



QuantumTraffic

Traffic Impact Assessment Report

Section 7, Phillip

Proposed Mixed-Use Development

29/08/2025

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Abbreviations

Key Term or Abbreviation	Definition
ACT	Australian Capital Territory
AS2890.1	Australian Standard 2890 Part 1: Off-Street Car Parking
ATPT	Active Travel Planning Tool
B85	85 th Percentile Design Car
B99	99 th Percentile Design Car
CIT	Canberra Institute of Technology
DA	Development Application
DOS	Degree of Saturation
GFA	Gross Floor Area
GLFA	Gross Leasable Floor Area
HRV	Design Heavy Rigid Vehicle
LOS	Level of Service
NCC 2022	National Construction Code 2022
NLA	Net Leasable Area
SA2	Statistical Area 2
TIA	Traffic/Transport Impact Assessment
ZEV	Zero-Emission Vehicle

1 Introduction

1.1 Project Background

Quantum Traffic have been engaged (in February 2025) by Hellenic Property Investments 2 Pty Ltd to undertake a Traffic Impact Assessment (TIA) in relation to the Development Application (DA) for Woden Village, a proposed mixed-use development on Section 7, Phillip. Woden Village is proposed to comprise four (4) buildings across the site, including a commercial carpark, as well as community, office and residential land uses.

As this analysis was initiated prior to 1 July 2025, it has been undertaken with reference to the *Guidelines for Transport Impact Assessment (2016)*.

1.2 Purpose of this Report

This report summarises the various traffic engineering and transport planning assessments undertaken in relation to the proposed development.

1.3 Site Location and Context

The site is located within Woden Town Centre, has an area of 14.97ha and is bounded by Bowes Street to the west and south, Callam Street to the east and Matilda Street to the north, as shown at Figure 1 below. Notable land uses located near the subject site include:

- Canberra Institute of Technology (CIT) Woden Campus, located immediately southeast of the subject site,
- Hellenic Club Woden, located immediately north of the subject site,
- Woden Town Square, located approximately 100m southwest of the subject site,
- Woden Library, located approximately 220m southwest of the subject site,
- Westfield Woden, located approximately 250m south of the subject site,
- Eddison Park, located approximately 280m east of the subject site,
- Canberra College Phillip Campus, located approximately 350m northeast of the subject site, and
- Phillip Swimming and Ice Skating Centre, located approximately 400m northwest of the subject site.

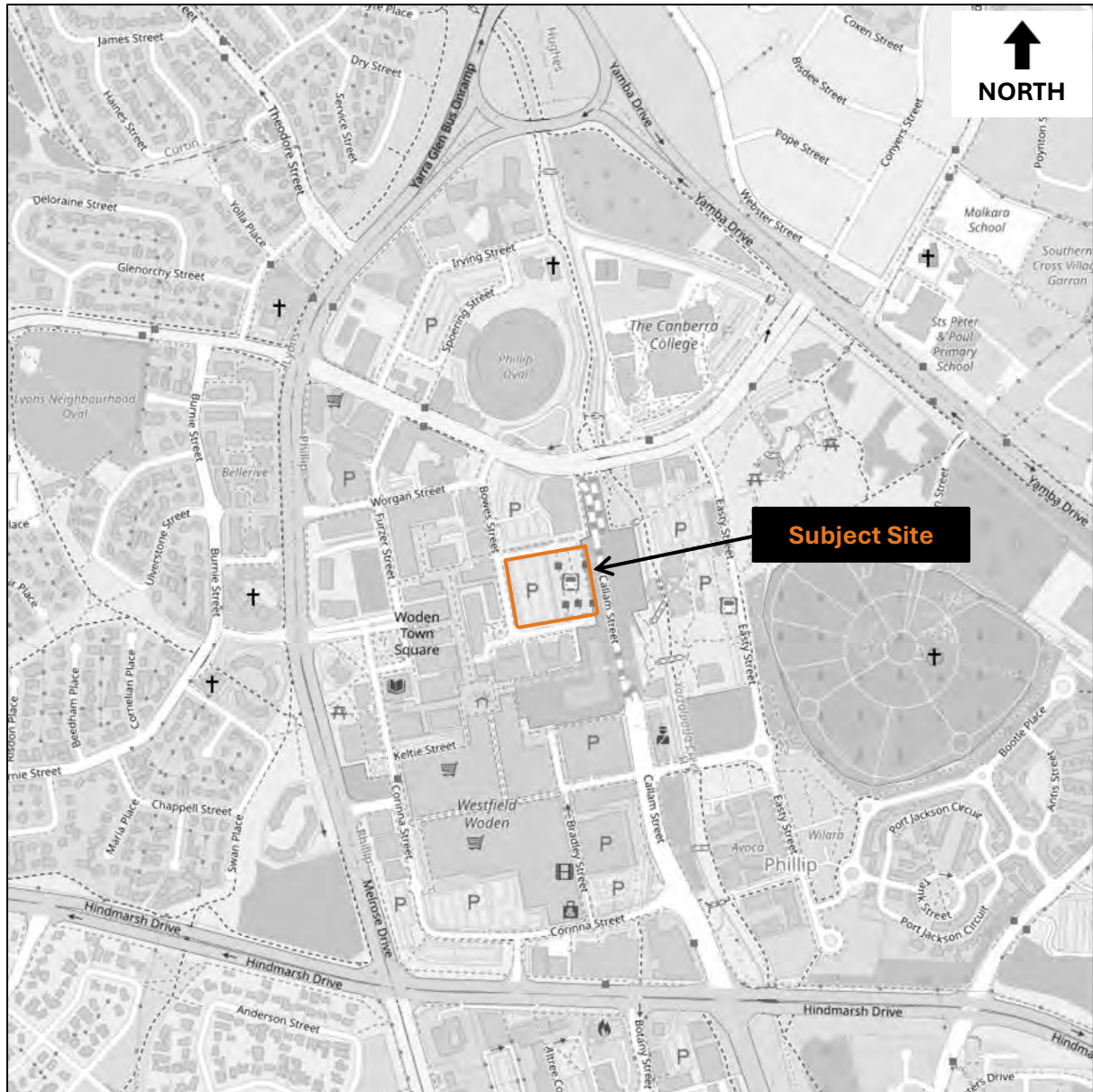


Figure 1: Locality Plan (source: OpenStreetMap)

1.4 Study Area

The study area for this analysis extends along Launceston Street from Melrose Drive to Yamba Drive and along Bowes Street from Launceston Street to the southern boundary of the subject site.

1.5 Assessment Methodology

The performance of the analysed intersections has been assessed using the SIDRA Intersection 8 software package. The SIDRA software quantifies intersection performance using the following four (4) measures:

- Degree of Saturation (DOS), which represents the ratio of traffic demands to theoretical intersection capacity,
- Average delay, in seconds, experienced by vehicles at the intersection,
- Level of Service (LOS), which converts average delay to a letter grade, and

Section 7, Phillip

- 95th percentile queue length, in metres, which reflects the length of queueing that has a 5% chance of being exceeded.

The *RMS Traffic Modelling Guidelines* specify that the maximum practical DOS for various intersection types are as set out at Table 1 below. Beyond these values, traffic flows can become unstable, with minor flow disruptions likely to cause outsized delays and queue lengths.

Table 1: Practical Capacity of Intersections

Intersection Type	Maximum Practical DOS
Traffic Signals	0.90
Roundabouts	0.85
Priority-Control	0.80

The *RMS Guide to Traffic Generating Developments (2002)* defines the LOS criteria as presented at Table 2 below.

Table 2: LOS Criteria for Intersections

Level of Service	Average Delay
A	≤ 14s
B	15s – 28s
C	29s – 42s
D	43s – 56s
E	57s – 70s
F	> 70s

The 95th percentile queue lengths have been assessed against the available storage length within each respective lane.

It is important to acknowledge that the consideration of these measures introduces an inherent bias which prioritises the movement of motor vehicles at the exclusion of all other uses of the road reserve (i.e. movement of people on foot, by bicycle, by public transport or in private vehicles; the movement of goods; the use of the public realm as a destination rather than a thoroughfare). While it is appropriate, yet sub-optimal, to consider the performance of sections of the road network which serve a predominantly ‘movement’ function, in these terms, these measures are counter-productive when considering the performance of the sections of the road network which serve a predominantly ‘place’ function. This bias is in direct opposition to the Territory’s transport vision for “*a world class transport system that supports a compact, sustainable and vibrant city*”, as low-occupancy motor vehicles are a uniquely space-inefficient, unsustainable, and isolating form of transport. While the consideration of such a narrow set of parameters has become standard practice within the traffic engineering industry, this narrow perspective has also resulted in increasing levels of car dependency. In urban environments such as this, it is therefore necessary to consider modifications to transport infrastructure which will support the strategic vision for the transport network and public realm, rather than simply seeking to accommodate ever-increasing forecasted traffic demands.

1.6 Strategic Context

1.6.1 ACT Planning Strategy 2018

The ACT Planning Strategy 2018 identifies a vision for Canberra to be *“a sustainable, competitive and equitable city that respects Canberra’s unique legacy as a city in the landscape and the National Capital, while being responsive to the future and resilient to change”*.

The strategy commits to delivering up to 70% of new housing within the existing urban footprint, particularly in areas well served by public transport (i.e. within 800m of light rail and rapid bus corridors). The strategy also identifies a need to reduce car dependency by investing in active travel infrastructure and enhancing public transport options. Overall, the transport vision presented in the Strategy supports inclusive, walkable neighbourhoods and fosters equitable access to jobs, services, and public spaces for all residents.

1.6.2 ACT Transport Strategy 2020

The ACT Transport Strategy 2020 presents a vision for *“a world-class [transport] system that supports a compact, sustainable, and vibrant city”*.

The strategy prioritises the integration of transport and land use planning to deliver a more efficient urban form, aligning with the ACT Planning Strategy 2018 and the Climate Change Strategy 2019–2025. The strategy acknowledges that while transport planning and investment has historically prioritised road expansion to support urban growth, this approach leads to higher future maintenance costs, increased car dependency, and greater greenhouse gas emissions, while failing to address the root causes of congestion. In contrast, the ACT Transport Strategy 2020 signals a shift towards investing in public transport, walking, and cycling infrastructure in support of the vision to create a more compact, sustainable, and liveable city, while reducing transport emissions and improving transport choice.

1.6.3 Climate Change Strategy 2019-2025

The ACT Climate Change Strategy 2019–2025 identifies transport as a major contributor to emissions and a critical focus area for achieving the Territory’s emissions reduction targets. Since electricity emissions have been eliminated, transport accounts for approximately 60% of ACT emissions, making it the largest single sectoral source.

To address this, the strategy outlines a broad range of actions focused on transitioning to zero-emissions transport, reducing reliance on private vehicles, and encouraging more sustainable travel behaviours. Key priorities include:

- Improving public transport services (e.g. expanding light rail and rapid bus networks) to increase uptake.
- Encouraging active travel through expanded cycling infrastructure, improved walkability, and safety enhancements.
- Reducing car use by trialling car-free zones, supporting car share schemes, and planning for a more compact, efficient urban form.
- Accelerating the shift to zero-emissions vehicles (ZEVs) via incentives (e.g. rebates, registration discounts), supporting public charging infrastructure, and transitioning the government fleet—including buses—to ZEVs.

- Smarter use of roads, with a focus on prioritising space for public and active transport, implementing smart city technologies, and exploring options for efficient road pricing or registration reform.

The strategy integrates transport with broader planning and climate policies, recognising the need for coordinated action across sectors and levels of government. It highlights that community participation, infrastructure investment, and regulatory changes will all be essential to meeting the 2045 net zero emissions goal.

1.6.4 Territory Plan 2023

The Territory Plan 2023 is a notifiable instrument prepared and administered by the Territory Planning Authority under Section 45 of the Planning Act.

The Territory Plan 2023 provides a statutory framework for the future development and conservation of land within the ACT, with the objective of ensuring that the planning and development of the ACT provides the people of the ACT with an attractive, safe, and efficient environment in which to live, work, and have their recreation, in a manner which is not inconsistent with the National Capital Plan.

Part B – Maps

The subject site is located in the locality of Phillip within Woden District, is zoned as CZ2: Business Zone and is not subject to any overlays, as shown at Figure 2 below.

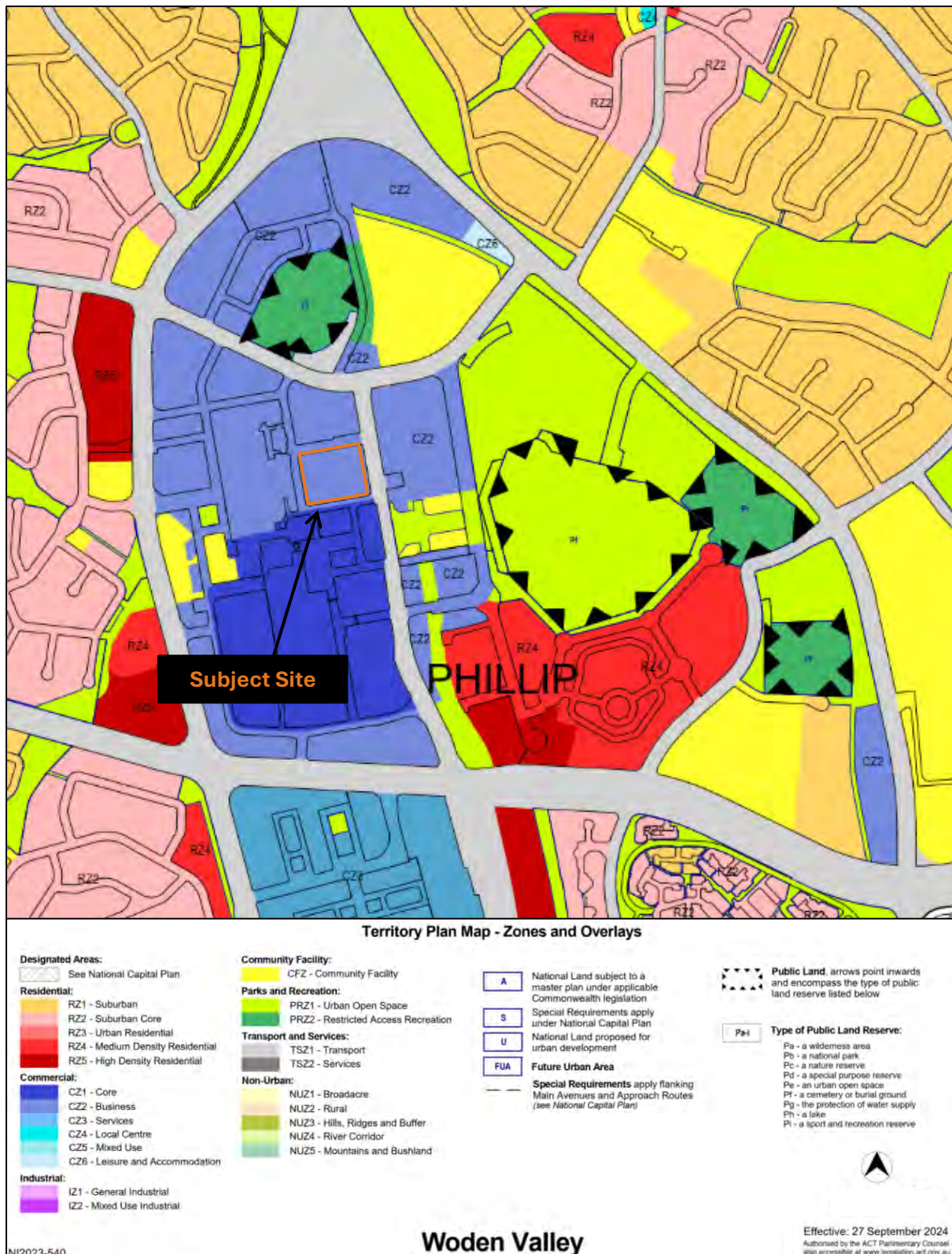


Figure 2: Zoning and Overlays (source: ACTmap)

Part D – District Policies

District Policies are a central feature of the ACT's planning framework, guiding development based on strategic planning and analysis specific to each district. They set out specific development considerations and requirements which take precedence over the general requirements identified elsewhere within the Territory Plan 2023.

Policy Outcomes

Policy outcomes describe the desired development outcomes to be achieved and identify features that are of particular importance in a particular district.

The transport-related policy outcomes, identified in the Woden District Policy, which relate to the subject site include:

3. Develop Woden town centre as an educational and commercial hub, building on the Canberra Institute of Technology and the transformational potential of the future light rail connectivity and new residences.
5. Plan for and deliver light rail from the City Centre to Woden, as the central spine of the public transport network in south Canberra.
8. Deliver urban transformation and support new sustainable communities linked to the future light rail corridor between Curtin and Mawson.

Assessment Outcomes

Assessment outcomes reflect the broader policy goals of the Territory Plan and are the primary basis for assessing DAs within the ACT.

The Woden District Policy does not list any area specific assessment outcomes which apply to the subject site.

