17-23 Talavera Road, Macquarie Park
Transport Impact Assessment

Prepared for:

Macquarie Data Centres Pty Ltd

25 October 2022

The Transport Planning Partnership

17-23 Talavera Road, Macquarie Park
Transport Impact Assessment

Client: Macquarie Data Centres Pty Ltd

Version: V06

Date: 25 October 2022

TTPP Reference: 21178

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	06/08/21	Ashwini Uthishtran	Kelly Yoon	Ken Hollyoak	DRAFT
V02	11/10/21	Ashwini Uthishtran	Kelly Yoon	Ken Hollyoak	2nd DRAFT
V03	25/10/21	Ashwini Uthishtran	Kelly Yoon	Ken Hollyoak	FINAL
V04	4/11/21	Ashwini Uthishtran	Kelly Yoon	Ken Hollyoak	FINAL
V05	1/02/2022	Oasika Faiz	Oasika Faiz	Ken Hollyoak	FINAL
V06	24/10/22	James Goodman	Oasika Faiz	Ken Hollyoak	

Table of Contents

Tables

Figures

APPENDICES

1 Introduction

1.1 Executive Summary

This Traffic Impact Assessment (TIA) has been prepared by The Transport Planning Partnership (TTPP) on behalf of Macquarie Data Centres (MDC) C/- GIDDIS Project Management.

The following TIA has been produced to support the Environmental Impact Statement (EIS) prepared by Willowtree Planning PTY Ltd (Willowtree Planning).

The EIS has been submitted to the New South Wales (NSW) Department of Planning, Industry and Environment (DPIE), in support of an application for State Significant Development (SSD), for the construction and operation of a data centre, involving earth works, provision of infrastructure and expansion of an existing data centre at 17 – 23 Talavera Road, Macquarie Park (Lot 527 DP 752035).

The proposal represents an extension to the approved data centre (LDA/2018/0322) to allow for additional data storage capacity at the subject site, improving the overall operational efficiencies and provision of technology services to customers and the wider locality.

The proposal involves the construction and operation of an expansion to an existing data centre located at 17-23 Talavera Road, Macquarie Park (Lot 527 in DP 752035), comprising:

- a seven (7) storey building plus ground floor
- ancillary office space and staff amenities
- a back-up power system
- associated infrastructure, car parking, loading docks and landscaping

The subject site is located within the City of Ryde Local Government Area (LGA). The proposal seeks to operate 24 hours per day, seven (7) days per week.

The particulars of this proposal are summarised below:

- Minor earthworks involving cut and fill works
- Infrastructure comprising civil works and utilities servicing
- Construction of a seven (7) storey building plus ground floor extension, comprising up to:
  - 15 data halls
  - 20 back up generators
  - Fitout of the building for use as a data centre (on an as-needs basis)

1.2 Report Structure

The report assesses the traffic and parking implications of the proposed development and is set out as follows:

Chapter 2 discusses the existing conditions including a description of the subject site

- Chapter 3 provides a brief description of the proposed development
- Chapter 4 assesses the proposed on-site parking provision and internal layout
- Chapter 5 examines the traffic generation and its impact
- Chapter 6 presents the conclusions of the assessment.

1.3 SEARs Assessment

This TIA is prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs). The SEARs for the proposal outline Key Issues to be addressed as part of this EIS and includes:

TTPP have been appointed by Macquarie Data Centres (MDC) to undertake the Infrastructure Assessment Report for the proposed development of the Macquarie Park Data Centre Campus IC3 Super West site.

The SEARS are addressed within Table 1.1 of this report.

Table 1.1: SEARs Requirements

SEARs item	Report Address
details of all traffic types and volumes likely to be generated during construction and operation of the development (light and heavy vehicles, public transport, pedestrian and cycle trips), including maps depicting the key access routes for each transport mode	Section 5
an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections (Lane Cove Road/ Talavera Road and Talavera Road/ Khartoum Road intersections) using SIDRA or similar modelling	Section 5
details of the number of proposed car parking spaces and compliance with the appropriate parking standards/guidelines	Section 4
detailed plans of the internal road network, loading dock arrangements and proposed pedestrian and cyclist facilities (including end of trip facilities), in accordance with relevant Australian Standards	Appendix A
details of any existing or proposed access points for the development, including any interactions with existing operations	Section 2 and Section 3
details of the largest vehicle anticipated to access and move within the site, including swept path analysis	Section 3.3
details of the proposed traffic mitigation, management and monitoring measures, including draft versions of any associated management plans.	N/A – refer to Section 5

2 Existing Conditions

2.1 Site Description

The site is described as Lot 527 DP 752035, commonly known as 17 – 23 Talavera Road, Macquarie Park. Has a total area of approximately 20,000m2, with access achieved via Talavera Road.

The site forms part of the Macquarie Park Corridor, which is the strategic centre of Macquarie Park, being a health and education precinct and an important economic and employment powerhouse in Sydney's North District.

The site is described through its current commercial setting as an existing Data Centre (LDA/2018/0322), adjoining surrounding commercial premises along Talavera Road, and forming part of the wider Macquarie Park Corridor.

The site is situated approximately 12.5 km northwest of the Sydney CBD and 11.3 km northeast of Parramatta. It is within close proximity to transport infrastructure routes (predominantly the bus and rail networks), as well as sharing direct links with the wider regional road network, including Talavera Road, Lane Cove Road, Epping Road and the M2 Motorway.

These road networks provide enhanced connectivity to the subject site and wider locality. Additionally, the site is located within close proximity to active transport links, such as bicycle routes, providing an additional mode of accessible transport available to the subject site

The location of the site is shown in Figure 2.1.

Figure 2.1: Location Plan

Source: Nearmap

The most recent approval related to the Site is LDA2018/0322 which granted consent for a two (2) staged construction of data centre. This approval was granted by the Land and Environment Court (LEC) of NSW under a Section 34 agreement. Stage 1, that is, IC3 East building has been completed, while Stage 2, that is, proposed IC3 West building has not yet commenced.

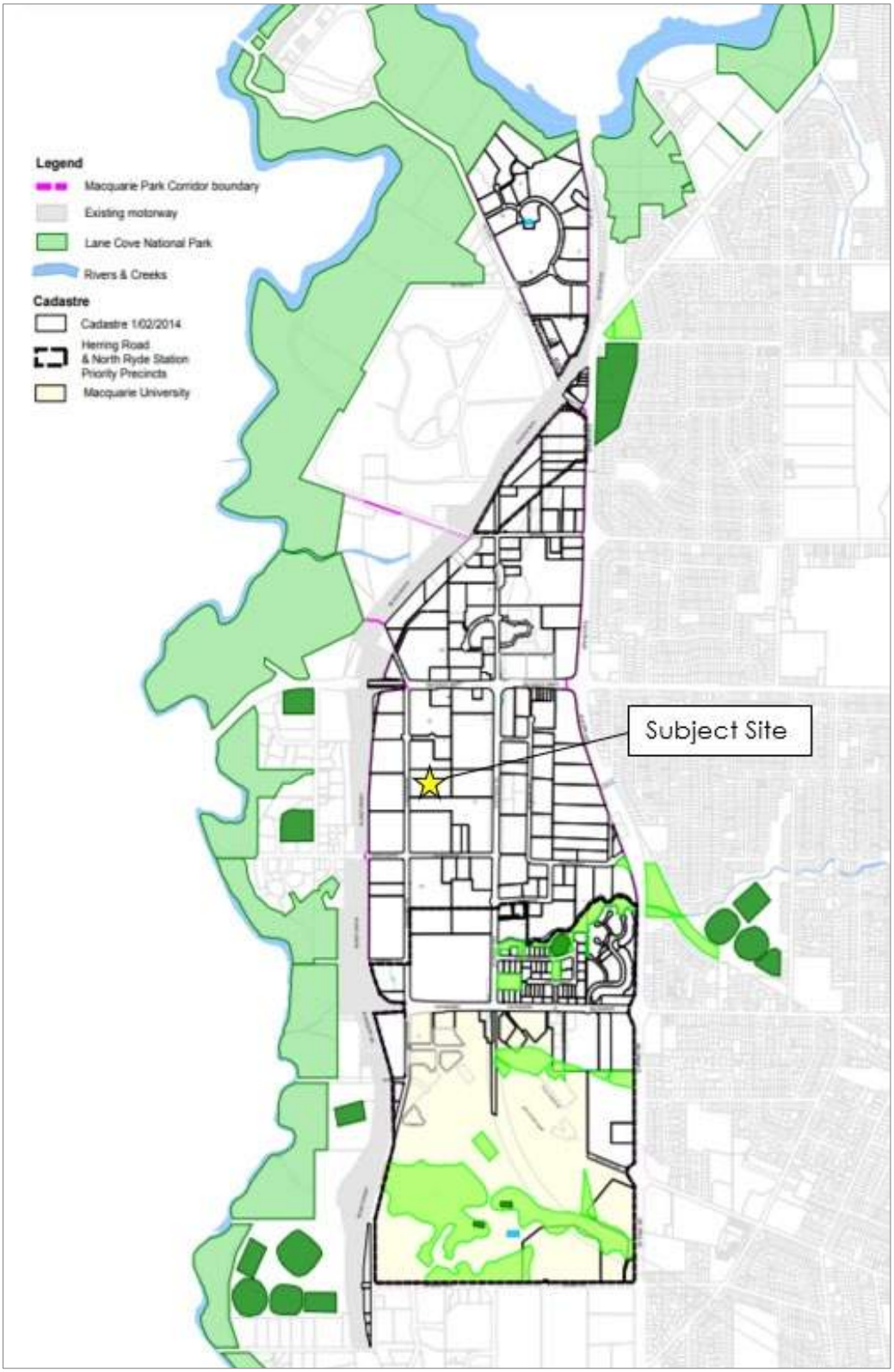
2.2 Site Location

The site 17 – 23 Talavera Road, Macquarie Park, being Lot 527 DP 752035.

2.3 Macquarie Park Corridor

The site is located within the Macquarie Park Corridor, which is identified as a premium location for globally competitive businesses, with strong links to the University and research institutions. Figure 2.2 presents the location of the site within the area covered by the Macquarie Park Corridor.

Figure 2.2: Macquarie Park Corridor Location



Source: Extract of the City of Ryde Macquarie Park Corridor – Viewed online 30/07/2021

2.4 Road Network

The local road network surrounding the subject site includes Lane Cove Road, Talavera Road and Khartoum Road. These roads are discussed below.

2.4.1 Lane Cove Road

Lane Cove Road is an RMS classified State Road (A3) and forms one of the major north-south arterial links in the northern/ north-western suburbs. The road provides good connectivity to the wider arterial road network, notable to Ryde Road, M2 Motorway, Victoria Road and Devlin Street. Within the vicinity of the site, Lane Cove Road runs in a north-east to south-west direction. The road provides three through traffic lanes in each direction separated by a central median. The road has a posted speed limit of 70 km/h in both directions within the vicinity of the site.

2.4.2 Talavera Road

Talavera Road is a regional road, generally aligned in the north-west to south-east direction along the frontage of the site. The road carriageway measures approximately 15m kerb to kerb with restricted kerbside parking permitted along both sides of the road near the site. This includes ticketed parking for five hours between 10:00am and 3:00pm, Monday to Friday. Talavera Road has a posted speed limit of 50km/h.

2.4.3 Khartoum Road

Khartoum Road is a local road, generally aligned in the north-east to south-west direction. The road carriageway measures approximately 12m kerb to kerb with restricted kerbside parking permitted along both sides of the road. This includes ticketed parking for five hours between 10:00am and 3:00pm, Monday to Friday and parking for twelve hours between 7:00am and 7:00pm, Monday to Friday. Khartoum Road has a posted speed limit of 50km/h.

2.5 Public Transport

The closest metro station is Macquarie Park Station, located 950m walking distance from the site (13-minutes walk). Macquarie Park Station services the Tallawong to Chatswood line with services running every 4 minutes during the peak hours and every 10 minutes in the off-peak hours.

The subject site is located within proximity to both high frequency bus services. There are several bus stops close to the site, located on Talavera Road and Lane Cove Road.

Table 2.1 presents a summary of the existing public transport services near the site, including their respective frequencies.

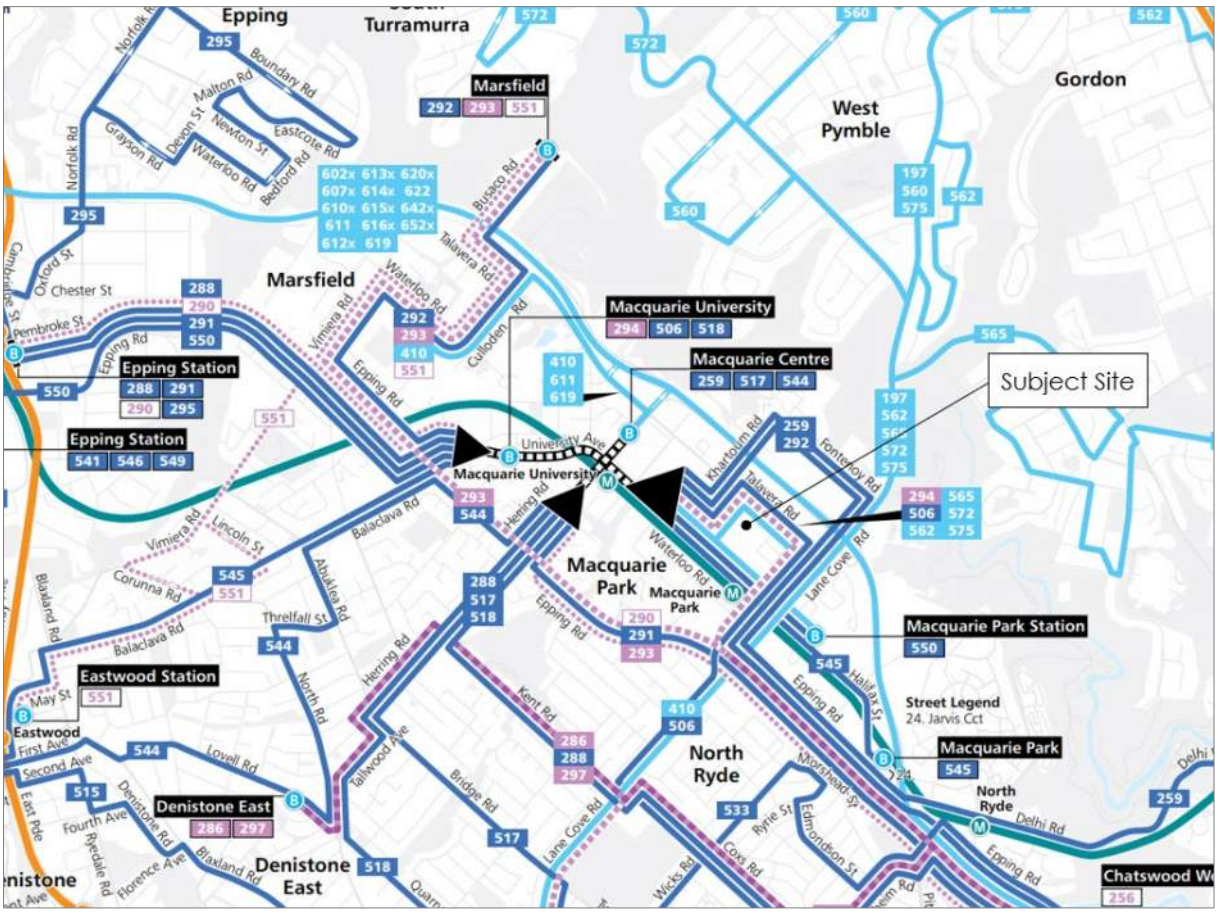
Table 2.1: Existing Public Transport Services

Service	Route Description	Location of Service	Frequency
Rail	Metro North West Line	Macquarie Park Station	Peak (every 4 mins) Off-Peak (every 10 mins)
Bus	294	15 Talavera Road	Every 15-30 minutes (AM)
	506	15 Talavera Road	Every 15-30 minutes
	562	15 Talavera Road	3 services
	565	15 Talavera Road	Every 60 minutes
	572	15 Talavera Road	Every 10-30 minutes
	575	15 Talavera Road	Every 15-30minutes

As indicated above, there is sufficient public transport provision in the immediate vicinity of the site.

Figure 2.3 shows a map of the existing bus network surrounding the site.

Figure 2.3: Existing Bus Network



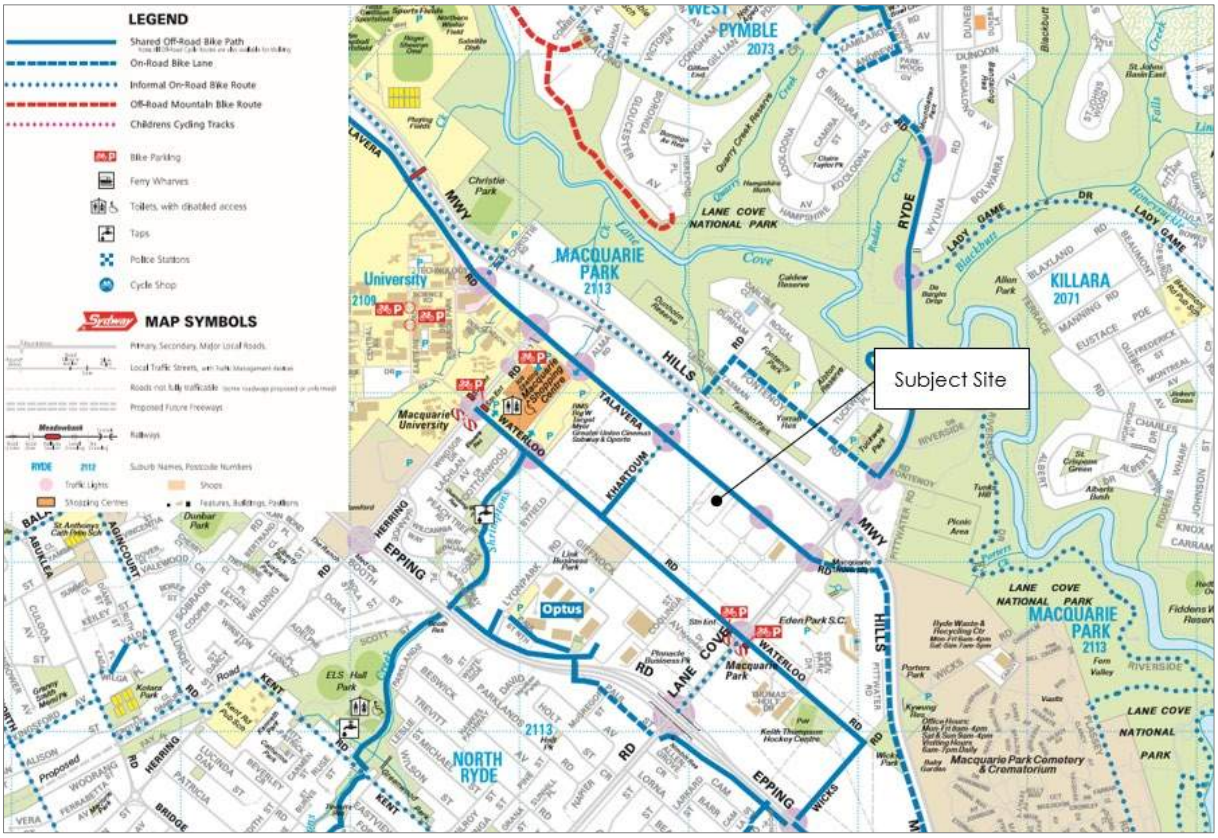
Source: TfNSW - State Transit North Shore and West Network Map – viewed online 30/07/21

2.6 Pedestrian and Cycling Facilities

In the immediate vicinity of the subject site, pedestrian paths are provided on both sides of Talavera Road. Footpaths along these roads extend onto the wider network, providing passage on foot onto Lane Cove Road and Khartoum Road.

An extract of Council's existing cycle network map is shown in Figure 2.4.

Figure 2.4: Existing Cycle Network



Source: Extract of the City of Ryde Existing Cycle Map – viewed online 30/07/2021

Figure 2.4 demonstrates that there are a number of off-road shared cycle paths near the site, with the main routes providing travel to Macquarie Park University, Epping and North Ryde. On-road cycle lanes surrounding the site also provide good cycle connectivity to the wider road network.

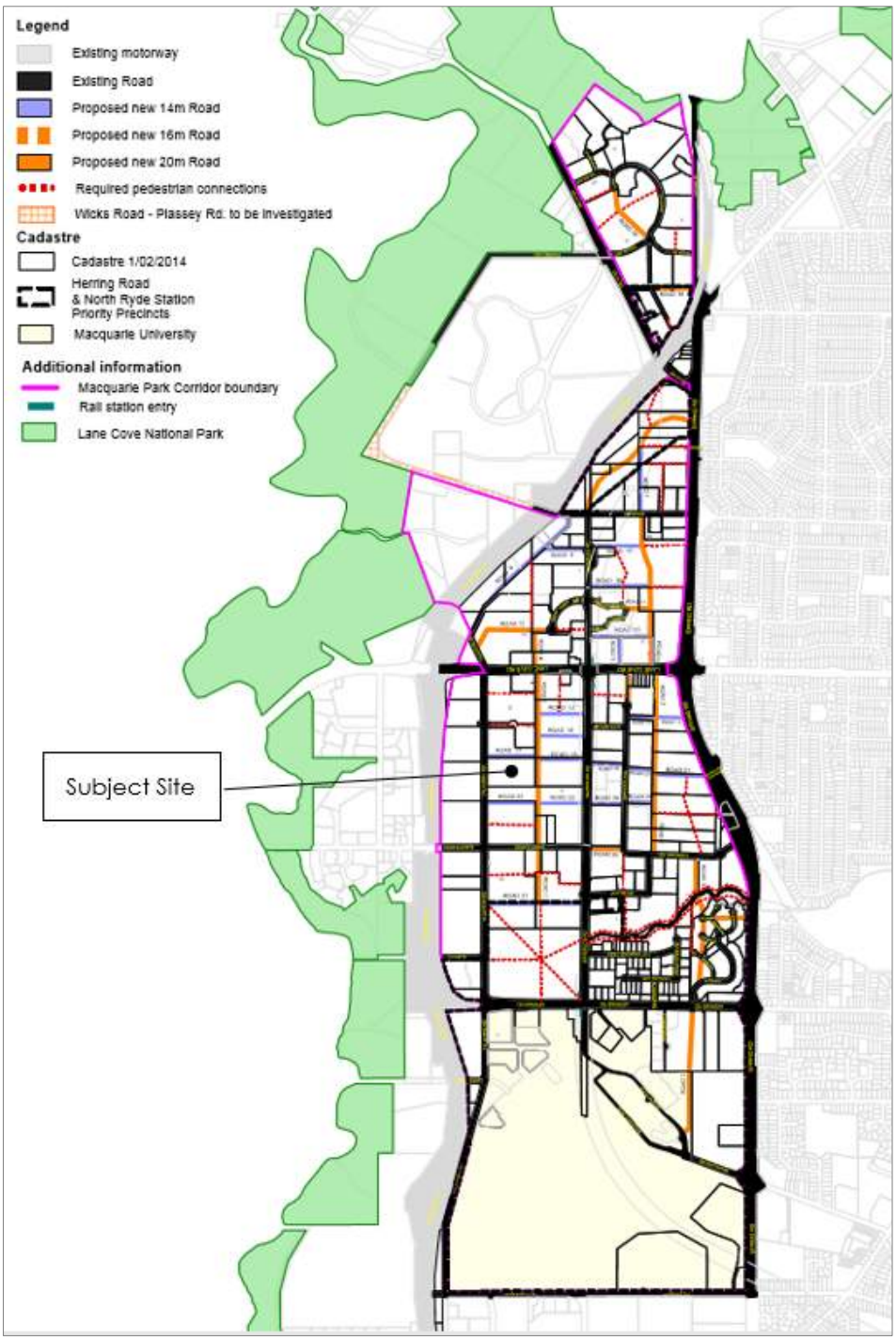
2.7 Macquarie Park Corridor Access Network

As part of the Macquarie Park Corridor, it is noted that the Council's Development Control Plan 2014 (DCP) state that its size is comparable in scale to the City of Sydney, but has fewer roads and route choice. The current block size and building footprint lengthens the walk time for foot trips within the precinct and increases reliance on driving. It is clear within the City of Ryde

(CoR) DCP that there are aims in place to create a permeable network of streets and pedestrian ways to improve vehicular, pedestrian and cycle permeability within the corridor.

As found within the CoR DCP, the 'Access Network Structure Plan' shown in Figure 2.5 provides a clear hierarchy of street types, including the extension of existing streets and a network of new streets and pedestrian ways within the corridor.

Figure 2.5: DCP Access Network Structure Plan



Source: Extract of the City of Ryde Access Network Structure Plan

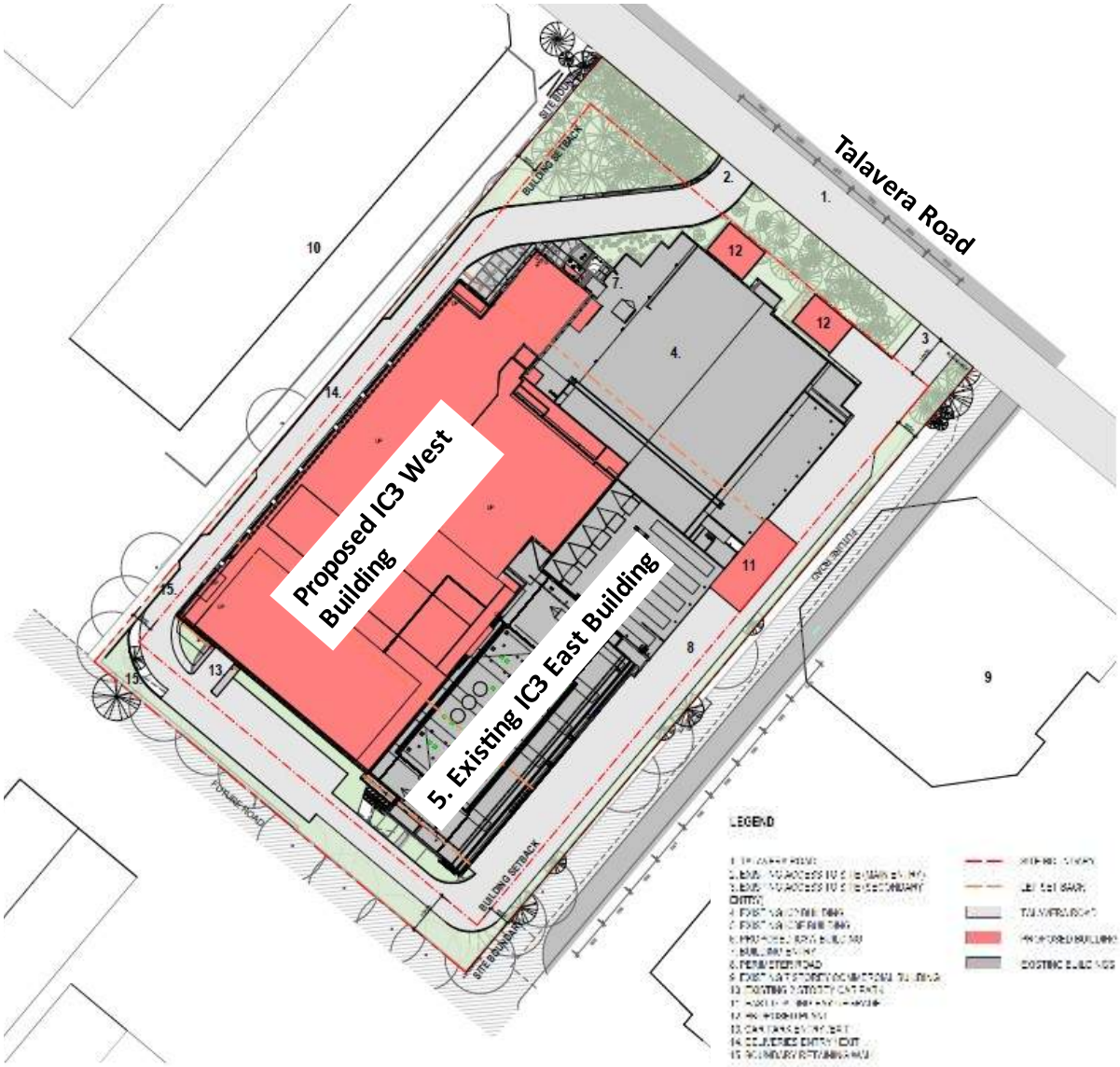
3 Proposed Development

3.1 Proposal Description

The Proposal involves an extension of Macquarie Data Centres' facility. The IC2 and IC3 east facilities are completed. The DA for IC3 west has been approved. As part of current proposal, it is proposed to expand the approved footprint of IC3 west building by 2,366m^2.

The proposed site plan is shown in Figure 3.1.

Figure 3.1: Proposed Site Plan



A comparison of the development yield, including the existing buildings, approved DA and proposed DA is presented in Table 3.1.

Table 3.1: Proposed Development Yields

	Proposed DA
Gross Floor Area (GFA) m²	
IC2 Existing	4,778m²
Stage 1 (IC3 East - Existing)	6,731m²
Stage 2 (IC3 West – Current proposal)	16,142m² (i.e. +9,411m²)
Total	27,651m²
Number of Staff	
Total number of Staff	49
Car Parking Spaces	
Total Number of Car Parking Spaces	71

It is estimated that a total of 49 staff will be employed by the whole site, that is, including existing IC2 and IC3 east staff.

A total of 71 car parking spaces will be provided on-site for existing and proposed buildings.

3.2 Vehicle Access

Vehicle access to the site would be provided via the two existing Talavera Road driveways.

3.3 Servicing Arrangement

Similar to the approved development, the site will be serviced by the following vehicles:

- 8.8m Medium Rigid Vehicle (MRV) for delivery and waste collection
- 12.5m Heavy Rigid Vehicle (HRV) for large delivery and emergency vehicle access including fire trucks
- 19m Articulated Vehicle (AV) to accommodate plant upgrades on a very rare basis, that is, once or twice a year.

The proposed access arrangements for the service vehicles are described below.

8.8m Medium Rigid Vehicle (MRV) Access

All MRVs, which include delivery and waste collection trucks and light vehicles will only enter and exit the site via the western driveway. This driveway would be monitored by site personnel to allow regular deliveries, waste vehicles, staff and visitors to enter and exit the site.

12.5m Heavy Rigid Vehicle (HRV) Access

All HRVs, which include large delivery and emergency vehicles including fire trucks will enter and exit the site via both driveways.

