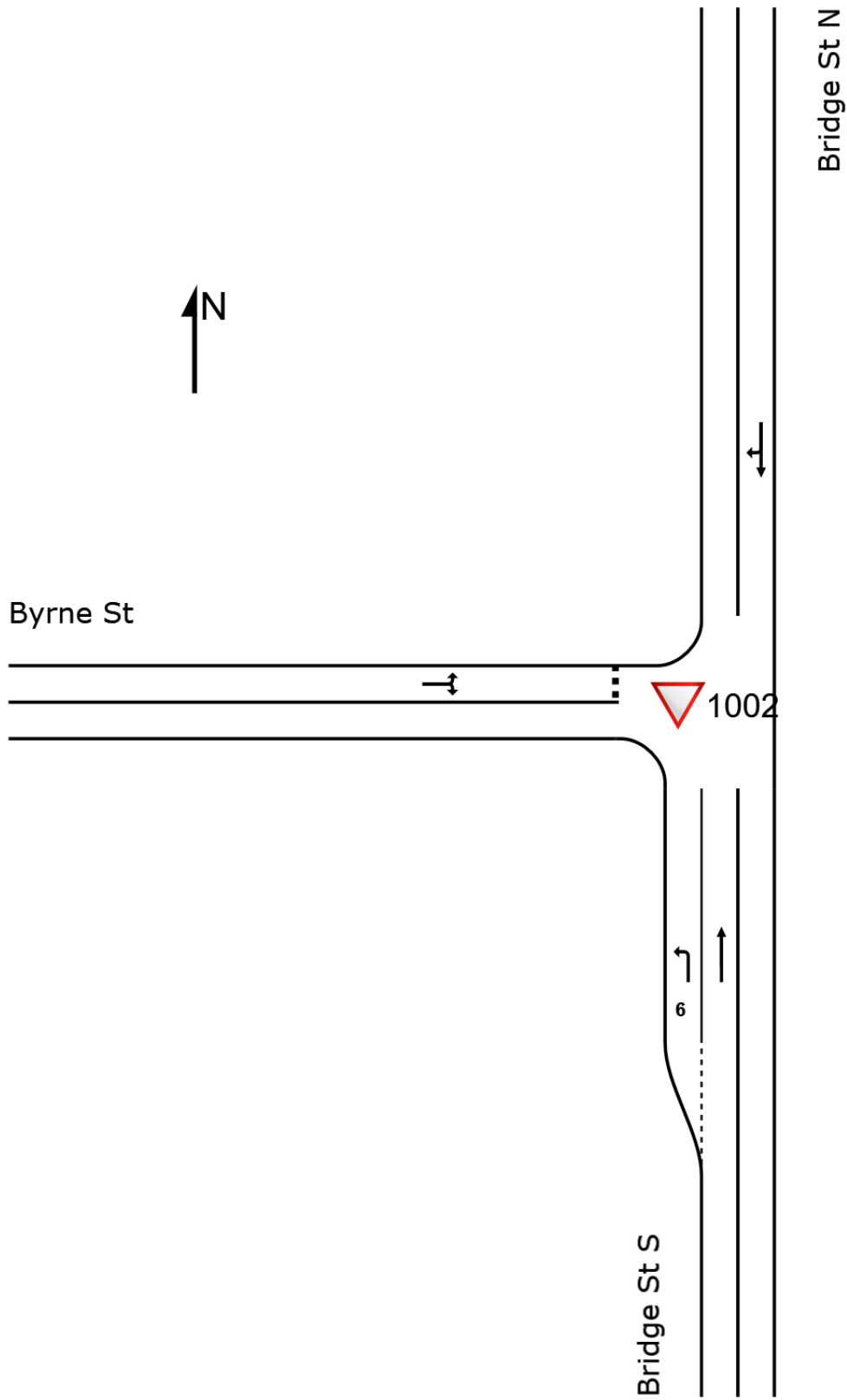
 **Site: 1002 [Bridge St - Byrne St PM 2026 FBC (Site Folder: PM 2026 FBC)]**

 **Network: 4 [PM 2026 FBC (Network Folder: General)]**

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ] veh/h	%	[ Total HV ] veh/h	%									[ Veh. veh
South: Bridge St S															
1	L2	All MCs	60	1.8	60	1.8	0.033	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	50.9
2	T1	All MCs	366	2.7	363	2.7	0.190	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			426	2.6	423	2.6	0.190	0.4	NA	0.0	0.0	0.00	0.07	0.00	53.4
North: Bridge St N															
8	T1	All MCs	808	1.5	808	1.5	0.667	0.5	LOS A	0.4	2.9	0.07	0.09	0.12	56.9
9	R2	All MCs	35	0.0	35	0.0	0.667	9.3	LOS A	0.4	2.9	0.07	0.09	0.12	55.4
Approach			843	1.4	843	1.4	0.667	0.9	NA	0.4	2.9	0.07	0.09	0.12	56.8
West: Byrne St															
10	L2	All MCs	10	0.0	10	0.0	0.283	8.0	LOS A	0.3	2.2	0.80	0.95	0.92	35.8
12	R2	All MCs	44	2.5	44	2.5	0.283	23.8	LOS B	0.3	2.2	0.80	0.95	0.92	35.8
Approach			54	2.0	54	2.0	0.283	20.9	LOS B	0.3	2.2	0.80	0.95	0.92	35.8
All Vehicles			1322	1.8	1320	1.8	0.667	1.6	NA	0.4	2.9	0.08	0.12	0.12	53.6



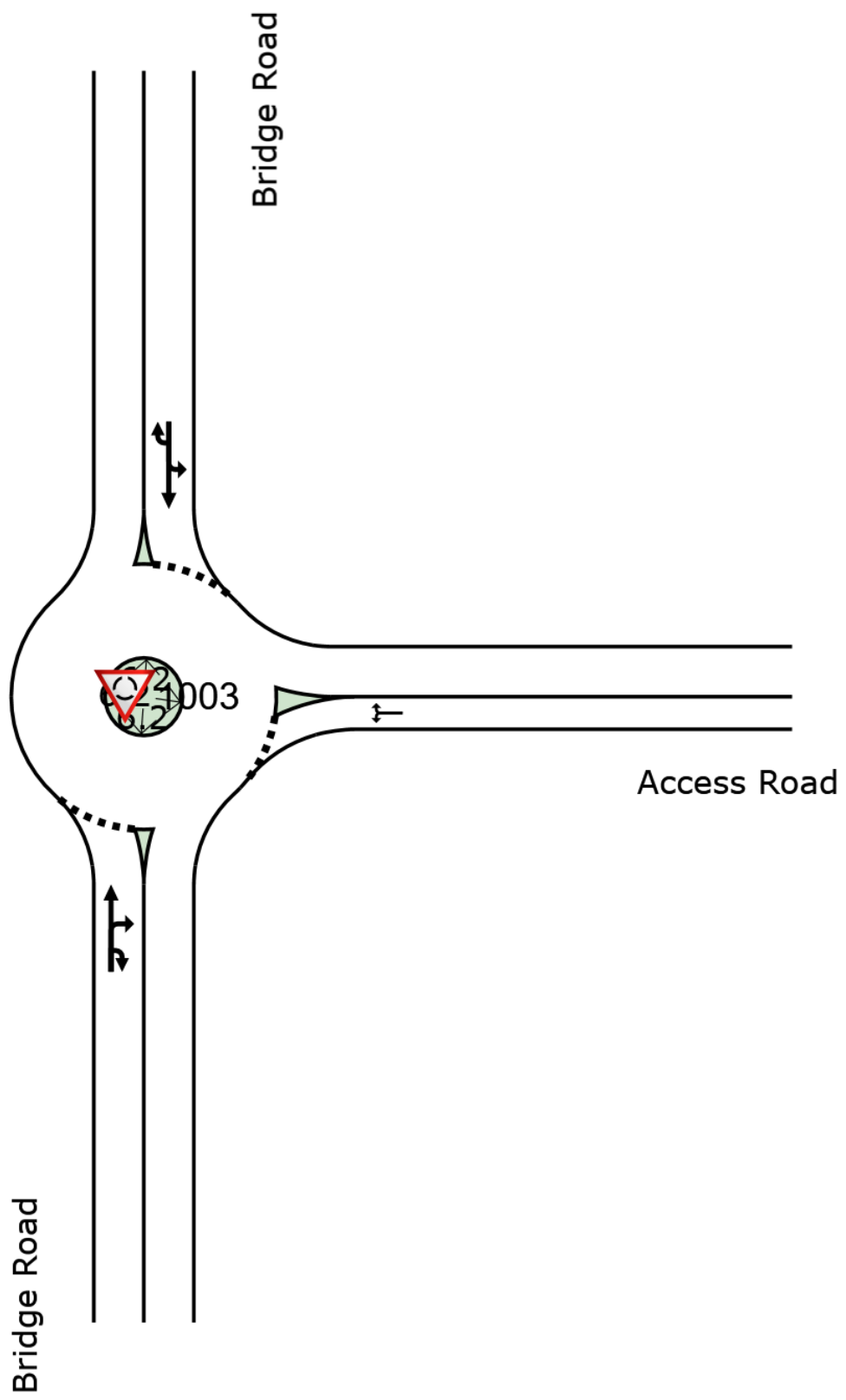
 **Site: 1003 [Bridge Rd - Site Access Rd PM 2026 FBC (Site Folder: PM 2026 FBC)]**

 **Network: 4 [PM 2026 FBC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
2	T1	All MCs	402	2.4	399	2.4	0.318	3.5	LOS A	1.0	7.2	0.18	0.47	26.7
3	R2	All MCs	62	0.0	62	0.0	0.318	6.2	LOS A	1.0	7.2	0.18	0.47	38.0
3u	U	All MCs	29	0.0	29	0.0	0.318	7.7	LOS A	1.0	7.2	0.18	0.47	26.7
Approach			494	2.0	490	2.0	0.318	4.1	LOS A	1.0	7.2	0.18	0.47	30.1
East: Access Road														
4	L2	All MCs	60	0.0	60	0.0	0.171	12.2	LOS A	0.5	3.4	0.89	0.77	28.7
6	R2	All MCs	26	4.2	26	4.2	0.171	15.2	LOS B	0.5	3.4	0.89	0.77	28.7
Approach			86	1.3	86	1.3	0.171	13.1	LOS A	0.5	3.4	0.89	0.77	28.7
North: Bridge Road														
7	L2	All MCs	39	2.8	39	2.8	0.707	3.9	LOS A	3.3	23.1	0.55	0.46	38.0
8	T1	All MCs	809	1.5	809	1.5	0.707	3.7	LOS A	3.3	23.1	0.55	0.46	22.1
9u	U	All MCs	2	0.0	2	0.0	0.707	7.7	LOS A	3.3	23.1	0.55	0.46	22.1
Approach			851	1.5	851	1.5	0.707	3.7	LOS A	3.3	23.1	0.55	0.46	24.3
All Vehicles			1431	1.7	1427	1.7	0.707	4.4	LOS A	3.3	23.1	0.44	0.48	27.2





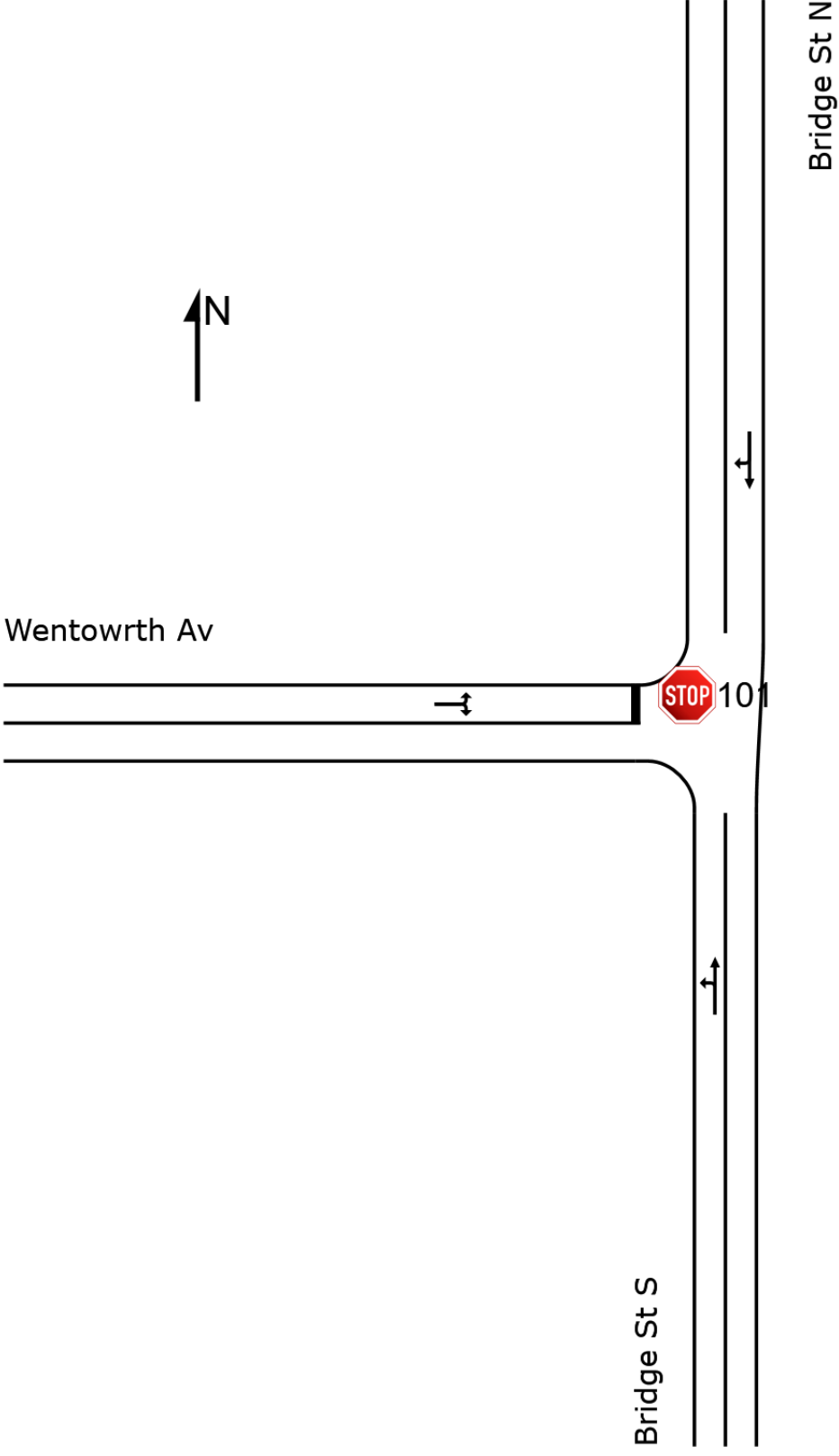
**Site: 101 [Bridge St - Wentworth Av PM 2026 FBC (Site Folder: PM 2026 FBC)]**   **Network: 4 [PM 2026 FBC (Network Folder: General)]**

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New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	167	0.7	166	0.7	0.328	4.1	LOS A	0.0	0.0	0.00	0.16	0.00	53.8
2	T1	All MCs	441	2.2	438	2.2	0.328	0.0	LOS A	0.0	0.0	0.00	0.16	0.00	46.5
Approach			608	1.8	603	1.8	0.328	1.1	NA	0.0	0.0	0.00	0.16	0.00	51.9
North: Bridge St N															
8	T1	All MCs	882	1.4	882	1.4	0.951	2.1	LOS A	1.2	8.2	0.07	0.09	0.51	37.4
9	R2	All MCs	24	0.0	24	0.0	0.951	11.3	LOS A	1.2	8.2	0.07	0.09	0.51	51.8
Approach			906	1.3	906	1.3	0.951	2.4	NA	1.2	8.2	0.07	0.09	0.51	39.5
West: Wentowrth Av															
10	L2	All MCs	51	0.0	51	0.0	0.963	42.6	LOS D	1.8	12.8	0.99	1.65	3.23	20.7
12	R2	All MCs	73	0.0	73	0.0	0.963	72.4	LOS F	1.8	12.8	0.99	1.65	3.23	20.7
Approach			124	0.0	124	0.0	0.963	60.1	LOS E	1.8	12.8	0.99	1.65	3.23	20.7
All Vehicles			1639	1.4	1634	1.4	0.963	6.3	NA	1.8	12.8	0.11	0.23	0.53	35.6



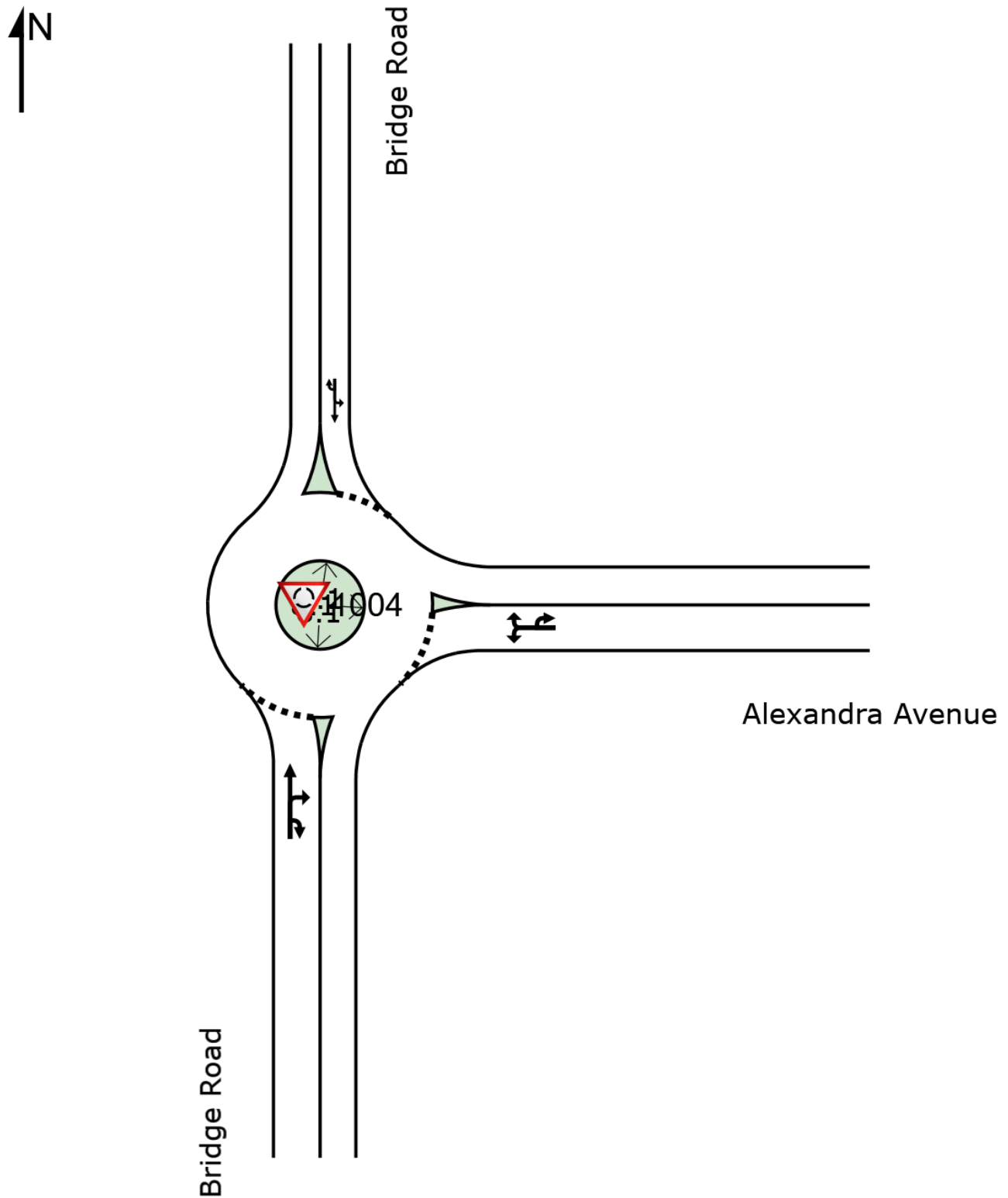
Site: 1004 [Bridge Rd - Alexandra Ave PM  
2026 FBC (Site Folder: PM 2026 FBC)]

Network: 4 [PM 2026 FBC (Network Folder:  
General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				
			veh/h		veh/h					veh	m			km/h	
South: Bridge Road															
2	T1	All MCs	462	2.4	457	2.4	0.490	4.4	LOS A	1.5	10.9	0.35	0.54	0.35	25.6
3	R2	All MCs	169	0.6	168	0.6	0.490	7.5	LOS A	1.5	10.9	0.35	0.54	0.35	43.4
3u	U	All MCs	2	0.0	2	0.0	0.490	9.0	LOS A	1.5	10.9	0.35	0.54	0.35	25.6
Approach			633	1.9	627	1.9	0.490	5.3	LOS A	1.5	10.9	0.35	0.54	0.35	37.2
East: Alexandra Avenue															
4	L2	All MCs	178	0.0	178	0.0	0.656	12.2	LOS A	2.0	13.8	0.97	0.88	1.21	39.1
6	R2	All MCs	141	0.0	141	0.0	0.656	14.7	LOS B	2.0	13.8	0.97	0.88	1.21	39.1
6u	U	All MCs	1	0.0	1	0.0	0.656	17.2	LOS B	2.0	13.8	0.97	0.88	1.21	45.8
Approach			320	0.0	320	0.0	0.656	13.3	LOS A	2.0	13.8	0.97	0.88	1.21	39.2
North: Bridge Road															
7	L2	All MCs	181	0.0	181	0.0	1.324	304.4	LOS F	7.8	55.0	1.00	4.10	6.76	7.2
8	T1	All MCs	768	1.3	768	1.3	1.324	304.3	LOS F	7.8	55.0	1.00	4.10	6.76	0.8
9u	U	All MCs	1	0.0	1	0.0	1.324	308.6	LOS F	7.8	55.0	1.00	4.10	6.76	0.8
Approach			950	1.0	950	1.0	1.324	304.3	LOS F	7.8	55.0	1.00	4.10	6.76	2.2
All Vehicles			1903	1.1	1897	1.2	1.324	156.4	LOS F	7.8	55.0	0.78	2.38	3.71	6.0



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
PM 2026 FBC (Site Folder: PM 2026 FBC)]

Network: 4 [PM 2026 FBC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 45 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed - Import

Input Phase Sequence: A, B, C

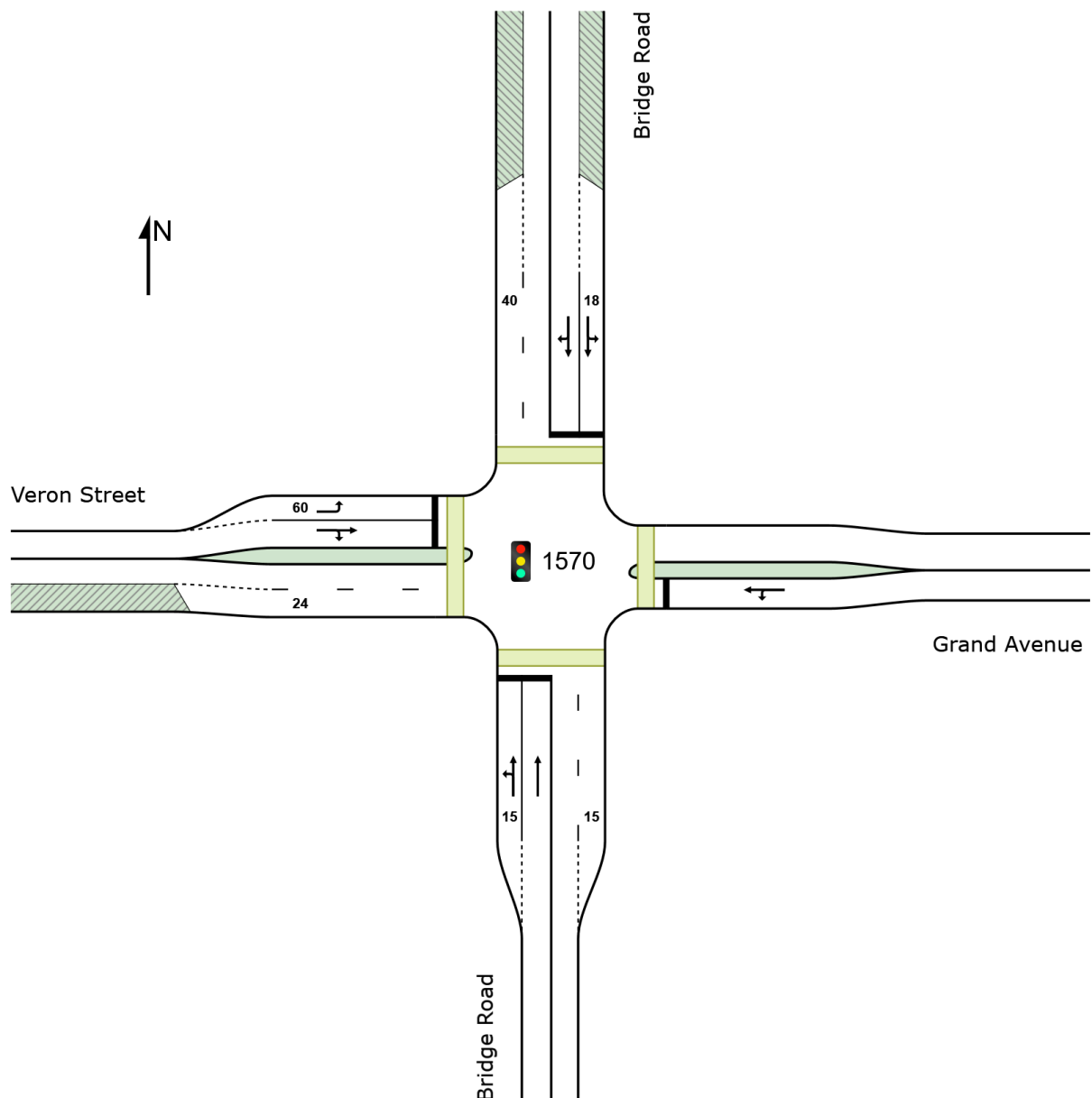
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

## Site Layout

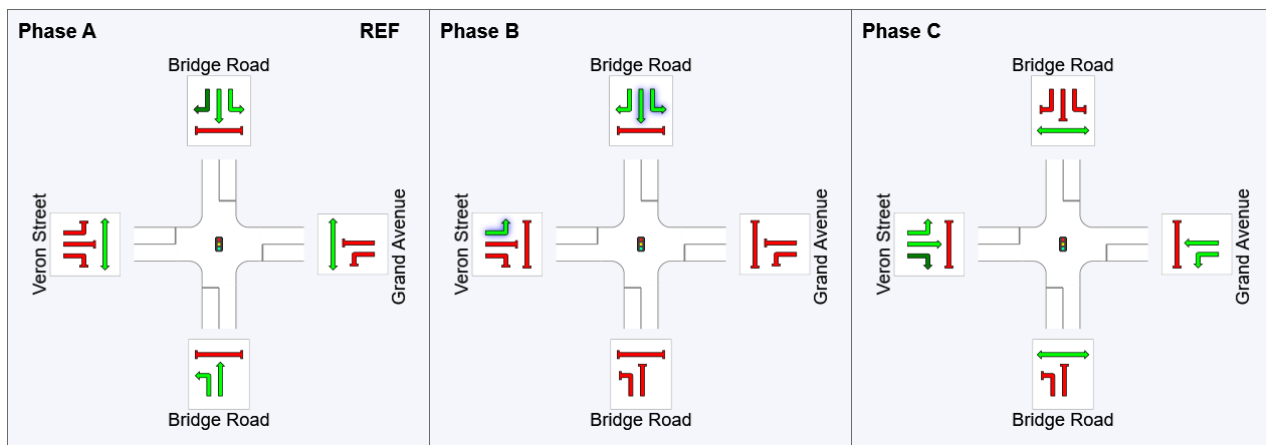
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	59	0.0	59	0.0	0.298	31.3	LOS C	1.3	9.5	0.89	0.73	31.9
2	T1	All MCs	392	2.2	392	2.2	* 1.019	69.9	LOS E	9.5	67.8	0.99	1.55	4.4
Approach			451	1.9	451	1.9	1.019	64.8	LOS E	9.5	67.8	0.97	1.44	6.8
East: Grand Avenue														
4	L2	All MCs	12	9.1	12	9.1	0.275	23.6	LOS B	1.1	8.1	0.90	0.70	35.1
5	T1	All MCs	81	0.0	81	0.0	* 0.275	18.8	LOS B	1.1	8.1	0.90	0.70	40.2
Approach			93	1.2	93	1.2	0.275	19.4	LOS B	1.1	8.1	0.90	0.70	39.7
North: Bridge Road														
7	L2	All MCs	10	0.0	8	0.0	0.185	16.3	LOS B	1.3	9.2	0.52	0.44	43.4
8	T1	All MCs	601	1.5	482	1.4	0.893	21.9	LOS B	8.2	58.0	0.81	0.92	18.0
9	R2	All MCs	339	0.3	272	0.3	* 0.893	40.2	LOS C	8.2	58.0	1.00	1.21	28.4
Approach			949	1.0	761	1.0	0.893	28.4	LOS B	8.2	58.0	0.88	1.02	21.0
West: Veron Street														
10	L2	All MCs	237	1.4	237	1.4	0.246	11.5	LOS A	1.7	12.3	0.57	0.70	37.9
11	T1	All MCs	13	0.0	13	0.0	0.200	17.5	LOS B	0.7	4.6	0.89	0.71	39.0
12	R2	All MCs	40	0.0	40	0.0	0.200	23.0	LOS B	0.7	4.6	0.89	0.71	31.0
Approach			290	1.1	290	1.1	0.246	13.4	LOS A	1.7	12.3	0.63	0.71	36.8
All Vehicles			1783	1.3	1595	1.4	1.019	35.4	LOS C	9.5	67.8	0.86	1.06	20.0



## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	15	31
Green Time (sec)	9	10	8
Phase Time (sec)	15	16	14
Phase Split	33%	36%	31%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark AM 2026 FPC (Site Folder: AM 2026  
FPC)]**



**Network: 7 [AM 2026 FPC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 90 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage**

**Input Phase Sequence: A, B, C, C1**

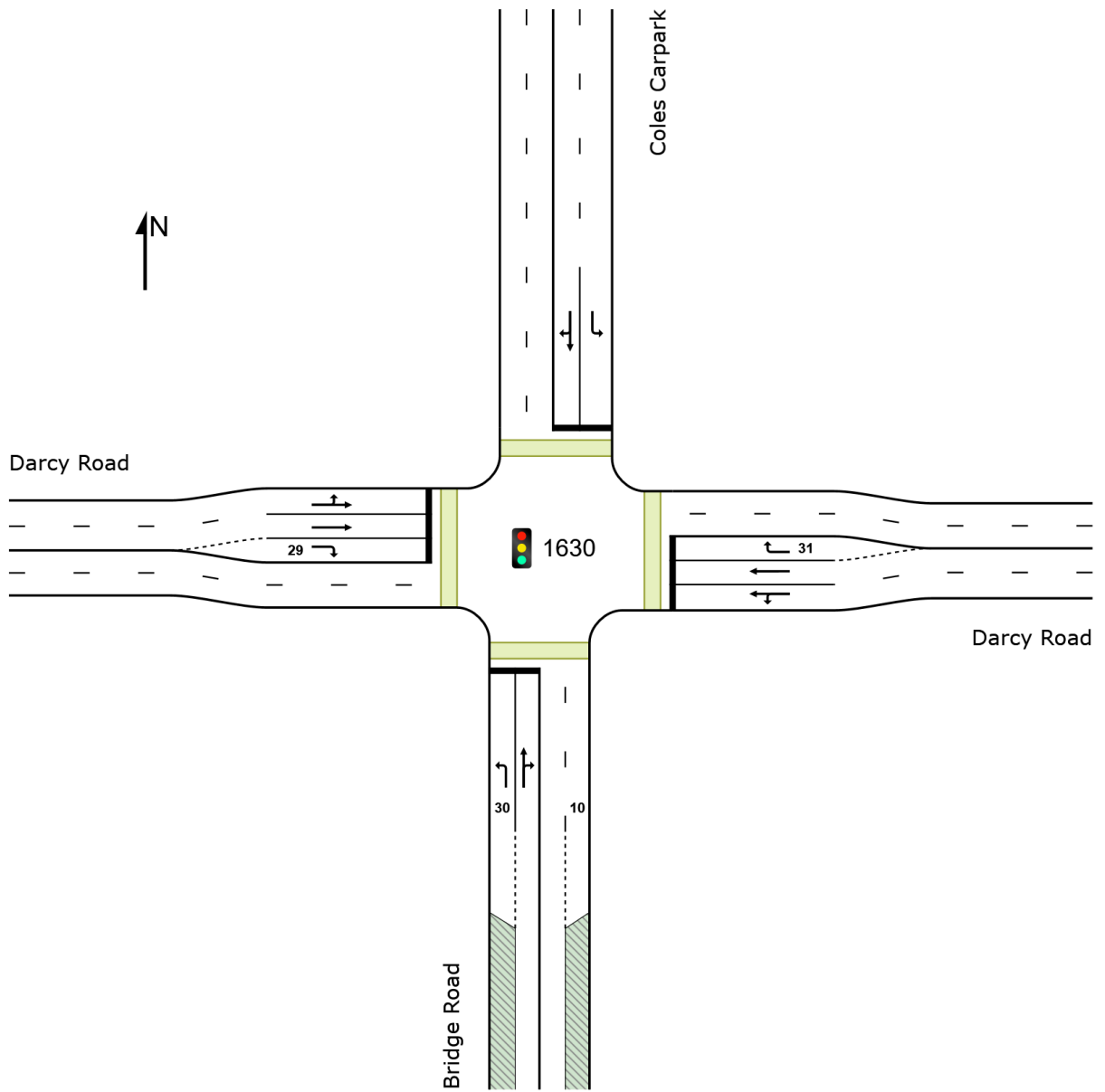
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

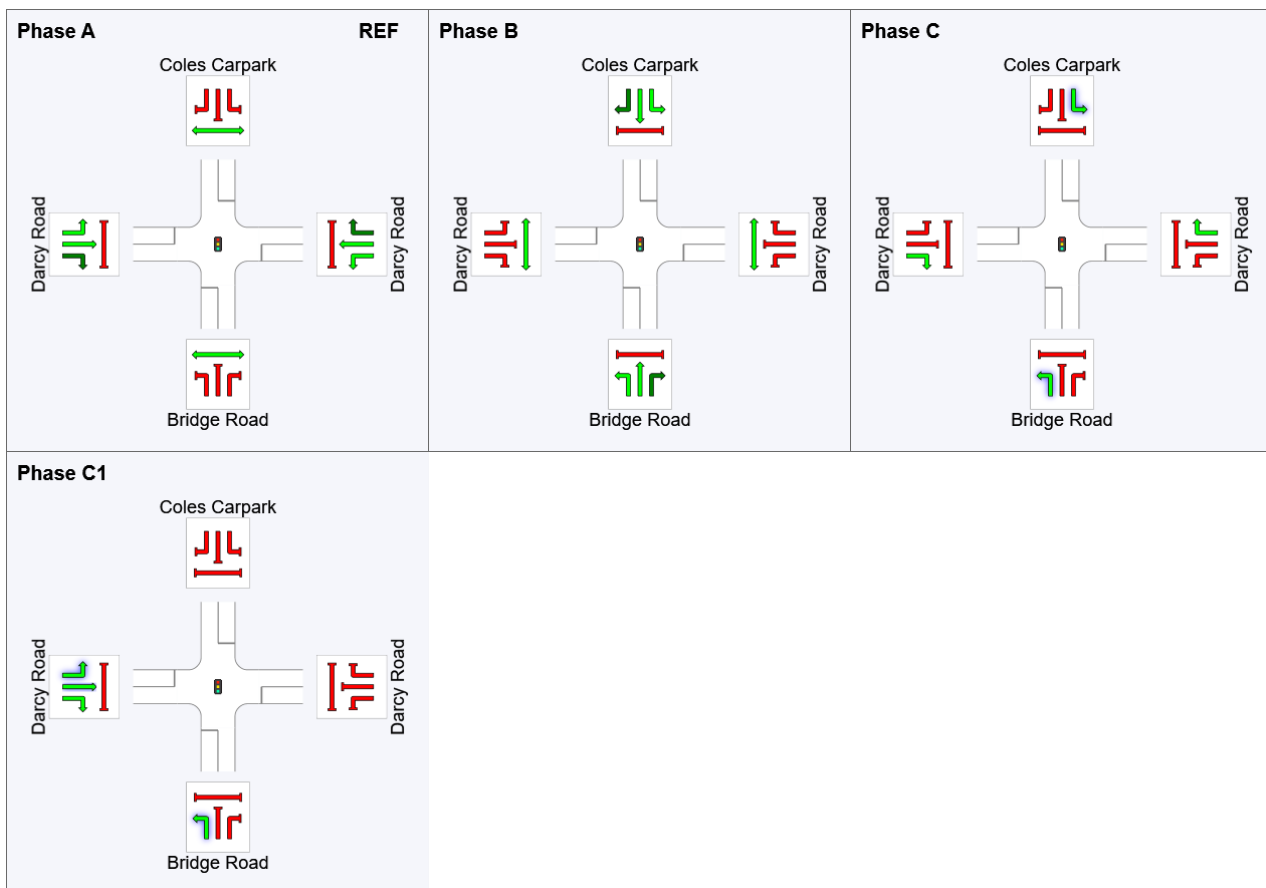
## Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	169	2.6	169	2.6	0.165	26.2	LOS B	2.1	15.4	0.51	0.68	32.9
2	T1	All MCs	18	0.0	18	0.0	0.848	58.4	LOS E	9.7	69.8	0.99	0.98	15.1
3	R2	All MCs	304	3.6	304	3.6	*0.848	57.6	LOS E	9.7	69.8	0.99	0.98	24.4
Approach			491	3.1	491	3.1	0.848	46.8	LOS D	9.7	69.8	0.83	0.88	22.1
East: Darcy Road														
4	L2	All MCs	339	3.2	339	3.2	0.765	39.3	LOS C	10.6	76.6	0.97	0.89	20.7
5	T1	All MCs	509	4.1	509	4.1	0.765	45.4	LOS D	11.3	82.7	0.96	0.89	26.7
6	R2	All MCs	18	0.0	18	0.0	*0.095	41.1	LOS C	0.2	1.7	0.89	0.70	18.1
Approach			866	3.7	866	3.7	0.765	42.9	LOS D	11.3	82.7	0.96	0.89	21.6
North: Coles Carpark														
7	L2	All MCs	12	0.0	12	0.0	0.015	15.9	LOS B	0.2	1.3	0.60	0.42	18.6
8	T1	All MCs	24	0.0	24	0.0	0.103	22.7	LOS B	0.9	6.5	0.75	0.58	12.5
9	R2	All MCs	23	4.8	23	4.8	0.103	26.7	LOS B	0.9	6.5	0.75	0.58	14.9
Approach			59	1.9	59	1.9	0.103	22.9	LOS B	0.9	6.5	0.72	0.55	14.8
West: Darcy Road														
10	L2	All MCs	41	2.7	41	2.7	0.875	39.3	LOS C	20.8	148.1	0.98	1.01	14.6
11	T1	All MCs	1174	1.7	1174	1.7	*0.875	40.3	LOS C	20.8	148.1	0.98	1.02	25.8
12	R2	All MCs	242	3.2	242	3.2	0.542	34.0	LOS C	3.7	26.3	0.90	0.80	18.2
Approach			1456	2.0	1456	2.0	0.875	39.3	LOS C	20.8	148.1	0.97	0.99	22.4
All Vehicles			2872	2.7	2872	2.7	0.875	41.3	LOS C	20.8	148.1	0.94	0.93	21.8

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	31	67	77
Green Time (sec)	29	30	4	9
Phase Time (sec)	35	36	8	11
Phase Split	39%	40%	9%	12%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

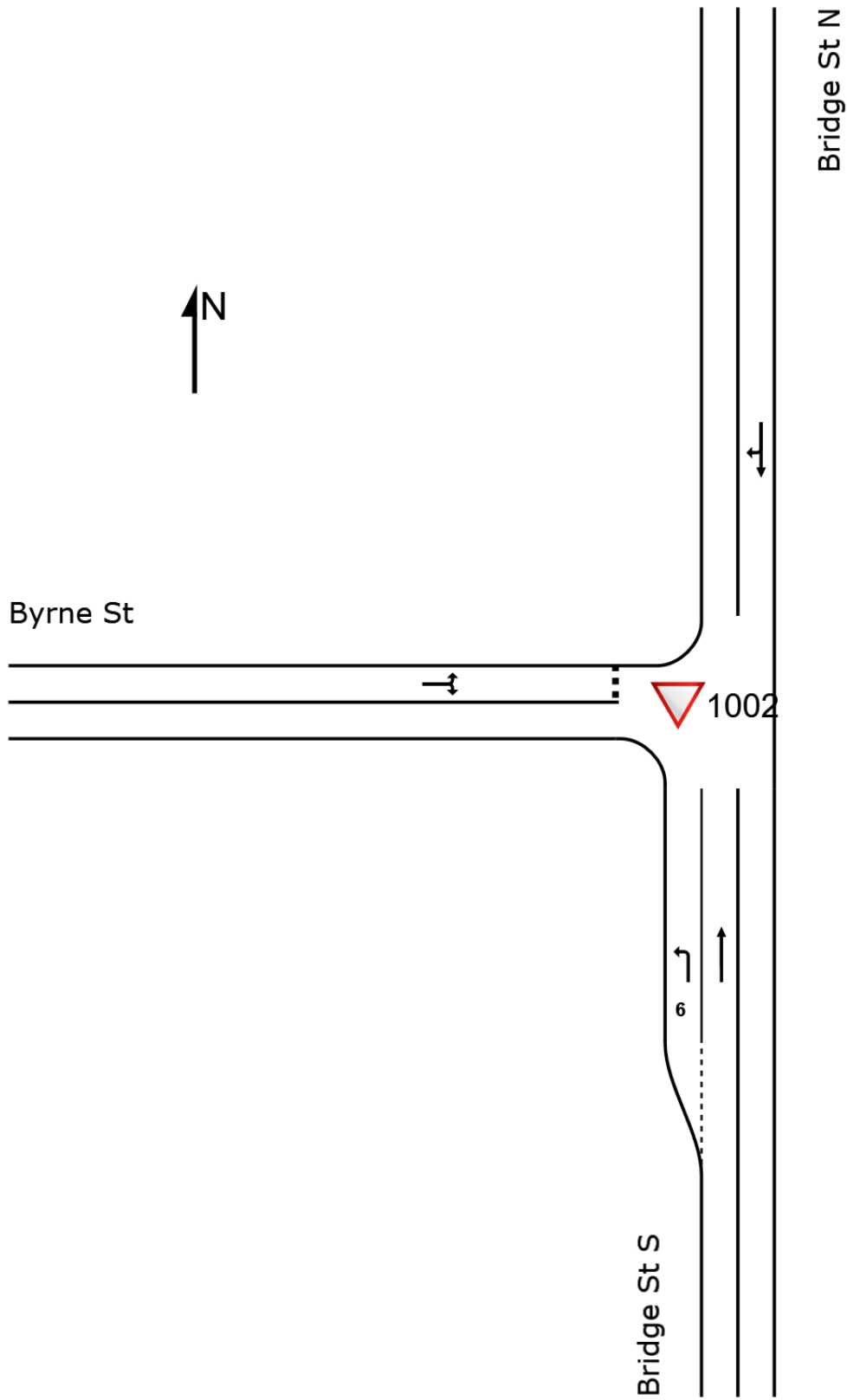
 **Site: 1002 [Bridge St - Byrne St AM 2026 FPC (Site Folder: AM 2026 FPC)]**

 **Network: 7 [AM 2026 FPC (Network Folder: General)]**

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	133	0.8	133	0.8	0.072	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	51.0
2	T1	All MCs	486	3.2	486	3.2	0.254	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			619	2.7	619	2.7	0.254	0.7	NA	0.0	0.0	0.00	0.11	0.00	52.6
North: Bridge St N															
8	T1	All MCs	583	3.0	583	3.0	0.374	0.4	LOS A	0.1	1.1	0.07	0.09	0.07	57.5
9	R2	All MCs	22	0.0	22	0.0	0.374	9.8	LOS A	0.1	1.1	0.07	0.09	0.07	55.6
Approach			605	2.9	605	2.9	0.374	0.7	NA	0.1	1.1	0.07	0.09	0.07	57.3
West: Byrne St															
10	L2	All MCs	4	0.0	4	0.0	0.148	7.5	LOS A	0.2	1.3	0.77	0.90	0.77	38.7
12	R2	All MCs	36	0.0	36	0.0	0.148	18.1	LOS B	0.2	1.3	0.77	0.90	0.77	38.7
Approach			41	0.0	41	0.0	0.148	16.9	LOS B	0.2	1.3	0.77	0.90	0.77	38.7
All Vehicles			1264	2.7	1264	2.7	0.374	1.2	NA	0.2	1.3	0.06	0.13	0.06	53.9





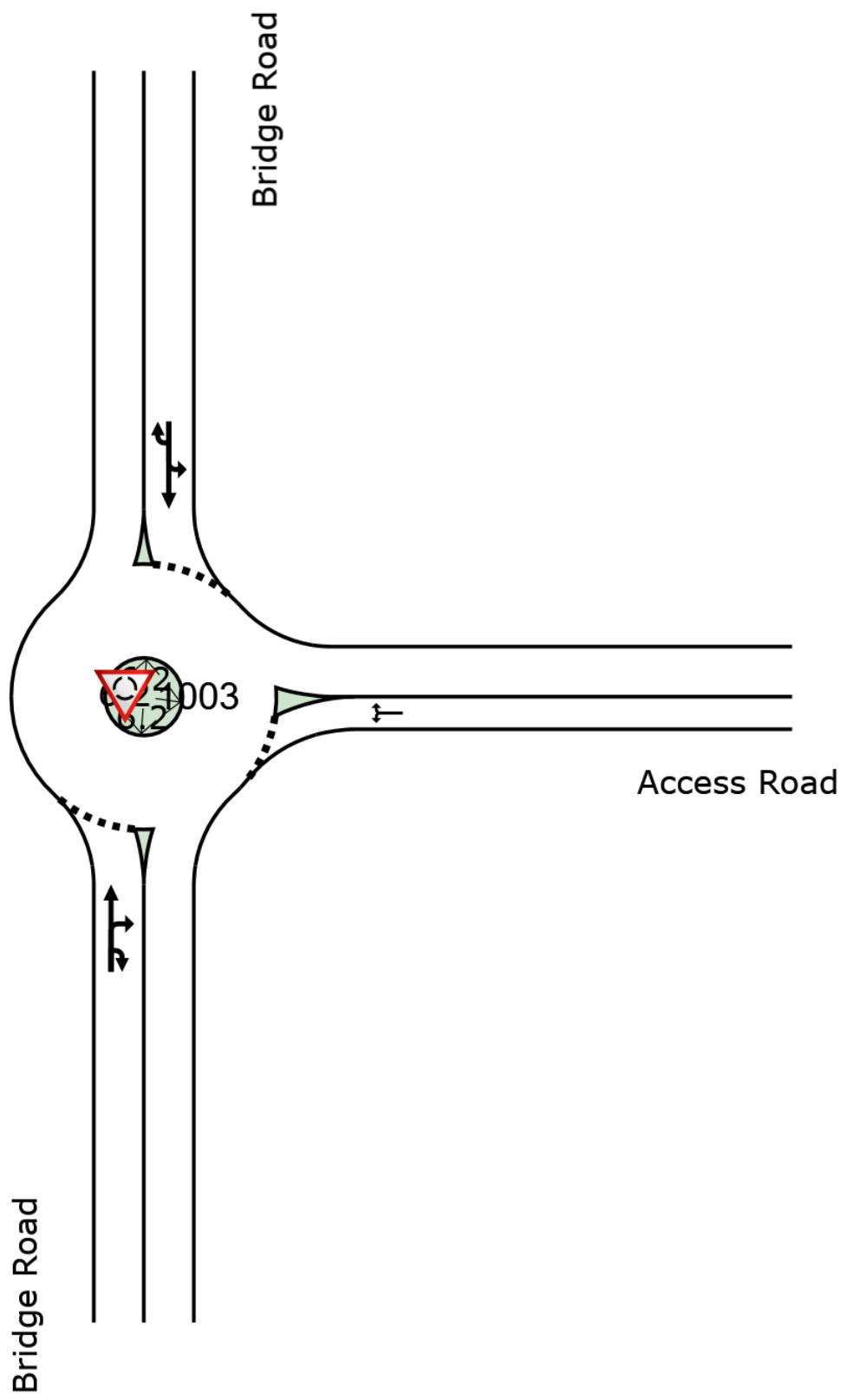
 **Site: 1003 [Bridge Rd - Site Access Rd AM 2026 FPC (Site Folder: AM 2026 FPC)]**

 **Network: 7 [AM 2026 FPC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	553	3.0	553	3.0	0.438	3.7	LOS A	1.5	10.9	0.32	0.46	0.32	25.6
3	R2	All MCs	47	0.0	47	0.0	0.438	6.5	LOS A	1.5	10.9	0.32	0.46	0.32	37.5
3u	U	All MCs	27	0.0	27	0.0	0.438	8.0	LOS A	1.5	10.9	0.32	0.46	0.32	25.6
Approach			628	2.6	627	2.6	0.438	4.1	LOS A	1.5	10.9	0.32	0.46	0.32	27.9
East: Access Road															
4	L2	All MCs	128	0.0	128	0.0	0.275	9.9	LOS A	0.8	5.5	0.82	0.73	0.82	31.0
6	R2	All MCs	61	0.0	61	0.0	0.275	12.5	LOS A	0.8	5.5	0.82	0.73	0.82	31.0
Approach			188	0.0	188	0.0	0.275	10.7	LOS A	0.8	5.5	0.82	0.73	0.82	31.0
North: Bridge Road															
7	L2	All MCs	21	5.2	21	5.2	0.519	3.3	LOS A	1.8	12.7	0.37	0.43	0.37	38.7
8	T1	All MCs	597	2.8	597	2.8	0.519	3.1	LOS A	1.8	12.7	0.37	0.43	0.37	23.9
9u	U	All MCs	5	0.0	5	0.0	0.519	7.1	LOS A	1.8	12.7	0.37	0.43	0.37	23.9
Approach			624	2.8	624	2.8	0.519	3.2	LOS A	1.8	12.7	0.37	0.43	0.37	25.6
All Vehicles			1439	2.4	1439	2.4	0.519	4.6	LOS A	1.8	12.7	0.41	0.48	0.41	28.2





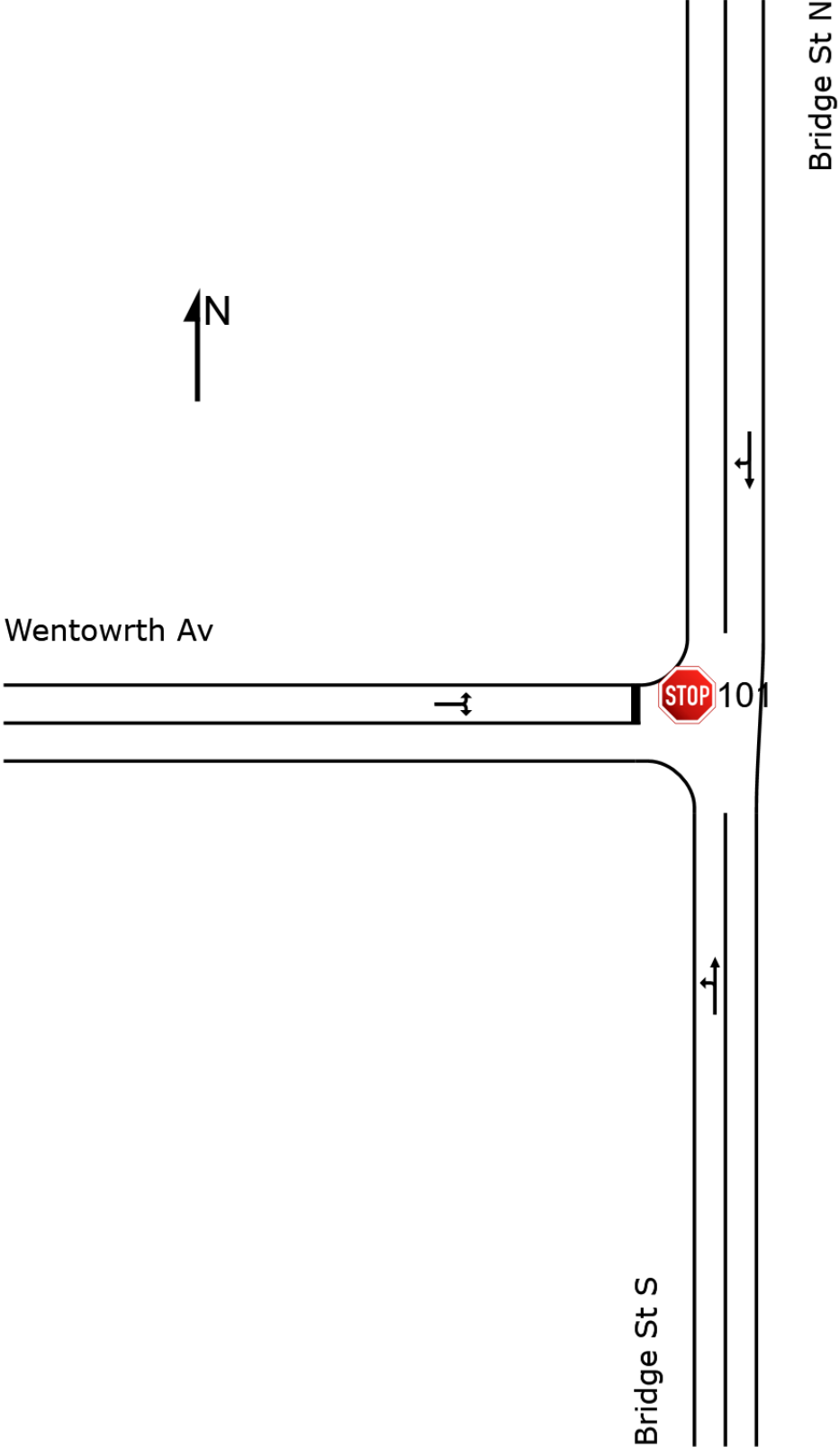
**Site: 101 [Bridge St - Wentworth Av AM 2026 FPC (Site Folder: AM 2026 FPC)]**   **Network: 7 [AM 2026 FPC (Network Folder: General)]**