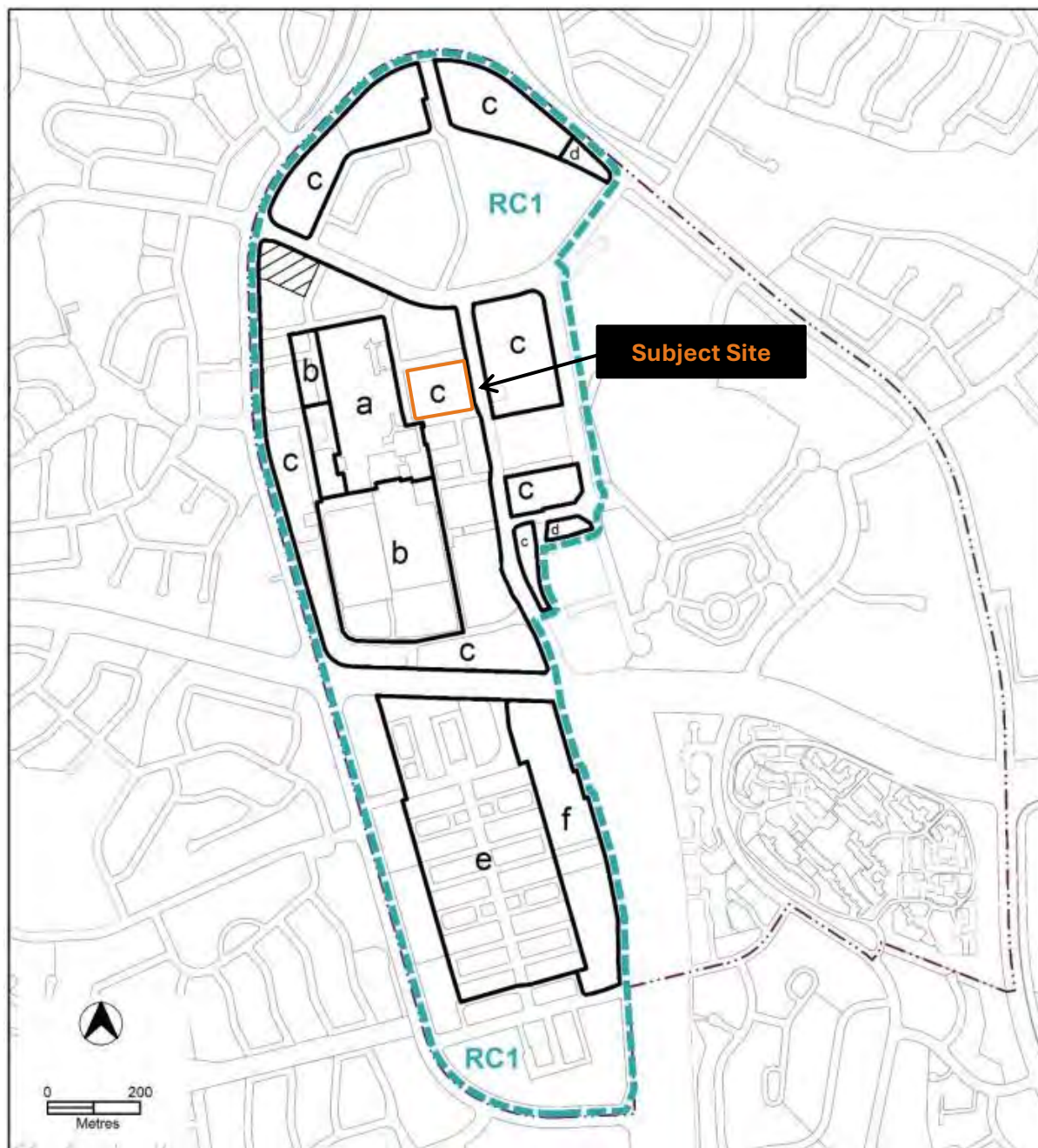
Assessment Requirements

Assessment requirements set the mandatory development controls within specific areas.

The subject site is located within the RC1 area within Figure 10 of the Woden District Policy (replicated at Figure 3 below).

Figure 11 of the Woden District Policy (replicated at Figure 4 below) identifies a proposed road which bisects the subject site in a north-south direction and a landscaped area across the northern part of the subject site.

The subject site is identified as an existing carpark in Figure 13 of the Woden District Policy (replicated at Figure x below). Bowes Street to the west of the subject site and Callam Street to the east of the subject site are shown as primary active frontages, and Matilda Street to the north of the subject site is shown as a secondary active frontage in this figure.



*Figure 3: Phillip (Town Centre) – Building Heights, Land and Site Use and Building Design
(source: Figure 10 of Woden District Policy)*

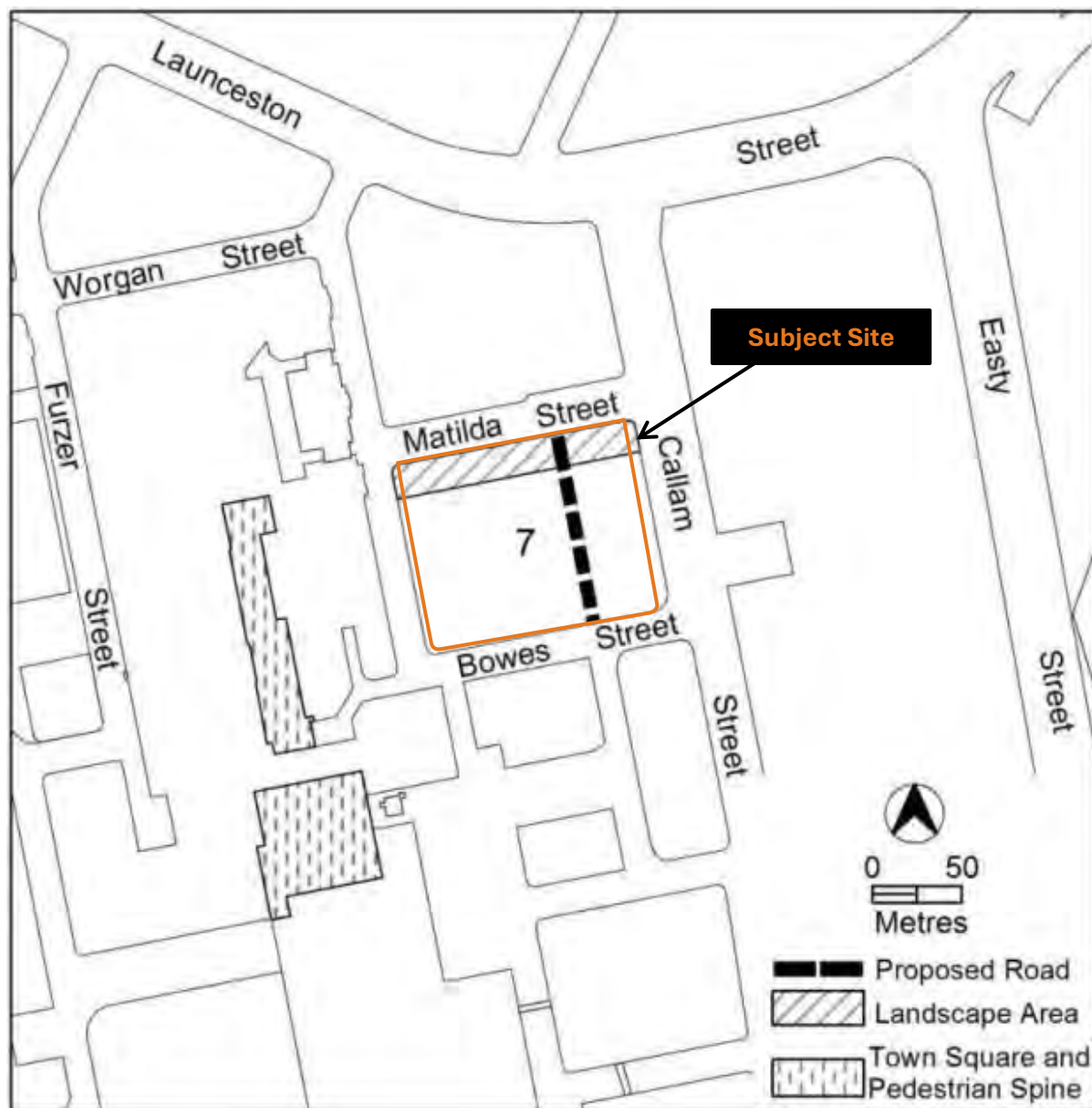


Figure 4: Phillip – Public Space and Roads (source: Figure 11 of Woden District Policy)

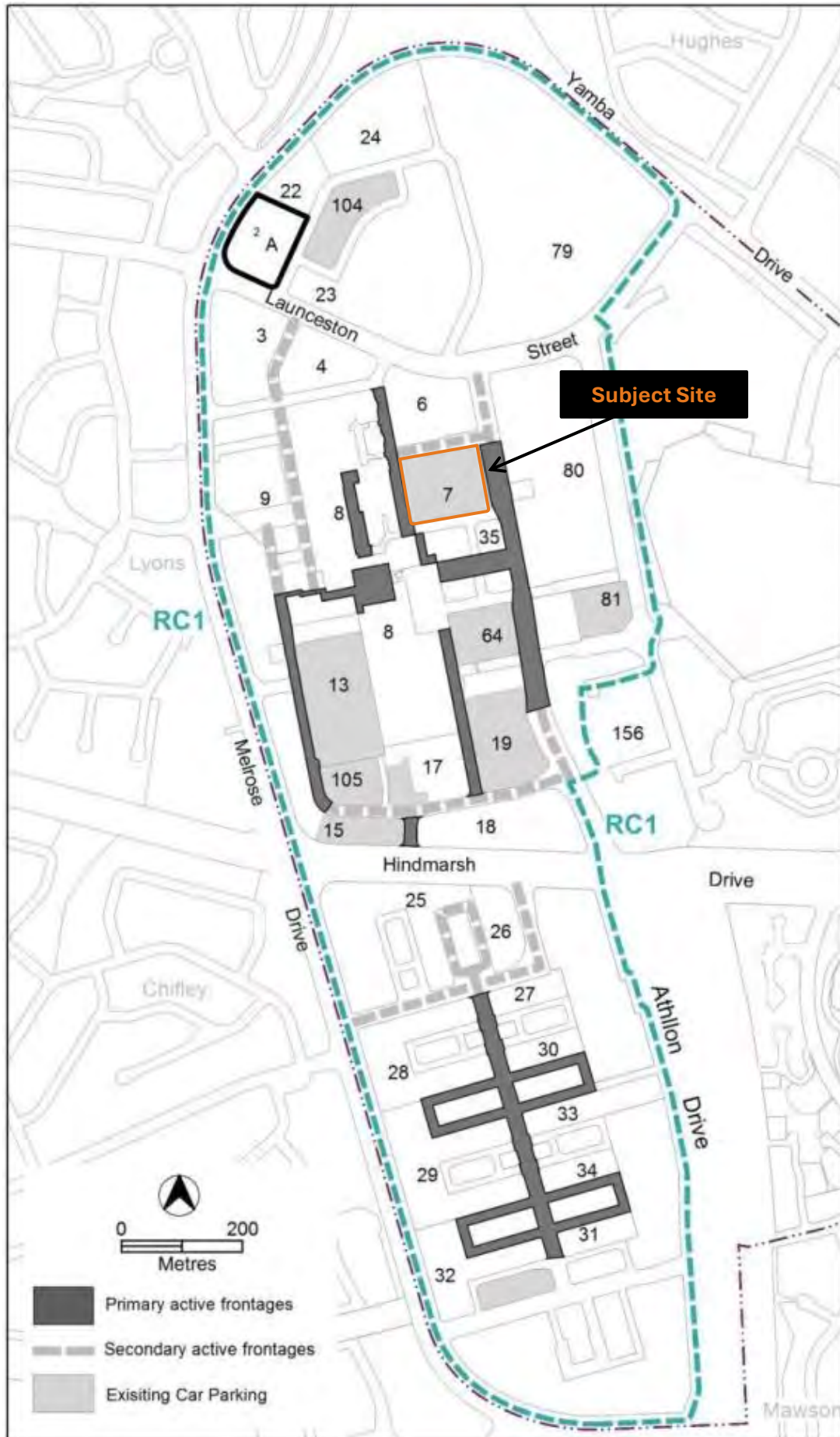


Figure 5: Phillip – Active Frontages and Parking (source: Figure 13 of Woden District Policy)

As such, the following transport-related assessment requirements apply to the subject site:

30. In the RC1 area in Figure 10, development is consistent with the following, where relevant:
 - b) Provide clear and safe pedestrian connections between residential developments fronting Melrose Drive and Eddison Park.
 - e) Provide a street network designed for low vehicle speeds and easy pedestrian access.
31. A public road and 20m wide public landscaped area are provided in accordance with Figure 11.
51. Development of public car parking areas identified in Figure 13 provides for car parking that is generated by the development and makes a substantial contribution to the long term parking supply for the town centre as endorsed by the Territory.

Part E – Zone Policies

Zone policies in the ACT planning framework generally outline the desired outcomes, assessment criteria, and key requirements that distinguish each zone.

Policy Outcomes

Policy outcomes describe the desired development outcomes to be achieved and identify features that are of particular importance in a specific zone.

The transport-related policy outcomes, identified in the Commercial Zones Policy, which relate to developments in CZ2: Business Zones include:

1. Provide for office and business sites that are accessible to public transport and convenience retailing and services.
4. Create vibrant lively pedestrian routes and public spaces.
6. Provide a high-quality public space by facilitating active uses on ground floor level that connect with the wider open space, pedestrian and cycle networks to promote active travel and living.
7. Encourage an attractive, safe, well-lit and connected pedestrian environment with convenient access to public transport.

Assessment Outcomes

Assessment outcomes reflect the broader policy goals of the Territory Plan and are the primary basis for assessing DAs within the ACT.

The transport-related assessment outcomes, identified in the Commercial Zones Policy, include:

Access and Movement:

7. The functionality and layout of the development is accessible and adaptable while achieving good connections with the surrounding area. This includes consideration of traffic flow and passive surveillance.
8. The development encourages active travel through safe and convenient access to the active travel network.

9. Access to, from and within the site permits safe and legible movement while catering for all users (including pedestrians). This includes consideration of vehicle manoeuvrability and access routes.

Parking, Services and Utilities:

24. The development provides electric vehicle parking and access to charging locations in multi-unit housing and commercial buildings.
25. The development provides appropriate end-of-trip facilities in buildings, which includes secure bicycle parking and change rooms (including showers, lockers and drying facilities).
26. Vehicle and bicycle parking sufficiently caters for the development while minimising visual impacts from the street or public space. This includes consideration of parking location, dimensions and number of spaces provided.

Assessment Requirements

Assessment requirements set the mandatory development controls within specific zones.

The Commercial Zones Policy does not list any transport-related assessment requirements which apply in CZ2: Business Zone.

1.7 Report Structure

This report has been structured as follows:

- **Section 2** documents the existing and assumed future base conditions,
- **Section 3** presents the traffic engineering and transport planning details of the proposed development,
- **Section 4** presents an assessment of the likely traffic impacts associated with the operation of the proposed development,
- **Section 5** presents a traffic engineering design review of the proposed development, and
- **Section 6** presents the key findings from this analysis.

2 Existing and Planned Conditions

2.1 Land Use Type

The aerial photograph at Figure 6 below shows that the subject site currently accommodates a commercial carpark (244 car spaces) and the temporary Woden Interchange.

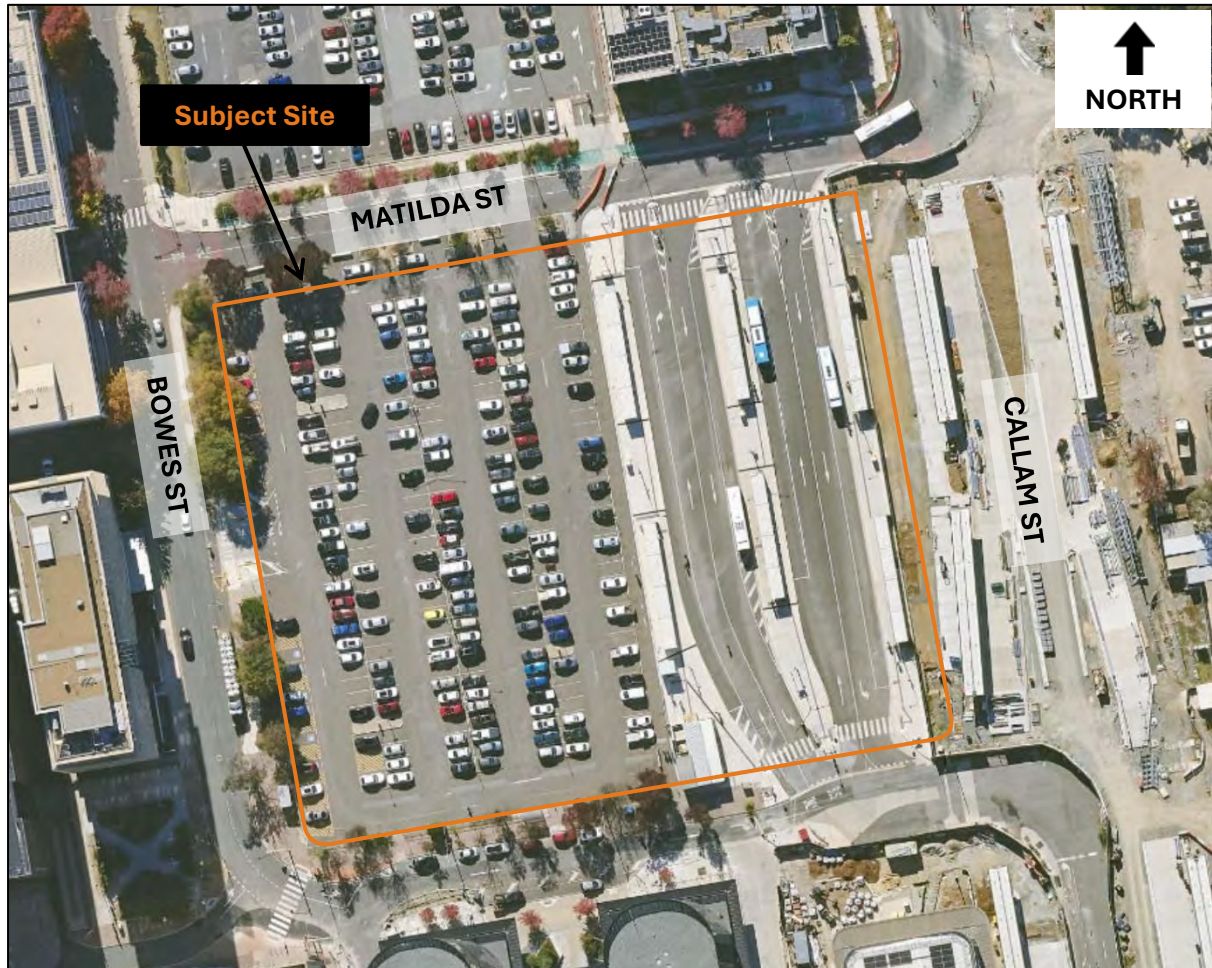


Figure 6: Aerial Photograph (source: ACTmapi)

This analysis assumes that the commercial carpark would remain on the subject site in the future base scenarios, but that the temporary Woden Interchange would be replaced by the Woden Interchange, currently under construction on Callam Street.