The site operational manager will be notified in advance regarding the service vehicle arrival of both AVs and HRVs. The eastern driveway will have two new sliding gates.

The first gate will be located approximately 19m from the property boundary to ensure that service vehicles entering the site will not obstruct Talavera Road traffic. The gates will be opened once the arrival is confirmed with site personnel.

19m Articulated Vehicle (AV) Access

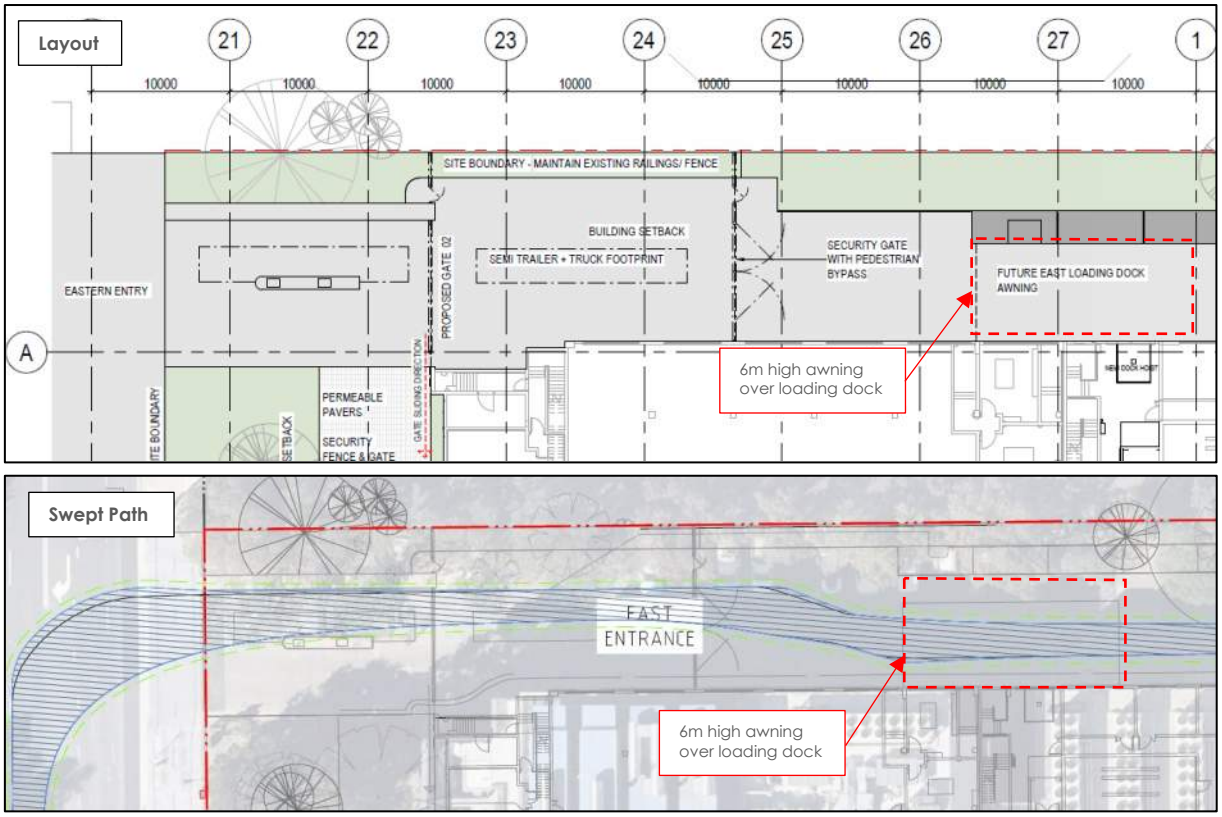
19m AV will require access on a very rare basis, that is once or twice a year to accommodate plant upgrades to the data centre.

19m AV can enter the site via eastern driveway, making a right turn in from Talavera Road. Similar to HRV access, the site operational manager will be notified in advance on the arrival of 19m AV.

The first gate will be located approximately 19m from the property boundary to ensure that service vehicles entering the site will not obstruct Talavera Road traffic. The gates will be opened once the arrival is confirmed with site personnel.

As shown in Figure 3.2, 19m AV will stop at the circulation roadway underneath the 6m high awning to undertake the plant upgrades.

Figure 3.2: Eastern Driveway



19m AV will circulate around the site and exit via the western driveway, making a right turn out to Talavera Road.

Swept path diagrams are included in **Appendix B**, with all service vehicles entering and exiting the site in a forward direction.

3.3.1 Servicing Frequency

The site is anticipated to generate service vehicles at the following frequencies:

- Two MRVs per week relating to waste collection (garbage and recycling)
- One to two AVs per year
- Infrequent use of HRVs (deliveries are not expected to be undertaken by vehicles larger than an MRV). If an HRV accesses the site, it would likely relate to emergency vehicles).

4 Parking Assessment

4.1 Car Parking Requirements

The parking assessment for the proposal has been assessed against the Ryde Development Control Plan 2014 (DCP).

The DCP states that for a new floor space in non-residential land uses, a maximum of 1 space per 60m^2 can be applied. For an additional floor space of 9,411m^2, a maximum of 157 additional spaces is permitted.

Previous development was approved with 71 on-site car parking spaces. It proposed to maintain the previously approved 71 car parking spaces. Hence, no additional car parking spaces will be proposed on site as part of the proposed expansion.

It is noted that Council's DCP car parking requirement is set at maximum rates, hence the proposed car parking provision complies with Council's DCP.

Also, the travel mode surveys undertaken by existing staff and visitors indicated the following mode splits:

- 77% car
- 22% public transport
- 1% walk.

It is estimated that a total number of staff and visitors is expected to be around 90 persons on a typical day. Applying 77% car mode, this would generate a parking demand of 69 spaces.

A total of 71 car parking spaces will be provided on-site, which exceeds the peak parking demand.

4.2 Accessible Parking Requirements

Part 9.2 (Access for People with Disabilities) of the DCP 2014 provides a table outlining minimum numbers required for accessible car parking spaces for various facilities.

The proposed data centre is considered to be classified as a Class 5 Building. Therefore, three accessible parking spaces are required for the proposed 71 car parking spaces.

The proposed development plan shows four accessible parking spaces, which complies with Council's DCP.

4.3 Bicycle Parking Requirements

Bicycle parking requirements have been assessed against Part 9.3 Section 2.7 of the DCP which stipulates that *"in every new building, where the floor space exceeds 600m² GFA (except for dwelling houses and multi-unit housing) provide bicycle parking equivalent to 10% of the required car spaces or part thereof"*.

As such, based on a parking provision of 71 spaces, the proposed development is required to provide 7 bicycle parking spaces. It is proposed to provide 12 bicycle spaces on-site which complies with this requirement.

End-of-trip facilities such as showers and lockers are also to be provided for staff.

4.4 Car Parking Layout Review

The car park and access arrangement have been reviewed for compliance with the Australian Standard requirements, namely AS 2890.1, AS2890.2 and AS2890.6. The review includes an assessment of the following:

- Car park access and circulation
- Parking space and aisle dimensions.

The Australian Standard requires car parking spaces to be provided according to its use. Residential, domestic and employee parking to be provided as Class 1A parking spaces, which require a minimum 2.4m wide by 5.4m long car space with a 5.8m aisle width.

The proposed car park layout generally complies with the above minimum requirements.

Accessible parking spaces have been designed in accordance with AS2890.6 with a 2.4m wide by 5.4m long space and an adjoining shared area of equal dimensions.

Swept path analysis of the site access and circulation areas is provided in **Appendix B**.

In summary, the car park and associated elements are proposed to comply with design requirements set out in the Australian Standards, namely AS 2890.1, AS2890.2 and AS2890.6. It is however, envisaged that a condition of consent would be imposed requiring compliance with these standards and as such, any minor amendments can be resolved prior to the issue of a Construction Certificate.

5 Traffic Assessment

As part of SEARs requirements for this development, Transport for NSW has requested modelling of the site for the future years 2026, 2031 and 2036.

5.1 Design Generation

For the purpose of traffic modelling, TTPP has assumed that up to 30 additional staff could be needed by the proposed expansion.

Using travel mode surveys of existing staff, it is understood that 77 percent of employees drive to work. Hence, the site could potentially generate 23 vehicle trips per hour in the AM and PM peak periods.

5.2 Distribution and Assignment

The directional distribution and assignment of traffic generated by the proposed development will be influenced by a number of factors, including the:

- configuration of the arterial road network in the immediate vicinity of the site
- existing operation of intersections providing access between the local and arterial road network
- total 'cost' of each route choice (including time, comfort, simplicity and monetary costs)
- distribution of households in the vicinity of the site
- likely distribution of employee's residences in relation to the site
- configuration of access points to the site.

Having consideration to the above, for the purposes of estimating vehicle movements, the following trip distribution percentages are adopted:

- 50% of trips will be generated to/ from the west
- 50% of trips will be generated to/from the east.

In addition, it is presumed that:

- 80% of the trips in the AM peak are inbound
- 20% of the trips in the AM peak are outbound
- 20% of the trips in the PM peak are inbound
- 80% of the trips in the PM peak outbound.

Based on the above, Figure 5.1 and Figure 5.2 have been prepared to show the estimated marginal increase in turning movements near the subject site following full site development.

Figure 5.1: Assumed Generation Volumes (AM)

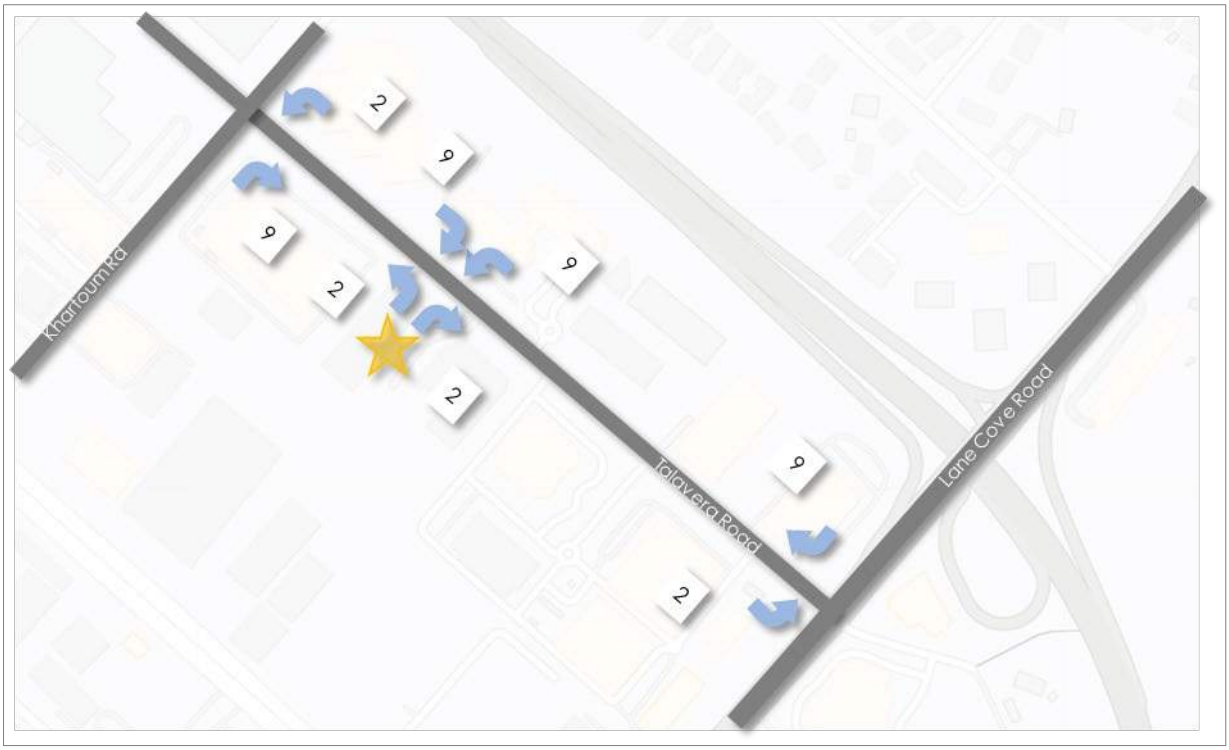
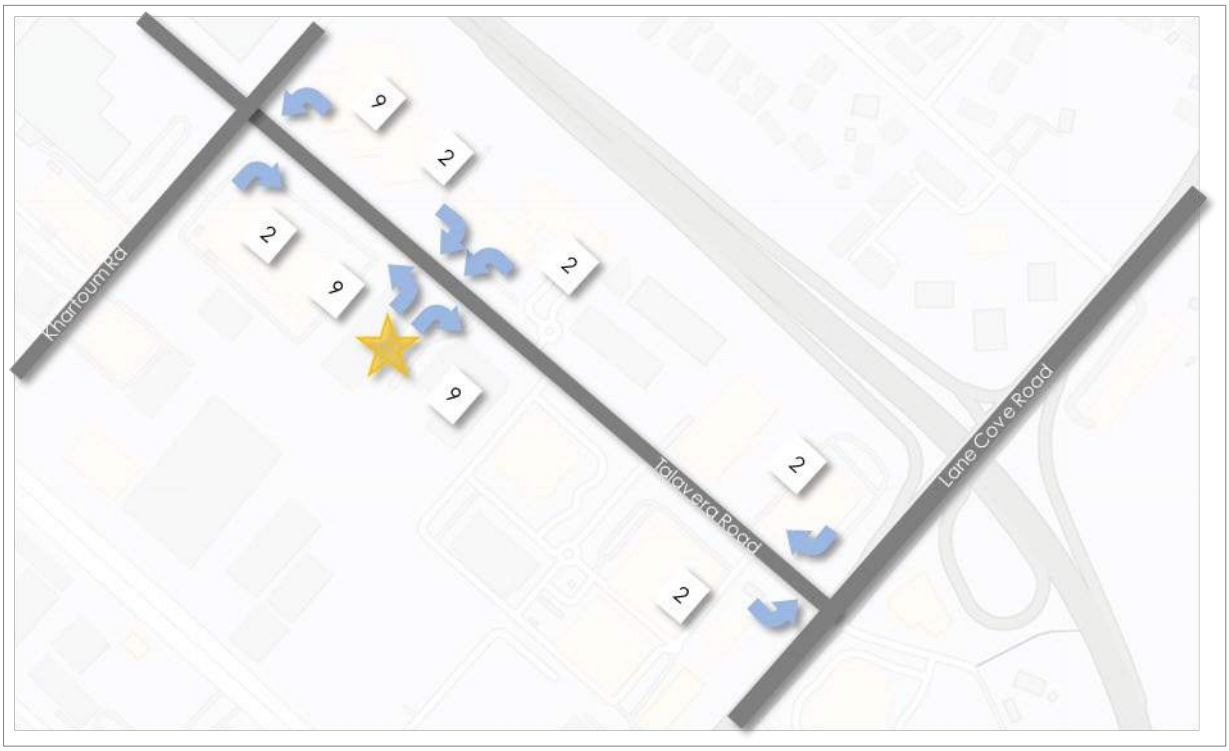


Figure 5.2: Assumed Generation Volumes (PM)



5.3 SIDRA Traffic Modelling

5.3.1 Modelling Outline

The network impact assessment and associated SIDRA modelling covers the following intersections:

- Lane Cove Road/ Talavera Road (User-given cycle time – 120 seconds)
- Talavera Road/ Khartoum Road (including upgrades planned for 2036, user-given cycle time – 150 seconds).

The modelling covers the AM and PM peak hours for the following future years:

- 2026 base case
- 2026 with development
- 2031 base case
- 2031 with development
- 2036 base case (upgraded geometry on Talavera/ Khartoum Road)
- 2036 with development.

To estimate future year volumes, TfNSW's Strategic Traffic Forecasting Model (STFM) data has been used to apply linear annual growth rates to 2017 data. STFM growth rates are included in **Appendix C**.

5.3.2 Assumptions and Data

Due to lockdown conditions at the time of writing this report, traffic volume surveys could not be conducted to understand existing traffic conditions. Hence, historic surveys from 2017 have been used as base data. STFM data projecting from 2019 to 2026, 2031 and 2036 have been used to extrapolate the data from 2017 to the respective subject years. Hence, it is assumed that 2017 to 2019 have the same growth rates as those for later years.

Growth rates for individual nodes and turning movements vary according to their allocation within the STFM model. However, a summary of the average and maximum growth rates per annum applicable to the network are shown in Table 5.1.

Table 5.1: TfNSW's STFM Growth Rates

Peak Period	Growth Period	Average Growth Rate	Max. growth rate
AM	2019 – 2026	3.8%	6.3%
	2019 – 2031	3.4%	5.8%
	2019 – 2036	2.6%	4.8%
PM	2019 – 2026	4.4%	7.9%
	2019 – 2031	3.6%	6.5%
	2019 – 2036	3.6%	6.5%

Table 5.1 indicates that the average growth rate per annum ranges from 2.6 to 4.4 percent with the maximum growth rate per annum ranges from 4.8 to 7.9 percent. These growth rates are considered significant, especially when the rates are applied over 15-year period, which results in 40 to 55 percent increase in the existing traffic volume.

Detailed growth rates from TfNSW's STFM data are shown in **Appendix C**.

5.3.3 Results

The operation of the key intersections within the study area have been assessed using SIDRA INTERSECTION (SIDRA), a computer-based modelling package which calculates intersection performance.

The commonly used measure of intersection performance, as defined by the TfNSW, is vehicle delay. SIDRA determines the average delay that vehicles encounter and provides a measure of the level of service. Table 5.2 shows the criteria that SIDRA adopts in assessing the level of service.

Table 5.2: SIDRA level of service criteria

Level of Service (LOS)	Average delay per vehicle (s/ veh)	Implication – traffic signals & roundabouts	Implication – Give Way & Stop signs
A	Less than 14	Good operation	Good operation
B	14 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	28 to 42	Satisfactory	Satisfactory, but accident study required
D	42 to 56	Near capacity	Near capacity, accident study required
E	56 to 70	At capacity, at signals incidents will cause excessive delays	At capacity, requires other control mode
F	Greater than 70	Extra capacity required	Extreme delay, major treatment required

Table 5.3 presents a summary of the operation of the above intersections in 2026, 2031 and 2036. Detailed SIDRA results are included in **Appendix D**.

Table 5.3: Modelled network conditions

Intersection	Peak	Scenario	2026		2031		2036	
			Average delay (s)	LOS	Average delay (s)	LOS	Average delay (s)	LOS
Lane Cove Road/ Talavera Road	AM	No development	188	LOS F	268	LOS F	255	LOS F
		With development	193	LOS F	272	LOS F	286	LOS F
	PM	No development	> 5 minutes	LOS F	208	LOS F	216	LOS F
		With development	> 5 minutes	LOS F	209	LOS F	216	LOS F
Talavera Road/ Khartoum Road	AM	No development	> 5 minutes	LOS F	> 5 minutes	LOS F	225	LOS F
		With development	> 5 minutes	LOS F	> 5 minutes	LOS F	230	LOS F
	PM	No development	122	LOS F	140	LOS F	207	LOS F
		With development	129	LOS F	151	LOS F	214	LOS F

It is noted that using TfNSW's provided STFM growth rates, both intersections in the network will operate poorly under base conditions in future years.

However, the proposed development is expected to generate at most, 23 vehicle trips per hour in the AM and PM peak period. This equates to one vehicle movement every two to three minutes, which is considered negligible.

Hence, the proposed development traffic is considered minimal and could not be expected to result in any noticeable traffic impacts on the surrounding road network.

Also, in comparison with other nearby large commercial developments, the proposed expansion of the data centre would generate significantly reduced vehicle trips during the commuter peak periods.

6 Conclusion

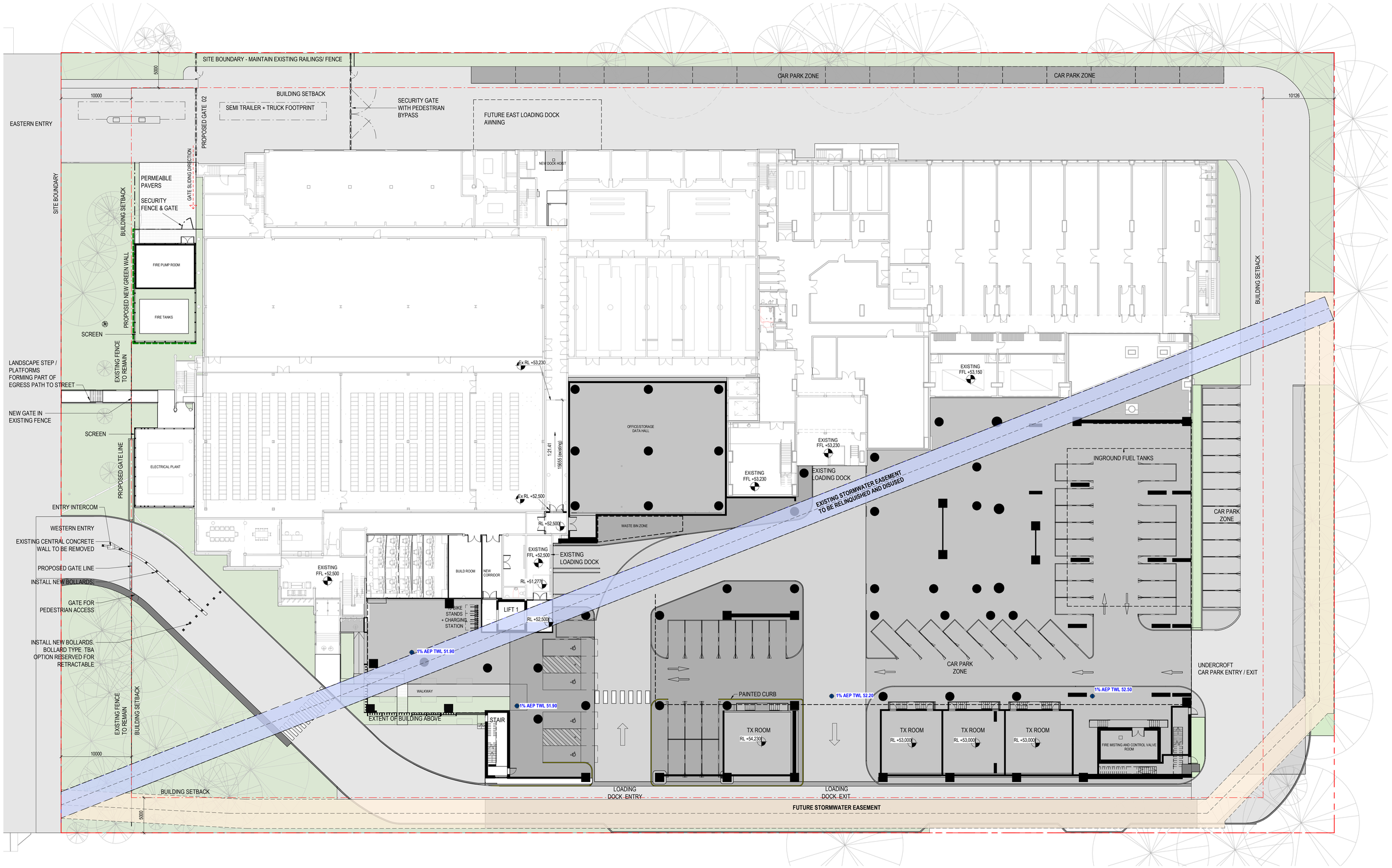
This report examines the traffic and parking implications of the proposed expansion of the Macquarie Data Centres' facility. The key findings of the report are:

- The proposed development involves the expansion of the approved footprint by 2,366m^2 with the provision of 71 car parking spaces and 12 bicycle spaces.
- Vehicular access to the site will be provided off existing Talavera Road driveways.
- A total of 71 car parking spaces will be provided on-site, which exceeds the peak parking demand.
- The car park is proposed to be designed in accordance with AS 2890.1, AS2890.2 and AS2890.6.
- The proposed development is expected to generate at most, 23 vehicle trips per hour in the AM and PM peak period. This equates to one vehicle movement every two to three minutes, which is considered negligible. Hence, the impact of the proposed development traffic is considered minimal and could not be expected to result in any noticeable traffic impacts on the surrounding road network. Also, in comparison with other nearby large commercial developments, the proposed expansion of the data centre would generate significantly reduced vehicle trips.

Overall, the traffic and parking aspects of the proposed development is considered to be satisfactory.

Appendix A

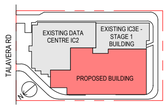
Architectural Plans



REV	DESCRIPTION	DATE
D	REVISED SSDA ISSUE	20/10/2022
C	REVISED SSDA ISSUE	27/09/2022
B	REVISED SSDA ISSUE	16/09/22
A	REVISED SSDA ISSUE	08/08/22
8	EXISTING STORMWATER ADDED	04/07/22
7	CARPARK REVISED	28/06/22
6	EASEMENT UPDATE ISSUE	14/04/22
5	EASEMENT UPDATE ISSUE	25/02/22

NORTH POINT

KEY PLAN



PROJECT MANAGER

GIDDIS PROJECT MANAGEMENT

CLIENT

macquarie DATA CENTRES

ARCHITECT

HDR

Level 24, 25 Martin Place, Sydney NSW 2000, Australia
+61 2 9956 2666 | hdrinc.com
HDR Pty. Limited ABN 76 158 075 220 trading as HDR

Nominated Architect: Cate Cowlishaw 10786 (NSW)

PROJECT

IC3 SUPER WEST
17-23 TALAVERA RD, MACQUARIE PARK

DRAWING TITLE

GENERAL ARRANGEMENT - GROUND LEVEL

PROJECT STATUS

WIP

PROJECT NUMBER

10301489

DRAWING NUMBER

A2101

ISSUE

D

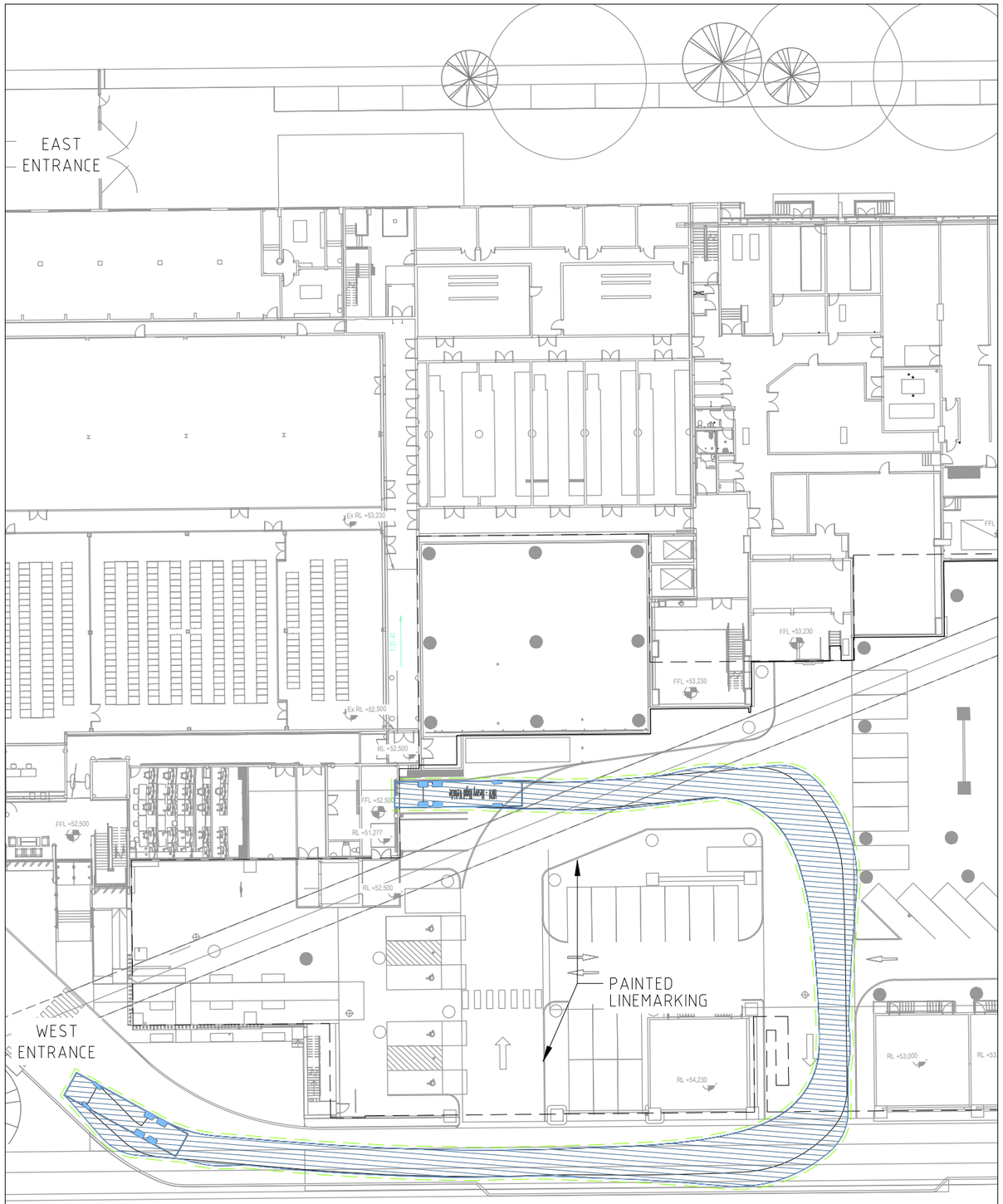
SCALE

1 : 250 @ A1

Appendix B

Swept Path Diagrams

HRV IN BAY1 - WESTBOUND



HRV OUT BAY1 - WESTBOUND

IC3 WEST **SK01.41 : REV 02**

IC2 LOADING DOCK VEHICLE SWEEP:

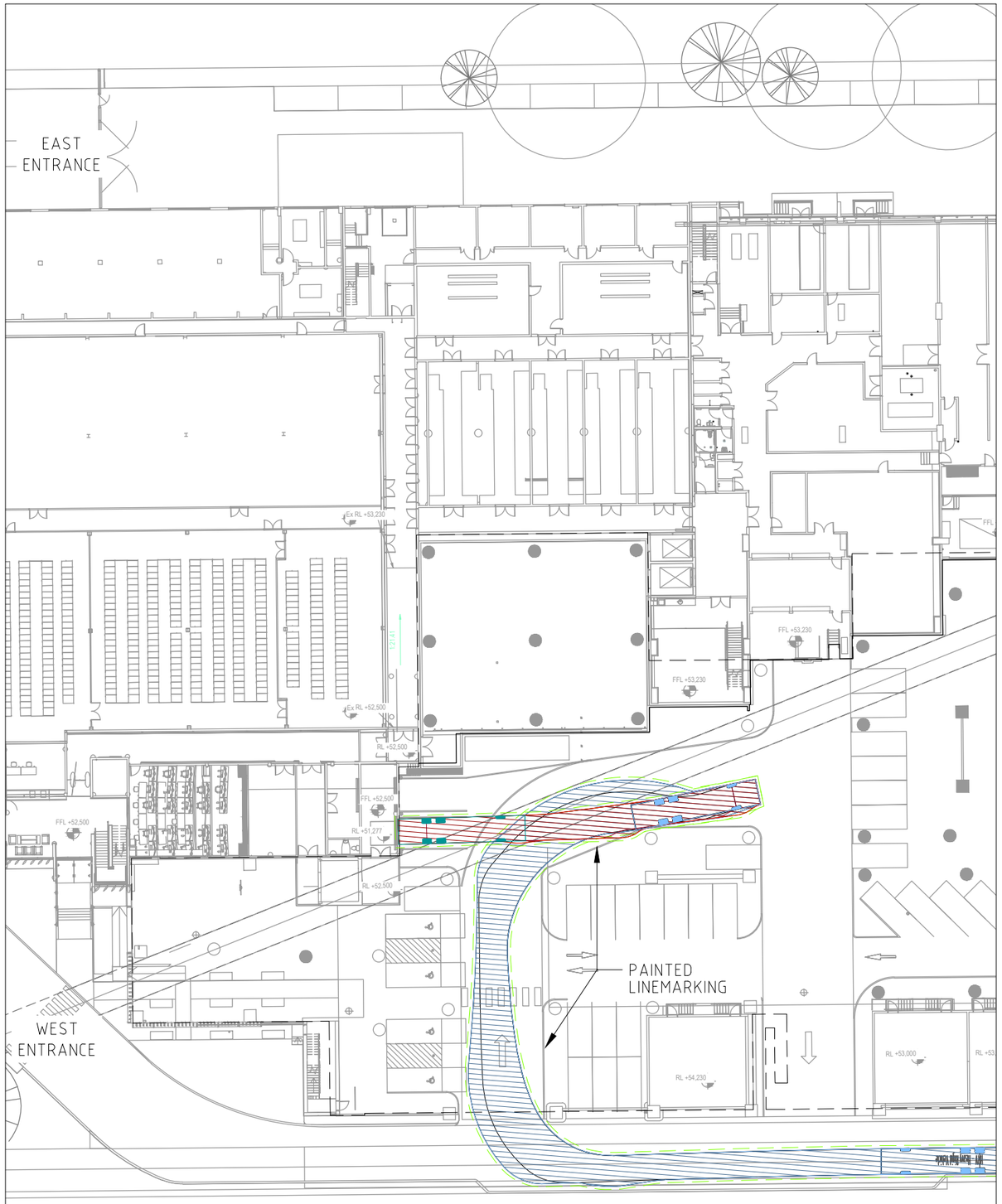
DATE : 19.10.22

ENTRY FROM THE EAST AND EXIT FROM THE WEST - HRV

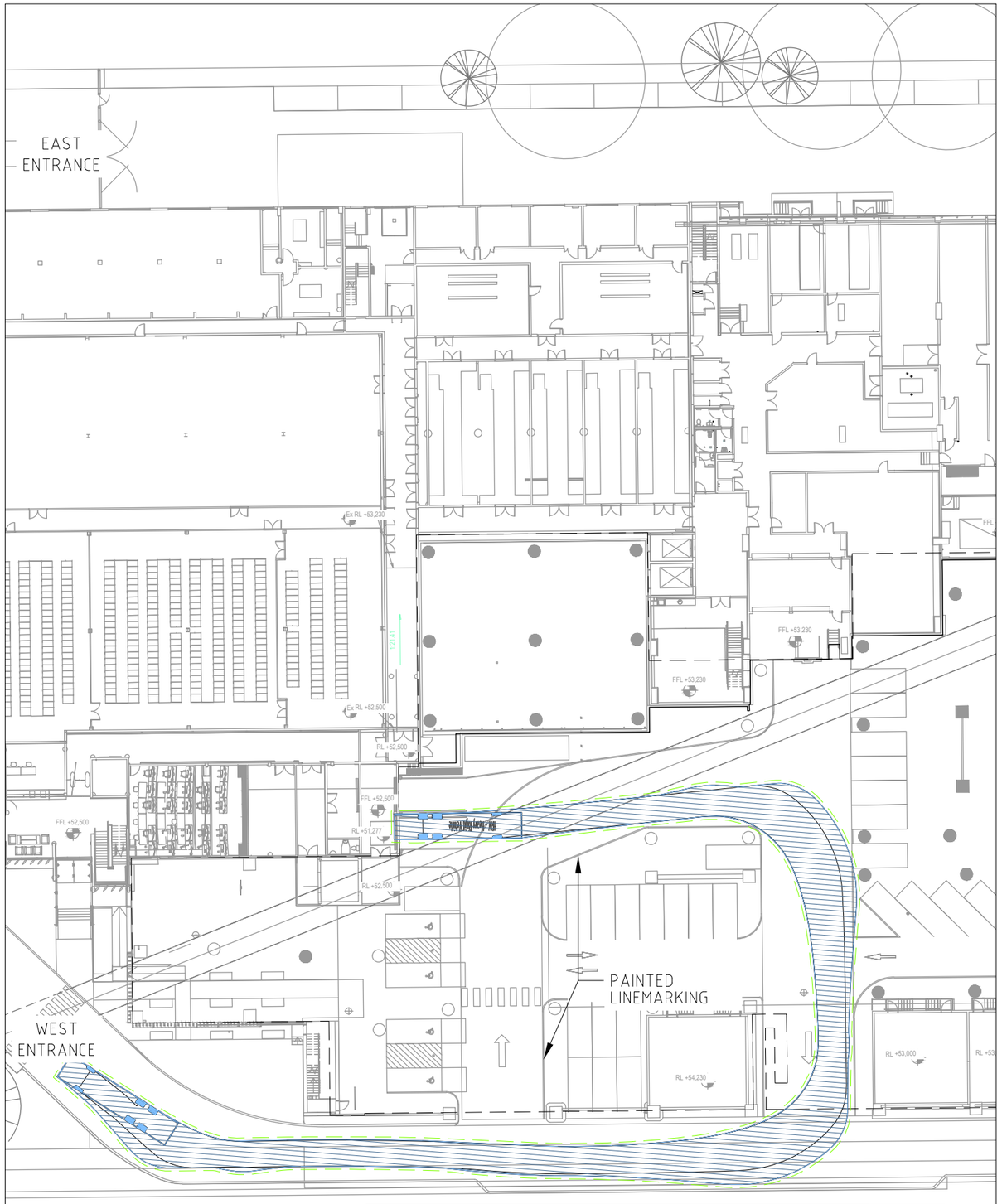
REF : SY170095-02

NORTHROP

SCALE 1:1000 @ A3



HRV IN
BAY2 -
WESTBOUND



HRV OUT
BAY2 -
WESTBOUND

IC3 WEST **SK01.42 : REV 02**

IC2 LOADING DOCK VEHICLE SWEEP:

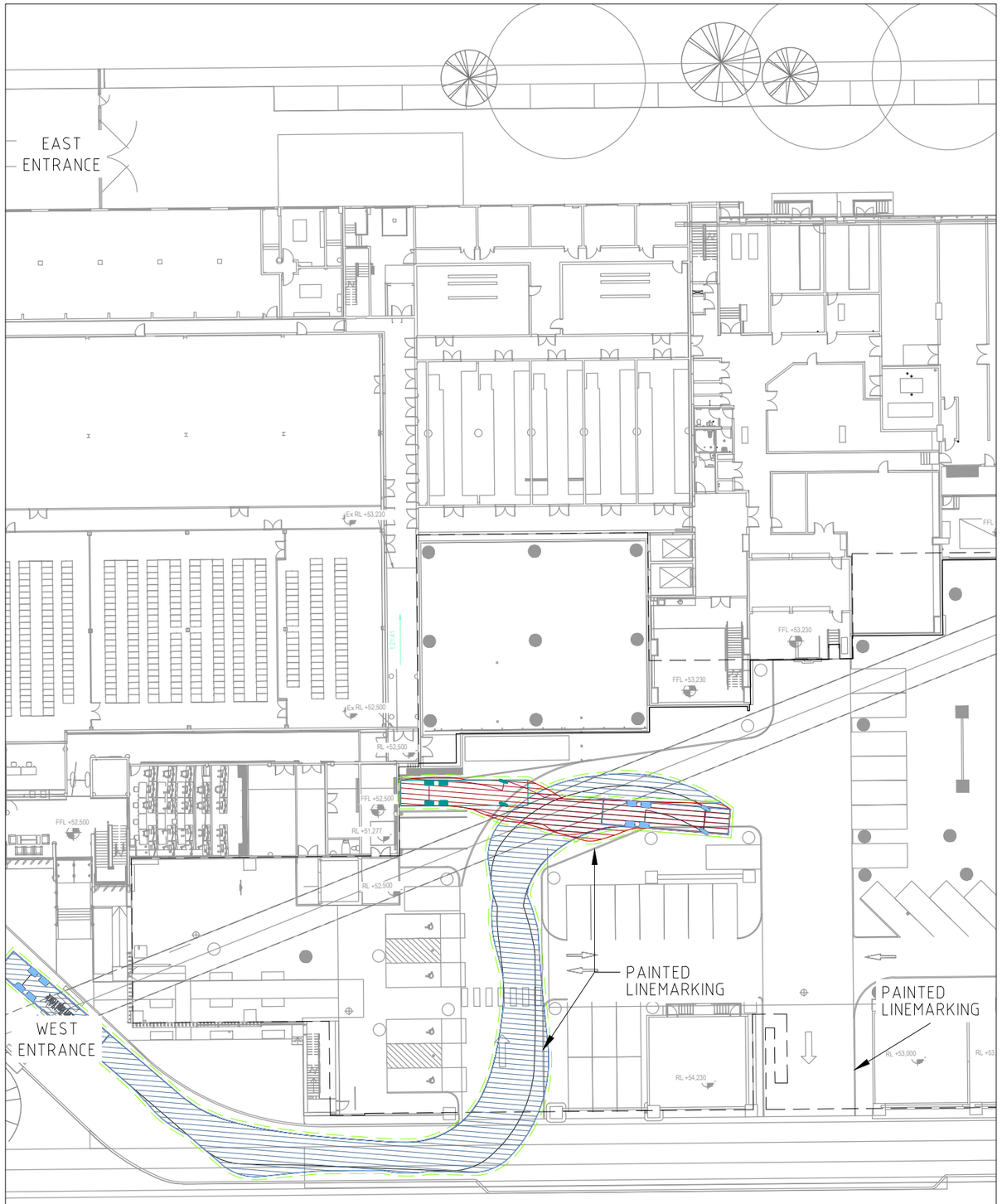
ENTRY FROM THE EAST AND EXIT FROM THE WEST - HRV

DATE : 19.10.22

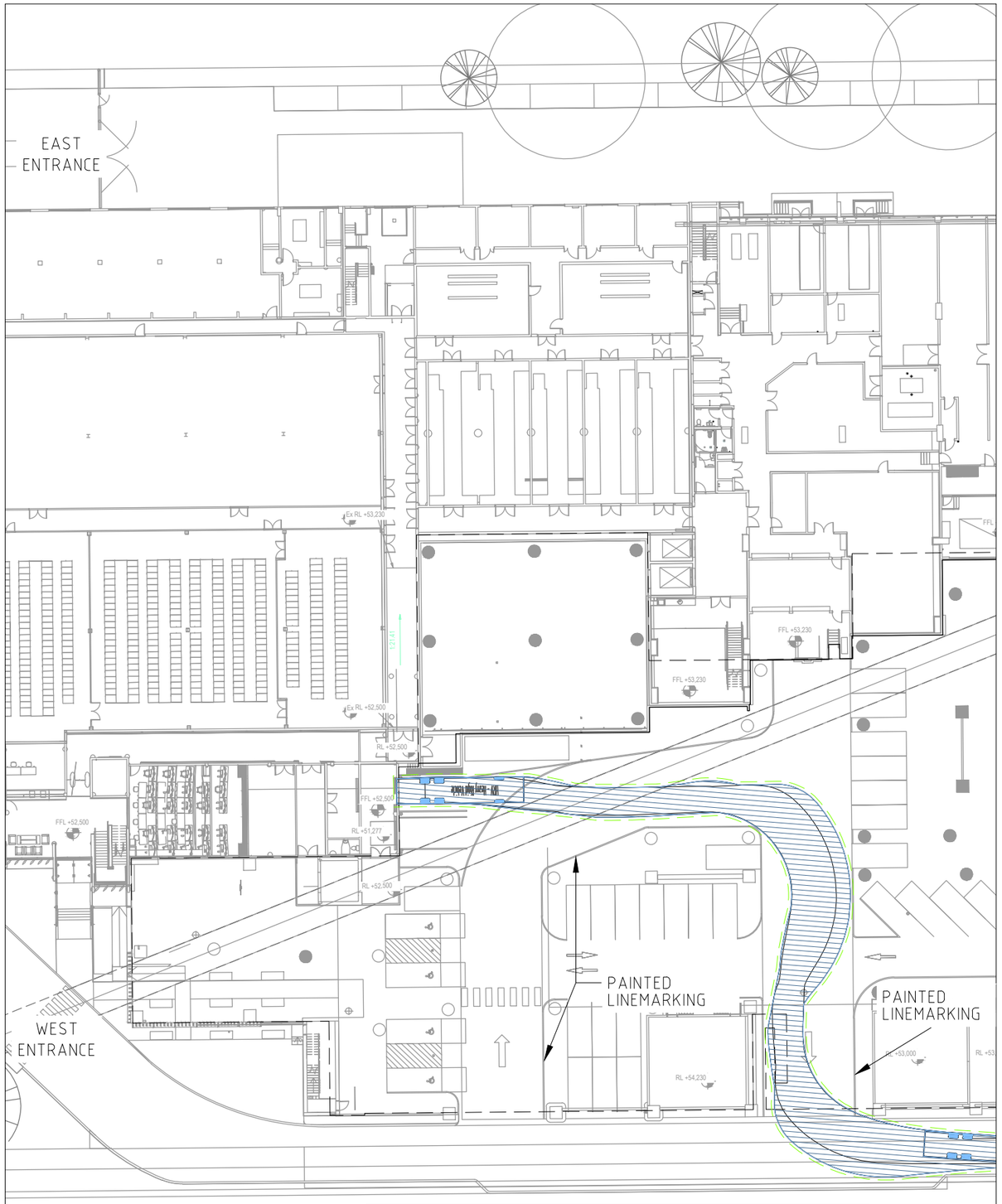
REF : SY170095-02

SCALE 1:1000 @ A3

NORTHROP



HRV IN BAY1 - EASTBOUND



HRV OUT BAY2 - EASTBOUND

IC3 WEST **SK01.43 : REV 02**

IC2 LOADING DOCK VEHICLE SWEEP:

ENTRY FROM THE WEST AND EXIT FROM THE EAST - HRV

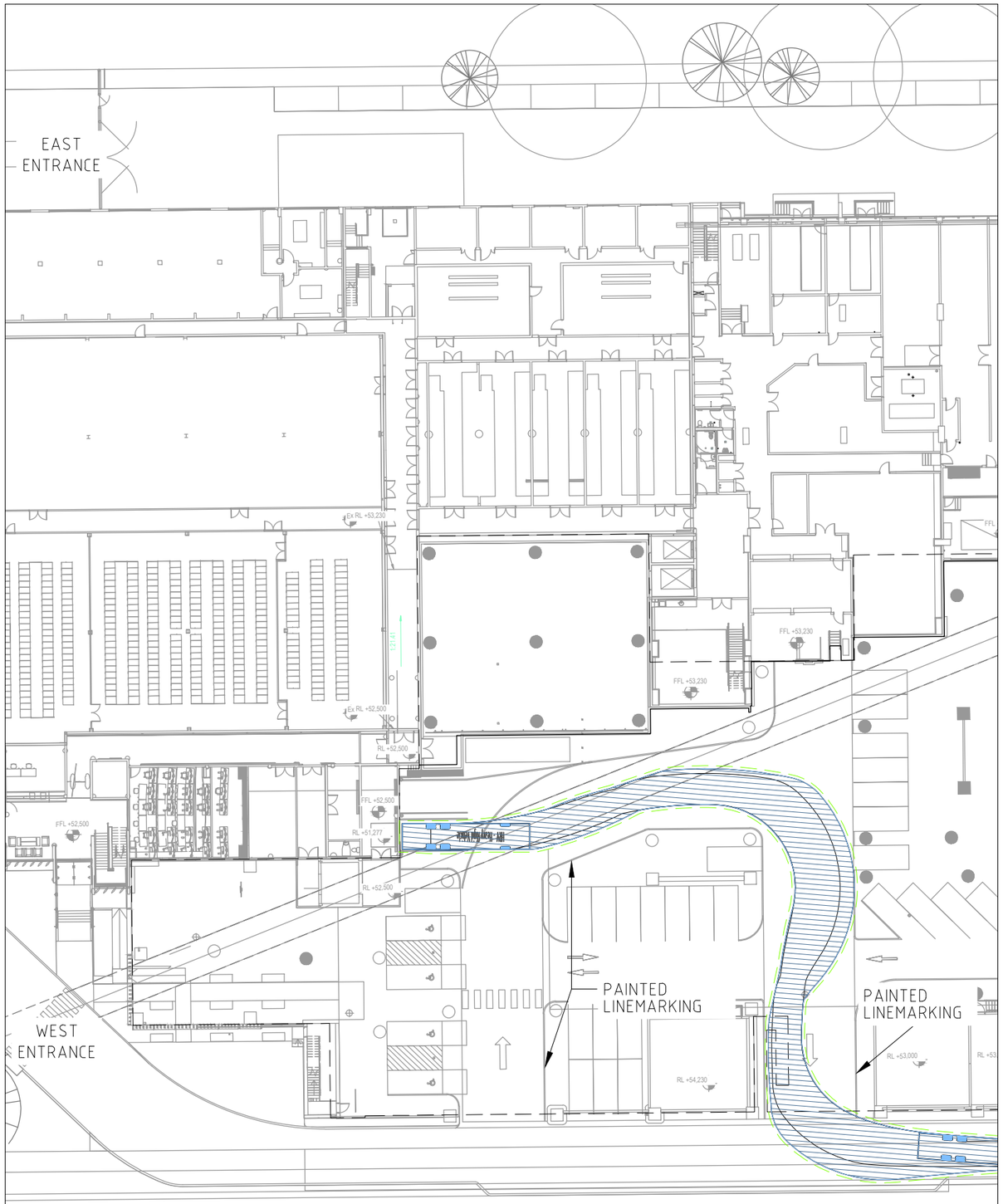
DATE : 19.10.22

REF : SY170095-02

SCALE 1:1000 @ A3

NORTHROP

HRV IN BAY2 - EASTBOUND



HRV OUT BAY2 - EASTBOUND

IC3 WEST

SK01.44 : REV 02

IC2 LOADING DOCK VEHICLE SWEEP:

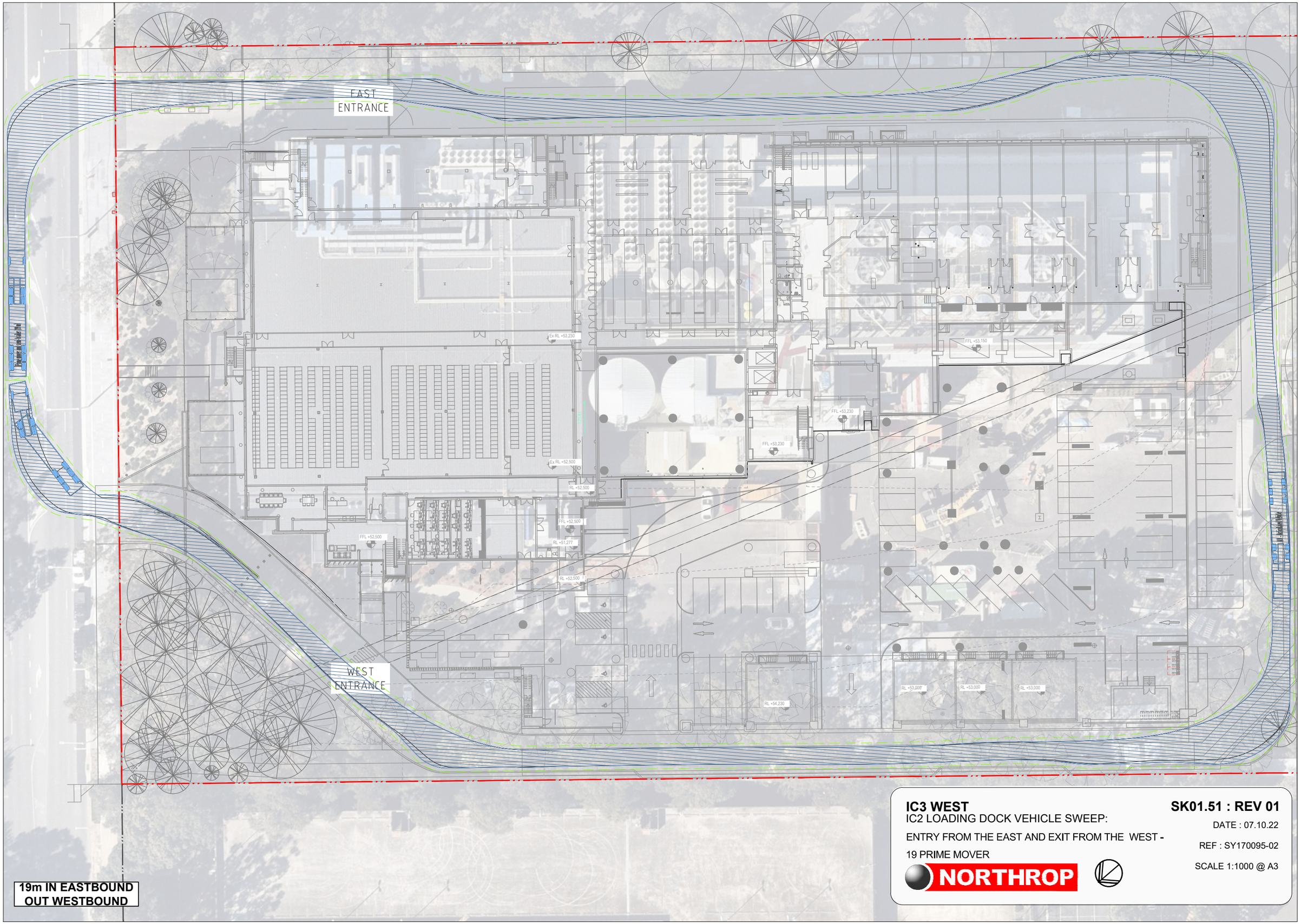
ENTRY FROM THE WEST AND EXIT FROM THE EAST - HRV

DATE : 19.10.22

REF : SY170095-02

SCALE 1:1000 @ A3

NORTHROP



IC3 WEST

IC2 LOADING DOCK VEHICLE SWEEP:

ENTRY FROM THE EAST AND EXIT FROM THE WEST -

19 PRIME MOVER

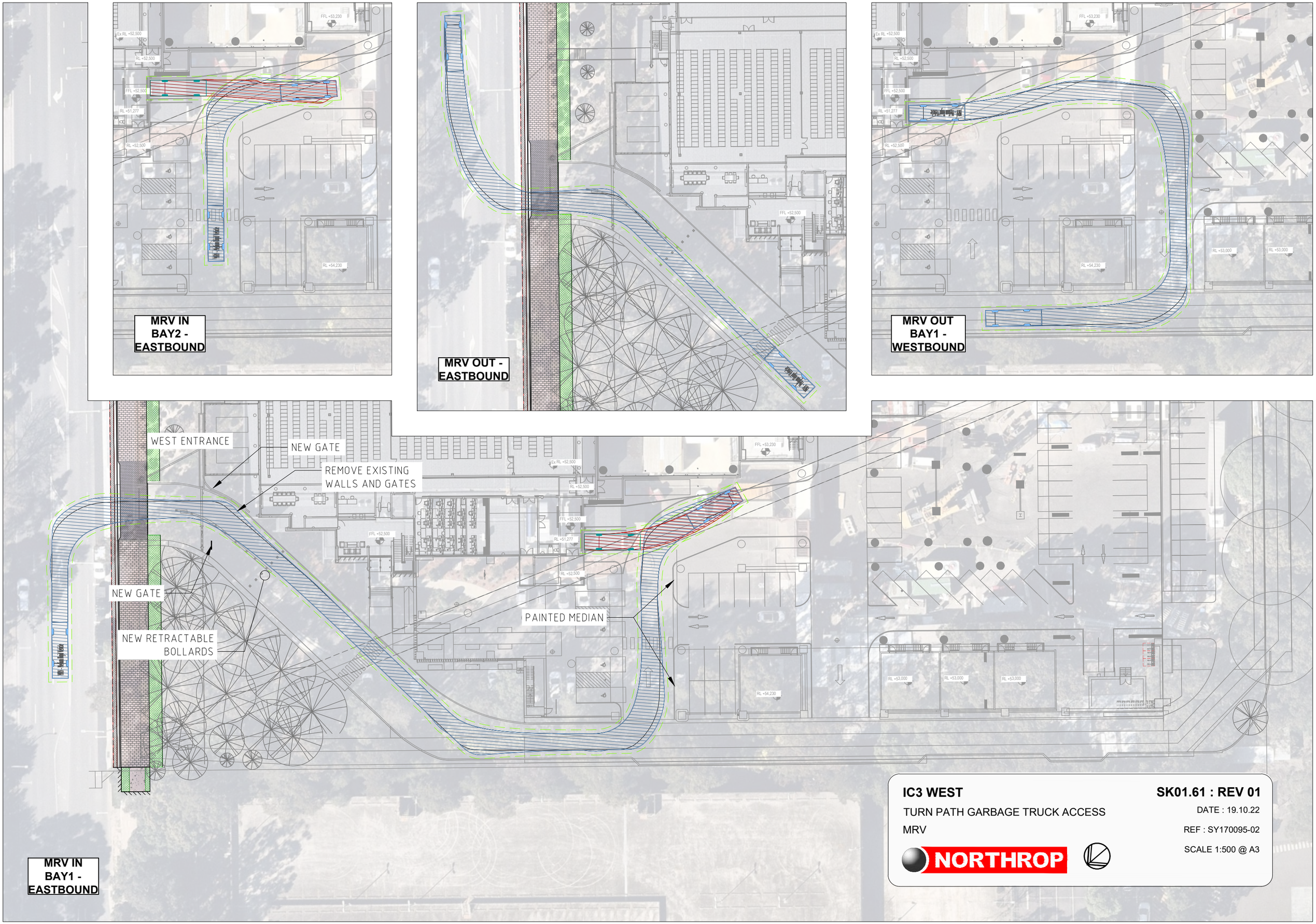
NORTHROP

SK01.51 : REV 01

DATE : 07.10.22

REF : SY170095-02

SCALE 1:1000 @ A3



IC3 WEST

TURN PATH GARBAGE TRUCK ACCESS

MRV

NORTHROP

SK01.61 : REV 01

DATE : 19.10.22

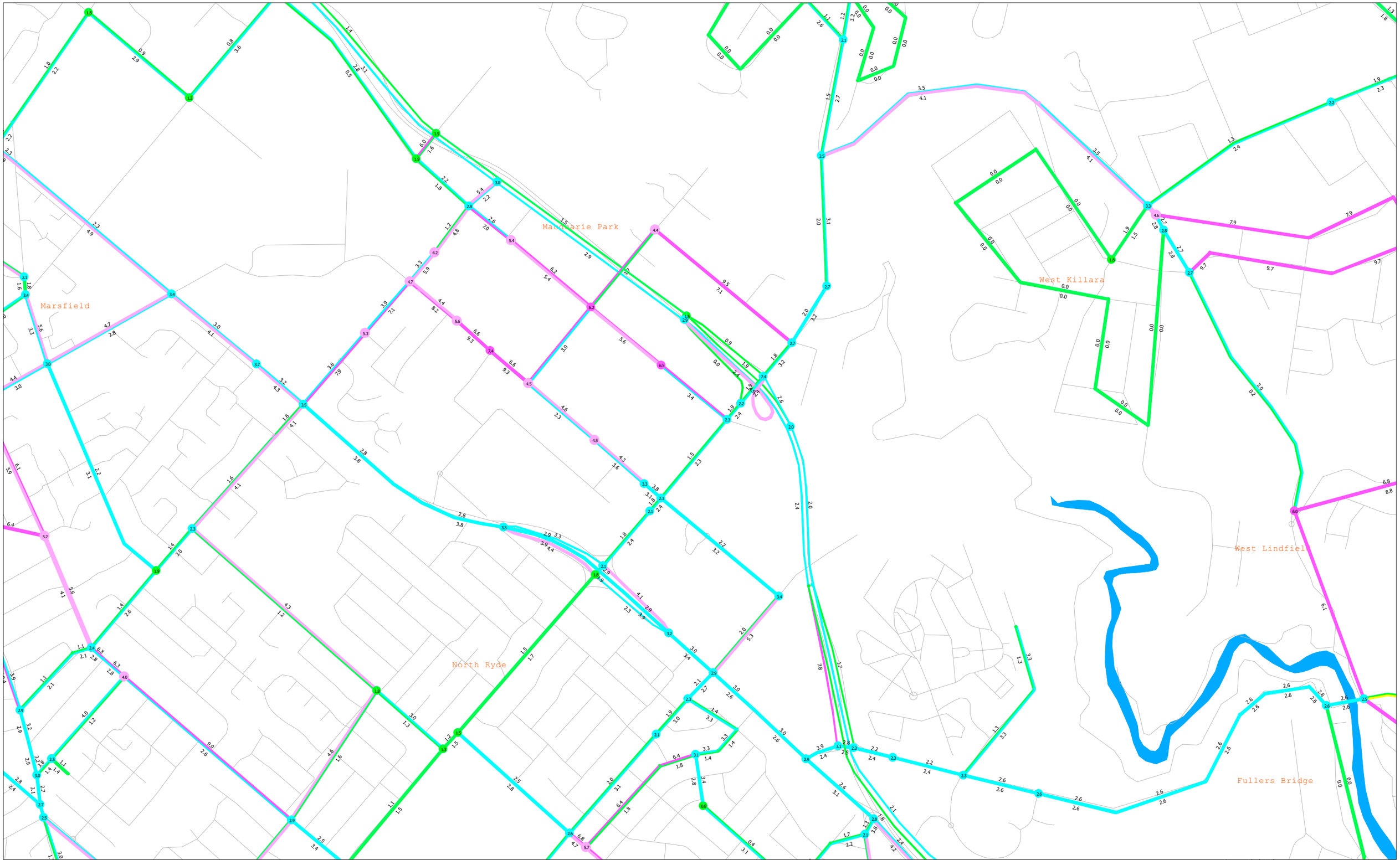
REF : SY170095-02

SCALE 1:500 @ A3

Appendix C

STFM Growth Rates

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS

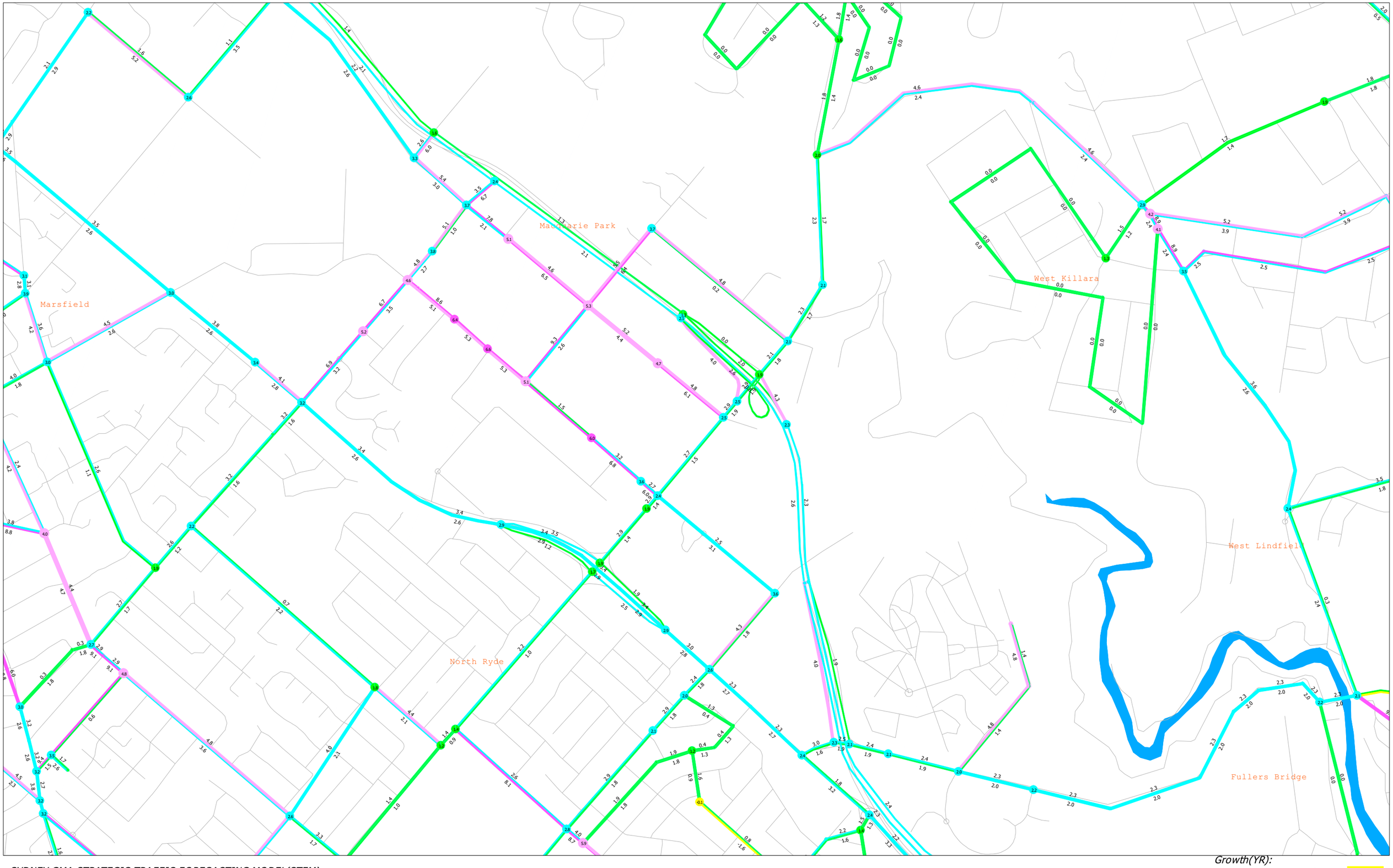


SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL(STFM)
Scenario 2026: 2026 ROAD NETWORK MODEL(TZP19STMV3.8FMMV7.1)-7-9AM(mf34)
2021-09-06 13:20