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New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	126	0.0	126	0.0	0.385	4.1	LOS A	0.0	0.0	0.00	0.10	54.4
2	T1	All MCs	584	2.8	584	2.8	0.385	0.0	LOS A	0.0	0.0	0.00	0.10	50.3
Approach			710	2.3	710	2.3	0.385	0.8	NA	0.0	0.0	0.00	0.10	52.8
North: Bridge St N														
8	T1	All MCs	722	2.1	722	2.1	0.796	1.0	LOS A	0.5	3.2	0.08	0.10	44.8
9	R2	All MCs	23	0.0	23	0.0	0.796	10.3	LOS A	0.5	3.2	0.08	0.10	53.2
Approach			745	2.1	745	2.1	0.796	1.3	NA	0.5	3.2	0.08	0.10	46.4
West: Wentowrth Av														
10	L2	All MCs	47	2.3	47	2.3	0.890	28.4	LOS B	1.2	8.4	0.97	1.37	25.9
12	R2	All MCs	74	1.5	74	1.5	0.890	51.2	LOS D	1.2	8.4	0.97	1.37	25.9
Approach			121	1.8	121	1.8	0.890	42.3	LOS C	1.2	8.4	0.97	1.37	25.9
All Vehicles			1576	2.2	1576	2.2	0.890	4.2	NA	1.2	8.4	0.11	0.20	40.3





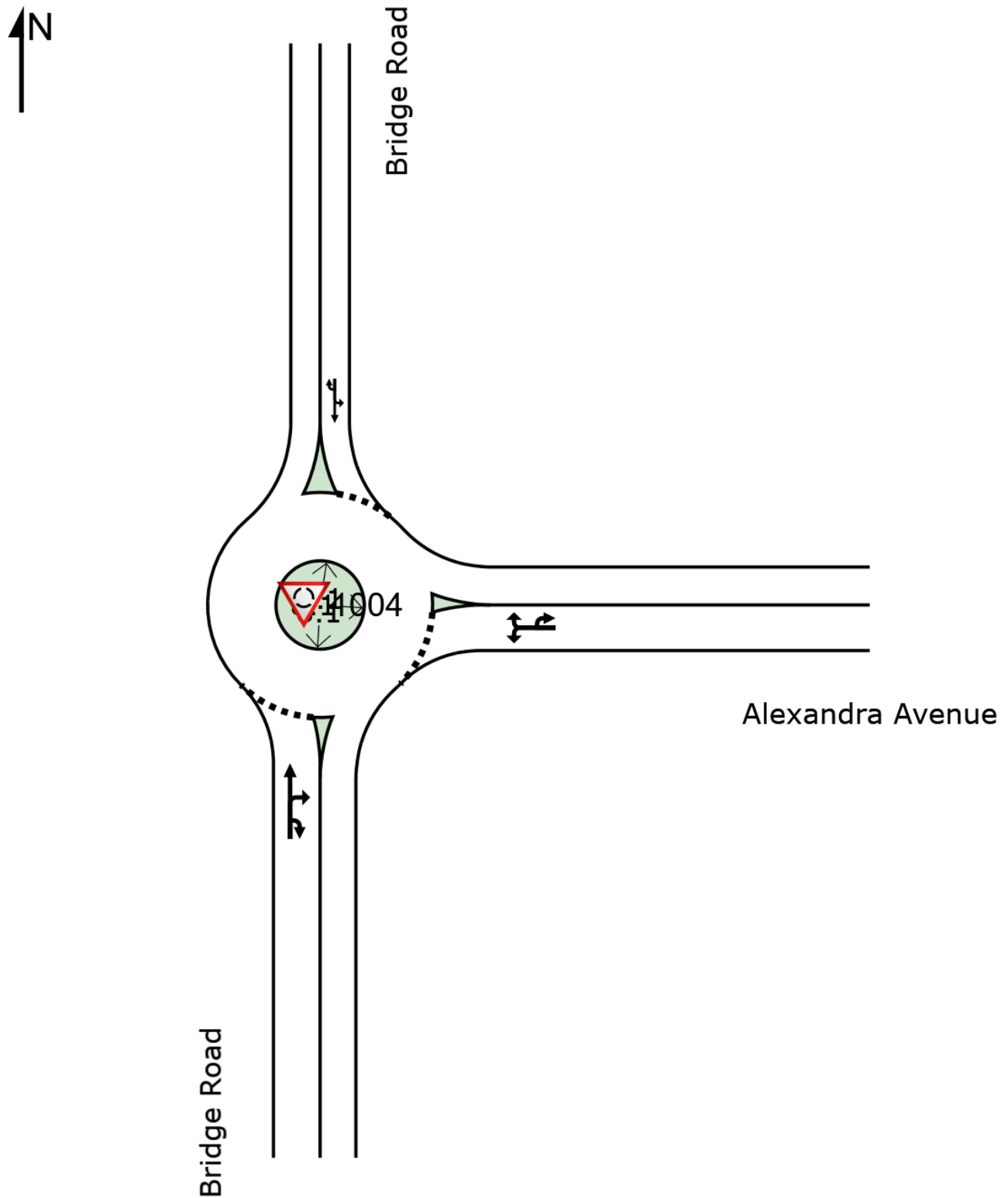
 **Site: 1004 [Bridge Rd - Alexandra Ave AM 2026 FPC (Site Folder: AM 2026 FPC)]**

 **Network: 7 [AM 2026 FPC (Network Folder: General)]**

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	633	2.3	633	2.3	0.665	4.2	LOS A	3.0	21.3	0.32	0.52	0.32	25.6
3	R2	All MCs	324	0.7	324	0.7	0.665	7.3	LOS A	3.0	21.3	0.32	0.52	0.32	43.4
3u	U	All MCs	4	0.0	4	0.0	0.665	8.8	LOS A	3.0	21.3	0.32	0.52	0.32	25.6
Approach			962	1.7	962	1.7	0.665	5.2	LOS A	3.0	21.3	0.32	0.52	0.32	38.5
East: Alexandra Avenue															
4	L2	All MCs	108	5.1	108	5.1	0.311	8.0	LOS A	0.7	5.2	0.77	0.72	0.77	42.2
6	R2	All MCs	72	3.1	72	3.1	0.311	10.4	LOS A	0.7	5.2	0.77	0.72	0.77	42.2
6u	U	All MCs	2	0.0	2	0.0	0.311	12.8	LOS A	0.7	5.2	0.77	0.72	0.77	47.9
Approach			182	4.2	182	4.2	0.311	9.0	LOS A	0.7	5.2	0.77	0.72	0.77	42.3
North: Bridge Road															
7	L2	All MCs	211	0.5	211	0.5	1.084	108.1	LOS F	7.7	55.0	1.00	2.67	4.16	16.0
8	T1	All MCs	572	2.5	572	2.5	1.084	107.9	LOS F	7.7	55.0	1.00	2.67	4.16	2.2
9u	U	All MCs	3	0.0	3	0.0	1.084	112.2	LOS F	7.7	55.0	1.00	2.67	4.16	2.2
Approach			787	2.0	787	2.0	1.084	108.0	LOS F	7.7	55.0	1.00	2.67	4.16	7.0
All Vehicles			1930	2.0	1930	2.0	1.084	47.5	LOS D	7.7	55.0	0.64	1.41	1.92	15.9



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
AM 2026 FPC (Site Folder: AM 2026 FPC)]

Network: 7 [AM 2026 FPC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed

Input Phase Sequence: A, B, C

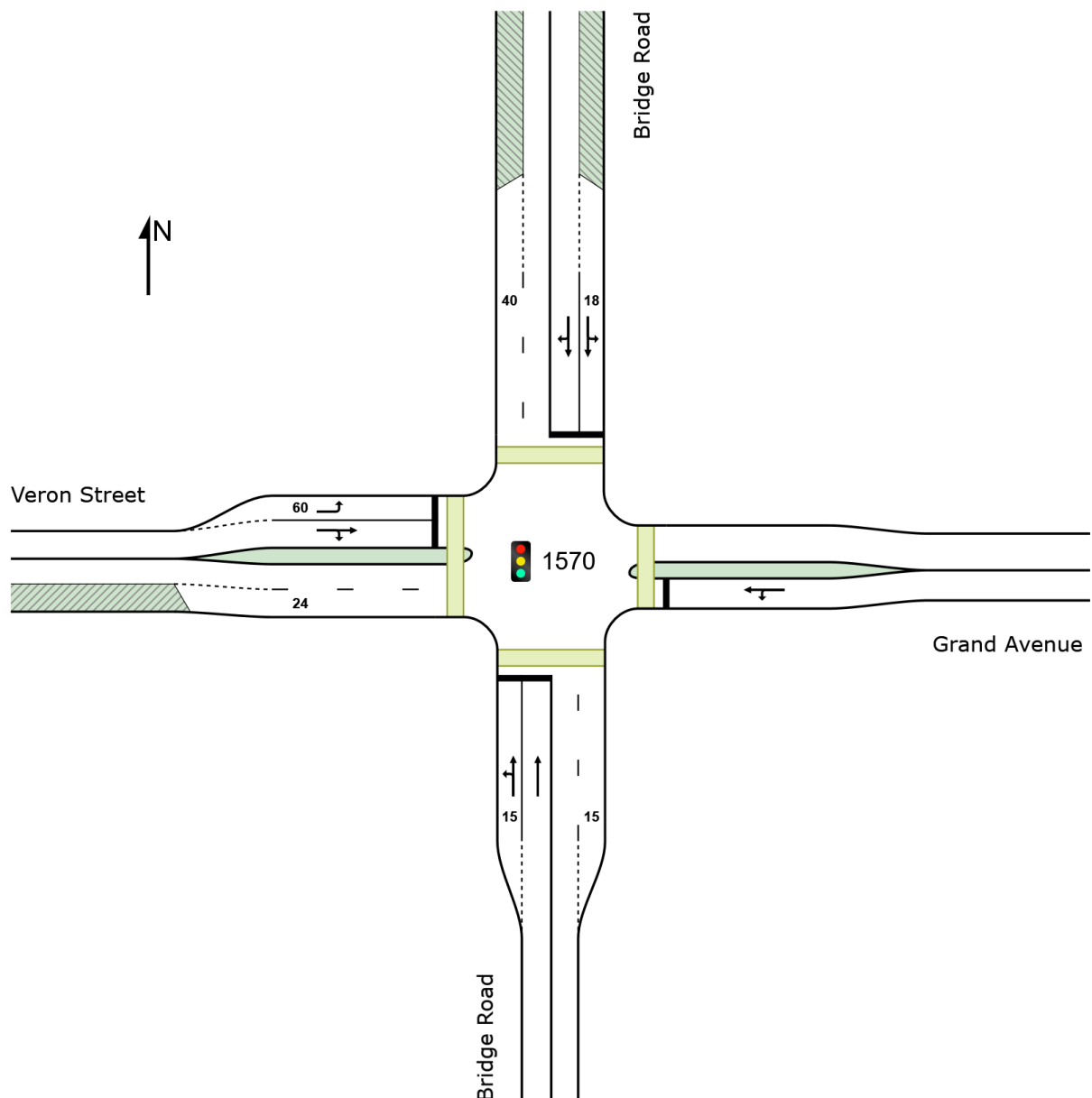
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

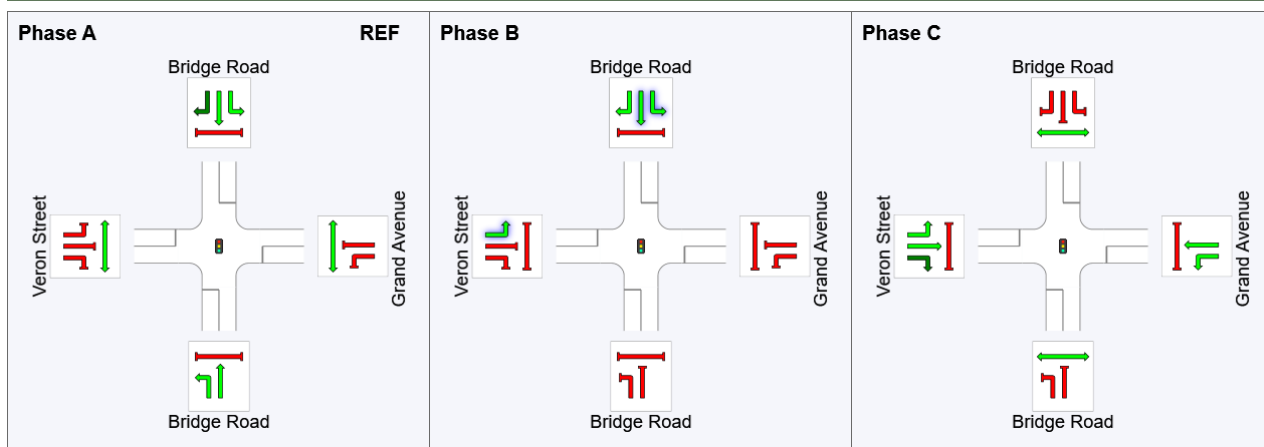
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%				[ Veh. veh	Dist ]				km/h
			veh/h		veh/h		v/c	sec			m				
South: Bridge Road															
1	L2	All MCs	33	0.0	33	0.0	0.249	38.2	LOS C	2.4	16.6	0.76	0.65	0.76	32.4
2	T1	All MCs	578	1.0	578	1.0	* 0.852	44.3	LOS D	10.7	75.2	0.94	0.96	1.14	8.6
Approach			611	0.9	611	0.9	0.852	44.0	LOS D	10.7	75.2	0.93	0.94	1.12	7.5
East: Grand Avenue															
4	L2	All MCs	11	0.0	11	0.0	0.152	36.8	LOS C	0.7	4.6	0.93	0.69	0.93	29.2
5	T1	All MCs	22	0.0	22	0.0	0.152	31.9	LOS C	0.7	4.6	0.93	0.69	0.93	34.9
Approach			33	0.0	33	0.0	0.152	33.5	LOS C	0.7	4.6	0.93	0.69	0.93	33.4
North: Bridge Road															
7	L2	All MCs	13	0.0	12	0.0	0.139	18.8	LOS B	1.2	8.7	0.34	0.31	0.34	44.9
8	T1	All MCs	445	2.5	416	2.5	0.673	16.7	LOS B	6.6	47.2	0.64	0.64	0.64	22.8
9	R2	All MCs	224	3.4	210	3.5	* 0.673	43.1	LOS D	6.6	47.2	0.85	0.89	0.86	32.3
Approach			682	2.7	638	2.8	0.673	25.4	LOS B	6.6	47.2	0.70	0.72	0.71	22.1
West: Veron Street															
10	L2	All MCs	368	3.0	368	3.0	0.425	18.7	LOS B	5.0	36.1	0.69	0.76	0.69	33.1
11	T1	All MCs	41	0.0	41	0.0	* 0.635	34.3	LOS C	2.6	18.3	1.00	0.84	1.10	33.4
12	R2	All MCs	78	1.4	78	1.4	0.635	40.0	LOS C	2.6	18.3	1.00	0.84	1.10	24.5
Approach			487	2.5	487	2.5	0.635	23.4	LOS B	5.0	36.1	0.77	0.78	0.79	31.3
All Vehicles			1813	2.0	1769	2.1	0.852	31.4	LOS C	10.7	75.2	0.80	0.81	0.88	20.5

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	30	56
Green Time (sec)	24	20	8
Phase Time (sec)	30	26	14
Phase Split	43%	37%	20%
Phase Frequency (%)	100.0	100.0	100.0



# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark PM 2026 FPC (Site Folder: PM 2026  
FPC)]**



**Network: 8 [PM 2026 FPC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 90 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage - Import (2)**

**Input Phase Sequence: A, B, C, C1**

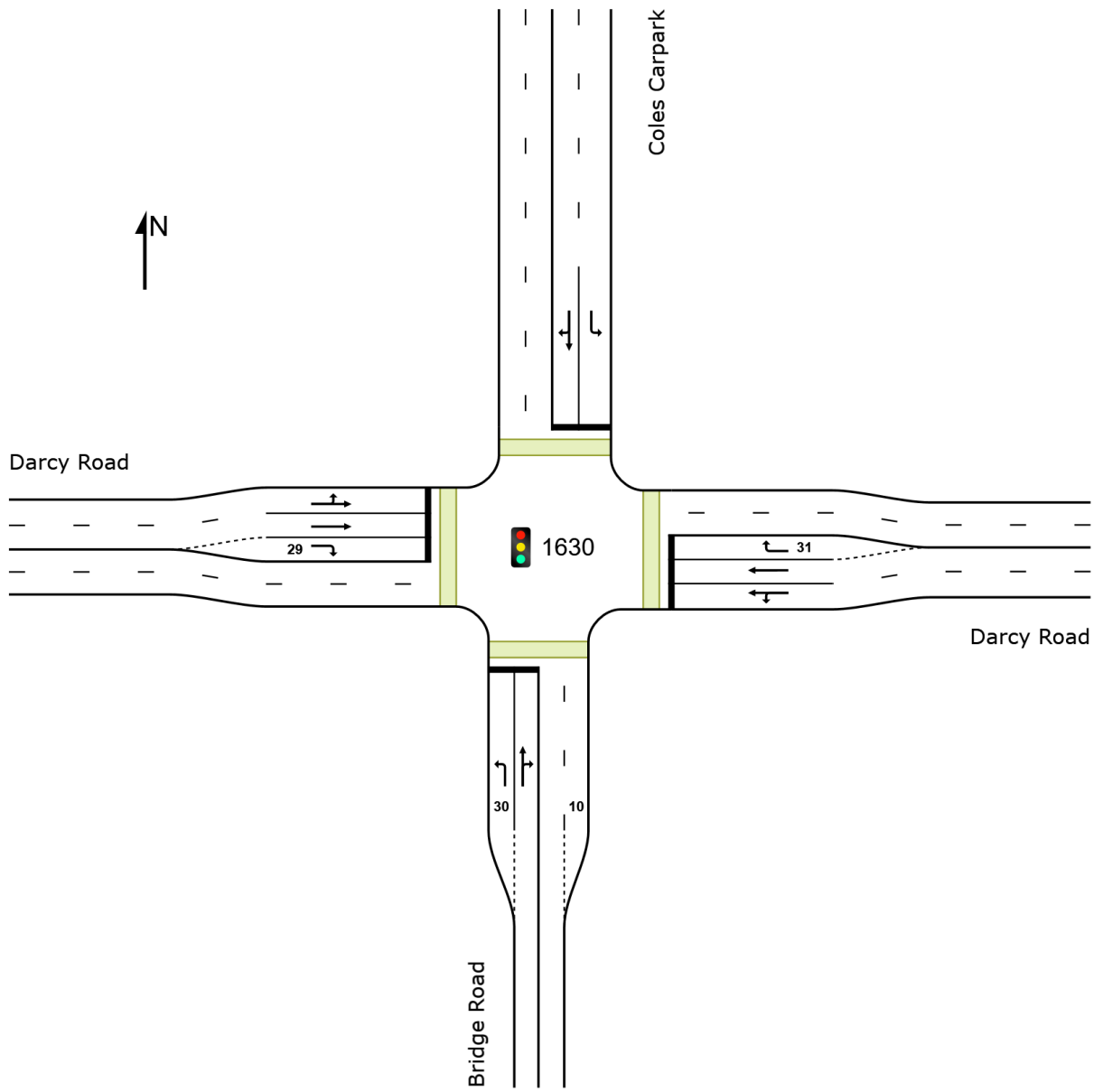
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

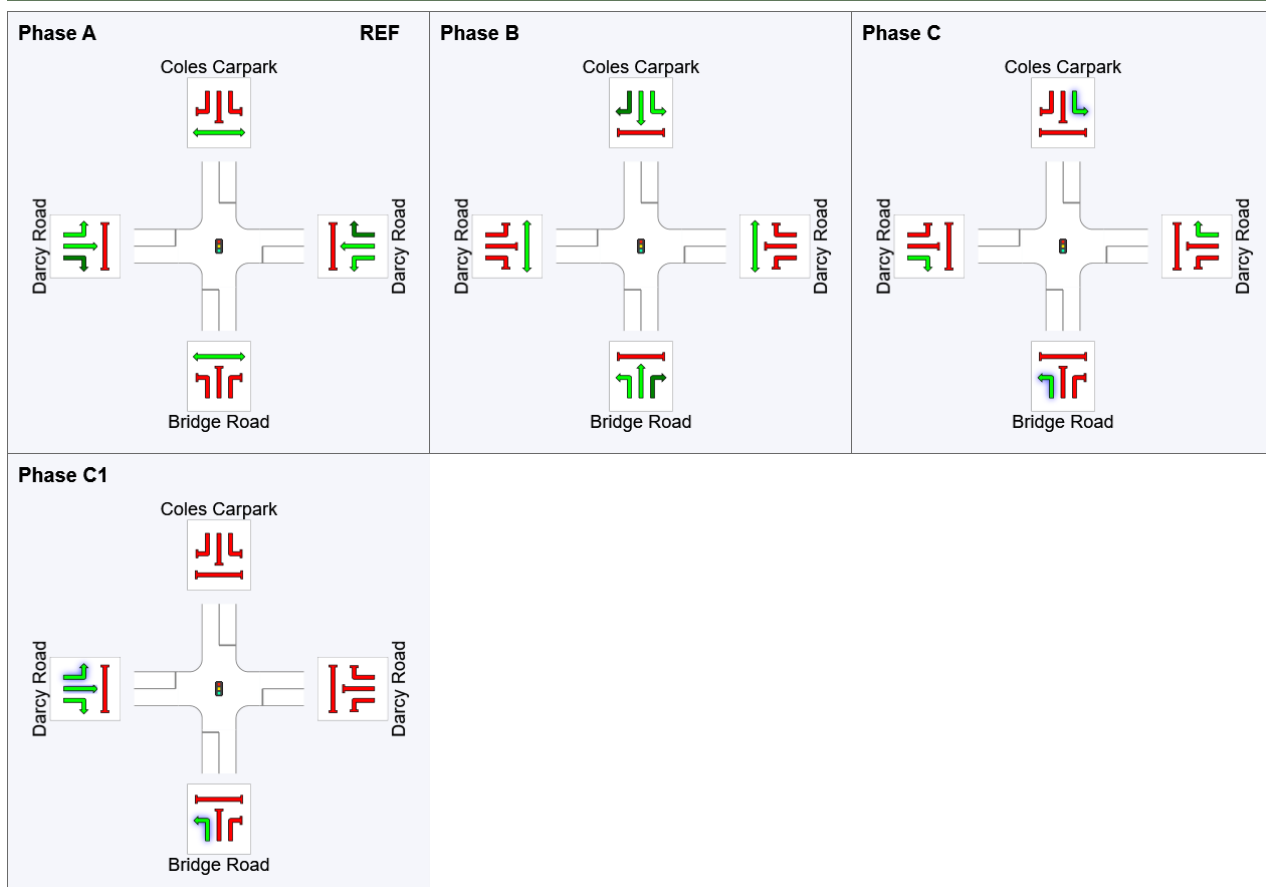
## Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	236	0.9	235	0.9	0.231	15.4	LOS B	3.2	22.5	0.54	0.70	32.2
2	T1	All MCs	36	0.0	36	0.0	*0.510	43.8	LOS D	3.1	22.3	0.97	0.79	15.2
3	R2	All MCs	81	6.7	81	6.8	0.510	46.2	LOS D	3.1	22.3	0.97	0.79	24.5
Approach			354	2.2	352	2.2	0.510	25.4	LOS B	3.2	22.5	0.68	0.73	25.5
East: Darcy Road														
4	L2	All MCs	359	1.8	359	1.8	*0.855	45.6	LOS D	14.1	99.7	1.00	0.98	19.1
5	T1	All MCs	622	0.9	622	0.9	0.855	52.4	LOS D	14.4	101.6	1.00	1.01	24.4
6	R2	All MCs	24	0.0	24	0.0	0.060	34.5	LOS C	0.2	1.6	0.69	0.70	19.1
Approach			1006	1.2	1006	1.2	0.855	49.5	LOS D	14.4	101.6	0.99	1.00	20.0
North: Coles Carpark														
7	L2	All MCs	27	0.0	27	0.0	0.050	24.7	LOS B	0.5	3.7	0.75	0.55	17.7
8	T1	All MCs	60	0.0	60	0.0	0.414	37.1	LOS C	2.5	17.3	0.95	0.75	11.4
9	R2	All MCs	36	0.0	36	0.0	0.414	43.4	LOS D	2.5	17.3	0.95	0.75	13.7
Approach			124	0.0	124	0.0	0.414	36.2	LOS C	2.5	17.3	0.91	0.71	13.5
West: Darcy Road														
10	L2	All MCs	60	0.0	60	0.0	0.219	15.2	LOS B	3.0	21.2	0.50	0.52	16.9
11	T1	All MCs	420	1.0	420	1.0	0.219	11.3	LOS A	3.0	21.3	0.50	0.47	39.6
12	R2	All MCs	419	1.3	419	1.3	*0.696	25.4	LOS B	6.7	47.6	0.88	0.87	17.9
Approach			900	1.1	900	1.1	0.696	18.1	LOS B	6.7	47.6	0.68	0.66	26.4
All Vehicles			2383	1.2	2381	1.2	0.855	33.4	LOS C	14.4	101.6	0.82	0.81	21.7

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	31	53	64
Green Time (sec)	29	16	5	22
Phase Time (sec)	35	22	9	24
Phase Split	39%	24%	10%	27%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

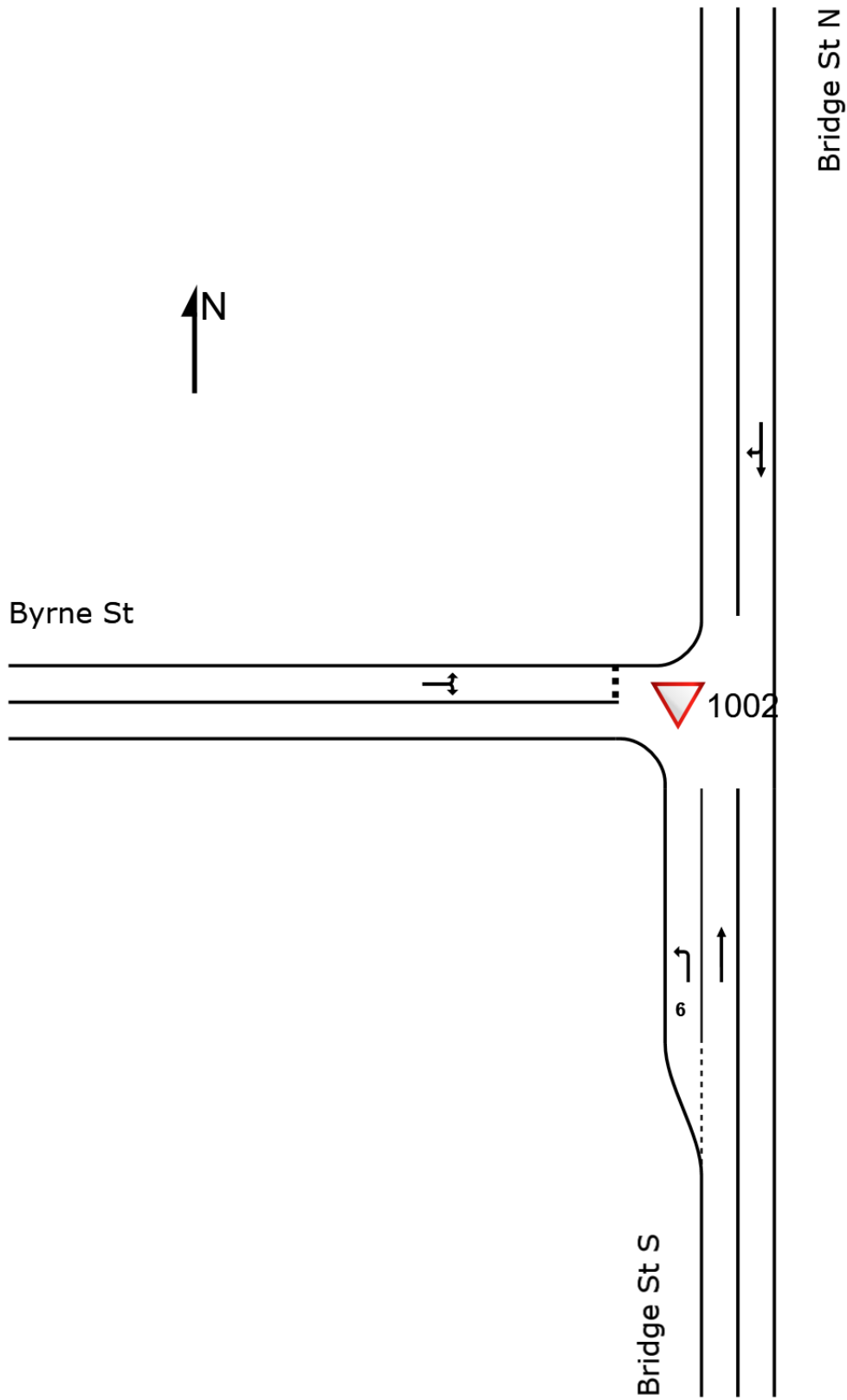
 **Site: 1002 [Bridge St - Byrne St PM 2026 FPC**    **Network: 8 [PM 2026 FPC (Network Folder:**  
**(Site Folder: PM 2026 FPC)]** **General)]**

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New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	60	1.8	60	1.8	0.033	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	50.9
2	T1	All MCs	371	2.6	370	2.7	0.193	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			431	2.5	430	2.5	0.193	0.4	NA	0.0	0.0	0.00	0.07	0.00	53.4
North: Bridge St N															
8	T1	All MCs	821	1.5	821	1.5	0.774	0.7	LOS A	0.5	3.7	0.08	0.10	0.17	56.3
9	R2	All MCs	35	0.0	35	0.0	0.774	10.0	LOS A	0.5	3.7	0.08	0.10	0.17	55.2
Approach			856	1.4	856	1.4	0.774	1.1	NA	0.5	3.7	0.08	0.10	0.17	56.2
West: Byrne St															
10	L2	All MCs	10	0.0	10	0.0	0.326	8.3	LOS A	0.3	2.2	0.82	0.96	0.96	35.3
12	R2	All MCs	44	2.5	44	2.5	0.326	24.6	LOS B	0.3	2.2	0.82	0.96	0.96	35.3
Approach			54	2.0	54	2.0	0.326	21.6	LOS B	0.3	2.2	0.82	0.96	0.96	35.3
All Vehicles			1341	1.8	1339	1.8	0.774	1.7	NA	0.5	3.7	0.08	0.12	0.14	53.1





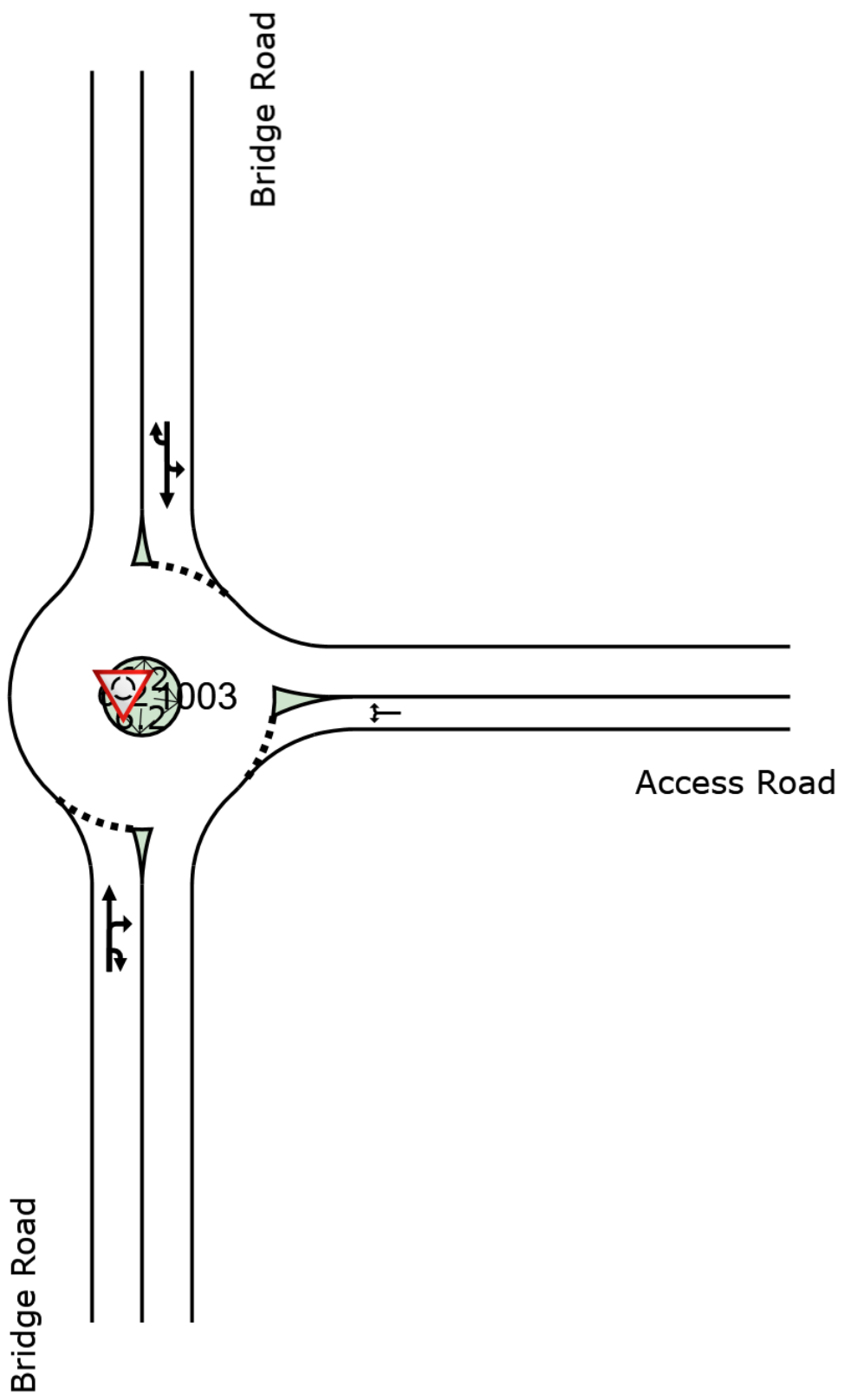
 **Site: 1003 [Bridge Rd - Site Access Rd PM 2026 FPC (Site Folder: PM 2026 FPC)]**

 **Network: 8 [PM 2026 FPC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				
			veh/h		veh/h					veh	m			km/h	
South: Bridge Road															
2	T1	All MCs	402	2.4	400	2.5	0.345	3.5	LOS A	1.1	8.1	0.21	0.47	0.21	26.1
3	R2	All MCs	97	0.0	96	0.0	0.345	6.3	LOS A	1.1	8.1	0.21	0.47	0.21	37.7
3u	U	All MCs	29	0.0	29	0.0	0.345	7.7	LOS A	1.1	8.1	0.21	0.47	0.21	26.1
Approach			528	1.9	526	1.9	0.345	4.3	LOS A	1.1	8.1	0.21	0.47	0.21	30.7
East: Access Road															
4	L2	All MCs	70	0.0	70	0.0	0.213	12.3	LOS A	0.6	4.5	0.93	0.78	0.93	28.5
6	R2	All MCs	32	3.4	32	3.4	0.213	15.2	LOS B	0.6	4.5	0.93	0.78	0.93	28.5
Approach			102	1.1	102	1.1	0.213	13.2	LOS A	0.6	4.5	0.93	0.78	0.93	28.5
North: Bridge Road															
7	L2	All MCs	52	2.1	52	2.1	0.763	4.6	LOS A	3.8	26.7	0.71	0.51	0.71	37.2
8	T1	All MCs	809	1.5	809	1.5	0.763	4.4	LOS A	3.8	26.7	0.71	0.51	0.71	20.6
9u	U	All MCs	2	0.0	2	0.0	0.763	8.4	LOS A	3.8	26.7	0.71	0.51	0.71	20.6
Approach			864	1.5	864	1.5	0.763	4.4	LOS A	3.8	26.7	0.71	0.51	0.71	23.5
All Vehicles			1494	1.6	1492	1.6	0.763	5.0	LOS A	3.8	26.7	0.55	0.52	0.55	27.2





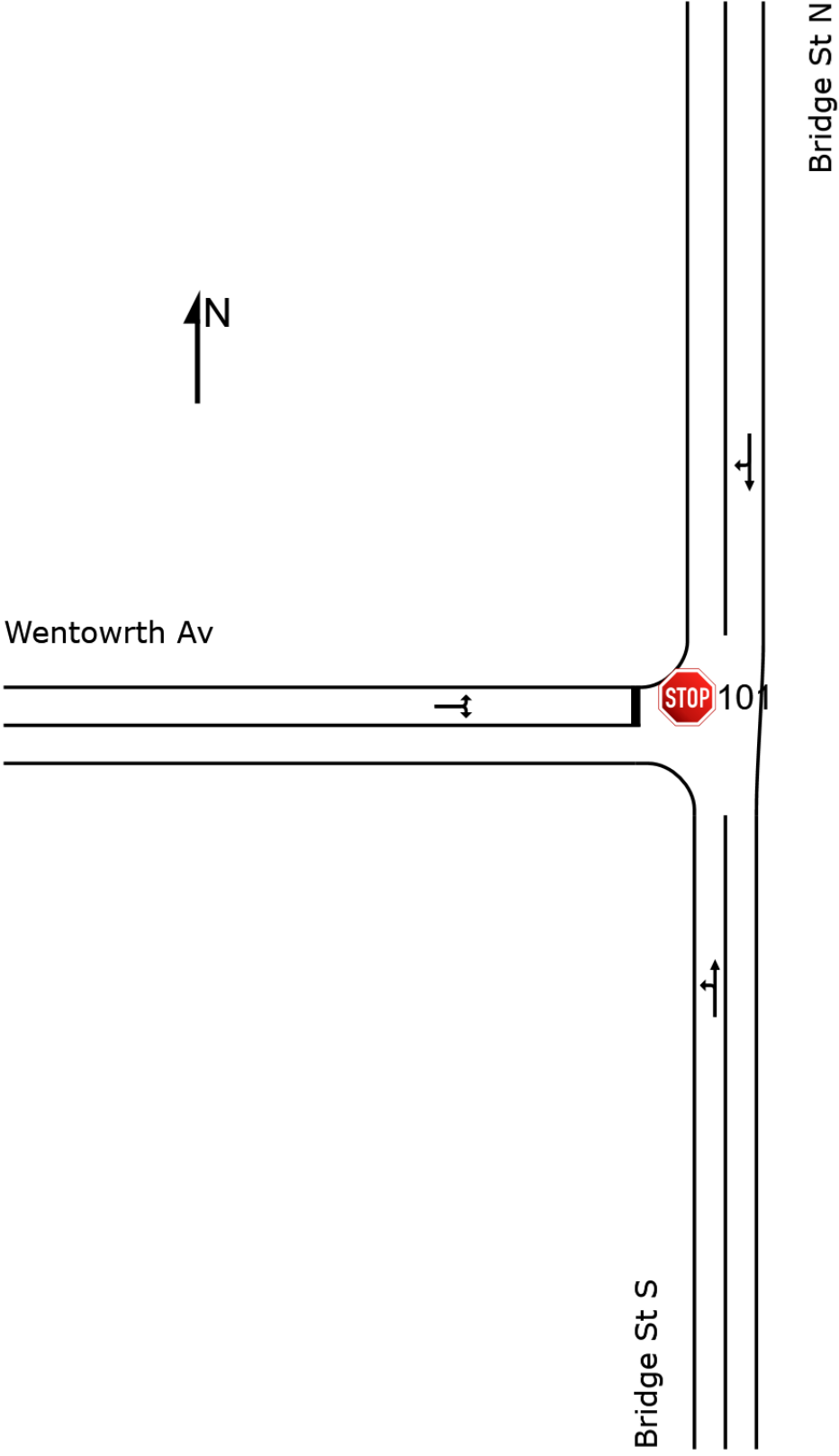
**Site: 101 [Bridge St - Wentworth Av PM 2026 FPC (Site Folder: PM 2026 FPC)]**   **Network: 8 [PM 2026 FPC (Network Folder: General)]**

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New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	167	0.7	167	0.7	0.345	4.1	LOS A	0.0	0.0	0.00	0.15	53.9
2	T1	All MCs	469	2.1	469	2.1	0.345	0.0	LOS A	0.0	0.0	0.00	0.15	46.9
Approach			636	1.7	636	1.7	0.345	1.1	NA	0.0	0.0	0.00	0.15	52.0
North: Bridge St N														
8	T1	All MCs	893	1.3	893	1.3	0.964	3.0	LOS A	1.5	10.8	0.07	0.09	32.8
9	R2	All MCs	24	0.0	24	0.0	0.964	12.5	LOS A	1.5	10.8	0.07	0.09	50.7
Approach			917	1.3	917	1.3	0.964	3.2	NA	1.5	10.8	0.07	0.09	35.2
West: Wentowrth Av														
10	L2	All MCs	58	0.0	58	0.0	1.041	80.0	LOS F	3.2	22.1	1.00	2.07	14.5
12	R2	All MCs	73	0.0	73	0.0	1.041	112.7	LOS F	3.2	22.1	1.00	2.07	14.5
Approach			131	0.0	131	0.0	1.041	98.2	LOS F	3.2	22.1	1.00	2.07	14.5
All Vehicles			1684	1.4	1684	1.4	1.041	9.8	NA	3.2	22.1	0.12	0.27	29.1





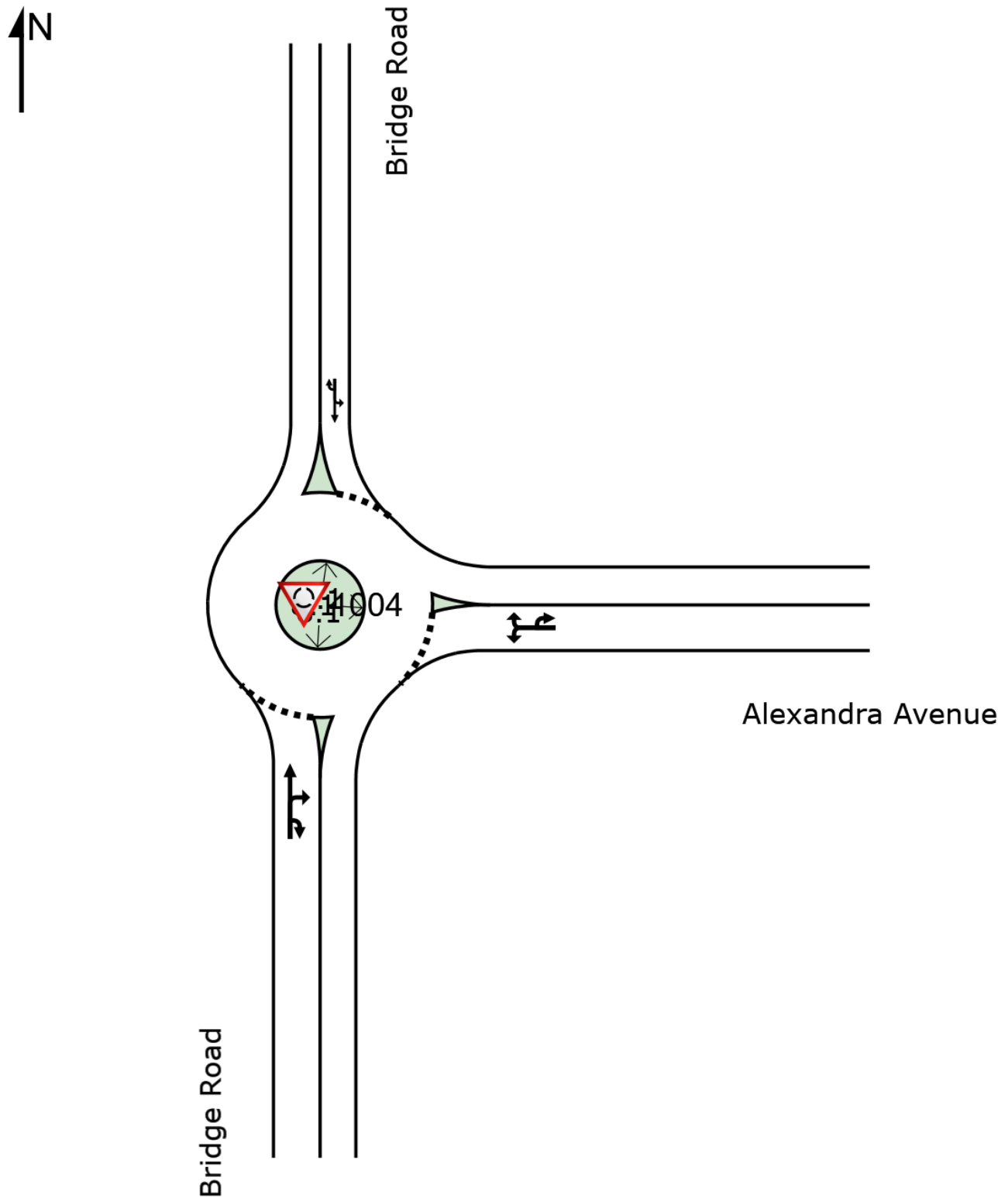
Site: 1004 [Bridge Rd - Alexandra Ave PM  
2026 FPC (Site Folder: PM 2026 FPC)]

Network: 8 [PM 2026 FPC (Network Folder:  
General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
2	T1	All MCs	489	2.2	489	2.2	0.515	4.4	LOS A	1.7	11.9	0.37	0.54	0.37	25.6
3	R2	All MCs	169	0.6	169	0.6	0.515	7.6	LOS A	1.7	11.9	0.37	0.54	0.37	43.4
3u	U	All MCs	2	0.0	2	0.0	0.515	9.1	LOS A	1.7	11.9	0.37	0.54	0.37	25.6
Approach			660	1.8	660	1.8	0.515	5.3	LOS A	1.7	11.9	0.37	0.54	0.37	37.0
East: Alexandra Avenue															
4	L2	All MCs	178	0.0	178	0.0	0.656	12.3	LOS A	2.0	13.9	0.97	0.89	1.21	39.1
6	R2	All MCs	142	0.0	142	0.0	0.656	14.8	LOS B	2.0	13.9	0.97	0.89	1.21	39.1
6u	U	All MCs	1	0.0	1	0.0	0.656	17.3	LOS B	2.0	13.9	0.97	0.89	1.21	45.8
Approach			321	0.0	321	0.0	0.656	13.4	LOS A	2.0	13.9	0.97	0.89	1.21	39.1
North: Bridge Road															
7	L2	All MCs	182	0.0	181	0.0	1.325	305.3	LOS F	7.8	55.0	1.00	4.16	6.87	7.2
8	T1	All MCs	778	1.3	775	1.3	1.325	305.2	LOS F	7.8	55.0	1.00	4.16	6.87	0.8
9u	U	All MCs	1	0.0	1	0.0	1.325	309.5	LOS F	7.8	55.0	1.00	4.16	6.87	0.8
Approach			960	1.0	958	1.0	1.325	305.2	LOS F	7.8	55.0	1.00	4.16	6.87	2.2
All Vehicles			1941	1.1	1938	1.1	1.325	154.8	LOS F	7.8	55.0	0.78	2.38	3.72	6.0



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
PM 2026 FPC (Site Folder: PM 2026 FPC)]

Network: 8 [PM 2026 FPC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed - Import

Input Phase Sequence: A, B, C

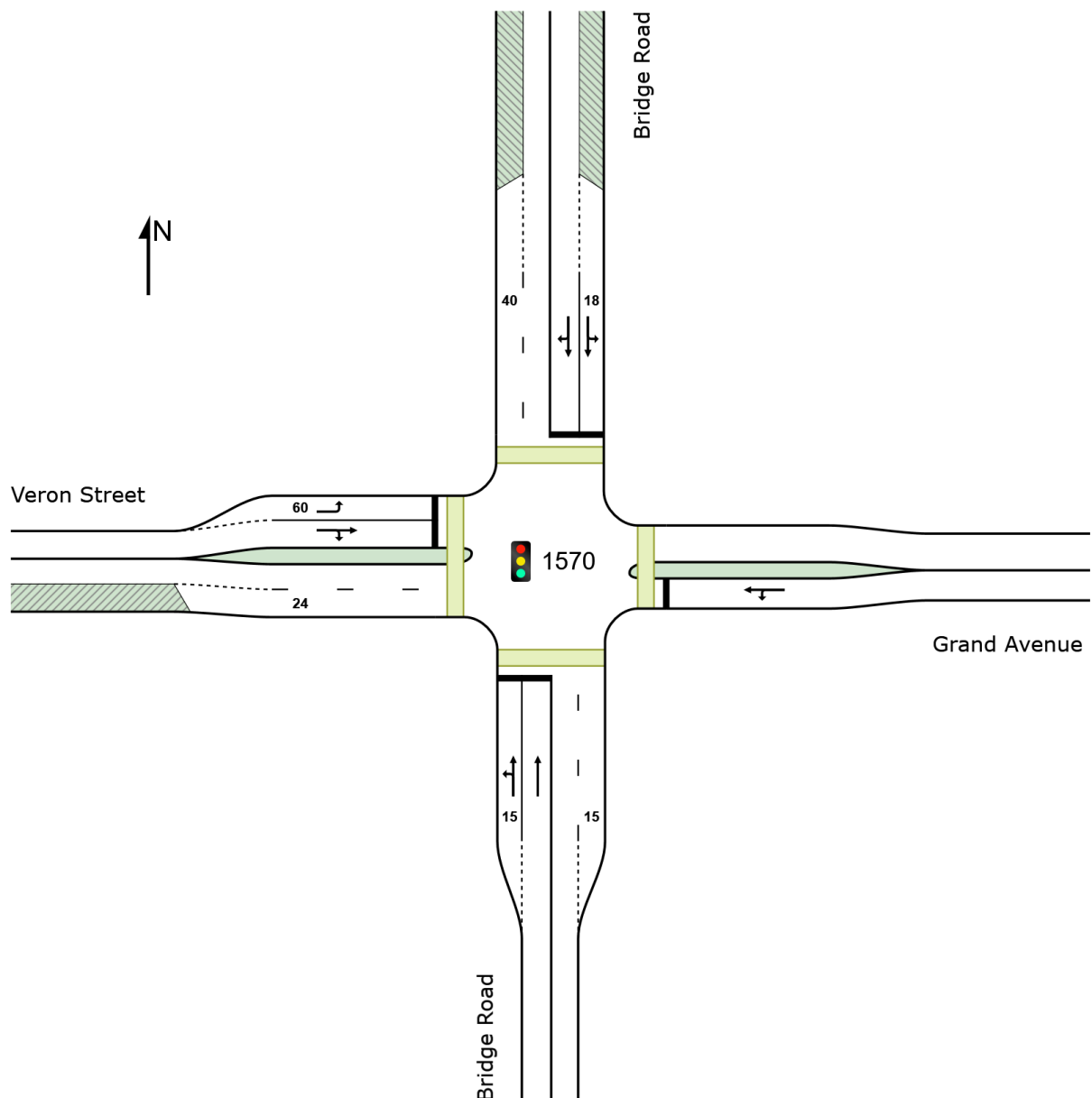
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

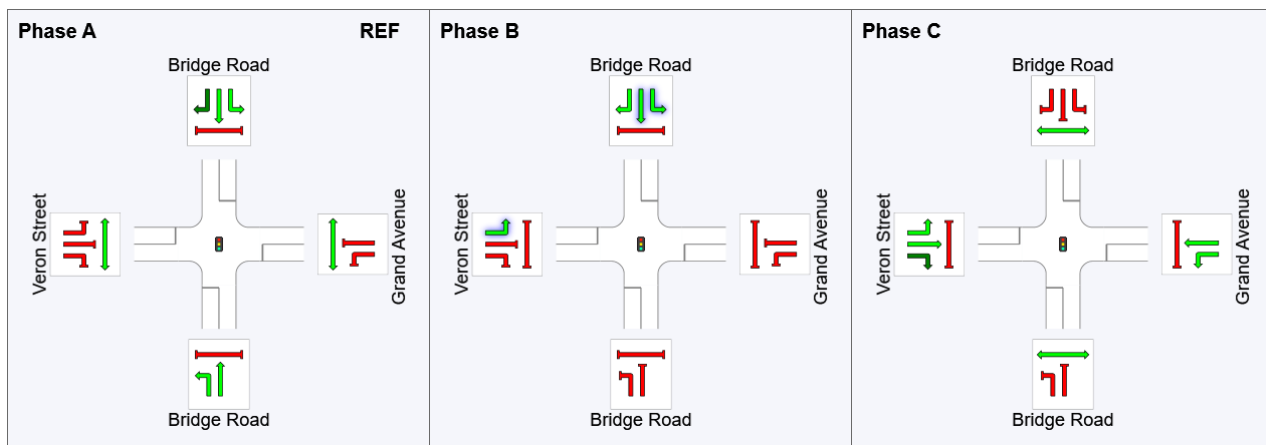
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
1	L2	All MCs	59	0.0	59	0.0	0.250	43.9	LOS D	2.0	14.4	0.83	0.71	0.83	29.4
2	T1	All MCs	406	2.2	406	2.2	* 0.856	49.8	LOS D	8.3	59.0	0.98	1.01	1.24	7.5
Approach			465	1.9	465	1.9	0.856	49.1	LOS D	8.3	59.0	0.96	0.97	1.19	8.5
East: Grand Avenue															
4	L2	All MCs	12	9.1	12	9.1	0.380	37.0	LOS C	1.9	13.3	0.96	0.74	0.96	29.4
5	T1	All MCs	81	0.0	81	0.0	* 0.380	32.2	LOS C	1.9	13.3	0.96	0.74	0.96	35.2
Approach			93	1.2	93	1.2	0.380	32.9	LOS C	1.9	13.3	0.96	0.74	0.96	34.6
North: Bridge Road															
7	L2	All MCs	10	0.0	8	0.0	0.160	19.1	LOS B	1.5	10.4	0.36	0.32	0.36	44.7
8	T1	All MCs	606	1.4	484	1.4	0.773	19.4	LOS B	8.1	57.2	0.66	0.70	0.71	21.4
9	R2	All MCs	343	0.3	275	0.3	* 0.773	42.8	LOS D	8.1	57.2	0.88	0.97	0.97	31.0
Approach			959	1.0	766	1.0	0.773	27.8	LOS B	8.1	57.2	0.74	0.79	0.80	21.3
West: Veron Street															
10	L2	All MCs	250	1.3	250	1.3	0.242	13.4	LOS A	2.6	18.3	0.53	0.70	0.53	36.4
11	T1	All MCs	13	0.0	13	0.0	0.317	31.5	LOS C	1.1	7.8	0.97	0.74	0.97	33.7
12	R2	All MCs	40	0.0	40	0.0	0.317	39.2	LOS C	1.1	7.8	0.97	0.74	0.97	24.8
Approach			303	1.1	303	1.1	0.317	17.6	LOS B	2.6	18.3	0.61	0.70	0.61	33.9
All Vehicles			1820	1.3	1628	1.4	0.856	32.3	LOS C	8.3	59.0	0.79	0.82	0.89	21.1