2.2 Travel Pattern

Data collected at the 2021 Census indicates that both residents and workers of the Phillip SA2 statistical area, travelled to work primarily via private motor vehicle (68% and 83%, respectively), followed by public transport (14% and 10%, respectively) and active transport (17% and 6%, respectively). It is noted that the mode shares presented at Table 3 below include only those who reported a mode of travel to work (i.e. excludes those not working, working from home, or not reporting how they travelled to work).

Table 3: Existing Mode Shares – Residents and Workers of Phillip SA2

Travel Mode		Residents	Workers
Public Transport	Train	-	-
	Bus	14%	10%
	Ferry	-	-
	Tram / Light Rail	-	-
	Taxi / Ride-share Service	1%	-
Vehicle	Car As Driver	61%	75%
	Car As Passenger	7%	7%
	Truck	-	-
	Motorbike / Scooter	-	1%
Active Transport	Bicycle	1%	1%
	Walked Only	16%	5%
Other	Other Mode	-	-

2.3 Surrounding Road Network Description

Bowes Street is a minor collector road which extends approximately 380m from Launceston Street in the north to the southeast corner of the subject site. Adjacent to the subject site, Bowes Street comprises a single carriageway of approximately 9m width which accommodates a single traffic lane in each direction. Adjacent to the subject site, on-street parking is permitted only within indented parking spaces on the east side of the carriageway. Bowes Street is subject to a posted 50km/h speed limit. Active travel facilities along Bowes Street typically comprise paved verges on both sides of the roadway. Pedestrian priority (zebra) crossings are provided on the north side of the Matilda Street intersection and the southeast side of the Bowes Place intersection. Bowes Street does not form part of the heavy vehicle network but does accommodate public transport buses associated with the temporary Woden Interchange.

Matilda Street is an access street which extends approximately 150m from Bowes Street in the west to the northeast corner of the subject site. Adjacent to the subject site, Matilda Street comprises a single carriageway of approximately 8m width, which accommodates a single traffic lane in each direction. On-street parking is prohibited on both sides of the roadway by a continuous dividing line. Matilda Street is subject to the urban default speed limit of 50km/h. Active travel facilities along Matilda Street comprise a 2.0m wide shared path and a 3m wide dedicated bicycle path on the north side of the roadway. Matilda Street does not form part of the heavy vehicle network but does accommodate public transport buses associated with the temporary Woden Interchange.

Launceston Street is a major collector which extends approximately 2.42km from Hindmarsh Drive in the southwest to Yamba Drive in the northeast. In the vicinity of the subject site, Launceston Street comprises dual carriageways of approximately 9.5m width, separated by a raised median of approximately 9.5m width. Each carriageway typically accommodates an unprotected, kerbside bicycle lane and two (2) traffic lanes in a single direction. On-street parking is prohibited by the bicycle lanes. Launceston Street is subject to a posted 60km/h speed limit. Active travel facilities along Launceston Street comprise a 1.35m wide path along the south side of the roadway, and a 1.8m wide path along the north side of the roadway. Signalised pedestrian crossings are provided on all legs of the Bowes Street and Callam Street intersections. Launceston Street does not form part of the heavy vehicle network but does accommodate public transport buses.

2.4 Traffic Volumes

Classified turning movement counts were undertaken at six (6) locations near the subject site, as listed below and outlined in **red** at Figure 7 below:

- Launceston Street / Melrose Drive,
- Bowes Street / Launceston Street,
- Easty Street / Launceston Street,
- Launceston Street / Wisdom Street / Yamba Drive,
- Bowes Street / Worgan Street, and
- Bowes Street / Section 7 Carpark Access.

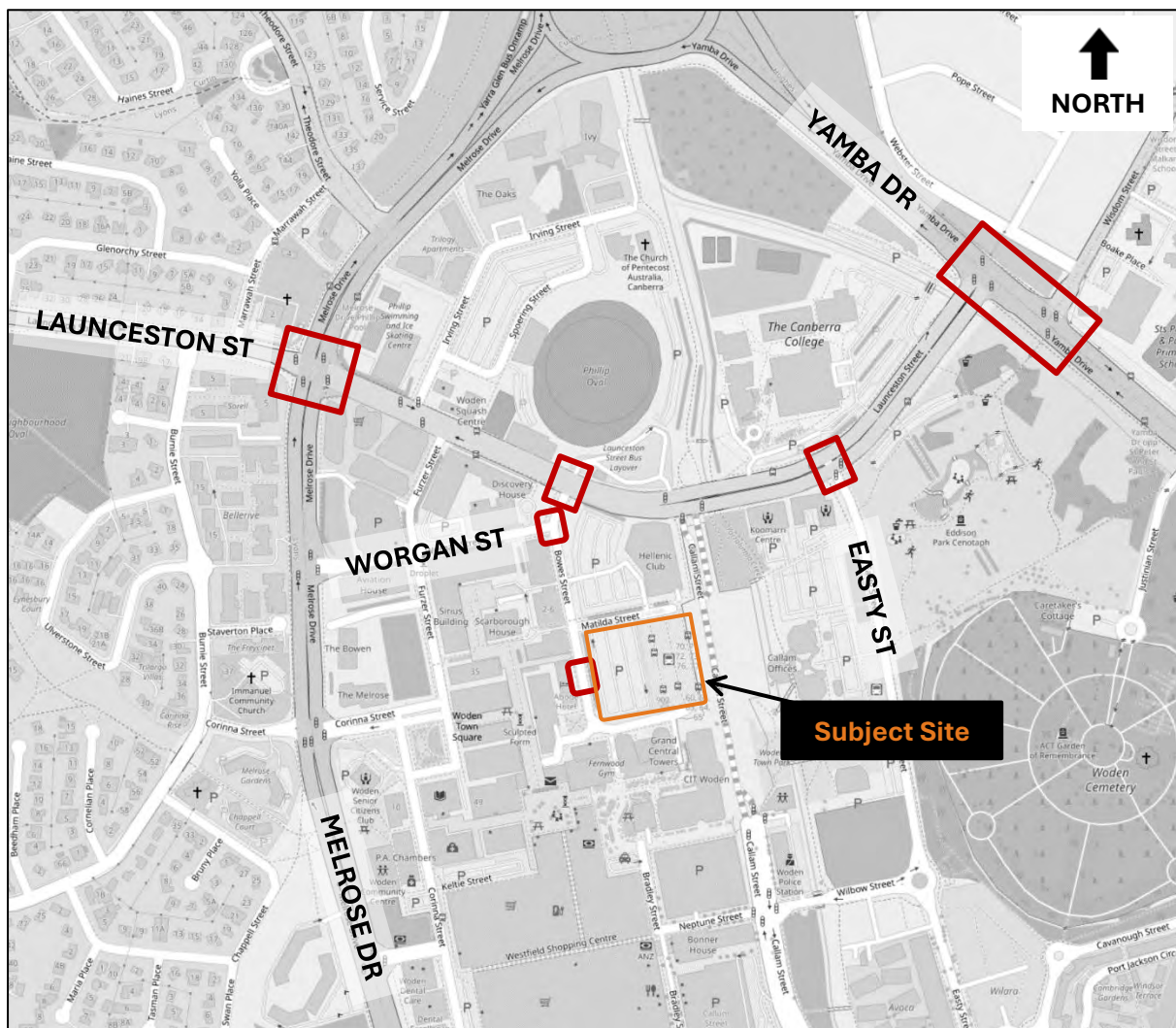


Figure 7: Turning Movement Count Locations (source: OpenStreetMap)

These surveys were undertaken throughout the day on Tuesday, 1 July 2025 to quantify the existing traffic volumes in the vicinity of the subject site. Figure 8 below presents the observed traffic volume profile and identifies a morning peak hour beginning at 8:15am and an evening peak hour beginning at 4:30pm.

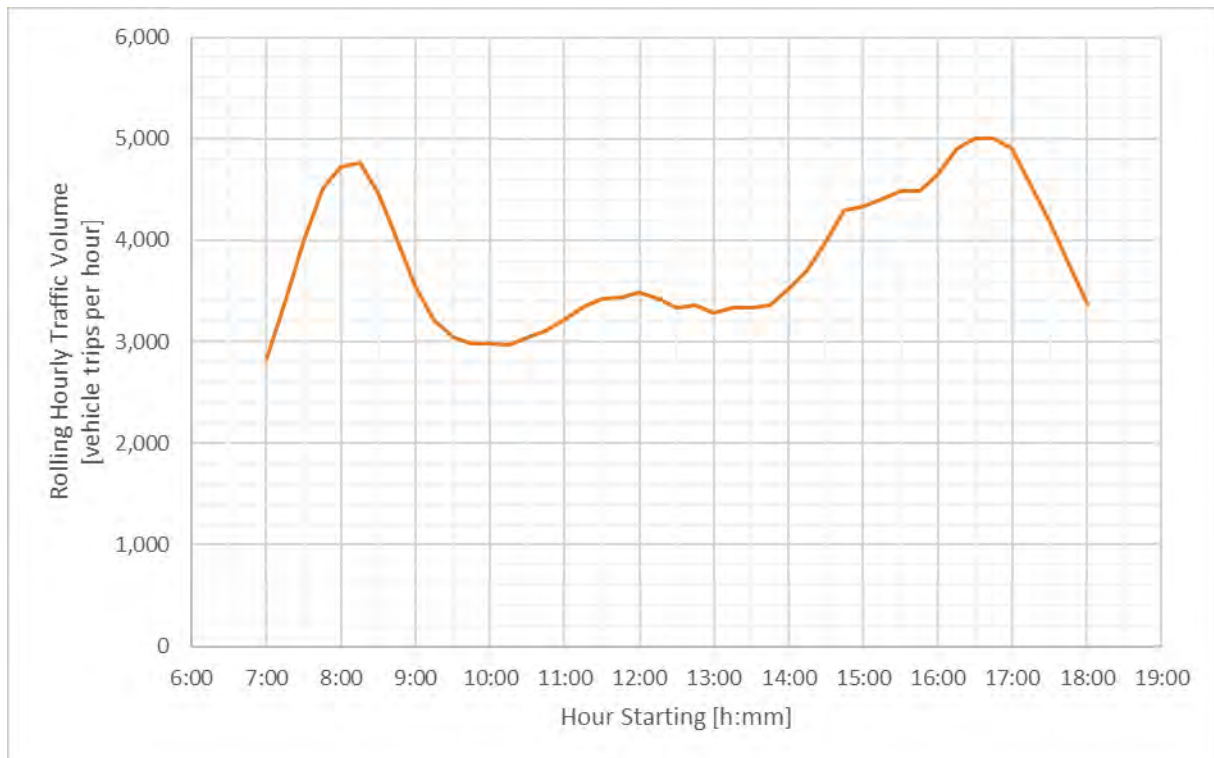


Figure 8: Traffic Volume Profile – 2025 Existing Conditions

2.5 Existing Site

While Callam Street is currently closed to vehicle traffic between Bradley Street and Launceston Street, vehicle access to the subject site is via:

- Bowes Street, approximately 50m south of Matilda Street, for vehicles accessing the commercial carpark,
- Bowes Street, approximately 110m east of Bowes Place, for buses accessing the temporary bus interchange, and
- Matilda Street, approximately 100m east of Bowes Street, for buses accessing the temporary bus interchange.

2.6 Road Network Performance

As aforementioned, this analysis utilises the SIDRA software package to analyse the performance of key intersections near the subject site. In accordance with previous advice received from CED, these intersections have each been analysed as individual sites. The following key intersections have been analysed:

- Launceston Street / Melrose Drive,
- Bowes Street / Launceston Street,
- Easty Street / Launceston Street,
- Launceston Street / Wisdom Street / Yamba Drive, and
- Bowes Street / Worgan Street.

2.6.1 Traffic Signal Operation

The existing operation of the traffic signals at the Launceston Street / Melrose Drive, Bowes Street / Launceston Street, Easty Street / Launceston Street and Launceston Street / Wisdom Street /

Yamba Drive intersections has been derived from historical SCATS data, from Tuesday, 1 July 2025. Noting the significant changes in traffic demands from the 2025 existing conditions to the 2030 and 2040 base scenarios, the SIDRA software has been permitted to optimise both the signal phasing and phase timings in the 2030 and 2040 base scenarios, to replicate the SCATS controllers dynamically reacting to real-time traffic demands.

2.6.2 Modelling Results

Table 4 below summarises the performance of the road network under the existing and planned conditions. Detailed intersection performance results are provided at Appendices A-C.

Table 4: Intersection Performance Summary – Existing and Planned Conditions

Intersection	2025 Existing Conditions		2030 Base Scenario		2040 Base Scenario	
	DOS	Delay (LOS)	DOS	Delay (LOS)	DOS	Delay (LOS)
Weekday Morning Peak Hour						
Launceston St / Melrose Dr	0.69	39s (C)	0.63	37s (C)	0.76	39s (C)
Bowes St / Launceston St	1.00	29s (C)	0.39	23s (B)	0.47	23s (B)
Bowes St / Worgan St	0.26	8s (A)	0.16	5s (A)	0.18	5s (A)
Bowes St / Matilda St	0.26	21s (B)	0.15	7s (A)	0.17	7s (A)
Bowes St / Section 7	0.15	5s (A)	0.11	5s (A)	0.12	5s (A)
Easty St / Launceston St	0.44	19s (B)	0.27	19s (B)	0.32	19s (B)
Launceston St / Wisdom St / Yamba Dr	0.69	40s (C)	0.76	42s (C)	0.98	81s (F)
Weekday Evening Peak Hour						
Launceston St / Melrose Dr	0.56	37s (C)	0.67	38s (C)	0.69	40s (C)
Bowes St / Launceston St	1.00	29s (C)	0.53	23s (B)	0.60	24s (B)
Bowes St / Worgan St	0.27	8s (A)	0.19	6s (A)	0.24	7s (A)
Bowes St / Matilda St	0.31	27s (B)	0.23	8s (A)	0.27	9s (A)
Bowes St / Section 7	0.13	5s (A)	0.10	5s (A)	0.10	5s (A)
Easty St / Launceston St	0.46	21s (B)	0.32	21s (B)	0.38	21s (B)
Launceston St / Wisdom St / Yamba Dr	0.63	35s (C)	0.66	34s (C)	0.96	58s (E)

The intersection performance analysis indicates that the existing conditions traffic volumes exceed the practical capacity of the Bowes Street / Launceston Street intersection in both the weekday morning and evening peak hours. This is likely due to the current routes taken by buses serving the temporary Woden Interchange.

The analysis indicates that, the redistribution of these bus movements to the Woden Interchange on Callam Street, will outweigh the (five (5) years of) background growth in traffic demands, such that the 2030 base scenario traffic demands remain within the practical capacity of all modelled intersections.

Finally, the analysis indicates that the additional 10 years of background growth in traffic demands would exceed the practical capacity of the Launceston Street / Wisdom Street / Yamba Drive intersection during both the weekday morning and the weekday evening peak hours. Average delays experienced at the Launceston Street / Wisdom Street / Yamba Drive intersection are also expected to reach 81s (LOS F) during the weekday morning peak hour.

2.7 Public Transport

There are a total of 19 public transport routes which serve stops located within close walking distance of the subject site, as shown at Figure 9 below. These include bus routes R4, R5, R6, 57, 58, 59, 60/61, 62, 63, 64, 65, 66, 70, 71, 72, 73, 76, 77 and 902 which serve Woden Interchange located on the eastern part of the subject site.