Growth(YR):

- <0
- <2.00
- 2.01-4.00
- 4.01-6.00
- >6.00
- New Links=999

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS

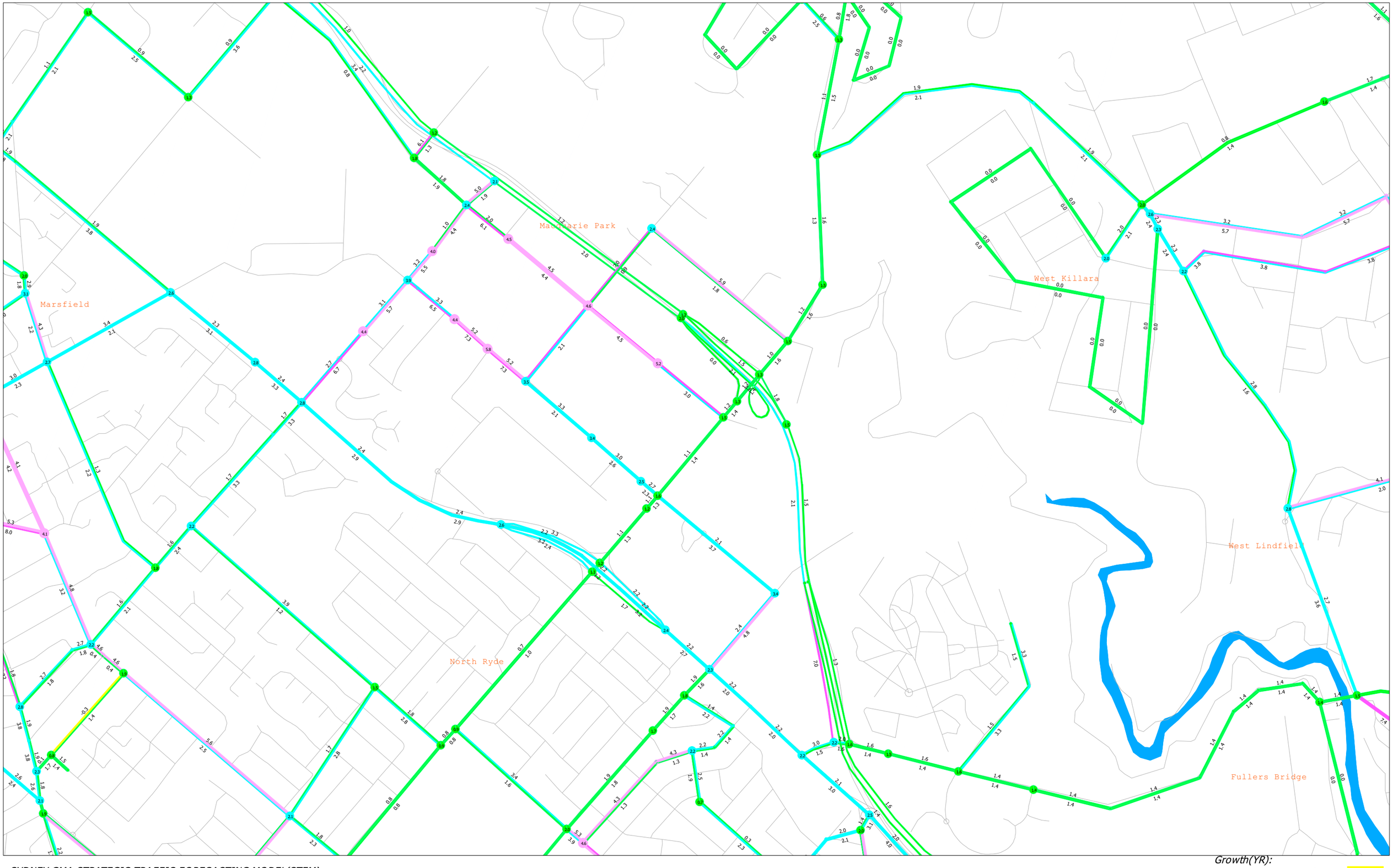


SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL(STFM)
Scenario 20260: 2026 ROAD NETWORK MODEL(TZP19STMV3.8FMMV7.1)-4-6PM(mf54)
2021-09-06 13:22

Growth(YR):

- <0
- <2.00
- 2.01-4.00
- 4.01-6.00
- >6.00
- New Links=999

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS

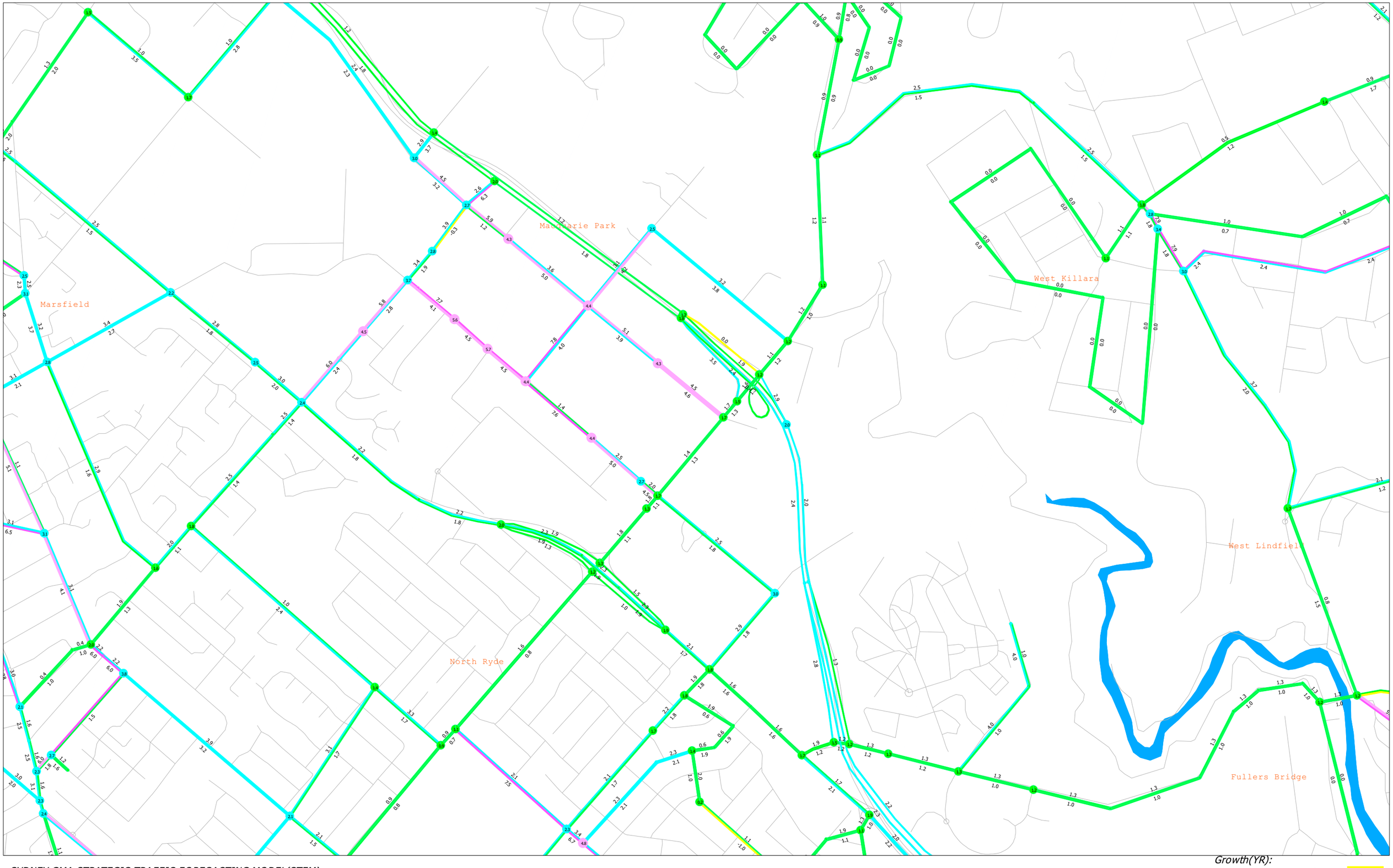


SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL(STFM)
Scenario 2031: 2031 ROAD NETWORK MODEL(TZP19STMV3.8FMMV7.1)-7-9AM(mf35)
2021-09-06 13:21

Growth(YR):

- <0
- <2.00
- 2.01-4.00
- 4.01-6.00
- >6.00
- New Links=999

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS

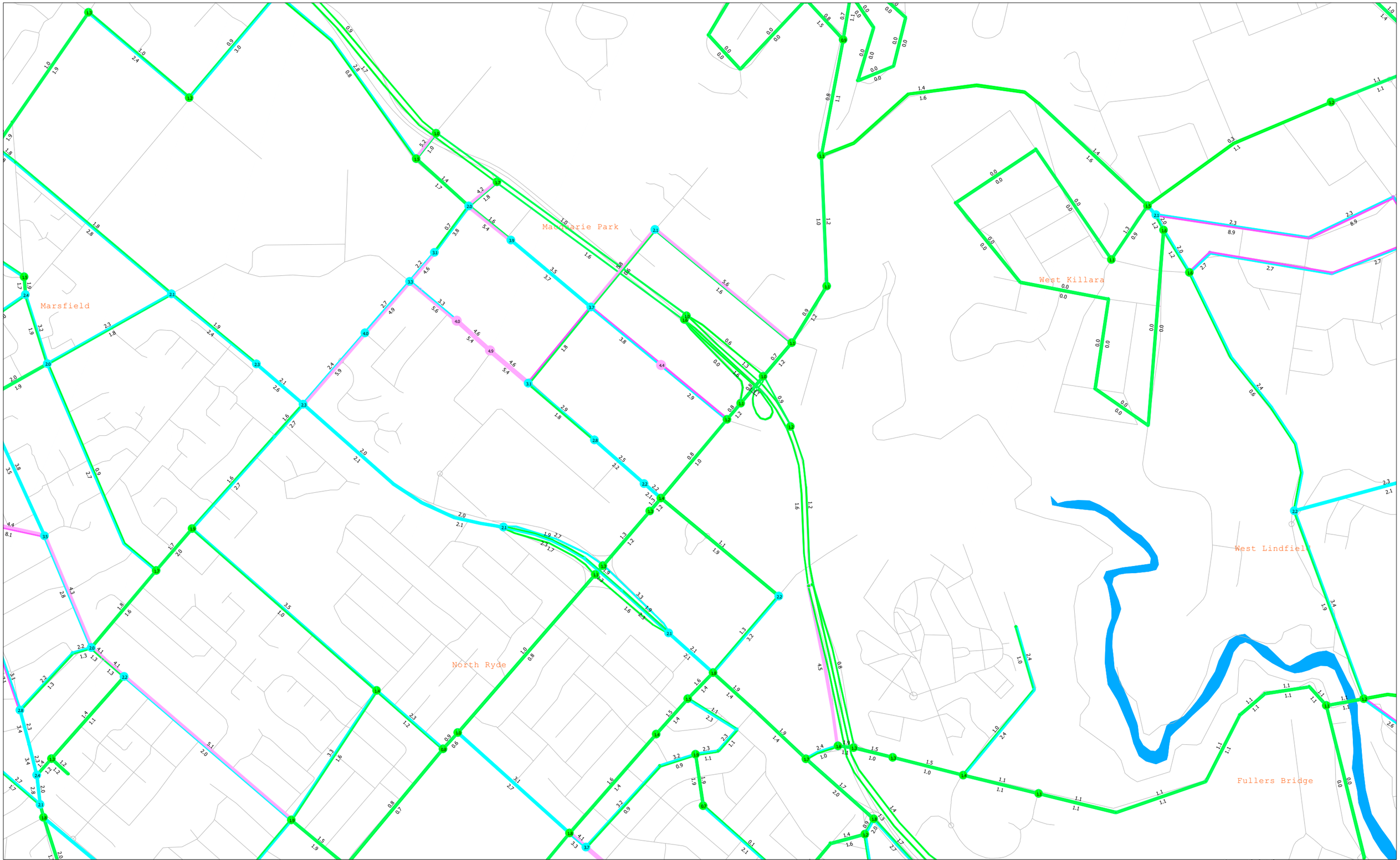


SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL(STFM)
Scenario 20310: 2031 ROAD NETWORK MODEL(TZP19STMV3.8FMMV7.1)-4-6PM(mf55)
2021-09-06 13:23

Growth(YR):

- <0
- <2.00
- 2.01-4.00
- 4.01-6.00
- >6.00
- New Links=999

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS

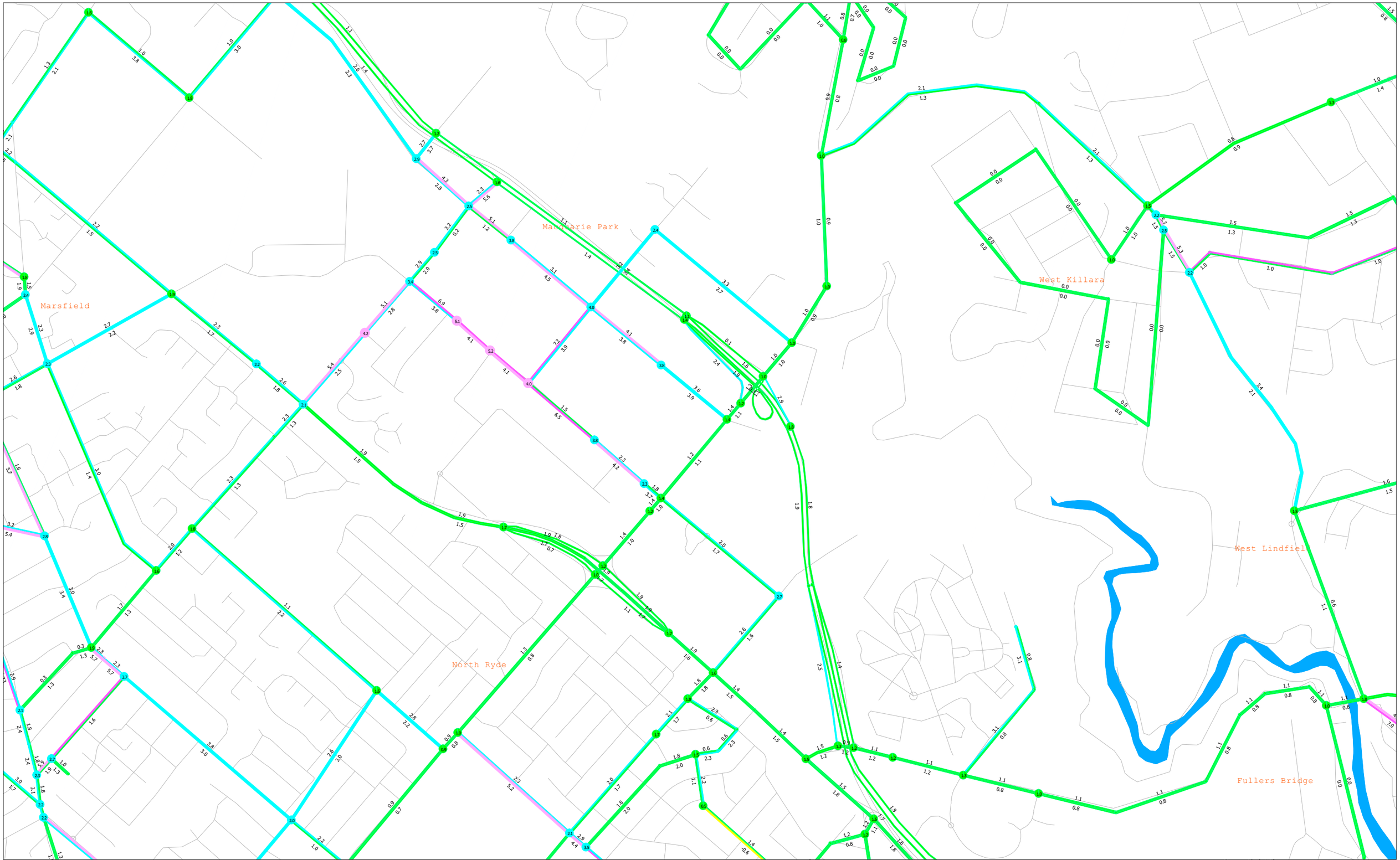


SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL(STFM)
Scenario 2036: 2036 ROAD NETWORK MODEL(TZP19STMV3.8FMMV7.1)-7-9AM(mf36)
2021-09-06 13:22

Growth(YR):

- <0
- <2.00
- 2.01-4.00
- 4.01-6.00
- >6.00
- New Links=999

ROAD TRAFFIC GROWTH (%YR, 2HRSPK) LINKS & INTERSECTIONS



SYDNEY GMA STRATEGIC TRAFFIC FORECASTING MODEL(STFM)
Scenario 20360: 2036 ROAD NETWORK MODEL(TZP19STMV3.8FMMV7.1)-4-6PM(mf56)
2021-09-06 13:23

Growth(YR):

- <0
- <2.00
- 2.01-4.00
- 4.01-6.00
- >6.00
- New Links=999

Appendix D

SIDRA Results

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

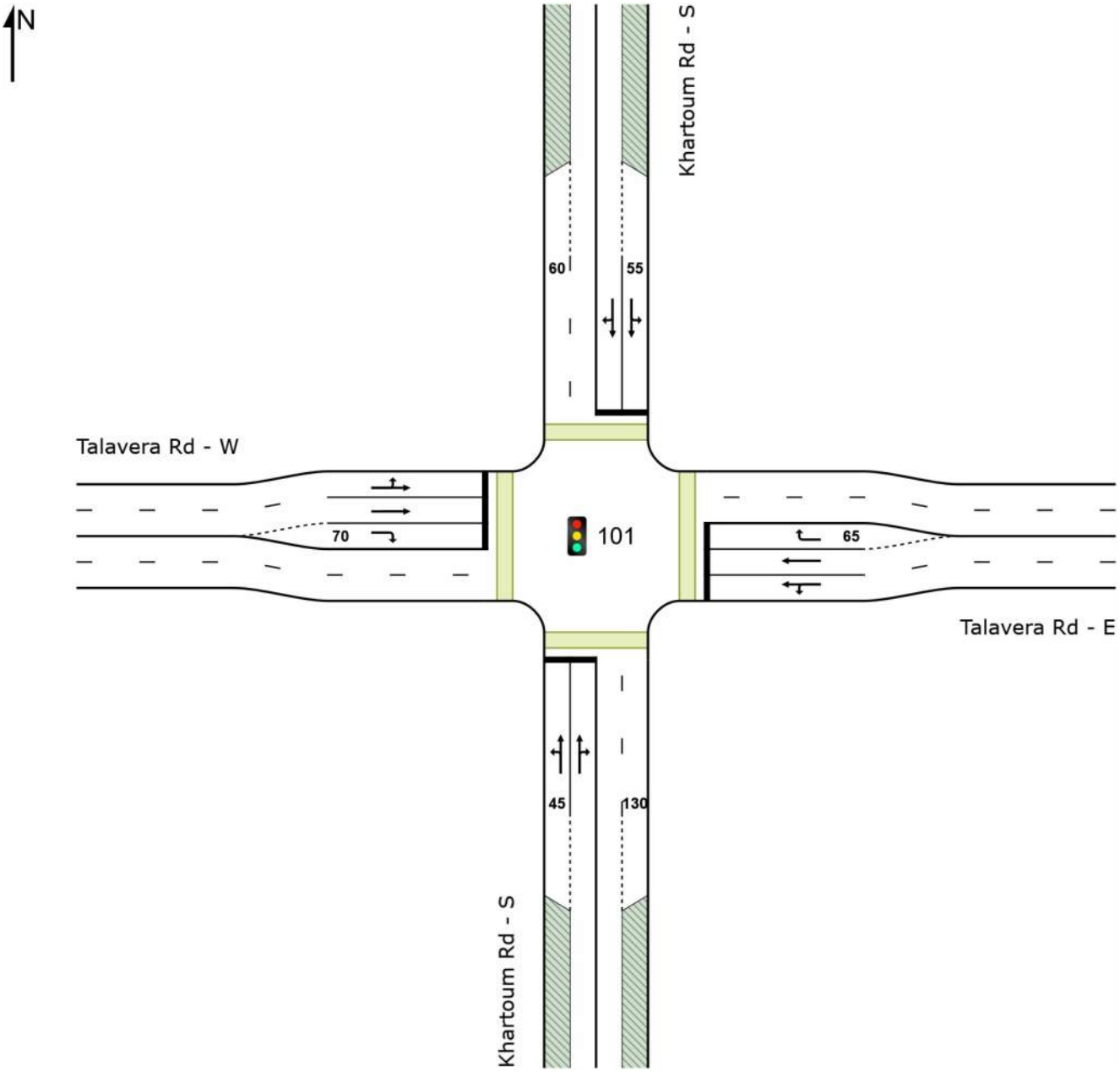
Site: 101 [1-Talavera Rd-Khartoum Rd - 2017 AM Ex (Site Folder: 2017 AM Ex)] | **Network: 1 [2017 AM Ex (Network Folder: Ex)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Site Layout

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



Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	45	4.7	45	4.7	0.409	54.8	LOS D	3.1	23.0	0.96	0.79	0.96	22.8
2	T1	93	8.0	93	8.0	* 1.066	97.1	LOS F	13.3	98.4	0.98	1.00	1.36	16.4
3	R2	146	6.5	146	6.5	1.066	162.8	LOS F	13.3	98.4	1.00	1.27	1.87	7.0
Approach		284	6.7	284	6.7	1.066	124.2	LOS F	13.3	98.4	0.99	1.11	1.56	11.2
East: Talavera Rd - E														

4	L2	144	9.5	105	13.1	0.670	56.3	LOS D	5.9	44.2	1.00	0.84	1.01	23.7
5	T1	377	0.8	264	1.2	0.670	69.2	LOS E	9.0	63.4	1.00	0.83	1.00	16.6
6	R2	51	0.0	35	0.0	0.190	78.5	LOS F	1.6	11.1	1.00	0.74	1.00	17.2
Approach		572	2.9	404 N1	4.2	0.670	66.6	LOS E	9.0	63.4	1.00	0.82	1.01	18.4
North: Khartoum Rd - S														
7	L2	22	0.0	22	0.0	0.061	48.2	LOS D	1.0	7.0	0.77	0.67	0.77	16.3
8	T1	97	6.5	97	6.5	0.307	46.7	LOS D	5.4	39.3	0.84	0.73	0.84	26.4
9	R2	63	1.7	63	1.7	0.307	52.5	LOS D	5.4	39.3	0.84	0.73	0.84	21.6
Approach		182	4.0	182	4.0	0.307	48.9	LOS D	5.4	39.3	0.83	0.72	0.83	23.8
West: Talavera Rd - W														
10	L2	294	0.7	294	0.7	* 0.788	47.9	LOS D	19.7	138.7	0.96	0.91	0.97	22.1
11	T1	612	1.2	612	1.2	* 0.876	50.3	LOS D	19.7	138.7	0.89	0.89	1.01	11.4
12	R2	498	2.1	498	2.1	* 0.996	98.7	LOS F	22.8	162.2	1.00	1.19	1.45	14.8
Approach		1403	1.4	1403	1.4	0.996	67.0	LOS E	22.8	162.2	0.94	1.00	1.16	15.0
All Vehicles		2441	2.6	2274 N1	2.8	1.066	72.6	LOS F	22.8	162.2	0.95	0.96	1.15	15.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

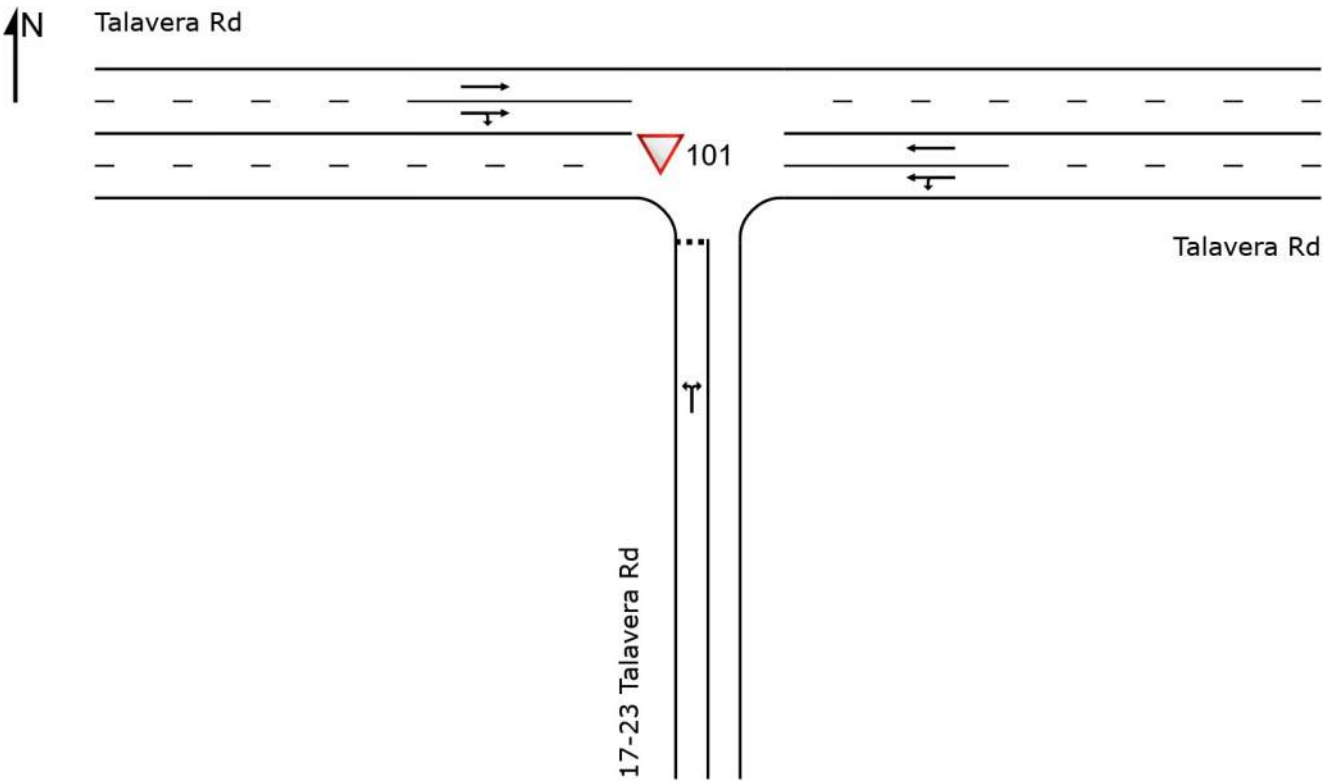
Site: 101 [2-Talavera Rd- Site Access - 2017 AM Ex (Site Folder: 2017 AM Ex)]