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	24	55
Green Time (sec)	18	25	9
Phase Time (sec)	24	31	15
Phase Split	34%	44%	21%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark AM 2026 FPC - Mitigation - Copy (Site  
Folder: AM 2026 FPC - Mitigation)]**



**Network: 17 [AM 2026 FPC - Mitigations  
(Network Folder: General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 70 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage**

**Input Phase Sequence: A, B, C, C1**

**Output Phase Sequence: A, B, C, C1**

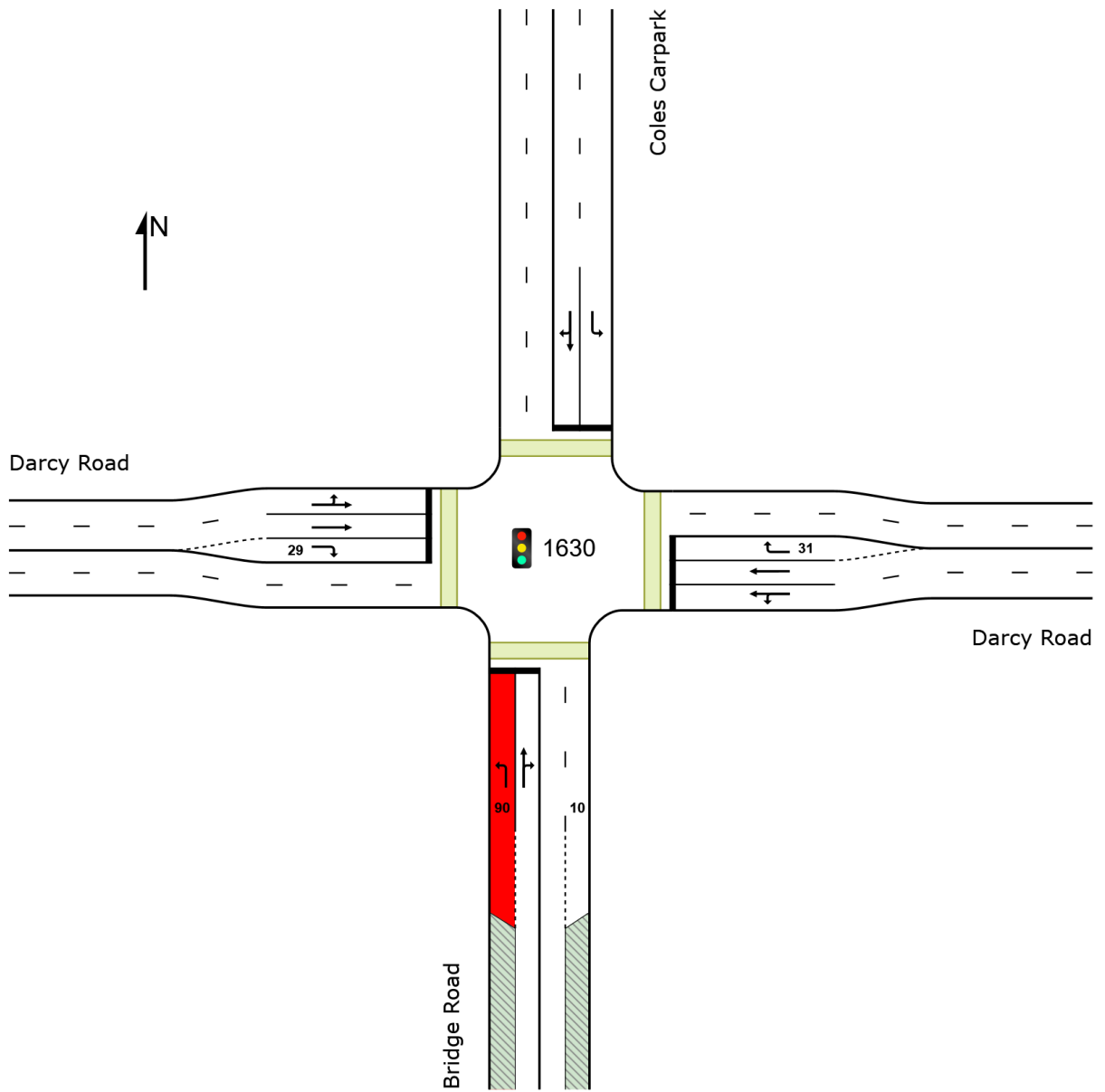
**Reference Phase: Phase A**

**Offset: NA**

## Site Layout

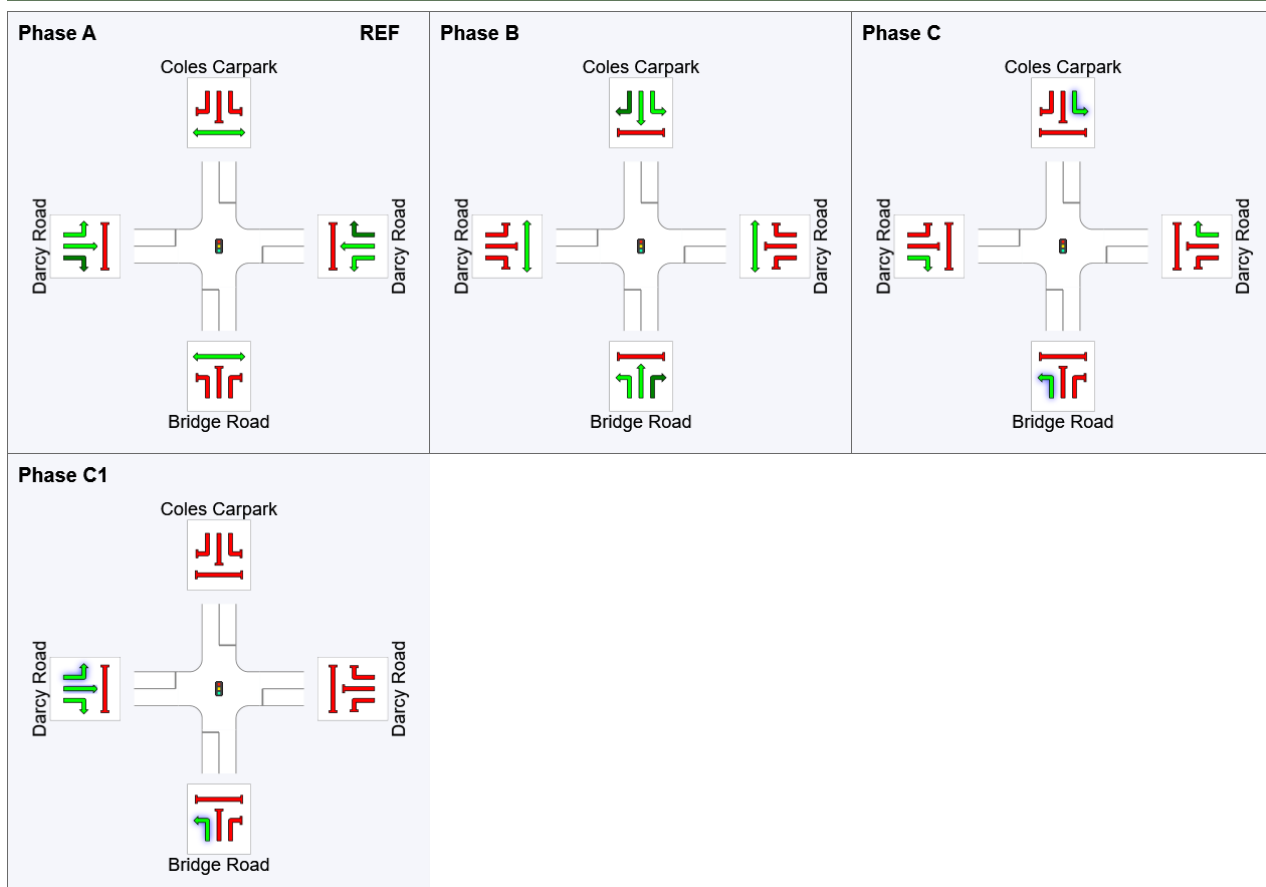
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.






Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	169	2.6	169	2.6	0.181	14.4	LOS A	1.9	13.5	0.57	0.70	32.9
2	T1	All MCs	18	0.0	18	0.0	0.858	41.2	LOS C	7.9	57.2	1.00	1.03	15.5
3	R2	All MCs	304	3.6	304	3.6	*0.858	41.5	LOS C	7.9	57.2	1.00	1.03	25.6
Approach			491	3.1	491	3.1	0.858	32.1	LOS C	7.9	57.2	0.85	0.92	26.3
East: Darcy Road														
4	L2	All MCs	339	3.2	339	3.2	0.706	29.1	LOS C	7.9	57.0	0.93	0.86	24.5
5	T1	All MCs	509	4.1	509	4.1	0.706	29.9	LOS C	8.3	60.9	0.93	0.84	30.9
6	R2	All MCs	18	0.0	18	0.0	*0.075	28.6	LOS C	0.2	1.3	0.87	0.69	18.7
Approach			866	3.7	866	3.7	0.706	29.5	LOS C	8.3	60.9	0.93	0.84	26.0
North: Coles Carpark														
7	L2	All MCs	12	0.0	12	0.0	0.016	13.5	LOS A	0.2	1.1	0.62	0.44	18.9
8	T1	All MCs	24	0.0	24	0.0	0.130	21.2	LOS B	0.8	5.6	0.81	0.62	12.7
9	R2	All MCs	23	4.8	23	4.8	0.130	24.6	LOS B	0.8	5.6	0.81	0.62	15.1
Approach			59	1.9	59	1.9	0.130	21.0	LOS B	0.8	5.6	0.78	0.58	15.0
West: Darcy Road														
10	L2	All MCs	41	2.7	41	2.7	0.851	31.7	LOS C	15.6	110.9	0.96	1.00	15.3
11	T1	All MCs	1174	1.7	1174	1.7	*0.851	30.3	LOS C	15.6	110.9	0.96	1.01	29.1
12	R2	All MCs	242	3.2	242	3.2	0.506	24.8	LOS B	2.7	19.7	0.86	0.79	21.1
Approach			1456	2.0	1456	2.0	0.851	29.5	LOS C	15.6	110.9	0.94	0.97	25.7
All Vehicles			2872	2.7	2872	2.7	0.858	29.8	LOS C	15.6	110.9	0.92	0.92	25.4

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	26	51	61
Green Time (sec)	24	19	4	5
Phase Time (sec)	30	25	8	7
Phase Split	43%	36%	11%	10%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

 **Site: 1002 [Bridge St - Byrne St AM 2026  
FPC - Mitigation - Copy (Site Folder: AM 2026  
FPC - Mitigation)]**

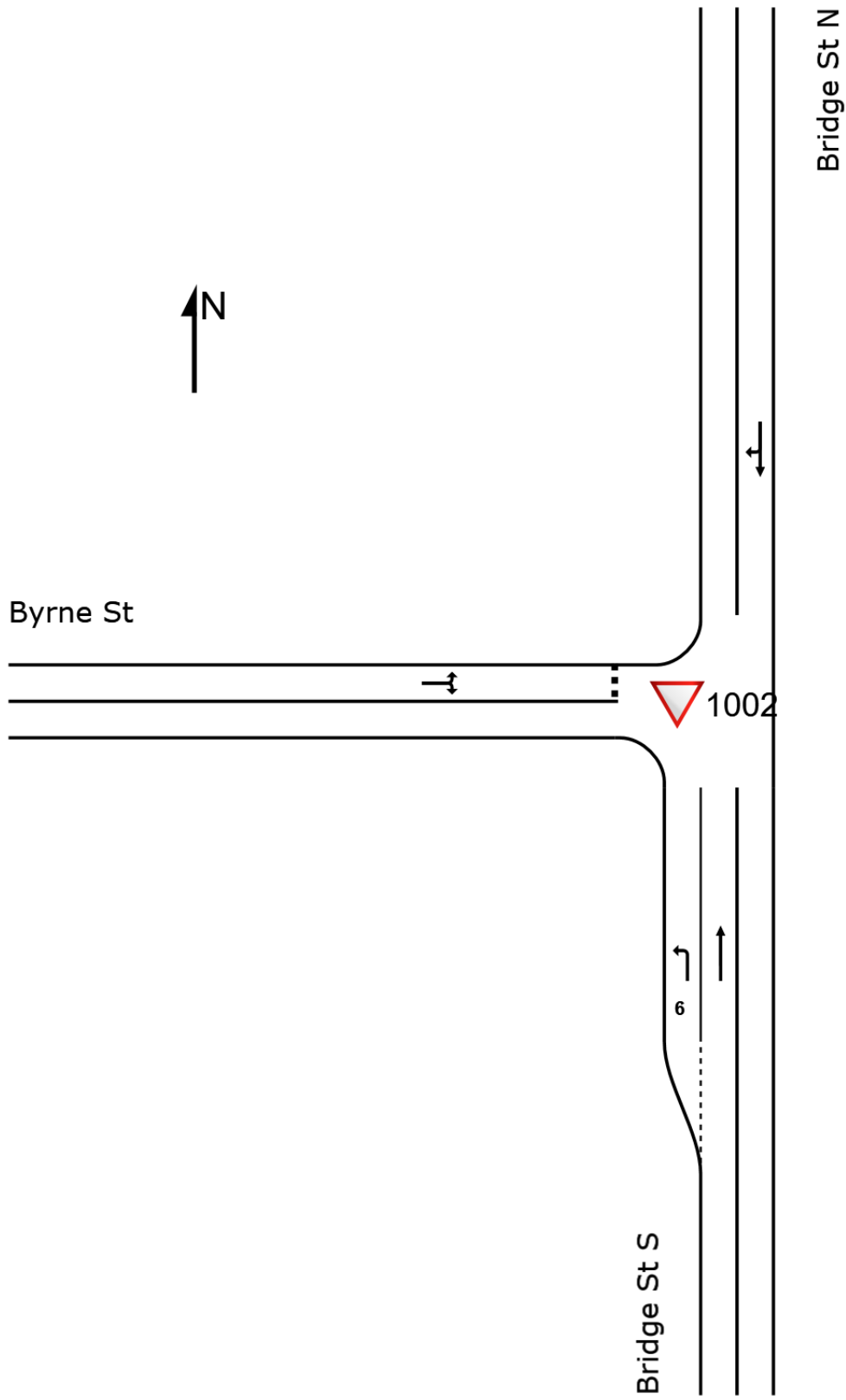
 **Network: 17 [AM 2026 FPC - Mitigations  
(Network Folder: General)]**

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New Site  
Site Category: (None)  
Give-Way (Two-Way)


#### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge St S															
1	L2	All MCs	133	0.8	133	0.8	0.072	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	51.0
2	T1	All MCs	486	3.2	486	3.2	0.254	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			619	2.7	619	2.7	0.254	0.7	NA	0.0	0.0	0.00	0.11	0.00	52.6
North: Bridge St N															
8	T1	All MCs	583	3.0	583	3.0	0.348	0.3	LOS A	0.1	1.0	0.07	0.08	0.07	57.6
9	R2	All MCs	22	0.0	22	0.0	0.348	9.8	LOS A	0.1	1.0	0.07	0.08	0.07	55.6
Approach			605	2.9	605	2.9	0.348	0.7	NA	0.1	1.0	0.07	0.08	0.07	57.4
West: Byrne St															
10	L2	All MCs	4	0.0	4	0.0	0.139	7.4	LOS A	0.2	1.3	0.77	0.90	0.77	38.7
12	R2	All MCs	36	0.0	36	0.0	0.139	18.2	LOS B	0.2	1.3	0.77	0.90	0.77	38.7
Approach			41	0.0	41	0.0	0.139	17.0	LOS B	0.2	1.3	0.77	0.90	0.77	38.7
All Vehicles			1264	2.7	1264	2.7	0.348	1.2	NA	0.2	1.3	0.06	0.12	0.06	54.0



 **Site: 1003 [Bridge Rd - Site Access Rd AM  
2026 FPC - Mitigation - Copy (Site Folder: AM  
2026 FPC - Mitigation)]**

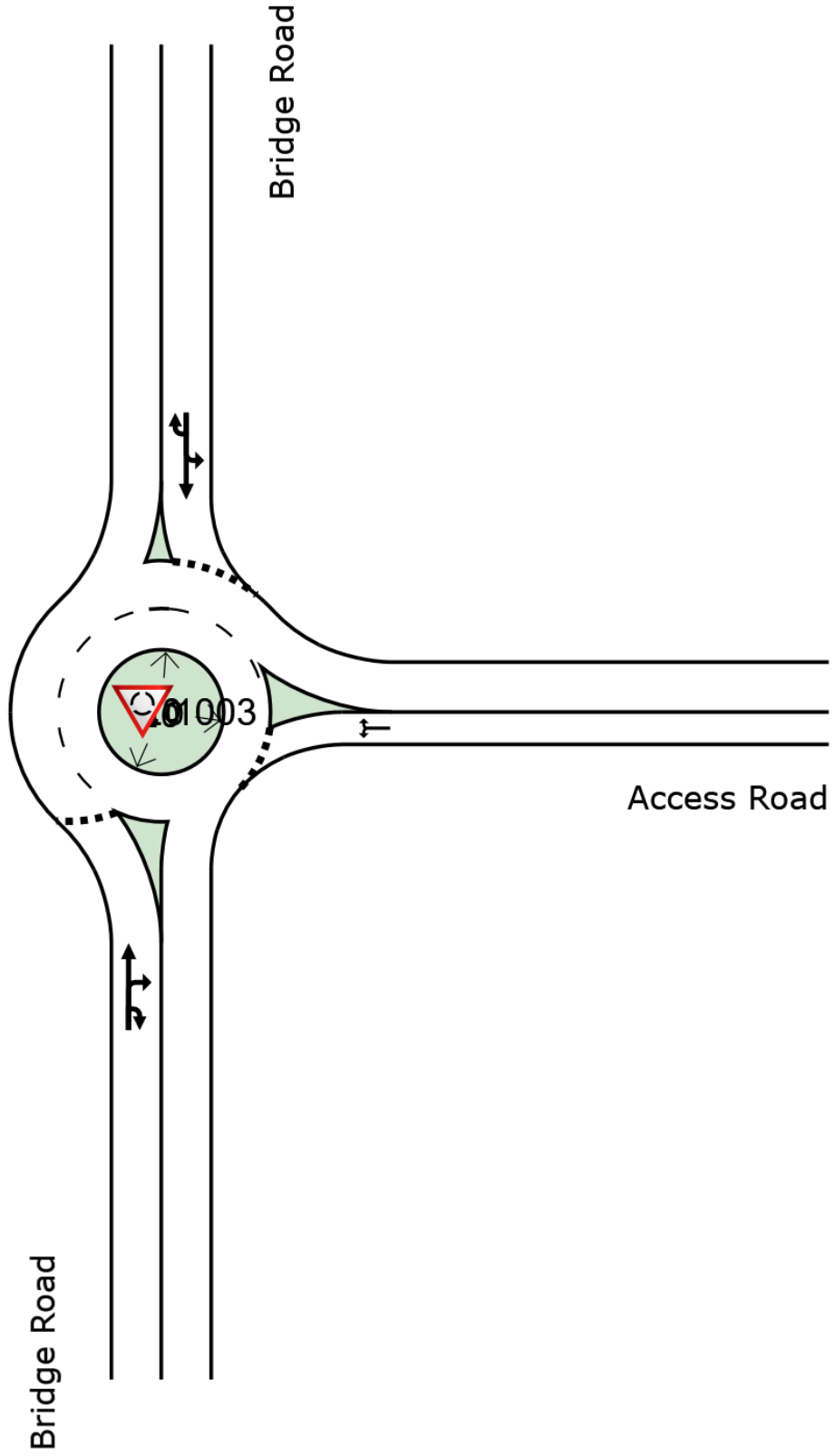
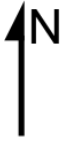
 **Network: 17 [AM 2026 FPC - Mitigations  
(Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	553	3.0	553	3.0	0.433	3.3	LOS A	1.5	10.8	0.32	0.43	0.32	27.1
3	R2	All MCs	47	0.0	47	0.0	0.433	6.7	LOS A	1.5	10.8	0.32	0.43	0.32	38.2
3u	U	All MCs	27	0.0	27	0.0	0.433	8.5	LOS A	1.5	10.8	0.32	0.43	0.32	27.1
Approach			628	2.6	628	2.6	0.433	3.8	LOS A	1.5	10.8	0.32	0.43	0.32	29.2
East: Access Road															
4	L2	All MCs	128	0.0	128	0.0	0.292	9.9	LOS A	0.8	5.7	0.82	0.74	0.82	30.8
6	R2	All MCs	61	0.0	61	0.0	0.292	13.3	LOS A	0.8	5.7	0.82	0.74	0.82	30.8
Approach			188	0.0	188	0.0	0.292	11.0	LOS A	0.8	5.7	0.82	0.74	0.82	30.8
North: Bridge Road															
7	L2	All MCs	21	5.2	21	5.2	0.539	3.0	LOS A	1.6	11.5	0.34	0.41	0.34	39.3
8	T1	All MCs	597	2.8	597	2.8	0.539	3.0	LOS A	1.6	11.5	0.34	0.41	0.34	25.1
9u	U	All MCs	5	0.0	5	0.0	0.539	7.6	LOS A	1.6	11.5	0.34	0.41	0.34	25.1
Approach			624	2.8	624	2.8	0.539	3.0	LOS A	1.6	11.5	0.34	0.41	0.34	26.7
All Vehicles			1439	2.4	1439	2.4	0.539	4.4	LOS A	1.6	11.5	0.39	0.46	0.39	29.0





**Site: 101 [Bridge St - Wentworth Av AM 2026  
FPC - Mitigation - Copy (Site Folder: AM 2026  
FPC - Mitigation)]**

**Network: 17 [AM 2026 FPC - Mitigations  
(Network Folder: General)]**

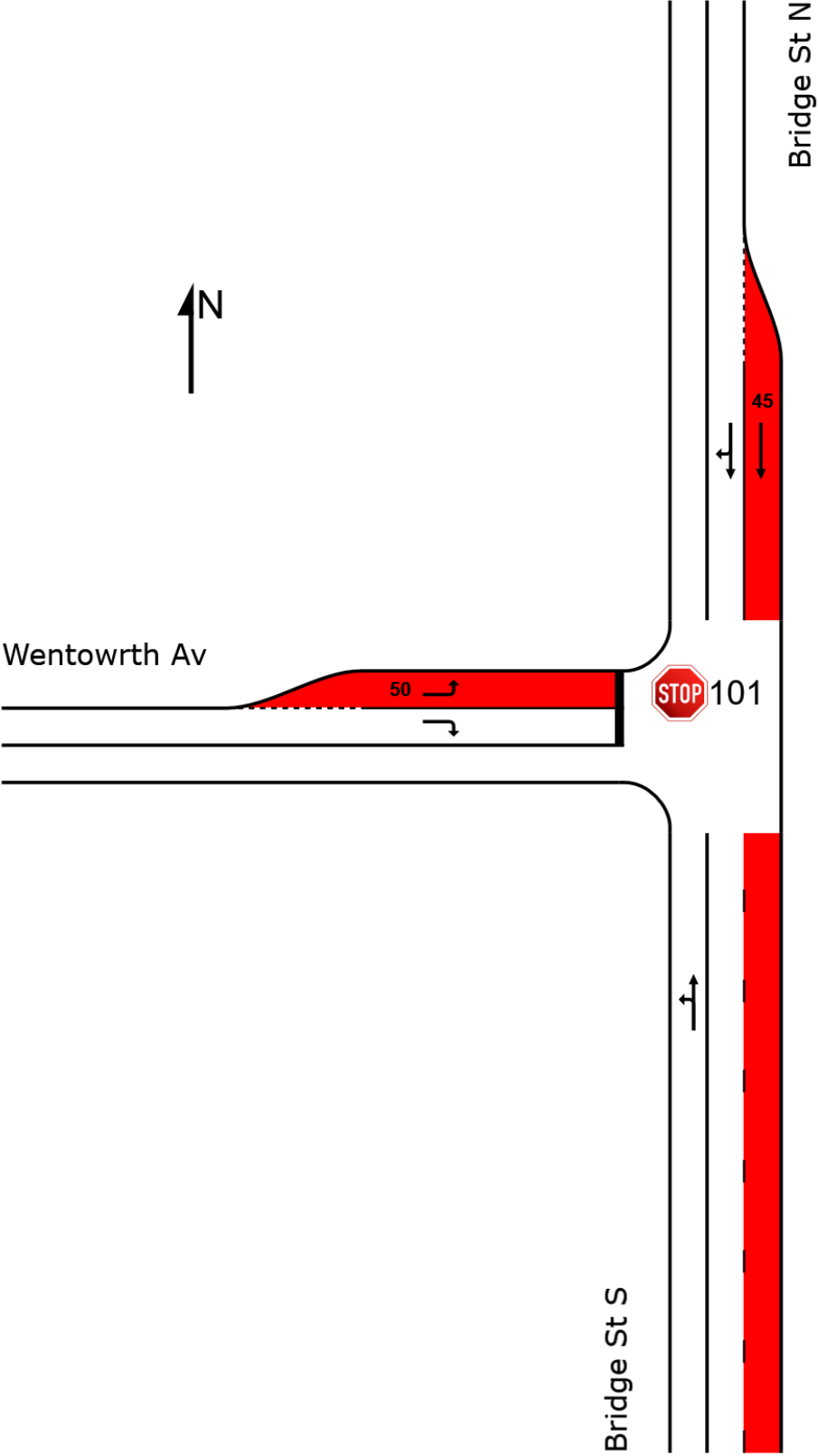
New Site

Site Category: (None)

Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge St S															
1	L2	All MCs	126	0.0	126	0.0	0.373	4.1	LOS A	0.0	0.0	0.00	0.10	0.00	54.4
2	T1	All MCs	584	2.8	584	2.8	0.373	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	50.6
Approach			710	2.3	710	2.3	0.373	0.8	NA	0.0	0.0	0.00	0.10	0.00	53.0
North: Bridge St N															
8	T1	All MCs	722	2.1	722	2.1	0.202	0.2	LOS A	0.1	1.0	0.05	0.07	0.05	53.8
9	R2	All MCs	23	0.0	23	0.0	0.202	8.0	LOS A	0.1	1.0	0.12	0.15	0.12	54.0
Approach			745	2.1	745	2.1	0.202	0.5	NA	0.1	1.0	0.06	0.07	0.06	53.9
West: Wentowrth Av															
10	L2	All MCs	47	2.3	47	2.3	0.067	11.6	LOS A	0.1	0.7	0.55	0.95	0.55	44.9
12	R2	All MCs	74	1.5	74	1.5	0.676	65.9	LOS E	1.1	7.6	0.96	1.14	1.53	19.4
Approach			121	1.8	121	1.8	0.676	44.7	LOS D	1.1	7.6	0.80	1.06	1.15	25.0
All Vehicles			1576	2.2	1576	2.2	0.676	4.0	NA	1.1	7.6	0.09	0.16	0.11	41.1



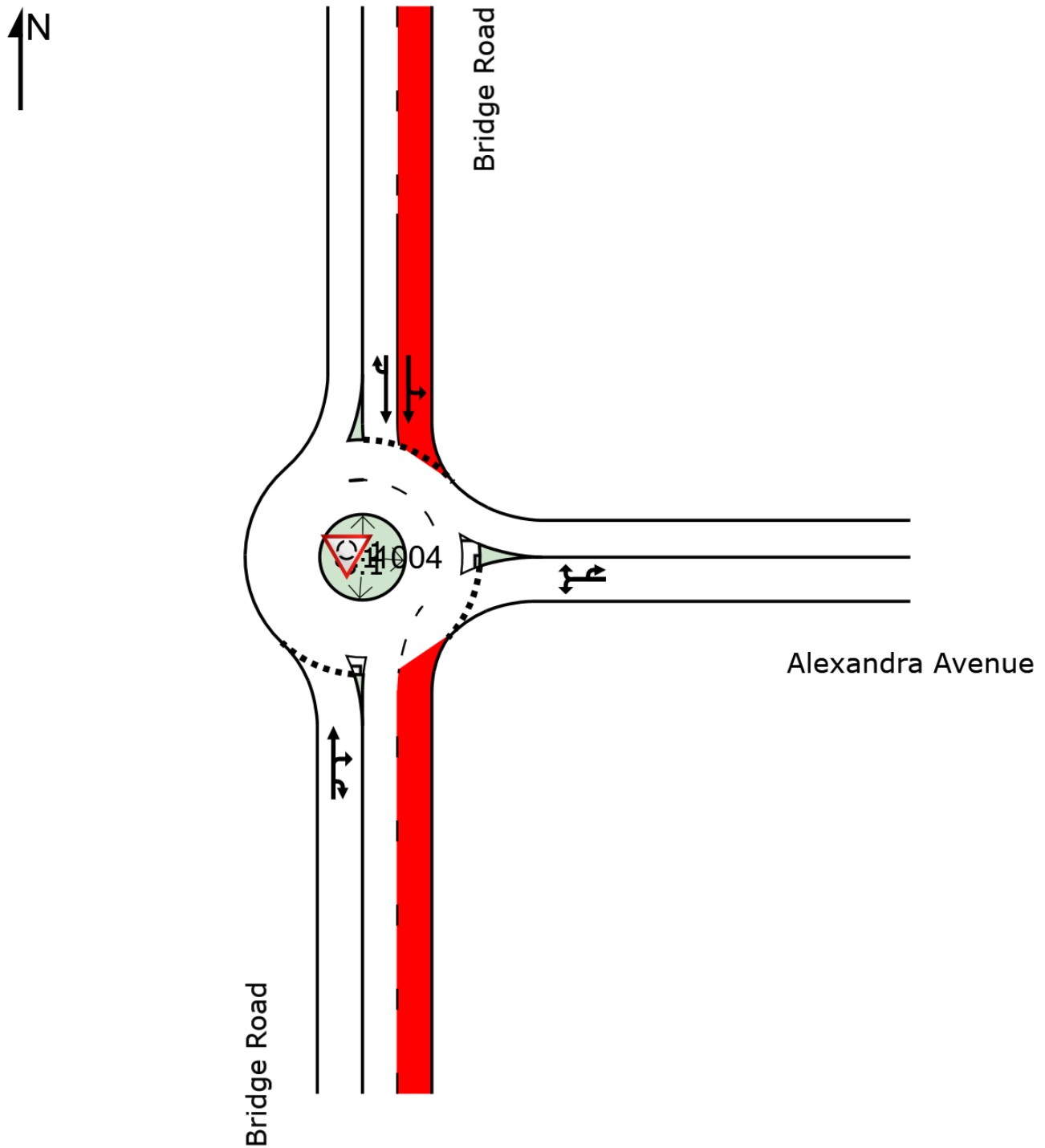
Site: 1004 [Bridge Rd - Alexandra Ave AM  
2026 FPC - Mitigation - Copy (Site Folder: AM  
2026 FPC - Mitigation)]

Network: 17 [AM 2026 FPC - Mitigations  
(Network Folder: General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h	
South: Bridge Road															
2	T1	All MCs	633	2.3	633	2.3	0.662	4.1	LOS A	2.9	20.7	0.31	0.51	0.31	25.9
3	R2	All MCs	324	0.7	324	0.7	0.662	7.3	LOS A	2.9	20.7	0.31	0.51	0.31	43.4
3u	U	All MCs	4	0.0	4	0.0	0.662	8.8	LOS A	2.9	20.7	0.31	0.51	0.31	25.9
Approach			962	1.7	962	1.7	0.662	5.2	LOS A	2.9	20.7	0.31	0.51	0.31	38.6
East: Alexandra Avenue															
4	L2	All MCs	108	5.1	108	5.1	0.258	8.3	LOS A	0.6	4.5	0.71	0.72	0.71	42.0
6	R2	All MCs	72	3.1	72	3.1	0.258	10.7	LOS A	0.6	4.5	0.71	0.72	0.71	42.0
6u	U	All MCs	2	0.0	2	0.0	0.258	13.1	LOS A	0.6	4.5	0.71	0.72	0.71	47.8
Approach			182	4.2	182	4.2	0.258	9.3	LOS A	0.6	4.5	0.71	0.72	0.71	42.1
North: Bridge Road															
7	L2	All MCs	211	0.5	211	0.5	0.454	7.3	LOS A	1.5	10.7	0.67	0.59	0.67	42.4
8	T1	All MCs	572	2.5	572	2.5	0.454	6.4	LOS A	1.5	10.7	0.67	0.57	0.67	21.8
9u	U	All MCs	3	0.0	3	0.0	0.454	10.7	LOS A	1.4	10.1	0.67	0.56	0.67	22.4
Approach			787	2.0	787	2.0	0.454	6.7	LOS A	1.5	10.7	0.67	0.58	0.67	35.4
All Vehicles			1930	2.0	1930	2.0	0.662	6.2	LOS A	2.9	20.7	0.49	0.56	0.49	38.1



 **Site: 1570 [Bridge Rd - Veron St - Grand Ave  
AM 2026 FPC - Mitigation - Copy (Site Folder:  
AM 2026 FPC - Mitigation)]**

 **Network: 17 [AM 2026 FPC - Mitigations  
(Network Folder: General)]**

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed

Input Phase Sequence: A, B, C

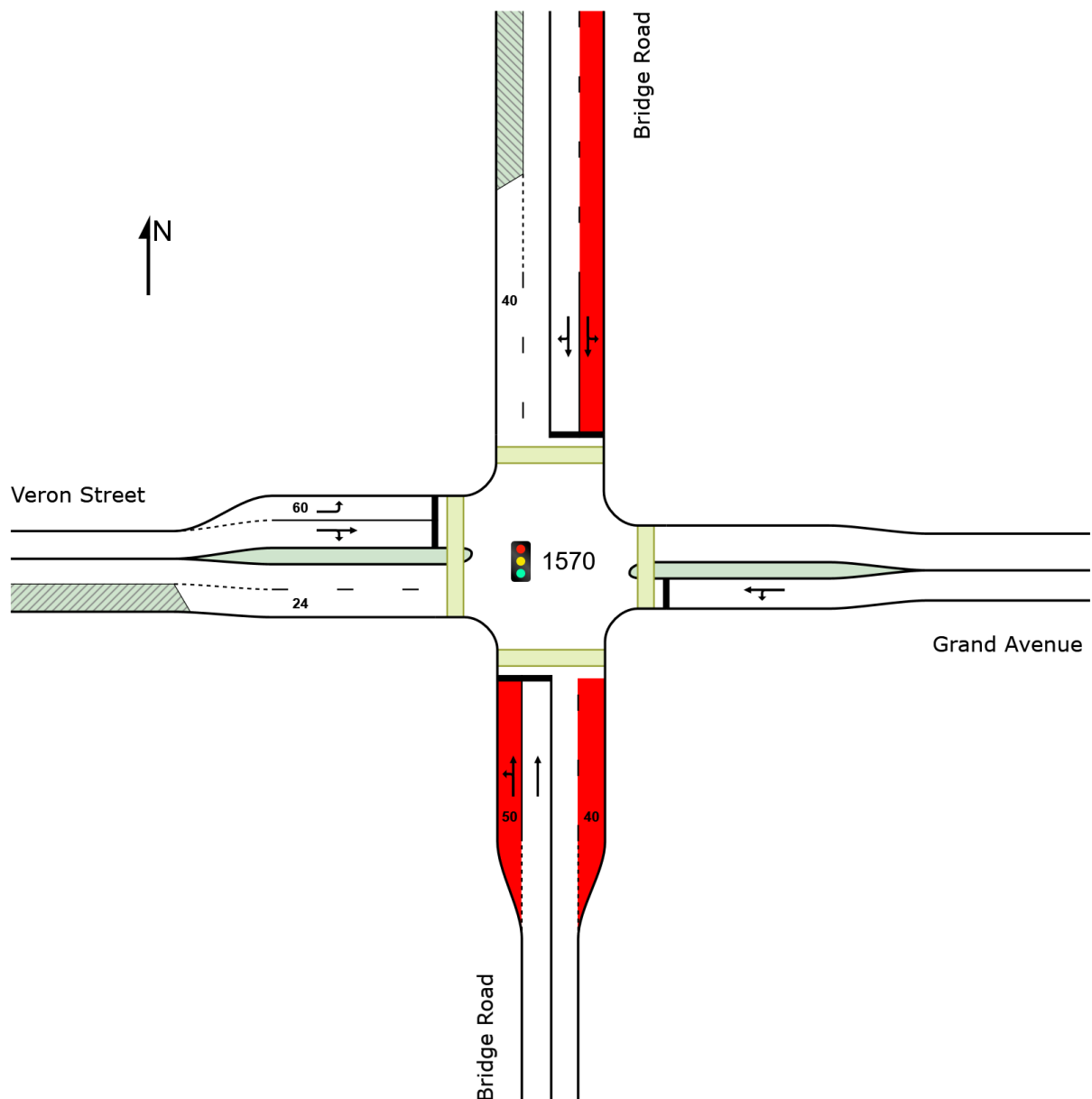
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

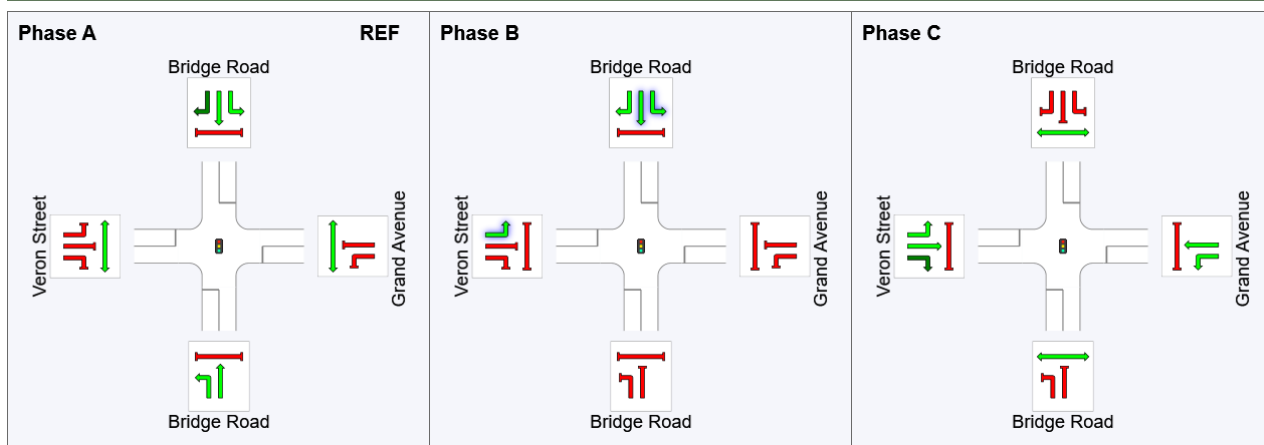
### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	33	0.0	33	0.0	0.238	22.9	LOS B	1.9	13.1	0.79	0.66	32.7
2	T1	All MCs	578	1.0	578	1.0	*0.814	25.3	LOS B	9.1	64.4	0.95	0.93	9.8
Approach			611	0.9	611	0.9	0.814	25.2	LOS B	9.1	64.4	0.94	0.92	11.8
East: Grand Avenue														
4	L2	All MCs	11	0.0	11	0.0	0.130	31.1	LOS C	0.5	3.8	0.91	0.68	31.3
5	T1	All MCs	22	0.0	22	0.0	0.130	26.3	LOS B	0.5	3.8	0.91	0.68	36.8
Approach			33	0.0	33	0.0	0.130	27.9	LOS B	0.5	3.8	0.91	0.68	35.3
North: Bridge Road														
7	L2	All MCs	13	0.0	13	0.0	0.179	9.0	LOS A	1.5	10.8	0.40	0.36	44.4
8	T1	All MCs	445	2.5	445	2.5	0.613	6.3	LOS A	5.8	41.5	0.63	0.62	24.7
9	R2	All MCs	224	3.4	224	3.4	*0.613	26.2	LOS B	5.8	41.5	0.84	0.86	33.7
Approach			682	2.7	682	2.7	0.613	12.9	LOS A	5.8	41.5	0.70	0.69	30.3
West: Veron Street														
10	L2	All MCs	368	3.0	368	3.0	0.413	16.4	LOS B	4.2	30.2	0.67	0.75	34.7
11	T1	All MCs	41	0.0	41	0.0	*0.551	28.4	LOS B	2.2	15.2	0.98	0.79	35.5
12	R2	All MCs	78	1.4	78	1.4	0.551	33.0	LOS C	2.2	15.2	0.98	0.79	26.8
Approach			487	2.5	487	2.5	0.551	20.1	LOS B	4.2	30.2	0.75	0.76	33.2
All Vehicles			1813	2.0	1813	2.0	0.814	19.2	LOS B	9.1	64.4	0.80	0.79	26.6

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	24	46
Green Time (sec)	18	16	8
Phase Time (sec)	24	22	14
Phase Split	40%	37%	23%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark PM 2026 FPC - Mitigation - Copy (Site  
Folder: PM 2026 FPC - Mitigation)]**



**Network: 16 [PM 2026 FPC - Mitigations  
(Network Folder: General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 90 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage - Import (2)**

**Input Phase Sequence: A, B, C, C1**

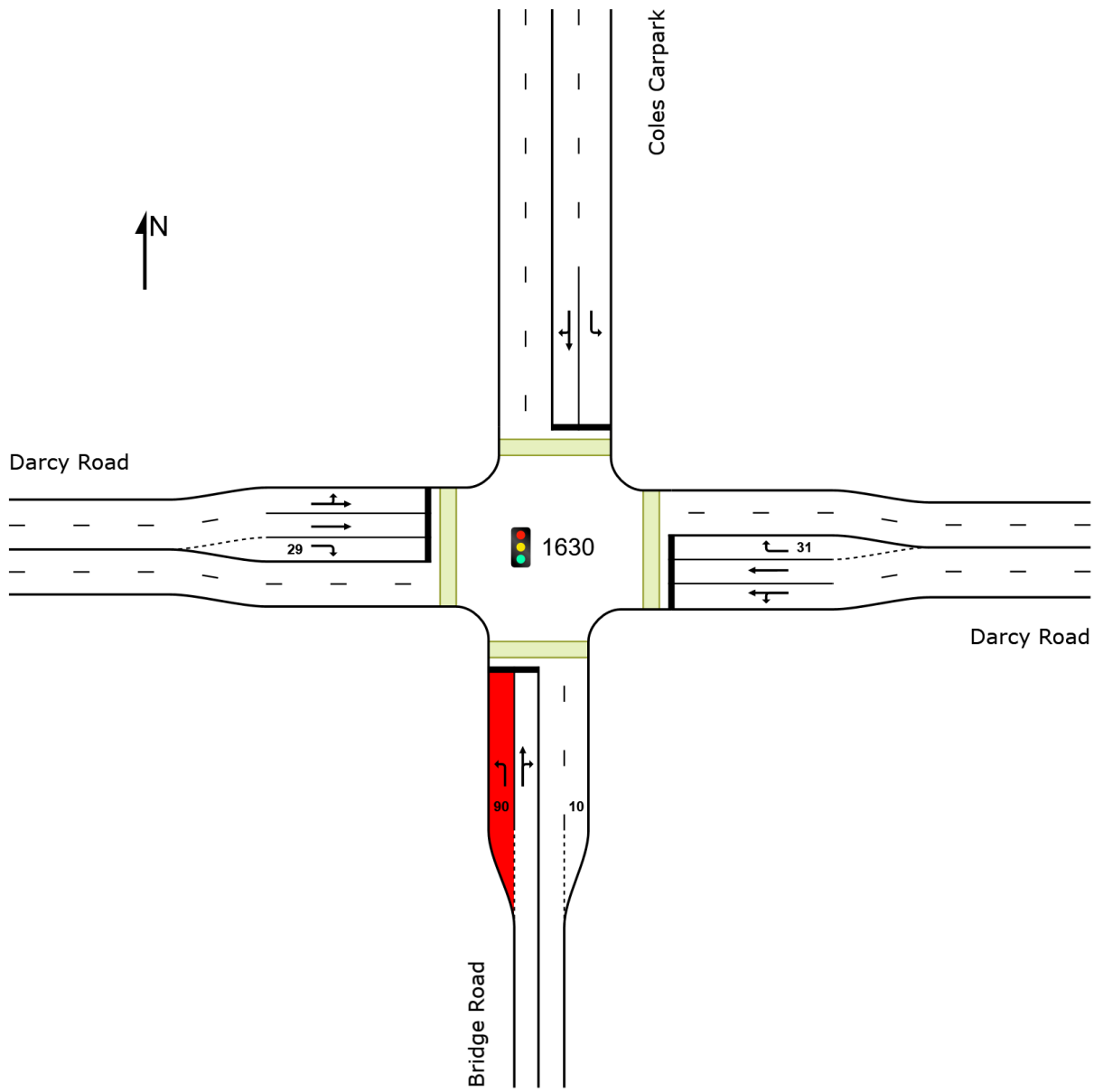
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

## Site Layout

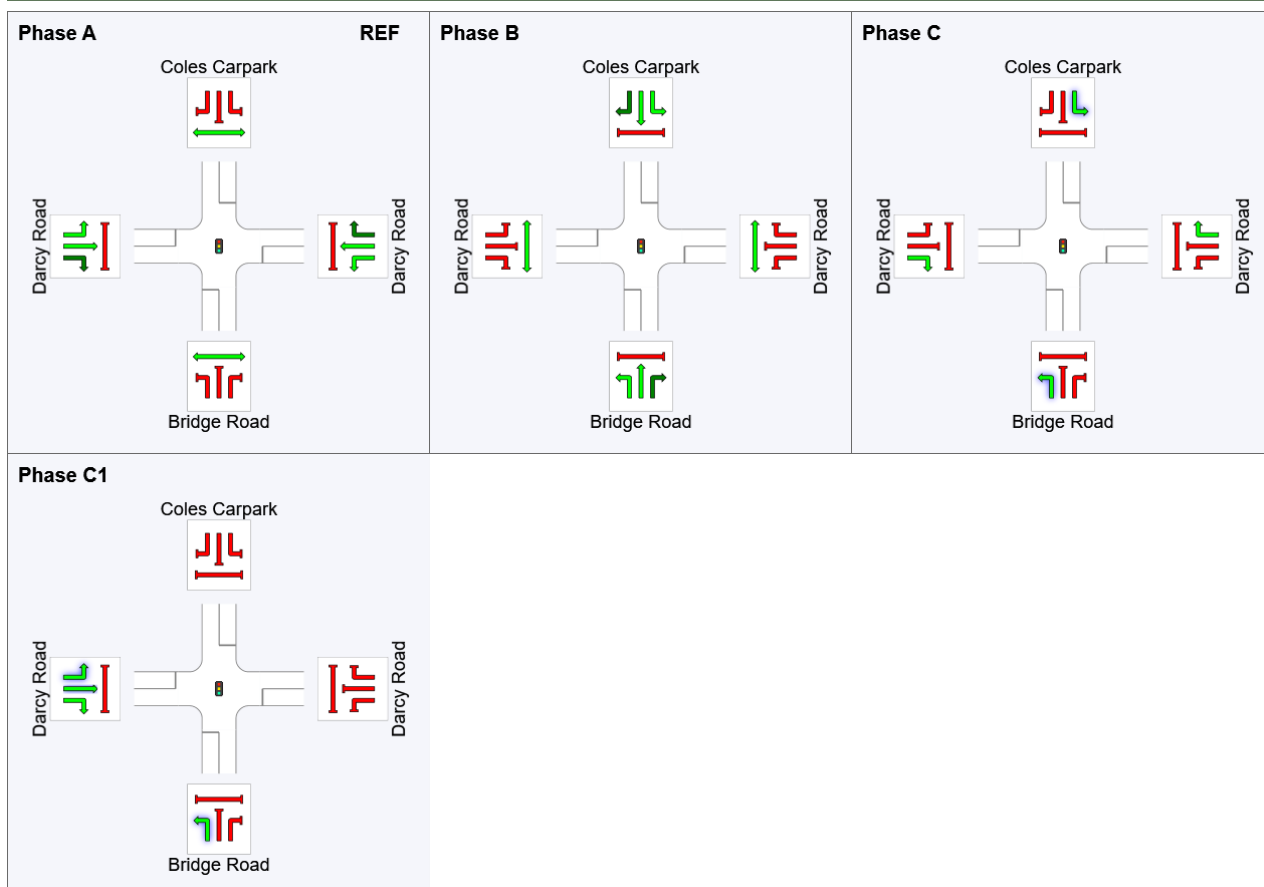
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
1	L2	All MCs	236	0.9	236	0.9	0.232	15.4	LOS B	3.2	22.6	0.54	0.70	0.54	32.2
2	T1	All MCs	36	0.0	36	0.0	* 0.512	43.8	LOS D	3.1	22.4	0.97	0.79	0.97	15.2
3	R2	All MCs	81	6.7	81	6.7	0.512	46.2	LOS D	3.1	22.4	0.97	0.79	0.97	24.5
Approach			354	2.2	354	2.2	0.512	25.4	LOS B	3.2	22.6	0.69	0.73	0.69	25.5
East: Darcy Road															
4	L2	All MCs	359	1.8	359	1.8	* 0.855	45.6	LOS D	14.1	99.7	1.00	0.98	1.19	19.1
5	T1	All MCs	622	0.9	622	0.9	0.855	52.4	LOS D	14.4	101.6	1.00	1.01	1.18	24.4
6	R2	All MCs	24	0.0	24	0.0	0.060	34.5	LOS C	0.2	1.6	0.69	0.70	0.69	19.1
Approach			1006	1.2	1006	1.2	0.855	49.5	LOS D	14.4	101.6	0.99	1.00	1.17	20.0
North: Coles Carpark															
7	L2	All MCs	27	0.0	27	0.0	0.050	24.7	LOS B	0.5	3.7	0.75	0.55	0.75	17.7
8	T1	All MCs	60	0.0	60	0.0	0.414	37.1	LOS C	2.5	17.3	0.95	0.75	0.95	11.4
9	R2	All MCs	36	0.0	36	0.0	0.414	43.4	LOS D	2.5	17.3	0.95	0.75	0.95	13.7
Approach			124	0.0	124	0.0	0.414	36.2	LOS C	2.5	17.3	0.91	0.71	0.91	13.5
West: Darcy Road															
10	L2	All MCs	60	0.0	60	0.0	0.219	15.2	LOS B	3.0	21.2	0.50	0.52	0.50	16.9
11	T1	All MCs	420	1.0	420	1.0	0.219	11.3	LOS A	3.0	21.3	0.50	0.47	0.50	39.6
12	R2	All MCs	419	1.3	419	1.3	* 0.696	25.4	LOS B	6.7	47.6	0.88	0.87	0.88	17.9
Approach			900	1.1	900	1.1	0.696	18.1	LOS B	6.7	47.6	0.68	0.66	0.68	26.4
All Vehicles			2383	1.2	2383	1.2	0.855	33.4	LOS C	14.4	101.6	0.82	0.81	0.90	21.7




## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	31	53	64
Green Time (sec)	29	16	5	22
Phase Time (sec)	35	22	9	24
Phase Split	39%	24%	10%	27%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

 **Site: 1002 [Bridge St - Byrne St PM 2026 FPC - Mitigation - Copy (Site Folder: PM 2026 FPC - Mitigation)]**

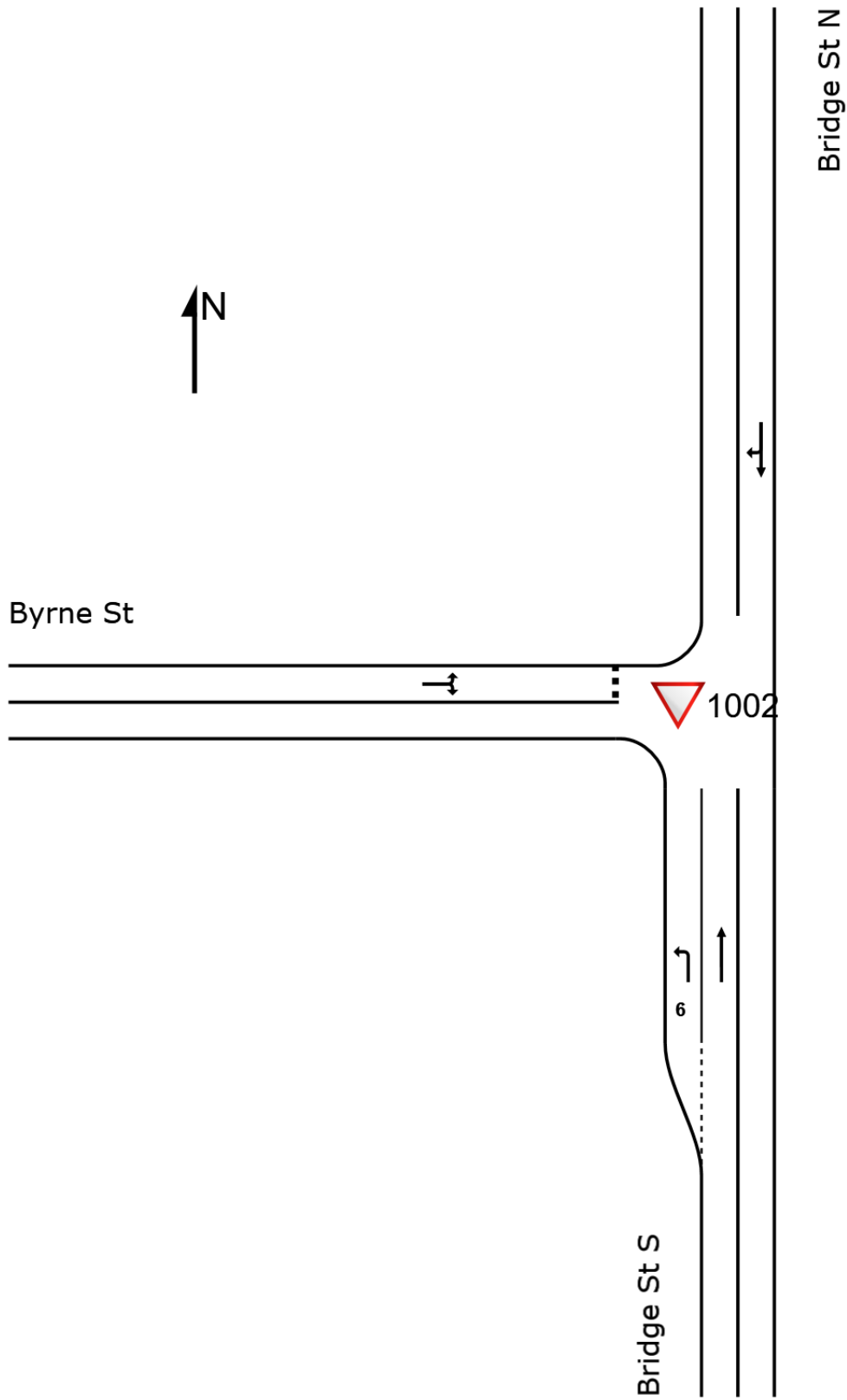
 **Network: 16 [PM 2026 FPC - Mitigations (Network Folder: General)]**