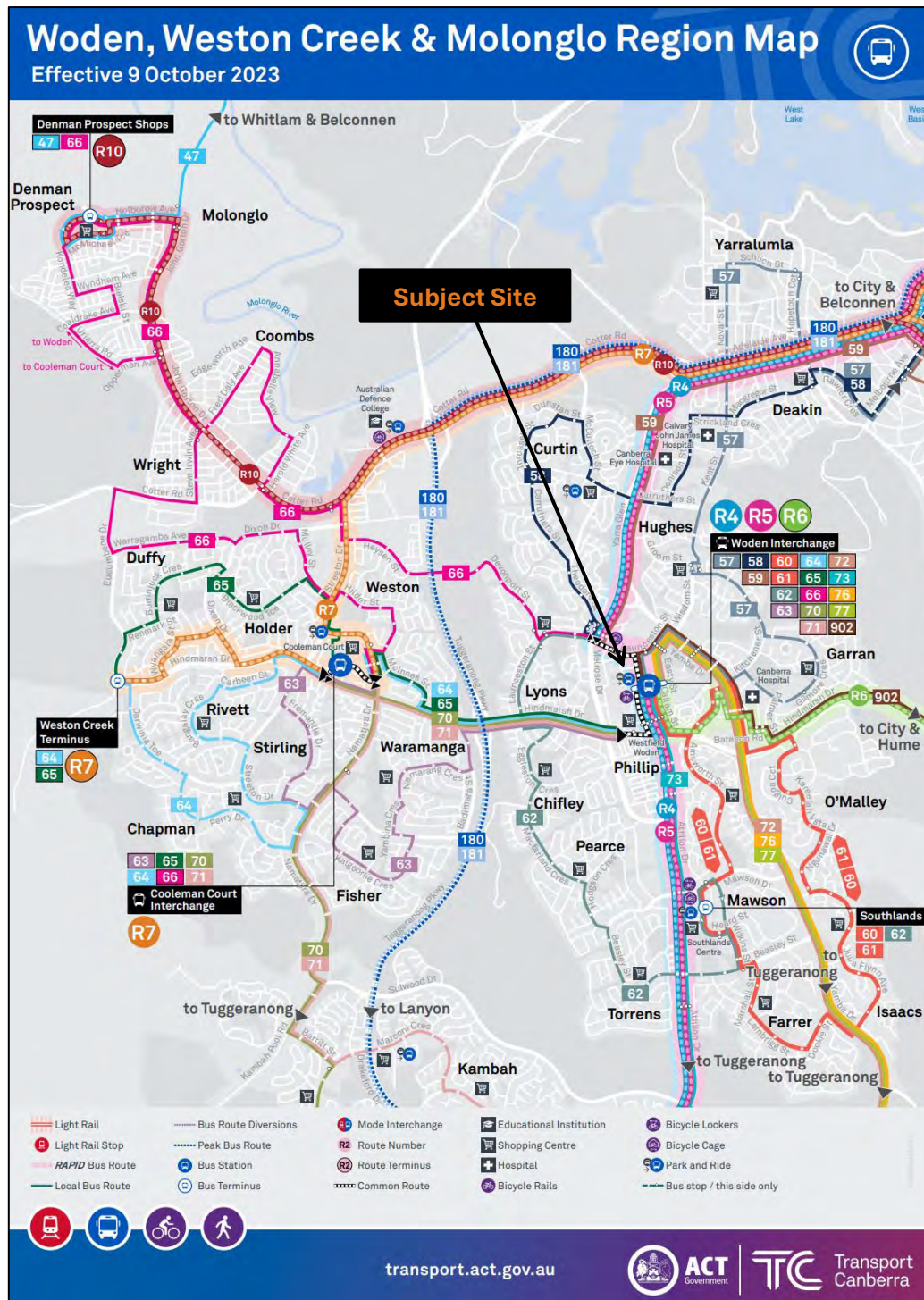


Figure 9: Public Transport Network (source: Transport Canberra)

2.8 Active Travel

The subject site is located in close proximity to a number of strategic active travel routes, as shown on the *Active Travel Planning Tool (ATPT)*, presented at Figure 10 below and listed below:

- An existing main community route (Woden Cycle Loop) which runs along the north side of Matilda Street, approximately 15m north of the subject site,
- A future main community route (Woden Cycle Loop) which runs along the east side of Callam Street, approximately 50m east of the subject site,

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- A future main community route (Future Canberra Hospital – Chifley) which runs through the public open space, approximately 90m west of the subject site, and
- An existing principal community route (C4 City – Tuggeranong via Woden) which runs along the east side of Yarralumla Creek, approximately 130m east of the site.

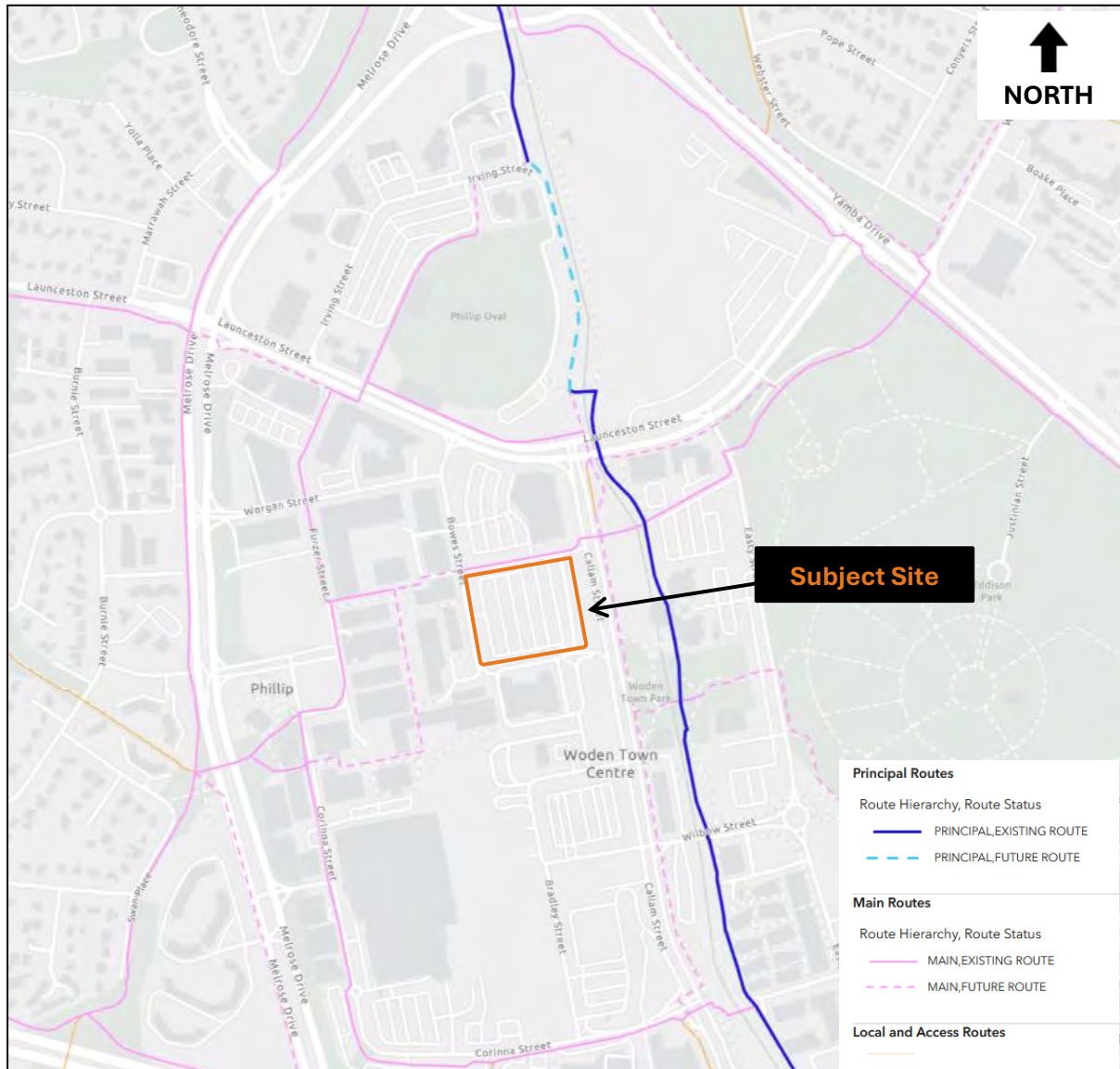


Figure 10: Strategic Active Travel Network (source: ATPT)

With the exception of the shared paths which comprise the Woden Cycle Loop along Matilda Street and C4 City – Tuggeranong via Woden along Yarralumla Creek, all active travel infrastructure in the vicinity of the site comprises an existing network of paths which parallel the road network. This path network provides off-road pedestrian and low speed cyclist connections between the subject site and the surrounding land uses.

2.9 Parking

A series of car parking surveys were undertaken on Thursday, 27 March 2025 and Saturday, 29 March 2025 to quantify the existing car parking demands within approximately 400m walking distance of the subject site, as shown at Figure 11 below.

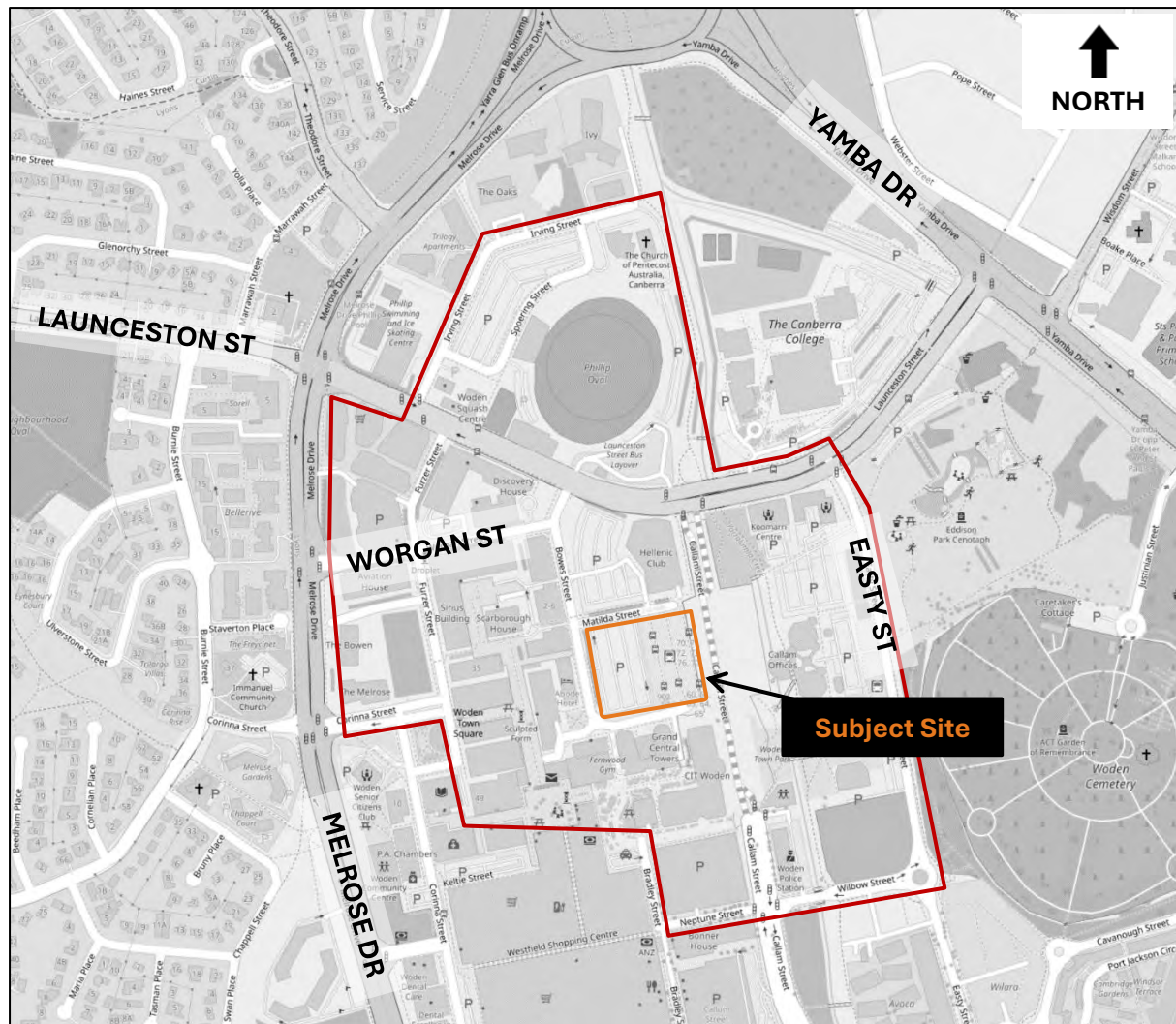


Figure 11: Car Parking Survey Area (source: OpenStreetMap)

These surveys captured existing car parking demands at 120-minute intervals between 8am and 8pm, as presented at Figure 15 below. Full details are provided at Appendix D.

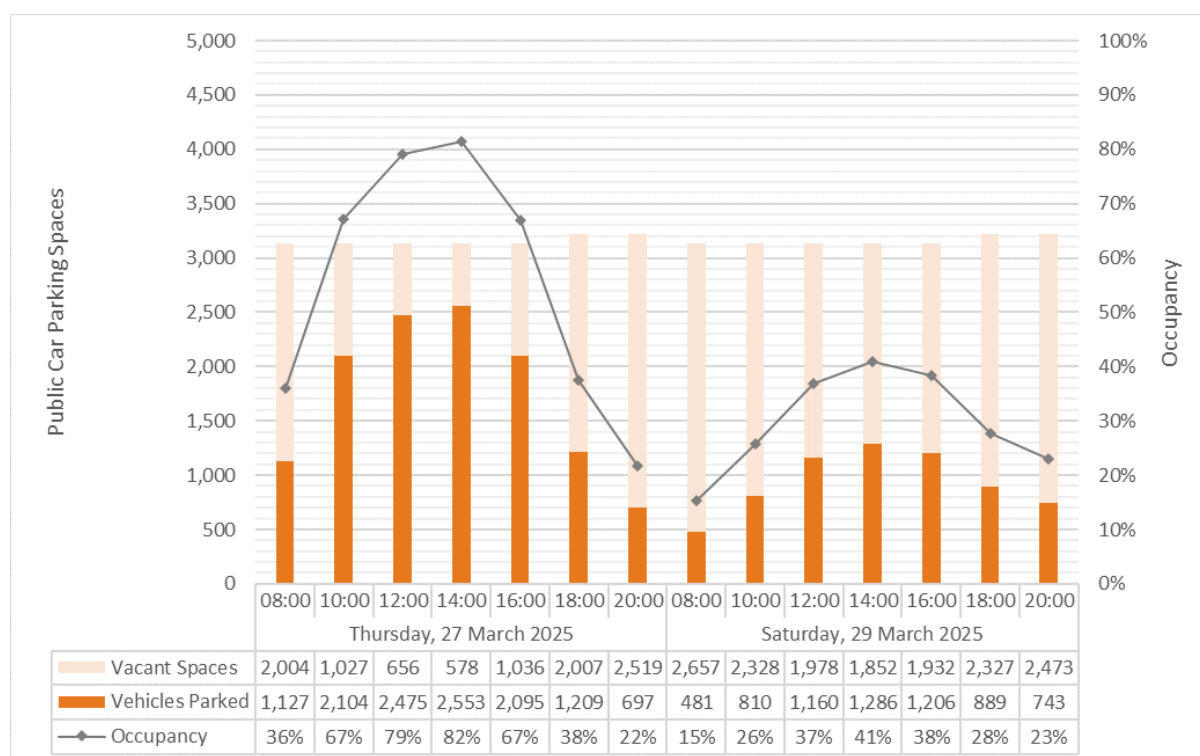


Figure 12: Public Car Parking Occupancy – Existing Conditions

The car parking surveys identified between 3,131 and 3,216 public car parking spaces (depending on the parking restrictions at any given time) located within the survey area. The car parking demands within this area were observed to increase during the morning to peak at 2pm on both the Thursday and the Saturday, before decreasing during the afternoon and evening. Peak car parking demands were observed at 2pm during the Thursday surveys when 2,553 vehicles were observed to be parked (82% occupancy). Noting that 85% occupancy is typically considered to balance the impacts associated with the provision of car parking spaces, against the impacts associated with vehicles circulating while searching for a vacant car parking space, these car parking surveys suggest that there is a suitable supply of public car parking within the survey area.

2.10 Road Safety

Figure 13 below shows 12 crashes were reported to have occurred within close proximity of the subject site in the five (5) year period to 30 June 2025. These crashes included 10 which resulted in property damage only (shown in yellow) and two (2) which resulted in injuries (shown in red).

The first injury crash (ID: 290953) occurred within the surface carpark on the subject site, at approximately 7am on a Friday in September 2022 and involved a vehicle colliding with a pedestrian.

The second injury crash (ID: 341252) occurred on Bowes Street, between Worgan Street and Matilda Street, at approximately 9am on a Wednesday in March 2024 and involved an undefined collision between two vehicles.