Network: 1 [2017 AM Ex (Network Folder: Ex)]

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	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	7	0.0	7	0.0	0.013	5.4	LOS A	0.0	0.1	0.47	0.59	0.47	20.5
3	R2	1	0.0	1	0.0	0.013	22.8	LOS B	0.0	0.1	0.47	0.59	0.47	20.5
Approach		8	0.0	8	0.0	0.013	7.6	LOS A	0.0	0.1	0.47	0.59	0.47	20.5
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.188	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	1055	0.0	734	0.0	0.188	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1056	0.0	735 N1	0.0	0.188	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	780	0.0	772	0.0	0.199	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	59.9

12	R2	1	0.0	1	0.0	0.199	9.8	LOS A	0.0	0.1	0.01	0.00	0.01	53.2
Approach		781	0.0	773 [N1]	0.0	0.199	0.0	NA	0.0	0.1	0.00	0.00	0.00	59.8
All Vehicles		1845	0.0	1516 [N1]	0.0	0.199	0.1	NA	0.0	0.1	0.00	0.00	0.00	59.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Road-Talavera Road - 2017 AM Ex (Site Folder: 2017 AM Ex)]

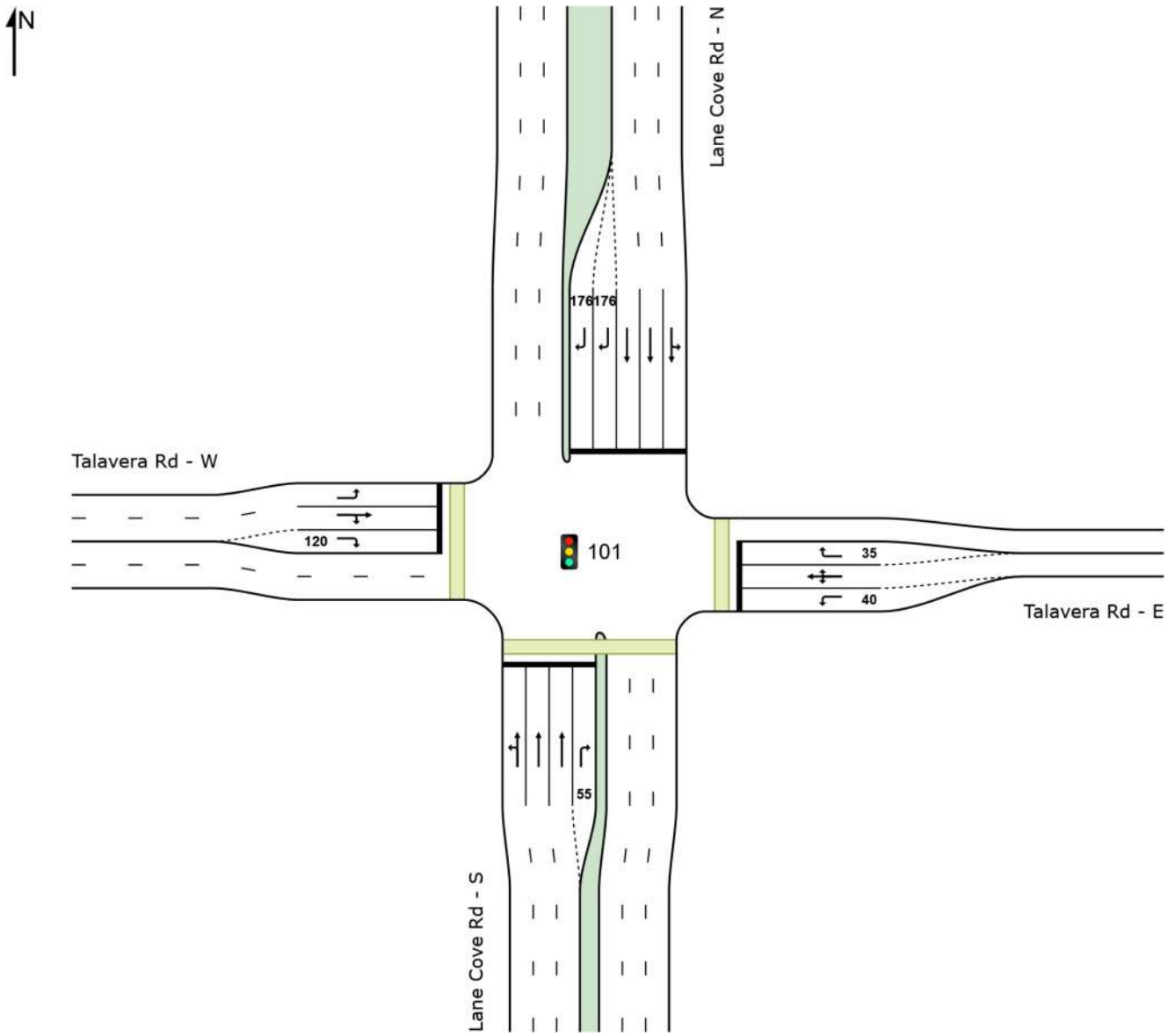
Network: 1 [2017 AM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Site Layout

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



Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	419	2.5	419	2.5	0.545	33.6	LOS C	15.1	108.6	0.74	0.80	0.74	26.1
2	T1	1624	8.8	1624	8.8	* 0.908	46.5	LOS D	38.5	289.6	0.93	0.95	1.04	26.6
3	R2	167	0.0	167	0.0	1.127	207.0	LOS F	13.5	94.3	1.00	1.24	2.10	7.3
Approach		2211	7.0	2211	7.0	1.127	56.2	LOS D	38.5	289.6	0.90	0.94	1.06	22.3
East: Talavera Rd - E														
4	L2	14	7.7	14	7.7	0.035	53.4	LOS D	0.5	3.5	0.81	0.68	0.81	20.5
5	T1	16	6.7	16	6.7	* 0.063	61.2	LOS E	0.6	4.6	0.90	0.64	0.90	7.1
6	R2	5	0.0	5	0.0	0.021	64.9	LOS E	0.2	1.4	0.89	0.65	0.89	13.1

Approach		35	6.1	35	6.1	0.063	58.7	LOS E	0.6	4.6	0.87	0.66	0.87	13.8
North: Lane Cove Rd - N														
7	L2	23	0.0	23	0.0	0.629	35.3	LOS C	19.1	138.7	0.79	0.72	0.79	23.1
8	T1	2091	4.5	2091	4.5	0.898	36.0	LOS C	31.7	230.4	0.87	0.83	0.91	31.0
9	R2	620	1.7	620	1.7	* 2.112	1056.0	LOS F	56.0	397.6	1.00	2.14	4.29	0.6
Approach		2734	3.8	2734	3.8	2.112	267.3	LOS F	56.0	397.6	0.90	1.12	1.67	5.7
West: Talavera Rd - W														
10	L2	151	9.1	149	9.2	0.583	46.2	LOS D	4.7	35.6	0.95	0.79	0.95	24.1
11	T1	71	3.0	70	3.0	* 0.877	84.5	LOS F	5.4	38.7	1.00	0.94	1.29	15.5
12	R2	146	4.3	145	4.4	0.877	89.2	LOS F	5.4	38.7	1.00	0.94	1.30	20.2
Approach		367	6.0	364 N1	6.1	0.877	70.7	LOS F	5.4	38.7	0.98	0.88	1.15	20.5
All Vehicles		5346	5.3	5343 N1	5.3	2.112	165.2	LOS F	56.0	397.6	0.91	1.03	1.38	9.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Created: Friday, 22 October 2021 12:43:08 PM
Project: X:\21178 17-23 Talavera Rd, North Ryde\07 Modelling Files\Model\21178sid-211006 No Cap Adj.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj **Template: Default Site User Report**

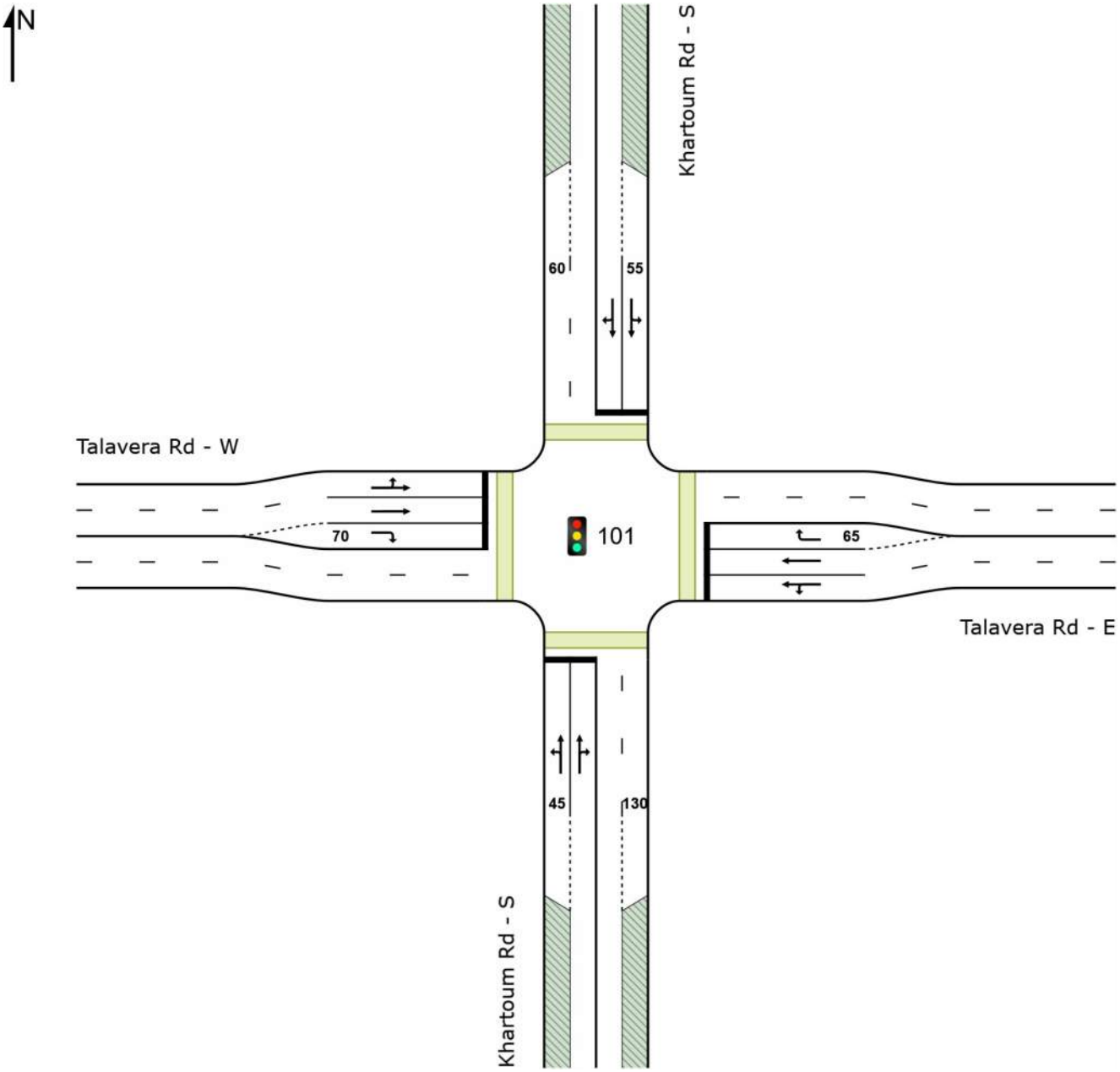
Site: 101 [1-Talavera Rd-Khartoum Rd - 2017 PM Ex (Site Folder: 2017 PM Ex)] **Network: 2 [2017 PM Ex (Network Folder: Ex)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Site Layout

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



Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	188	0.0	188	0.0	* 0.410	29.7	LOS C	4.3	30.1	0.84	0.78	0.84	30.8
2	T1	132	5.6	132	5.6	0.512	47.4	LOS D	6.8	51.6	0.90	0.78	0.90	26.0
3	R2	78	14.9	78	14.9	0.512	62.2	LOS E	6.8	51.6	0.93	0.78	0.93	16.4
Approach		398	4.8	398	4.8	0.512	41.9	LOS C	6.8	51.6	0.88	0.78	0.88	26.0
East: Talavera Rd - E														

4	L2	201	4.2	148	5.7	* 0.886	73.7	LOS F	15.1	109.0	1.00	1.01	1.22	20.1
5	T1	727	1.2	529	1.6	* 0.886	69.5	LOS E	16.8	119.1	1.00	0.99	1.18	16.5
6	R2	39	0.0	28	0.0	0.190	75.8	LOS F	1.2	8.7	0.99	0.72	0.99	17.6
Approach		967	1.7	705 N1	2.4	0.886	70.7	LOS F	16.8	119.1	1.00	0.98	1.18	17.4
North: Khartoum Rd - S														
7	L2	14	15.4	14	15.4	0.185	51.8	LOS D	2.9	22.2	0.82	0.67	0.82	16.4
8	T1	89	10.6	89	10.6	0.255	46.7	LOS D	4.2	30.9	0.82	0.69	0.82	26.8
9	R2	100	4.2	100	4.2	0.255	52.6	LOS D	4.2	30.9	0.84	0.76	0.84	21.0
Approach		203	7.8	203	7.8	0.255	49.9	LOS D	4.2	30.9	0.83	0.72	0.83	23.4
West: Talavera Rd - W														
10	L2	331	0.6	331	0.6	* 0.650	30.8	LOS C	9.1	63.7	0.91	0.84	0.91	27.6
11	T1	363	1.2	363	1.2	0.650	43.9	LOS D	11.3	79.9	0.90	0.78	0.90	12.7
12	R2	223	0.5	223	0.5	* 1.005	92.3	LOS F	10.3	72.6	1.00	1.10	1.62	12.3
Approach		917	0.8	917	0.8	1.005	50.9	LOS D	11.3	79.9	0.92	0.88	1.08	16.5
All Vehicles		2485	2.4	2223 N1	2.7	1.005	55.5	LOS D	16.8	119.1	0.93	0.88	1.05	18.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

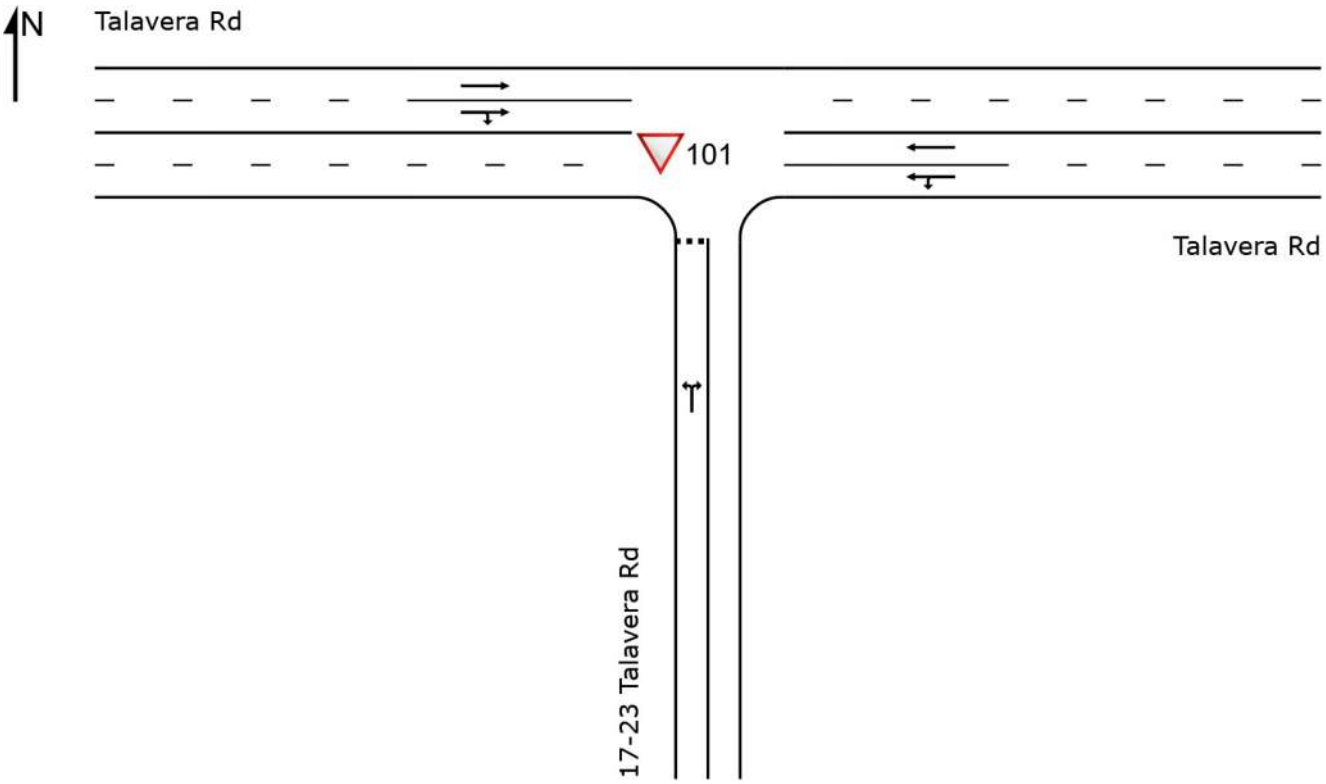
* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2017 PM Ex (Site Folder: 2017 PM Ex)] Network: 2 [2017 PM Ex (Network Folder: Ex)]

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	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	1	0.0	1	0.0	0.003	4.4	LOS A	0.0	0.0	0.30	0.54	0.30	22.5
3	R2	1	0.0	1	0.0	0.003	8.5	LOS A	0.0	0.0	0.30	0.54	0.30	22.5
Approach		2	0.0	2	0.0	0.003	6.4	LOS A	0.0	0.0	0.30	0.54	0.30	22.5
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.068	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	526	0.0	264	0.0	0.068	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		527	0.0	265[N1]	0.0	0.068	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	455	0.0	455	0.0	0.117	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9

12	R2	1	0.0	1	0.0	0.117	6.5	LOS A	0.0	0.0	0.00	0.00	0.00	53.2
Approach		456	0.0	456	0.0	0.117	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
All Vehicles		985	0.0	723 [N1]	0.0	0.117	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Rd-Talavera Road - Ex PM (Site Folder: 2017 PM Ex)]

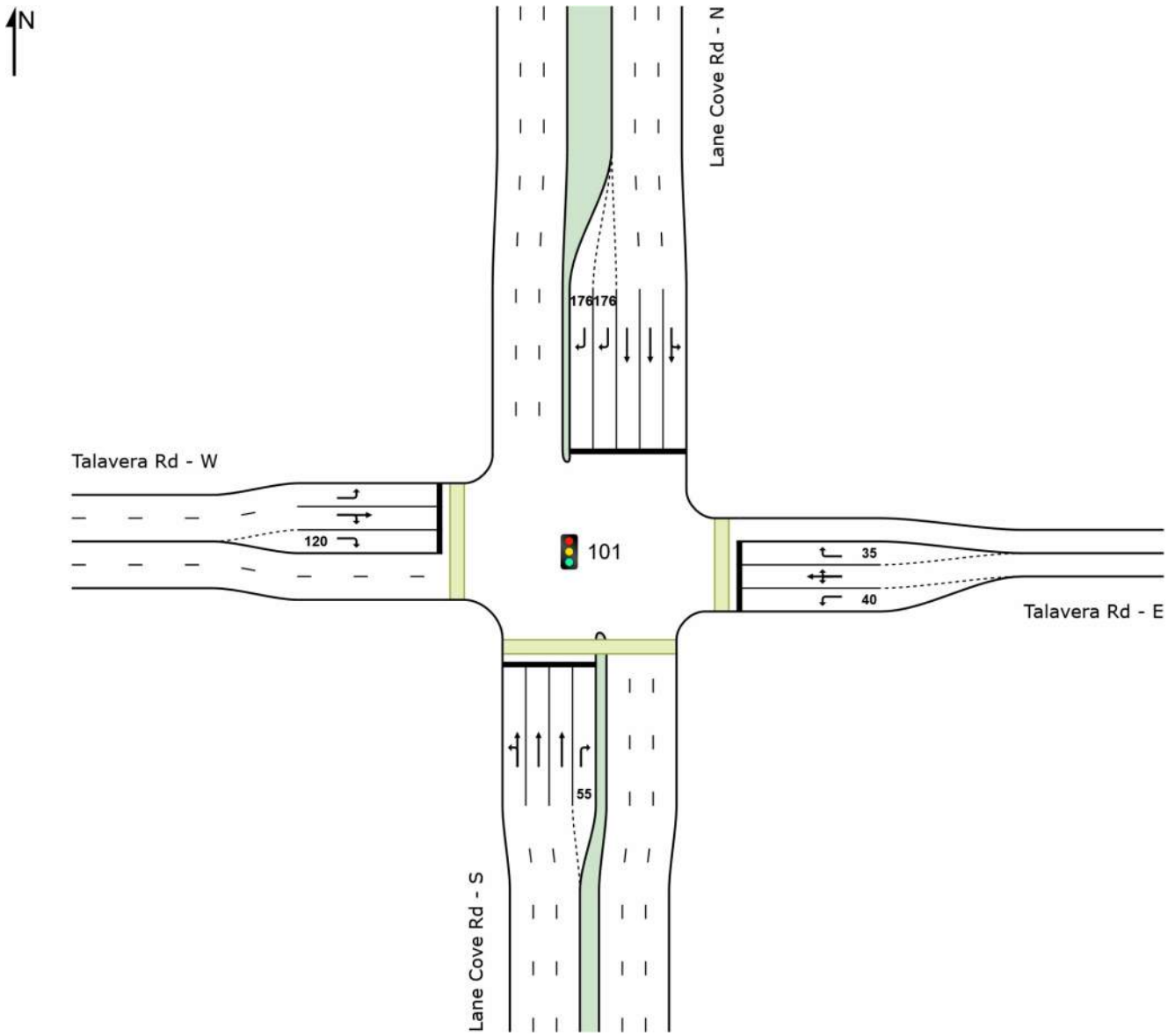
Network: 2 [2017 PM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Site Layout

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



Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	76	6.9	76	6.9	0.666	39.2	LOS C	20.2	144.8	0.84	0.77	0.84	25.7
2	T1	2203	2.4	2203	2.4	* 0.952	57.9	LOS E	45.3	323.3	0.96	1.01	1.12	23.1
3	R2	21	5.0	21	5.0	0.294	86.9	LOS F	1.0	7.1	1.00	0.70	1.00	15.4
Approach		2300	2.6	2300	2.6	0.952	57.5	LOS E	45.3	323.3	0.96	1.00	1.11	23.1
East: Talavera Rd - E														
4	L2	147	0.7	147	0.7	0.446	68.5	LOS E	5.2	36.7	0.96	0.79	0.96	17.8
5	T1	37	5.7	37	5.7	* 0.446	70.5	LOS F	3.4	24.2	0.99	0.77	0.99	5.8
6	R2	107	1.0	107	1.0	0.446	74.0	LOS F	3.8	26.7	0.98	0.78	0.98	11.9

Approach		292	1.4	292	1.4	0.446	70.8	LOS F	5.2	36.7	0.97	0.78	0.97	14.3
North: Lane Cove Rd - N														
7	L2	9	11.1	9	11.1	0.607	38.0	LOS C	17.4	128.4	0.80	0.72	0.80	21.7
8	T1	1980	6.1	1980	6.1	0.868	39.5	LOS C	32.0	235.3	0.91	0.86	0.95	29.4
9	R2	414	1.5	414	1.5	* 2.815	1678.5	LOS F	43.6	309.2	1.00	2.12	4.98	0.4
Approach		2403	5.3	2403	5.3	2.815	321.6	LOS F	43.6	309.2	0.92	1.07	1.64	5.0
West: Talavera Rd - W														
10	L2	365	2.3	365	2.3	* 0.967	82.8	LOS F	17.7	126.2	1.00	1.06	1.41	17.1
11	T1	13	16.7	13	16.7	0.529	62.2	LOS E	6.7	47.9	0.96	0.81	0.96	18.3
12	R2	311	1.7	311	1.7	0.529	66.7	LOS E	6.7	47.6	0.96	0.81	0.96	23.9
Approach		688	2.3	688	2.3	0.967	75.2	LOS F	17.7	126.2	0.98	0.94	1.20	20.1
All Vehicles		5683	3.6	5683	3.6	2.815	172.0	LOS F	45.3	323.3	0.95	1.01	1.34	9.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2036 PM Prop (Site Folder: 2036 PM Prop)] | **Network: 14 [2036 PM Prop (Network Folder: Prop)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	613	0.0	613	0.0	1.011	105.0	LOS F	37.5	262.3	1.00	1.12	1.48	13.4
2	T1	361	2.0	361	2.0	* 1.605	530.6	LOS F	37.8	269.5	1.00	1.92	3.25	3.9
3	R2	258	4.5	258	4.5	1.680	675.3	LOS F	38.8	282.3	1.00	2.00	3.60	1.8
Approach		1232	1.5	1232	1.5	1.680	349.2	LOS F	38.8	282.3	1.00	1.54	2.45	4.9
East: Talavera Rd - E														
4	L2	429	2.0	318	2.6	0.376	24.0	LOS B	6.7	47.6	0.65	0.74	0.65	34.5
5	T1	1663	0.5	1227	0.7	* 0.891	52.3	LOS D	31.6	222.5	0.92	0.92	1.04	20.1
6	R2	75	0.0	55	0.0	0.282	72.3	LOS F	2.4	16.5	0.97	0.75	0.97	18.4
Approach		2167	0.8	1600[N] 1	1.1	0.891	47.4	LOS D	31.6	222.5	0.87	0.88	0.96	22.3
North: Khartoum Rd - S														
7	L2	32	6.7	32	6.7	0.045	13.9	LOS A	0.5	3.3	0.41	0.64	0.41	33.8
8	T1	192	4.9	192	4.9	0.404	62.1	LOS E	4.7	34.4	0.94	0.74	0.94	23.2
9	R2	235	1.8	235	1.8	0.897	86.7	LOS F	11.8	83.6	1.00	0.97	1.30	14.9
Approach		458	3.4	458	3.4	0.897	71.4	LOS F	11.8	83.6	0.93	0.85	1.09	18.6
West: Talavera Rd - W														
10	L2	618	0.3	618	0.3	* 0.544	14.1	LOS A	9.2	64.8	0.63	0.76	0.63	36.8
11	T1	816	0.5	816	0.5	0.529	25.8	LOS B	11.6	81.3	0.69	0.61	0.69	19.0
12	R2	454	0.2	454	0.2	* 1.695	666.2	LOS F	60.0	420.8	1.00	2.09	3.61	2.7
Approach		1887	0.4	1887	0.4	1.695	175.9	LOS F	60.0	420.8	0.75	1.01	1.37	6.5
All Vehicles		5744	1.0	5177[N] 1	1.1	1.695	168.2	LOS F	60.0	420.8	0.86	1.08	1.47	8.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2036 PM Prop (Site Folder: 2036 PM Prop)]

Network: 14 [2036 PM Prop (Network Folder: Prop)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	9	0.0	9	0.0	0.082	5.4	LOS A	0.1	0.7	0.69	0.76	0.69	10.4
3	R2	9	0.0	9	0.0	0.082	31.5	LOS C	0.1	0.7	0.69	0.76	0.69	10.4
Approach		19	0.0	19	0.0	0.082	18.4	LOS B	0.1	0.7	0.69	0.76	0.69	10.4
East: Talavera Rd														
4	L2	2	0.0	1	0.0	0.182	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	1161	0.0	594	0.0	0.182	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1163	0.0	595 N1	0.0	0.182	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	1108	0.0	1009	0.0	0.260	0.0	LOS A	10.1	70.6	0.00	0.00	0.00	59.8
12	R2	2	0.0	2	0.0	0.260	9.3	LOS A	0.0	0.1	0.01	0.00	0.01	53.1
Approach		1111	0.0	1011 N1	0.0	0.260	0.1	NA	10.1	70.6	0.00	0.00	0.00	59.8
All Vehicles		2293	0.0	1625 N1	0.0	0.260	0.3	NA	10.1	70.6	0.01	0.01	0.01	59.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Rd-Talavera Road - 2036 PM Prop (Site Folder: 2036 PM Prop)] Network: 14 [2036 PM Prop (Network Folder: Prop)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	133	4.0	133	4.0	0.966	82.1	LOS F	44.7	318.5	1.00	1.11	1.26	14.2
2	T1	2951	1.8	2951	1.8	* 1.380	329.0	LOS F	140.9	1001.5	1.00	2.07	2.44	5.5
3	R2	24	4.3	24	4.3	0.336	87.1	LOS F	1.1	8.2	1.00	0.71	1.00	15.4
Approach		3107	1.9	3107	1.9	1.380	316.6	LOS F	140.9	1001.5	1.00	2.02	2.38	5.6
East: Talavera Rd - E														
4	L2	166	0.6	166	0.6	0.530	69.0	LOS E	6.2	43.8	0.97	0.80	0.97	17.7
5	T1	57	3.7	57	3.7	* 0.530	70.4	LOS E	4.2	30.1	0.99	0.78	0.99	6.0
6	R2	126	0.8	126	0.8	0.530	74.6	LOS F	4.5	32.1	0.99	0.79	0.99	11.8
Approach		349	1.2	349	1.2	0.530	71.3	LOS F	6.2	43.8	0.98	0.79	0.98	13.9
North: Lane Cove Rd - N														
7	L2	11	10.0	11	10.0	0.831	47.9	LOS D	27.2	198.2	0.96	0.88	0.97	18.2
8	T1	2531	4.7	2531	4.7	1.186	185.0	LOS F	92.0	670.0	0.99	1.58	1.82	9.2
9	R2	721	0.9	721	0.9	* 4.884	3532.6	LOS F	89.5	631.3	1.00	2.42	5.83	0.2
Approach		3262	3.9	3262	3.9	4.884	924.5	LOS F	92.0	670.0	0.99	1.76	2.71	1.8
West: Talavera Rd - W														
10	L2	662	1.3	608	1.4	* 1.377	395.6	LOS F	56.5	400.0	1.00	1.72	2.82	4.5
11	T1	19	11.1	18	12.0	0.690	60.4	LOS E	10.6	75.7	0.99	0.84	0.99	18.6
12	R2	535	1.0	491	1.1	0.690	64.9	LOS E	10.7	75.3	0.99	0.84	0.99	24.3
Approach		1216	1.3	1116 N1	1.4	1.377	244.9	LOS F	56.5	400.0	0.99	1.32	1.98	7.9
All Vehicles		7935	2.6	7835 N1	2.6	4.884	548.5	LOS F	140.9	1001.5	0.99	1.76	2.40	3.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj

Template: Default Site User Report

Site: 101 [1-Talavera Rd-Khartoum Rd - 2026 AM Ex (Site Folder: 2026 AM Ex)]

Network: 3 [2026 AM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	75	2.8	75	2.8	0.682	69.5	LOS E	6.3	45.5	1.00	0.89	1.03	19.6
2	T1	154	4.8	154	4.8	* 1.778	362.6	LOS F	50.6	366.2	1.00	1.48	2.22	5.5
3	R2	253	3.8	253	3.8	1.778	761.9	LOS F	50.6	366.2	1.00	2.26	3.78	1.6
Approach		481	3.9	481	3.9	1.778	526.7	LOS F	50.6	366.2	1.00	1.80	2.85	3.0
East: Talavera Rd - E														
4	L2	211	6.5	129	10.6	0.873	68.8	LOS E	9.8	72.4	1.00	0.97	1.17	21.0
5	T1	611	0.5	360	0.9	0.873	74.2	LOS F	12.2	85.8	1.00	0.94	1.14	15.8
6	R2	82	0.0	48	0.0	0.650	87.1	LOS F	2.3	16.3	1.00	0.76	1.06	16.0
Approach		903	1.9	538 N1	3.1	0.873	74.1	LOS F	12.2	85.8	1.00	0.93	1.14	17.1
North: Khartoum Rd - S														
7	L2	32	0.0	32	0.0	0.063	40.7	LOS C	1.2	8.3	0.70	0.68	0.70	18.4
8	T1	119	5.3	119	5.3	0.317	39.4	LOS C	6.5	47.0	0.79	0.71	0.79	28.8
9	R2	86	1.2	86	1.2	0.317	45.2	LOS D	6.5	47.0	0.79	0.72	0.79	23.7
Approach		237	3.1	237	3.1	0.317	41.7	LOS C	6.5	47.0	0.78	0.71	0.78	25.9
West: Talavera Rd - W														
10	L2	486	0.4	486	0.4	* 1.336	360.2	LOS F	93.2	655.3	1.00	1.83	2.66	4.2
11	T1	1058	0.7	1058	0.7	* 1.484	448.2	LOS F	93.2	655.3	1.00	2.30	2.95	1.6
12	R2	746	1.4	746	1.4	* 2.187	1107.9	LOS F	126.3	894.5	1.00	2.38	4.36	1.7
Approach		2291	0.9	2291	0.9	2.187	644.5	LOS F	126.3	894.5	1.00	2.23	3.35	2.0
All Vehicles		3912	1.6	3547 N1	1.8	2.187	501.7	LOS F	126.3	894.5	0.99	1.87	2.77	2.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2026 AM Ex (Site Folder: 2026 AM Ex)] Network: 3 [2026 AM Ex (Network Folder: Ex)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	1	0.0	1	0.0	0.011	5.9	LOS A	0.0	0.1	0.75	0.75	0.75	9.6
3	R2	1	0.0	1	0.0	0.011	34.5	LOS C	0.0	0.1	0.75	0.75	0.75	9.6
Approach		2	0.0	2	0.0	0.011	20.2	LOS B	0.0	0.1	0.75	0.75	0.75	9.6
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.236	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	1567	0.0	921	0.0	0.236	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1568	0.0	922 N1	0.0	0.236	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	1249	0.0	853	0.0	0.219	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	59.9
12	R2	1	0.0	1	0.0	0.219	12.5	LOS A	0.0	0.1	0.00	0.00	0.00	53.2
Approach		1251	0.0	854 N1	0.0	0.219	0.0	NA	0.0	0.1	0.00	0.00	0.00	59.8
All Vehicles		2821	0.0	1778 N1	0.0	0.236	0.1	NA	0.0	0.1	0.00	0.00	0.00	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Road-Talavera Road - 2026 AM Ex (Site Folder: 2026 AM Ex)]

Network: 3 [2026 AM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	521	2.0	521	2.0	0.575	29.5	LOS C	16.8	120.2	0.71	0.80	0.71	28.1
2	T1	1891	7.6	1891	7.6	0.958	59.1	LOS E	52.4	390.8	0.94	1.04	1.14	22.8
3	R2	179	0.0	179	0.0	2.409	1317.4	LOS F	35.0	245.3	1.00	2.00	4.64	1.3
Approach		2591	5.9	2591	5.9	2.409	140.1	LOS F	52.4	390.8	0.90	1.06	1.30	10.9
East: Talavera Rd - E														
4	L2	15	7.1	15	7.1	0.046	58.9	LOS E	0.5	4.0	0.86	0.68	0.86	19.3
5	T1	19	5.6	19	5.6	* 0.076	61.4	LOS E	0.7	5.5	0.91	0.65	0.91	7.0
6	R2	5	0.0	5	0.0	0.021	64.9	LOS E	0.2	1.4	0.89	0.65	0.89	13.1
Approach		39	5.4	39	5.4	0.076	60.9	LOS E	0.7	5.5	0.89	0.66	0.89	13.1
North: Lane Cove Rd - N														
7	L2	26	0.0	26	0.0	0.703	32.2	LOS C	23.8	171.4	0.79	0.73	0.79	24.7
8	T1	2577	3.6	2577	3.6	* 1.004	54.0	LOS D	58.5	422.0	0.93	0.99	1.09	24.3
9	R2	802	1.3	802	1.3	* 5.449	4041.4	LOS F	101.7	719.9	1.00	2.47	5.96	0.2
Approach		3405	3.1	3405	3.1	5.449	993.0	LOS F	101.7	719.9	0.95	1.33	2.23	1.6
West: Talavera Rd - W														
10	L2	199	6.9	140	9.8	0.865	64.5	LOS E	5.4	41.2	1.00	0.97	1.30	20.0
11	T1	86	2.4	60	3.5	* 1.005	114.7	LOS F	5.8	41.9	1.00	1.10	1.65	12.4
12	R2	197	3.2	136	4.6	1.005	119.6	LOS F	5.8	41.9	1.00	1.09	1.65	16.5
Approach		482	4.6	336 N1	6.6	1.005	95.8	LOS F	5.8	41.9	1.00	1.04	1.51	16.8
All Vehicles		6517	4.3	6371 N1	4.4	5.449	593.2	LOS F	101.7	719.9	0.93	1.20	1.80	2.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Created: Friday, 22 October 2021 12:46:01 PM
Project: X:\21178 17-23 Talavera Rd, North Ryde\07 Modelling Files\Model\21178sid-211006 No Cap Adj.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2026 AM Prop (Site Folder: 2026 AM Prop)] | **Network: 9 [2026 AM Prop (Network Folder: Prop)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	75	2.8	75	2.8	0.697	70.5	LOS E	6.5	47.0	1.00	0.90	1.05	19.4
2	T1	154	4.8	154	4.8	* 1.819	364.8	LOS F	52.8	381.9	1.00	1.47	2.20	5.5
3	R2	263	3.6	263	3.6	1.819	798.0	LOS F	52.8	381.9	1.00	2.28	3.85	1.6
Approach		492	3.9	492	3.9	1.819	551.9	LOS F	52.8	381.9	1.00	1.82	2.91	2.9
East: Talavera Rd - E														
4	L2	213	6.4	130	10.5	0.870	68.2	LOS E	9.7	71.8	1.00	0.96	1.16	21.1
5	T1	611	0.5	358	0.9	0.870	74.0	LOS F	12.1	85.3	1.00	0.94	1.13	15.9
6	R2	82	0.0	48	0.0	0.646	87.0	LOS F	2.3	16.2	1.00	0.76	1.06	16.0
Approach		905	1.9	536 N1	3.1	0.870	73.7	LOS F	12.1	85.3	1.00	0.93	1.13	17.1
North: Khartoum Rd - S														
7	L2	32	0.0	32	0.0	0.063	40.7	LOS C	1.2	8.3	0.70	0.68	0.70	18.4
8	T1	119	5.3	119	5.3	0.317	39.4	LOS C	6.5	47.0	0.79	0.71	0.79	28.8
9	R2	86	1.2	86	1.2	0.317	45.2	LOS D	6.5	47.0	0.79	0.72	0.79	23.7
Approach		237	3.1	237	3.1	0.317	41.7	LOS C	6.5	47.0	0.78	0.71	0.78	25.9
West: Talavera Rd - W														
10	L2	486	0.4	486	0.4	* 1.336	360.2	LOS F	93.2	655.3	1.00	1.83	2.66	4.2
11	T1	1058	0.7	1058	0.7	* 1.484	448.2	LOS F	93.2	655.3	1.00	2.30	2.95	1.6
12	R2	746	1.4	746	1.4	* 2.187	1107.9	LOS F	126.3	894.5	1.00	2.38	4.36	1.7
Approach		2291	0.9	2291	0.9	2.187	644.5	LOS F	126.3	894.5	1.00	2.23	3.35	2.0
All Vehicles		3924	1.6	3555 N1	1.8	2.187	505.4	LOS F	126.3	894.5	0.99	1.87	2.78	2.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2026 AM Prop (Site Folder: 2026 AM Prop)]

Network: 9 [2026 AM Prop (Network Folder: Prop)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	2	0.0	2	0.0	0.021	5.9	LOS A	0.0	0.2	0.75	0.77	0.75	9.6
3	R2	2	0.0	2	0.0	0.021	34.7	LOS C	0.0	0.2	0.75	0.77	0.75	9.6
Approach		4	0.0	4	0.0	0.021	20.3	LOS B	0.0	0.2	0.75	0.77	0.75	9.6
East: Talavera Rd														
4	L2	9	0.0	6	0.0	0.236	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	55.1
5	T1	1567	0.0	916	0.0	0.236	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1577	0.0	921 N1	0.0	0.236	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.8
West: Talavera Rd														
11	T1	1249	0.0	849	0.0	0.223	0.2	LOS A	0.1	0.5	0.02	0.00	0.02	59.1
12	R2	9	0.0	6	0.0	0.223	12.4	LOS A	0.1	0.5	0.04	0.01	0.04	52.2
Approach		1259	0.0	855 N1	0.0	0.223	0.2	NA	0.1	0.5	0.02	0.00	0.02	59.1
All Vehicles		2840	0.0	1781 N1	0.0	0.236	0.2	NA	0.1	0.5	0.01	0.01	0.01	59.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Road-Talavera Road - 2026 AM Prop (Site Folder: 2026 AM Prop)]

Network: 9 [2026 AM Prop (Network Folder: Prop)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	521	2.0	521	2.0	0.575	29.5	LOS C	16.8	120.2	0.71	0.80	0.71	28.1
2	T1	1891	7.6	1891	7.6	0.958	59.1	LOS E	52.4	390.8	0.94	1.04	1.14	22.8
3	R2	179	0.0	179	0.0	2.409	1317.4	LOS F	35.0	245.3	1.00	2.00	4.64	1.3
Approach		2591	5.9	2591	5.9	2.409	140.1	LOS F	52.4	390.8	0.90	1.06	1.30	10.9
East: Talavera Rd - E														
4	L2	15	7.1	15	7.1	0.046	58.9	LOS E	0.5	4.0	0.86	0.68	0.86	19.3
5	T1	19	5.6	19	5.6	* 0.076	61.4	LOS E	0.7	5.5	0.91	0.65	0.91	7.0
6	R2	5	0.0	5	0.0	0.021	64.9	LOS E	0.2	1.4	0.89	0.65	0.89	13.1
Approach		39	5.4	39	5.4	0.076	60.9	LOS E	0.7	5.5	0.89	0.66	0.89	13.1
North: Lane Cove Rd - N														
7	L2	26	0.0	26	0.0	0.703	32.2	LOS C	23.8	171.6	0.79	0.73	0.79	24.7
8	T1	2577	3.6	2577	3.6	* 1.004	54.1	LOS D	58.5	422.3	0.93	0.99	1.09	24.2
9	R2	812	1.3	812	1.3	* 5.513	4098.7	LOS F	103.1	729.9	1.00	2.47	5.97	0.2
Approach		3415	3.1	3415	3.1	5.513	1015.2	LOS F	103.1	729.9	0.95	1.34	2.25	1.6
West: Talavera Rd - W														
10	L2	201	6.8	141	9.7	0.870	65.2	LOS E	5.5	41.6	1.00	0.97	1.31	19.9
11	T1	86	2.4	59	3.5	* 1.001	112.9	LOS F	5.7	41.3	1.00	1.09	1.63	12.6
12	R2	197	3.2	136	4.6	1.001	117.7	LOS F	5.7	41.3	1.00	1.09	1.64	16.8
Approach		484	4.6	336 N1	6.6	1.001	94.8	LOS F	5.7	41.6	1.00	1.04	1.50	17.0
All Vehicles		6528	4.3	6381 N 1	4.4	5.513	605.6	LOS F	103.1	729.9	0.93	1.20	1.81	2.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2026 PM Ex (Site Folder: 2026 PM Ex)] | **Network: 4 [2026 PM Ex (Network Folder: Ex)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	374	0.0	374	0.0	1.756	724.7	LOS F	61.7	433.5	1.00	1.98	3.73	2.5
2	T1	251	2.9	251	2.9	* 2.195	1003.6	LOS F	61.7	433.5	1.00	2.38	4.19	2.1
3	R2	146	7.9	146	7.9	2.195	1128.5	LOS F	59.7	436.7	1.00	2.55	4.39	1.1
Approach		771	2.5	771	2.5	2.195	892.0	LOS F	61.7	436.7	1.00	2.22	4.00	2.0
East: Talavera Rd - E														
4	L2	274	3.1	196	4.3	0.886	63.9	LOS E	22.5	160.9	1.00	0.98	1.11	22.0
5	T1	1173	0.7	832	1.0	* 0.886	57.5	LOS E	22.7	160.6	0.97	0.95	1.08	18.7
6	R2	60	0.0	42	0.0	0.571	86.5	LOS F	2.0	14.2	1.00	0.75	1.04	16.1
Approach		1506	1.1	1071 N 1	1.6	0.886	59.8	LOS E	22.7	160.9	0.98	0.95	1.09	19.2
North: Khartoum Rd - S														
7	L2	23	9.1	23	9.1	0.240	45.6	LOS D	4.5	33.5	0.78	0.66	0.78	18.1
8	T1	133	7.1	133	7.1	0.331	40.4	LOS C	6.5	46.9	0.78	0.68	0.78	28.9
9	R2	176	2.4	176	2.4	0.331	46.9	LOS D	6.5	46.9	0.81	0.78	0.81	22.4
Approach		332	4.8	332	4.8	0.331	44.2	LOS D	6.5	46.9	0.80	0.73	0.80	24.9
West: Talavera Rd - W														
10	L2	515	0.4	515	0.4	* 0.805	34.5	LOS C	19.9	139.8	0.94	0.90	0.94	26.2
11	T1	559	0.8	559	0.8	0.805	38.3	LOS C	19.9	139.8	0.86	0.80	0.90	14.0
12	R2	307	0.3	307	0.3	* 2.074	1002.4	LOS F	48.8	342.5	1.00	2.22	4.24	1.8
Approach		1381	0.5	1381	0.5	2.074	251.5	LOS F	48.8	342.5	0.92	1.15	1.66	4.8
All Vehicles		3989	1.5	3554 N 1	1.7	2.195	313.3	LOS F	61.7	436.7	0.94	1.28	1.91	4.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2026 PM Ex (Site Folder: 2026 PM Ex)] Network: 4 [2026 PM Ex (Network Folder: Ex)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	1	0.0	1	0.0	0.004	4.6	LOS A	0.0	0.0	0.41	0.56	0.41	19.7
3	R2	1	0.0	1	0.0	0.004	11.2	LOS A	0.0	0.0	0.41	0.56	0.41	19.7
Approach		2	0.0	2	0.0	0.004	7.9	LOS A	0.0	0.0	0.41	0.56	0.41	19.7
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.105	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	834	0.0	398	0.0	0.105	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		835	0.0	398 [N1]	0.0	0.105	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	600	0.0	538	0.0	0.155	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
12	R2	1	0.0	1	0.0	0.155	7.3	LOS A	0.0	0.0	0.00	0.00	0.00	53.2
Approach		601	0.0	539 [N1]	0.0	0.155	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
All Vehicles		1438	0.0	940 [N1]	0.0	0.155	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Rd-Talavera Road - 2026 PM Ex (Site Folder: 2026 PM Ex)] Network: 4 [2026 PM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	112	4.7	112	4.7	0.867	49.5	LOS D	32.0	228.5	0.97	0.93	1.02	21.5
2	T1	2825	1.9	2825	1.9	* 1.239	225.0	LOS F	113.1	804.1	0.99	1.74	2.02	7.7
3	R2	24	4.3	24	4.3	0.336	87.1	LOS F	1.1	8.2	1.00	0.71	1.00	15.4
Approach		2961	2.0	2961	2.0	1.239	217.3	LOS F	113.1	804.1	0.99	1.70	1.97	7.9
East: Talavera Rd - E														
4	L2	158	0.7	158	0.7	0.497	68.8	LOS E	5.9	41.3	0.97	0.80	0.97	17.7
5	T1	48	4.3	48	4.3	* 0.497	70.8	LOS F	3.9	28.0	0.99	0.78	0.99	5.9
6	R2	122	0.9	122	0.9	0.497	74.5	LOS F	4.2	30.0	0.99	0.78	0.99	11.8
Approach		328	1.3	328	1.3	0.497	71.2	LOS F	5.9	41.3	0.98	0.79	0.98	14.0
North: Lane Cove Rd - N														
7	L2	11	10.0	11	10.0	0.716	41.1	LOS C	22.1	161.4	0.87	0.79	0.87	20.5
8	T1	2304	5.2	2304	5.2	1.023	88.9	LOS F	58.9	430.8	0.97	1.16	1.31	17.0
9	R2	588	1.1	588	1.1	* 3.991	2730.9	LOS F	69.7	492.3	1.00	2.33	5.57	0.3
Approach		2903	4.4	2903	4.4	3.991	624.2	LOS F	69.7	492.3	0.97	1.39	2.17	2.6
West: Talavera Rd - W														
10	L2	514	1.6	480	1.8	* 1.226	260.0	LOS F	41.5	294.8	1.00	1.46	2.29	6.4
11	T1	16	13.3	15	14.2	0.625	62.5	LOS E	8.4	59.7	0.98	0.82	0.98	18.2
12	R2	411	1.3	383	1.4	0.625	67.1	LOS E	8.4	59.3	0.98	0.82	0.98	23.9
Approach		940	1.7	878 N1	1.8	1.226	172.4	LOS F	41.5	294.8	0.99	1.17	1.70	10.3
All Vehicles		7133	2.9	7071 N1	2.9	3.991	372.0	LOS F	113.1	804.1	0.98	1.47	1.97	4.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Created: Friday, 22 October 2021 12:46:29 PM
Project: X:\21178 17-23 Talavera Rd, North Ryde\07 Modelling Files\Model\21178sid-211006 No Cap Adj.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2026 PM Prop (Site Folder: 2026 PM Prop)] | **Network: 10 [2026 PM Prop (Network Folder: Prop)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	374	0.0	374	0.0	1.760	728.8	LOS F	62.0	435.9	1.00	1.99	3.73	2.5
2	T1	251	2.9	251	2.9	* 2.200	1006.6	LOS F	62.0	435.9	1.00	2.39	4.20	2.1
3	R2	148	7.8	148	7.8	2.200	1133.6	LOS F	60.0	438.5	1.00	2.55	4.39	1.1
Approach		773	2.5	773	2.5	2.200	896.6	LOS F	62.0	438.5	1.00	2.23	4.01	2.0
East: Talavera Rd - E														
4	L2	284	3.0	204	4.1	0.893	64.9	LOS E	23.0	164.0	1.00	0.99	1.12	21.8
5	T1	1173	0.7	832	1.0	* 0.893	58.5	LOS E	23.2	164.1	0.98	0.96	1.09	18.5
6	R2	60	0.0	42	0.0	0.572	86.5	LOS F	2.0	14.2	1.00	0.75	1.04	16.1
Approach		1517	1.1	1079[N] 1	1.6	0.893	60.8	LOS E	23.2	164.1	0.98	0.96	1.10	19.0
North: Khartoum Rd - S														
7	L2	23	9.1	23	9.1	0.240	45.6	LOS D	4.5	33.5	0.78	0.66	0.78	18.1
8	T1	133	7.1	133	7.1	0.331	40.4	LOS C	6.5	46.9	0.78	0.68	0.78	28.9
9	R2	176	2.4	176	2.4	0.331	46.9	LOS D	6.5	46.9	0.81	0.78	0.81	22.4
Approach		332	4.8	332	4.8	0.331	44.2	LOS D	6.5	46.9	0.80	0.73	0.80	24.9
West: Talavera Rd - W														
10	L2	515	0.4	515	0.4	* 0.806	34.5	LOS C	19.9	139.8	0.94	0.90	0.94	26.2
11	T1	559	0.8	559	0.8	0.806	38.3	LOS C	19.9	139.8	0.86	0.80	0.90	14.0
12	R2	307	0.3	307	0.3	* 2.074	1002.4	LOS F	48.8	342.5	1.00	2.22	4.24	1.8
Approach		1381	0.5	1381	0.5	2.074	251.5	LOS F	48.8	342.5	0.92	1.15	1.66	4.8
All Vehicles		4002	1.5	3564[N] 1	1.7	2.200	314.4	LOS F	62.0	438.5	0.94	1.29	1.92	4.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access - 2026 PM Prop (Site Folder: 2026 PM Prop)]

Network: 10 [2026 PM Prop (Network Folder: Prop)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	9	0.0	9	0.0	0.034	4.6	LOS A	0.0	0.3	0.41	0.62	0.41	19.3
3	R2	9	0.0	9	0.0	0.034	11.7	LOS A	0.0	0.3	0.41	0.62	0.41	19.3
Approach		19	0.0	19	0.0	0.034	8.2	LOS A	0.0	0.3	0.41	0.62	0.41	19.3
East: Talavera Rd														
4	L2	2	0.0	1	0.0	0.106	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	834	0.0	395	0.0	0.106	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		836	0.0	396 N1	0.0	0.106	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	600	0.0	537	0.0	0.160	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	59.8
12	R2	2	0.0	2	0.0	0.160	7.3	LOS A	0.0	0.1	0.01	0.00	0.01	53.1
Approach		602	0.0	539 N1	0.0	0.160	0.0	NA	0.0	0.1	0.00	0.00	0.00	59.8
All Vehicles		1457	0.0	954 N1	0.0	0.160	0.2	NA	0.0	0.3	0.01	0.01	0.01	59.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Rd-Talavera Road - 2026 PM Prop (Site Folder: 2026 PM Prop)] Network: 10 [2026 PM Prop (Network Folder: Prop)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	112	4.7	112	4.7	0.867	49.5	LOS D	32.0	228.5	0.97	0.93	1.02	21.5
2	T1	2825	1.9	2825	1.9	* 1.239	225.0	LOS F	113.1	804.1	0.99	1.74	2.02	7.7
3	R2	24	4.3	24	4.3	0.336	87.1	LOS F	1.1	8.2	1.00	0.71	1.00	15.4
Approach		2961	2.0	2961	2.0	1.239	217.3	LOS F	113.1	804.1	0.99	1.70	1.97	7.9
East: Talavera Rd - E														
4	L2	158	0.7	158	0.7	0.497	68.8	LOS E	5.9	41.3	0.97	0.80	0.97	17.7
5	T1	48	4.3	48	4.3	* 0.497	70.8	LOS F	3.9	28.0	0.99	0.78	0.99	5.9
6	R2	122	0.9	122	0.9	0.497	74.5	LOS F	4.2	30.0	0.99	0.78	0.99	11.8
Approach		328	1.3	328	1.3	0.497	71.2	LOS F	5.9	41.3	0.98	0.79	0.98	14.0
North: Lane Cove Rd - N														
7	L2	11	10.0	11	10.0	0.716	41.1	LOS C	22.1	161.4	0.87	0.79	0.87	20.5
8	T1	2304	5.2	2304	5.2	1.023	89.0	LOS F	58.9	431.0	0.97	1.16	1.31	17.0
9	R2	592	1.1	592	1.1	* 4.012	2749.9	LOS F	70.2	495.6	1.00	2.33	5.58	0.3
Approach		2906	4.4	2906	4.4	4.012	630.4	LOS F	70.2	495.6	0.97	1.39	2.17	2.6
West: Talavera Rd - W														
10	L2	523	1.6	489	1.7	* 1.248	278.7	LOS F	43.9	311.7	1.00	1.50	2.37	6.1
11	T1	16	13.3	15	14.2	0.625	62.5	LOS E	8.4	59.7	0.98	0.82	0.98	18.2
12	R2	411	1.3	383	1.4	0.625	67.1	LOS E	8.4	59.3	0.98	0.82	0.98	23.9
Approach		949	1.7	887 N1	1.8	1.248	183.6	LOS F	43.9	311.7	0.99	1.20	1.75	9.8
All Vehicles		7145	2.9	7082 N1	2.9	4.012	375.8	LOS F	113.1	804.1	0.98	1.47	1.98	4.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj

Template: Default Site User Report

Site: 101 [1-Talavera Rd-Khartoum Rd - 2031 AM Ex (Site Folder: 2031 AM Ex)]

Network: 5 [2031 AM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	81	2.6	81	2.6	0.779	71.6	LOS F	7.7	55.2	1.00	0.93	1.12	19.2
2	T1	199	3.7	199	3.7	* 2.033	508.2	LOS F	64.5	465.5	1.00	1.71	2.60	4.1
3	R2	271	3.5	271	3.5	2.033	987.1	LOS F	64.5	465.5	1.00	2.54	4.18	1.3
Approach		551	3.4	551	3.4	2.033	679.2	LOS F	64.5	465.5	1.00	2.00	3.16	2.4
East: Talavera Rd - E														
4	L2	227	6.0	145	9.5	0.879	75.5	LOS F	12.3	89.9	1.00	1.02	1.18	19.8
5	T1	694	0.5	426	0.7	* 0.879	72.6	LOS F	14.1	99.6	1.00	0.99	1.17	16.1
6	R2	111	0.0	68	0.0	0.911	93.0	LOS F	3.4	23.8	1.00	0.89	1.32	15.3
Approach		1032	1.6	638 N1	2.6	0.911	75.4	LOS F	14.1	99.6	1.00	0.99	1.19	16.8
North: Khartoum Rd - S														
7	L2	33	0.0	33	0.0	0.096	53.6	LOS D	1.4	10.0	0.82	0.71	0.82	15.0
8	T1	119	5.3	119	5.3	0.479	53.8	LOS D	7.9	56.7	0.91	0.78	0.91	24.4
9	R2	92	1.1	92	1.1	0.479	59.7	LOS E	7.9	56.7	0.92	0.79	0.92	19.8
Approach		243	3.0	243	3.0	0.479	56.0	LOS D	7.9	56.7	0.90	0.77	0.90	21.7
West: Talavera Rd - W														
10	L2	642	0.3	642	0.3	* 1.222	257.0	LOS F	95.5	671.1	1.00	1.61	2.25	5.6
11	T1	1163	0.6	1163	0.6	1.357	341.4	LOS F	95.5	671.1	1.00	2.06	2.58	2.0
12	R2	784	1.3	784	1.3	* 1.879	836.1	LOS F	115.3	816.4	1.00	2.20	3.92	2.2
Approach		2589	0.8	2589	0.8	1.879	470.3	LOS F	115.3	816.4	1.00	1.99	2.91	2.6
All Vehicles		4415	1.4	4022 N1	1.6	2.033	411.2	LOS F	115.3	816.4	0.99	1.76	2.55	3.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access - 2031 AM Ex (Site Folder: 2031 AM Ex)]

Network: 5 [2031 AM Ex (Network Folder: Ex)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	1	0.0	1	0.0	0.035	6.4	LOS A	0.0	0.3	0.91	0.86	0.91	3.7
3	R2	1	0.0	1	0.0	0.035	110.8	LOS F	0.0	0.3	0.91	0.86	0.91	3.7
Approach		2	0.0	2	0.0	0.035	58.6	LOS E	0.0	0.3	0.91	0.86	0.91	3.7
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.278	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.1
5	T1	1766	0.0	1082	0.0	0.278	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1767	0.0	1082 N1	0.0	0.278	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.8
West: Talavera Rd														
11	T1	1718	0.0	1314	0.0	0.338	0.1	LOS A	0.0	0.1	0.00	0.00	0.00	59.8
12	R2	1	0.0	1	0.0	0.338	16.9	LOS B	0.0	0.1	0.01	0.00	0.01	53.1
Approach		1719	0.0	1315 N1	0.0	0.338	0.1	NA	0.0	0.1	0.00	0.00	0.00	59.8
All Vehicles		3488	0.0	2399 N1	0.0	0.338	0.1	NA	0.0	0.3	0.00	0.00	0.00	59.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Road-Talavera Road - 2031 AM Ex (Site Folder: 2031 AM Ex)]