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New Site  
Site Category: (None)  
Give-Way (Two-Way)


#### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h	
South: Bridge St S															
1	L2	All MCs	60	1.8	60	1.8	0.033	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	50.9
2	T1	All MCs	371	2.6	371	2.6	0.194	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			431	2.5	431	2.5	0.194	0.4	NA	0.0	0.0	0.00	0.07	0.00	53.4
North: Bridge St N															
8	T1	All MCs	821	1.5	821	1.5	0.752	0.7	LOS A	0.5	3.5	0.08	0.09	0.16	56.4
9	R2	All MCs	35	0.0	35	0.0	0.752	9.9	LOS A	0.5	3.5	0.08	0.09	0.16	55.2
Approach			856	1.4	856	1.4	0.752	1.0	NA	0.5	3.5	0.08	0.09	0.16	56.3
West: Byrne St															
10	L2	All MCs	10	0.0	10	0.0	0.319	8.3	LOS A	0.3	2.2	0.81	0.96	0.96	35.3
12	R2	All MCs	44	2.5	44	2.5	0.319	24.7	LOS B	0.3	2.2	0.81	0.96	0.96	35.3
Approach			54	2.0	54	2.0	0.319	21.7	LOS B	0.3	2.2	0.81	0.96	0.96	35.3
All Vehicles			1341	1.8	1341	1.8	0.752	1.7	NA	0.5	3.5	0.08	0.12	0.14	53.2



 **Site: 1003 [Bridge Rd - Site Access Rd PM  
2026 FPC - Mitigation - Copy (Site Folder: PM  
2026 FPC - Mitigation)]**

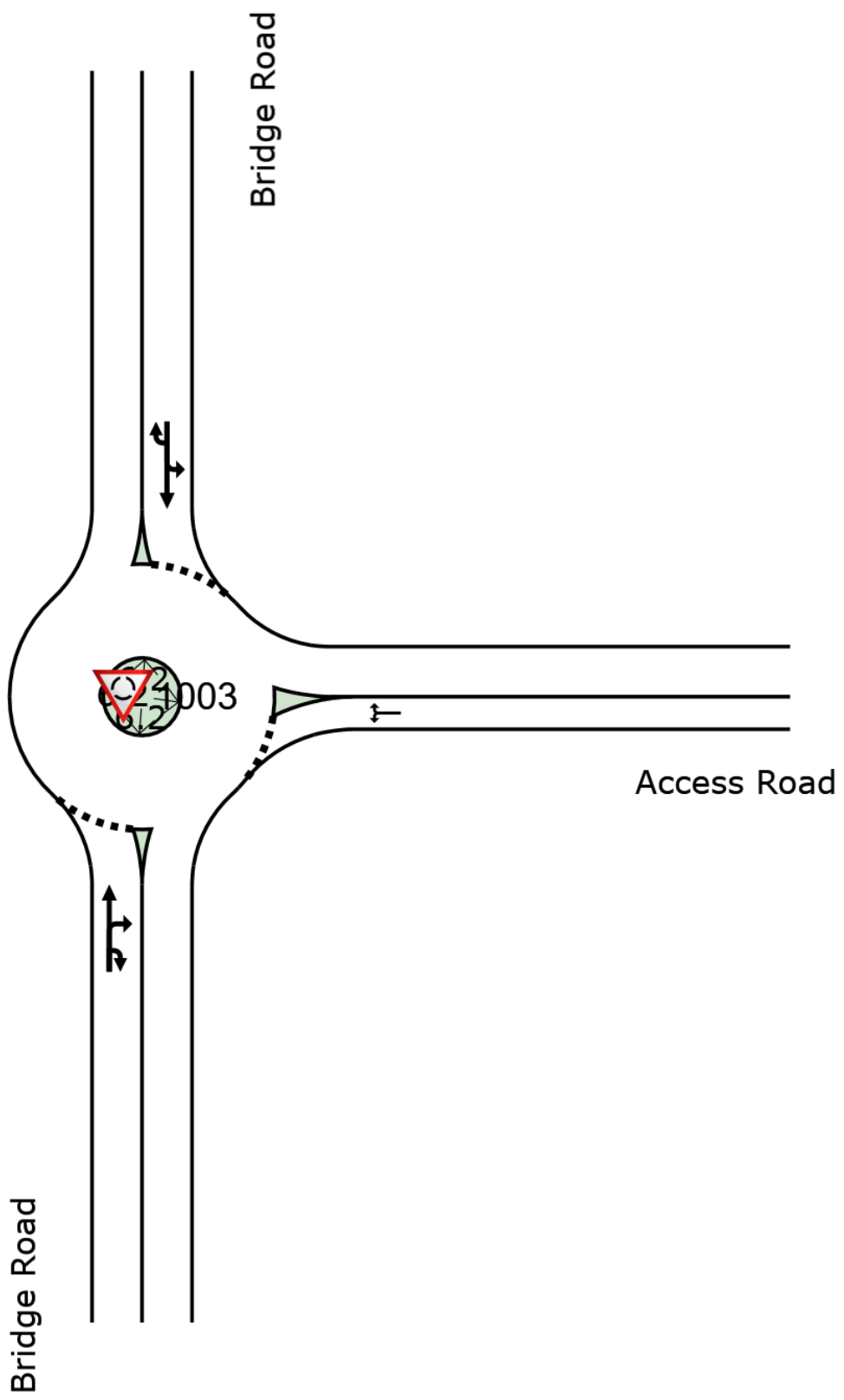
 **Network: 16 [PM 2026 FPC - Mitigations  
(Network Folder: General)]**

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Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				
			veh/h		veh/h					veh	m			km/h	
South: Bridge Road															
2	T1	All MCs	402	2.4	402	2.4	0.347	3.5	LOS A	1.2	8.2	0.21	0.47	0.21	26.1
3	R2	All MCs	97	0.0	97	0.0	0.347	6.3	LOS A	1.2	8.2	0.21	0.47	0.21	37.7
3u	U	All MCs	29	0.0	29	0.0	0.347	7.7	LOS A	1.2	8.2	0.21	0.47	0.21	26.1
Approach			528	1.9	528	1.9	0.347	4.3	LOS A	1.2	8.2	0.21	0.47	0.21	30.7
East: Access Road															
4	L2	All MCs	70	0.0	70	0.0	0.214	12.3	LOS A	0.6	4.5	0.93	0.78	0.93	28.5
6	R2	All MCs	32	3.4	32	3.4	0.214	15.2	LOS B	0.6	4.5	0.93	0.78	0.93	28.5
Approach			102	1.1	102	1.1	0.214	13.2	LOS A	0.6	4.5	0.93	0.78	0.93	28.5
North: Bridge Road															
7	L2	All MCs	52	2.1	52	2.1	0.764	4.6	LOS A	3.8	26.8	0.71	0.52	0.71	37.2
8	T1	All MCs	809	1.5	809	1.5	0.764	4.4	LOS A	3.8	26.8	0.71	0.52	0.71	20.6
9u	U	All MCs	2	0.0	2	0.0	0.764	8.4	LOS A	3.8	26.8	0.71	0.52	0.71	20.6
Approach			864	1.5	864	1.5	0.764	4.4	LOS A	3.8	26.8	0.71	0.52	0.71	23.5
All Vehicles			1494	1.6	1494	1.6	0.764	5.0	LOS A	3.8	26.8	0.55	0.52	0.55	27.2







**Site: 101 [Bridge St - Wentworth Av PM 2026  
FPC - Mitigation - Copy (Site Folder: PM 2026  
FPC - Mitigation)]**

**■ ■ Network: 16 [PM 2026 FPC - Mitigations  
(Network Folder: General)]**

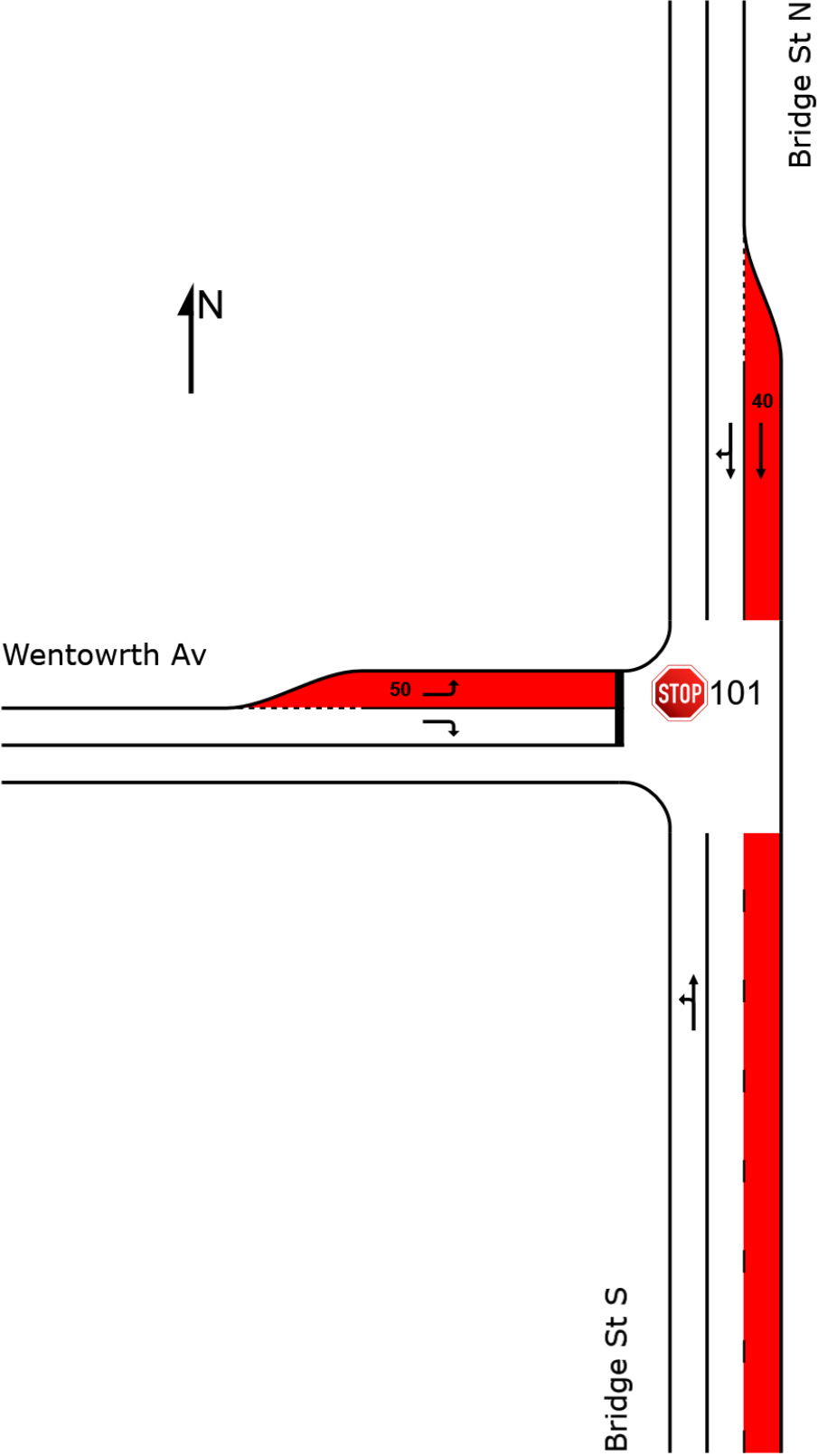
New Site

Site Category: (None)

Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	167	0.7	167	0.7	0.334	4.1	LOS A	0.0	0.0	0.00	0.15	53.9
2	T1	All MCs	469	2.1	469	2.1	0.334	0.0	LOS A	0.0	0.0	0.00	0.15	47.3
Approach			636	1.7	636	1.7	0.334	1.1	NA	0.0	0.0	0.00	0.15	52.0
North: Bridge St N														
8	T1	All MCs	893	1.3	893	1.3	0.244	0.2	LOS A	0.1	0.9	0.04	0.05	55.3
9	R2	All MCs	24	0.0	24	0.0	0.244	7.4	LOS A	0.1	0.9	0.09	0.12	54.4
Approach			917	1.3	917	1.3	0.244	0.4	NA	0.1	0.9	0.04	0.06	55.1
West: Wentowrth Av														
10	L2	All MCs	58	0.0	58	0.0	0.068	10.4	LOS A	0.1	0.7	0.49	0.91	46.0
12	R2	All MCs	73	0.0	73	0.0	0.674	67.0	LOS E	1.1	7.7	0.97	1.13	19.2
Approach			131	0.0	131	0.0	0.674	41.9	LOS C	1.1	7.7	0.75	1.03	25.9
All Vehicles			1684	1.4	1684	1.4	0.674	3.9	NA	1.1	7.7	0.08	0.17	42.1



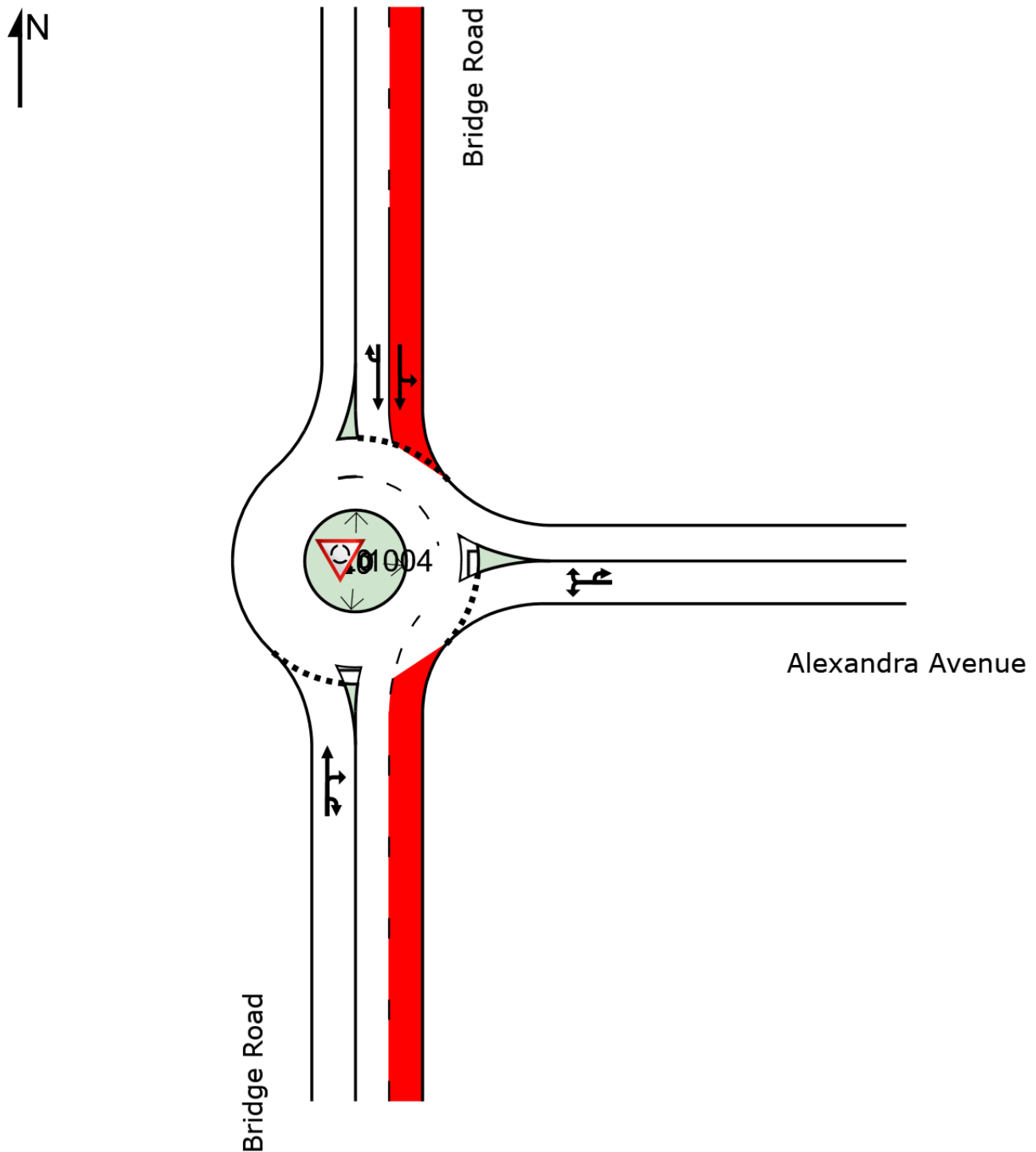
 **Site: 1004 [Bridge Rd - Alexandra Ave PM 2026 FPC - Mitigation - Copy (Site Folder: PM 2026 FPC - Mitigation)]**

 **Network: 16 [PM 2026 FPC - Mitigations (Network Folder: General)]**

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
2	T1	All MCs	489	2.2	489	2.2	0.508	4.2	LOS A	1.6	11.4	0.36	0.53	26.3
3	R2	All MCs	169	0.6	169	0.6	0.508	7.7	LOS A	1.6	11.4	0.36	0.53	43.6
3u	U	All MCs	2	0.0	2	0.0	0.508	9.4	LOS A	1.6	11.4	0.36	0.53	26.3
Approach			660	1.8	660	1.8	0.508	5.1	LOS A	1.6	11.4	0.36	0.53	37.3
East: Alexandra Avenue														
4	L2	All MCs	178	0.0	178	0.0	0.502	11.9	LOS A	1.6	11.5	0.88	0.87	39.2
6	R2	All MCs	142	0.0	142	0.0	0.502	15.1	LOS B	1.6	11.5	0.88	0.87	39.2
6u	U	All MCs	1	0.0	1	0.0	0.502	17.8	LOS B	1.6	11.5	0.88	0.87	45.9
Approach			321	0.0	321	0.0	0.502	13.3	LOS A	1.6	11.5	0.88	0.87	39.2
North: Bridge Road														
7	L2	All MCs	182	0.0	182	0.0	0.603	5.6	LOS A	2.5	17.4	0.61	0.50	43.3
8	T1	All MCs	778	1.3	778	1.3	0.603	5.6	LOS A	2.5	17.4	0.63	0.51	23.1
9u	U	All MCs	1	0.0	1	0.0	0.603	11.4	LOS A	1.5	10.4	0.68	0.53	22.7
Approach			960	1.0	960	1.0	0.603	5.6	LOS A	2.5	17.4	0.63	0.51	34.2
All Vehicles			1941	1.1	1941	1.1	0.603	6.7	LOS A	2.5	17.4	0.58	0.57	36.9





 **Site: 1570 [Bridge Rd - Veron St - Grand Ave  
PM 2026 FPC - Mitigation - Copy (Site Folder:  
PM 2026 FPC - Mitigation)]**

 **Network: 16 [PM 2026 FPC - Mitigations  
(Network Folder: General)]**

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed - Import

Input Phase Sequence: A, B, C

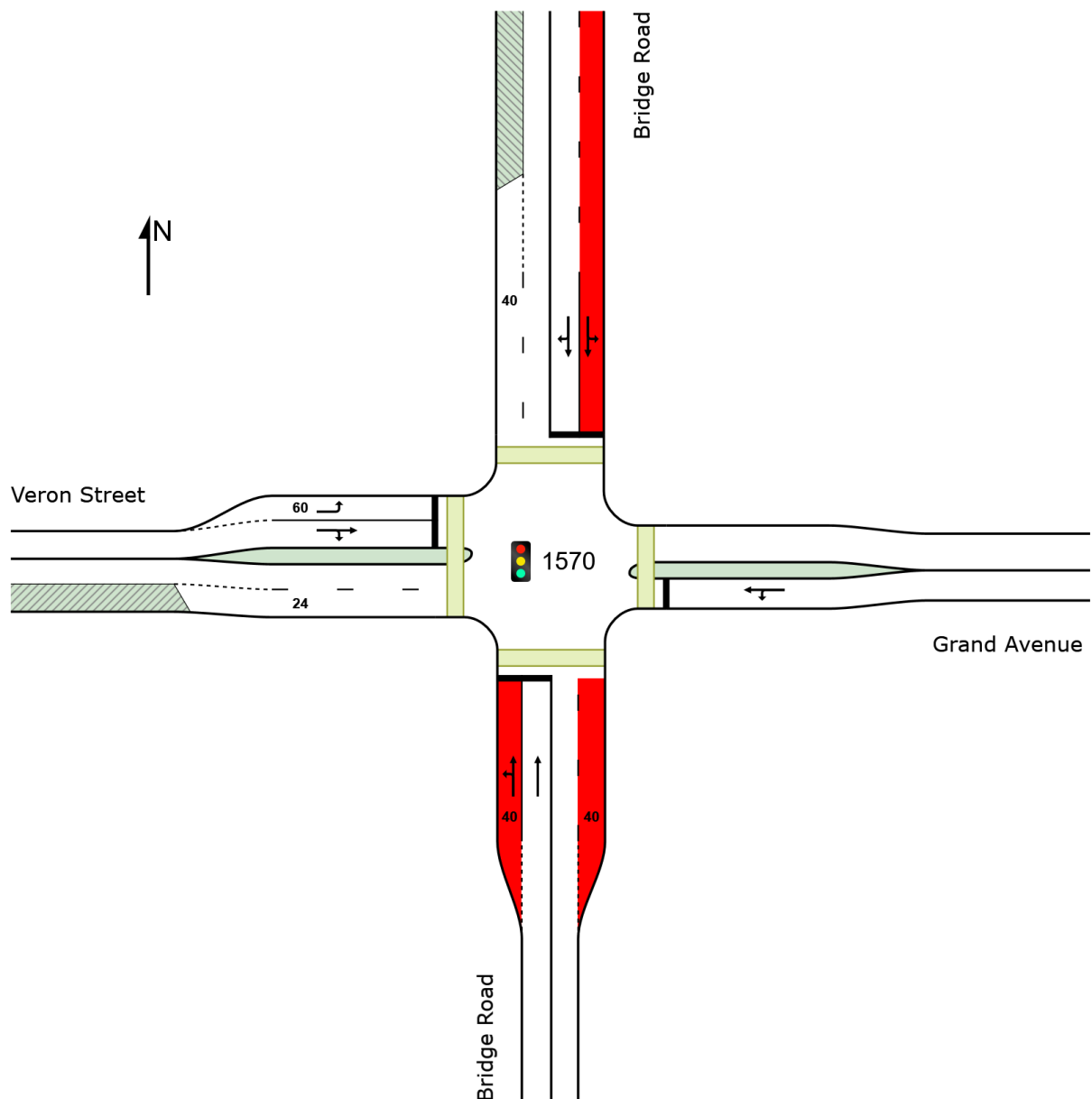
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

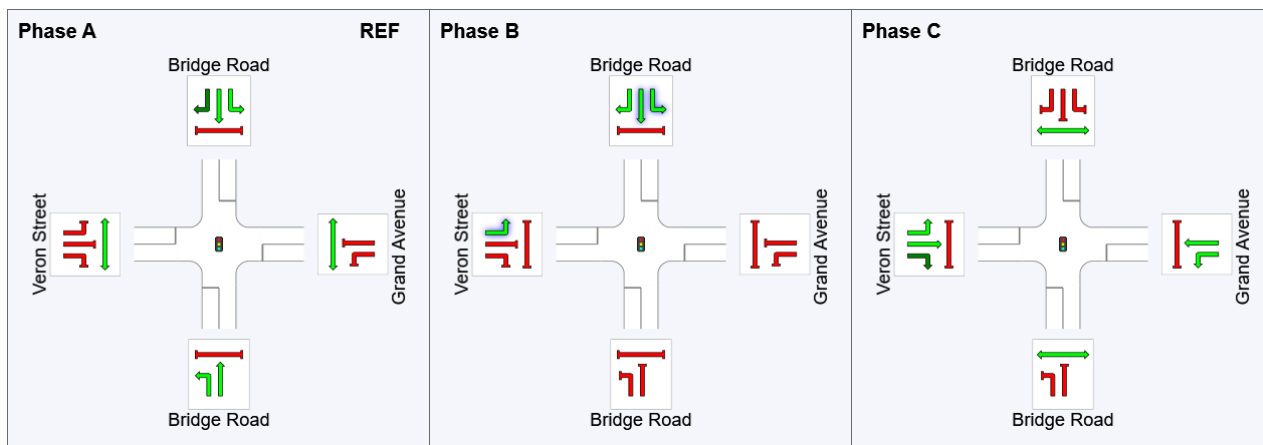
### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	59	0.0	59	0.0	0.248	33.5	LOS C	1.8	13.0	0.86	0.72	28.5
2	T1	All MCs	406	2.2	406	2.2	*0.847	37.9	LOS C	8.5	60.3	0.98	1.01	7.4
Approach			465	1.9	465	1.9	0.847	37.4	LOS C	8.5	60.3	0.97	0.97	10.6
East: Grand Avenue														
4	L2	All MCs	12	9.1	12	9.1	0.380	37.2	LOS C	1.9	13.3	0.96	0.74	29.4
5	T1	All MCs	81	0.0	81	0.0	*0.380	32.4	LOS C	1.9	13.3	0.96	0.74	35.2
Approach			93	1.2	93	1.2	0.380	33.0	LOS C	1.9	13.3	0.96	0.74	34.6
North: Bridge Road														
7	L2	All MCs	10	0.0	10	0.0	0.215	8.5	LOS A	2.1	14.7	0.38	0.33	44.6
8	T1	All MCs	606	1.4	606	1.4	0.733	7.2	LOS A	8.7	61.1	0.64	0.66	23.5
9	R2	All MCs	343	0.3	343	0.3	*0.733	27.3	LOS B	8.7	61.1	0.85	0.94	32.7
Approach			959	1.0	959	1.0	0.733	14.4	LOS A	8.7	61.1	0.71	0.76	29.3
West: Veron Street														
10	L2	All MCs	250	1.3	250	1.3	0.230	12.4	LOS A	2.4	17.1	0.49	0.69	37.2
11	T1	All MCs	13	0.0	13	0.0	0.317	31.5	LOS C	1.1	7.8	0.97	0.74	33.7
12	R2	All MCs	40	0.0	40	0.0	0.317	39.2	LOS C	1.1	7.8	0.97	0.74	24.8
Approach			303	1.1	303	1.1	0.317	16.8	LOS B	2.4	17.1	0.58	0.70	34.4
All Vehicles			1820	1.3	1820	1.3	0.847	21.6	LOS B	8.7	61.1	0.77	0.80	25.9

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	22	55
Green Time (sec)	16	27	9
Phase Time (sec)	22	33	15
Phase Split	31%	47%	21%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark AM 2036 FBC (Site Folder: AM 2036  
FBC)]**



**Network: 5 [AM 2036 FBC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 120 seconds (Site User-Given Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage**

**Input Phase Sequence: A, B, C, C1**

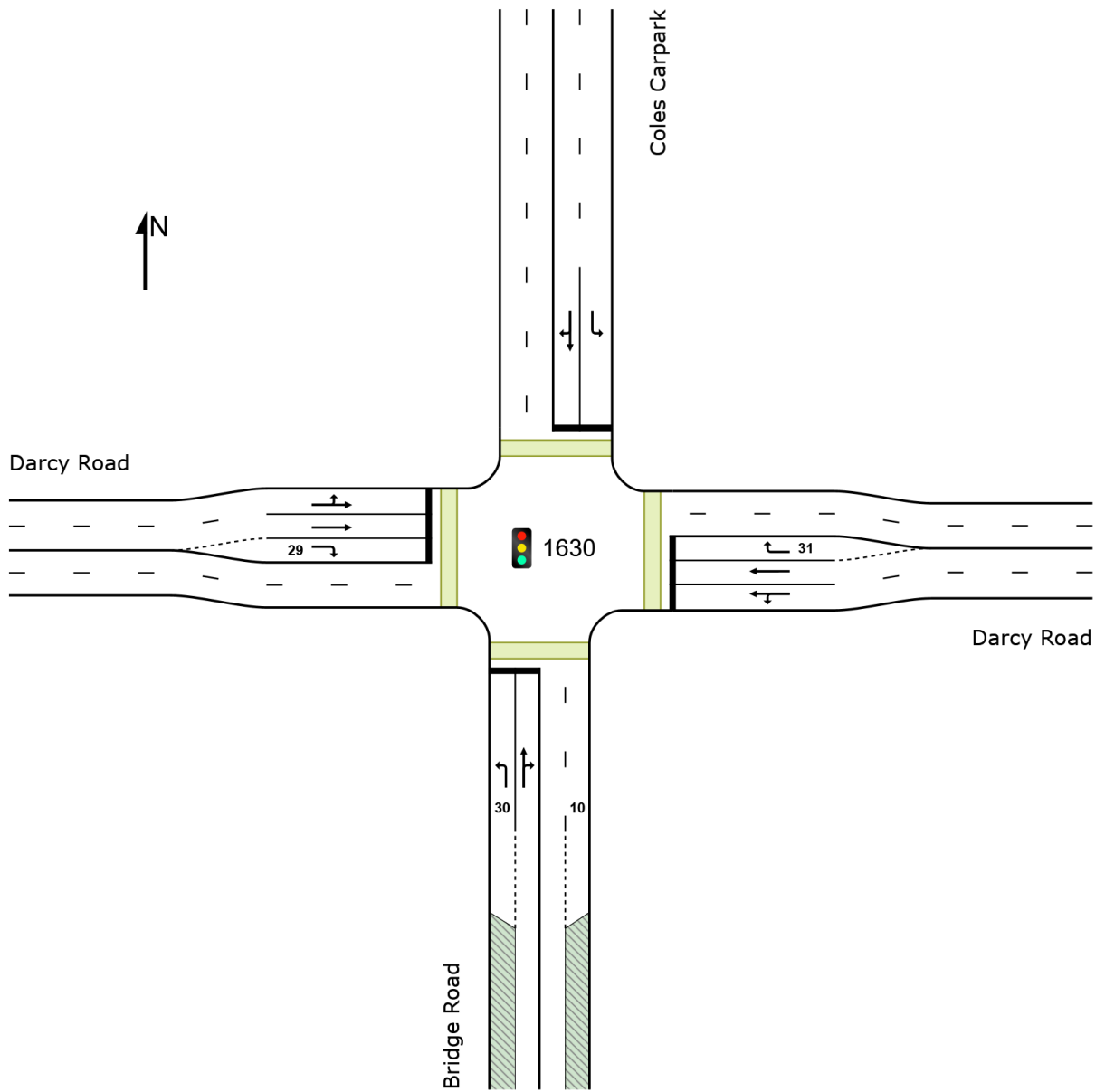
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

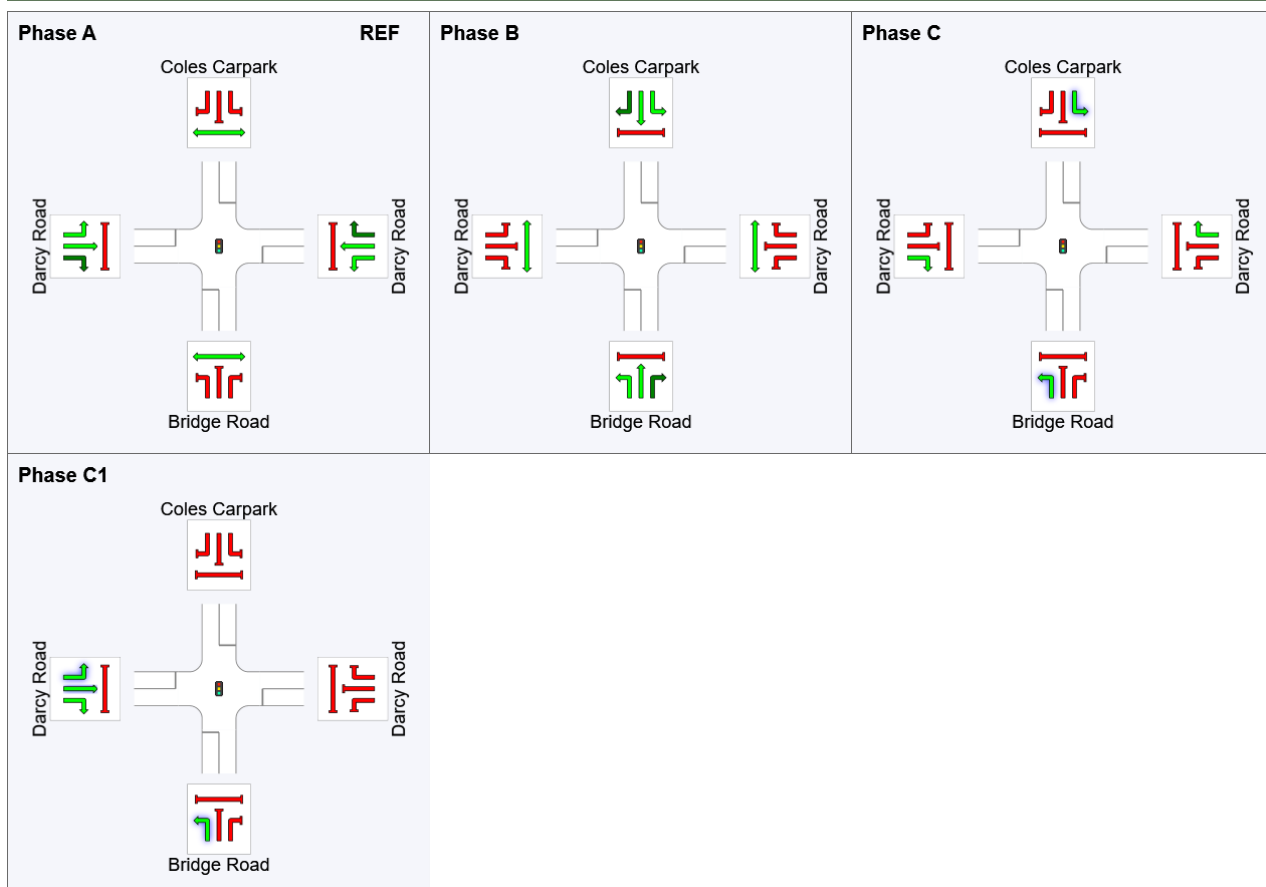
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
1	L2	All MCs	181	2.8	179	2.8	0.158	38.5	LOS C	2.6	18.7	0.44	0.67	0.44	32.9
2	T1	All MCs	19	0.0	19	0.0	0.965	110.7	LOS F	17.3	124.8	1.00	1.14	1.47	12.4
3	R2	All MCs	336	3.7	333	3.7	*0.965	110.0	LOS F	17.3	124.8	1.00	1.14	1.47	17.1
Approach			535	3.3	531	3.3	0.965	85.9	LOS F	17.3	124.8	0.81	0.98	1.12	15.6
East: Darcy Road															
4	L2	All MCs	384	3.3	384	3.3	1.003	100.1	LOS F	24.6	178.0	1.00	1.23	1.53	10.6
5	T1	All MCs	581	4.1	581	4.1	*1.003	119.8	LOS F	25.2	184.2	1.00	1.34	1.53	14.2
6	R2	All MCs	20	0.0	20	0.0	0.136	62.3	LOS E	0.4	2.5	0.88	0.71	0.88	17.6
Approach			984	3.7	984	3.7	1.003	110.9	LOS F	25.2	184.2	1.00	1.28	1.51	11.5
North: Coles Carpark															
7	L2	All MCs	14	0.0	14	0.0	0.018	22.8	LOS B	0.3	2.0	0.63	0.45	0.63	17.9
8	T1	All MCs	26	0.0	26	0.0	0.122	29.4	LOS C	1.3	9.6	0.74	0.58	0.74	12.0
9	R2	All MCs	26	4.8	26	4.8	0.122	33.3	LOS C	1.3	9.6	0.74	0.58	0.74	14.3
Approach			66	1.9	66	1.9	0.122	29.6	LOS C	1.3	9.6	0.72	0.55	0.72	14.2
West: Darcy Road															
10	L2	All MCs	46	2.7	46	2.7	0.850	38.4	LOS C	25.8	183.7	0.95	0.91	1.00	14.7
11	T1	All MCs	1339	1.7	1339	1.7	0.850	43.0	LOS D	25.8	183.7	0.94	0.91	1.01	26.3
12	R2	All MCs	273	3.2	273	3.2	*0.968	98.2	LOS F	11.5	83.1	1.00	1.11	1.53	6.8
Approach			1659	2.0	1659	2.0	0.968	52.0	LOS D	25.8	183.7	0.95	0.94	1.10	19.1
All Vehicles			3245	2.7	3240	2.7	1.003	75.0	LOS F	25.8	184.2	0.94	1.05	1.22	15.4

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	36	83	93
Green Time (sec)	34	41	4	23
Phase Time (sec)	40	47	8	25
Phase Split	33%	39%	7%	21%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

 **Site: 1002 [Bridge St - Byrne St AM 2036 FBC (Site Folder: AM 2036 FBC)]**

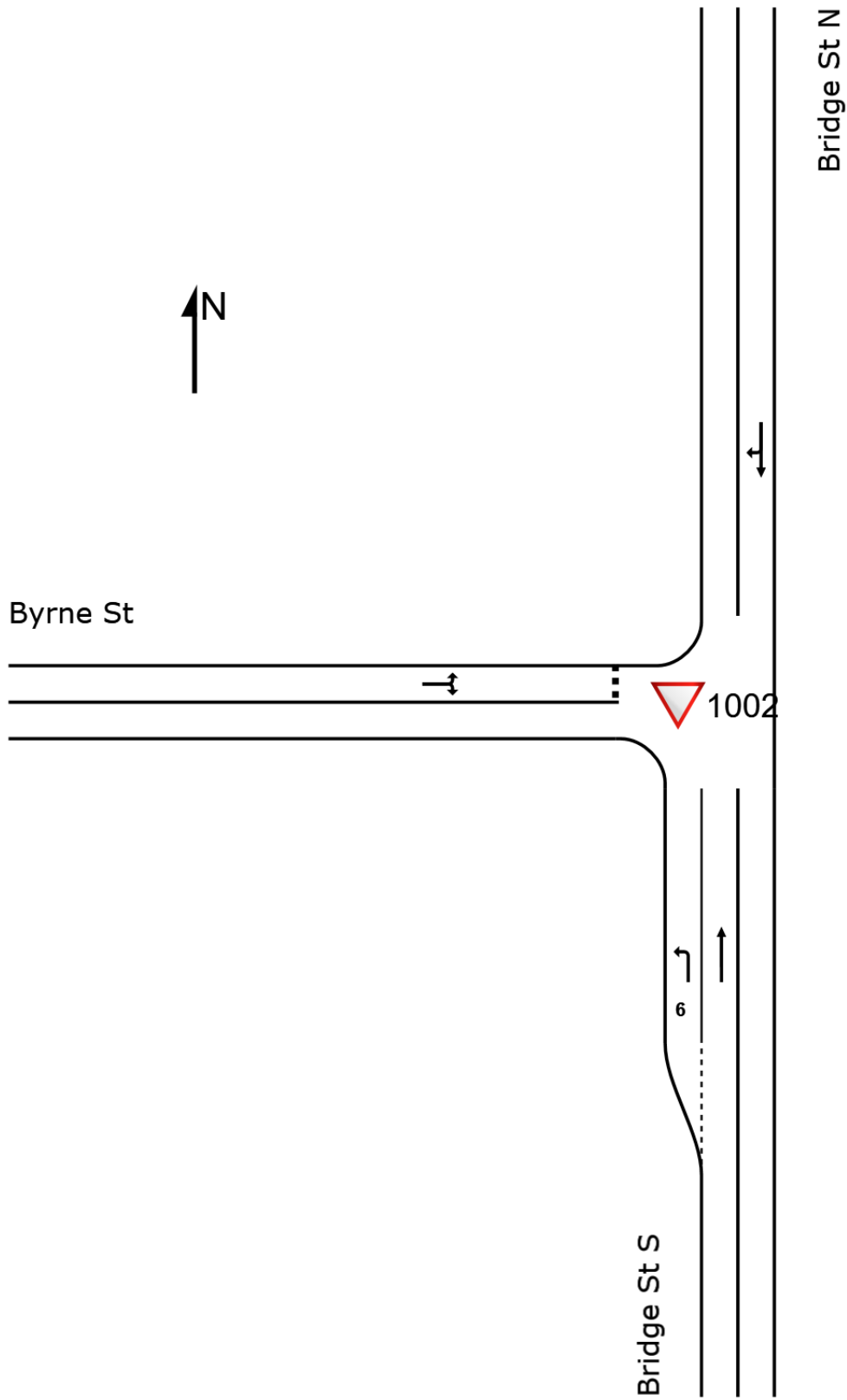
 **Network: 5 [AM 2036 FBC (Network Folder: General)]**

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge St S															
1	L2	All MCs	152	0.8	150	0.8	0.081	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	51.0
2	T1	All MCs	529	3.3	524	3.3	0.275	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach			681	2.8	675	2.8	0.275	0.7	NA	0.0	0.0	0.00	0.12	0.00	52.6
North: Bridge St N															
8	T1	All MCs	658	3.0	657	3.0	0.382	0.4	LOS A	9.2	66.0	0.08	0.09	0.08	57.2
9	R2	All MCs	25	0.0	25	0.0	0.382	10.5	LOS A	9.2	66.0	0.08	0.09	0.08	55.5
Approach			683	2.9	682	2.9	0.382	0.8	NA	9.2	66.0	0.08	0.09	0.08	57.1
West: Byrne St															
10	L2	All MCs	5	0.0	5	0.0	0.347	9.1	LOS A	0.6	4.0	0.85	0.97	0.98	35.2
12	R2	All MCs	41	0.0	41	0.0	0.347	23.2	LOS B	0.6	4.0	0.85	0.97	0.98	35.2
Approach			46	0.0	46	0.0	0.347	21.7	LOS B	0.6	4.0	0.85	0.97	0.98	35.2
All Vehicles			1411	2.8	1403	2.8	0.382	1.4	NA	9.2	66.0	0.06	0.13	0.07	53.2



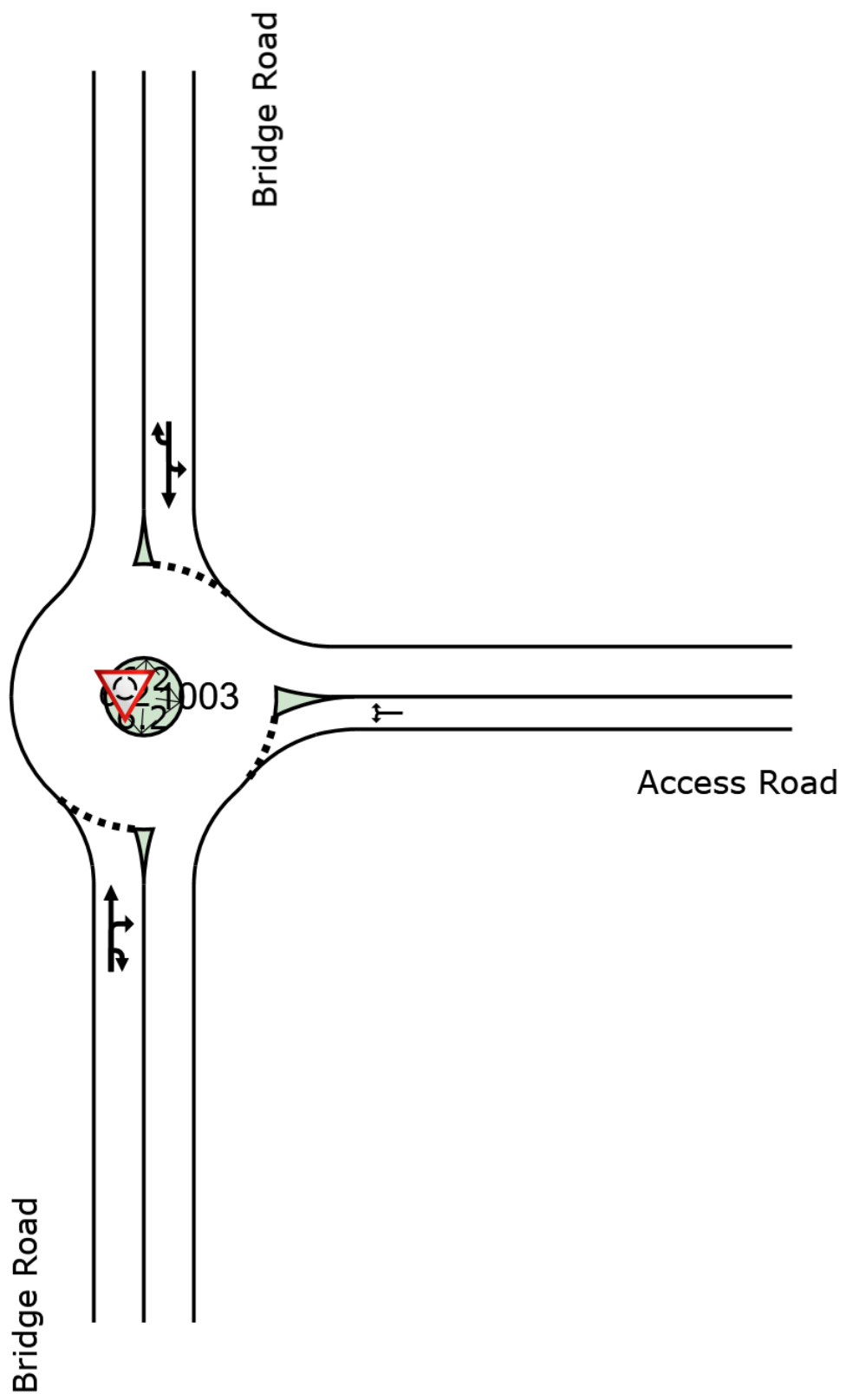
 **Site: 1003 [Bridge Rd - Site Access Rd AM 2036 FBC (Site Folder: AM 2036 FBC)]**

 **Network: 5 [AM 2036 FBC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
2	T1	All MCs	631	3.0	625	3.0	0.487	3.7	LOS A	1.8	13.1	0.31	0.44	25.9
3	R2	All MCs	36	0.0	36	0.0	0.487	6.4	LOS A	1.8	13.1	0.31	0.44	37.7
3u	U	All MCs	31	0.0	31	0.0	0.487	7.9	LOS A	1.8	13.1	0.31	0.44	25.9
Approach			698	2.7	692	2.7	0.487	4.0	LOS A	1.8	13.1	0.31	0.44	27.5
East: Access Road														
4	L2	All MCs	98	0.0	98	0.0	0.407	11.3	LOS A	2.2	15.2	0.95	0.79	29.6
6	R2	All MCs	44	0.0	44	0.0	0.407	13.8	LOS A	2.2	15.2	0.95	0.79	29.6
Approach			142	0.0	142	0.0	0.407	12.1	LOS A	2.2	15.2	0.95	0.79	29.6
North: Bridge Road														
7	L2	All MCs	18	7.1	18	7.1	1.120	117.2	LOS F	4.2	30.0	1.00	1.87	7.2
8	T1	All MCs	681	2.8	680	2.8	1.120	116.8	LOS F	4.2	30.0	1.00	1.87	1.4
9u	U	All MCs	6	0.0	6	0.0	1.120	120.7	LOS F	4.2	30.0	1.00	1.87	1.4
Approach			705	2.8	704	2.8	1.120	116.8	LOS F	4.2	30.0	1.00	1.87	1.6
All Vehicles			1545	2.5	1538	2.5	1.120	56.4	LOS D	4.2	30.0	0.68	1.13	4.8





**Site: 101 [Bridge St - Wentworth Av AM 2036 FBC (Site Folder: AM 2036 FBC)]**   **Network: 5 [AM 2036 FBC (Network Folder: General)]**

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New Site

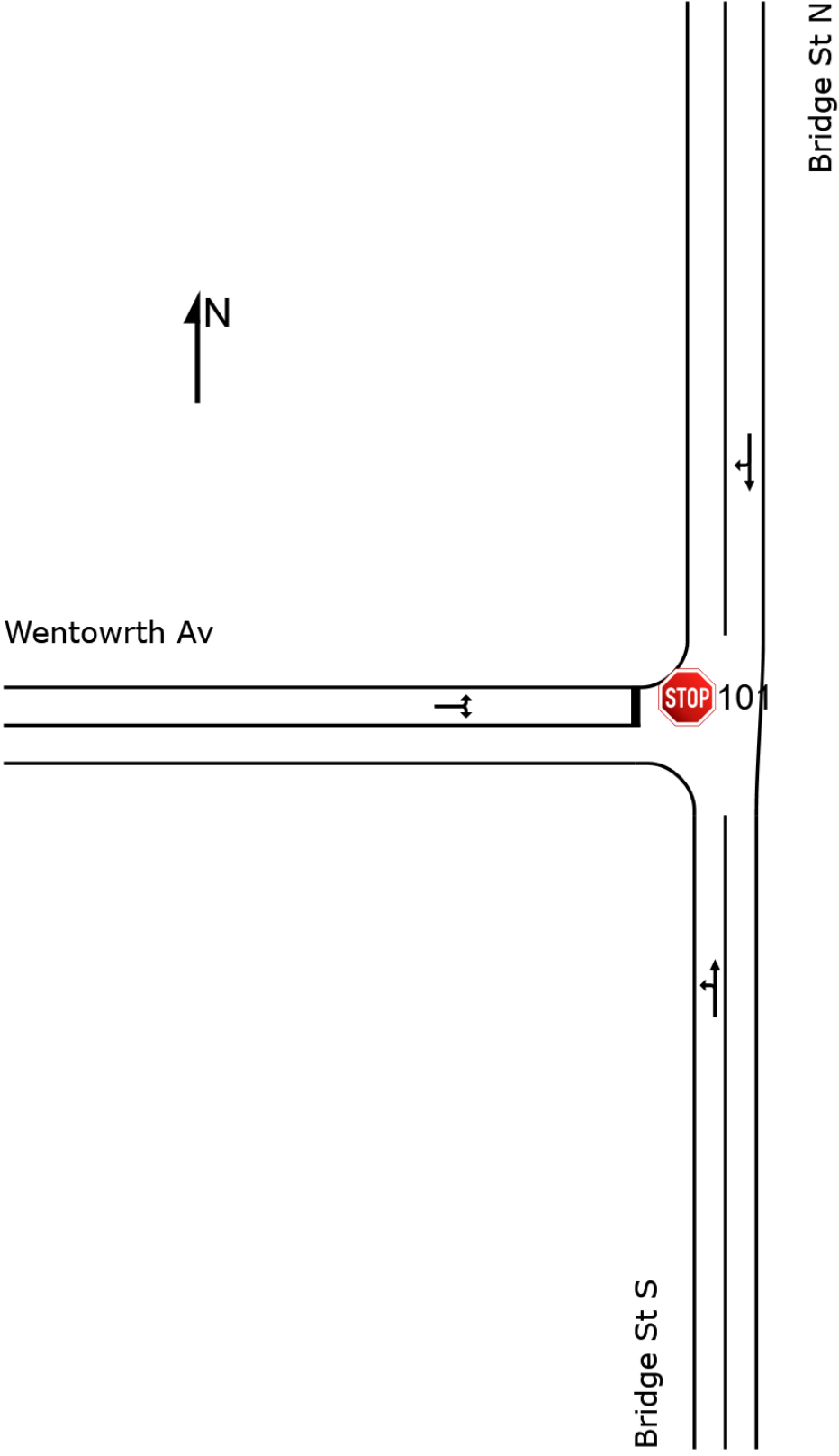
Site Category: (None)

Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	144	0.0	144	0.0	0.431	4.1	LOS A	0.0	0.0	0.00	0.10	54.3
2	T1	All MCs	652	2.9	651	2.9	0.431	0.0	LOS A	0.0	0.0	0.00	0.10	50.1
Approach			796	2.4	795	2.4	0.431	0.8	NA	0.0	0.0	0.00	0.10	52.8
North: Bridge St N														
8	T1	All MCs	776	2.3	705	2.2	0.402	0.5	LOS A	7.7	55.0	0.08	0.09	49.8
9	R2	All MCs	26	0.0	24	0.0	0.402	9.5	LOS A	7.7	55.0	0.08	0.09	53.9
Approach			802	2.2	729	2.1	0.402	0.8	NA	7.7	55.0	0.08	0.09	50.7
West: Wentowrth Av														
10	L2	All MCs	50	2.5	50	2.5	1.121	139.0	LOS F	4.9	34.6	1.00	2.52	10.1
12	R2	All MCs	84	1.5	84	1.5	1.121	163.7	LOS F	4.9	34.6	1.00	2.52	10.1
Approach			134	1.9	134	1.9	1.121	154.5	LOS F	4.9	34.6	1.00	2.52	10.1
All Vehicles			1733	2.2	1659	2.3	1.121	13.2	NA	7.7	55.0	0.11	0.30	24.4