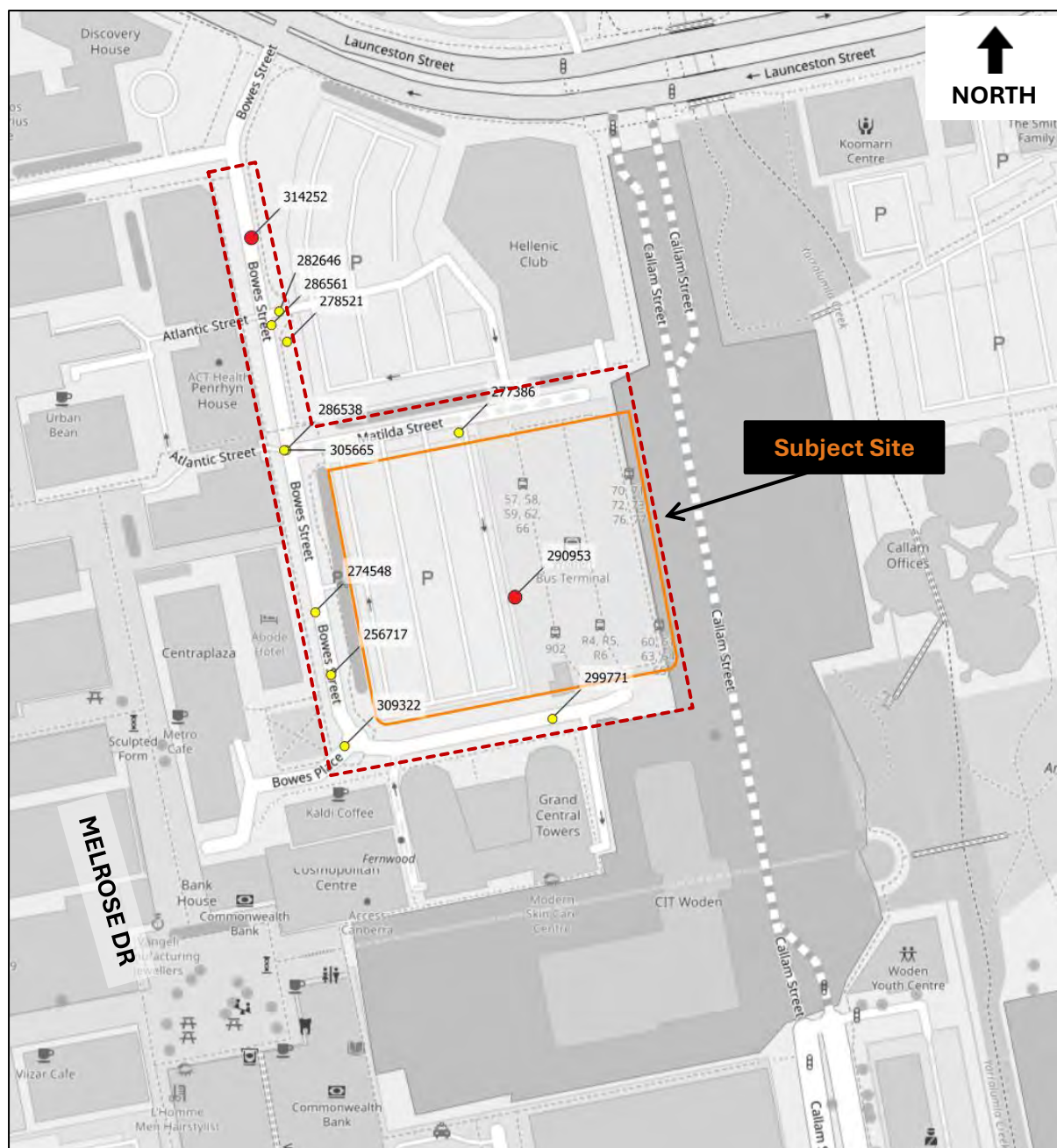


Figure 13: Crash History – 1 July 2020 to 30 June 2025

3 Proposed Development

3.1 Overview

The proposal is to develop the subject site to accommodate Woden Village, a mixed-use development comprising three (3) buildings, as follows:

Building A (Residential):

- 200 residential dwellings, comprising:
 - 112 apartments with one (1) bedroom,
 - 53 apartments with two (2) bedrooms, and
 - 35 apartments with three (3) bedrooms.
- Commercial land uses comprising:
 - Five (5) non-retail commercial tenancies (totalling 485m² GFA), and
 - Two (2) retail tenancies (totalling 168m² GFA).
- 292 car parking spaces for residents.

Building B (Commercial Carpark):

- 640 commercial car parking spaces, comprising:
 - 164 car parking spaces within basement levels, and
 - 476 car parking spaces within above-ground levels.
- A single indoor recreation tenancy (605m² GFA).

Building C (Community & Office):

- Commercial land uses comprising:
 - A single non-retail commercial tenancy (103m² GFA),
 - 11 levels of office (totalling 11,345m² GFA), and
 - Three (3) retail tenancies (totalling 277m² GFA).
- Five (5) levels of community land use (totalling 3,045m² GFA), and
- 143 car parking spaces for employees.

3.2 Access Arrangements

Vehicle access to the site is proposed in four (4) locations, as follows:

- Egress by all vehicles over the northern boundary of the subject site, via Matilda Street, approximately 30m south of the Wilbow Street slip lane. This access forms the northern end of the proposed north-south road,
- Access and egress by all vehicles over the western boundary of the subject site, via Bowes Street, approximately 60m south of the Wilbow Street slip lane. This access forms the western end of the proposed east-west laneway,
- Access and egress by light vehicles over the southern boundary of the subject site, via Bowes Street, approximately 60m south of the Wilbow Street slip lane. This access serves the podium levels of Building B, and
- Access by all vehicles over the southern boundary of the subject site, via Bowes Street, approximately 30m east of the Callam Street / Neptune Street / Wilbow Street

intersection and approximately 125m west of the Easty Street / Wilbow Street roundabout. This access serves the proposed north-south road.

3.3 Parking Assessments

The following sections set out the benchmarks/requirements for the various types of parking associated with the proposed development. It is important to note that under the current *Territory Plan* only the Assessment Outcomes are to be considered as mandatory rules/requirements, with *Advisory Note 06: Planning Technical Specifications* stating that:

“The planning technical specifications are not rules, and compliance is not mandatory.”

On this basis, this assessment distinguishes between ‘benchmarks’ (i.e. from the *Technical Specifications* documents that support the *Territory Plan*), which are not mandatory, and ‘requirements’ (i.e. from the *National Construction Code*), which are mandatory.

3.3.1 Vehicle Parking

Assessment Outcome 26 of the *Commercial Zones Policy* requires that:

“Vehicle and bicycle parking sufficiently caters for the development while minimising visual impacts from the street or public space. This includes consideration of parking location, dimensions and number of spaces provided.”

Overall Car Parking

Overall Car Parking Benchmarks

Specification 26.1a of the *Commercial Zones Specifications* identifies that the rates presented in Table 5 of that document represent one such set of benchmarks for overall car parking associated with developments in commercial zones.

Furthermore, the *Commercial Zones Specifications* suggests that these car parking spaces be located as set out in the Parking Locational Requirements table, replicated as Table 5 below.

Table 5: Car Parking Locational Benchmarks

Land Use	Long-Stay Parking	Short-Stay Parking	Operational Parking
Residential	On-site	On-site or within 100m	On-site
All Other Land Uses	On-site or within 200m	On-site or within 100m	On-site

On this basis, the proposed development has a benchmark for a total of 376 car parking spaces, as set out at Table 6 below.

Proposed Car Parking Provision

The proposed development includes a total of 1,075 on-site car parking spaces, which represents a surplus of 699 car parking spaces compared to the suggested benchmarks, as set out at Table 7 below.

Table 6: Overall Car Parking Benchmarks

Land Use (User Group)	Benchmark Rate	Size / Number				Benchmark [car spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Community	3 per 100m ² GFA	-	-	3,045m ² GFA	3,045m ² GFA	-	-	91	91
Indoor Recreation	3 per 100m ² GFA	-	605m ² GFA	-	605m ² GFA	-	18	-	18
Non-Retail Commercial	3 per 100m ² GFA	485m ² GFA	-	103m ² GFA	588m ² GFA	15	-	3	18
Office	2 per 100m ² GFA	-	-	11,345m ² GFA	11,345m ² GFA	-	-	227	227
Public Carpark	-	-	640 spaces	-	640 spaces	-	0	-	0
Residential (Residents)	No minimum benchmark	200 units	-	-	200 units	0	-	-	0
Residential (Visitors)			-	-		0	-	-	0
Retail	5 per 100m ² GFA	168m ² GFA	-	277m ² GFA	445m ² GFA	8	-	14	22
Total	-	-	-	-	-	23	18	335	376

Table 7: Overall Car Parking Provision

Land Use (User Group)	Benchmark [car spaces]				Proposed Provision [car spaces]			
	Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Community	-	-	91	91	-	91	0	91
Indoor Recreation	-	18	-	18	-	18	-	18
Non-Retail Commercial	15	-	3	18	0	18	0	18
Office	-	-	227	227	-	84	143	227
Public Carpark	-	0	-	0	-	367	-	367
Residential (Residents)	0	-	-	0	292	-	-	292
Residential (Visitors)	0	-	-	0	0	40	-	40
Retail	8	-	14	22	0	22	0	22
Total	23	18	335	376	292	640	143	1,075

Accessible Car Parking

Accessible Car Parking Requirements

Clause D4D6 of *NCC 2022* specifies the requirements for accessible car parking associated with different building classes. On this basis, the proposed development has a requirement for seven (7) accessible car parking spaces, as set out at Table 8 below.

Accessible Car Parking Benchmark

Specification 26.3a of *Commercial Zones Specifications* identifies one such benchmark for accessible car parking as a minimum of 3% of the overall car parking benchmark, rounded up to the nearest integer. It is noted that this benchmark only applies to public car parks with more than 10 car parking spaces. On this basis, the proposed development has a benchmark for 20 accessible car parking spaces, as set out at Table 9 below.

Proposed Accessible Car Parking Provision

The proposed development includes 26 accessible car parking spaces, which represents a surplus of 19 spaces compared to the accessible car parking requirement and a surplus of six (6) spaces compared to the benchmark for accessible car parking, as set out at Table 10 below.

Table 8: Accessible Car Parking Requirements

Building Class (Land Use)	Requirement Rate	Size / Number				Requirement [accessible car spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Class 2 (Residential)	No minimum requirement	0 units	-	-	0 units	0	-	-	0
		0 spaces	40 spaces	-	40 spaces	0	0	-	0
Class 5 (Non-Retail Commercial & Office)	1 per 100, or part thereof	0 spaces	102 spaces	143 spaces	245 spaces	0	2	2	4
Class 9b (Community & Indoor Recreation)		-	109 spaces	0 spaces	109 spaces	-	2	0	2
Class 6 (Retail)	1 per 50, or part thereof	0 spaces	22 spaces	0 spaces	22 spaces	0	1	0	1
Class 7b (Public Carpark)	No minimum requirement	-	367 spaces	-	367 spaces	-	0	-	0
Total	-	-	-	-	-	0	5	2	7

Table 9: Accessible Car Parking Benchmarks

Land Use	Benchmark Rate	Size / Number				Benchmark [accessible car spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
All Land Uses	3% of spaces in public carpark containing more than 10 spaces	0 public spaces	640 public spaces	0 public spaces	640 public spaces	0	20	0	20

Table 10: Accessible Car Parking Provision

Building Class (Land Use)	Requirement (Benchmark) [accessible car spaces]				Provision [accessible car spaces]			
	Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Class 2 (Residential)	0	-	-	0	6	-	-	6
Class 5 (Non-Retail Commercial & Office)	0	0	-	0	0	20	-	20
Class 9b (Community & Indoor Recreation)	-	2	0	2	-		0	
Class 6 (Retail)	0	1	0	1	0		0	
Class 7b (Public Carpark)	-	0	-	0	-		-	
Total	0 (0)	5 (20)	2 (0)	7 (20)	6	20	0	26

Motorcycle Parking

Motorcycle Parking Benchmark

The note following Table 5 of the *Commercial Zones Specifications* identifies one such benchmark for motorcycle parking as a rate of three (3) motorcycle spaces per 100 car spaces, for carparks comprising at least 30 car spaces. The *Commercial Zones Specifications* is unclear as to whether the motorcycle parking benchmark is to be calculated based on the benchmark for overall car parking or the proposed overall car parking provision. This analysis calculates the motorcycle parking benchmark based on the overall car parking benchmark, noting that the proposed development includes car parking which significantly exceeds the overall car parking benchmark and that dedicated motorcycle parking spaces would be expected to increase the availability of car parking spaces (as motorcycles would not park within car parking spaces). On this basis, the proposed development has a benchmark for 12 motorcycle parking spaces.

Proposed Motorcycle Parking Provision

The proposed development contains no dedicated motorcycle parking spaces. While this provision represents a shortfall of 12 spaces compared to the motorcycle parking benchmark, as set out at Table 12 below, it is considered appropriate noting the significant oversupply of car parking spaces which could be used to accommodate motorcycles.

Service Vehicle Parking

Service Vehicle Parking Benchmark

Specification 26.1b of the *Commercial Zones Specifications* identifies one such benchmark for service vehicle parking as a minimum of one (1) service vehicle parking space be provided in developments with 40 or more dwellings. On this basis, the proposed development, has a benchmark for one (1) service vehicle parking space, as set out at Table 13 below.

Proposed Service Vehicle Parking Provision

The proposed development includes a service vehicle parking space with dimensions suitable to accommodate the HRV design vehicle. This provision satisfies the benchmarks for service vehicle parking, as set out at Table 14 below.

Table 11: Motorcycle Parking Benchmarks

Land Use	Benchmark Rate	Size / Number				Benchmark [motorcycle spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
All Land Uses	3 per 100 spaces in carparks containing 30 or more spaces	23 spaces	18 spaces	335 spaces	376 spaces	1	1	10	12

Table 12: Motorcycle Parking Provision

Land Use	Benchmark [motorcycle spaces]				Provision [motorcycle spaces]			
	Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
All Land Uses	1	1	10	12	0	0	0	0

Table 13: Service Vehicle Parking Benchmarks

Land Use	Benchmark Rate	Size / Number				Benchmark [service vehicle spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Residential	1 for 40 or more units	200 units	-	-	200 units	1	-	-	1
All Other Land Uses	-	-	-	-	-	-	-	-	-
Total	-	200 units	-	-	200 units	1	-	-	1

Table 14: Service Vehicle Parking Provision

Land Use	Benchmark [service vehicle spaces]				Provision [service vehicle spaces]			
	Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Residential	1	-	-	1	1	-	-	1
All Other Land Uses	-	-	-	-	-	-	-	-
Total	1	-	-	1	1	-	-	1

3.3.2 Electric Vehicle Parking

Assessment Outcome 24 of the *Commercial Zones Policy* requires that:

“The development provides electric vehicle parking and access to charging locations in multiunit housing and commercial buildings.”

Electric Car Parking

Electric Car Parking Requirements

Clause J9D4 of *NCC 2022* specifies the requirements for electric car parking associated with different land uses. On this basis, the proposed development has a requirement for 416 electric car parking spaces, as set out at Table 15 below.

It is noted that under the electric car parking requirements of *NCC 2022*, primarily relate to the provision of sufficient electrical capacity and distribution boards.

Electric Car Parking Benchmarks

Specification 24.1 of the *Commercial Zones Specifications* identifies one such set of benchmarks for electric car parking. On this basis, the proposed development has a benchmark for 349 electric car parking spaces, as set out at Table 16 below.

It is noted that under the *Territory Plan 2023*, electric car parking spaces are defined as including sufficient electrical capacity, distribution boards, conduits and cabling from the distribution boards to the spaces, and an electrical outlet at each space.

Proposed Electric Car Parking Provision

Noting that the development plans do not identify individual electric car parking spaces, it is recommended that the proposed development include electric car parking spaces to satisfy the benchmark for 349 electric car parking spaces, as set out at Table 17 below.

Table 15: Electric Car Parking Requirements

Building Class (Land Use)	Requirement Rate	Size / Number				Requirement [electric car spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Class 2 (Residential)	100% of spaces, assumed resident spaces only	292 spaces	-	-	292 spaces	292	-	-	292
		0 spaces	40 spaces	-	40 spaces	-	-	-	0
Class 5 (Non-Retail Commercial & Office)	10% of spaces	0 spaces	102 spaces	143 spaces	245 spaces	0	13	15	28
Class 6 (Retail)		0 spaces	22 spaces	0 spaces	22 spaces				
Class 7b (Public Carpark)	20% of spaces	-	367 spaces	-	367 spaces	-	96	0	96
Class 9b (Community & Indoor Recreation)		-	109 spaces	0 spaces	109 spaces				
Total	-	-	-	-	-	292	109	15	416

Table 16: Electric Car Parking Benchmarks

Land Use	Benchmark Rate	Size / Number				Benchmark [electric car spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Residential	1 per unit	200 units	-	-	200 units	200	-	-	200
		0	40 spaces	-	40 spaces	-	-	-	-
All Other Land Uses	20% of spaces	0	600 spaces	143 spaces	783 spaces	0	120	29	149
Total	-	-	-	-	-	200	120	29	349

Table 17: Electric Car Parking Provision

Building Class (Land Use)	Requirement (Benchmark) [electric car spaces]				Provision [electric car spaces]			
	Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Class 2 (Residential)	292 (200)	- (-)	- (-)	292 (200)	200	-	-	200
	- (-)	- (-)	- (-)	- (-)	-	-	-	-
Class 5 (Non-Retail Commercial & Office)	0 (0)	109 (120)	15 (29)	124 (149)	0	120	29	149
Class 6 (Retail)								
Class 7b (Public Carpark)								
Class 9b (Community & Indoor Recreation)								
Total	292 (200)	109 (120)	15 (29)	416 (349)	200	120	29	349

3.3.3 Bicycle Parking and End-Of-Trip Facilities

Assessment Outcome 25 of the *Commercial Zones Policy* requires that:

“The development includes appropriate end-of-trip facilities in buildings, which includes secure bicycle parking and change rooms (including showers, lockers and drying facilities).”

Bicycle Parking

Bicycle Parking Benchmarks

The second specification 25.1a of the *Commercial Zones Specifications* identifies that the rates presented in Table 4 of that document represent one such set of benchmarks for bicycle parking associated with developments in commercial zones. On this basis, the proposed development has a benchmark for 299 long-stay and 78 short-stay bicycle parking spaces, as set out at Table 18 below.