Network: 5 [2031 AM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	557	1.9	557	1.9	0.616	32.7	LOS C	18.4	131.0	0.76	0.83	0.76	26.2
2	T1	1906	7.5	1906	7.5	1.027	105.0	LOS F	67.5	502.9	1.00	1.29	1.45	14.9
3	R2	181	0.0	181	0.0	2.437	1342.6	LOS F	35.7	249.7	1.00	2.00	4.67	1.2
Approach		2644	5.8	2644	5.8	2.437	174.5	LOS F	67.5	502.9	0.95	1.24	1.52	9.0
East: Talavera Rd - E														
4	L2	15	7.1	15	7.1	0.046	58.9	LOS E	0.5	4.0	0.86	0.68	0.86	19.3
5	T1	20	5.3	20	5.3	* 0.080	61.4	LOS E	0.8	5.8	0.91	0.65	0.91	7.0
6	R2	5	0.0	5	0.0	0.021	64.9	LOS E	0.2	1.4	0.89	0.65	0.89	13.1
Approach		40	5.3	40	5.3	0.080	61.0	LOS E	0.8	5.8	0.89	0.66	0.89	13.0
North: Lane Cove Rd - N														
7	L2	25	0.0	25	0.0	0.727	35.1	LOS C	24.6	177.3	0.83	0.76	0.83	23.2
8	T1	2540	3.7	2540	3.7	* 1.038	68.3	LOS E	63.2	456.3	0.95	1.07	1.19	20.6
9	R2	841	1.3	841	1.3	* 5.711	4277.2	LOS F	107.5	760.8	1.00	2.49	6.00	0.2
Approach		3406	3.1	3406	3.1	5.711	1107.2	LOS F	107.5	760.8	0.96	1.42	2.37	1.5
West: Talavera Rd - W														
10	L2	259	5.3	201	6.8	* 0.947	74.9	LOS F	8.7	64.3	1.00	1.04	1.45	18.3
11	T1	112	1.9	86	2.5	0.956	99.2	LOS F	7.8	55.9	1.00	1.11	1.53	13.8
12	R2	255	2.5	196	3.2	0.956	104.0	LOS F	7.8	55.9	1.00	1.09	1.54	18.3
Approach		625	3.5	484 N1	4.6	0.956	91.0	LOS F	8.7	64.3	1.00	1.07	1.50	17.5
All Vehicles		6716	4.2	6574 N1	4.3	5.711	651.0	LOS F	107.5	760.8	0.96	1.31	1.96	2.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Created: Friday, 22 October 2021 12:47:55 PM
Project: X:\21178 17-23 Talavera Rd, North Ryde\07 Modelling Files\Model\21178sid-211006 No Cap Adj.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2031 AM Prop (Site Folder: 2031 AM Prop)] | **Network: 11 [2031 AM Prop (Network Folder: Prop)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	81	2.6	81	2.6	0.794	73.0	LOS F	7.9	56.7	1.00	0.94	1.14	19.0
2	T1	199	3.7	199	3.7	* 2.070	511.9	LOS F	66.5	479.6	1.00	1.70	2.59	4.1
3	R2	280	3.4	280	3.4	2.070	1019.8	LOS F	66.5	479.6	1.00	2.55	4.23	1.2
Approach		560	3.4	560	3.4	2.070	702.3	LOS F	66.5	479.6	1.00	2.01	3.20	2.3
East: Talavera Rd - E														
4	L2	229	6.0	146	9.4	0.882	75.5	LOS F	12.4	90.4	1.00	1.02	1.18	19.8
5	T1	694	0.5	427	0.7	* 0.882	72.8	LOS F	14.2	100.3	1.00	1.00	1.18	16.0
6	R2	111	0.0	68	0.0	0.913	93.0	LOS F	3.4	23.8	1.00	0.89	1.32	15.3
Approach		1034	1.6	641 N1	2.6	0.913	75.6	LOS F	14.2	100.3	1.00	0.99	1.20	16.8
North: Khartoum Rd - S														
7	L2	33	0.0	33	0.0	0.093	52.7	LOS D	1.4	9.9	0.81	0.70	0.81	15.2
8	T1	119	5.3	119	5.3	0.465	52.8	LOS D	7.8	56.2	0.90	0.78	0.90	24.6
9	R2	92	1.1	92	1.1	0.465	58.8	LOS E	7.8	56.2	0.91	0.78	0.91	20.0
Approach		243	3.0	243	3.0	0.465	55.0	LOS D	7.8	56.2	0.89	0.77	0.89	21.9
West: Talavera Rd - W														
10	L2	642	0.3	642	0.3	* 1.237	270.7	LOS F	97.8	686.9	1.00	1.64	2.31	5.4
11	T1	1163	0.6	1163	0.6	1.375	356.3	LOS F	97.8	686.9	1.00	2.09	2.64	2.0
12	R2	784	1.3	784	1.3	* 1.909	862.9	LOS F	117.1	829.0	1.00	2.22	3.97	2.1
Approach		2589	0.8	2589	0.8	1.909	488.5	LOS F	117.1	829.0	1.00	2.02	2.96	2.6
All Vehicles		4426	1.4	4033 N1	1.6	2.070	426.5	LOS F	117.1	829.0	0.99	1.78	2.59	3.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access - 2031 AM Prop (Site Folder: 2031 AM Prop)]

Network: 11 [2031 AM Prop (Network Folder: Prop)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	2	0.0	2	0.0	0.070	6.4	LOS A	0.1	0.5	0.91	0.89	0.91	3.7
3	R2	2	0.0	2	0.0	0.070	111.8	LOS F	0.1	0.5	0.91	0.89	0.91	3.7
Approach		4	0.0	4	0.0	0.070	59.1	LOS E	0.1	0.5	0.91	0.89	0.91	3.7
East: Talavera Rd														
4	L2	9	0.0	6	0.0	0.279	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	55.0
5	T1	1766	0.0	1083	0.0	0.279	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1776	0.0	1089 N1	0.0	0.279	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.7
West: Talavera Rd														
11	T1	1718	0.0	1298	0.0	0.341	0.2	LOS A	0.1	0.9	0.02	0.00	0.03	58.9
12	R2	9	0.0	7	0.0	0.341	16.9	LOS B	0.1	0.9	0.05	0.01	0.06	51.9
Approach		1727	0.0	1305 N1	0.0	0.341	0.3	NA	0.1	0.9	0.02	0.00	0.03	58.8
All Vehicles		3507	0.0	2398 N1	0.0	0.341	0.3	NA	0.1	0.9	0.01	0.00	0.02	59.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Road-Talavera Road - 2031 AM Prop (Site Folder: 2031 AM Prop)]

Network: 11 [2031 AM Prop (Network Folder: Prop)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	557	1.9	557	1.9	0.616	32.7	LOS C	18.4	131.0	0.76	0.83	0.76	26.2
2	T1	1906	7.5	1906	7.5	1.027	105.0	LOS F	67.5	502.9	1.00	1.29	1.45	14.9
3	R2	181	0.0	181	0.0	2.437	1342.6	LOS F	35.7	249.7	1.00	2.00	4.67	1.2
Approach		2644	5.8	2644	5.8	2.437	174.5	LOS F	67.5	502.9	0.95	1.24	1.52	9.0
East: Talavera Rd - E														
4	L2	15	7.1	15	7.1	0.046	58.9	LOS E	0.5	4.0	0.86	0.68	0.86	19.3
5	T1	20	5.3	20	5.3	* 0.080	61.4	LOS E	0.8	5.8	0.91	0.65	0.91	7.0
6	R2	5	0.0	5	0.0	0.021	64.9	LOS E	0.2	1.4	0.89	0.65	0.89	13.1
Approach		40	5.3	40	5.3	0.080	61.0	LOS E	0.8	5.8	0.89	0.66	0.89	13.0
North: Lane Cove Rd - N														
7	L2	25	0.0	25	0.0	0.727	35.1	LOS C	24.6	177.3	0.83	0.76	0.83	23.2
8	T1	2540	3.7	2540	3.7	* 1.038	68.3	LOS E	63.2	456.3	0.95	1.07	1.19	20.6
9	R2	843	1.2	843	1.2	* 5.726	4290.0	LOS F	107.8	763.0	1.00	2.49	6.01	0.2
Approach		3408	3.1	3408	3.1	5.726	1112.4	LOS F	107.8	763.0	0.96	1.42	2.38	1.5
West: Talavera Rd - W														
10	L2	259	5.3	199	6.9	* 0.937	71.6	LOS F	8.4	62.3	1.00	1.02	1.42	18.8
11	T1	112	1.9	85	2.5	0.945	96.1	LOS F	7.6	54.3	1.00	1.09	1.50	14.1
12	R2	255	2.5	194	3.3	0.945	100.9	LOS F	7.6	54.3	1.00	1.07	1.50	18.6
Approach		625	3.5	478 [N1]	4.6	0.945	87.9	LOS F	8.4	62.3	1.00	1.05	1.47	17.9
All Vehicles		6718	4.2	6571 [N1]	4.3	5.726	654.0	LOS F	107.8	763.0	0.96	1.31	1.96	2.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2031 PM Ex (Site Folder: 2031 PM Ex)] | **Network: 6 [2031 PM Ex (Network Folder: Ex)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	449	0.0	449	0.0	2.190	1114.0	LOS F	90.8	637.9	1.00	2.28	4.37	1.7
2	T1	277	2.7	277	2.7	* 2.738	1437.3	LOS F	90.8	637.9	1.00	2.59	4.72	1.5
3	R2	187	6.2	187	6.2	2.738	1611.7	LOS F	76.8	558.3	1.00	2.74	4.91	0.8
Approach		914	2.1	914	2.1	2.738	1314.1	LOS F	90.8	637.9	1.00	2.47	4.59	1.4
East: Talavera Rd - E														
4	L2	346	2.4	255	3.3	0.940	72.3	LOS F	30.2	215.0	1.00	1.05	1.19	20.3
5	T1	1338	0.6	978	0.9	* 0.940	66.7	LOS E	30.5	215.3	1.00	1.04	1.18	17.0
6	R2	63	0.0	46	0.0	0.620	86.9	LOS F	2.2	15.4	1.00	0.77	1.07	16.1
Approach		1747	1.0	1279 N 1	1.3	0.940	68.5	LOS E	30.5	215.3	1.00	1.03	1.18	17.7
North: Khartoum Rd - S														
7	L2	26	8.0	26	8.0	0.299	50.2	LOS D	5.3	39.4	0.83	0.70	0.83	16.8
8	T1	157	6.0	157	6.0	0.412	45.2	LOS D	7.8	56.0	0.83	0.72	0.83	27.2
9	R2	187	2.2	187	2.2	0.412	51.9	LOS D	7.8	56.0	0.86	0.79	0.86	21.1
Approach		371	4.3	371	4.3	0.412	48.9	LOS D	7.8	56.0	0.85	0.75	0.85	23.6
West: Talavera Rd - W														
10	L2	524	0.4	524	0.4	* 0.841	40.1	LOS C	25.1	176.4	0.96	0.93	0.98	24.2
11	T1	659	0.6	659	0.6	0.841	38.9	LOS C	25.1	176.4	0.84	0.82	0.91	13.8
12	R2	376	0.3	376	0.3	* 2.534	1414.8	LOS F	67.1	470.7	1.00	2.44	4.74	1.3
Approach		1559	0.5	1559	0.5	2.534	371.0	LOS F	67.1	470.7	0.92	1.25	1.86	3.4
All Vehicles		4591	1.3	4122 N 1	1.4	2.738	457.2	LOS F	90.8	637.9	0.95	1.41	2.16	3.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access - 2031 PM Ex (Site Folder: 2031 PM Ex)]

Network: 6 [2031 PM Ex (Network Folder: Ex)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	1	0.0	1	0.0	0.006	4.8	LOS A	0.0	0.1	0.50	0.61	0.50	15.6
3	R2	1	0.0	1	0.0	0.006	17.2	LOS B	0.0	0.1	0.50	0.61	0.50	15.6
Approach		2	0.0	2	0.0	0.006	11.0	LOS A	0.0	0.1	0.50	0.61	0.50	15.6
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.171	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	942	0.0	474	0.0	0.171	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		943	0.0	474 N1	0.0	0.171	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	877	0.0	765	0.0	0.226	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
12	R2	1	0.0	1	0.0	0.226	8.0	LOS A	0.0	0.0	0.00	0.00	0.00	53.2
Approach		878	0.0	766 N1	0.0	0.226	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
All Vehicles		1823	0.0	1243 N1	0.0	0.226	0.1	NA	0.0	0.1	0.00	0.00	0.00	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Rd-Talavera Road - 2031 PM Ex (Site Folder: 2031 PM Ex)] Network: 6 [2031 PM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	115	4.6	115	4.6	0.854	48.2	LOS D	30.3	216.2	0.97	0.91	1.00	21.9
2	T1	2733	1.9	2733	1.9	* 1.220	212.5	LOS F	106.4	756.8	0.99	1.69	1.96	8.1
3	R2	23	4.5	23	4.5	0.322	87.1	LOS F	1.1	7.8	1.00	0.71	1.00	15.4
Approach		2871	2.1	2871	2.1	1.220	204.9	LOS F	106.4	756.8	0.99	1.65	1.91	8.3
East: Talavera Rd - E														
4	L2	161	0.7	161	0.7	0.504	68.9	LOS E	6.0	41.9	0.97	0.80	0.97	17.7
5	T1	51	4.2	51	4.2	* 0.504	70.9	LOS F	4.0	28.3	0.99	0.78	0.99	5.9
6	R2	121	0.9	121	0.9	0.504	74.6	LOS F	4.3	30.4	0.99	0.78	0.99	11.8
Approach		333	1.3	333	1.3	0.504	71.3	LOS F	6.0	41.9	0.98	0.79	0.98	14.0
North: Lane Cove Rd - N														
7	L2	11	10.0	11	10.0	0.747	42.4	LOS C	23.3	170.4	0.89	0.81	0.89	20.0
8	T1	2373	5.1	2373	5.1	1.067	112.4	LOS F	67.8	494.9	0.97	1.27	1.45	14.0
9	R2	621	1.0	621	1.0	* 4.210	2927.9	LOS F	74.6	526.5	1.00	2.35	5.65	0.2
Approach		3004	4.2	3004	4.2	4.210	694.2	LOS F	74.6	526.5	0.98	1.49	2.31	2.4
West: Talavera Rd - W														
10	L2	560	1.5	500	1.7	* 1.238	259.1	LOS F	43.3	307.5	1.00	1.46	2.28	6.5
11	T1	17	12.5	15	13.8	0.648	62.0	LOS E	9.0	64.2	0.98	0.83	0.98	18.3
12	R2	463	1.1	413	1.3	0.648	66.6	LOS E	9.0	63.8	0.98	0.83	0.98	24.0
Approach		1040	1.5	929 N1	1.7	1.238	170.1	LOS F	43.3	307.5	0.99	1.17	1.68	10.6
All Vehicles		7247	2.8	7136 N1	2.9	4.210	400.1	LOS F	106.4	756.8	0.98	1.48	2.01	4.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Created: Friday, 22 October 2021 1:47:44 PM
Project: X:\21178 17-23 Talavera Rd, North Ryde\07 Modelling Files\Model\21178sid-211006 No Cap Adj.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2031 PM Prop (Site Folder: 2031 PM Prop)] | **Network: 12 [2031 PM Prop (Network Folder: Prop)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	449	0.0	449	0.0	2.197	1120.4	LOS F	91.1	640.4	1.00	2.29	4.38	1.7
2	T1	277	2.7	277	2.7	* 2.747	1443.0	LOS F	91.1	640.4	1.00	2.59	4.73	1.5
3	R2	189	6.1	189	6.1	2.747	1619.5	LOS F	77.2	560.8	1.00	2.75	4.91	0.8
Approach		916	2.1	916	2.1	2.747	1321.2	LOS F	91.1	640.4	1.00	2.48	4.59	1.4
East: Talavera Rd - E														
4	L2	356	2.4	262	3.2	0.945	73.9	LOS F	30.8	219.0	1.00	1.05	1.20	20.1
5	T1	1338	0.6	978	0.9	* 0.945	68.4	LOS E	31.2	219.7	1.00	1.05	1.20	16.7
6	R2	63	0.0	46	0.0	0.620	86.9	LOS F	2.2	15.4	1.00	0.77	1.07	16.1
Approach		1757	1.0	1286[N] 1	1.3	0.945	70.2	LOS E	31.2	219.7	1.00	1.04	1.19	17.4
North: Khartoum Rd - S														
7	L2	26	8.0	26	8.0	0.299	50.2	LOS D	5.3	39.4	0.83	0.70	0.83	16.8
8	T1	157	6.0	157	6.0	0.412	45.2	LOS D	7.8	56.0	0.83	0.72	0.83	27.2
9	R2	187	2.2	187	2.2	0.412	51.9	LOS D	7.8	56.0	0.86	0.79	0.86	21.1
Approach		371	4.3	371	4.3	0.412	48.9	LOS D	7.8	56.0	0.85	0.75	0.85	23.6
West: Talavera Rd - W														
10	L2	524	0.4	524	0.4	* 0.841	40.1	LOS C	25.1	176.4	0.96	0.93	0.98	24.2
11	T1	659	0.6	659	0.6	0.841	38.9	LOS C	25.1	176.4	0.84	0.82	0.91	13.8
12	R2	376	0.3	376	0.3	* 2.534	1414.8	LOS F	67.1	470.7	1.00	2.44	4.74	1.3
Approach		1559	0.5	1559	0.5	2.534	371.0	LOS F	67.1	470.7	0.92	1.25	1.86	3.4
All Vehicles		4602	1.3	4131[N] 1	1.4	2.747	459.1	LOS F	91.1	640.4	0.96	1.41	2.17	3.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access - 2031 PM Prop (Site Folder: 2031 PM Prop)]

Network: 12 [2031 PM Prop (Network Folder: Prop)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	9	0.0	9	0.0	0.058	4.8	LOS A	0.1	0.5	0.51	0.67	0.51	15.2
3	R2	9	0.0	9	0.0	0.058	18.0	LOS B	0.1	0.5	0.51	0.67	0.51	15.2
Approach		19	0.0	19	0.0	0.058	11.4	LOS A	0.1	0.5	0.51	0.67	0.51	15.2
East: Talavera Rd														
4	L2	2	0.0	1	0.0	0.175	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.1
5	T1	942	0.0	471	0.0	0.175	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		944	0.0	472 N1	0.0	0.175	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.8
West: Talavera Rd														
11	T1	877	0.0	764	0.0	0.232	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	59.8
12	R2	2	0.0	2	0.0	0.232	8.0	LOS A	0.0	0.1	0.01	0.00	0.01	53.2
Approach		879	0.0	766 N1	0.0	0.232	0.1	NA	0.0	0.1	0.00	0.00	0.00	59.8
All Vehicles		1842	0.0	1257 N1	0.0	0.232	0.2	NA	0.1	0.5	0.01	0.01	0.01	59.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Rd-Talavera Road - 2031 PM Prop (Site Folder: 2031 PM Prop)]

Network: 12 [2031 PM Prop (Network Folder: Prop)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	115	4.6	115	4.6	0.854	48.2	LOS D	30.3	216.2	0.97	0.91	1.00	21.9
2	T1	2733	1.9	2733	1.9	* 1.220	212.5	LOS F	106.4	756.8	0.99	1.69	1.96	8.1
3	R2	23	4.5	23	4.5	0.322	87.1	LOS F	1.1	7.8	1.00	0.71	1.00	15.4
Approach		2871	2.1	2871	2.1	1.220	204.9	LOS F	106.4	756.8	0.99	1.65	1.91	8.3
East: Talavera Rd - E														
4	L2	161	0.7	161	0.7	0.504	68.9	LOS E	6.0	41.9	0.97	0.80	0.97	17.7
5	T1	51	4.2	51	4.2	* 0.504	70.9	LOS F	4.0	28.3	0.99	0.78	0.99	5.9
6	R2	121	0.9	121	0.9	0.504	74.6	LOS F	4.3	30.4	0.99	0.78	0.99	11.8
Approach		333	1.3	333	1.3	0.504	71.3	LOS F	6.0	41.9	0.98	0.79	0.98	14.0
North: Lane Cove Rd - N														
7	L2	11	10.0	11	10.0	0.747	42.4	LOS C	23.3	170.4	0.89	0.81	0.89	20.0
8	T1	2373	5.1	2373	5.1	1.067	112.4	LOS F	67.8	495.1	0.97	1.27	1.45	14.0
9	R2	624	1.0	624	1.0	* 4.232	2947.0	LOS F	75.0	529.8	1.00	2.36	5.65	0.2
Approach		3007	4.2	3007	4.2	4.232	700.5	LOS F	75.0	529.8	0.98	1.49	2.32	2.3
West: Talavera Rd - W														
10	L2	569	1.5	508	1.7	* 1.259	276.7	LOS F	45.6	323.7	1.00	1.50	2.35	6.2
11	T1	17	12.5	15	13.8	0.647	62.0	LOS E	9.0	64.1	0.98	0.83	0.98	18.3
12	R2	463	1.1	413	1.3	0.647	66.6	LOS E	9.0	63.8	0.98	0.83	0.98	24.0
Approach		1049	1.5	937 N1	1.7	1.259	180.5	LOS F	45.6	323.7	0.99	1.19	1.72	10.1
All Vehicles		7260	2.8	7147 N1	2.9	4.232	404.0	LOS F	106.4	756.8	0.99	1.49	2.02	4.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2036 AM Ex (Site Folder: 2036 AM Ex)]

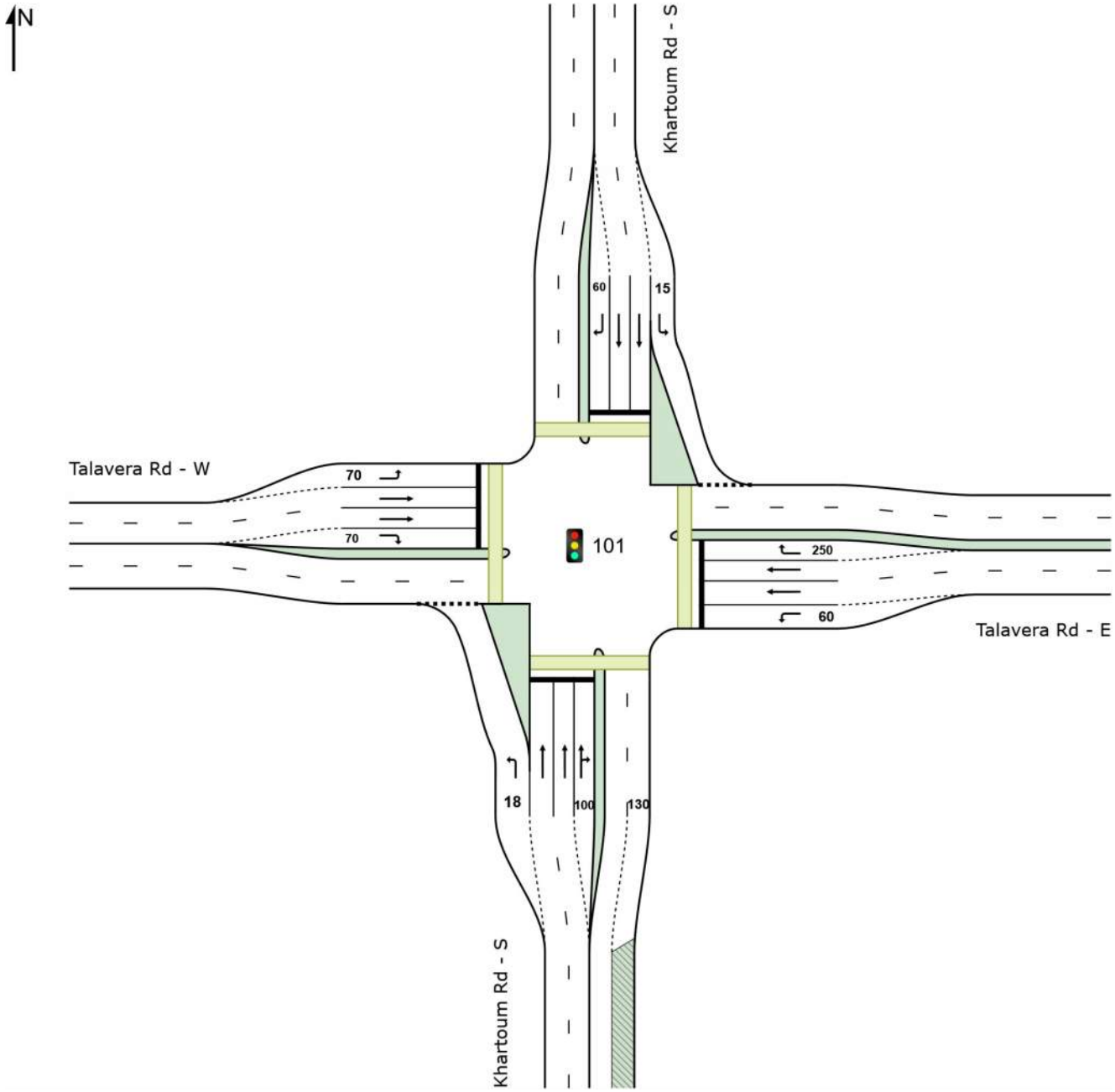
Network: 7 [2036 AM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	87	0.0	87	0.0	0.079	9.7	LOS A	0.8	5.9	0.32	0.63	0.32	44.5
2	T1	218	3.4	218	3.4	* 0.704	72.3	LOS F	6.0	43.3	0.99	0.81	1.04	21.0
3	R2	294	3.9	294	3.9	1.652	650.8	LOS F	43.5	314.8	1.00	1.98	3.54	1.9
Approach		599	3.2	599	3.2	1.652	346.8	LOS F	43.5	314.8	0.90	1.36	2.16	4.6

East: Talavera Rd - E														
4	L2	243	3.5	153	5.5	0.424	35.2	LOS C	3.2	23.6	0.91	0.78	0.91	29.6
5	T1	759	1.1	471	1.8	* 0.918	85.2	LOS F	12.3	87.6	1.00	1.04	1.28	14.6
6	R2	123	0.0	76	0.0	1.037	137.2	LOS F	4.8	33.5	1.00	1.10	1.79	11.4
Approach		1125	1.5	700 N1	2.4	1.037	79.9	LOS F	12.3	87.6	0.98	0.99	1.25	16.3
North: Khartoum Rd - S														
7	L2	35	6.1	35	6.1	0.062	39.3	LOS C	1.0	7.6	0.74	0.68	0.74	18.8
8	T1	121	7.8	121	7.8	0.173	51.1	LOS D	2.5	18.8	0.85	0.66	0.85	26.1
9	R2	95	4.4	95	4.4	0.243	57.4	LOS E	3.5	25.4	0.87	0.77	0.87	19.8
Approach		251	6.3	251	6.3	0.243	51.8	LOS D	3.5	25.4	0.84	0.70	0.84	22.9
West: Talavera Rd - W														
10	L2	697	0.3	697	0.3	* 0.564	12.0	LOS A	9.1	63.5	0.58	0.75	0.58	38.5
11	T1	1237	0.3	1237	0.3	1.146	210.6	LOS F	58.5	410.5	1.00	1.72	2.04	3.4
12	R2	819	0.1	819	0.1	* 1.654	634.1	LOS F	106.2	744.2	1.00	2.10	3.50	2.9
Approach		2753	0.3	2753	0.3	1.654	286.3	LOS F	106.2	744.2	0.89	1.58	2.10	4.3
All Vehicles		4727	1.2	4302 N1	1.4	1.654	247.5	LOS F	106.2	744.2	0.91	1.40	1.90	5.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

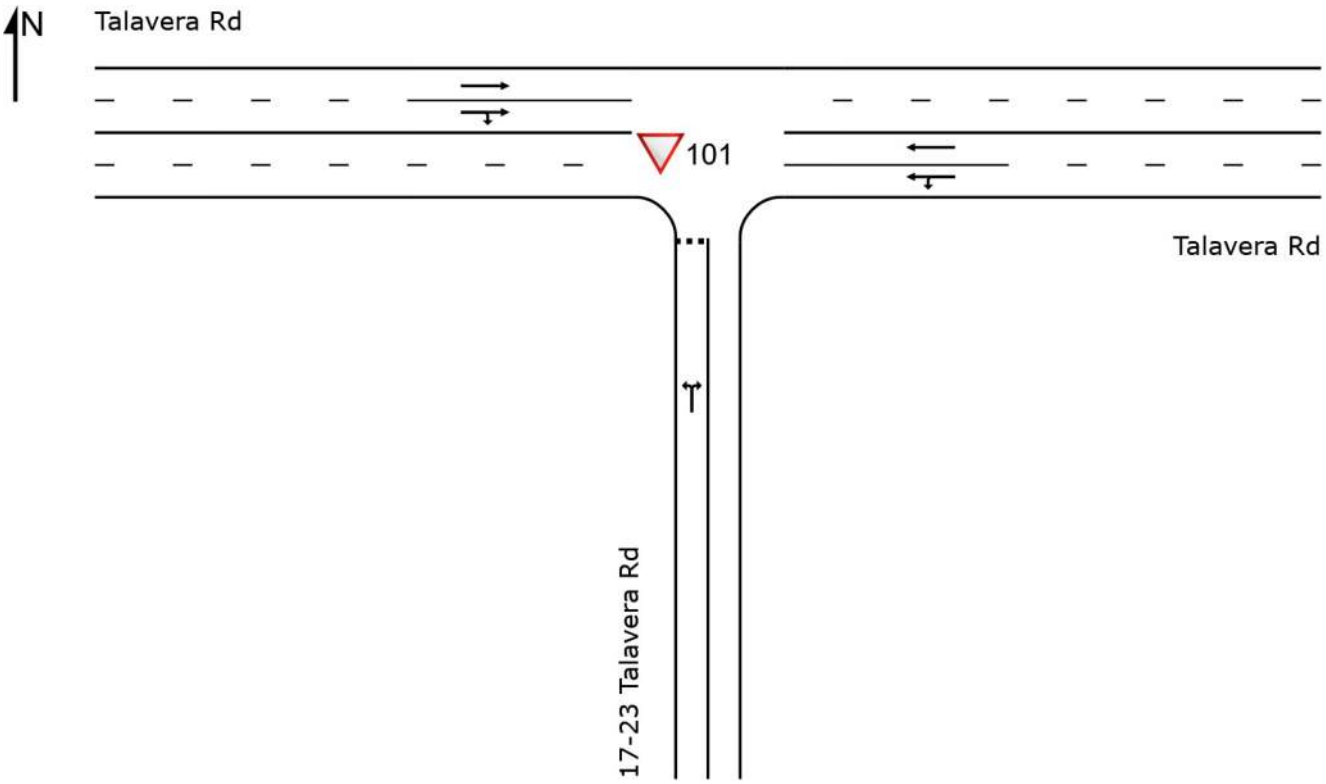
* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2036 AM Ex (Site Folder: 2036 AM Ex)] Network: 7 [2036 AM Ex (Network Folder: Ex)]

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	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	1	0.0	1	0.0	0.033	6.9	LOS A	0.0	0.3	0.91	0.88	0.91	3.9
3	R2	1	0.0	1	0.0	0.033	103.2	LOS F	0.0	0.3	0.91	0.88	0.91	3.9
Approach		2	0.0	2	0.0	0.033	55.0	LOS D	0.0	0.3	0.91	0.88	0.91	3.9
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.312	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.1
5	T1	1973	0.0	1215	0.0	0.312	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1974	0.0	1215[N1]	0.0	0.312	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.8
West: Talavera Rd														

11	T1	1479	0.0	1222	0.0	0.315	0.1	LOS A	0.0	0.1	0.00	0.00	0.00	59.7
12	R2	1	0.0	1	0.0	0.315	19.8	LOS B	0.0	0.1	0.01	0.00	0.01	53.0
Approach		1480	0.0	1223 N1	0.0	0.315	0.1	NA	0.0	0.1	0.00	0.00	0.00	59.7
All Vehicles		3456	0.0	2441 N1	0.0	0.315	0.1	NA	0.0	0.3	0.00	0.00	0.00	59.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