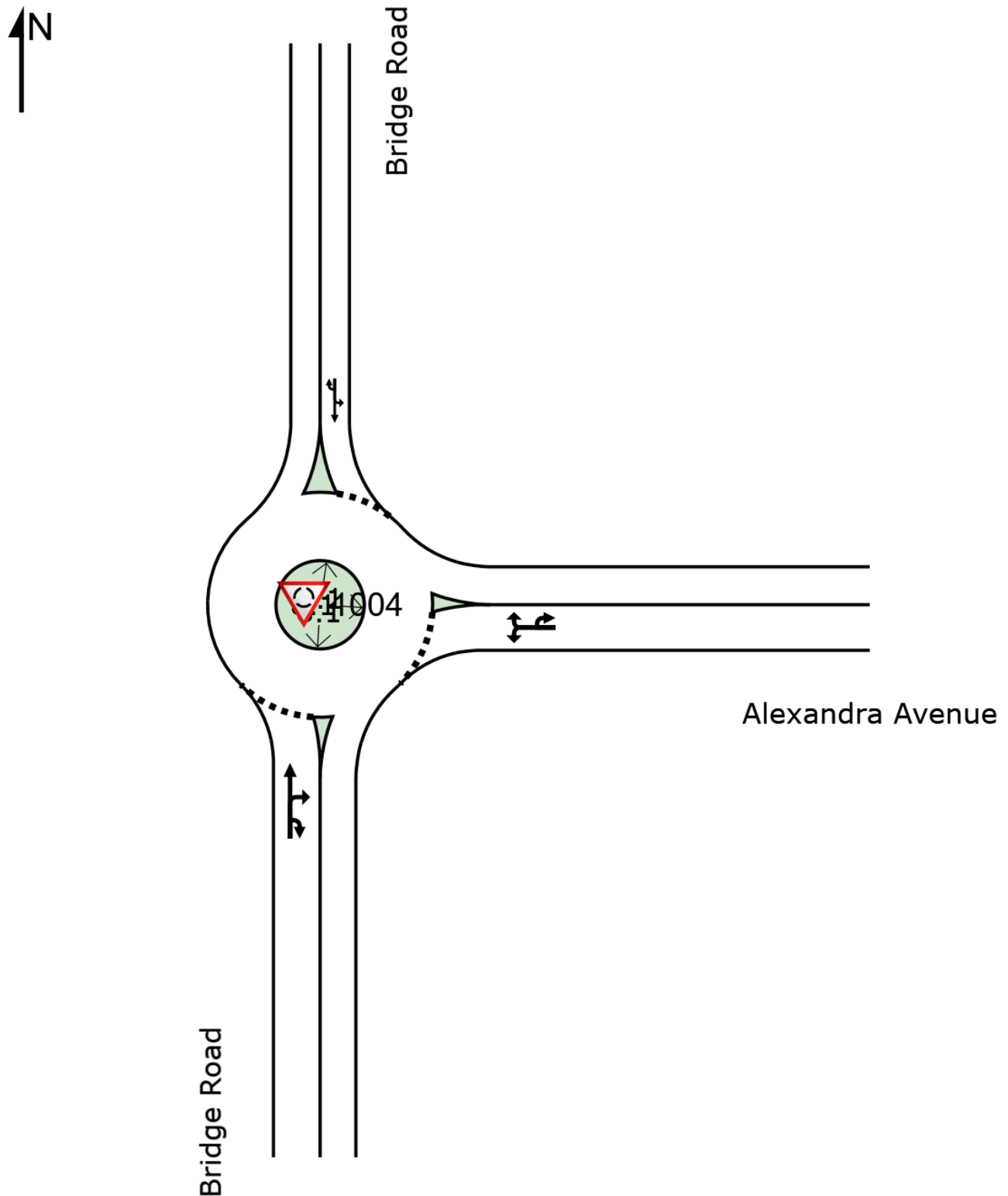
Site: 1004 [Bridge Rd - Alexandra Ave AM 2036 FBC (Site Folder: AM 2036 FBC)]

Network: 5 [AM 2036 FBC (Network Folder: General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge Road															
2	T1	All MCs	708	2.3	708	2.3	0.757	4.5	LOS A	4.2	30.2	0.38	0.52	0.38	25.0
3	R2	All MCs	370	0.7	370	0.7	0.757	7.6	LOS A	4.2	30.2	0.38	0.52	0.38	43.2
3u	U	All MCs	5	0.0	5	0.0	0.757	9.1	LOS A	4.2	30.2	0.38	0.52	0.38	25.0
Approach			1083	1.7	1083	1.7	0.757	5.5	LOS A	4.2	30.2	0.38	0.52	0.38	38.2
East: Alexandra Avenue															
4	L2	All MCs	123	5.1	123	5.1	0.340	7.8	LOS A	0.8	5.7	0.75	0.71	0.75	42.4
6	R2	All MCs	81	3.1	81	3.1	0.340	10.2	LOS A	0.8	5.7	0.75	0.71	0.75	42.4
6u	U	All MCs	3	0.0	3	0.0	0.340	12.6	LOS A	0.8	5.7	0.75	0.71	0.75	48.0
Approach			207	4.2	207	4.2	0.340	8.8	LOS A	0.8	5.7	0.75	0.71	0.75	42.5
North: Bridge Road															
7	L2	All MCs	238	0.5	216	0.5	1.136	150.9	LOS F	7.7	55.0	1.00	3.34	5.42	12.7
8	T1	All MCs	608	2.7	552	2.6	1.136	150.7	LOS F	7.7	55.0	1.00	3.34	5.42	1.6
9u	U	All MCs	4	0.0	3	0.0	1.136	155.0	LOS F	7.7	55.0	1.00	3.34	5.42	1.6
Approach			850	2.1	771	2.0	1.136	150.8	LOS F	7.7	55.0	1.00	3.34	5.42	5.4
All Vehicles			2140	2.1	2061	2.2	1.136	60.2	LOS E	7.7	55.0	0.65	1.60	2.31	13.8



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
AM 2036 FBC (Site Folder: AM 2036 FBC)]

Network: 5 [AM 2036 FBC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed

Input Phase Sequence: A, B, C

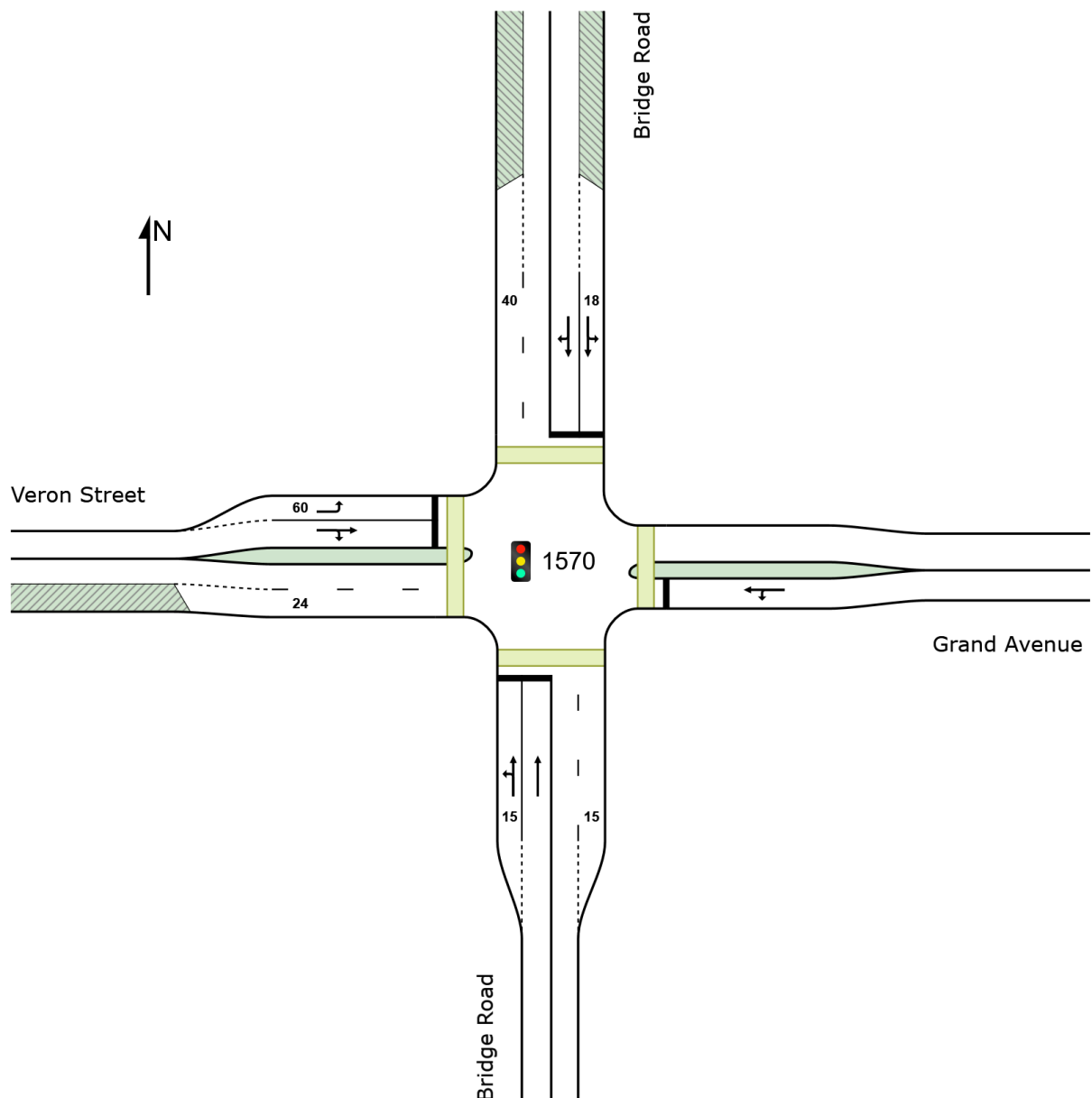
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

## Site Layout

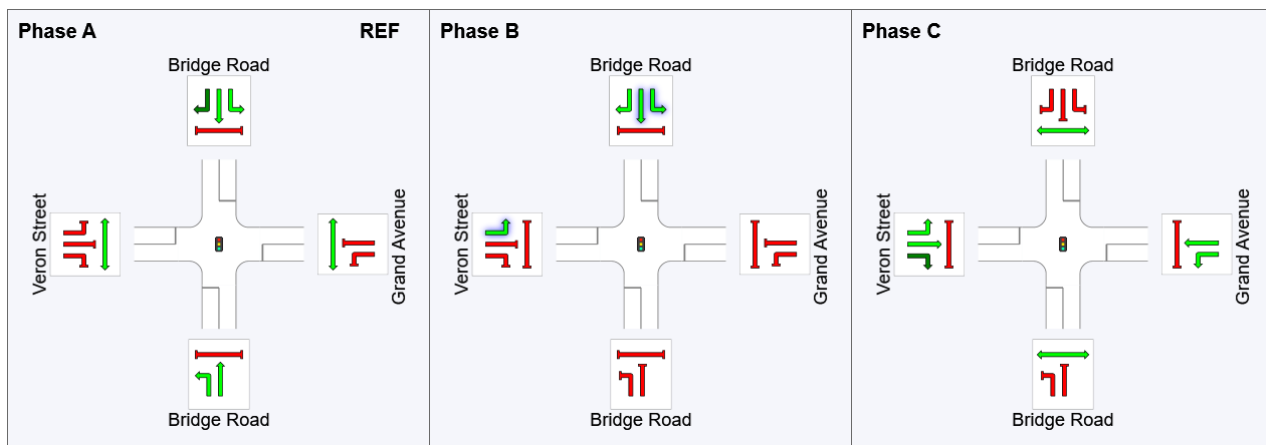
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%				[ Veh. veh	Dist ]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
South: Bridge Road															
1	L2	All MCs	38	0.0	38	0.0	0.285	32.3	LOS C	2.4	16.7	0.75	0.64	0.75	34.3
2	T1	All MCs	652	1.0	652	1.0	* 0.973	59.0	LOS E	15.1	106.7	0.94	1.28	1.57	5.8
Approach			690	0.9	690	0.9	0.973	57.5	LOS E	15.1	106.7	0.93	1.24	1.53	6.0
East: Grand Avenue															
4	L2	All MCs	13	0.0	13	0.0	0.149	31.2	LOS C	0.6	4.4	0.92	0.69	0.92	31.3
5	T1	All MCs	25	0.0	25	0.0	0.149	26.3	LOS B	0.6	4.4	0.92	0.69	0.92	36.8
Approach			38	0.0	38	0.0	0.149	28.0	LOS B	0.6	4.4	0.92	0.69	0.92	35.3
North: Bridge Road															
7	L2	All MCs	15	0.0	13	0.0	0.165	19.1	LOS B	1.4	9.8	0.40	0.35	0.40	44.4
8	T1	All MCs	485	2.6	404	2.6	0.800	19.1	LOS B	6.7	47.9	0.70	0.73	0.80	19.6
9	R2	All MCs	233	3.8	194	3.8	* 0.800	53.9	LOS D	6.7	47.9	0.97	1.08	1.17	28.3
Approach			733	2.9	611	2.9	0.800	30.2	LOS C	6.7	47.9	0.78	0.83	0.91	19.9
West: Veron Street															
10	L2	All MCs	414	3.0	414	3.0	0.535	20.3	LOS B	5.6	40.0	0.79	0.80	0.79	32.3
11	T1	All MCs	46	0.0	46	0.0	* 0.620	28.4	LOS B	2.5	17.8	0.99	0.83	1.08	35.3
12	R2	All MCs	89	1.4	89	1.4	0.620	34.0	LOS C	2.5	17.8	0.99	0.83	1.08	26.5
Approach			549	2.5	549	2.5	0.620	23.2	LOS B	5.6	40.0	0.84	0.80	0.86	31.7
All Vehicles			2010	2.1	1888	2.2	0.973	38.1	LOS C	15.1	106.7	0.85	0.97	1.12	18.3

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	28	46
Green Time (sec)	22	12	8
Phase Time (sec)	28	18	14
Phase Split	47%	30%	23%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark PM 2036 FBC (Site Folder: PM 2036  
FBC)]**



**Network: 6 [PM 2036 FBC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 115 seconds (Site User-Given Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage - Import (2)**

**Input Phase Sequence: A, B, C, C1**

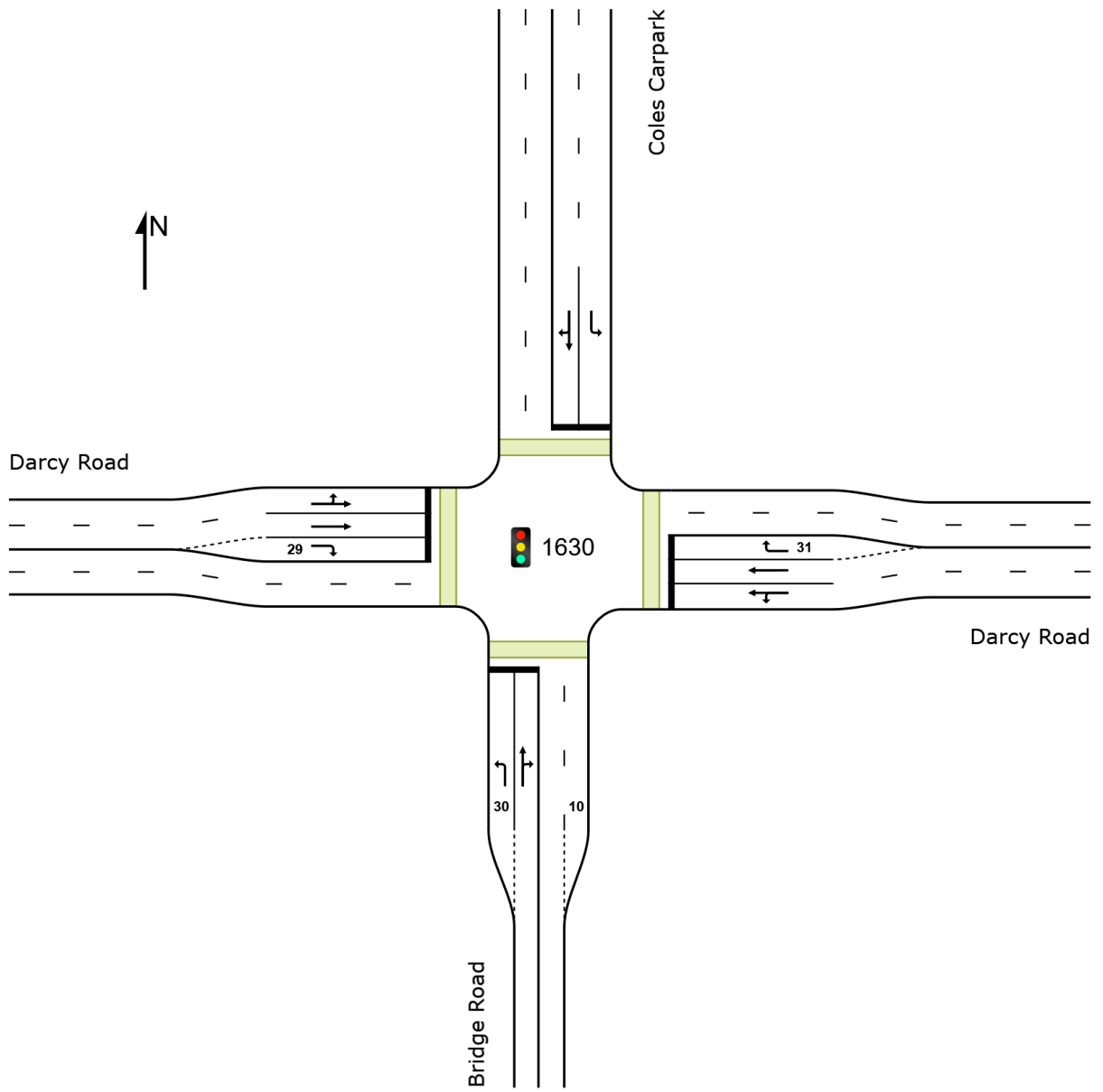
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

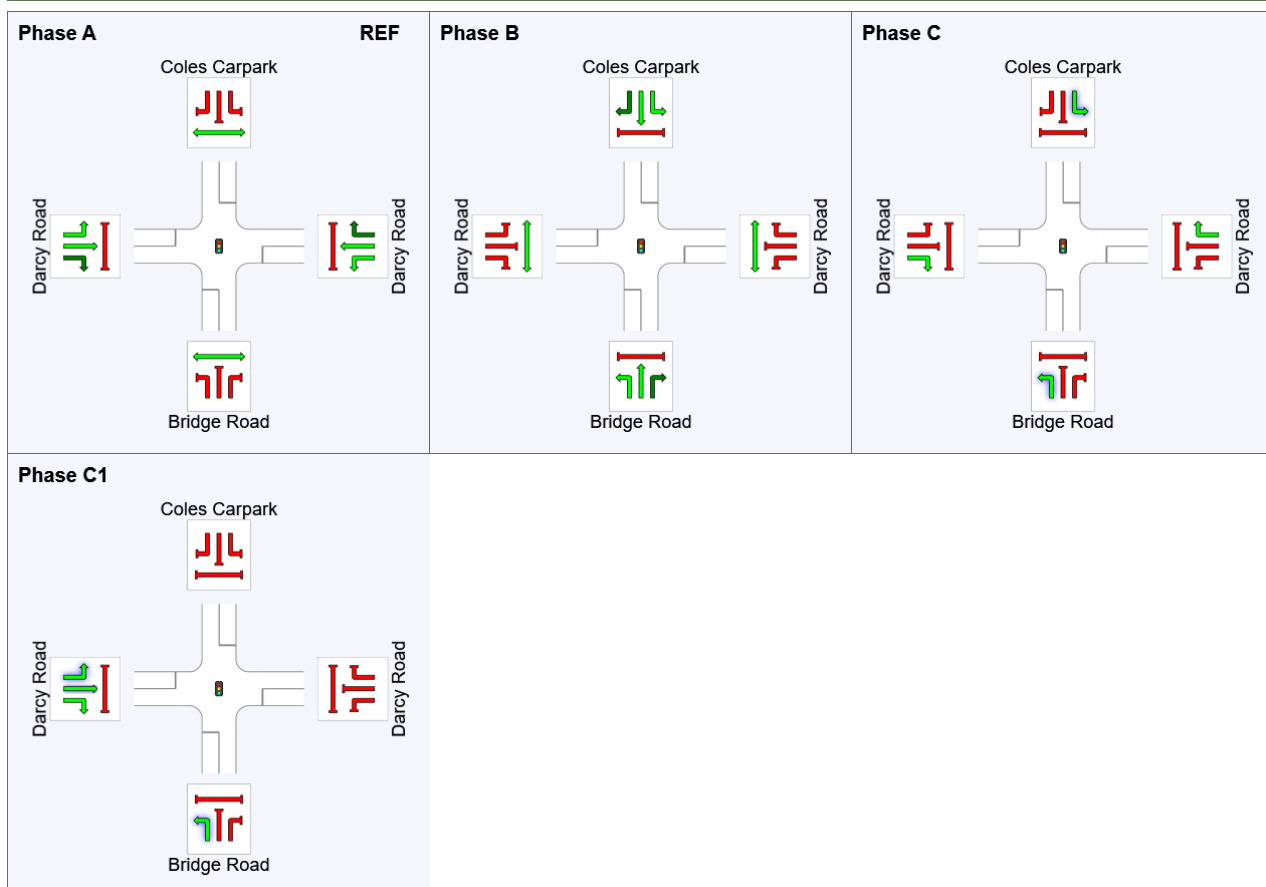
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
1	L2	All MCs	262	0.9	246	0.9	0.241	18.4	LOS B	4.3	30.0	0.55	0.71	0.55	30.4
2	T1	All MCs	40	0.0	38	0.0	*0.682	59.2	LOS E	4.3	31.0	1.00	0.85	1.09	13.9
3	R2	All MCs	88	6.9	83	6.9	0.682	62.9	LOS E	4.3	31.0	1.00	0.85	1.09	20.8
Approach			390	2.2	366	2.2	0.682	32.6	LOS C	4.3	31.0	0.70	0.75	0.72	23.2
East: Darcy Road															
4	L2	All MCs	395	1.9	395	1.9	*0.893	58.1	LOS E	20.5	145.5	1.00	1.01	1.19	16.3
5	T1	All MCs	697	0.9	697	0.9	0.893	70.2	LOS E	20.9	147.2	1.00	1.04	1.18	21.2
6	R2	All MCs	27	0.0	27	0.0	0.063	44.1	LOS D	0.3	2.4	0.65	0.71	0.65	18.9
Approach			1119	1.2	1119	1.2	0.893	65.3	LOS E	20.9	147.2	0.99	1.02	1.17	16.9
North: Coles Carpark															
7	L2	All MCs	31	0.0	31	0.0	0.065	34.9	LOS C	0.8	5.6	0.79	0.59	0.79	16.7
8	T1	All MCs	66	0.0	66	0.0	0.578	51.6	LOS D	3.6	25.4	0.99	0.79	1.00	10.4
9	R2	All MCs	40	0.0	40	0.0	0.578	59.3	LOS E	3.6	25.4	0.99	0.79	1.00	12.6
Approach			137	0.0	137	0.0	0.578	50.2	LOS D	3.6	25.4	0.95	0.75	0.95	12.5
West: Darcy Road															
10	L2	All MCs	67	0.0	67	0.0	0.224	15.0	LOS B	3.8	26.6	0.45	0.49	0.45	16.9
11	T1	All MCs	471	1.0	471	1.0	0.224	13.9	LOS A	3.8	26.7	0.45	0.43	0.45	39.8
12	R2	All MCs	464	1.3	464	1.3	*0.789	42.0	LOS C	11.8	83.4	0.92	0.95	0.97	13.3
Approach			1002	1.1	1002	1.1	0.789	27.0	LOS B	11.8	83.4	0.66	0.67	0.69	22.4
All Vehicles			2649	1.2	2625	1.3	0.893	45.3	LOS D	20.9	147.2	0.82	0.84	0.91	18.7

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	42	65	79
Green Time (sec)	40	17	8	32
Phase Time (sec)	46	23	12	34
Phase Split	40%	20%	10%	30%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

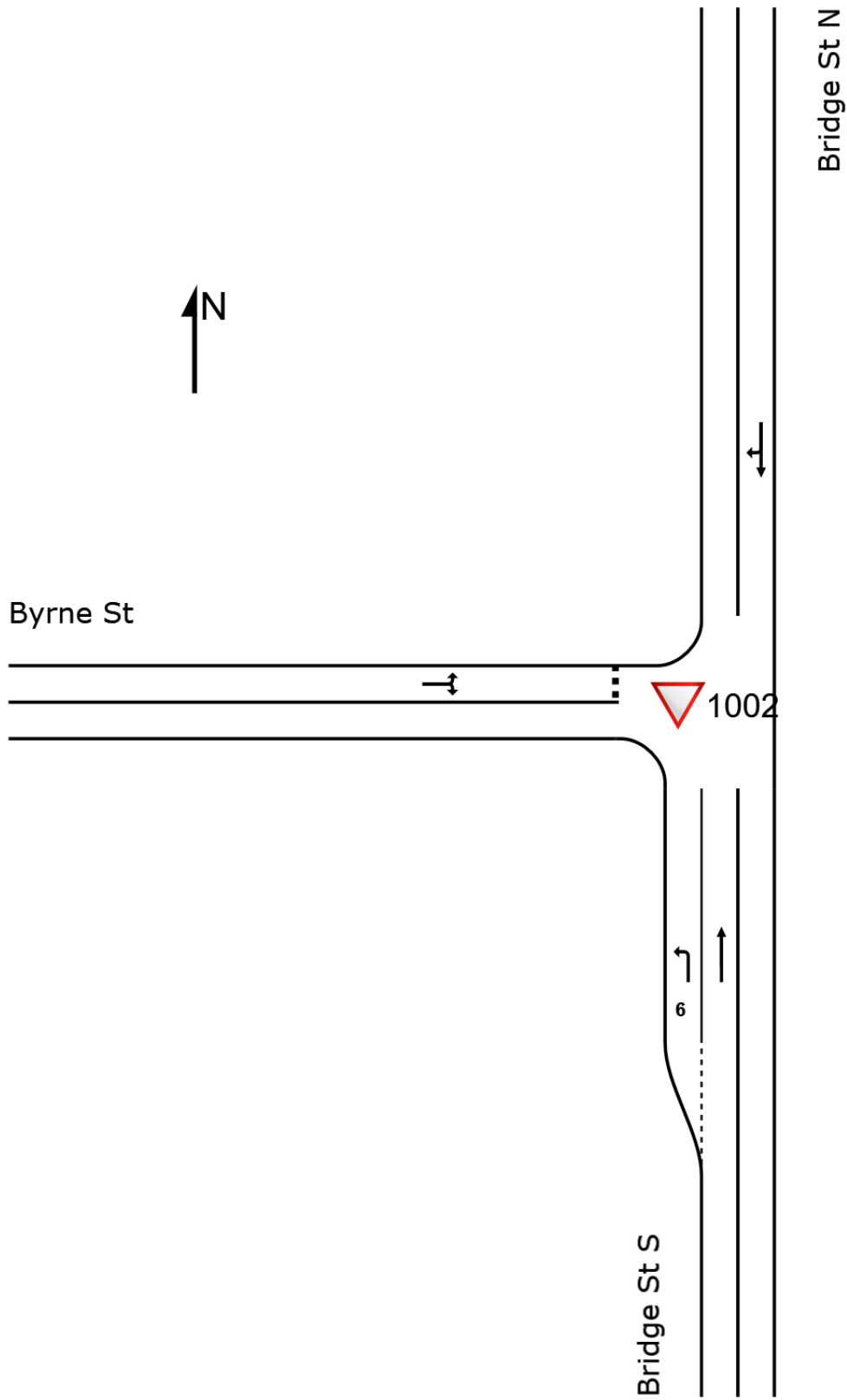
 **Site: 1002 [Bridge St - Byrne St PM 2036 FBC (Site Folder: PM 2036 FBC)]**

 **Network: 6 [PM 2036 FBC (Network Folder: General)]**

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	67	1.8	62	1.8	0.034	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	50.9
2	T1	All MCs	410	2.7	379	2.7	0.198	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			477	2.6	441	2.6	0.198	0.4	NA	0.0	0.0	0.00	0.07	0.00	53.4
North: Bridge St N															
8	T1	All MCs	905	1.5	905	1.5	1.004	15.0	LOS B	7.8	55.5	1.00	0.90	2.34	29.3
9	R2	All MCs	39	0.0	39	0.0	1.004	68.1	LOS E	7.8	55.5	1.00	0.90	2.34	41.8
Approach			944	1.4	944	1.4	1.004	17.2	NA	7.8	55.5	1.00	0.90	2.34	30.3
West: Byrne St															
10	L2	All MCs	11	0.0	11	0.0	0.504	10.0	LOS A	0.4	3.1	0.88	1.02	1.13	31.9
12	R2	All MCs	49	2.5	49	2.5	0.504	31.0	LOS C	0.4	3.1	0.88	1.02	1.13	31.9
Approach			60	2.0	60	2.0	0.504	27.1	LOS B	0.4	3.1	0.88	1.02	1.13	31.9
All Vehicles			1482	1.8	1446	1.9	1.004	12.5	NA	7.8	55.5	0.69	0.65	1.57	32.4



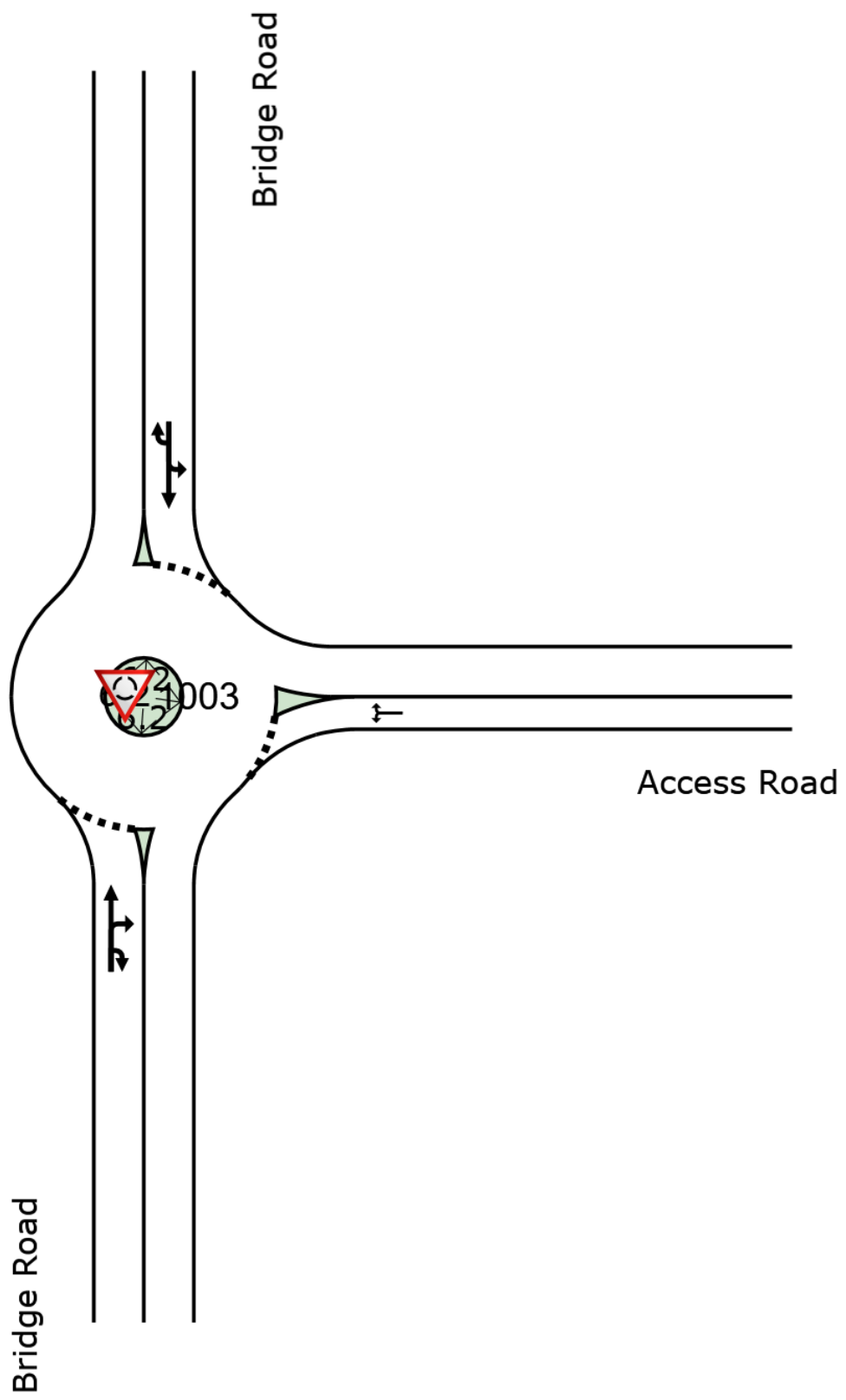
 **Site: 1003 [Bridge Rd - Site Access Rd PM 2036 FBC (Site Folder: PM 2036 FBC)]**

 **Network: 6 [PM 2036 FBC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				
			veh/h		veh/h					veh	m			km/h	
South: Bridge Road															
2	T1	All MCs	450	2.4	420	2.4	0.338	3.5	LOS A	1.1	8.0	0.20	0.46	0.20	26.5
3	R2	All MCs	70	0.0	65	0.0	0.338	6.2	LOS A	1.1	8.0	0.20	0.46	0.20	37.9
3u	U	All MCs	33	0.0	31	0.0	0.338	7.7	LOS A	1.1	8.0	0.20	0.46	0.20	26.5
Approach			553	2.0	516	2.0	0.338	4.1	LOS A	1.1	8.0	0.20	0.46	0.20	29.9
East: Access Road															
4	L2	All MCs	67	0.0	67	0.0	0.235	14.1	LOS A	0.7	4.9	0.96	0.80	0.96	27.0
6	R2	All MCs	29	4.2	29	4.2	0.235	17.1	LOS B	0.7	4.9	0.96	0.80	0.96	27.0
Approach			97	1.3	97	1.3	0.235	15.0	LOS B	0.7	4.9	0.96	0.80	0.96	27.0
North: Bridge Road															
7	L2	All MCs	44	2.8	44	2.8	0.798	4.3	LOS A	4.2	30.0	0.71	0.48	0.71	37.2
8	T1	All MCs	907	1.5	903	1.5	0.798	4.1	LOS A	4.2	30.0	0.71	0.48	0.71	20.7
9u	U	All MCs	2	0.0	2	0.0	0.798	8.1	LOS A	4.2	30.0	0.71	0.48	0.71	20.7
Approach			953	1.5	950	1.5	0.798	4.1	LOS A	4.2	30.0	0.71	0.48	0.71	22.9
All Vehicles			1603	1.7	1562	1.7	0.798	4.8	LOS A	4.2	30.0	0.56	0.50	0.56	26.1





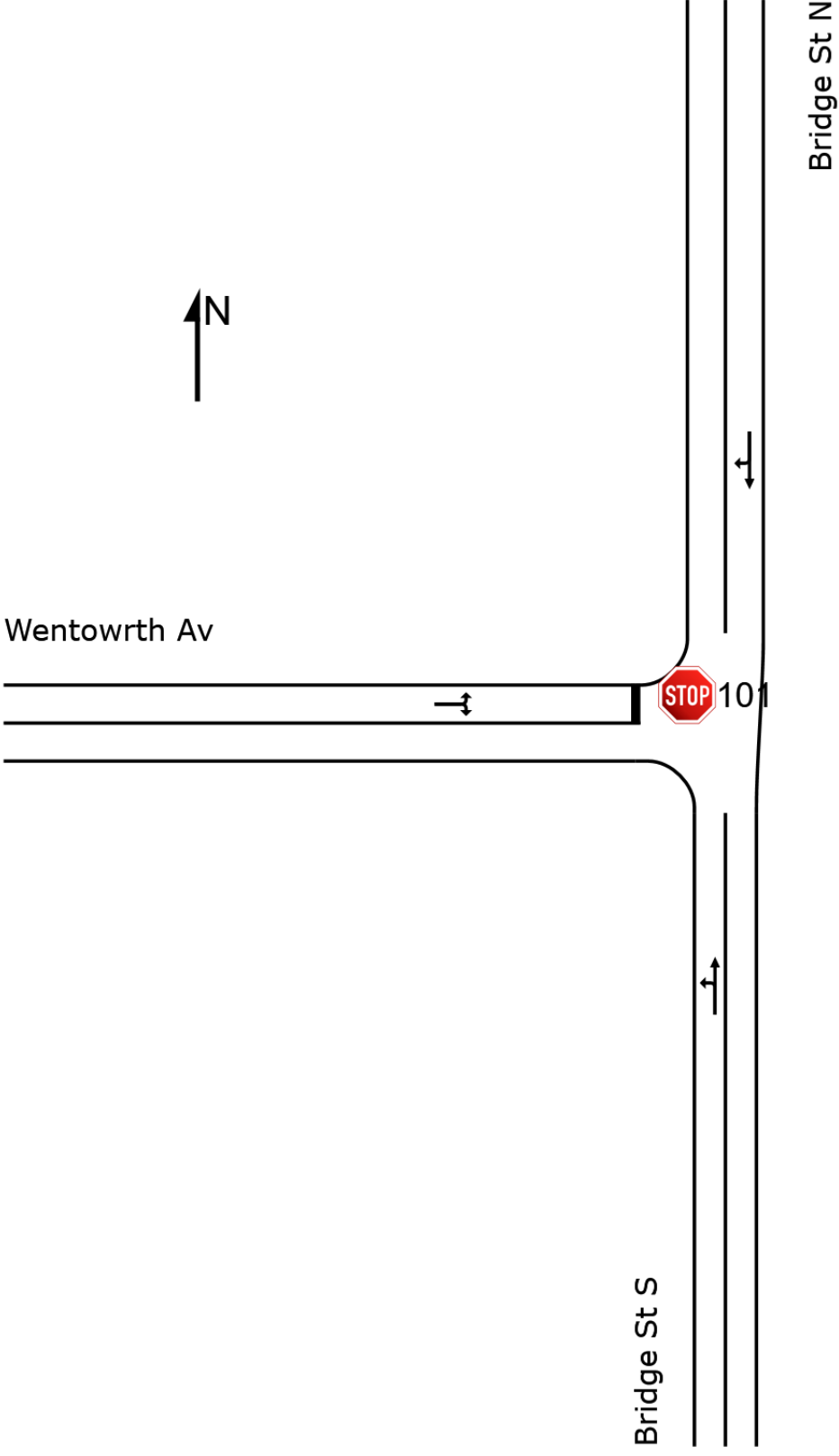
**Site: 101 [Bridge St - Wentworth Av PM 2036 FBC (Site Folder: PM 2036 FBC)]**   **Network: 6 [PM 2036 FBC (Network Folder: General)]**

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New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
			veh/h		veh/h					veh	m				
South: Bridge St S															
1	L2	All MCs	187	0.7	178	0.6	0.351	4.1	LOS A	0.0	0.0	0.00	0.16	0.00	53.8
2	T1	All MCs	494	2.2	469	2.2	0.351	0.0	LOS A	0.0	0.0	0.00	0.16	0.00	46.5
Approach			681	1.8	646	1.7	0.351	1.1	NA	0.0	0.0	0.00	0.16	0.00	51.9
North: Bridge St N															
8	T1	All MCs	989	1.4	983	1.4	1.064	63.1	LOS E	7.8	55.0	1.00	1.05	6.57	3.4
9	R2	All MCs	27	0.0	27	0.0	1.064	143.2	LOS F	7.8	55.0	1.00	1.05	6.57	19.9
Approach			1015	1.3	1010	1.3	1.064	65.2	NA	7.8	55.0	1.00	1.05	6.57	4.0
West: Wentowrth Av															
10	L2	All MCs	57	0.0	57	0.0	1.533	495.8	LOS F	13.1	91.4	1.00	4.30	12.74	3.4
12	R2	All MCs	82	0.0	82	0.0	1.533	537.5	LOS F	13.1	91.4	1.00	4.30	12.74	3.4
Approach			139	0.0	139	0.0	1.533	520.3	LOS F	13.1	91.4	1.00	4.30	12.74	3.4
All Vehicles			1836	1.4	1796	1.4	1.533	77.5	NA	13.1	91.4	0.64	0.98	4.69	6.5



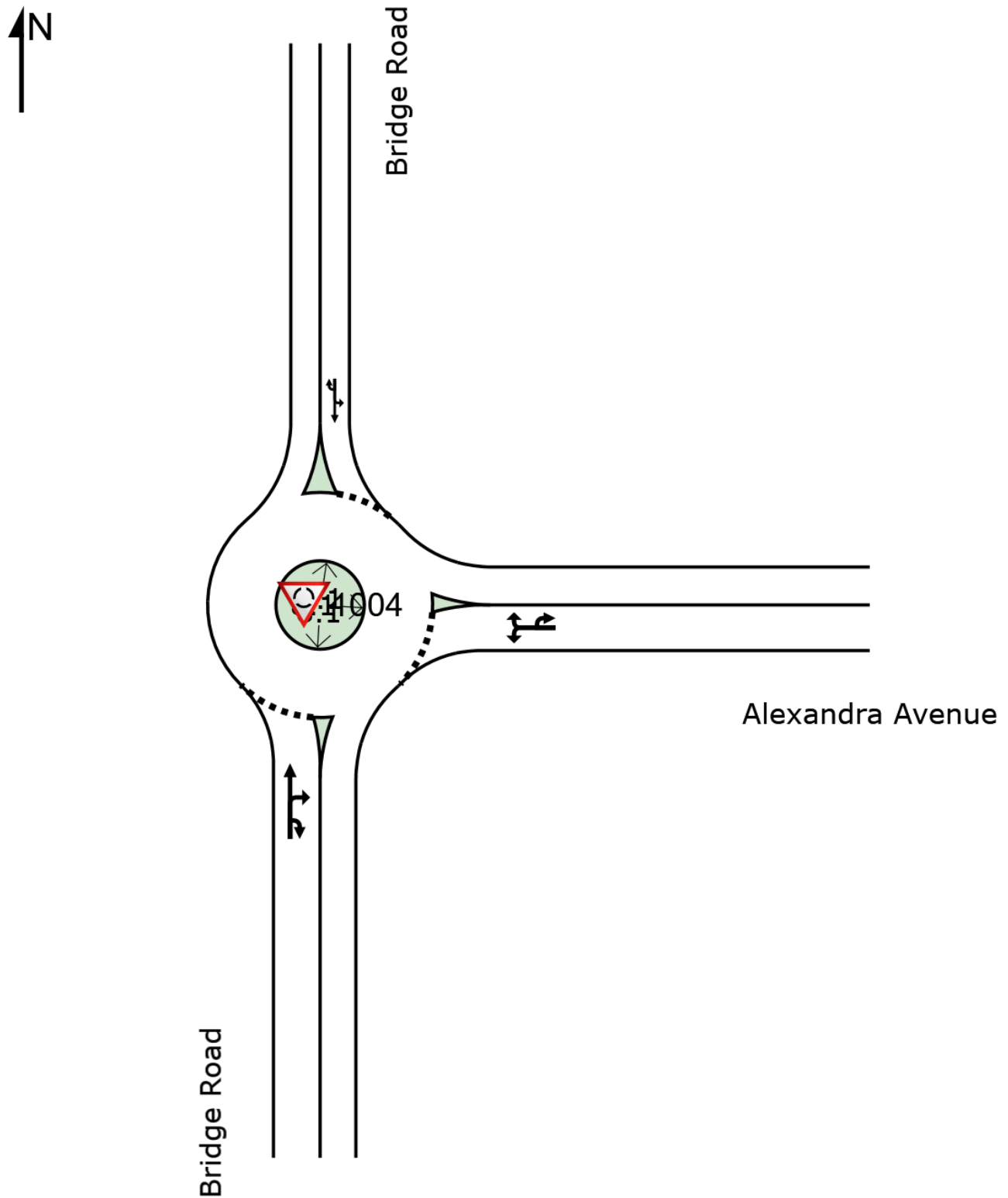
Site: 1004 [Bridge Rd - Alexandra Ave PM 2036 FBC (Site Folder: PM 2036 FBC)]

Network: 6 [PM 2036 FBC (Network Folder: General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	517	2.4	483	2.3	0.528	4.6	LOS A	1.7	12.3	0.39	0.55	0.39	25.3
3	R2	All MCs	190	0.6	177	0.6	0.528	7.7	LOS A	1.7	12.3	0.39	0.55	0.39	43.3
3u	U	All MCs	2	0.0	2	0.0	0.528	9.2	LOS A	1.7	12.3	0.39	0.55	0.39	25.3
Approach			710	1.9	662	1.9	0.528	5.4	LOS A	1.7	12.3	0.39	0.55	0.39	37.0
East: Alexandra Avenue															
4	L2	All MCs	199	0.0	199	0.0	0.732	13.6	LOS A	2.4	17.0	1.00	0.93	1.33	38.3
6	R2	All MCs	158	0.0	158	0.0	0.732	16.1	LOS B	2.4	17.0	1.00	0.93	1.33	38.3
6u	U	All MCs	1	0.0	1	0.0	0.732	18.7	LOS B	2.4	17.0	1.00	0.93	1.33	45.2
Approach			358	0.0	358	0.0	0.732	14.8	LOS B	2.4	17.0	1.00	0.93	1.33	38.3
North: Bridge Road															
7	L2	All MCs	203	0.0	185	0.0	1.399	371.2	LOS F	7.8	55.0	1.00	4.76	7.99	6.1
8	T1	All MCs	860	1.3	786	1.3	1.399	371.0	LOS F	7.8	55.0	1.00	4.76	7.99	0.7
9u	U	All MCs	1	0.0	1	0.0	1.399	375.4	LOS F	7.8	55.0	1.00	4.76	7.99	0.7
Approach			1064	1.0	972	1.1	1.399	371.0	LOS F	7.8	55.0	1.00	4.76	7.99	1.8
All Vehicles			2132	1.1	1993	1.2	1.399	185.5	LOS F	7.8	55.0	0.80	2.67	4.26	5.2



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
PM 2036 FBC (Site Folder: PM 2036 FBC)]

Network: 6 [PM 2036 FBC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 45 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed - Import

Input Phase Sequence: A, B, C

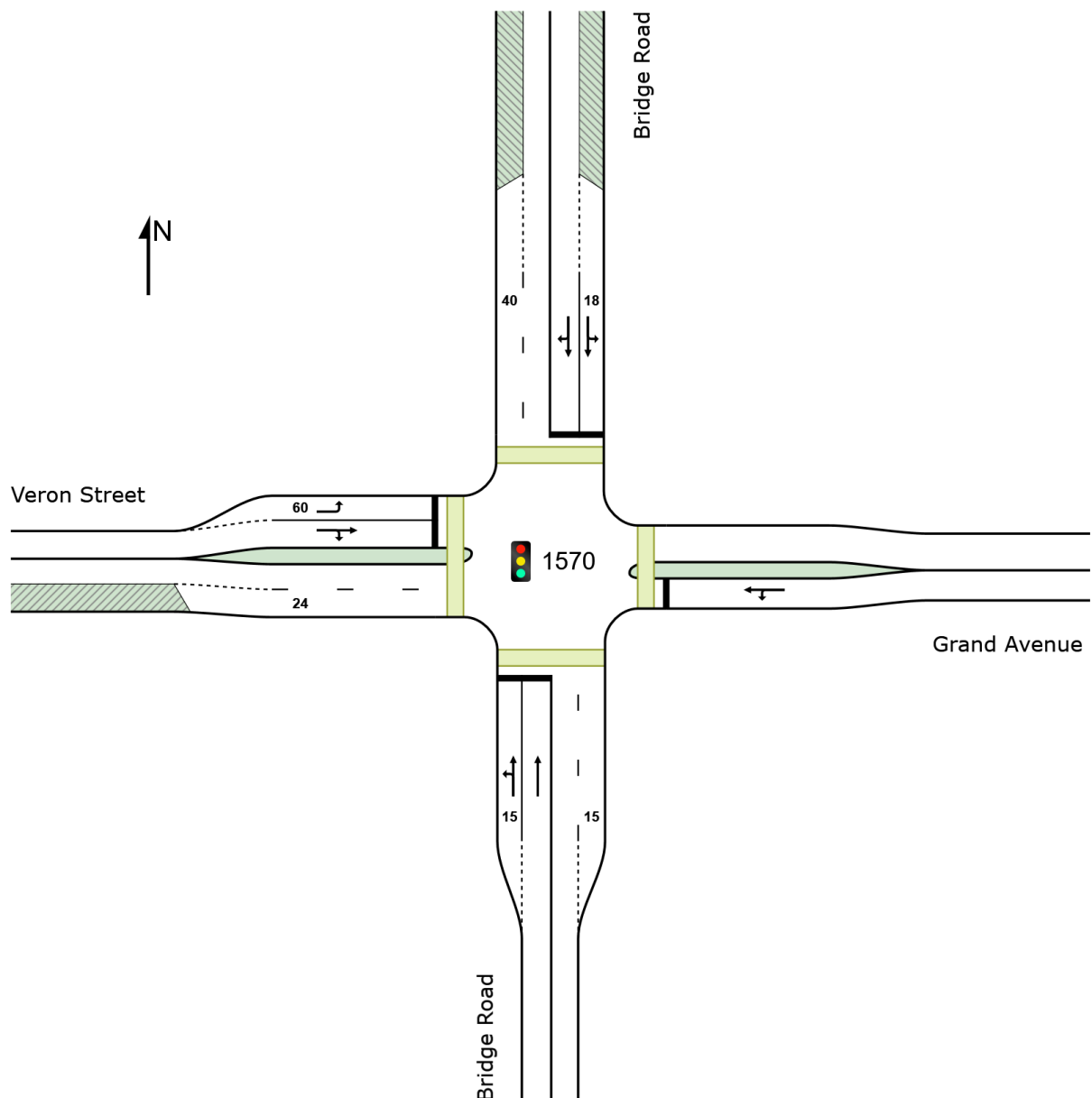
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

## Site Layout

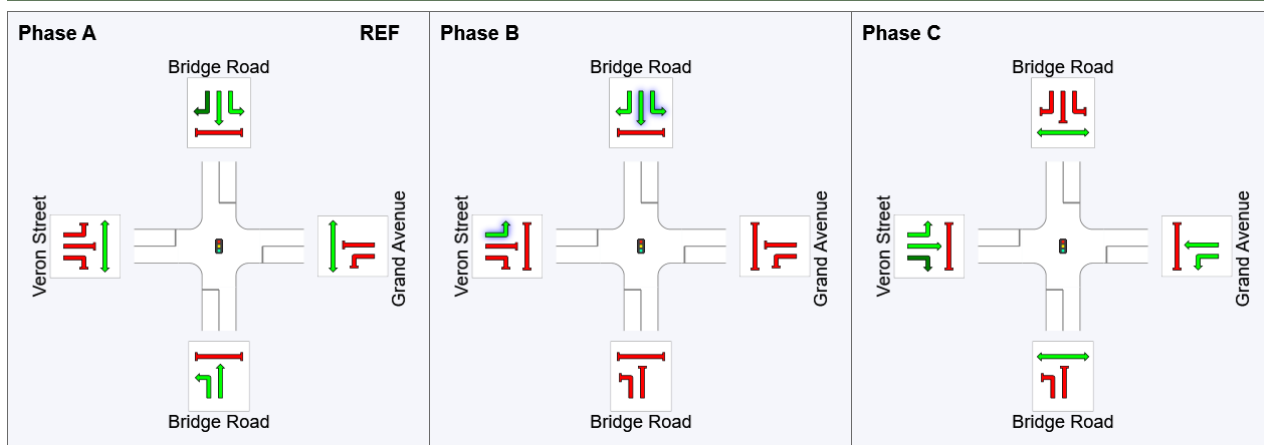
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%				[ Veh. veh	Dist ]				km/h
			veh/h		veh/h		v/c	sec			m				
South: Bridge Road															
1	L2	All MCs	66	0.0	66	0.0	0.334	32.6	LOS C	1.5	10.7	0.90	0.74	0.90	31.8
2	T1	All MCs	439	2.2	439	2.2	* 1.142	151.3	LOS F	17.9	128.0	0.99	2.17	3.62	2.0
Approach			505	1.9	505	1.9	1.142	135.8	LOS F	17.9	128.0	0.97	1.98	3.27	3.5
East: Grand Avenue															
4	L2	All MCs	13	9.1	13	9.1	0.308	23.7	LOS B	1.3	9.2	0.91	0.71	0.91	35.0
5	T1	All MCs	91	0.0	91	0.0	* 0.308	18.9	LOS B	1.3	9.2	0.91	0.71	0.91	40.1
Approach			104	1.2	104	1.2	0.308	19.6	LOS B	1.3	9.2	0.91	0.71	0.91	39.6
North: Bridge Road															
7	L2	All MCs	11	0.0	8	0.0	0.186	16.3	LOS B	1.3	9.3	0.52	0.44	0.52	43.4
8	T1	All MCs	673	1.5	484	1.4	0.898	22.4	LOS B	8.4	59.1	0.82	0.92	1.13	17.7
9	R2	All MCs	379	0.3	273	0.3	* 0.898	40.9	LOS C	8.4	59.1	1.00	1.22	1.51	28.1
Approach			1063	1.0	765	1.0	0.898	28.9	LOS C	8.4	59.1	0.88	1.03	1.26	20.8
West: Veron Street															
10	L2	All MCs	265	1.4	265	1.4	0.276	11.6	LOS A	2.0	14.1	0.58	0.71	0.58	37.8
11	T1	All MCs	15	0.0	15	0.0	0.231	17.8	LOS B	0.8	5.3	0.91	0.72	0.91	38.6
12	R2	All MCs	45	0.0	45	0.0	0.231	24.3	LOS B	0.8	5.3	0.91	0.72	0.91	30.5
Approach			325	1.1	325	1.1	0.276	13.7	LOS A	2.0	14.1	0.64	0.71	0.64	36.6
All Vehicles			1998	1.3	1699	1.5	1.142	57.2	LOS E	17.9	128.0	0.86	1.23	1.72	14.7



## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	15	31
Green Time (sec)	9	10	8
Phase Time (sec)	15	16	14
Phase Split	33%	36%	31%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark AM 2036 FPC (Site Folder: AM 2036  
FPC)]**