Proposed Bicycle Parking Provision

The proposed development includes 351 dedicated long-stay and 98 short-stay bicycle parking spaces. This provision represents a surplus of 52 long-stay and 20 short-stay bicycle parking spaces compared to the suggested benchmarks, as set out at Table 19 below.

End-Of-Trip Facilities

End-Of-Trip Facility Benchmarks

Specification 25.3 of the *Commercial Zones Specifications* identifies one set of benchmarks for end-of-trip facilities for developments located in commercial zones. On this basis, the proposed development has benchmarks for seven (7) showers and 128 lockers, as set out at Table 20 below.

Proposed End-Of-Trip Facilities

The proposed development includes seven (7) showers, which satisfies the benchmark for showers. Noting that the development plans do not identify individual lockers, it is recommended that the proposed development include 128 lockers to satisfy the benchmark, as set out at Table 21 below.

Table 18: Bicycle Parking Benchmarks

Land Use	Benchmark Rate	Size / Number				Benchmark [bicycle spaces]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Long-Stay Bicycle Parking									
Community	1 per 1,500m² NLA	-	-	3,045m² GFA	3,045m² GFA	-	-	2	2
Indoor Recreation	1 per 3,000m² NLA	-	605m² GFA	-	605m² GFA	-	0	-	0
Non-Retail Commercial	1 per 200m² NLA	485m² GFA	-	103m² GFA	588m² GFA	2	-	1	3
Office	1 per 200m² NLA	-	-	11,345m² GFA	11,345m² GFA	-	-	57	57
Public Carpark	-	-	640 spaces	-	640 spaces	-	0	-	0
Residential	1 per 1-bed unit	112 units	-	-	112 units	112	-	-	112
	1 per 2-bed unit	53 units			53 units	53	-	-	53
	2 per 3-bed unit	35 units	-	-	35 units	70	-	-	70
Retail	1 per 250m² NLA	168m² GFA	-	277m² GFA	445m² GFA	1	-	1	2
Total	-	-	-	-	-	238	0	61	299
Short-Stay Bicycle Parking									
Community	1 per 150m² NLA	-	-	3,045m² GFA	3,045m² GFA	-	-	20	20
Indoor Recreation	1 per 150m² NLA	-	605m² GFA	-	605m² GFA	-	4	-	4
Non-Retail Commercial	1 per 400m² NLA	485m² GFA	-	103m² GFA	588m² GFA	1	-	0	1
Office	1 per 400m² NLA	-	-	11,345m² GFA	11,345m² GFA	-	-	28	28
Public Carpark	-	-	640 spaces	-	640 spaces	-	0	-	0
Residential	1 per 10 units	200 units	-	-	200 units	20	-	-	20
Retail	1 per 100m² NLA	168m² GFA	-	277m² GFA	445m² GFA	2	-	3	5
Total	-	-	-	-	-	23	4	51	78

Table 19: Bicycle Parking Provision

Land Use	Benchmark [bicycle spaces]				Provision [bicycle spaces]			
	Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Long-Stay Bicycle Parking								
Community	-	-	2	2	-	-	2	2
Indoor Recreation	-	0	-	0	-	0	-	0
Non-Retail Commercial	2	-	1	3	2	-	1	3
Office	-	-	57	57	-	-	88	57
Public Carpark	-	0	-	0	-	0	-	0
Residential	112	-	-	112	256	-	-	259
	53	-	-	53				
	70	-	-	70				
Retail	1	-	1	2	1	-	1	2
Total	238	0	61	299	259	0	92	351
Short-Stay Bicycle Parking								
Community	-	-	20	20	-	98	0	98
Indoor Recreation	-	4	-	4	-		-	
Non-Retail Commercial	1	-	0	1	0		0	
Office	-	-	28	28	-		0	
Public Carpark	-	0	-	0	-		-	
Residential	20	-	-	20	0		-	
Retail	2	-	3	5	0		0	
Total	23	4	51	78	0	98	0	98

Table 20: End-Of-Trip Facility Benchmarks

Land Use	Benchmark Rate	Size / Number				Benchmark [showers / lockers]			
		Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Shower and Change Facilities									
Residential	-	235 spaces	-	-	235 spaces	0	-	-	0
All Other Land Uses	1 for the first 5 spaces, or part thereof, plus 1 for each 10 spaces thereafter	3 spaces	0 spaces	61 spaces	64 spaces	1	0	6	7
Total	-	-	-	-	-	1	0	6	7
Personal Storage Facilities									
Residential	-	235 spaces	-	-	235 spaces	0	-	-	0
All Other Land Uses	2 per space	3 spaces	0 spaces	61 spaces	64 spaces	6	0	122	128
Total	-	-	-	-	-	6	0	122	128

Table 21: End-Of-Trip Facility Provision

Land Use	Benchmark [showers / lockers]				Provision [showers / lockers]			
	Building A	Building B	Building C	Total	Building A	Building B	Building C	Total
Shower and Change Facilities								
Residential	0	-	-	0	0	-	-	0
All Other Land Uses	1	0	6	7	0	4	3	7
Total	1	0	6	7	0	4	3	7
Personal Storage Facilities								
Residential	0	-	-	0	0	-	-	0
All Other Land Uses	6	0	122	128	0	6	122	128
Total	6	0	122	128	0	6	122	128

3.4 Network Changes

The proposed development does not include any changes to the broader road network, beyond the construction of two (2) internal roadways within the subject site.

3.4.1 Proposed North-South Road

The proposed north-south road extends approximately 120m from Bowes Street in the south to Matilda Street in the north and has a single lane cross section of approximately 4m width. The proposed north-south road will accommodate traffic in the northbound direction only.

Vehicle access to Building A is proposed via the proposed north-south road, with basement carpark access and egress for light vehicle located approximately 10m north of Bowes Street, and heavy vehicle access and egress located approximately 65m north of Bowes Street.

3.4.2 Proposed East-West Laneway

The proposed east-west laneway extends approximately 90m from Bowes Street in the west to the proposed north-south laneway in the east. Within approximately 35m of Bowes Street, the proposed east-west laneway has a cross-sectional width of approximately 6.5m, which accommodates a single lane of traffic in each direction. The eastern 55m of the proposed east-west laneway is proposed to have a single lane cross section of approximately 3.5m width which will accommodate traffic in the eastbound direction only.

Vehicle access to Building B basement and Building C is proposed via the proposed east-west laneway, with basement carpark access and egress for light vehicles located approximately 40m east of Bowes Street, and heavy vehicle access and egress located approximately 30m east of Bowes Street. Kerbing is proposed to enforce left-turn only restrictions for vehicles exiting the basements of Buildings B and C to the proposed east-west laneway.

3.4.3 Impacts to On-Street Car Parking

The proposed development includes a total of 16 indented on-street car parking spaces along the frontages of the subject site. These include:

- Three (3) car parking spaces along the northern frontage to Matilda Street,
- Seven (7) car parking spaces along the western frontage to Bowes Street, and
- Six (6) car parking spaces along the southern frontage to Bowes Street.

Noting that the frontages of the subject site accommodated only seven (7) car parking spaces under the existing conditions, the proposed development would result in a net increase in the supply of on-street car parking, by nine (9) spaces.

4 Operational Impact Assessment

4.1 Trip Assessment

4.1.1 Traffic Demands

The following sections set out the anticipated traffic demands associated with the proposed development.

Traffic Generation

The traffic generation rates adopted for the proposed land uses are presented at Table 22 below.

Table 22: Adopted Traffic Generation Rates

Land Use	Traffic Generation Rate	Inbound Split
Weekday Morning Peak Hour		
Community	0.99 vehicle trips / 100m ² GFA ^[A]	90% ^[B]
Indoor Recreation	2.00 vehicle trips / 100m ² GFA ^[C]	20% ^[C]
Non-Retail Commercial	0.99 vehicle trips / 100m ² GFA ^[A]	90% ^[B]
Office	0.99 vehicle trips / 100m ² GFA ^[A]	90% ^[B]
Public Carpark	0.64 vehicle trips / car space ^[D]	62% ^[D]
Residential	0.34 vehicle trips / dwelling ^[E]	30% ^[F]
Retail	3.34 vehicle trips / 100m ² GLFA ^[G]	80% ^[H]
Weekday Evening Peak Hour		
Community	0.96 vehicle trips / 100m ² GFA ^[A]	5% ^[B]
Indoor Recreation	2.60 vehicle trips / 100m ² GFA ^[C]	60% ^[C]
Non-Retail Commercial	0.96 vehicle trips / 100m ² GFA ^[A]	5% ^[B]
Office	0.96 vehicle trips / 100m ² GFA ^[A]	5% ^[B]
Public Carpark	0.71 vehicle trips / car space ^[D]	46% ^[D]
Residential	0.34 vehicle trips / dwelling ^[E]	60% ^[F]
Retail	4.67 vehicle trips / 100m ² GLFA ^[G]	50% ^[H]

Sources:

[A] Published in TfNSW *Guide to Transport Impact Assessment* – Regional office blocks.

[B] Derived from RTA *Trip Generation and Parking Generation Surveys (Office Blocks) – Data Report*.

[C] Estimated / derived from RMS *Trip Generation and Parking Demands Surveys of Gymnasiums: Data and Analysis Report*.

[D] Derived from existing public carpark on subject site.

[E] Published in TCCS *Engineering Advisory Note 14*. Assumes 10% peak hour factor.

[F] Derived from RMS *High Density Residential Trip Generation Surveys: Data Report*.

[G] Published in TfNSW *Guide to Transport Impact Assessment* – Thursday rate for regional shopping centres.

[H] Derived from RTA *Trip Generation and Parking Demand Surveys of Shopping Centre: Data Report*.

As such, the proposed development is expected to generate approximately 443 vehicle trips during the weekday morning peak hour and approximately 469 vehicle trips during the weekday evening peak hour, as set out at Table 23 below.

Table 23: Development Traffic Generation

Land Use	Peak Hour Vehicle Trips (Inbound Outbound)				
	Building A (Residential)	Building B (Commercial Carpark)		Building C (Community & Office)	Total
	Basement	Basement	Podium	Basement	
Weekday Morning Peak Hour					
Community	-	8 (7 1)	22 (22 2)	-	30 (27 3)
Indoor Recreation	-	3 (1 3)	9 (1 7)	-	12 (2 10)
Non-Retail Commercial	-	2 (1 0)	4 (4 1)	-	6 (5 1)
Office	-	14 (13 1)	42 (37 4)	56 (51 6)	112 (101 11)
Public Carpark	-	52 (32 19)	149 (93 57)	-	201 (125 76)
Residential	67 (20 47)	-	-	-	67 (20 47)
Retail	-	4 (3 1)	11 (9 2)	-	15 (12 3)
Total	67 (20 47)	83 (57 25)	237 (164 73)	56 (51 6)	443 (292 151)
Weekday Evening Peak Hour					
Community	-	7 (0 7)	22 (1 21)	-	29 (1 28)
Indoor Recreation	-	4 (3 2)	12 (7 4)	-	16 (10 6)
Non-Retail Commercial	-	2 (0 2)	4 (0 4)	-	6 (0 6)
Office	-	14 (1 13)	40 (1 39)	55 (3 52)	109 (5 104)
Public Carpark	-	57 (26 31)	164 (75 89)	-	221 (101 120)
Residential	67 (40 27)	-	-	-	67 (40 27)
Retail	-	5 (3 3)	16 (8 7)	-	21 (11 10)
Total	67 (40 27)	89 (33 58)	258 (92 164)	55 (3 52)	469 (168 301)

4.2 Road Network Impact Assessment

4.2.1 Traffic Signal Operation

As for the 2030 and 2040 base scenarios, the SIDRA software has been permitted to optimise both the signal phasing and phase timings in the 2030 and 2040 development scenarios, to replicate the SCATS controllers dynamically reacting to real-time traffic demands.

4.2.2 Modelling Results

Table 24 below summarises the performance of the road network under the development scenarios. Detailed intersection performance results are provided at Appendices E-F.

Table 24: Intersection Performance Summary – Development Scenarios

Intersection	2030 Base Scenario		2040 Base Scenario	
	DOS	Delay (LOS)	DOS	Delay (LOS)
Weekday Morning Peak Hour				
Launceston St / Melrose Dr	0.63	37s (C)	0.74	38s (C)
Bowes St / Launceston St	0.50	25s (B)	0.55	25s (B)
Bowes St / Worgan St	0.34	6s (A)	0.37	7s (A)
Bowes St / Matilda St	0.25	9s (A)	0.27	10s (A)
Bowes St / East-West Ln	0.22	6s (A)	0.23	6s (A)
Bldg B Basement / Bldg C / East-West Ln	0.06	3s (A)	0.06	3s (A)
Bldg B Podium / Bowes St	0.16	4s (A)	0.17	4s (A)
Bldg A / North-South Rd	0.05	2s (A)	0.05	2s (A)
East-West Ln / North-South Rd	0.09	4s (A)	0.09	4s (A)
Matilda St / North-South Rd	0.08	5s (A)	0.08	5s (A)
Easty St / Launceston St	0.30	19s (B)	0.35	19s (B)
Launceston St / Wisdom St / Yamba Dr	0.74	41s (C)	1.00	88s (F)

Intersection	2030 Base Scenario		2040 Base Scenario	
	DOS	Delay (LOS)	DOS	Delay (LOS)
Weekday Evening Peak Hour				
Launceston St / Melrose Dr	0.67	38s (C)	0.69	40s (C)
Bowes St / Launceston St	0.64	26s (B)	0.77	27s (B)
Bowes St / Worgan St	0.34	8s (A)	0.40	9s (A)
Bowes St / Matilda St	0.46	12s (A)	0.52	14s (A)
Bowes St / East-West Ln	0.15	5s (A)	0.16	5s (A)
Bldg B Basement / Bldg C / East-West Ln	0.03	3s (A)	0.03	3s (A)
Bldg B Podium / Bowes St	0.12	4s (A)	0.13	4s (A)
Bldg A / North-South Rd	0.11	2s (A)	0.11	2s (A)
East-West Ln / North-South Rd	0.14	4s (A)	0.14	4s (A)
Matilda St / North-South Rd	0.16	5s (A)	0.16	5s (A)
Easty St / Launceston St	0.36	22s (B)	0.41	22s (B)
Launceston St / Wisdom St / Yamba Dr	0.73	38s (C)	0.98	65s (E)

The intersection performance analysis indicates that the analysed intersections have sufficient available capacity to accommodate the anticipated development traffic demands in addition to five (5) years of background growth.

Finally, the analysis indicates that the anticipated development traffic demands would not significantly impact the performance of the road network in the 2040 analysis year. Like the 2040 base scenario, the modelled traffic demands are expected to exceed the practical capacity of the Launceston Street / Wisdom Street / Yamba Drive intersection during both the weekday morning and the weekday evening peak hours. Similarly, average delays experienced at the Launceston Street / Wisdom Street / Yamba Drive intersection are also expected to reach 88s (LOS F) during the weekday morning peak hour.

4.3 Public Transport

Assuming that the proposed development has similar mode shares as the broader Phillip SA2 (Table 3, page 22), the proposed development would generate a total of approximately 39 public transport trips during each of the weekday morning and evening peak hours, as set out at Table 25 below.

Table 25: Development Public Transport Demands

Land Use	Peak Hour Public Transport Trips (Inbound Outbound)			
	Building A (Residential)	Building B (Commercial Carpark)	Building C (Community & Office)	Total
Weekday Morning Peak Hour				
Community	-	-	4 (4 0)	4 (4 0)
Indoor Recreation	-	2 (0 2)	-	2 (0 2)
Non-Retail Commercial	1 (1 0)	-	0 (0 0)	1 (1 0)
Office	-	-	15 (13 2)	15 (13 2)
Public Carpark	-	-	-	-
Residential	15 (5 10)	-	-	15 (5 10)
Retail	1 (1 0)	-	1 (1 0)	2 (2 0)
Total	17 (7 10)	2 (0 2)	20 (18 2)	39 (25 14)
Weekday Evening Peak Hour				
Community	-	-	4 (0 4)	4 (0 4)
Indoor Recreation	-	2 (1 1)	-	2 (1 1)
Non-Retail Commercial	1 (0 1)	-	0 (0 0)	1 (0 1)
Office	-	-	14 (1 13)	14 (1 13)
Public Carpark	-	-	-	-
Residential	15 (9 6)	-	-	15 (9 6)
Retail	1 (0 1)	-	2 (1 1)	3 (1 2)
Total	17 (9 8)	2 (1 1)	20 (2 18)	39 (12 27)

These public transport trips are expected to be accommodated by the existing public transport network.

4.4 Active Travel

4.4.1 Walking Only

Assuming that the proposed development has similar mode shares as the broader Phillip SA2 (Table 3, page 22), the proposed development would generate a total of approximately 30 walking only trips during the weekday morning peak hour and approximately 29 walking only trips during the weekday evening peak hour, as set out at Table 26 below.