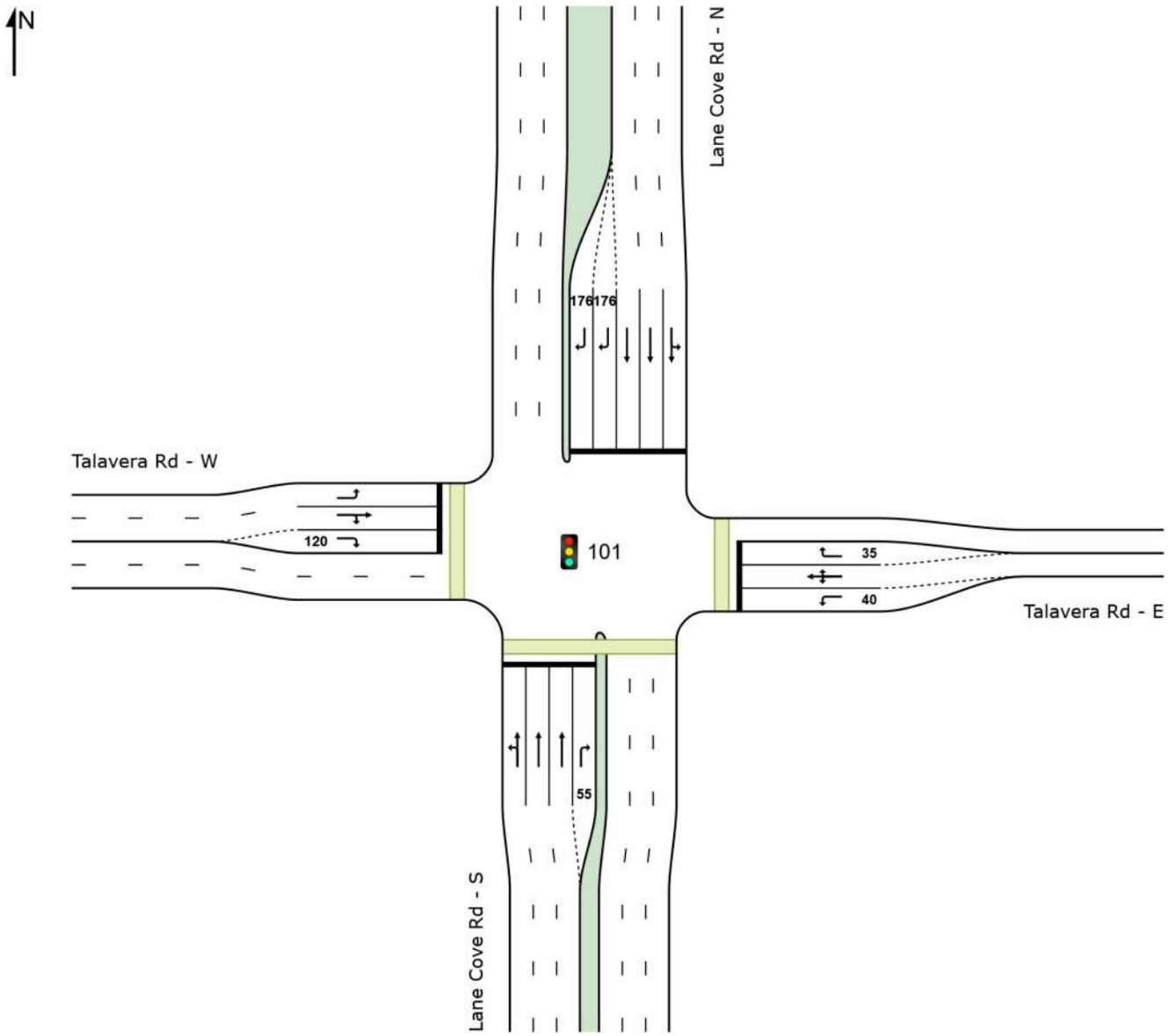
Site: 101 [3-Lane Cove Rd-Talavera Road - 2036 AM Ex (Site Folder: 2036 AM Ex)] Network: 7 [2036 AM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Site Layout

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



Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	594	0.9	594	0.9	0.642	30.3	LOS C	20.1	142.0	0.74	0.82	0.74	27.7
2	T1	1889	2.8	1889	2.8	0.917	41.5	LOS C	44.3	317.6	0.91	0.93	1.01	28.5
3	R2	181	0.6	181	0.6	2.447	1351.6	LOS F	35.8	251.5	1.00	2.01	4.68	1.2
Approach		2664	2.2	2664	2.2	2.447	128.1	LOS F	44.3	317.6	0.88	0.98	1.20	11.7
East: Talavera Rd - E														
4	L2	15	7.1	15	7.1	0.054	62.8	LOS E	0.6	4.2	0.88	0.69	0.88	18.5
5	T1	21	10.0	21	10.0	* 0.108	66.0	LOS E	0.9	6.6	0.94	0.67	0.94	6.6
6	R2	5	20.0	5	20.0	0.030	69.7	LOS E	0.2	1.7	0.92	0.65	0.92	12.2

Approach		41	10.3	41	10.3	0.108	65.3	LOS E	0.9	6.6	0.91	0.67	0.91	12.1
North: Lane Cove Rd - N														
7	L2	26	4.0	26	4.0	0.676	31.1	LOS C	22.3	162.0	0.77	0.71	0.77	25.2
8	T1	2574	4.7	2574	4.7	* 0.966	52.7	LOS D	55.7	405.3	0.90	0.96	1.06	24.7
9	R2	912	0.7	912	0.7	* 6.166	4686.2	LOS F	118.0	830.9	1.00	2.52	6.08	0.2
Approach		3512	3.6	3512	3.6	6.166	1255.4	LOS F	118.0	830.9	0.92	1.36	2.36	1.3
West: Talavera Rd - W														
10	L2	212	4.0	176	4.8	0.866	62.0	LOS E	7.0	50.8	1.00	0.94	1.27	20.6
11	T1	92	2.3	76	2.8	* 0.924	91.9	LOS F	6.6	47.3	1.00	1.05	1.46	14.6
12	R2	209	2.5	174	3.0	0.924	96.7	LOS F	6.6	47.3	1.00	1.04	1.46	19.2
Approach		513	3.1	426 N1	3.7	0.924	81.5	LOS F	7.0	50.8	1.00	1.00	1.38	18.8
All Vehicles		6729	3.1	6643 N1	3.1	6.166	720.6	LOS F	118.0	830.9	0.91	1.18	1.82	2.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj | **Template: Default Site User Report**

Site: 101 [1-Talavera Rd-Khartoum Rd - 2036 AM Prop (Site Folder: 2036 AM Prop)] | **Network: 13 [2036 AM Prop (Network Folder: Prop)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	87	0.0	87	0.0	0.079	9.7	LOS A	0.8	5.9	0.32	0.63	0.32	44.5
2	T1	218	3.4	218	3.4	* 0.704	72.3	LOS F	6.0	43.3	0.99	0.81	1.04	21.0
3	R2	304	3.8	304	3.8	1.709	701.1	LOS F	46.6	336.7	1.00	2.03	3.65	1.8
Approach		609	3.1	609	3.1	1.709	377.2	LOS F	46.6	336.7	0.90	1.39	2.24	4.2
East: Talavera Rd - E														
4	L2	246	3.4	154	5.5	0.427	35.3	LOS C	3.2	23.8	0.91	0.78	0.91	29.6
5	T1	759	1.1	468	1.8	* 0.914	84.4	LOS F	12.2	86.7	1.00	1.03	1.27	14.7
6	R2	123	0.0	75	0.0	1.032	134.2	LOS F	4.7	32.9	1.00	1.09	1.78	11.6
Approach		1128	1.5	698 N1	2.4	1.032	78.9	LOS F	12.2	86.7	0.98	0.98	1.24	16.4
North: Khartoum Rd - S														
7	L2	35	6.1	35	6.1	0.062	39.3	LOS C	1.0	7.6	0.74	0.68	0.74	18.8
8	T1	121	7.8	121	7.8	0.173	51.1	LOS D	2.5	18.8	0.85	0.66	0.85	26.1
9	R2	95	4.4	95	4.4	0.243	57.4	LOS E	3.5	25.4	0.87	0.77	0.87	19.8
Approach		251	6.3	251	6.3	0.243	51.8	LOS D	3.5	25.4	0.84	0.70	0.84	22.9
West: Talavera Rd - W														
10	L2	697	0.3	697	0.3	* 0.564	12.0	LOS A	9.1	63.5	0.58	0.75	0.58	38.5
11	T1	1237	0.3	1237	0.3	1.146	210.6	LOS F	58.5	410.5	1.00	1.72	2.04	3.4
12	R2	819	0.1	819	0.1	* 1.654	634.1	LOS F	106.2	744.2	1.00	2.10	3.50	2.9
Approach		2753	0.3	2753	0.3	1.654	286.3	LOS F	106.2	744.2	0.89	1.58	2.10	4.3
All Vehicles		4741	1.2	4311 N1	1.4	1.709	251.9	LOS F	106.2	744.2	0.91	1.41	1.91	5.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2036 AM Prop (Site Folder: 2036 AM Prop)]

Network: 13 [2036 AM Prop (Network Folder: Prop)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	2	0.0	2	0.0	0.065	6.9	LOS A	0.1	0.5	0.92	0.90	0.92	3.9
3	R2	2	0.0	2	0.0	0.065	104.9	LOS F	0.1	0.5	0.92	0.90	0.92	3.9
Approach		4	0.0	4	0.0	0.065	55.9	LOS D	0.1	0.5	0.92	0.90	0.92	3.9
East: Talavera Rd														
4	L2	9	0.0	6	0.0	0.311	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	55.0
5	T1	1973	0.0	1208	0.0	0.311	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1982	0.0	1214 N1	0.0	0.311	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.7
West: Talavera Rd														
11	T1	1479	0.0	1214	0.0	0.322	0.4	LOS A	0.2	1.2	0.03	0.00	0.04	58.4
12	R2	9	0.0	8	0.0	0.322	19.6	LOS B	0.2	1.2	0.06	0.01	0.08	51.2
Approach		1488	0.0	1222 N1	0.0	0.322	0.5	NA	0.2	1.2	0.03	0.00	0.04	58.3
All Vehicles		3475	0.0	2441 N1	0.0	0.322	0.4	NA	0.2	1.2	0.02	0.00	0.02	58.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [3-Lane Cove Rd-Talavera Road - 2036 AM Prop (Site Folder: 2036 AM Prop)]

Network: 13 [2036 AM Prop (Network Folder: Prop)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	594	0.9	594	0.9	0.642	30.3	LOS C	20.1	142.0	0.74	0.82	0.74	27.7
2	T1	1889	2.8	1889	2.8	0.917	41.5	LOS C	44.3	317.6	0.91	0.93	1.01	28.5
3	R2	181	0.6	181	0.6	2.447	1351.6	LOS F	35.8	251.5	1.00	2.01	4.68	1.2
Approach		2664	2.2	2664	2.2	2.447	128.1	LOS F	44.3	317.6	0.88	0.98	1.20	11.7
East: Talavera Rd - E														
4	L2	15	7.1	15	7.1	0.054	62.8	LOS E	0.6	4.2	0.88	0.69	0.88	18.5
5	T1	21	10.0	21	10.0	* 0.108	66.0	LOS E	0.9	6.6	0.94	0.67	0.94	6.6
6	R2	5	20.0	5	20.0	0.030	69.7	LOS E	0.2	1.7	0.92	0.65	0.92	12.2
Approach		41	10.3	41	10.3	0.108	65.3	LOS E	0.9	6.6	0.91	0.67	0.91	12.1
North: Lane Cove Rd - N														
7	L2	26	4.0	26	4.0	0.676	31.1	LOS C	22.3	162.1	0.77	0.71	0.77	25.2
8	T1	2574	4.7	2574	4.7	* 0.966	52.8	LOS D	55.8	406.2	0.90	0.96	1.06	24.6
9	R2	921	0.7	921	0.7	* 6.230	4743.7	LOS F	119.4	840.9	1.00	2.52	6.09	0.1
Approach		3521	3.6	3521	3.6	6.230	1279.7	LOS F	119.4	840.9	0.92	1.37	2.37	1.3
West: Talavera Rd - W														
10	L2	214	3.9	177	4.8	0.870	62.4	LOS E	7.0	51.1	1.00	0.94	1.28	20.5
11	T1	92	2.3	76	2.8	* 0.918	90.9	LOS F	6.5	46.7	1.00	1.04	1.44	14.7
12	R2	209	2.5	173	3.0	0.918	95.7	LOS F	6.5	46.7	1.00	1.03	1.45	19.3
Approach		515	3.1	426 N1	3.7	0.918	81.0	LOS F	7.0	51.1	1.00	1.00	1.38	18.9
All Vehicles		6741	3.1	6652 N1	3.1	6.230	734.3	LOS F	119.4	840.9	0.91	1.18	1.83	2.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 21178sid-211006 No Cap Adj **Template: Default Site User Report**

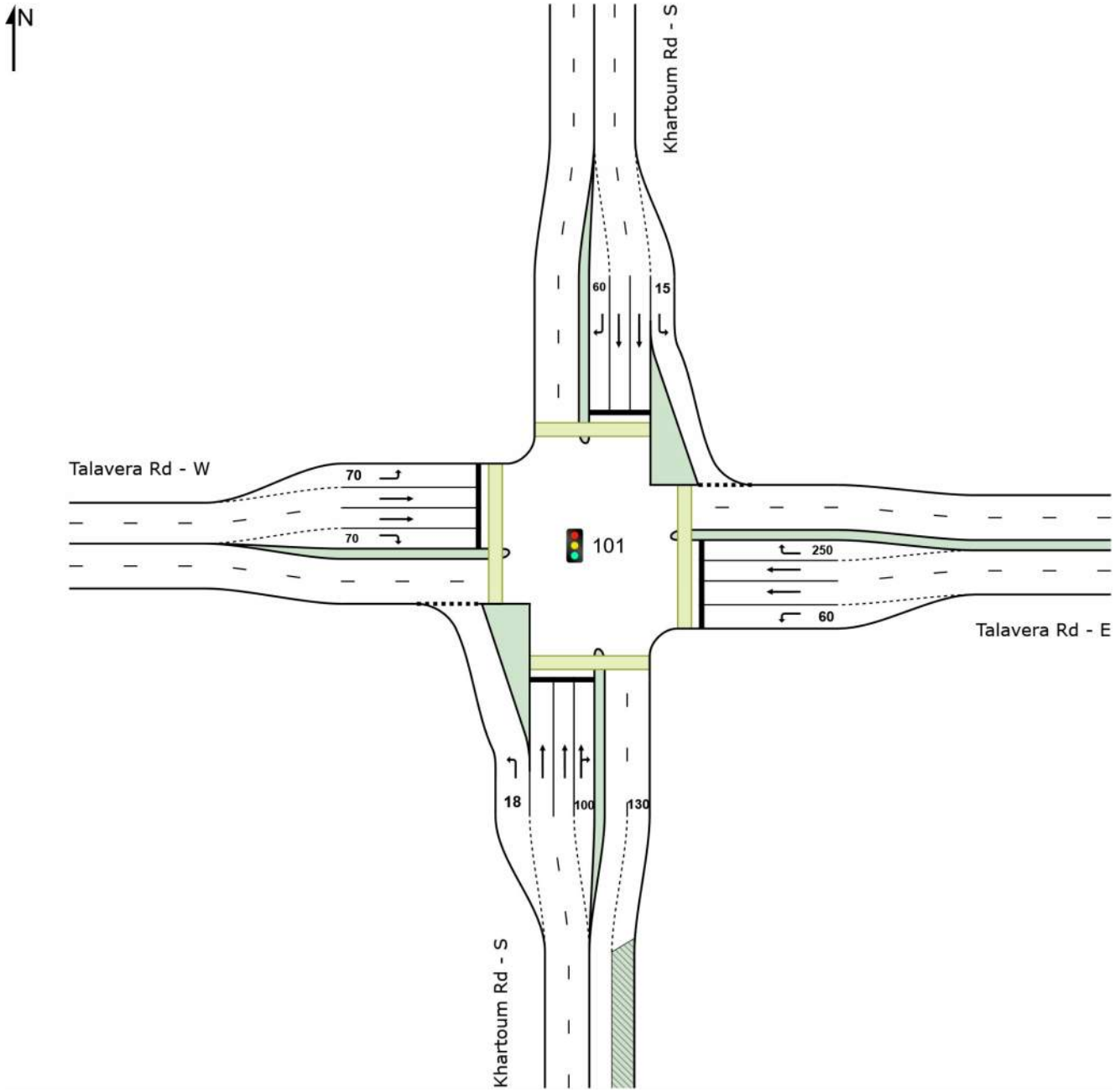
Site: 101 [1-Talavera Rd-Khartoum Rd - 2036 PM Ex (Site Folder: 2036 PM Ex)] **Network: 8 [2036 PM Ex (Network Folder: Ex)]**

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C, D, E, F
Output Phase Sequence: A, C, D, E, F

Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Khartoum Rd - S														
1	L2	613	0.0	613	0.0	0.912	54.4	LOS D	25.9	181.4	0.96	0.96	1.12	22.6
2	T1	361	2.0	361	2.0	* 1.513	459.3	LOS F	35.9	256.0	1.00	1.86	3.04	4.5
3	R2	256	4.5	256	4.5	1.547	560.1	LOS F	35.3	256.9	1.00	1.87	3.32	2.2
Approach		1229	1.5	1229	1.5	1.547	278.5	LOS F	35.9	256.9	0.98	1.41	2.14	6.1

East: Talavera Rd - E														
4	L2	420	2.0	311	2.7	0.368	23.7	LOS B	6.4	45.6	0.64	0.74	0.64	34.7
5	T1	1663	0.5	1226	0.7	* 0.904	56.0	LOS D	32.7	230.1	0.93	0.95	1.08	19.3
6	R2	75	0.0	55	0.0	0.237	68.9	LOS E	2.3	16.0	0.95	0.75	0.95	19.0
Approach		2158	0.8	1592 N1	1.1	0.904	50.1	LOS D	32.7	230.1	0.87	0.90	0.99	21.6
North: Khartoum Rd - S														
7	L2	32	6.7	32	6.7	0.046	14.3	LOS A	0.5	3.4	0.42	0.64	0.42	33.5
8	T1	192	4.9	192	4.9	0.491	66.6	LOS E	4.9	35.9	0.97	0.76	0.97	22.2
9	R2	235	1.8	235	1.8	1.066	161.7	LOS F	16.7	118.7	1.00	1.20	1.83	8.9
Approach		458	3.4	458	3.4	1.066	111.8	LOS F	16.7	118.7	0.95	0.98	1.37	13.2
West: Talavera Rd - W														
10	L2	618	0.3	618	0.3	* 0.569	15.5	LOS B	10.1	70.6	0.67	0.78	0.67	35.7
11	T1	816	0.5	816	0.5	0.529	25.8	LOS B	11.6	81.3	0.69	0.61	0.69	19.0
12	R2	454	0.2	454	0.2	* 1.434	435.6	LOS F	48.3	338.7	1.00	1.84	3.00	3.9
Approach		1887	0.4	1887	0.4	1.434	120.9	LOS F	48.3	338.7	0.76	0.96	1.24	8.8
All Vehicles		5733	1.0	5167 N1	1.1	1.547	135.8	LOS F	48.3	338.7	0.86	1.05	1.39	9.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

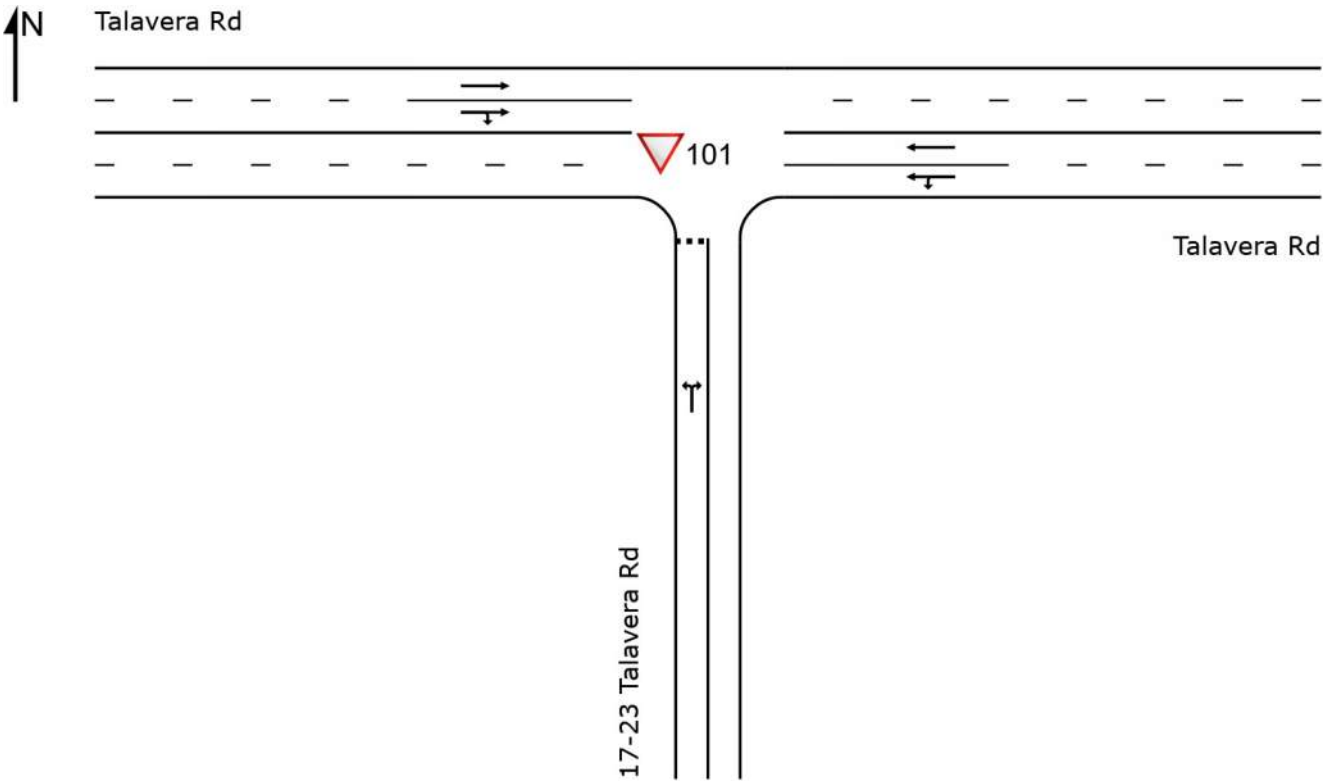
* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [2-Talavera Rd- Site Access 2036 PM Ex (Site Folder: 2036 PM Ex)] Network: 8 [2036 PM Ex (Network Folder: Ex)]

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	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: 17-23 Talavera Rd														
1	L2	1	0.0	1	0.0	0.009	5.3	LOS A	0.0	0.1	0.68	0.71	0.68	10.6
3	R2	1	0.0	1	0.0	0.009	30.5	LOS C	0.0	0.1	0.68	0.71	0.68	10.6
Approach		2	0.0	2	0.0	0.009	17.9	LOS B	0.0	0.1	0.68	0.71	0.68	10.6
East: Talavera Rd														
4	L2	1	0.0	1	0.0	0.186	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	55.2
5	T1	1161	0.0	595	0.0	0.186	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1162	0.0	596 [N1]	0.0	0.186	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Talavera Rd														
11	T1	1108	0.0	1022	0.0	0.263	0.0	LOS A	9.5	66.7	0.00	0.00	0.00	59.9

12	R2	1	0.0	1	0.0	0.263	9.3	LOS A	0.0	0.0	0.00	0.00	0.00	53.2
Approach		1109	0.0	1023 N1	0.0	0.263	0.0	NA	9.5	66.7	0.00	0.00	0.00	59.9
All Vehicles		2274	0.0	1621 N1	0.0	0.263	0.1	NA	9.5	66.7	0.00	0.00	0.00	59.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

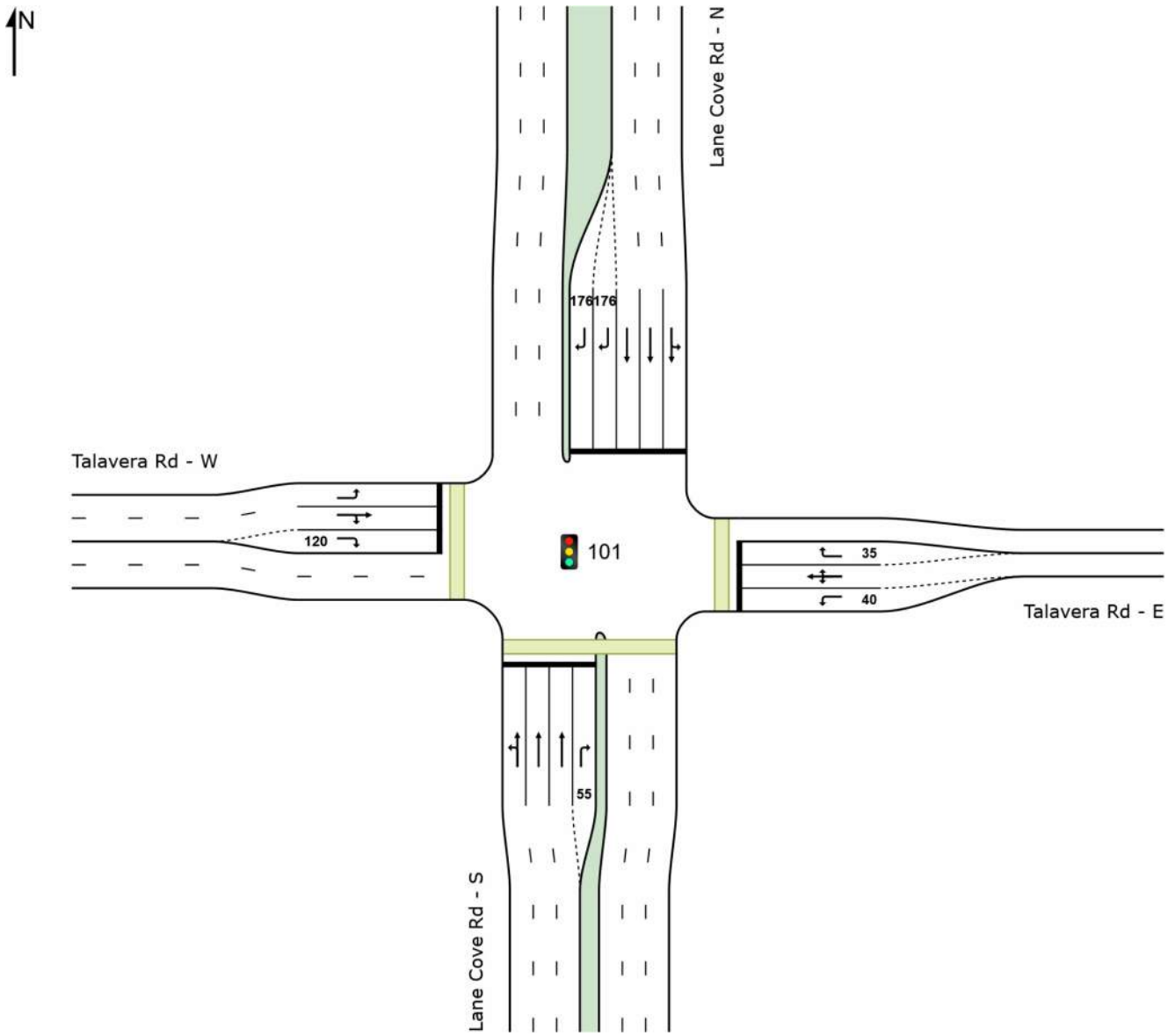
Site: 101 [3-Lane Cove Rd-Talavera Road - 2036 PM Ex (Site Folder: 2036 PM Ex)] Network: 8 [2036 PM Ex (Network Folder: Ex)]

17272 11 Talavera Road, Macquarie Park
Existing Traffic Volumes - Thursday, 7 September 2017
AM Peak: 8:00am-9:00am & PM Peak: 4:15pm-5:15pm
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Green Split Priority has been specified
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Site Layout

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



Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lane Cove Rd - S														
1	L2	133	4.0	133	4.0	0.966	82.1	LOS F	44.7	318.5	1.00	1.11	1.26	14.2
2	T1	2951	1.8	2951	1.8	* 1.380	329.0	LOS F	140.9	1001.5	1.00	2.07	2.44	5.5
3	R2	24	4.3	24	4.3	0.336	87.1	LOS F	1.1	8.2	1.00	0.71	1.00	15.4
Approach		3107	1.9	3107	1.9	1.380	316.6	LOS F	140.9	1001.5	1.00	2.02	2.38	5.6
East: Talavera Rd - E														
4	L2	166	0.6	166	0.6	0.530	69.0	LOS E	6.2	43.8	0.97	0.80	0.97	17.7
5	T1	57	3.7	57	3.7	* 0.530	70.4	LOS E	4.2	30.1	0.99	0.78	0.99	6.0
6	R2	126	0.8	126	0.8	0.530	74.6	LOS F	4.5	32.1	0.99	0.79	0.99	11.8

Approach		349	1.2	349	1.2	0.530	71.3	LOS F	6.2	43.8	0.98	0.79	0.98	13.9
North: Lane Cove Rd - N														
7	L2	11	10.0	11	10.0	0.830	47.9	LOS D	27.2	198.1	0.96	0.88	0.97	18.2
8	T1	2531	4.7	2531	4.7	1.186	184.9	LOS F	92.0	669.8	0.99	1.58	1.82	9.2
9	R2	719	0.9	719	0.9	* 4.869	3519.8	LOS F	89.2	629.1	1.00	2.42	5.83	0.2
Approach		3260	3.9	3260	3.9	4.869	920.0	LOS F	92.0	669.8	0.99	1.76	2.71	1.8
West: Talavera Rd - W														
10	L2	653	1.3	606	1.4	* 1.373	391.7	LOS F	56.5	400.0	1.00	1.72	2.80	4.6
11	T1	19	11.1	18	11.9	0.698	60.6	LOS E	10.8	76.8	0.99	0.84	0.99	18.6
12	R2	535	1.0	496	1.1	0.698	65.1	LOS E	10.8	76.4	0.99	0.84	0.99	24.3
Approach		1206	1.3	1120 N1	1.4	1.373	241.8	LOS F	56.5	400.0	0.99	1.31	1.97	8.0
All Vehicles		7923	2.6	7837 N1	2.6	4.869	545.9	LOS F	140.9	1001.5	0.99	1.76	2.39	3.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@ttpp.net.au

www.ttpp.net.au