**Network: 9 [AM 2036 FPC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 150 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage**

**Input Phase Sequence: A, B, C, C1**

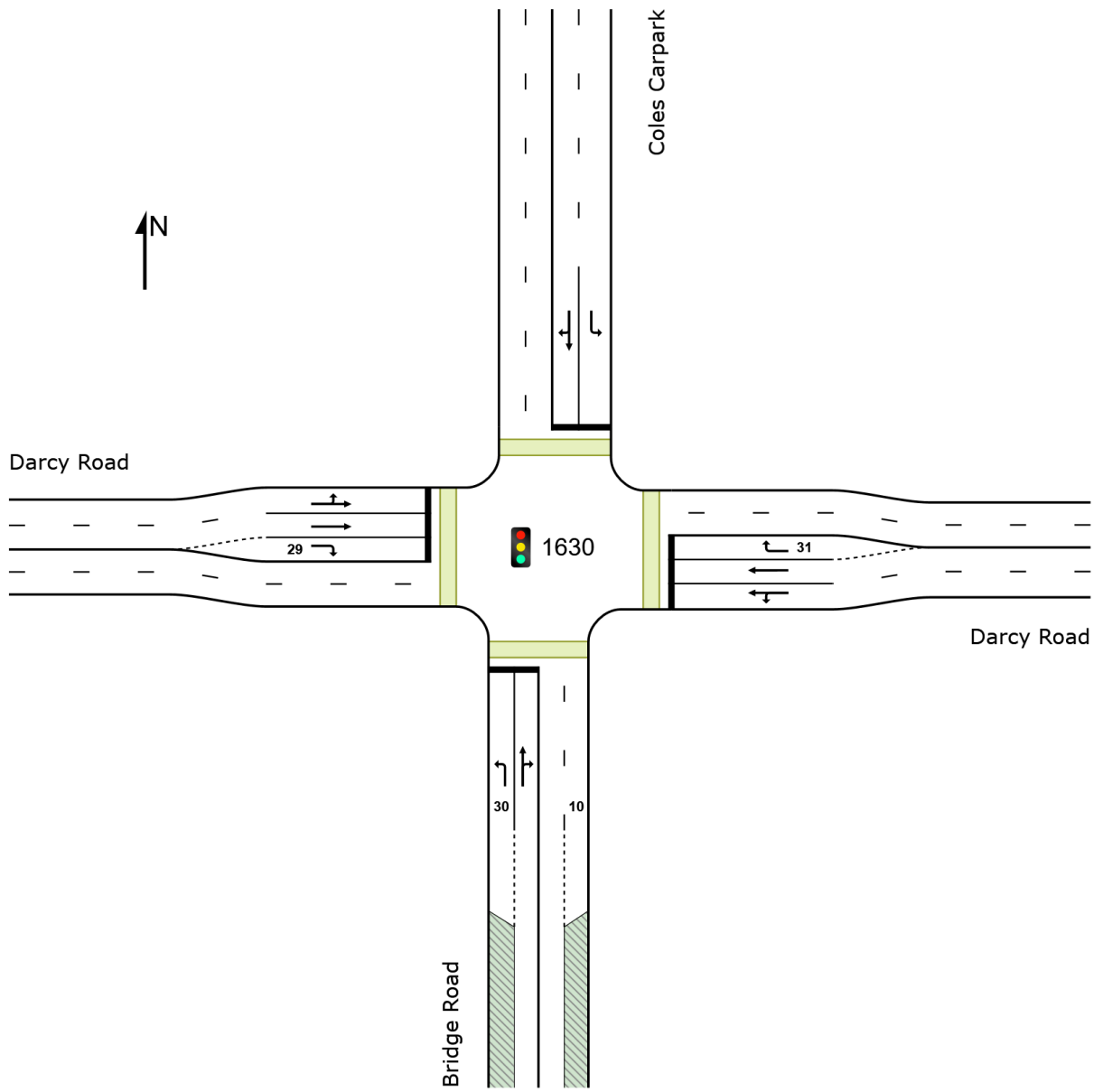
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

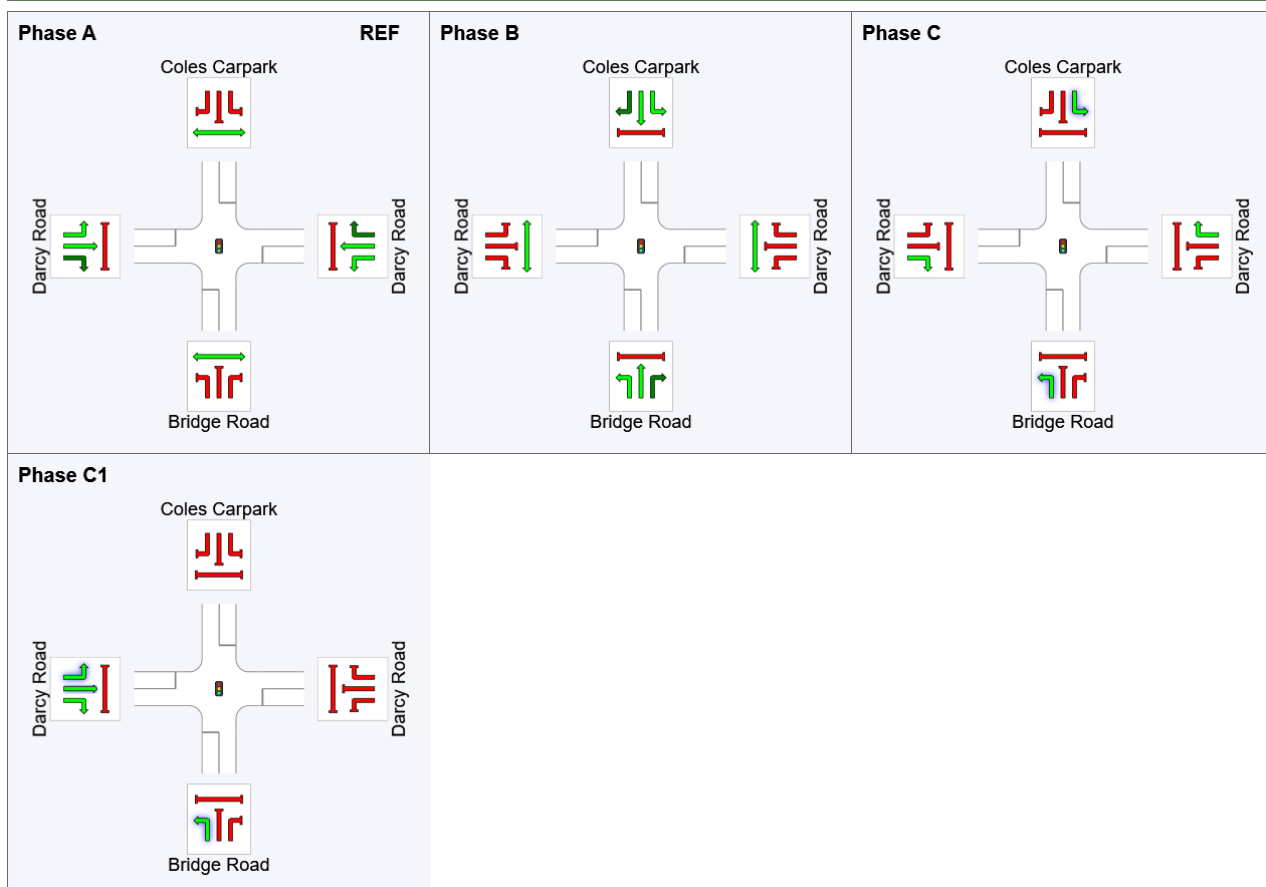
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
1	L2	All MCs	191	2.6	189	2.6	0.160	51.3	LOS D	3.2	22.8	0.41	0.66	0.41	32.4
2	T1	All MCs	21	0.0	20	0.0	* 1.063	189.3	LOS F	25.2	181.7	1.00	1.28	1.69	9.5
3	R2	All MCs	345	3.6	341	3.6	1.063	190.8	LOS F	25.2	181.7	1.00	1.28	1.69	11.3
Approach			557	3.1	550	3.2	1.063	142.8	LOS F	25.2	181.7	0.80	1.07	1.25	10.9
East: Darcy Road															
4	L2	All MCs	387	3.2	387	3.2	1.059	147.9	LOS F	32.9	237.8	1.00	1.28	1.61	7.7
5	T1	All MCs	581	4.1	581	4.1	* 1.059	176.3	LOS F	32.9	237.8	1.00	1.41	1.62	10.4
6	R2	All MCs	20	0.0	20	0.0	0.145	74.8	LOS F	0.4	2.8	0.82	0.72	0.82	17.4
Approach			987	3.7	987	3.7	1.059	163.1	LOS F	32.9	237.8	1.00	1.35	1.60	8.5
North: Coles Carpark															
7	L2	All MCs	14	0.0	14	0.0	0.020	31.0	LOS C	0.4	2.7	0.65	0.47	0.65	17.1
8	T1	All MCs	27	0.0	27	0.0	0.139	39.1	LOS C	1.8	12.5	0.77	0.61	0.77	11.2
9	R2	All MCs	26	4.8	26	4.8	0.139	44.7	LOS D	1.8	12.5	0.77	0.61	0.77	13.5
Approach			67	1.9	67	1.9	0.139	39.7	LOS C	1.8	12.5	0.75	0.58	0.75	13.4
West: Darcy Road															
10	L2	All MCs	46	2.7	46	2.7	0.786	35.1	LOS C	27.9	198.7	0.87	0.81	0.87	14.9
11	T1	All MCs	1339	1.7	1339	1.7	0.786	38.7	LOS C	27.9	198.7	0.87	0.80	0.87	28.1
12	R2	All MCs	276	3.2	276	3.2	* 1.042	143.7	LOS F	17.1	123.3	1.00	1.26	1.67	3.8
Approach			1661	2.0	1661	2.0	1.042	56.0	LOS D	27.9	198.7	0.89	0.87	1.00	17.5
All Vehicles			3273	2.7	3266	2.7	1.063	102.7	LOS F	32.9	237.8	0.90	1.04	1.22	12.2

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	43	98	108
Green Time (sec)	41	49	4	38
Phase Time (sec)	47	55	8	40
Phase Split	31%	37%	5%	27%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

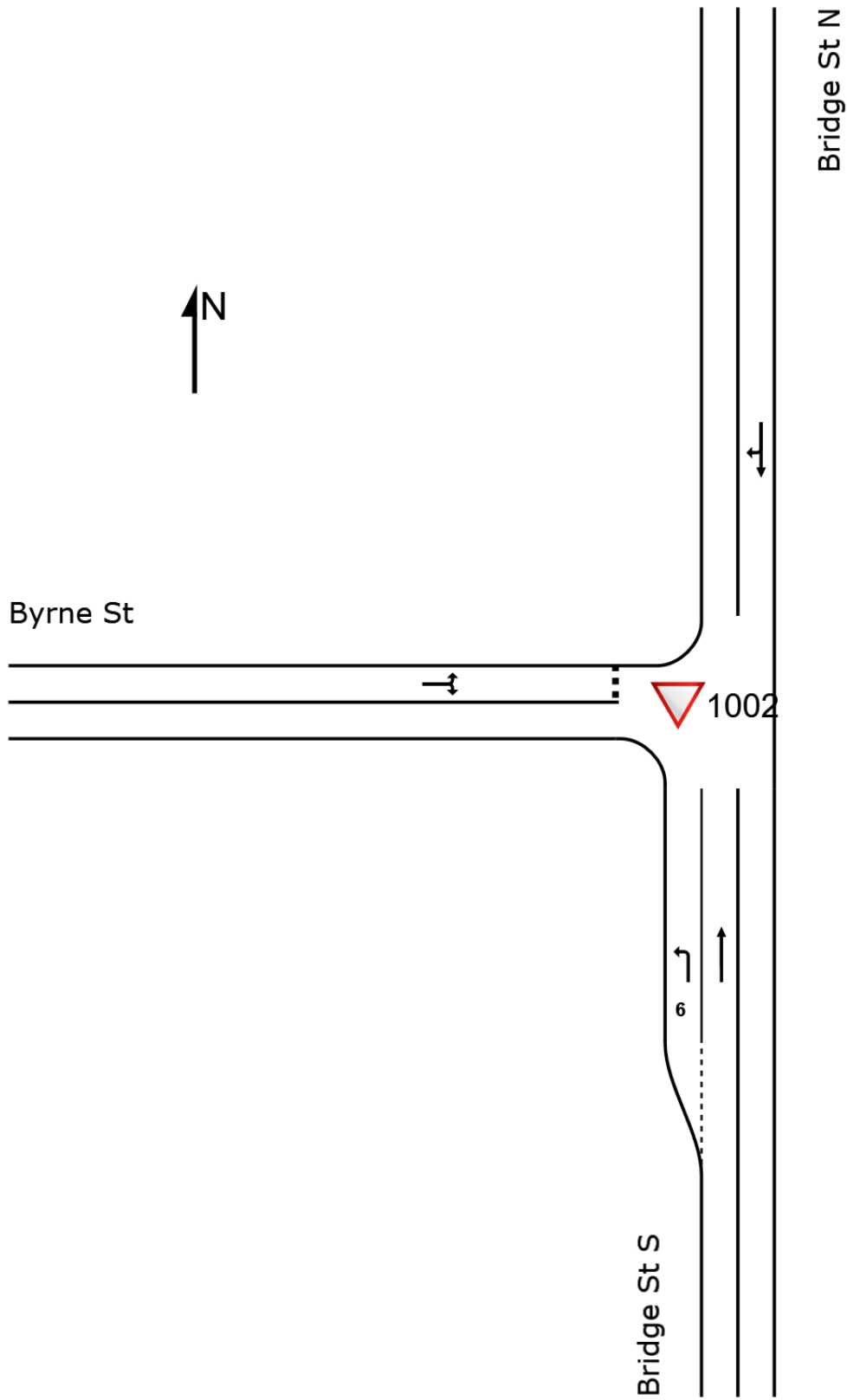
 **Site: 1002 [Bridge St - Byrne St AM 2036 FPC (Site Folder: AM 2036 FPC)]**

 **Network: 9 [AM 2036 FPC (Network Folder: General)]**

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	152	0.8	150	0.8	0.081	3.1	LOS A	0.0	0.0	0.00	0.53	51.0
2	T1	All MCs	551	3.2	544	3.2	0.336	0.0	LOS A	0.0	0.0	0.00	0.00	59.8
Approach			703	2.7	694	2.7	0.336	0.7	NA	0.0	0.0	0.00	0.11	52.6
North: Bridge St N														
8	T1	All MCs	664	3.0	633	3.0	0.368	0.4	LOS A	15.1	108.0	0.08	0.10	57.2
9	R2	All MCs	25	0.0	24	0.0	0.368	10.6	LOS A	15.1	108.0	0.08	0.10	55.5
Approach			689	2.9	657	2.9	0.368	0.8	NA	15.1	108.0	0.08	0.10	57.0
West: Byrne St														
10	L2	All MCs	5	0.0	5	0.0	0.346	9.2	LOS A	1.0	6.9	0.85	0.97	35.4
12	R2	All MCs	41	0.0	41	0.0	0.346	22.9	LOS B	1.0	6.9	0.85	0.97	35.4
Approach			46	0.0	46	0.0	0.346	21.4	LOS B	1.0	6.9	0.85	0.97	35.4
All Vehicles			1438	2.7	1397	2.8	0.368	1.4	NA	15.1	108.0	0.06	0.13	53.2





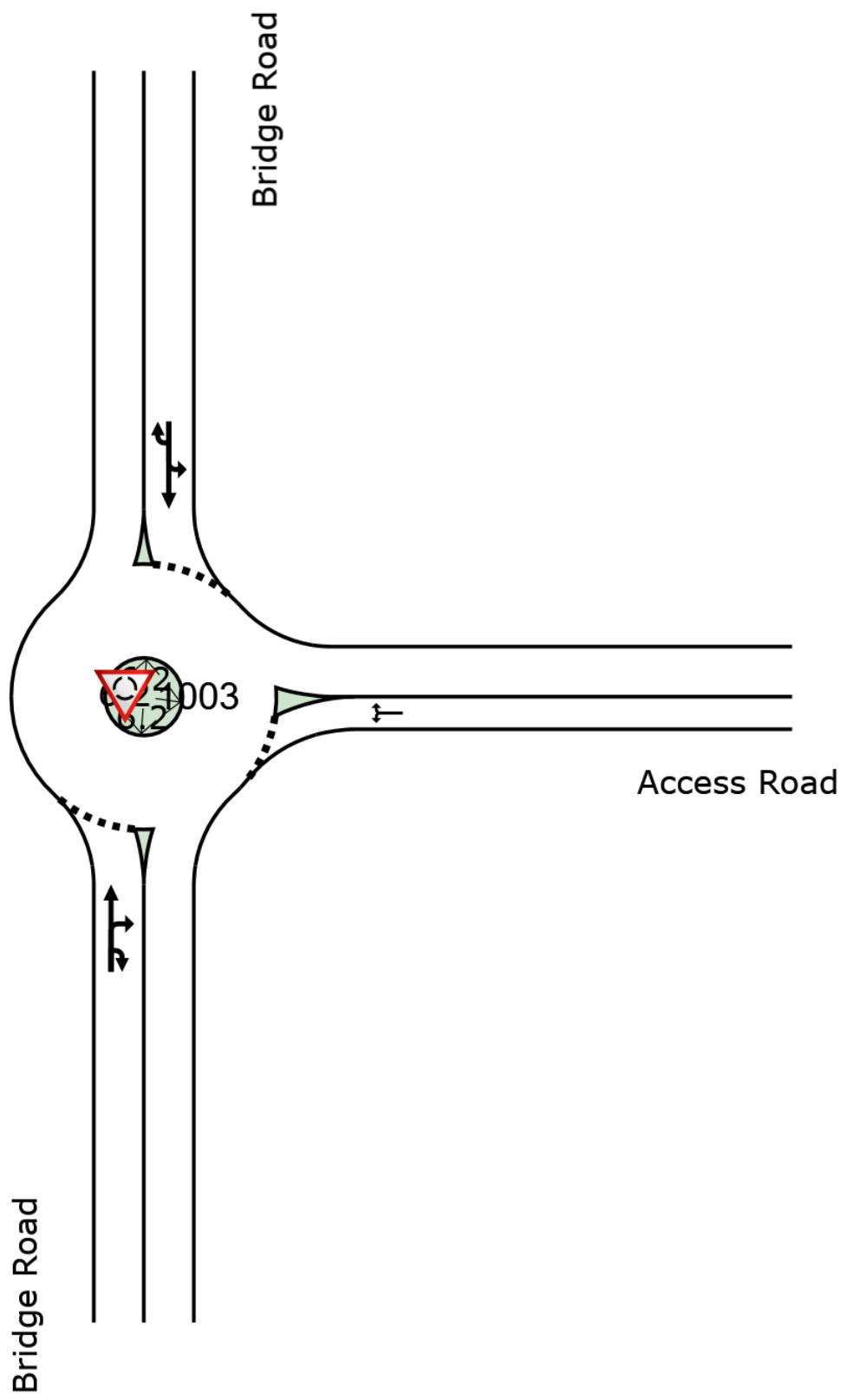
 **Site: 1003 [Bridge Rd - Site Access Rd AM 2036 FPC (Site Folder: AM 2036 FPC)]**

 **Network: 9 [AM 2036 FPC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	631	3.0	622	3.0	0.517	3.8	LOS A	2.0	14.4	0.39	0.46	0.39	25.0
3	R2	All MCs	52	0.0	51	0.0	0.517	6.6	LOS A	2.0	14.4	0.39	0.46	0.39	37.2
3u	U	All MCs	31	0.0	31	0.0	0.517	8.1	LOS A	2.0	14.4	0.39	0.46	0.39	25.0
Approach			714	2.6	705	2.6	0.517	4.2	LOS A	2.0	14.4	0.39	0.46	0.39	27.2
East: Access Road															
4	L2	All MCs	140	0.0	140	0.0	0.566	13.3	LOS A	4.8	33.9	1.00	0.86	1.20	27.7
6	R2	All MCs	66	0.0	66	0.0	0.566	15.8	LOS B	4.8	33.9	1.00	0.86	1.20	27.7
Approach			206	0.0	206	0.0	0.566	14.1	LOS A	4.8	33.9	1.00	0.86	1.20	27.7
North: Bridge Road															
7	L2	All MCs	23	5.4	22	5.3	1.117	115.9	LOS F	4.2	30.0	1.00	2.02	2.87	7.2
8	T1	All MCs	681	2.8	651	2.7	1.117	115.6	LOS F	4.2	30.0	1.00	2.02	2.87	1.4
9u	U	All MCs	6	0.0	6	0.0	1.117	119.5	LOS F	4.2	30.0	1.00	2.02	2.87	1.4
Approach			710	2.8	679	2.8	1.117	115.6	LOS F	4.2	30.0	1.00	2.02	2.87	1.6
All Vehicles			1630	2.4	1589	2.4	1.117	53.1	LOS D	4.8	33.9	0.73	1.18	1.56	5.6





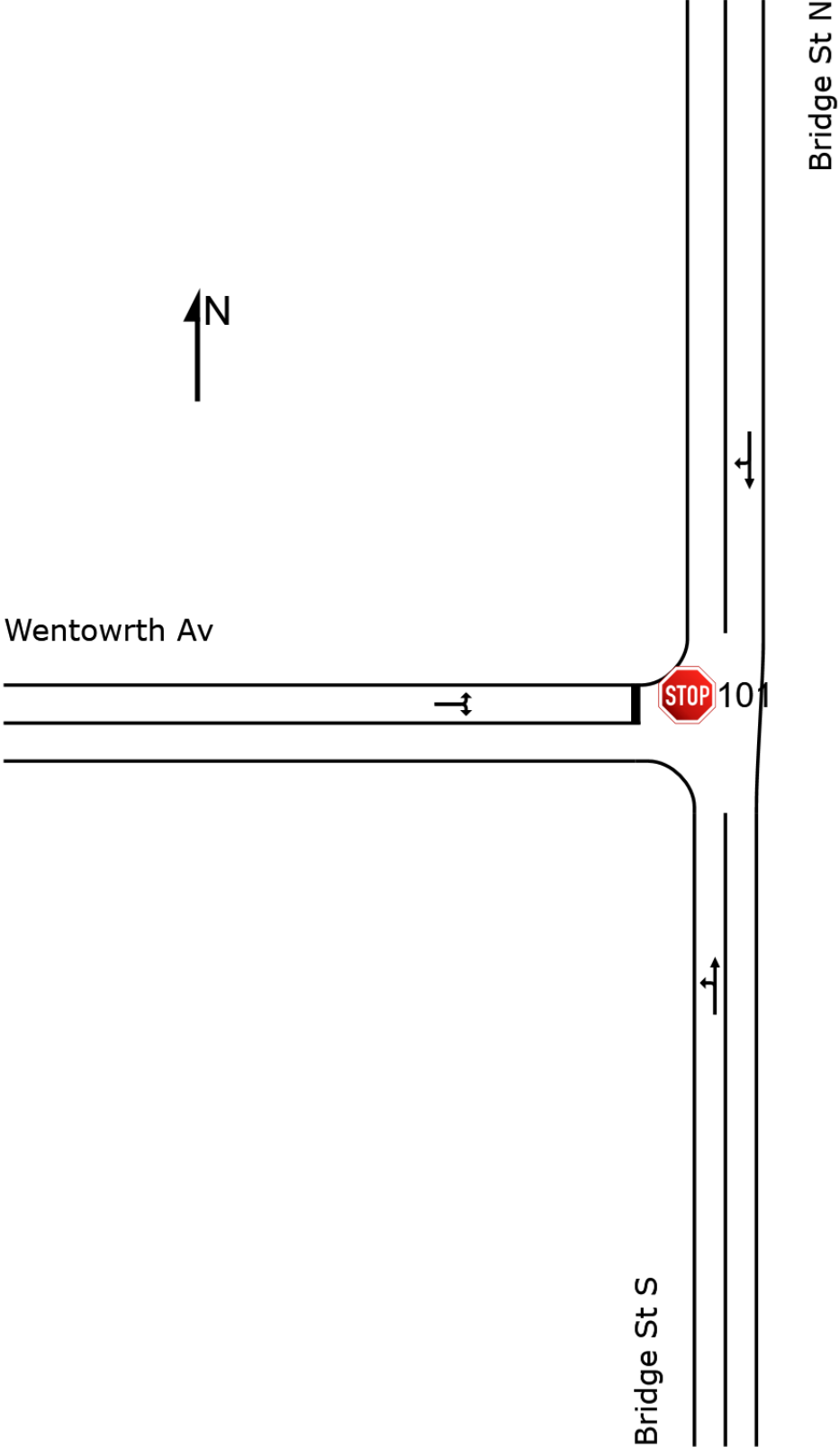
**Site: 101 [Bridge St - Wentworth Av AM 2036 FPC (Site Folder: AM 2036 FPC)]**   **Network: 9 [AM 2036 FPC (Network Folder: General)]**

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New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	144	0.0	144	0.0	0.438	4.1	LOS A	0.0	0.0	0.00	0.10	54.3
2	T1	All MCs	664	2.8	663	2.8	0.438	0.0	LOS A	0.0	0.0	0.00	0.10	50.2
Approach			808	2.3	807	2.3	0.438	0.8	NA	0.0	0.0	0.00	0.10	52.8
North: Bridge St N														
8	T1	All MCs	818	2.1	723	2.1	0.410	0.5	LOS A	7.7	55.0	0.07	0.09	49.7
9	R2	All MCs	26	0.0	23	0.0	0.410	9.7	LOS A	7.7	55.0	0.07	0.09	53.9
Approach			844	2.1	746	2.0	0.410	0.8	NA	7.7	55.0	0.07	0.09	50.6
West: Wentowrth Av														
10	L2	All MCs	53	2.4	53	2.4	1.189	195.4	LOS F	6.6	46.6	1.00	2.94	7.7
12	R2	All MCs	84	1.5	84	1.5	1.189	221.8	LOS F	6.6	46.6	1.00	2.94	7.7
Approach			137	1.8	137	1.8	1.189	211.5	LOS F	6.6	46.6	1.00	2.94	7.7
All Vehicles			1790	2.2	1691	2.3	1.189	17.9	NA	7.7	55.0	0.11	0.33	20.1





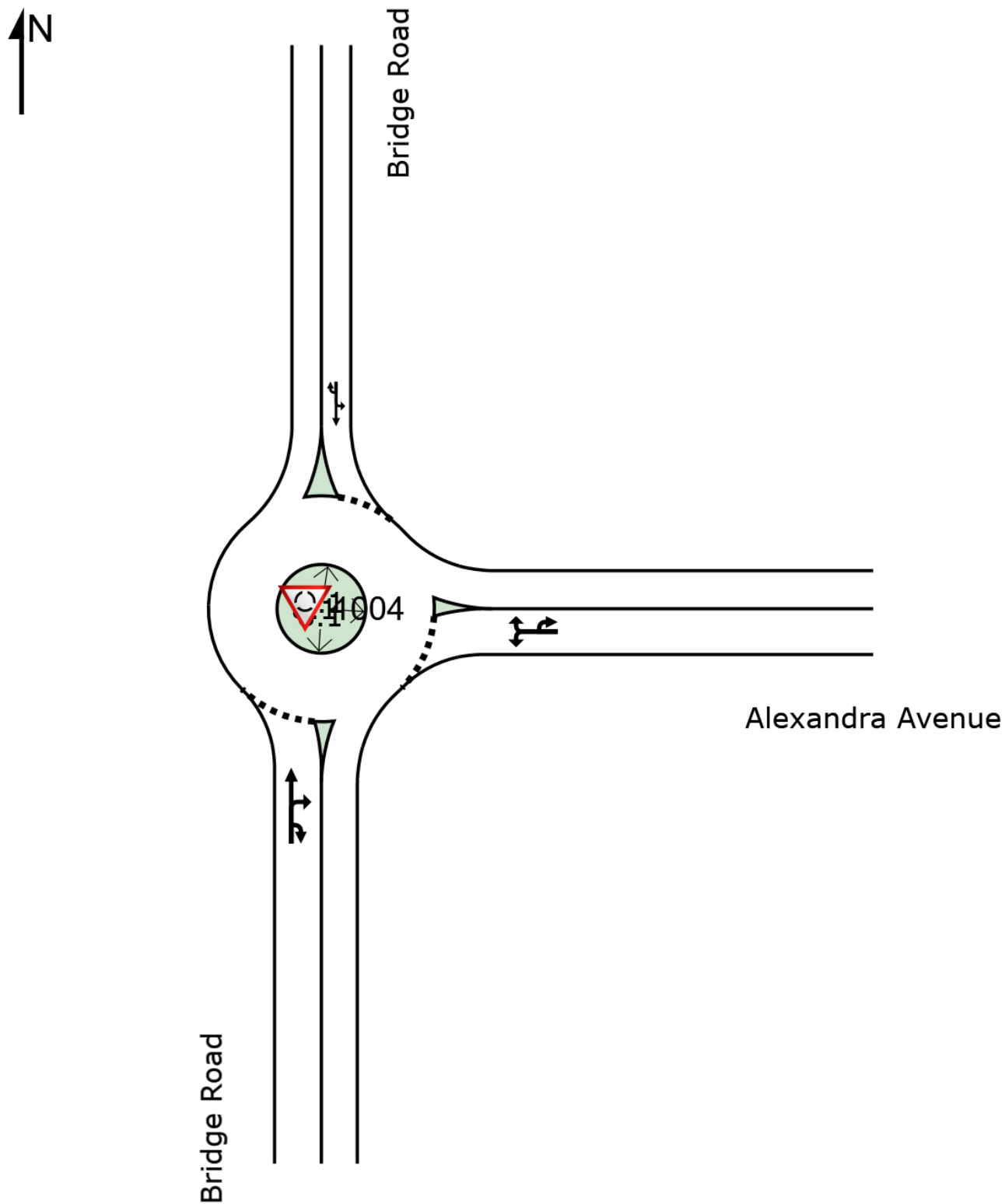
 **Site: 1004 [Bridge Rd - Alexandra Ave AM 2036 FPC (Site Folder: AM 2036 FPC)]**

 **Network: 9 [AM 2036 FPC (Network Folder: General)]**

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
2	T1	All MCs	720	2.3	720	2.3	0.765	4.5	LOS A	4.4	31.2	0.39	0.52	25.0
3	R2	All MCs	370	0.7	370	0.7	0.765	7.6	LOS A	4.4	31.2	0.39	0.52	43.2
3u	U	All MCs	5	0.0	5	0.0	0.765	9.1	LOS A	4.4	31.2	0.39	0.52	25.0
Approach			1095	1.7	1095	1.7	0.765	5.6	LOS A	4.4	31.2	0.39	0.52	38.1
East: Alexandra Avenue														
4	L2	All MCs	123	5.1	123	5.1	0.349	7.6	LOS A	0.8	5.6	0.75	0.70	42.5
6	R2	All MCs	82	3.1	82	3.1	0.349	10.0	LOS A	0.8	5.6	0.75	0.70	42.5
6u	U	All MCs	3	0.0	3	0.0	0.349	12.4	LOS A	0.8	5.6	0.75	0.70	48.1
Approach			207	4.2	207	4.2	0.349	8.6	LOS A	0.8	5.6	0.75	0.70	42.6
North: Bridge Road														
7	L2	All MCs	241	0.5	212	0.5	1.222	222.3	LOS F	7.7	55.0	1.00	4.27	9.4
8	T1	All MCs	647	2.5	570	2.4	1.222	222.2	LOS F	7.7	55.0	1.00	4.27	1.1
9u	U	All MCs	4	0.0	3	0.0	1.222	226.5	LOS F	7.7	55.0	1.00	4.27	1.1
Approach			892	2.0	785	1.9	1.222	222.3	LOS F	7.7	55.0	1.00	4.27	3.7
All Vehicles			2194	2.1	2087	2.2	1.222	87.3	LOS F	7.7	55.0	0.66	1.95	10.3



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
AM 2036 FPC (Site Folder: AM 2036 FPC)]

Network: 9 [AM 2036 FPC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed

Input Phase Sequence: A, B, C

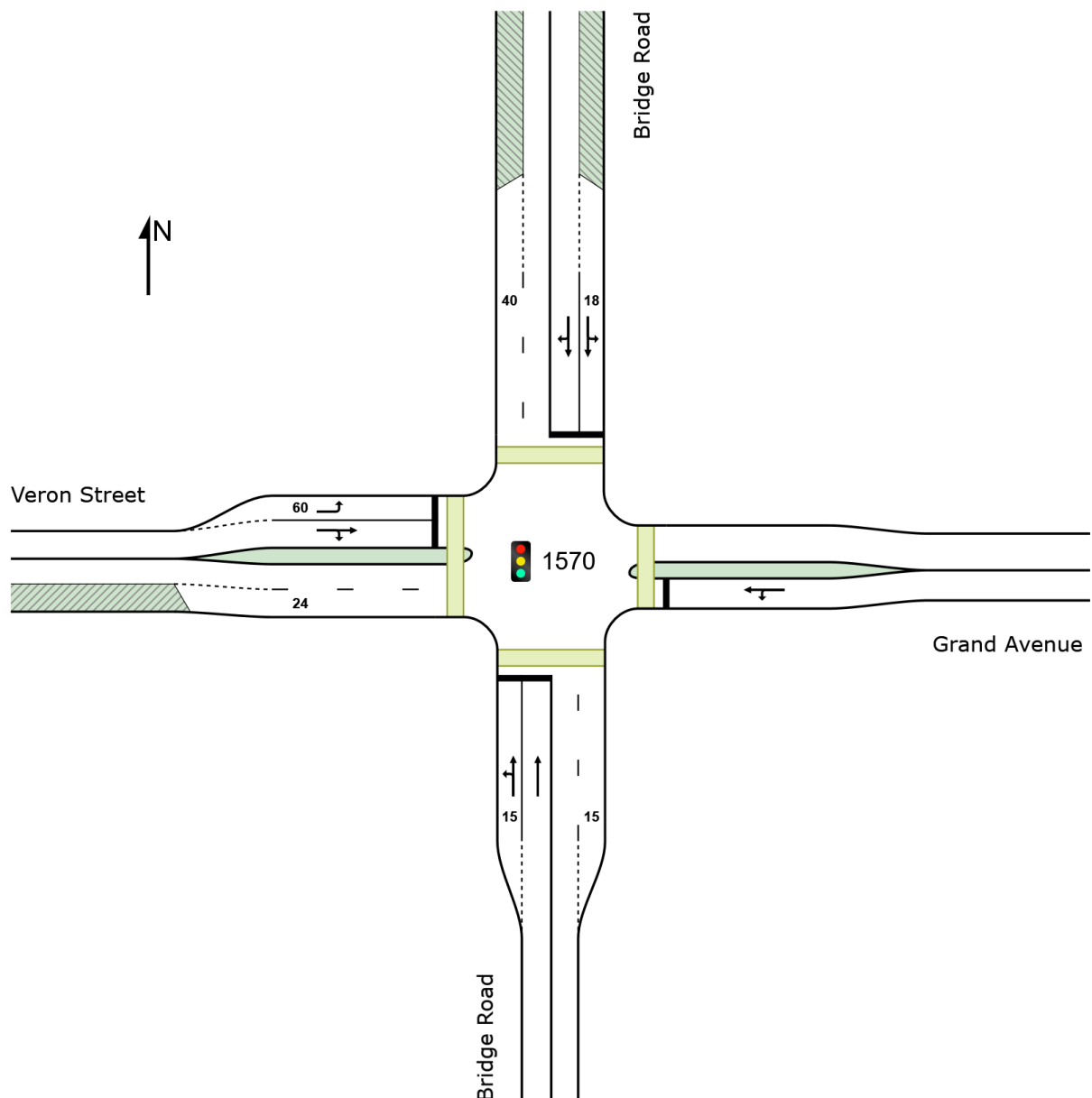
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

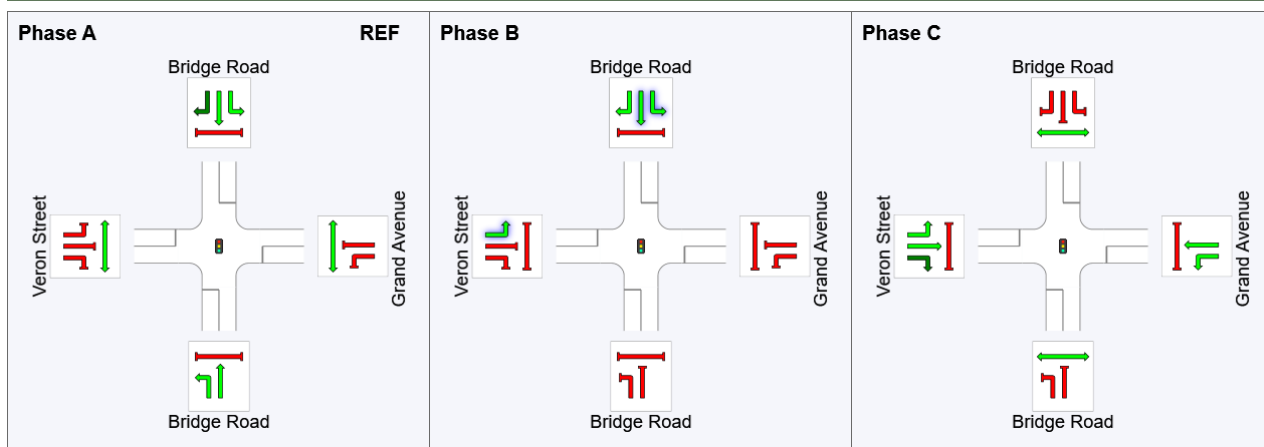
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%				[ Veh. veh	Dist ]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
South: Bridge Road															
1	L2	All MCs	38	0.0	38	0.0	0.256	36.4	LOS C	2.5	17.6	0.68	0.60	0.68	33.5
2	T1	All MCs	658	1.0	658	1.0	* 0.873	46.8	LOS D	14.5	102.1	0.92	0.98	1.12	8.1
Approach			696	0.9	696	0.9	0.873	46.3	LOS D	14.5	102.1	0.91	0.96	1.10	7.2
East: Grand Avenue															
4	L2	All MCs	13	0.0	13	0.0	0.198	42.6	LOS D	0.9	6.1	0.95	0.71	0.95	27.3
5	T1	All MCs	25	0.0	25	0.0	0.198	37.7	LOS C	0.9	6.1	0.95	0.71	0.95	33.2
Approach			38	0.0	38	0.0	0.198	39.3	LOS C	0.9	6.1	0.95	0.71	0.95	31.5
North: Bridge Road															
7	L2	All MCs	15	0.0	12	0.0	0.139	21.7	LOS B	1.3	9.2	0.30	0.27	0.30	45.3
8	T1	All MCs	505	2.5	387	2.5	0.674	19.3	LOS B	7.0	50.5	0.61	0.61	0.61	21.2
9	R2	All MCs	253	3.5	194	3.5	* 0.674	57.2	LOS E	7.0	50.5	0.89	0.92	0.89	29.6
Approach			773	2.8	592	2.8	0.674	31.7	LOS C	7.0	50.5	0.69	0.71	0.70	19.4
West: Veron Street															
10	L2	All MCs	419	3.0	419	3.0	0.553	25.4	LOS B	7.6	54.5	0.80	0.81	0.80	29.5
11	T1	All MCs	46	0.0	46	0.0	* 0.852	46.4	LOS D	3.8	26.5	1.00	1.02	1.44	30.3
12	R2	All MCs	89	1.4	89	1.4	0.852	52.1	LOS D	3.8	26.5	1.00	1.02	1.44	21.2
Approach			555	2.5	555	2.5	0.852	31.5	LOS C	7.6	54.5	0.85	0.86	0.96	27.9
All Vehicles			2061	2.0	1880	2.2	0.873	37.2	LOS C	14.5	102.1	0.83	0.84	0.93	18.6

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	40	66
Green Time (sec)	34	20	8
Phase Time (sec)	40	26	14
Phase Split	50%	33%	18%
Phase Frequency (%)	100.0	100.0	100.0



# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark PM 2036 FPC (Site Folder: PM 2036  
FPC)]**



**Network: 10 [PM 2036 FPC (Network Folder:  
General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 120 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage - Import (2)**

**Input Phase Sequence: A, B, C, C1**

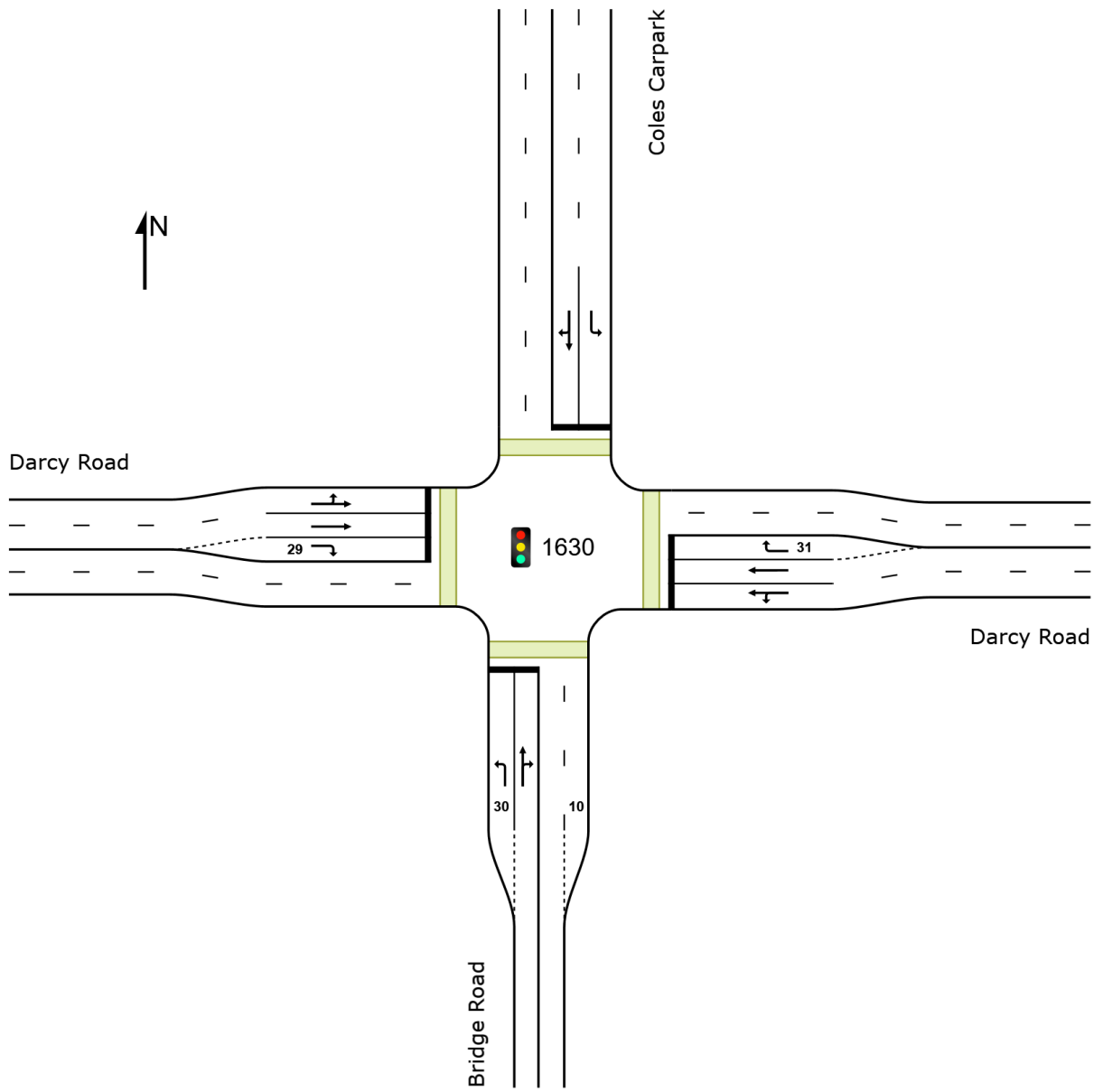
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

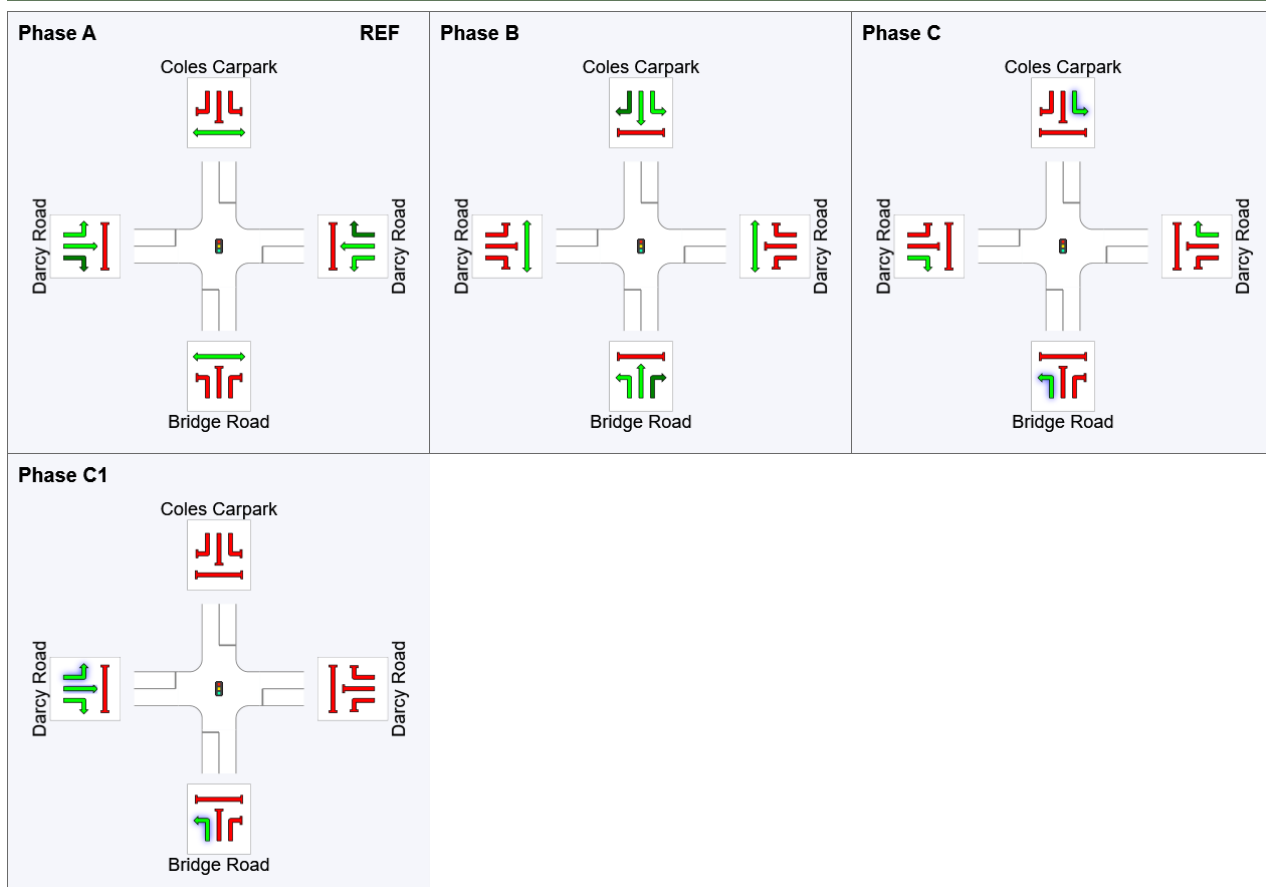
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
1	L2	All MCs	265	0.9	256	1.0	0.253	19.7	LOS B	4.6	32.7	0.55	0.71	0.55	30.1
2	T1	All MCs	41	0.0	39	0.0	*0.854	69.4	LOS E	5.1	37.2	1.00	0.97	1.32	13.2
3	R2	All MCs	90	6.8	88	7.0	0.854	75.5	LOS F	5.1	37.2	1.00	0.97	1.32	18.9
Approach			396	2.2	383	2.2	0.854	37.6	LOS C	5.1	37.2	0.70	0.80	0.81	21.8
East: Darcy Road															
4	L2	All MCs	402	1.8	402	1.8	*0.892	59.3	LOS E	21.4	151.5	1.00	1.00	1.17	16.1
5	T1	All MCs	697	0.9	697	0.9	0.892	72.6	LOS F	21.7	152.7	1.00	1.03	1.17	21.0
6	R2	All MCs	27	0.0	27	0.0	0.064	46.2	LOS D	0.4	2.6	0.65	0.71	0.65	18.9
Approach			1126	1.2	1126	1.2	0.892	67.2	LOS E	21.7	152.7	0.99	1.01	1.16	16.6
North: Coles Carpark															
7	L2	All MCs	31	0.0	31	0.0	0.067	37.5	LOS C	0.8	5.9	0.80	0.60	0.80	16.5
8	T1	All MCs	67	0.0	67	0.0	0.646	56.0	LOS D	3.9	27.6	1.00	0.85	1.06	10.2
9	R2	All MCs	40	0.0	40	0.0	0.646	64.9	LOS E	3.9	27.6	1.00	0.85	1.06	12.3
Approach			138	0.0	138	0.0	0.646	54.5	LOS D	3.9	27.6	0.96	0.79	1.00	12.2
West: Darcy Road															
10	L2	All MCs	67	0.0	67	0.0	0.219	14.6	LOS B	3.8	26.5	0.43	0.47	0.43	17.0
11	T1	All MCs	471	1.0	471	1.0	0.219	13.8	LOS A	3.8	26.6	0.43	0.41	0.43	40.1
12	R2	All MCs	469	1.3	469	1.3	*0.786	42.9	LOS D	12.3	87.2	0.91	0.95	0.96	13.2
Approach			1007	1.1	1007	1.1	0.786	27.4	LOS B	12.3	87.2	0.65	0.67	0.67	22.3
All Vehicles			2667	1.2	2655	1.2	0.892	47.2	LOS D	21.7	152.7	0.82	0.84	0.92	18.3

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	44	67	81
Green Time (sec)	42	17	8	35
Phase Time (sec)	48	23	12	37
Phase Split	40%	19%	10%	31%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

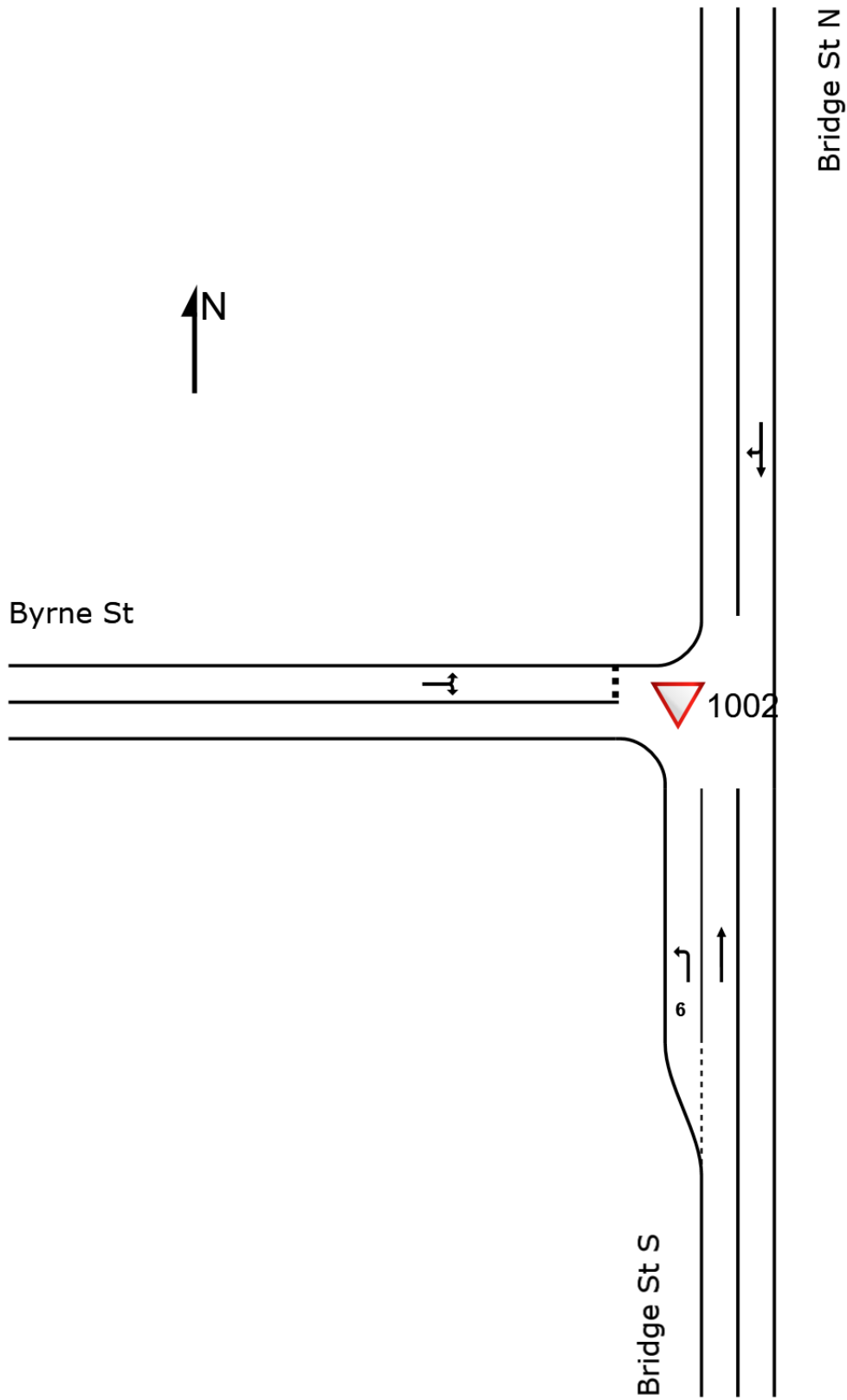
▼ Site: 1002 [Bridge St - Byrne St PM 2036 FPC] ■■ Network: 10 [PM 2036 FPC (Network Folder: General)]  
(Site Folder: PM 2036 FPC)]

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New Site  
Site Category: (None)  
Give-Way (Two-Way)

#### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	67	1.8	66	1.9	0.036	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	50.9
2	T1	All MCs	415	2.7	407	2.7	0.212	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			483	2.5	473	2.6	0.212	0.4	NA	0.0	0.0	0.00	0.07	0.00	53.4
North: Bridge St N															
8	T1	All MCs	918	1.5	918	1.5	1.021	26.8	LOS B	10.4	74.0	1.00	0.93	3.16	21.7
9	R2	All MCs	39	0.0	39	0.0	1.021	81.4	LOS F	10.4	74.0	1.00	0.93	3.16	35.5
Approach			958	1.4	958	1.4	1.021	29.0	NA	10.4	74.0	1.00	0.93	3.16	22.7
West: Byrne St															
10	L2	All MCs	11	0.0	11	0.0	0.547	10.9	LOS A	0.5	3.3	0.90	1.04	1.18	30.6
12	R2	All MCs	49	2.5	49	2.5	0.547	33.8	LOS C	0.5	3.3	0.90	1.04	1.18	30.6
Approach			60	2.0	60	2.0	0.547	29.6	LOS C	0.5	3.3	0.90	1.04	1.18	30.6
All Vehicles			1500	1.8	1490	1.8	1.021	20.0	NA	10.4	74.0	0.68	0.66	2.08	25.3





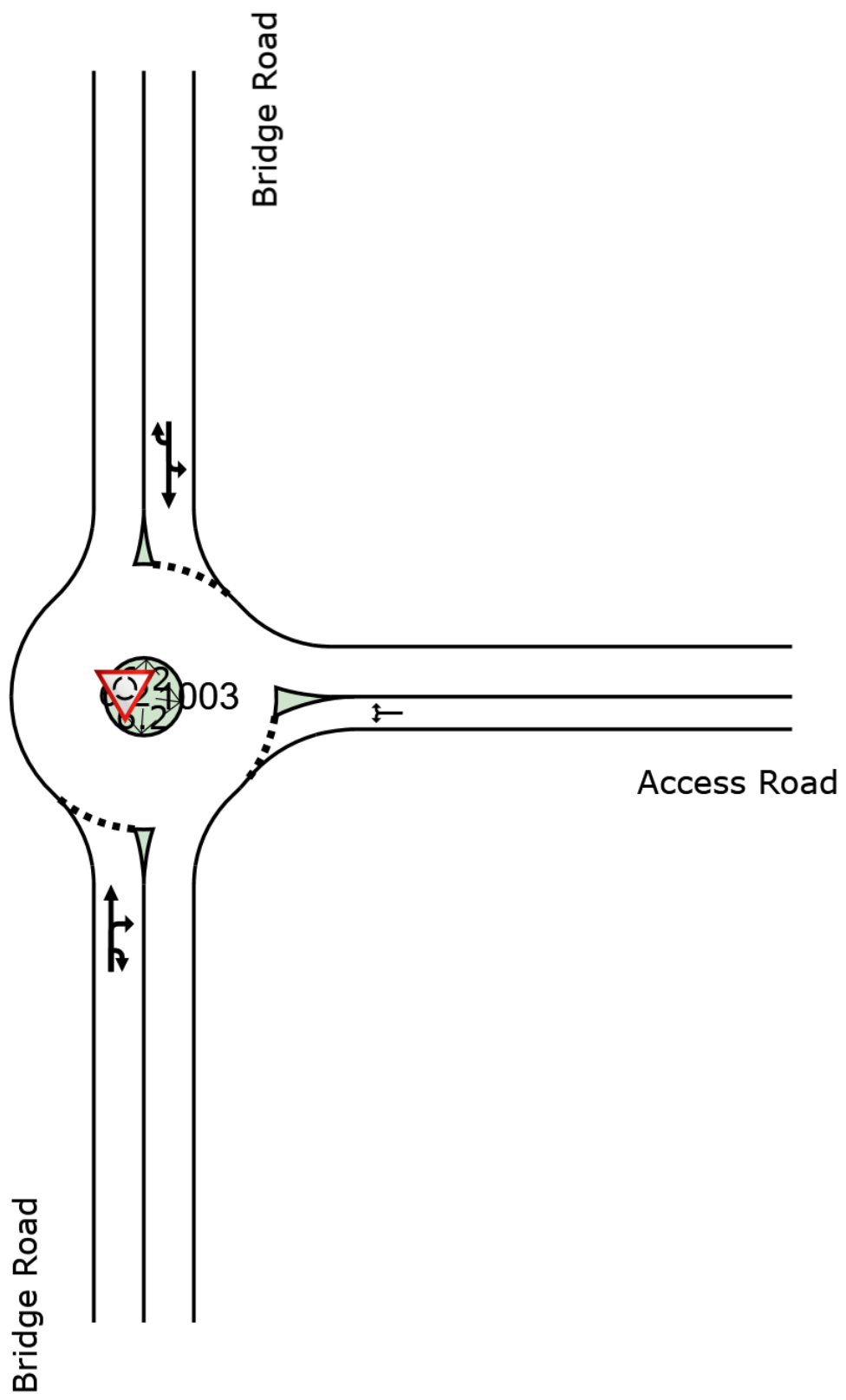
 **Site: 1003 [Bridge Rd - Site Access Rd PM 2036 FPC (Site Folder: PM 2036 FPC)]**

 **Network: 10 [PM 2036 FPC (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h	
South: Bridge Road															
2	T1	All MCs	450	2.4	435	2.5	0.395	3.5	LOS A	1.3	9.3	0.23	0.47	0.23	26.0
3	R2	All MCs	104	0.0	101	0.0	0.395	6.3	LOS A	1.3	9.3	0.23	0.47	0.23	37.6
3u	U	All MCs	33	0.0	32	0.0	0.395	7.8	LOS A	1.3	9.3	0.23	0.47	0.23	26.0
Approach			588	1.9	567	1.9	0.395	4.3	LOS A	1.3	9.3	0.23	0.47	0.23	30.4
East: Access Road															
4	L2	All MCs	78	0.0	78	0.0	0.302	9.2	LOS A	0.6	3.9	0.88	0.72	0.88	31.8
6	R2	All MCs	35	3.5	35	3.5	0.302	12.0	LOS A	0.6	3.9	0.88	0.72	0.88	31.8
Approach			113	1.1	113	1.1	0.302	10.1	LOS A	0.6	3.9	0.88	0.72	0.88	31.8
North: Bridge Road															
7	L2	All MCs	57	2.1	56	2.1	1.628	573.1	LOS F	4.2	30.0	1.00	6.26	10.68	1.7
8	T1	All MCs	907	1.5	889	1.5	1.628	572.8	LOS F	4.2	30.0	1.00	6.26	10.68	0.3
9u	U	All MCs	2	0.0	2	0.0	1.628	576.8	LOS F	4.2	30.0	1.00	6.26	10.68	0.3
Approach			966	1.5	948	1.5	1.628	572.9	LOS F	4.2	30.0	1.00	6.26	10.68	0.4
All Vehicles			1666	1.6	1628	1.7	1.628	335.7	LOS F	4.2	30.0	0.72	3.86	6.36	1.0





**Site: 101 [Bridge St - Wentworth Av PM 2036 ■■ Network: 10 [PM 2036 FPC (Network Folder: FPC (Site Folder: PM 2036 FPC)] General)]**

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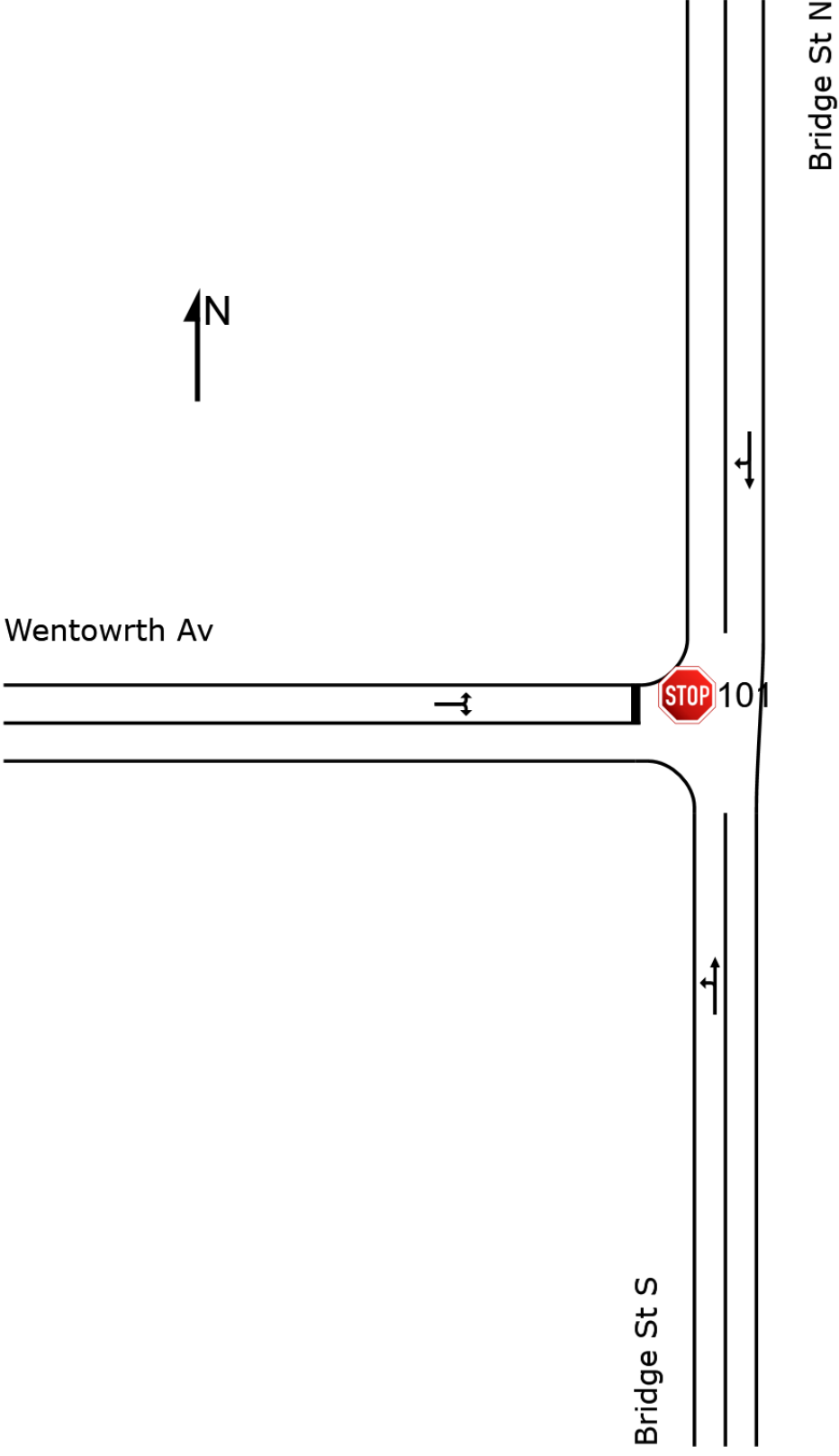
New Site

Site Category: (None)

Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	187	0.7	187	0.7	0.384	4.1	LOS A	0.0	0.0	0.00	0.15	53.8
2	T1	All MCs	522	2.1	522	2.1	0.384	0.0	LOS A	0.0	0.0	0.00	0.15	46.9
Approach			709	1.7	709	1.7	0.384	1.1	NA	0.0	0.0	0.00	0.15	51.9
North: Bridge St N														
8	T1	All MCs	999	1.3	647	1.3	0.703	0.6	LOS A	0.3	1.9	0.06	0.08	49.1
9	R2	All MCs	27	0.0	17	0.0	0.703	9.6	LOS A	0.3	1.9	0.06	0.08	53.9
Approach			1026	1.3	664	1.2	0.703	0.9	NA	0.3	1.9	0.06	0.08	49.9
West: Wentowrth Av														
10	L2	All MCs	64	0.0	64	0.0	0.747	17.0	LOS B	1.0	6.7	0.90	1.21	33.4
12	R2	All MCs	82	0.0	82	0.0	0.747	33.6	LOS C	1.0	6.7	0.90	1.21	33.4
Approach			146	0.0	146	0.0	0.747	26.3	LOS B	1.0	6.7	0.90	1.21	33.4
All Vehicles			1881	1.4	1520	1.7	0.747	3.4	NA	1.0	6.7	0.11	0.22	44.6





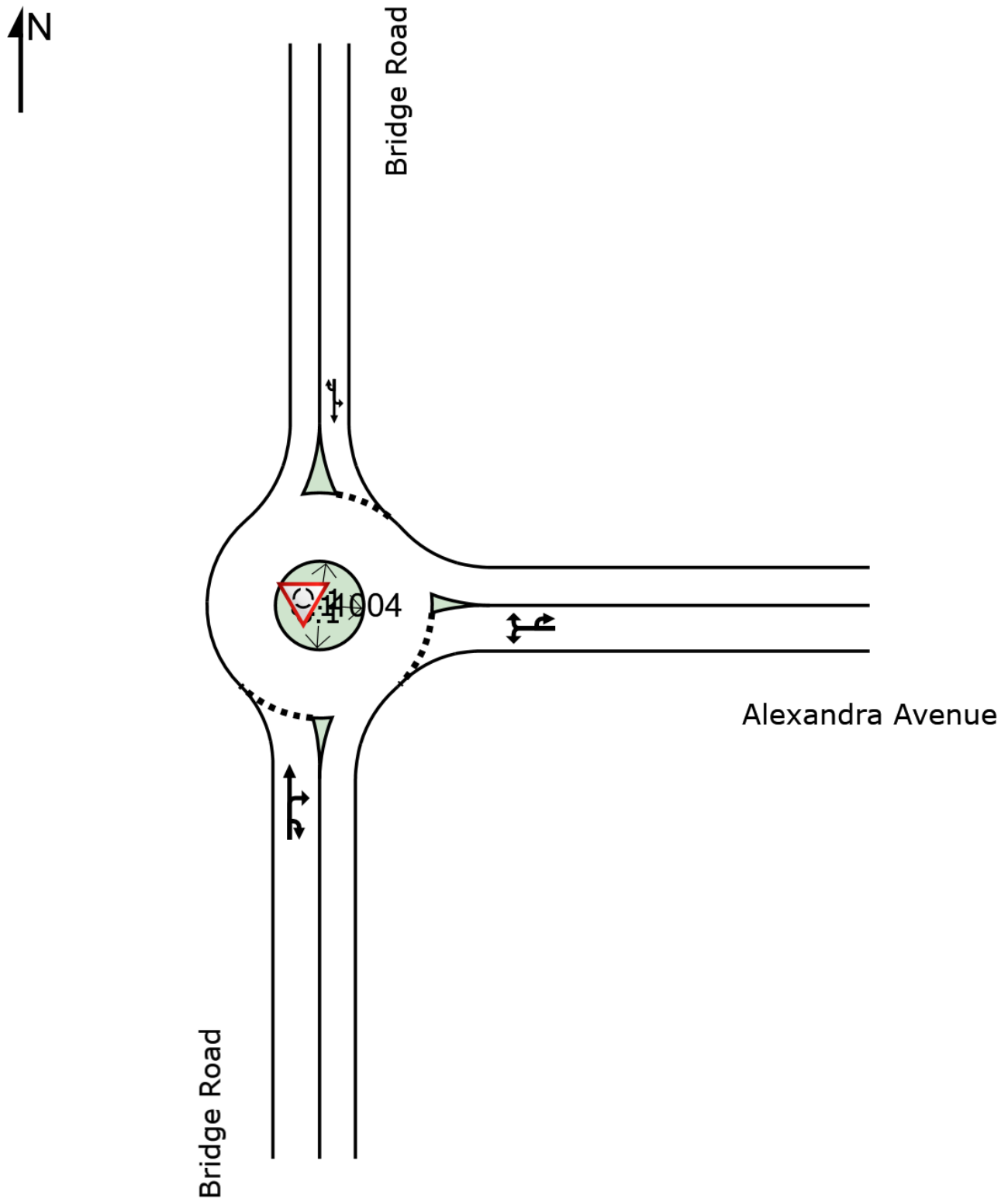
Site: 1004 [Bridge Rd - Alexandra Ave PM 2036 FPC (Site Folder: PM 2036 FPC)]

Network: 10 [PM 2036 FPC (Network Folder: General)]

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	544	2.2	544	2.2	0.586	4.7	LOS A	2.1	14.8	0.42	0.56	0.42	25.1
3	R2	All MCs	190	0.6	190	0.6	0.586	7.8	LOS A	2.1	14.8	0.42	0.56	0.42	43.2
3u	U	All MCs	2	0.0	2	0.0	0.586	9.3	LOS A	2.1	14.8	0.42	0.56	0.42	25.1
Approach			737	1.8	737	1.8	0.586	5.5	LOS A	2.1	14.8	0.42	0.56	0.42	36.6
East: Alexandra Avenue															
4	L2	All MCs	199	0.0	199	0.0	0.704	12.4	LOS A	2.3	15.8	0.98	0.89	1.26	39.0
6	R2	All MCs	158	0.0	158	0.0	0.704	14.9	LOS B	2.3	15.8	0.98	0.89	1.26	39.0
6u	U	All MCs	1	0.0	1	0.0	0.704	17.4	LOS B	2.3	15.8	0.98	0.89	1.26	45.8
Approach			359	0.0	359	0.0	0.704	13.5	LOS A	2.3	15.8	0.98	0.89	1.26	39.0
North: Bridge Road															
7	L2	All MCs	204	0.0	138	0.0	1.106	115.6	LOS F	7.8	55.0	1.00	2.49	3.77	15.3
8	T1	All MCs	870	1.3	587	1.1	1.106	115.4	LOS F	7.8	55.0	1.00	2.49	3.77	2.1
9u	U	All MCs	1	0.0	1	0.0	1.106	119.8	LOS F	7.8	55.0	1.00	2.49	3.77	2.1
Approach			1075	1.0	725	0.9	1.106	115.4	LOS F	7.8	55.0	1.00	2.49	3.77	5.4
All Vehicles			2170	1.1	1821	1.3	1.106	50.9	LOS D	7.8	55.0	0.76	1.39	1.92	15.2



Site: 1570 [Bridge Rd - Veron St - Grand Ave  
PM 2036 FPC (Site Folder: PM 2036 FPC)]

Network: 10 [PM 2036 FPC (Network Folder:  
General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed - Import

Input Phase Sequence: A, B, C

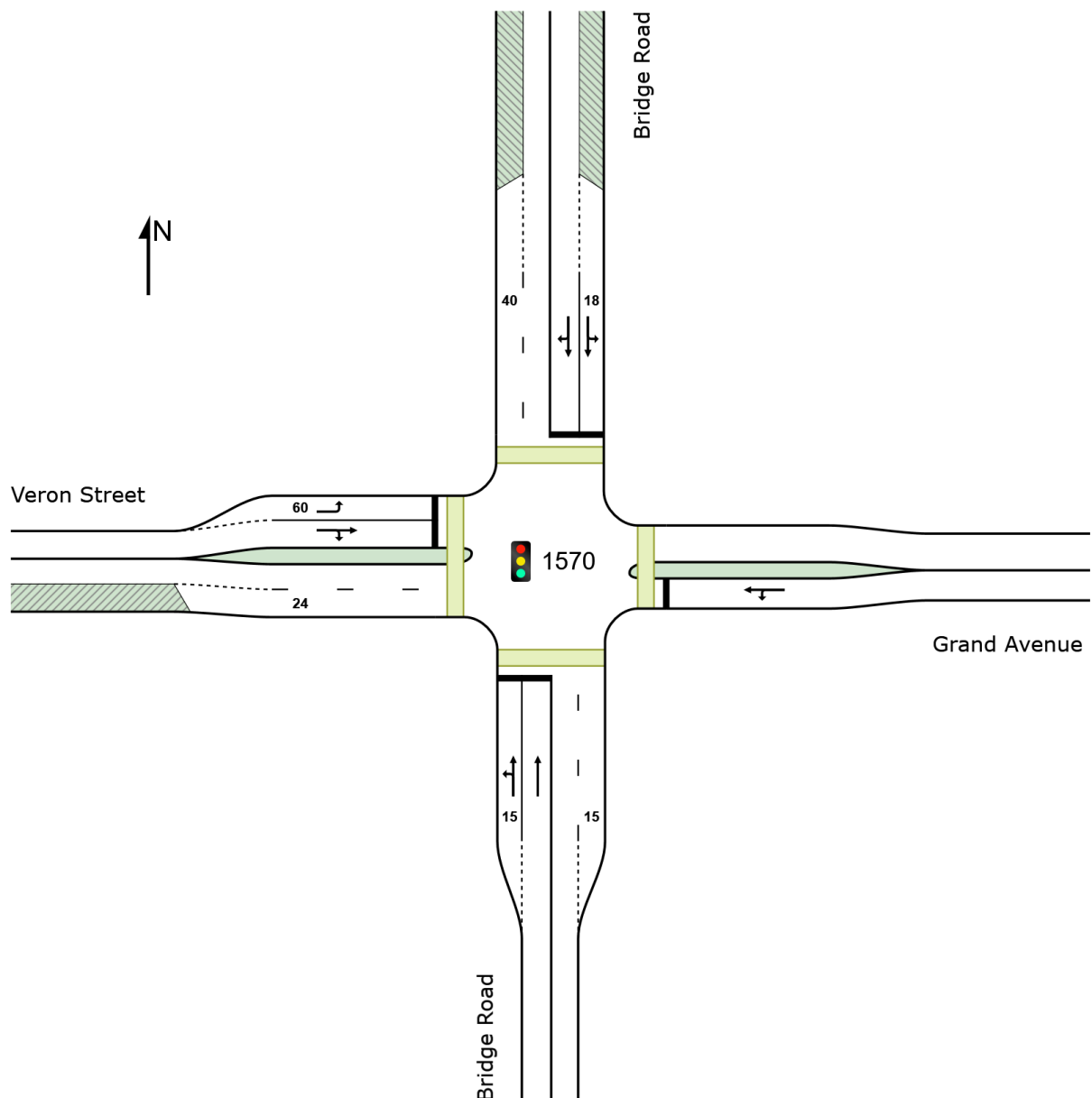
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

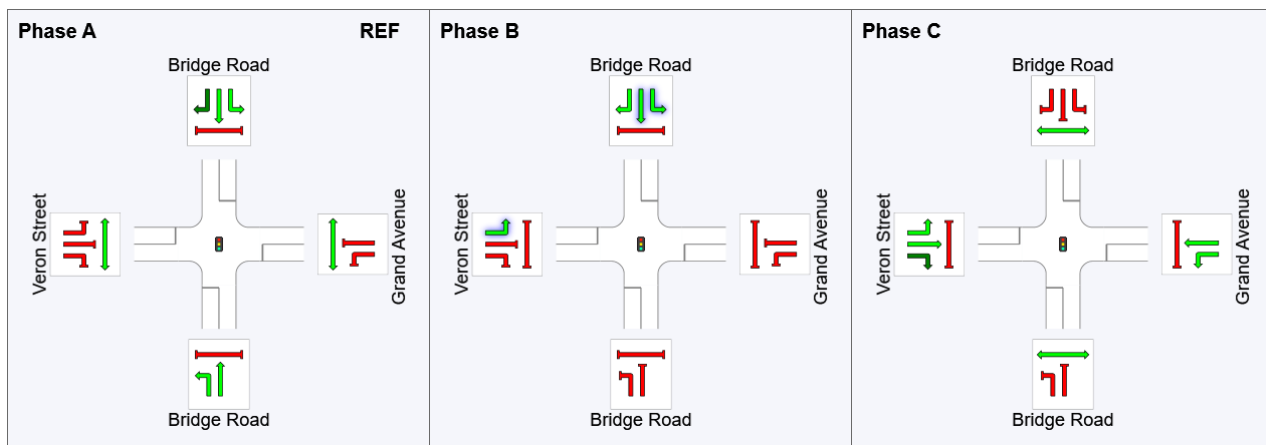
## Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
1	L2	All MCs	66	0.0	66	0.0	0.254	42.3	LOS C	2.2	15.7	0.81	0.70	0.81	30.2
2	T1	All MCs	453	2.2	453	2.2	*0.868	49.8	LOS D	9.4	66.9	0.97	1.03	1.25	7.5
Approach			520	1.9	520	1.9	0.868	48.9	LOS D	9.4	66.9	0.95	0.99	1.19	8.5
East: Grand Avenue															
4	L2	All MCs	13	9.1	13	9.1	0.425	37.2	LOS C	2.1	15.0	0.96	0.75	0.96	29.3
5	T1	All MCs	91	0.0	91	0.0	*0.425	32.5	LOS C	2.1	15.0	0.96	0.75	0.96	35.1
Approach			104	1.2	104	1.2	0.425	33.1	LOS C	2.1	15.0	0.96	0.75	0.96	34.5
North: Bridge Road															
7	L2	All MCs	11	0.0	8	0.0	0.161	19.6	LOS B	1.5	10.5	0.36	0.32	0.36	44.7
8	T1	All MCs	678	1.4	463	1.2	0.779	19.8	LOS B	8.1	56.7	0.66	0.69	0.72	20.9
9	R2	All MCs	384	0.3	263	0.3	*0.779	46.1	LOS D	8.1	56.7	0.90	1.00	1.00	30.2
Approach			1073	1.0	733	0.8	0.779	29.3	LOS C	8.1	56.7	0.74	0.80	0.82	20.7
West: Veron Street															
10	L2	All MCs	278	1.3	278	1.3	0.284	14.8	LOS B	3.1	22.3	0.58	0.71	0.58	35.4
11	T1	All MCs	15	0.0	15	0.0	0.368	31.8	LOS C	1.3	8.9	0.97	0.75	0.97	33.6
12	R2	All MCs	45	0.0	45	0.0	0.368	39.5	LOS C	1.3	8.9	0.97	0.75	0.97	24.6
Approach			338	1.1	338	1.1	0.368	18.8	LOS B	3.1	22.3	0.65	0.72	0.65	33.2
All Vehicles			2035	1.3	1695	1.5	0.868	33.4	LOS C	9.4	66.9	0.80	0.84	0.91	20.8

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	55
Green Time (sec)	20	23	9
Phase Time (sec)	26	29	15
Phase Split	37%	41%	21%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark AM 2036 FPC - Mitigation (Site Folder:  
AM 2036 FPC - Mitigation)]**



**Network: 14 [AM 2036 FPC - Mitigations  
(Network Folder: General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 150 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage**

**Input Phase Sequence: A, B, C, C1**

**Output Phase Sequence: A, B, C, C1**

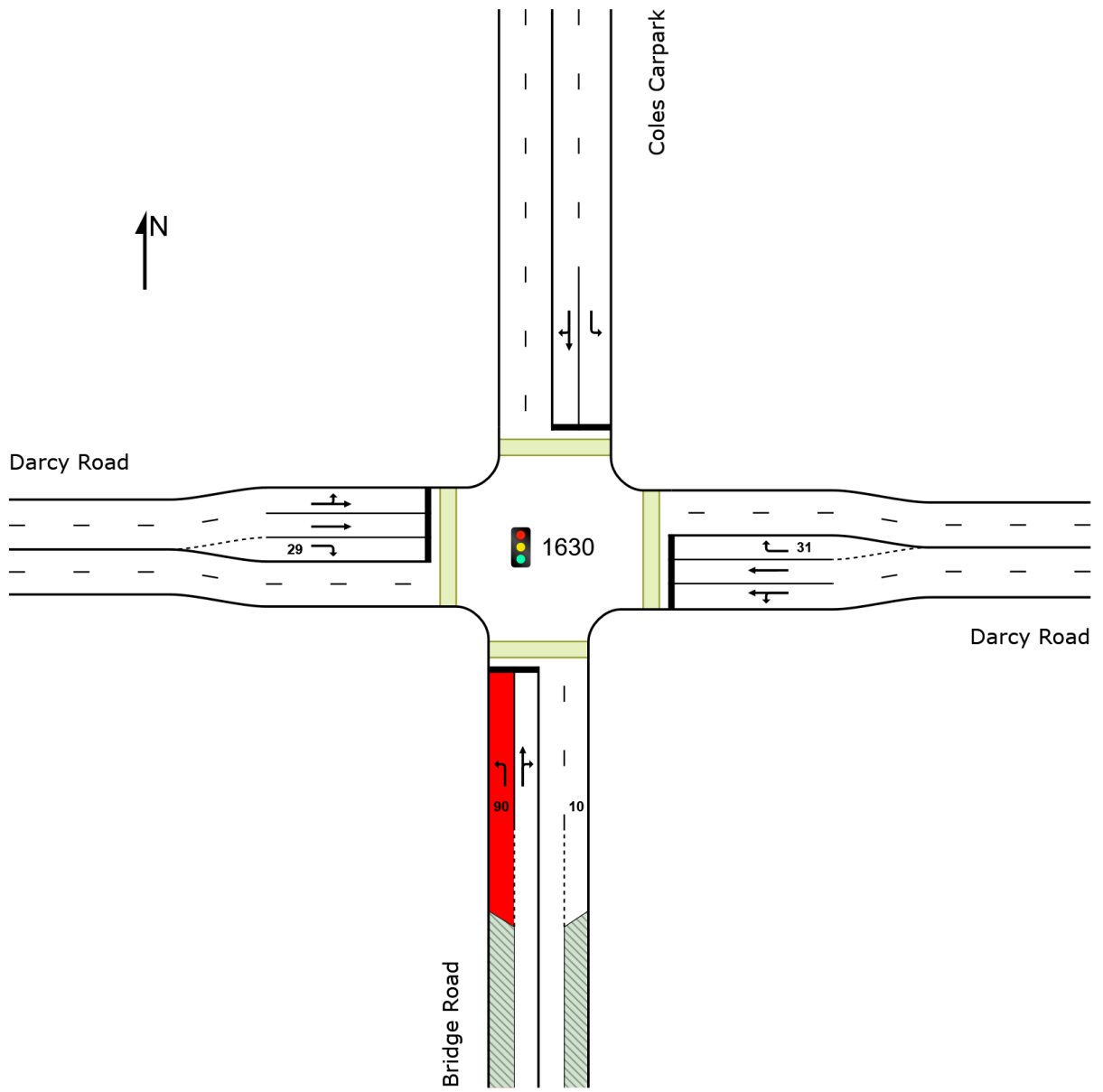
**Reference Phase: Phase A**

**Offset: NA**

## Site Layout

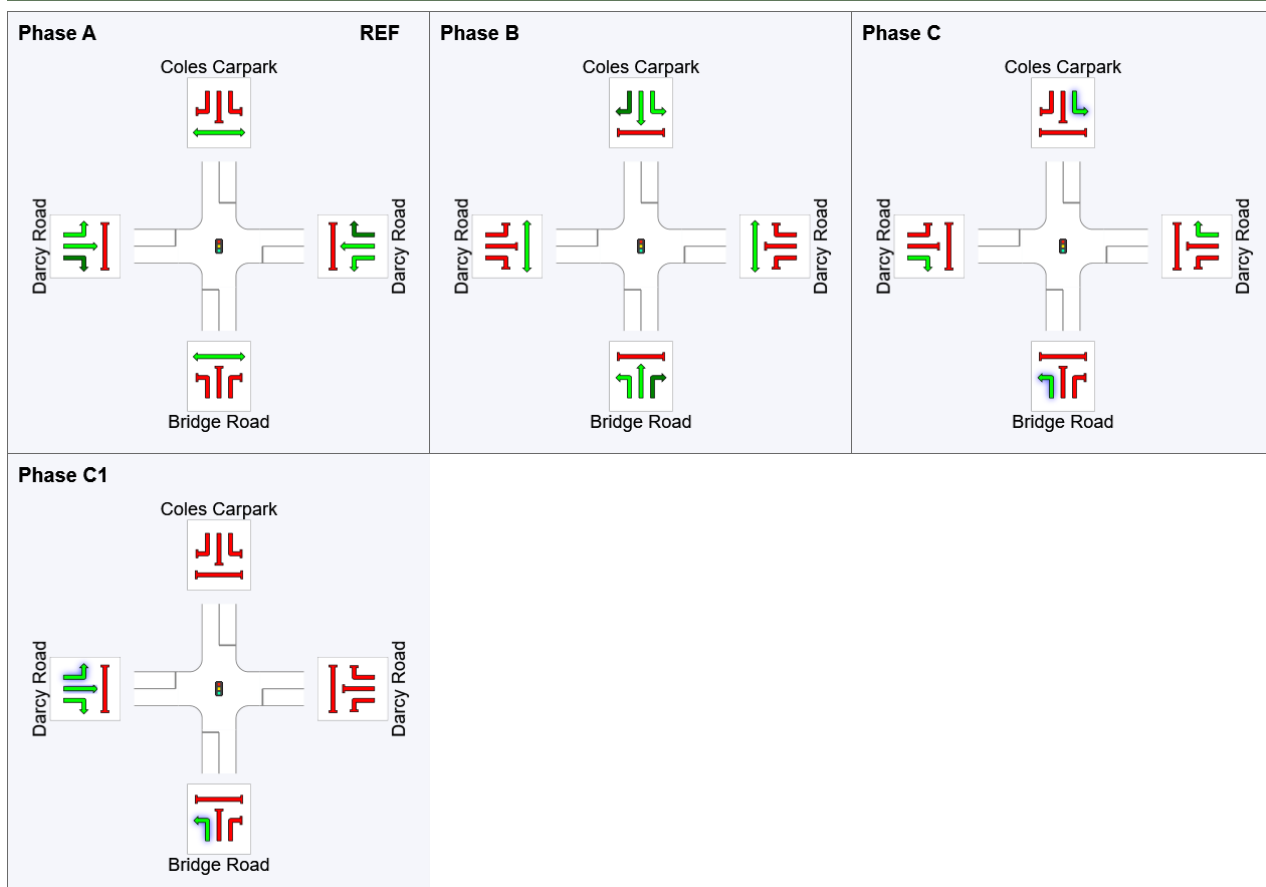
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.






Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
			veh/h		veh/h					veh	m				
South: Bridge Road															
1	L2	All MCs	191	2.6	191	2.6	0.170	24.8	LOS B	3.5	25.4	0.45	0.67	0.45	31.1
2	T1	All MCs	21	0.0	21	0.0	* 0.965	103.5	LOS F	21.1	152.0	1.00	1.10	1.36	11.8
3	R2	All MCs	345	3.6	345	3.6	0.965	104.9	LOS F	21.1	152.0	1.00	1.10	1.36	15.7
Approach			557	3.1	557	3.1	0.965	77.3	LOS F	21.1	152.0	0.81	0.95	1.05	16.6
East: Darcy Road															
4	L2	All MCs	387	3.2	387	3.2	0.945	84.8	LOS F	26.5	191.2	1.00	1.07	1.25	12.1
5	T1	All MCs	581	4.1	581	4.1	* 0.945	110.0	LOS F	26.5	191.2	1.00	1.12	1.26	16.0
6	R2	All MCs	20	0.0	20	0.0	0.138	69.3	LOS E	0.4	2.7	0.79	0.72	0.79	17.6
Approach			987	3.7	987	3.7	0.945	99.3	LOS F	26.5	191.2	1.00	1.09	1.25	12.5
North: Coles Carpark															
7	L2	All MCs	14	0.0	14	0.0	0.021	33.1	LOS C	0.4	2.7	0.68	0.48	0.68	16.9
8	T1	All MCs	27	0.0	27	0.0	0.133	41.2	LOS C	1.8	12.8	0.79	0.62	0.79	11.1
9	R2	All MCs	26	4.8	26	4.8	0.133	46.9	LOS D	1.8	12.8	0.79	0.62	0.79	13.3
Approach			67	1.9	67	1.9	0.133	41.7	LOS C	1.8	12.8	0.77	0.59	0.77	13.2
West: Darcy Road															
10	L2	All MCs	46	2.7	46	2.7	0.761	32.7	LOS C	26.9	191.1	0.83	0.77	0.83	15.2
11	T1	All MCs	1339	1.7	1339	1.7	0.761	35.2	LOS C	26.9	191.1	0.83	0.76	0.83	29.1
12	R2	All MCs	276	3.2	276	3.2	* 0.919	89.5	LOS F	12.3	88.3	1.00	1.03	1.30	7.4
Approach			1661	2.0	1661	2.0	0.919	44.2	LOS D	26.9	191.1	0.86	0.81	0.91	21.0
All Vehicles			3273	2.7	3273	2.7	0.965	66.4	LOS E	26.9	191.2	0.89	0.91	1.03	16.6

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	48	100	110
Green Time (sec)	46	46	4	36
Phase Time (sec)	52	52	8	38
Phase Split	35%	35%	5%	25%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

 **Site: 1002 [Bridge St - Byrne St AM 2036 FPC - Mitigation (Site Folder: AM 2036 FPC - Mitigation)]**

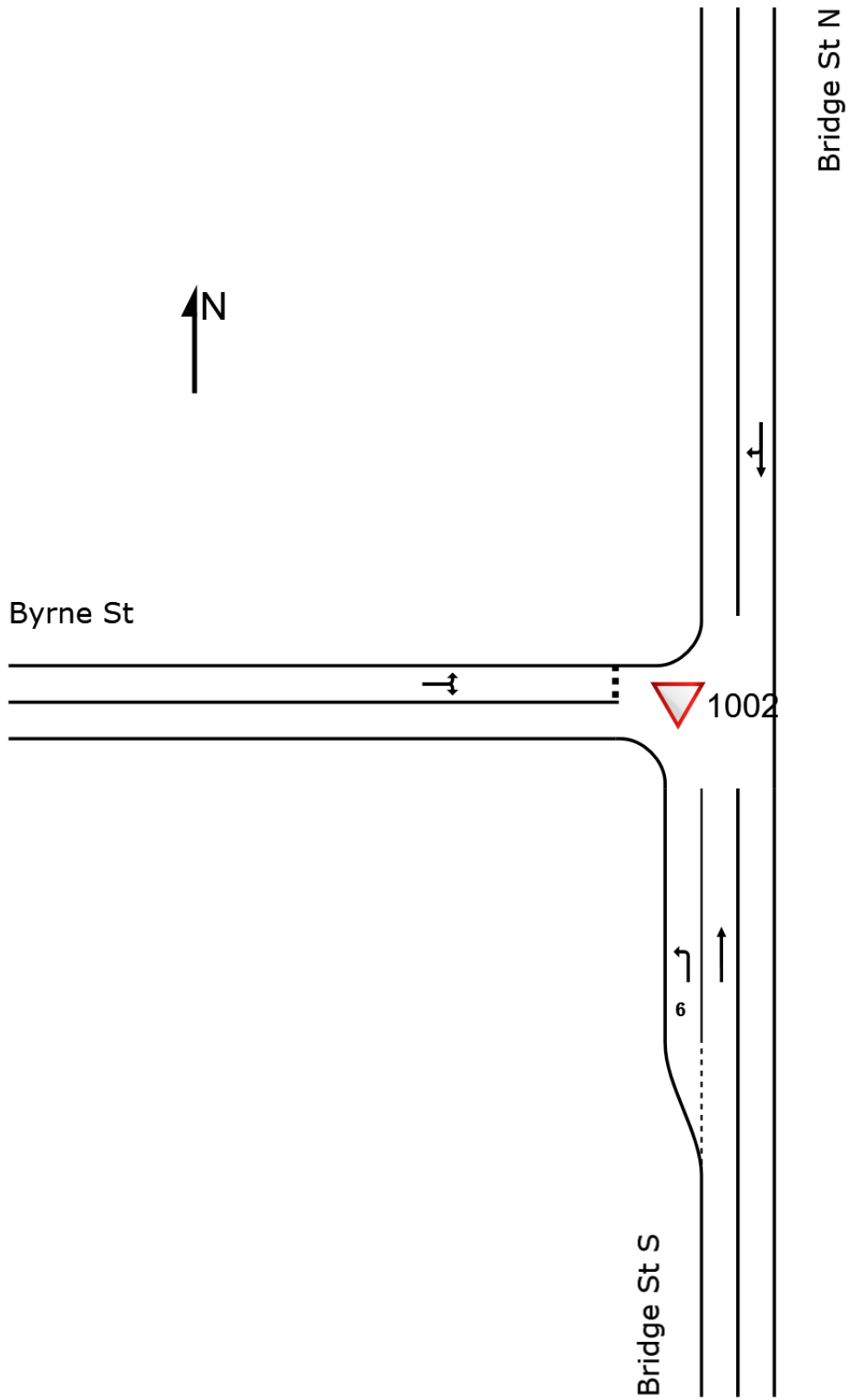
 **Network: 14 [AM 2036 FPC - Mitigations (Network Folder: General)]**

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New Site  
Site Category: (None)  
Give-Way (Two-Way)

#### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge St S															
1	L2	All MCs	152	0.8	152	0.8	0.082	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	51.0
2	T1	All MCs	551	3.2	551	3.2	0.288	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach			703	2.7	703	2.7	0.288	0.7	NA	0.0	0.0	0.00	0.11	0.00	52.6
North: Bridge St N															
8	T1	All MCs	664	3.0	664	3.0	0.440	0.6	LOS A	0.3	1.8	0.08	0.10	0.10	56.6
9	R2	All MCs	25	0.0	25	0.0	0.440	11.1	LOS A	0.3	1.8	0.08	0.10	0.10	55.3
Approach			689	2.9	689	2.9	0.440	1.0	NA	0.3	1.8	0.08	0.10	0.10	56.5
West: Byrne St															
10	L2	All MCs	5	0.0	5	0.0	0.219	8.7	LOS A	0.3	1.9	0.83	0.95	0.90	35.3
12	R2	All MCs	41	0.0	41	0.0	0.219	23.2	LOS B	0.3	1.9	0.83	0.95	0.90	35.3
Approach			46	0.0	46	0.0	0.219	21.6	LOS B	0.3	1.9	0.83	0.95	0.90	35.3
All Vehicles			1438	2.7	1438	2.7	0.440	1.5	NA	0.3	1.9	0.07	0.13	0.08	53.0



 **Site: 1003 [Bridge Rd - Site Access Rd AM 2036 FPC - Mitigation (Site Folder: AM 2036 FPC - Mitigation)]**

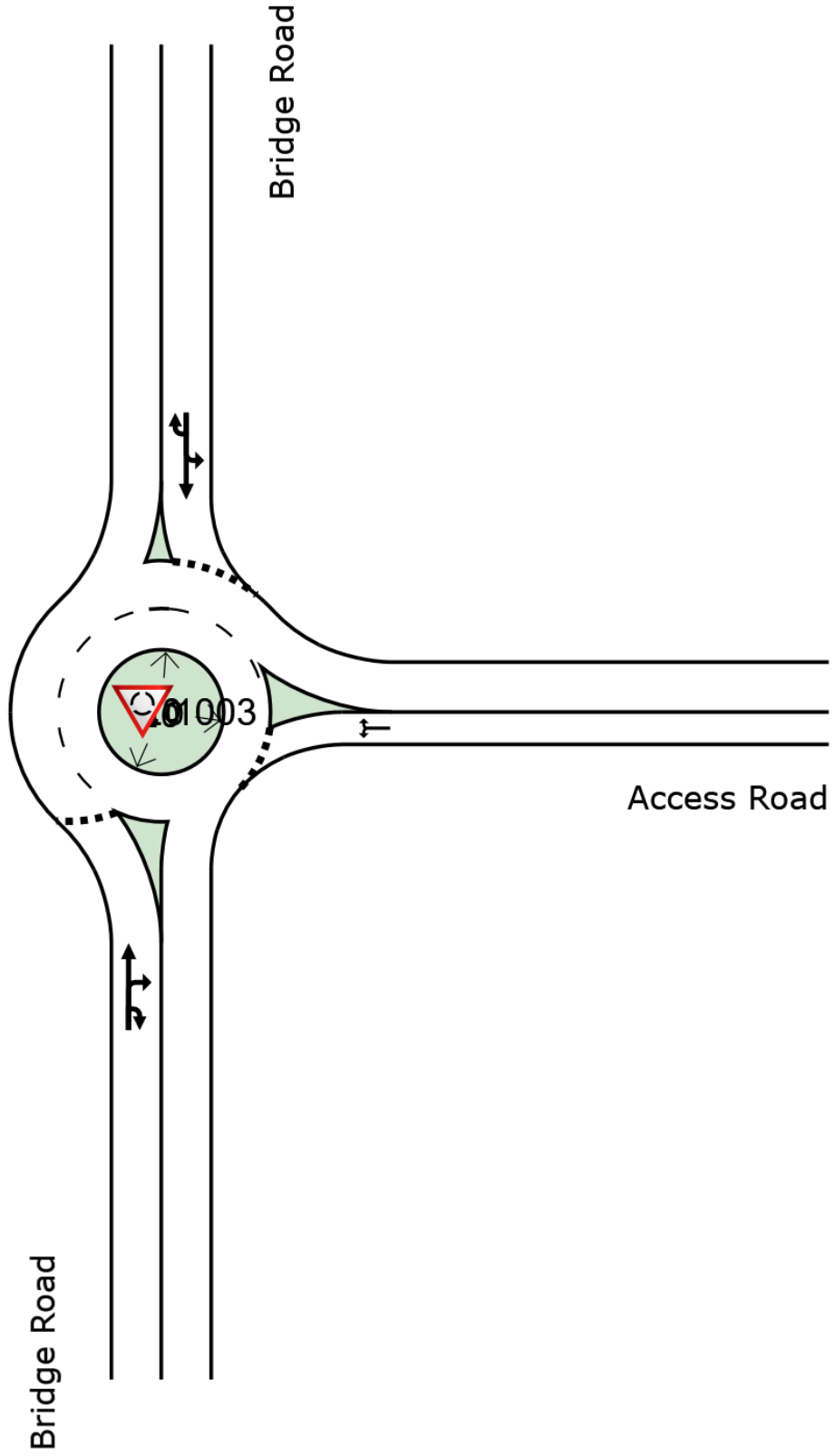
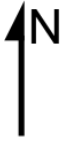
 **Network: 14 [AM 2036 FPC - Mitigations (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	631	3.0	631	3.0	0.496	3.4	LOS A	1.9	13.6	0.37	0.43	0.37	26.6
3	R2	All MCs	52	0.0	52	0.0	0.496	6.8	LOS A	1.9	13.6	0.37	0.43	0.37	38.0
3u	U	All MCs	31	0.0	31	0.0	0.496	8.6	LOS A	1.9	13.6	0.37	0.43	0.37	26.6
Approach			714	2.6	714	2.6	0.496	3.9	LOS A	1.9	13.6	0.37	0.43	0.37	28.6
East: Access Road															
4	L2	All MCs	140	0.0	140	0.0	0.359	11.4	LOS A	1.0	7.3	0.89	0.77	0.89	29.4
6	R2	All MCs	66	0.0	66	0.0	0.359	14.7	LOS B	1.0	7.3	0.89	0.77	0.89	29.4
Approach			206	0.0	206	0.0	0.359	12.4	LOS A	1.0	7.3	0.89	0.77	0.89	29.4
North: Bridge Road															
7	L2	All MCs	23	5.4	23	5.4	0.619	3.2	LOS A	2.1	15.3	0.41	0.43	0.41	38.8
8	T1	All MCs	681	2.8	681	2.8	0.619	3.2	LOS A	2.1	15.3	0.41	0.43	0.41	24.2
9u	U	All MCs	6	0.0	6	0.0	0.619	7.8	LOS A	2.1	15.3	0.41	0.43	0.41	24.2
Approach			710	2.8	710	2.8	0.619	3.2	LOS A	2.1	15.3	0.41	0.43	0.41	25.8
All Vehicles			1630	2.4	1630	2.4	0.619	4.7	LOS A	2.1	15.3	0.45	0.47	0.45	28.1





**Site: 101 [Bridge St - Wentworth Av AM 2036  
FPC - Mitigation (Site Folder: AM 2036 FPC -  
Mitigation)]**

**■ ■ Network: 14 [AM 2036 FPC - Mitigations  
(Network Folder: General)]**

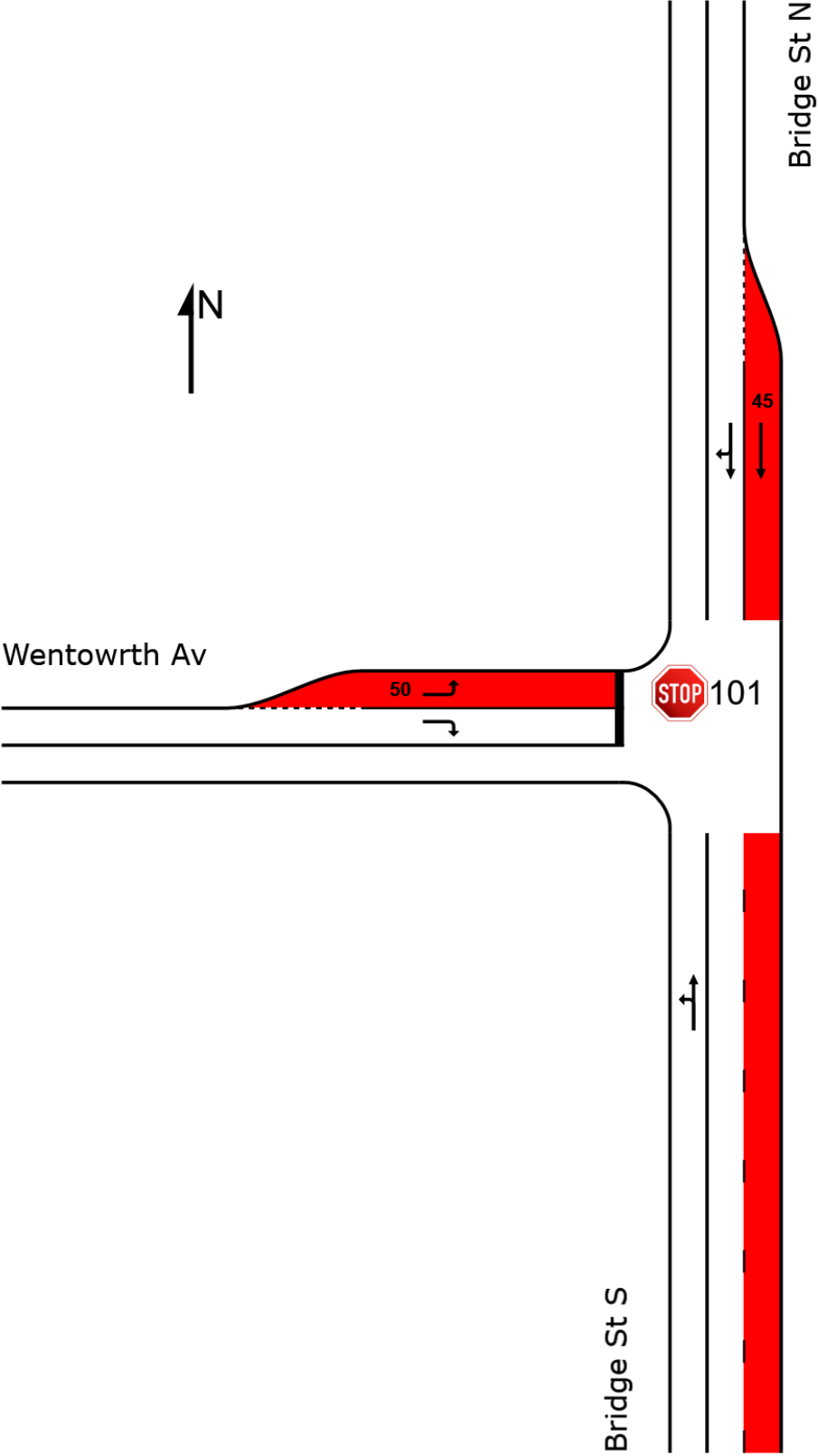
New Site

Site Category: (None)

Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	144	0.0	144	0.0	0.425	4.1	LOS A	0.0	0.0	0.00	0.10	0.00	54.4
2	T1	All MCs	664	2.8	664	2.8	0.425	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	50.5
Approach			808	2.3	808	2.3	0.425	0.8	NA	0.0	0.0	0.00	0.10	0.00	52.9
North: Bridge St N															
8	T1	All MCs	818	2.1	818	2.1	0.237	0.3	LOS A	0.2	1.3	0.06	0.08	0.06	52.3
9	R2	All MCs	26	0.0	26	0.0	0.237	9.1	LOS A	0.2	1.3	0.14	0.17	0.14	53.6
Approach			844	2.1	844	2.1	0.237	0.6	NA	0.2	1.3	0.07	0.08	0.07	52.6
West: Wentowrth Av															
10	L2	All MCs	53	2.4	53	2.4	0.087	12.6	LOS A	0.1	0.9	0.59	0.98	0.59	44.0
12	R2	All MCs	84	1.5	84	1.5	1.201	303.0	LOS F	5.2	36.6	1.00	1.86	4.75	5.5
Approach			137	1.8	137	1.8	1.201	190.3	LOS F	5.2	36.6	0.84	1.52	3.14	8.4
All Vehicles			1790	2.2	1790	2.2	1.201	15.2	NA	5.2	36.6	0.10	0.20	0.27	22.2