Table 26: Development Pedestrian Demands

Land Use	Peak Hour Pedestrian Trips (Inbound Outbound)			
	Building A (Residential)	Building B (Commercial Carpark)	Building C (Community & Office)	Total
Weekday Morning Peak Hour				
Community	-	-	2 (2 0)	2 (2 0)
Indoor Recreation	-	1 (0 1)	-	1 (0 1)
Non-Retail Commercial	0 (0 0)	-	0 (0 0)	0 (0 0)
Office	-	-	8 (7 1)	8 (7 1)
Public Carpark	-	-	-	-
Residential	18 (5 13)	-	-	18 (5 13)
Retail	0 (0 0)	-	1 (1 0)	1 (1 0)
Total	18 (5 13)	1 (0 1)	11 (10 1)	30 (15 15)
Weekday Evening Peak Hour				
Community	-	-	2 (0 2)	2 (0 2)
Indoor Recreation	-	1 (1 0)	-	1 (1 0)
Non-Retail Commercial	0 (0 0)	-	0 (0 0)	0 (0 0)
Office	-	-	7 (0 7)	7 (0 7)
Public Carpark	-	-	-	-
Residential	18 (11 7)	-	-	18 (11 7)
Retail	0 (0 0)	-	1 (1 0)	1 (1 0)
Total	18 (11 7)	1 (1 0)	10 (1 9)	29 (13 16)

These pedestrian trips are expected to be accommodated by the existing active travel network.

4.4.2 Cycling

Assuming that the proposed development has similar mode shares as the broader Phillip SA2 (Table 3, page 22), the proposed development would generate a total of approximately four (4) bicycle trips during each of the weekday morning and evening peak hours, as set out at Table 27 below.

Table 27: Development Cycling Demands

Land Use	Peak Hour Pedestrian Trips (Inbound Outbound)			
	Building A (Residential)	Building B (Commercial Carpark)	Building C (Community & Office)	Total
Weekday Morning Peak Hour				
Community	-	-	1 (1 0)	1 (1 0)
Indoor Recreation	-	0 (0 0)	-	0 (0 0)
Non-Retail Commercial	0 (0 0)	-	0 (0 0)	0 (0 0)
Office	-	-	2 (2 0)	2 (2 0)
Public Carpark	-	-	-	-
Residential	1 (0 1)	-	-	1 (0 1)
Retail	0 (0 0)	-	0 (0 0)	0 (0 0)
Total	1 (0 1)	0 (0 0)	3 (3 0)	4 (3 1)
Weekday Evening Peak Hour				
Community	-	-	1 (0 1)	1 (0 1)
Indoor Recreation	-	0 (0 0)	-	0 (0 0)
Non-Retail Commercial	0 (0 0)	-	0 (0 0)	0 (0 0)
Office	-	-	2 (0 2)	2 (0 2)
Public Carpark	-	-	-	-
Residential	1 (1 0)	-	-	1 (1 0)
Retail	0 (0 0)	-	0 (0 0)	0 (0 0)
Total	1 (1 0)	0 (0 0)	3 (0 3)	4 (1 3)

These bicycle trips are expected to be accommodated by the existing active travel network.

4.5 Parking

Noting that the proposed development includes on-site car parking which significantly exceeds the suggested benchmarks, the proposed development is not expected to adversely impact the car parking conditions in the surrounding area.

5 Site Layout and Design

The following design review has been undertaken with reference to development plans prepared by Metier3, dated 14 August 2025, and received on 27 August 2025.

5.1 Car Parking Layout and Access

5.1.1 Scope and General

Classification of Off-Street Car Parking Facilities

The expected users of the proposed on-site carparks most closely align with the following user classes:

- **Building A:** User class 1A (residential),
- **Building B:** User class 3 (short-term city and town centre parking), and
- **Building C:** User class 1A (employees).

5.1.2 Design of Parking Modules, Circulation Roadways and Ramps

Preliminary Design Considerations

Parking Angle

The proposed carpark within Building A contain only car parking spaces oriented perpendicular (at 90 degrees) to the aisle.

The proposed carpark within Building B contains both car parking spaces oriented perpendicular (at 90 degrees), and parallel to the aisle.

The proposed carpark within Building C contain only car parking spaces oriented perpendicular (at 90 degrees) to the aisle.

Parking Aisle Length

The proposed carpark within Building A contains aisles up to approximately 75m in length, as such, speed humps are not required to manage vehicle speeds. It is noted that the proposed parking aisle provides access to all 292 class 1A parking spaces. As such, there is a risk of congestion due to vehicles manoeuvring into and out of parking spaces.

The proposed carpark within Building B contains aisles up to approximately 60m in length, as such, speed humps are not required to manage vehicle speeds. It is noted that the proposed parking aisles provide access to 164 and 476 class 3 parking spaces, within the basement and podium levels respectively. As such, there is a high risk of congestion due to vehicles manoeuvring into and out of parking spaces, particularly within the podium levels.

The proposed carpark within Building C contains aisles up to approximately 60m in length, as such, speed humps are not required to manage vehicle speeds. It is noted that the proposed parking aisle provides access to 128 of the class 1A parking spaces. As such, there is a risk of congestion due to vehicles manoeuvring into and out of parking spaces.

Assignment of User Class to Parking Modules

The carparks within Buildings A and C meet the definition of private carparks. In any case, all car parking spaces within each carpark align with a single user class, as follows:

- **Building A:** User class 1A,
- **Building B:** User class 3, and
- **Building C:** User class 1A.

Design of Parking Modules

Angle Parking Spaces

All 292 car parking spaces within Building A have dimensions of 2.4m width by 5.4m length, which accord with the minima for user class 1A.

The 638 perpendicular car parking spaces within Building B have dimensions of 2.6m width by 5.4m length, which accord with the minima for user class 3.

141 of the car parking spaces within Building C have dimensions of 2.4m width by 5.4m length, which accord with the minima for user class 1A. The remaining two (2) car parking spaces have dimensions of 2.3m width by 5.0m length, which accord with the minima for small car spaces.

Angle Parking Aisle

Aisle Widths

All car parking spaces within Building A are located perpendicular (at 90-degrees) to aisles of 5.8m width. This aisle width is suitable to accommodate simultaneous two-way vehicle movements on straight alignments and accords with the minimum width of class 1A car parking spaces.

The 638 angle car parking spaces within Building B are located perpendicular (at 90-degrees) to aisles of at least 5.8m width. This aisle width is suitable to accommodate simultaneous two-way vehicle movements on straight alignments and accords with the minimum width of class 3 car parking spaces.

All car parking spaces within Building C are located perpendicular (at 90-degrees) to aisles of at least 5.8m width. This aisle width is suitable to accommodate simultaneous two-way vehicle movements on straight alignments and accords with the minimum width of class 1A car parking spaces.

Blind Aisles

The whole of the carpark within Building A forms a single blind aisle. A blind aisle extension of approximately 2.8m between the last parking space and the wall is proposed at the northern end of Basement 4. As all spaces within this carpark are proposed to be allocated to residents, there is no requirement for turning provision.

The carpark within Building B does not contain any blind aisles.

The carpark within Building C forms a total of six (6) blind aisles. Blind aisle extensions of at least 1.3m between the last parking space and the adjacent wall are proposed at each of the blind aisles. As all spaces within this carpark are proposed to be allocated to office staff, there is no requirement for turning provision.

Parallel Parking in Parking Aisles

The carpark within Building A does not contain any parallel car parking spaces.

Section 7, Phillip

The carpark within Building B contains two (2) parallel car parking spaces, both of which are located opposite angle parking spaces. These parallel parking spaces have dimensions of 2.1m width by 6.3m length and are located adjacent to aisles which have been locally widened to 6.3m.

The carpark within Building C does not contain any parallel car parking spaces.

Physical Controls

The carpark within Building A does not require any physical controls (i.e. barriers, kerbs, wheel stops, etc).

The carpark within Building B requires barriers to contain vehicles at the edges of the podium levels.

The carpark within Building C does not require any physical controls (i.e. barriers, kerbs, wheel stops, etc).

Gradients within Parking Modules

The carparks within all Buildings (A-C) include gradients of up to 1:20 within car parking modules.

Provision for Motorcycles

The proposed on-site carparks do not contain any dedicated motorcycle parking spaces.

Design of Circulation Roadways and RampsLayout Design of Circulation Roadways and Ramps

The proposed carpark within Building A has been designed to accommodate simultaneous two-way traffic (swept paths of one B85 and one B99 design vehicle) around corners and along ramps, due to the lack of intervisibility between opposing vehicles.

The proposed carpark within the basement levels of Building B is proposed to operate with a clockwise circulation to overcome the lack of width at the top and bottom of the ramps to accommodate simultaneous two-way traffic, where there is limited intervisibility. The ramps within the podium levels have been designed to accommodate simultaneous two-way traffic (swept paths of one B85 and one B99 design vehicle), due to the lack of intervisibility along ramps.

The proposed carpark within Building C has been designed to accommodate simultaneous two-way traffic (swept paths of one B85 and one B99 design vehicle) along the ramps and the corners immediately adjacent to the bottom of the ramps, due to the lack of intervisibility around corners and along ramps.

Circulation Roadway and Ramp Grades

The proposed carpark within Building A has a maximum ramp gradient of 1:4 (25%), this aligns with the maximum grade permissible within private carparks. Grade transitions have been designed to allow the B99 design vehicle to pass without scraping or bottoming out.

The proposed carpark within Building B has a maximum ramp gradient of 1:5 (20%), this aligns with the maximum grade permissible within public carparks. Grade transitions have been designed to allow the B99 design vehicle to pass without scraping or bottoming out.

The proposed carpark within Building C has a maximum ramp gradient of 1:5 (20%), this is less than the maximum grade permissible within private carparks. Grade transitions have been designed to allow the B99 design vehicle to pass without scraping or bottoming out.

Design of Domestic Driveways

The proposed development does not contain any domestic driveways.

5.1.3 Access Facilities to Off-Street Parking Areas and Queuing Areas

General

Categories of Access Facilities

The proposed carpark within Building A aligns with access facility category 2 (292 class 1A parking spaces and local frontage road).

The proposed carpark within the basement levels of Building B aligns with access facility category 3 (164 class 3 parking spaces and local frontage road).

The proposed carpark within the podium levels of Building B aligns with access facility category 4 (476 class 3 parking spaces and local frontage road).

The proposed carpark within Building C aligns with access facility category 2 (143 class 1A parking spaces and local frontage road).

Access Driveways – Widths and Location

Access Driveway Widths

All access driveways within the proposed development have been assessed as part of the intersection performance analysis, under the development scenarios.

Access Driveway Location

None of the proposed access driveways are located in the “prohibited locations of access driveways” as defined in AS2890.1. It is noted that exit movement from the basement levels of Building B and Building C are proposed to be restricted to left turns only to reduce conflicts.

Sight Distance at Access Driveway Exits

The pedestrian sight triangle shown at the exit to the proposed Building A carpark, implies that vehicles will be positioned partly across the pedestrian space. It is therefore recommended that (low-level) landscaping be installed to guide pedestrians away from the pedestrian sight triangle.

A pedestrian sight triangle is not required at the exit to the basement levels of the proposed Building B carpark, as there is no verge on the south side of the East-West Laneway in this location.

The plans show that the pedestrians sight triangle at the exit to the podium levels of the proposed Building B carpark would be clear to obstructions to visibility.

The plans show a non-standard sight triangle at the exit to the proposed Building C carpark. This sight triangle, while providing a level of intervisibility to approaching pedestrians, does not meet the standard specified in Figure 3.3 of AS2890.1. It is therefore recommended that further modifications to the structure and/or the vehicle exit be sought as the proposal progresses,

noting that conflicts between vehicles and pedestrians in this situation could be mitigated through signage and warning systems.

Gradients of Access Driveways

The access driveway to the proposed carpark within Building A includes a 6m length with a gradient of 1:20 (5%), located directly adjacent to the building frontage.

The access driveway to the proposed carpark within the basement levels of Building B includes an approximately 8m length with a horizontal gradient, located directly adjacent to the building frontage. It is recommended that the exit boomgate be relocated to the north to allow an exiting vehicle to stop on this horizontal grade.

The access driveway to the proposed carpark within the podium levels of Building B includes an approximately 8m length with a horizontal gradient, located directly adjacent to the building frontage. It is noted that the geometry of the access driveway will likely preclude the installation of a payment terminal which is accessible to the driver of an exiting vehicle. As such, patrons will need to make payment prior to entering their vehicle to leave the carpark.

The access driveway to the proposed carpark within Building C includes a 6m length with a gradient of 1:20 (5%), located directly adjacent to the building frontage. It is recommended that the exit boomgate be relocated to the south to allow an exiting vehicle to stop on this 1:20 grade.

Queuing Areas

First principles queuing analysis with consideration for the estimated arrival and service rates at each access driveway, as set out at Table 28 below.

Table 28: First Principles Queuing Analysis

Metric	Value
Building A	
Arrival Rate	40 vehicle movements per hour
Access Control	Card Reader
Service Channels	1 lane
Service Rate	400 vehicle movements per hour
Utilisation	0.10
Queue Length (95 th -98 th percentile)	1 vehicle, equivalent to 6m
Building B Basement	
Arrival Rate	57 vehicle movements per hour
Access Control	Numberplate Recognition (Free-Flow)
Service Channels	1 lane
Service Rate	600 vehicle movements per hour
Utilisation	0.10
Queue Length (95 th -98 th percentile)	1 vehicle, equivalent to 6m
Building B Podium	
Arrival Rate	164 vehicle movements per hour
Access Control	Numberplate Recognition (Free-Flow)
Service Channels	1 lane
Service Rate	600 vehicle movements per hour
Utilisation	0.27
Queue Length (95 th -98 th percentile)	2-3 vehicles, equivalent to 12-18m

Metric	Value
Building C	
Arrival Rate	51 vehicle movements per hour
Access Control	Car Reader
Service Channels	1 lane
Service Rate	400 vehicle movements per hour
Utilisation	0.13
Queue Length (95 th -98 th percentile)	1 vehicle, equivalent to 6m

Access to Mechanical Parking Installations

The proposed development does not include any mechanical parking installations (i.e. car stackers).

5.1.4 Additional Requirements for Car Parking Structures

Column Location and Spacing

All vertical obstructions (columns and walls) are located outside the manoeuvring and door opening clearances around each parking space.

Headroom

The proposed carpark within Building A has a floor-to-floor height of at least 2.8m. This is sufficient to accommodate up to 0.3m of overhead structure and services above the accessible car parking spaces and up to 0.6m of overhead structure and services elsewhere within the carpark.

The proposed carpark within the basement levels of Building B has a floor-to-floor height of at least 2.8m. This is sufficient to accommodate up to 0.3m of overhead structure and services above the accessible car parking spaces and up to 0.6m of overhead structure and services elsewhere within the carpark.

The proposed carpark within the podium levels of Building B has a floor-to-floor height of at least 3.2m. This is sufficient to accommodate up to 0.7m of overhead structure and services above the accessible car parking spaces and up to 1.0m of overhead structure and services elsewhere within the carpark.

The proposed carpark within Building C has a floor-to-floor height of at least 2.8m. This is sufficient to accommodate up to 0.3m of overhead structure and services above the accessible car parking spaces and up to 0.6m of overhead structure and services elsewhere within the carpark.

Design of Enclosed Garages

The proposed development does not include any enclosed garages.

6 Conclusion and Recommendations

Quantum Traffic have been engaged by Hellenic Property Investments 2 Pty Ltd to undertake a Traffic Impact Assessment (TIA) in relation to the proposed Woden Village development at Section 7, Phillip. This TIA has been undertaken with reference to the *Guidelines for Transport Impact Assessment (2016)*.

6.1 Proposal

The proposal is to demolish the existing public carpark and temporary Woden Interchange on the subject site in order to accommodate Woden Village, a mixed-use development comprising the following land uses:

- 3,045m² GFA of community land use,
- 605m² GFA of indoor recreation,
- 588m² GFA of non-retail commercial,
- 11,345m² GFA of office,
- 200 residential dwellings, comprising:
 - 112 apartments with one (1) bedroom,
 - 53 apartments with two (2) bedrooms, and
 - 35 apartments with three (3) bedrooms.
- 445m² GFA of retail, and
- 1,075 on-site car parking spaces, comprising:
 - 640 commercial car parking spaces, and
 - 435 private car parking spaces.

Vehicle access is proposed via two (2) new internal roadways within the subject site:

- North-South Road which extends from Bowes Street in the south to Matilda Street in the north and accommodates a single lane of northbound traffic, and
- East-West Laneway which extends from Bowes Street in the west to North-South Road in the east and accommodates a single lane of traffic in each direction for the western 35m, and a single lane of eastbound traffic for the remaining 55m.

6.2 Key Findings

This analysis found that the proposed development:

- Significantly exceeds the suggested benchmark for overall car parking,
- Exceeds both the requirement and suggested benchmark for accessible car parking,
- Has an acceptable shortfall of dedicated motorcycle parking, compared to the suggested benchmark, as motorcycles can be parked within standard car parking spaces,
- Accords with the suggested benchmark for service vehicle parking,
- Has a suggested benchmark for 349 electric car parking spaces,
- Exceeds the suggested benchmarks for long-stay and short-stay bicycle parking,
- Accords with the suggested benchmark for shower and change facilities and has a suggested benchmark for 128 lockers, and
- Is not expected to significantly impact the performance of the road network in the 2030 or 2040 analysis years.

6.3 Recommendations

It is recommended that the proposed development:

- Include 349 electric car parking spaces, in order to accord with the relevant suggested benchmark,
- Include 128 lockers, in order to accord with the relevant suggested benchmark,
- Include low level landscaping to guide pedestrians away from the pedestrian sight triangle at the access driveway for Building A,
- Incorporate changes to the structure and/or vehicle exit at the access driveway for Building C to improve intervisibility between drivers of exiting vehicles and pedestrians on the north side of the East-West Laneway, and
- Incorporate relocated boomgates at the exits for the basements of Buildings B and C, such that vehicles can stop on a (relatively) horizontal grade.