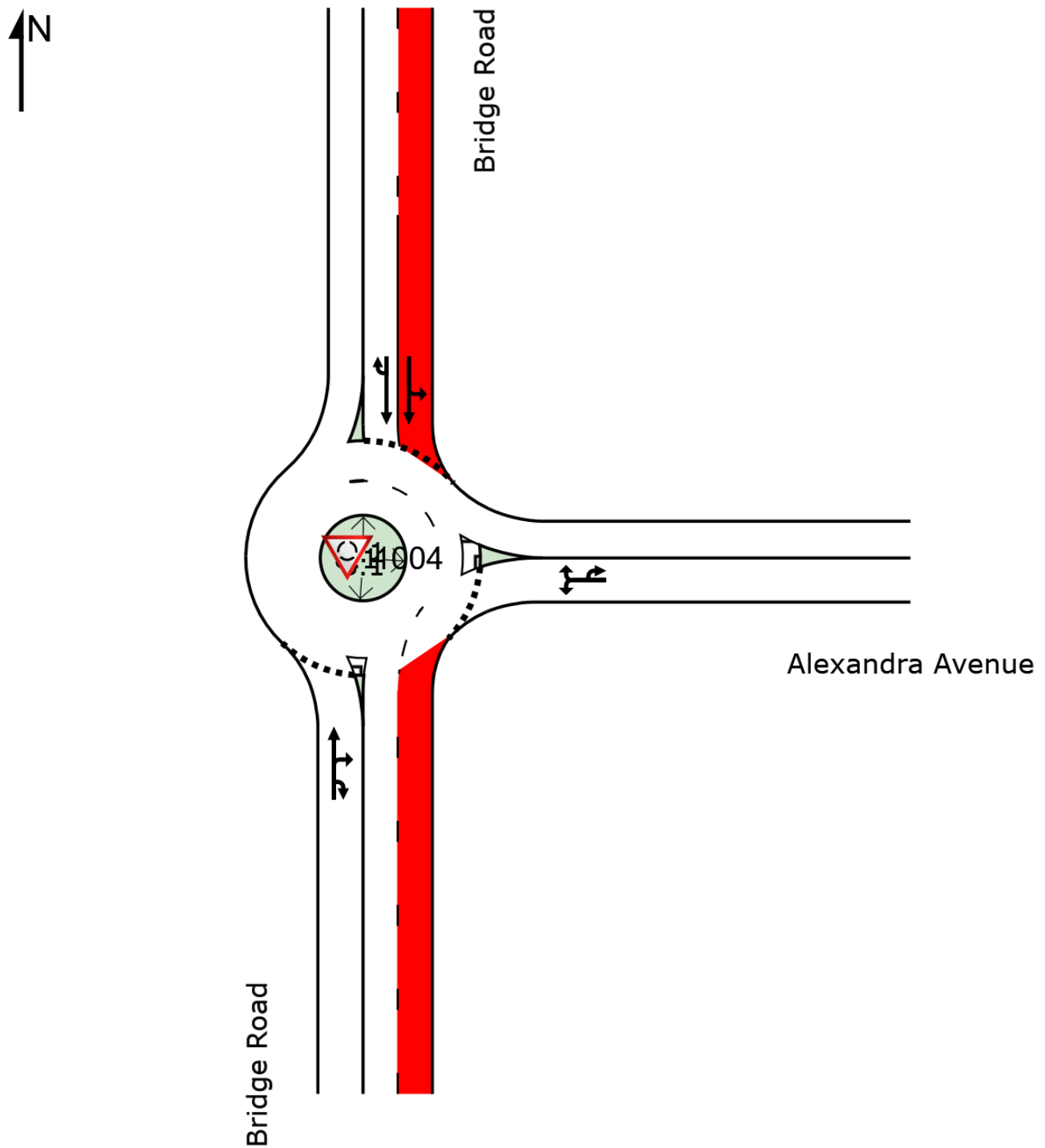
 **Site: 1004 [Bridge Rd - Alexandra Ave AM 2036 FPC - Mitigation (Site Folder: AM 2036 FPC - Mitigation)]**

 **Network: 14 [AM 2036 FPC - Mitigations (Network Folder: General)]**

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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





Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back	Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ]				km/h
South: Bridge Road															
2	T1	All MCs	720	2.3	720	2.3	0.765	4.4	LOS A	4.4	31.3	0.41	0.52	0.41	25.1
3	R2	All MCs	370	0.7	370	0.7	0.765	7.6	LOS A	4.4	31.3	0.41	0.52	0.41	43.2
3u	U	All MCs	5	0.0	5	0.0	0.765	9.1	LOS A	4.4	31.3	0.41	0.52	0.41	25.1
Approach			1095	1.7	1095	1.7	0.765	5.5	LOS A	4.4	31.3	0.41	0.52	0.41	38.1
East: Alexandra Avenue															
4	L2	All MCs	123	5.1	123	5.1	0.325	9.1	LOS A	0.8	6.0	0.78	0.75	0.78	41.4
6	R2	All MCs	82	3.1	82	3.1	0.325	11.5	LOS A	0.8	6.0	0.78	0.75	0.78	41.4
6u	U	All MCs	3	0.0	3	0.0	0.325	13.9	LOS A	0.8	6.0	0.78	0.75	0.78	47.4
Approach			207	4.2	207	4.2	0.325	10.1	LOS A	0.8	6.0	0.78	0.75	0.78	41.5
North: Bridge Road															
7	L2	All MCs	241	0.5	237	0.5	0.674	10.8	LOS A	3.4	24.2	0.88	0.72	1.01	40.2
8	T1	All MCs	647	2.5	637	2.5	0.674	10.7	LOS A	3.4	24.2	0.89	0.74	1.05	15.9
9u	U	All MCs	4	0.0	4	0.0	0.674	15.8	LOS B	2.0	14.4	0.91	0.76	1.09	15.5
Approach			892	2.0	878	2.0	0.674	10.7	LOS A	3.4	24.2	0.89	0.73	1.04	30.4
All Vehicles			2194	2.1	2180	2.1	0.765	8.1	LOS A	4.4	31.3	0.64	0.63	0.70	35.9



 **Site: 1570 [Bridge Rd - Veron St - Grand Ave  
AM 2036 FPC - Mitigation (Site Folder: AM 2036  
FPC - Mitigation)]**

 **Network: 14 [AM 2036 FPC - Mitigations  
(Network Folder: General)]**

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed

Input Phase Sequence: A, B, C

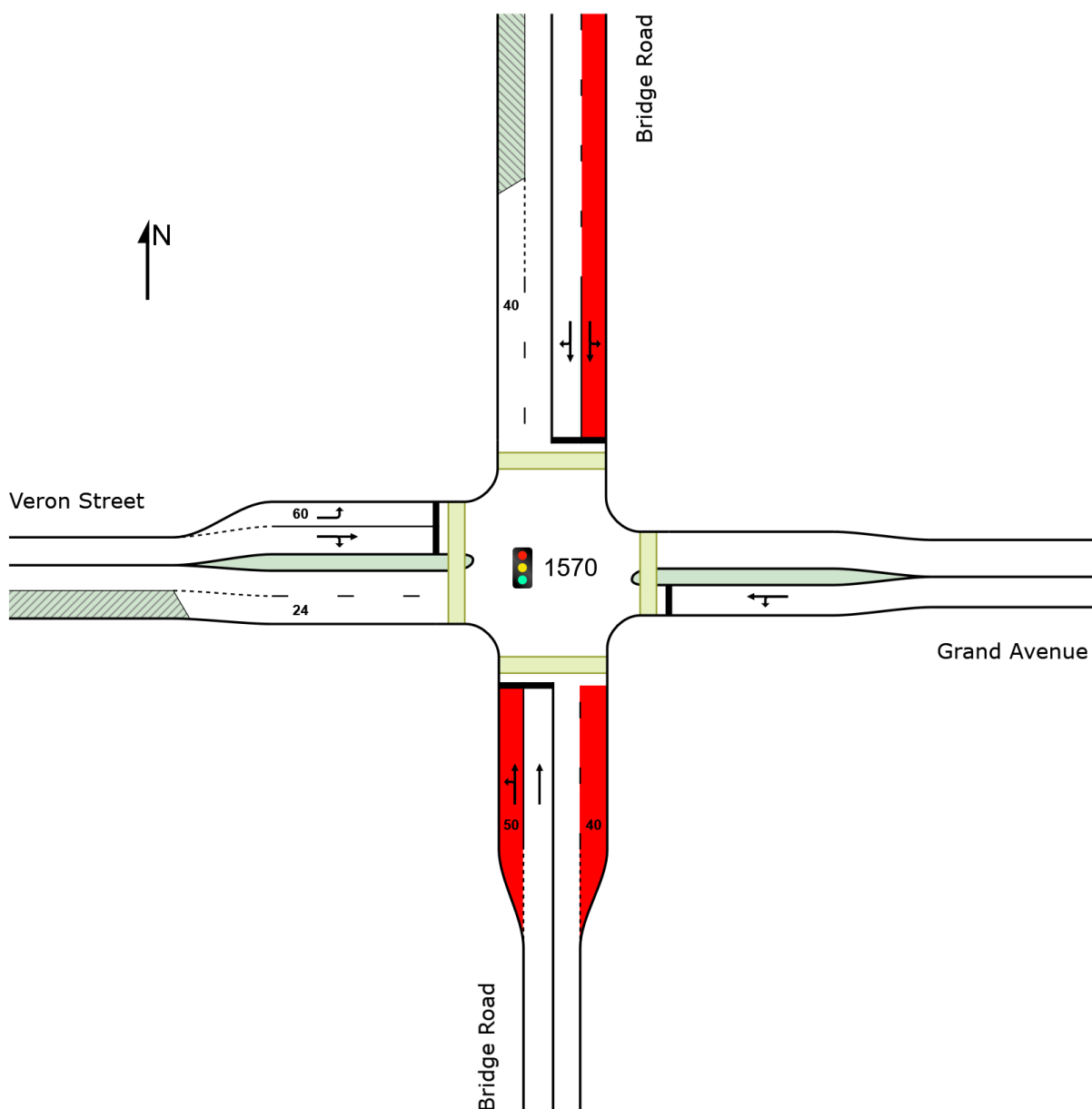
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

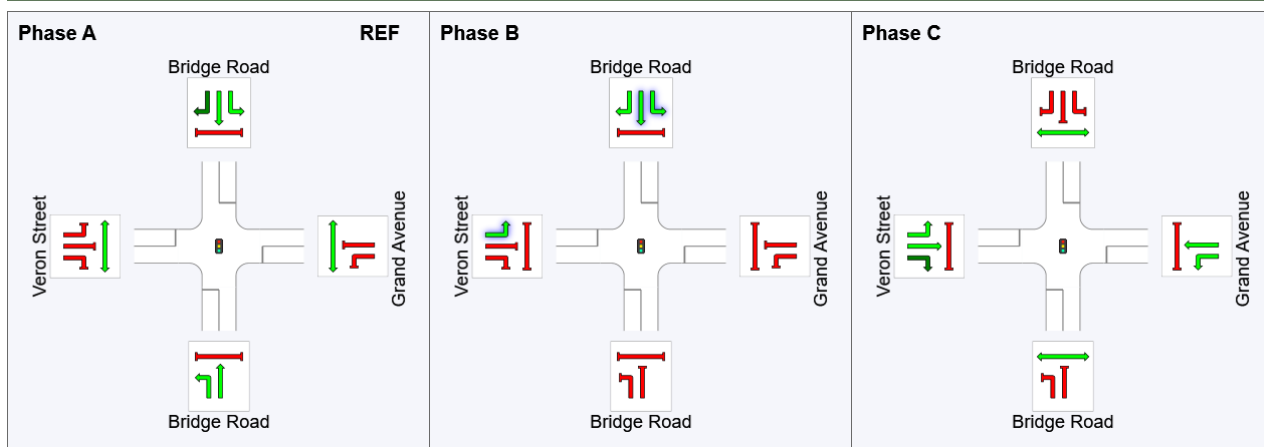
### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	38	0.0	38	0.0	0.213	19.1	LOS B	2.3	16.0	0.66	0.59	35.0
2	T1	All MCs	658	1.0	658	1.0	*0.728	19.1	LOS B	9.6	67.4	0.84	0.77	12.3
Approach			696	0.9	696	0.9	0.728	19.1	LOS B	9.6	67.4	0.83	0.76	14.6
East: Grand Avenue														
4	L2	All MCs	13	0.0	13	0.0	0.154	35.7	LOS C	0.7	5.1	0.92	0.69	29.6
5	T1	All MCs	25	0.0	25	0.0	0.154	30.9	LOS C	0.7	5.1	0.92	0.69	35.3
Approach			38	0.0	38	0.0	0.154	32.5	LOS C	0.7	5.1	0.92	0.69	33.7
North: Bridge Road														
7	L2	All MCs	15	0.0	15	0.0	0.216	8.8	LOS A	2.1	14.8	0.38	0.34	44.5
8	T1	All MCs	505	2.5	498	2.5	0.738	7.1	LOS A	8.3	59.9	0.63	0.63	22.6
9	R2	All MCs	253	3.5	250	3.5	*0.738	35.1	LOS C	8.3	59.9	0.93	0.97	30.3
Approach			773	2.8	763	2.8	0.738	16.3	LOS B	8.3	59.9	0.73	0.73	27.6
West: Veron Street														
10	L2	All MCs	419	3.0	419	3.0	0.587	24.6	LOS B	7.0	50.2	0.84	0.81	29.9
11	T1	All MCs	46	0.0	46	0.0	*0.656	33.7	LOS C	3.0	20.9	1.00	0.85	33.6
12	R2	All MCs	89	1.4	89	1.4	0.656	39.3	LOS C	3.0	20.9	1.00	0.85	24.7
Approach			555	2.5	555	2.5	0.656	27.8	LOS B	7.0	50.2	0.88	0.82	29.4
All Vehicles			2061	2.0	2051	2.0	0.738	20.6	LOS B	9.6	67.4	0.81	0.77	25.8

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	36	55
Green Time (sec)	30	13	9
Phase Time (sec)	36	19	15
Phase Split	51%	27%	21%
Phase Frequency (%)	100.0	100.0	100.0

# USER REPORT FOR NETWORK SITE



**Project: 0898-2m03 SIDRA**

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

**Template: Default Site User  
Report**



**Site: 1630 [Darcy Rd - Bridge Rd - Coles  
Carpark PM 2036 FPC - Mitigation (Site Folder:  
PM 2036 FPC - Mitigation)]**



**Network: 15 [PM 2036 FPC - Mitigations  
(Network Folder: General)]**

Darcy Rd - Bridge Rd - Coles Carpark

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 130 seconds (Site Practical Cycle Time)

**Timings based on settings in the Site Phasing & Timing dialog**

**Phase Times determined by the program**

**Downstream lane blockage effects included in determining phase times**

**Phase Sequence: Survey Footage - Import (2)**

**Input Phase Sequence: A, B, C, C1**

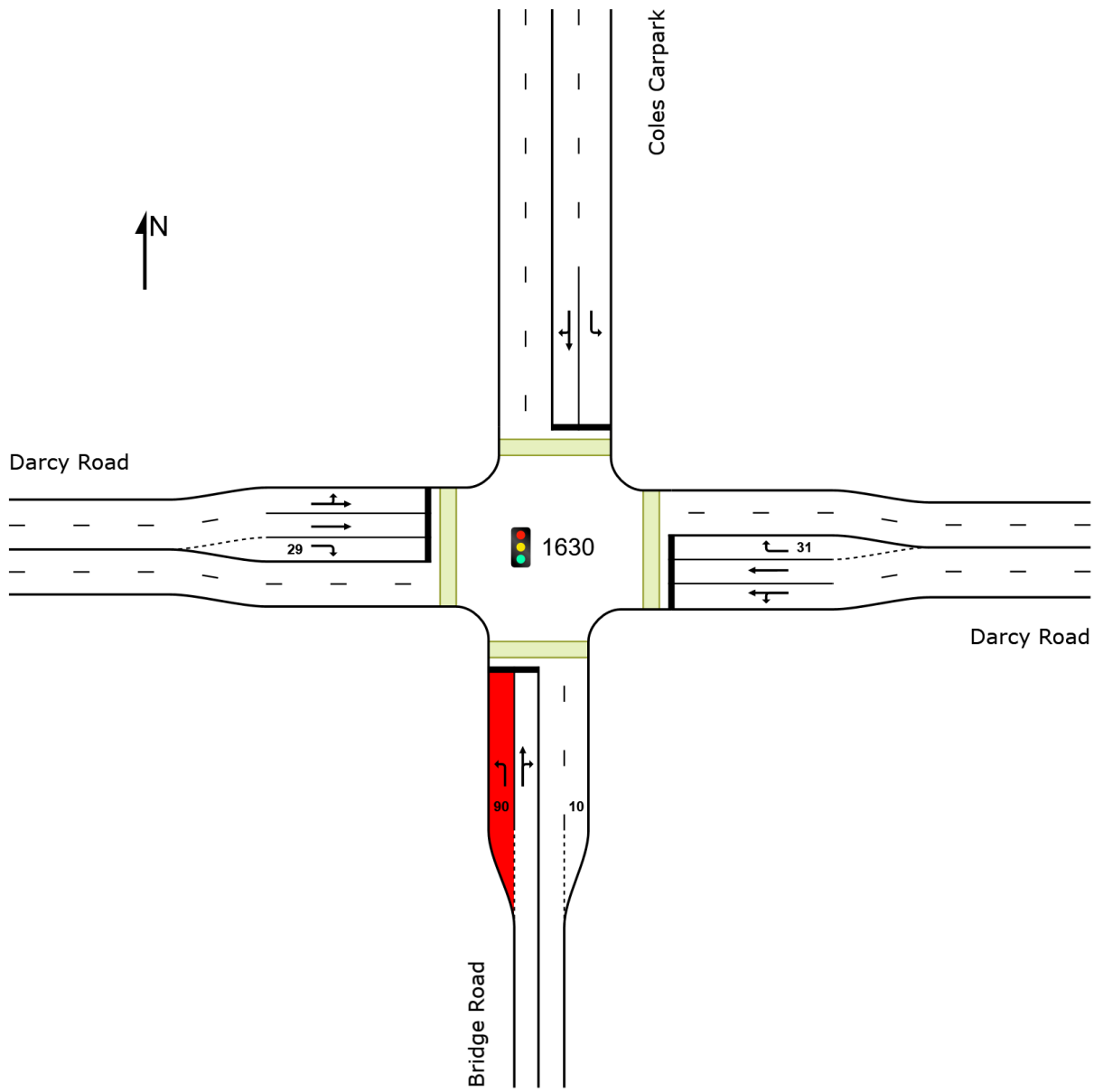
**Output Phase Sequence: A, B, C, C1**

**Reference Phase: Phase A**

**Offset: NA**

## Site Layout

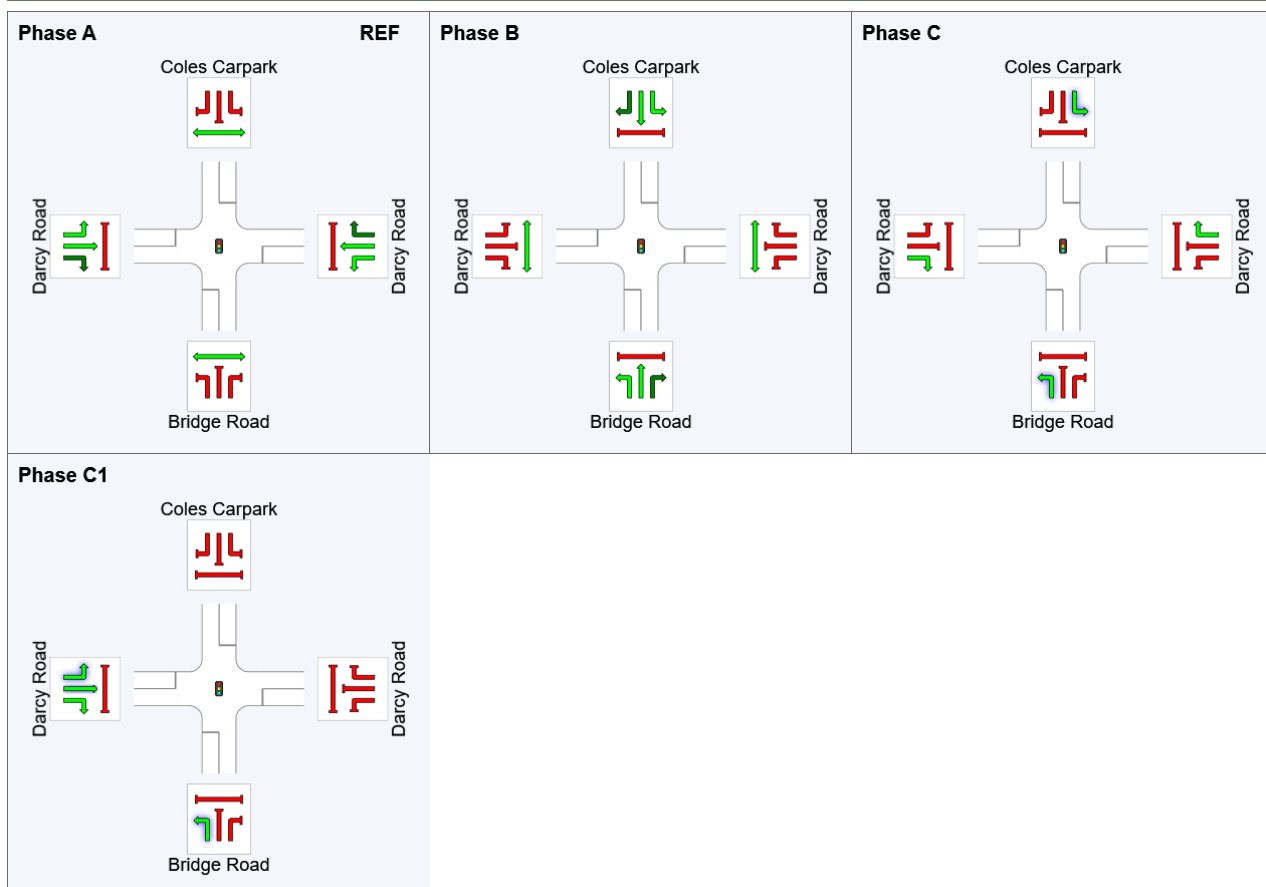
Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
1	L2	All MCs	265	0.9	264	0.9	0.253	19.4	LOS B	5.1	35.7	0.54	0.71	29.8
2	T1	All MCs	41	0.0	41	0.0	0.880	75.4	LOS F	5.8	42.1	1.00	0.99	12.8
3	R2	All MCs	90	6.8	90	6.8	*0.880	82.6	LOS F	5.8	42.1	1.00	0.99	17.8
Approach			396	2.2	396	2.2	0.880	39.6	LOS C	5.8	42.1	0.69	0.80	21.3
East: Darcy Road														
4	L2	All MCs	402	1.8	402	1.8	0.901	64.3	LOS E	23.3	165.4	1.00	1.01	15.2
5	T1	All MCs	697	0.9	697	0.9	*0.901	80.4	LOS F	23.5	165.8	1.00	1.04	19.8
6	R2	All MCs	27	0.0	27	0.0	0.065	51.1	LOS D	0.4	2.9	0.66	0.71	18.7
Approach			1126	1.2	1126	1.2	0.901	73.9	LOS F	23.5	165.8	0.99	1.02	15.6
North: Coles Carpark														
7	L2	All MCs	31	0.0	31	0.0	0.066	40.0	LOS C	0.9	6.3	0.80	0.59	16.3
8	T1	All MCs	67	0.0	67	0.0	0.640	60.0	LOS E	4.2	29.7	1.00	0.84	9.9
9	R2	All MCs	40	0.0	40	0.0	0.640	70.0	LOS E	4.2	29.7	1.00	0.84	12.0
Approach			138	0.0	138	0.0	0.640	58.5	LOS E	4.2	29.7	0.96	0.78	12.0
West: Darcy Road														
10	L2	All MCs	67	0.0	67	0.0	0.218	15.1	LOS B	4.0	28.4	0.42	0.47	16.9
11	T1	All MCs	471	1.0	471	1.0	0.218	15.1	LOS B	4.0	28.5	0.42	0.41	39.7
12	R2	All MCs	469	1.3	469	1.3	*0.787	46.2	LOS D	13.4	94.6	0.91	0.95	12.7
Approach			1007	1.1	1007	1.1	0.787	29.5	LOS C	13.4	94.6	0.65	0.67	21.5
All Vehicles			2667	1.2	2667	1.2	0.901	51.3	LOS D	23.5	165.8	0.82	0.84	17.5



## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C	C1
Phase Change Time (sec)	0	47	72	87
Green Time (sec)	45	19	9	39
Phase Time (sec)	51	25	13	41
Phase Split	39%	19%	10%	32%
Phase Frequency (%)	100.0 <sup>4</sup>	100.0 <sup>4</sup>	60.0 <sup>4</sup>	40.0 <sup>4</sup>

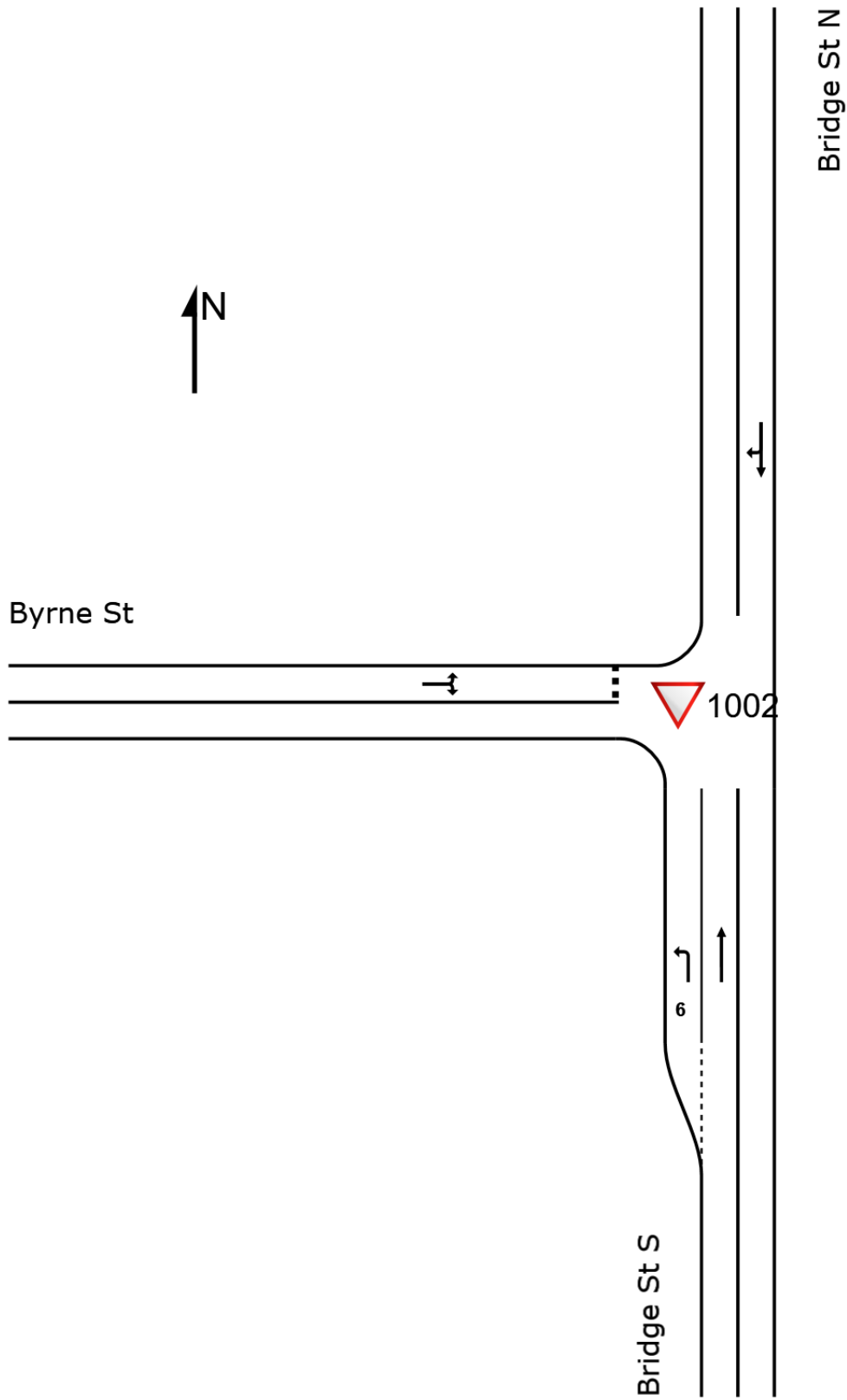
▼ Site: 1002 [Bridge St - Byrne St PM 2036 FPC  
- Mitigation (Site Folder: PM 2036 FPC -  
Mitigation)]

■ ■ Network: 15 [PM 2036 FPC - Mitigations  
(Network Folder: General)]

New Site  
Site Category: (None)  
Give-Way (Two-Way)

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge St S															
1	L2	All MCs	67	1.8	67	1.8	0.037	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	50.9
2	T1	All MCs	415	2.7	415	2.7	0.217	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			483	2.5	483	2.5	0.217	0.4	NA	0.0	0.0	0.00	0.07	0.00	53.4
North: Bridge St N															
8	T1	All MCs	918	1.5	918	1.5	1.022	27.8	LOS B	10.6	75.3	1.00	0.94	3.24	21.3
9	R2	All MCs	39	0.0	39	0.0	1.022	82.6	LOS F	10.6	75.3	1.00	0.94	3.24	35.1
Approach			958	1.4	958	1.4	1.022	30.0	NA	10.6	75.3	1.00	0.94	3.24	22.2
West: Byrne St															
10	L2	All MCs	11	0.0	11	0.0	0.557	11.1	LOS A	0.5	3.4	0.90	1.04	1.19	30.3
12	R2	All MCs	49	2.5	49	2.5	0.557	34.4	LOS C	0.5	3.4	0.90	1.04	1.19	30.3
Approach			60	2.0	60	2.0	0.557	30.2	LOS C	0.5	3.4	0.90	1.04	1.19	30.3
All Vehicles			1500	1.8	1500	1.8	1.022	20.5	NA	10.6	75.3	0.67	0.66	2.11	24.9



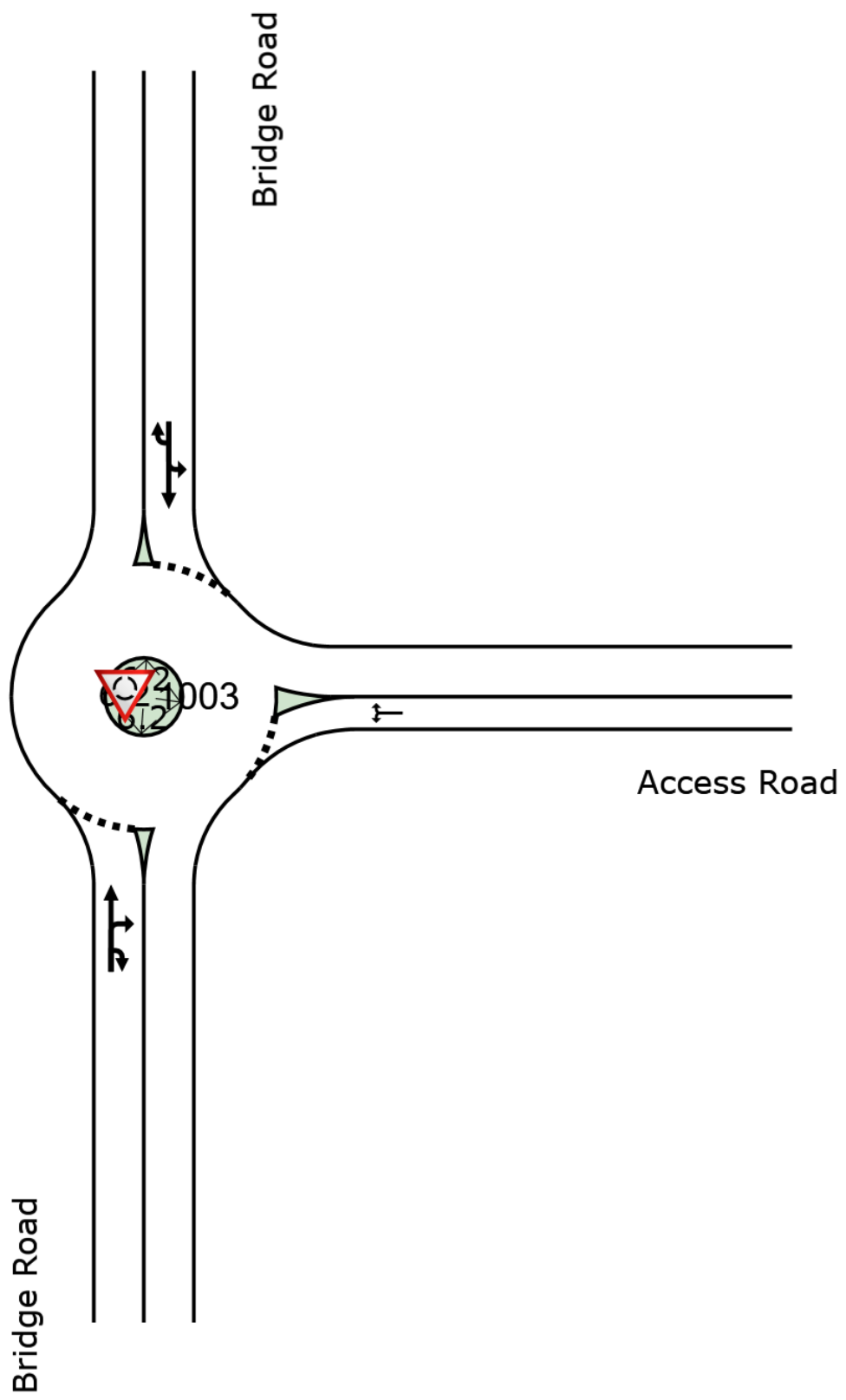
 **Site: 1003 [Bridge Rd - Site Access Rd PM 2036 FPC - Mitigation (Site Folder: PM 2036 FPC - Mitigation)]**

 **Network: 15 [PM 2036 FPC - Mitigations (Network Folder: General)]**

Bridge Rd - Access Rd  
Site Category: NA  
Roundabout

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Queue	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge Road														
2	T1	All MCs	450	2.4	450	2.4	0.388	3.5	LOS A	1.4	9.8	0.24	0.47	25.9
3	R2	All MCs	104	0.0	104	0.0	0.388	6.3	LOS A	1.4	9.8	0.24	0.47	37.6
3u	U	All MCs	33	0.0	33	0.0	0.388	7.8	LOS A	1.4	9.8	0.24	0.47	25.9
Approach			588	1.9	588	1.9	0.388	4.3	LOS A	1.4	9.8	0.24	0.47	30.4
East: Access Road														
4	L2	All MCs	78	0.0	78	0.0	0.289	14.0	LOS A	0.9	6.4	1.00	0.81	27.1
6	R2	All MCs	35	3.5	35	3.5	0.289	16.9	LOS B	0.9	6.4	1.00	0.81	27.1
Approach			113	1.1	113	1.1	0.289	14.9	LOS B	0.9	6.4	1.00	0.81	27.1
North: Bridge Road														
7	L2	All MCs	57	2.1	56	2.1	0.847	6.8	LOS A	4.2	30.0	0.90	0.60	34.8
8	T1	All MCs	907	1.5	888	1.5	0.847	6.6	LOS A	4.2	30.0	0.90	0.60	16.7
9u	U	All MCs	2	0.0	2	0.0	0.847	10.6	LOS A	4.2	30.0	0.90	0.60	16.7
Approach			966	1.5	947	1.5	0.847	6.6	LOS A	4.2	30.0	0.90	0.60	19.5
All Vehicles			1666	1.6	1647	1.6	0.847	6.3	LOS A	4.2	30.0	0.67	0.57	24.7







**Site: 101 [Bridge St - Wentworth Av PM 2036  
FPC - Mitigation (Site Folder: PM 2036 FPC -  
Mitigation)]**

**■ ■ Network: 15 [PM 2036 FPC - Mitigations  
(Network Folder: General)]**

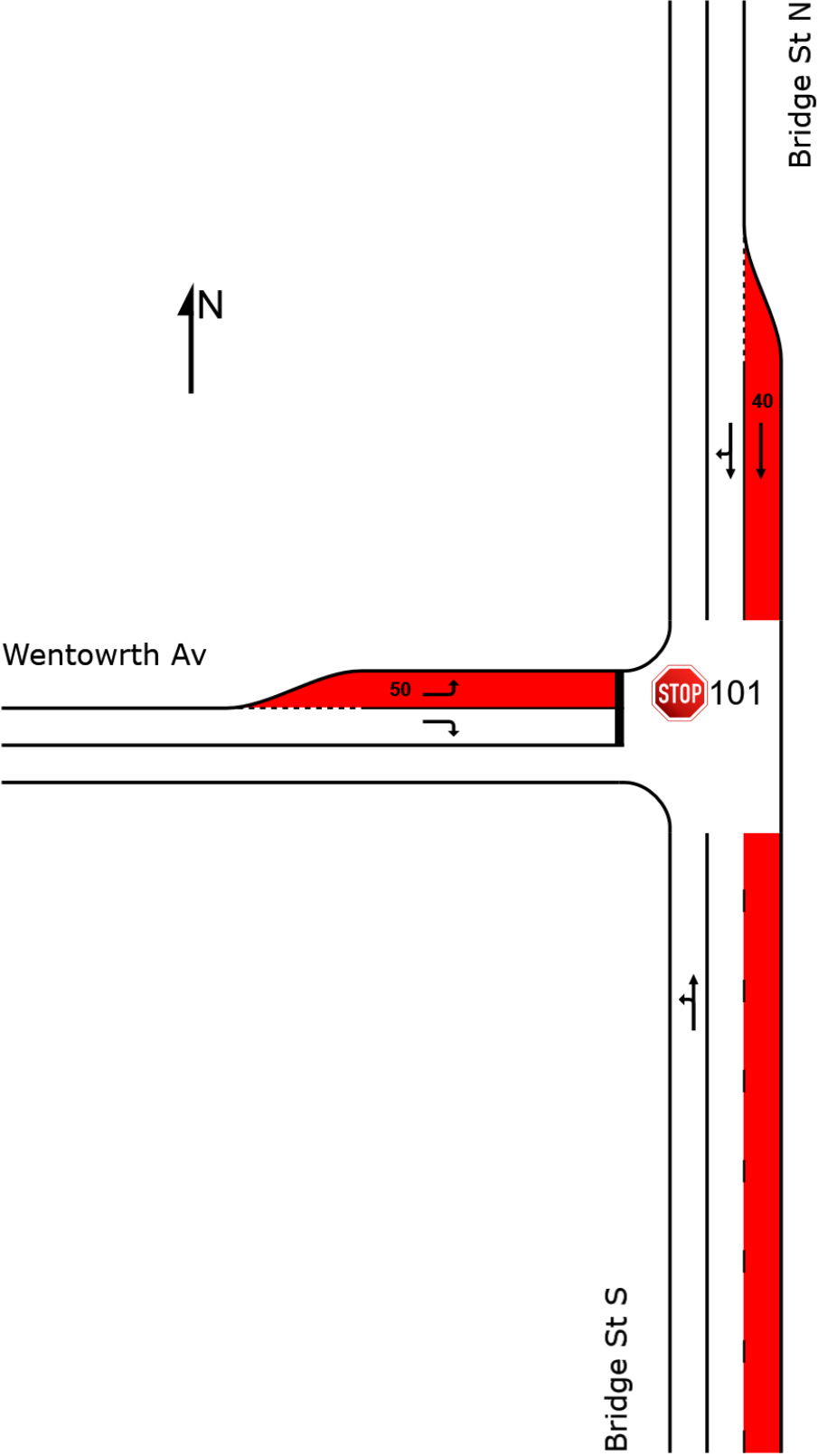
New Site

Site Category: (None)

Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m			km/h
South: Bridge St S														
1	L2	All MCs	187	0.7	187	0.7	0.373	4.1	LOS A	0.0	0.0	0.00	0.15	53.9
2	T1	All MCs	522	2.1	522	2.1	0.373	0.0	LOS A	0.0	0.0	0.00	0.15	47.2
Approach			709	1.7	709	1.7	0.373	1.1	NA	0.0	0.0	0.00	0.15	52.0
North: Bridge St N														
8	T1	All MCs	999	1.3	981	1.3	0.349	0.3	LOS A	0.2	1.4	0.05	0.06	53.9
9	R2	All MCs	27	0.0	26	0.0	0.349	8.4	LOS A	0.2	1.4	0.14	0.17	53.6
Approach			1026	1.3	1008	1.3	0.349	0.5	NA	0.2	1.4	0.05	0.06	53.8
West: Wentowrth Av														
10	L2	All MCs	64	0.0	64	0.0	0.081	10.9	LOS A	0.1	0.9	0.52	0.93	45.6
12	R2	All MCs	82	0.0	82	0.0	1.818	804.3	LOS F	10.0	70.0	1.00	2.92	2.2
Approach			146	0.0	146	0.0	1.818	454.9	LOS F	10.0	70.0	0.79	2.04	3.8
All Vehicles			1881	1.4	1863	1.4	1.818	36.4	NA	10.0	70.0	0.09	0.25	12.5



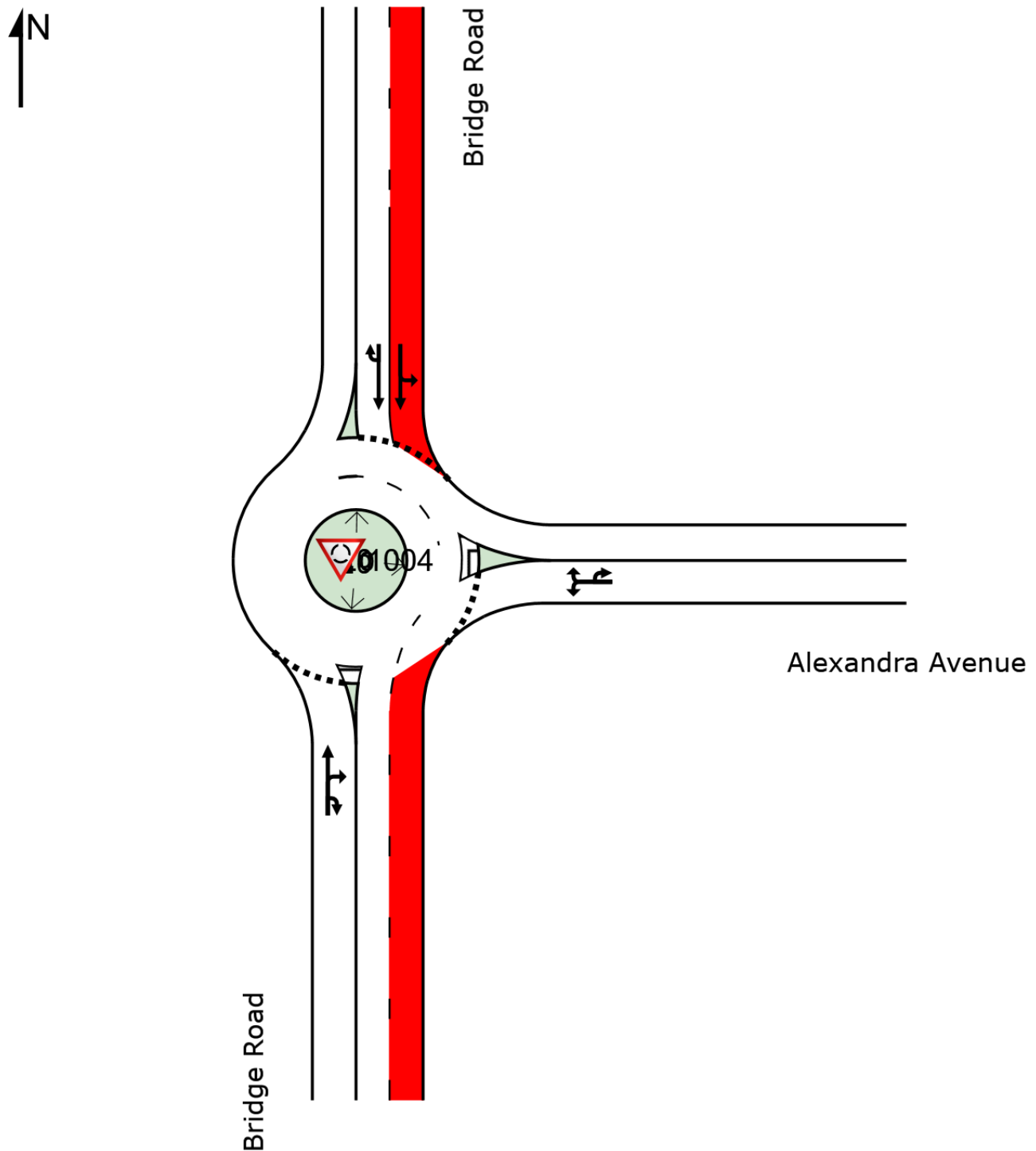
 **Site: 1004 [Bridge Rd - Alexandra Ave PM 2036 FPC - Mitigation (Site Folder: PM 2036 FPC - Mitigation)]**

 **Network: 15 [PM 2036 FPC - Mitigations (Network Folder: General)]**

Bridge Rd - Alexandra Ave  
Site Category: (None)  
Roundabout

### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				km/h
South: Bridge Road															
2	T1	All MCs	544	2.2	544	2.2	0.579	4.4	LOS A	2.0	14.4	0.41	0.54	0.41	25.8
3	R2	All MCs	190	0.6	190	0.6	0.579	7.9	LOS A	2.0	14.4	0.41	0.54	0.41	43.4
3u	U	All MCs	2	0.0	2	0.0	0.579	9.6	LOS A	2.0	14.4	0.41	0.54	0.41	25.8
Approach			737	1.8	737	1.8	0.579	5.3	LOS A	2.0	14.4	0.41	0.54	0.41	37.0
East: Alexandra Avenue															
4	L2	All MCs	199	0.0	199	0.0	0.611	15.5	LOS B	2.4	16.6	0.95	0.97	1.30	37.0
6	R2	All MCs	158	0.0	158	0.0	0.611	18.7	LOS B	2.4	16.6	0.95	0.97	1.30	37.0
6u	U	All MCs	1	0.0	1	0.0	0.611	21.4	LOS B	2.4	16.6	0.95	0.97	1.30	44.4
Approach			359	0.0	359	0.0	0.611	16.9	LOS B	2.4	16.6	0.95	0.97	1.30	37.0
North: Bridge Road															
7	L2	All MCs	204	0.0	193	0.0	0.699	6.1	LOS A	3.3	23.1	0.74	0.54	0.74	42.9
8	T1	All MCs	870	1.3	826	1.3	0.699	6.7	LOS A	3.3	23.1	0.77	0.57	0.80	21.0
9u	U	All MCs	1	0.0	1	0.0	0.699	14.0	LOS A	2.7	19.2	0.83	0.63	0.93	18.6
Approach			1075	1.0	1020	1.1	0.699	6.6	LOS A	3.3	23.1	0.76	0.56	0.79	32.6
All Vehicles			2170	1.1	2116	1.2	0.699	7.9	LOS A	3.3	23.1	0.67	0.62	0.74	35.5





Site: 1570 [Bridge Rd - Veron St - Grand Ave  
PM 2036 FPC - Mitigation (Site Folder: PM 2036  
FPC - Mitigation)]

Network: 15 [PM 2036 FPC - Mitigations  
(Network Folder: General)]

Bridge Rd - Veron St - Grand Ave

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Survey Observed - Import

Input Phase Sequence: A, B, C

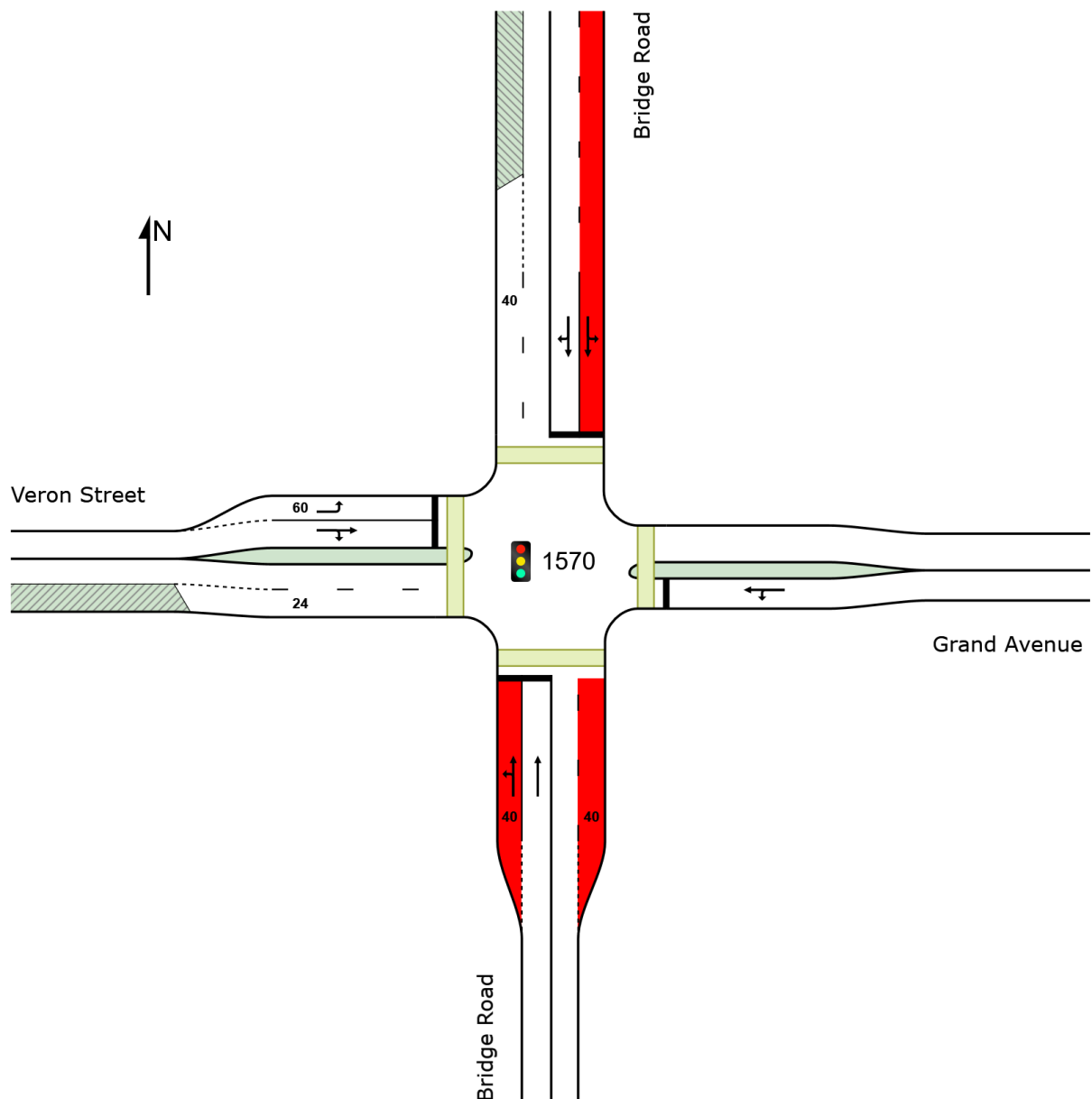
Output Phase Sequence: A, B, C

Reference Phase: Phase A

Offset: NA

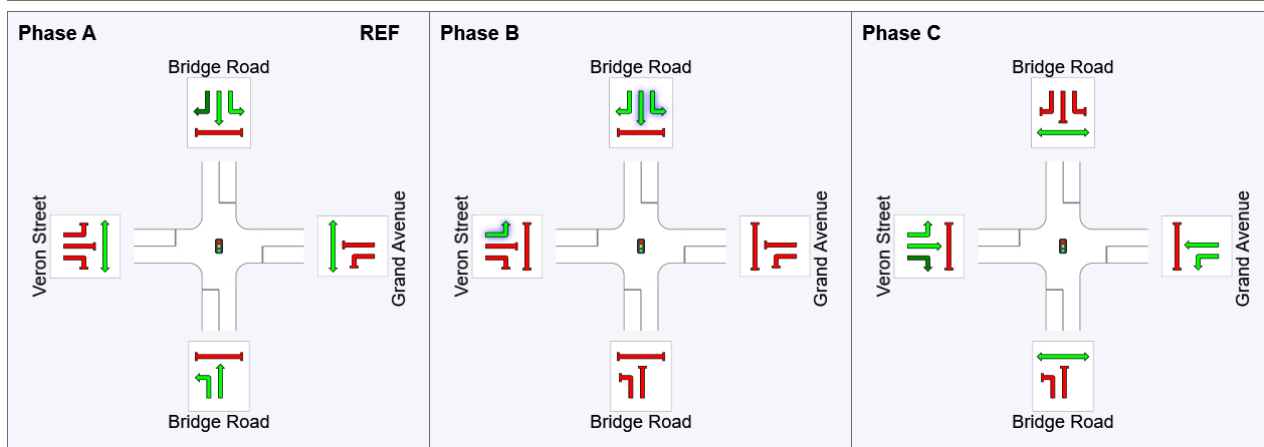
### Site Layout

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



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. veh	Dist ] m				
South: Bridge Road															
1	L2	All MCs	66	0.0	66	0.0	0.252	45.4	LOS D	2.7	18.8	0.83	0.72	0.83	27.1
2	T1	All MCs	453	2.2	453	2.2	* 0.859	52.8	LOS D	11.7	83.6	0.98	1.00	1.18	6.4
Approach			520	1.9	520	1.9	0.859	51.9	LOS D	11.7	83.6	0.96	0.97	1.13	8.1
East: Grand Avenue															
4	L2	All MCs	13	9.1	13	9.1	0.492	48.0	LOS D	2.8	19.5	0.98	0.77	0.98	26.1
5	T1	All MCs	91	0.0	91	0.0	* 0.492	43.2	LOS D	2.8	19.5	0.98	0.77	0.98	32.0
Approach			104	1.2	104	1.2	0.492	43.9	LOS D	2.8	19.5	0.98	0.77	0.98	31.4
North: Bridge Road															
7	L2	All MCs	11	0.0	11	0.0	0.218	8.2	LOS A	2.4	17.0	0.31	0.28	0.31	45.0
8	T1	All MCs	678	1.4	650	1.5	0.745	6.5	LOS A	9.2	65.0	0.60	0.64	0.60	22.3
9	R2	All MCs	384	0.3	368	0.3	* 0.745	34.1	LOS C	9.2	65.0	0.85	0.95	0.85	31.1
Approach			1073	1.0	1029	1.0	0.745	16.4	LOS B	9.2	65.0	0.69	0.75	0.69	27.8
West: Veron Street															
10	L2	All MCs	278	1.3	278	1.3	0.257	14.6	LOS B	3.5	24.8	0.50	0.69	0.50	35.6
11	T1	All MCs	15	0.0	15	0.0	0.475	42.9	LOS D	1.7	11.7	1.00	0.75	1.00	30.4
12	R2	All MCs	45	0.0	45	0.0	0.475	51.8	LOS D	1.7	11.7	1.00	0.75	1.00	21.4
Approach			338	1.1	338	1.1	0.475	20.8	LOS B	3.5	24.8	0.59	0.71	0.59	32.0
All Vehicles			2035	1.3	1991	1.3	0.859	27.8	LOS B	11.7	83.6	0.76	0.80	0.80	22.8

## Output Phase Sequence



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	30	74
Green Time (sec)	24	38	10
Phase Time (sec)	30	44	16
Phase Split	33%	49%	18%
Phase Frequency (%)	100.0	100.0	100.0