6.4 Conclusion

On the basis of the above, there are no traffic engineering or transport planning reasons why the proposed development should not be approved, subject to appropriate conditions.

Appendix A:

Intersection Performance Results – 2025 Existing Conditions

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2025 ExCond - AM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 103 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

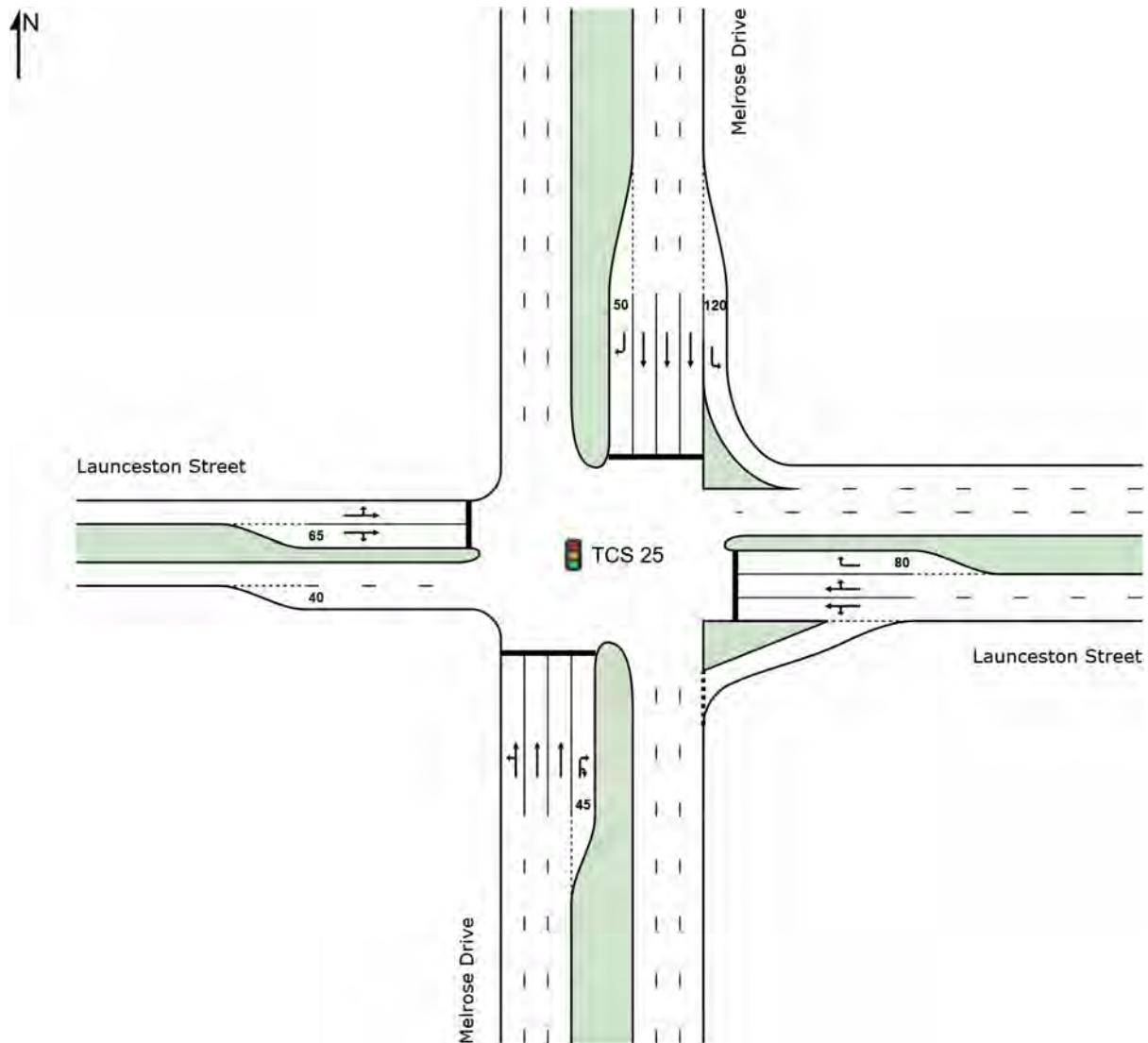
Phase Sequence: SCATS

Reference Phase: Phase A

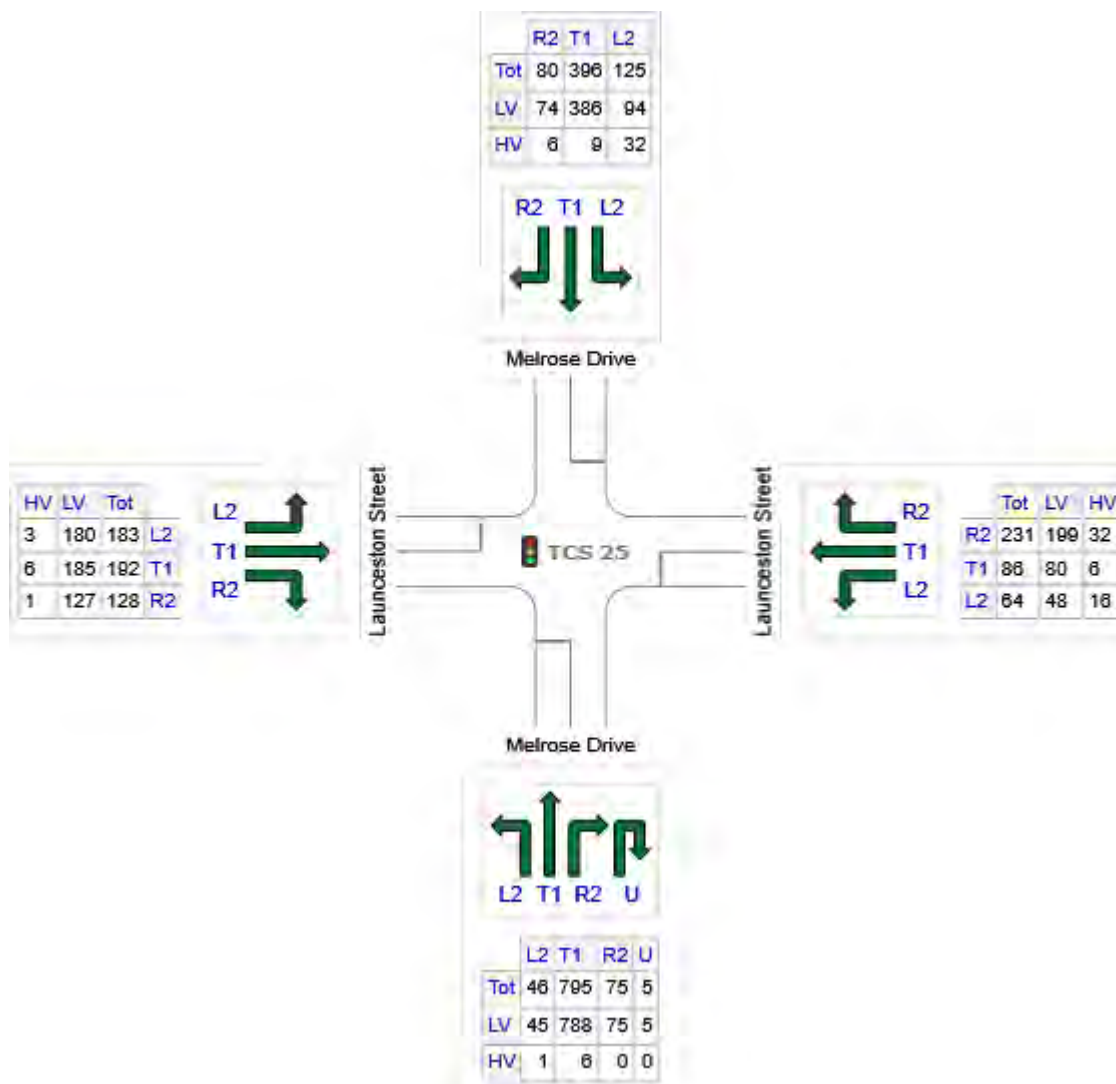
Input Phase Sequence: A, D, E, F

Output Phase Sequence: A, D, E, F

Site Layout



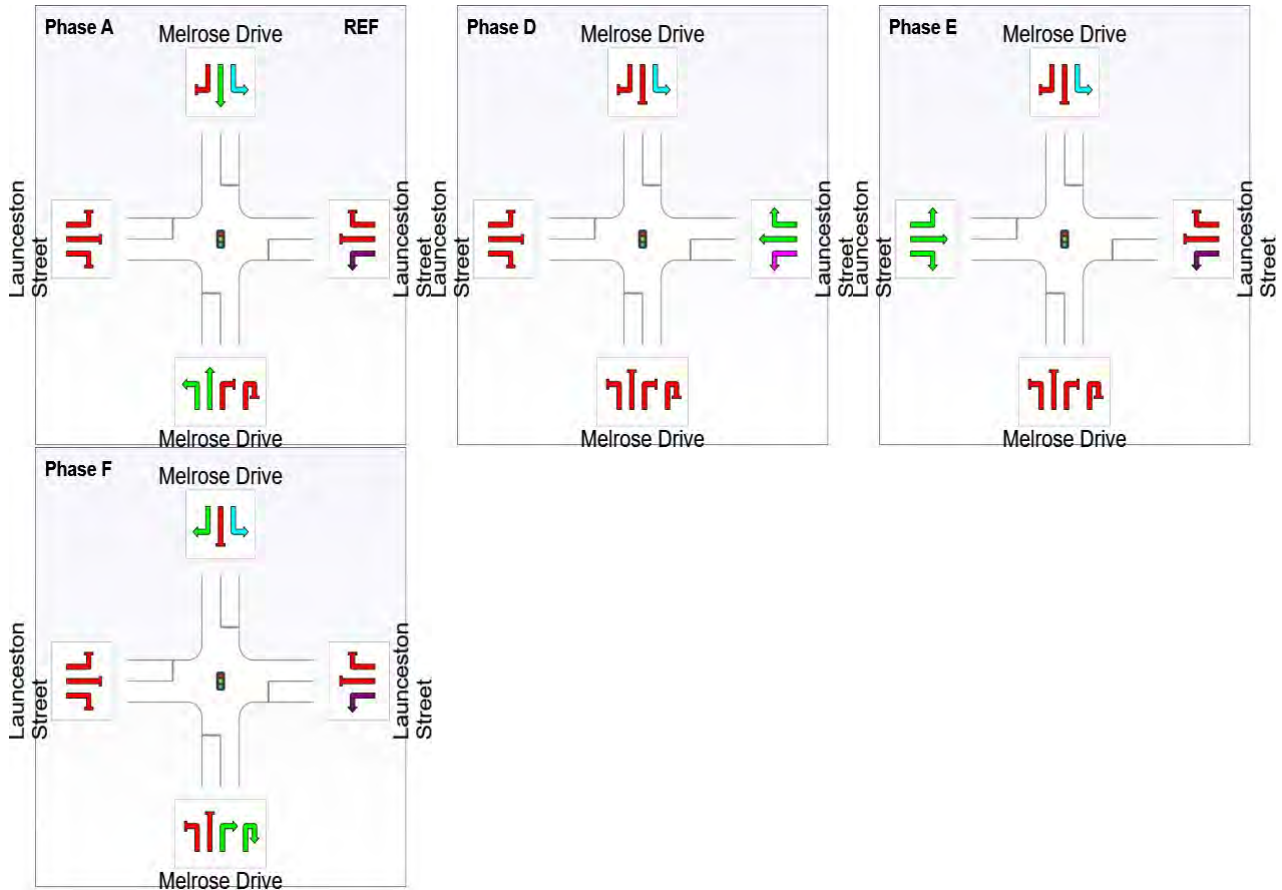
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	921	914	7
E: Launceston Street	381	327	54
N: Melrose Drive	601	554	47
W: Launceston Street	503	493	11
Total	2406	2287	119

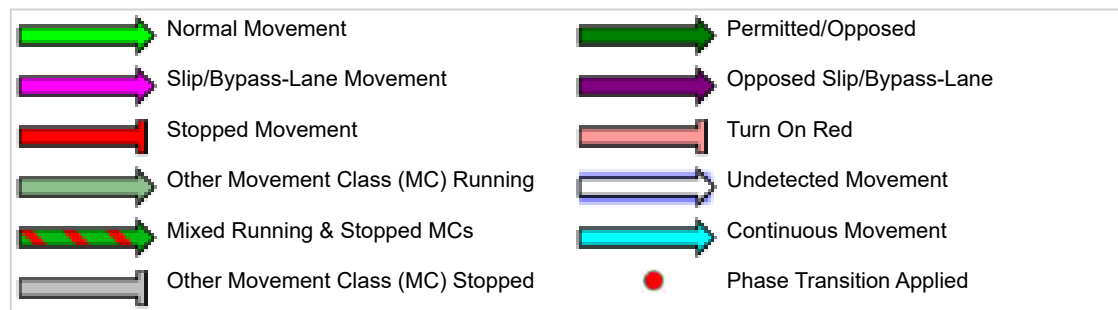
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	28	56	87
Green Time (sec)	22	22	25	10
Phase Time (sec)	28	28	31	16
Phase Split	27%	27%	30%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	46	2.3	0.693	47.1	LOS D	13.6	96.0	0.98	0.85	1.01	18.2
2	T1	795	0.8	0.693	41.4	LOS C	13.7	96.7	0.98	0.84	1.00	30.1
3	R2	75	0.0	0.453	55.2	LOS D	4.0	27.9	0.99	0.77	0.99	13.8
3u	U	5	0.0	0.453	56.6	LOS E	4.0	27.9	0.99	0.77	0.99	18.7
Approach		921	0.8	0.693	42.9	LOS D	13.7	96.7	0.98	0.83	1.00	28.2
East: Launceston Street												
4	L2	64	24.6	0.132	13.2	LOS A	1.6	13.0	0.55	0.63	0.55	33.4
5	T1	86	7.3	0.389	28.4	LOS B	6.4	49.0	0.78	0.72	0.78	17.0
6	R2	231	13.7	0.389	43.6	LOS D	6.4	49.0	0.90	0.78	0.90	26.6
Approach		381	14.1	0.389	35.0	LOS C	6.4	49.0	0.81	0.74	0.81	25.7
North: Melrose Drive												
7	L2	125	25.2	0.080	5.9	LOS A	0.0	0.0	0.00	0.51	0.00	48.8
8	T1	396	2.4	0.322	37.3	LOS C	5.7	40.5	0.89	0.72	0.89	31.8
9	R2	80	7.9	0.469	55.5	LOS D	4.0	29.9	0.99	0.77	0.99	22.8
Approach		601	7.9	0.469	33.1	LOS C	5.7	40.5	0.72	0.68	0.72	32.4
West: Launceston Street												
10	L2	183	1.7	0.556	41.8	LOS C	11.2	79.5	0.93	0.81	0.93	26.7
11	T1	192	3.3	0.556	37.2	LOS C	11.3	80.4	0.93	0.80	0.93	14.3
12	R2	128	0.8	0.556	41.8	LOS C	11.3	80.4	0.93	0.80	0.93	19.0
Approach		503	2.1	0.556	40.1	LOS C	11.3	80.4	0.93	0.80	0.93	21.0
All Vehicles		2406	4.9	0.693	38.6	LOS C	13.7	96.7	0.88	0.78	0.89	27.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	284	1.0	410	0.693	100	42.5	LOS C	13.6	96.0	Full	205	0.0	0.0
Lane 2	287	0.8	414	0.693	100	41.5	LOS C	13.7	96.7	Full	205	0.0	0.0
Lane 3	269	0.8	389 ¹	0.693	100	41.2	LOS C	12.8	89.9	Full	205	0.0	0.0
Lane 4	80	0.0	176	0.453	100	55.3	LOS D	4.0	27.9	Short	45	0.0	NA
Approach	921	0.8		0.693		42.9	LOS D	13.7	96.7				
East: Launceston Street													
Lane 1	95	19.0	721	0.132	34 ⁶	11.8	LOS A	1.6	13.0	Full	90	0.0	0.0
Lane 2	145	11.3	374	0.389	100	41.9	LOS C	6.4	49.0	Full	90	0.0	0.0
Lane 3	140	13.7	361	0.389	100	43.6	LOS D	6.2	48.3	Short	80	0.0	NA
Approach	381	14.1		0.389		35.0	LOS C	6.4	49.0				
North: Melrose Drive													
Lane 1	125	25.2	1574	0.080	100	5.9	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	132	2.4	410	0.322	100	37.3	LOS C	5.7	40.5	Full	470	0.0	0.0
Lane 3	132	2.4	410	0.322	100	37.3	LOS C	5.7	40.5	Full	470	0.0	0.0
Lane 4	132	2.4	410	0.322	100	37.3	LOS C	5.7	40.5	Full	470	0.0	0.0
Lane 5	80	7.9	171	0.469	100	55.5	LOS D	4.0	29.9	Short	50	0.0	NA
Approach	601	7.9		0.469		33.1	LOS C	5.7	40.5				
West: Launceston Street													
Lane 1	250	2.1	450	0.556	100	40.6	LOS C	11.2	79.5	Full	95	0.0	0.0
Lane 2	253	2.0	456	0.556	100	39.5	LOS C	11.3	80.4	Short	65	0.0	NA
Approach	503	2.1		0.556		40.1	LOS C	11.3	80.4				
Intersection	2406	4.9		0.693		38.6	LOS C	13.7	96.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: TCS 340 [2025 ExCond - AM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 78 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

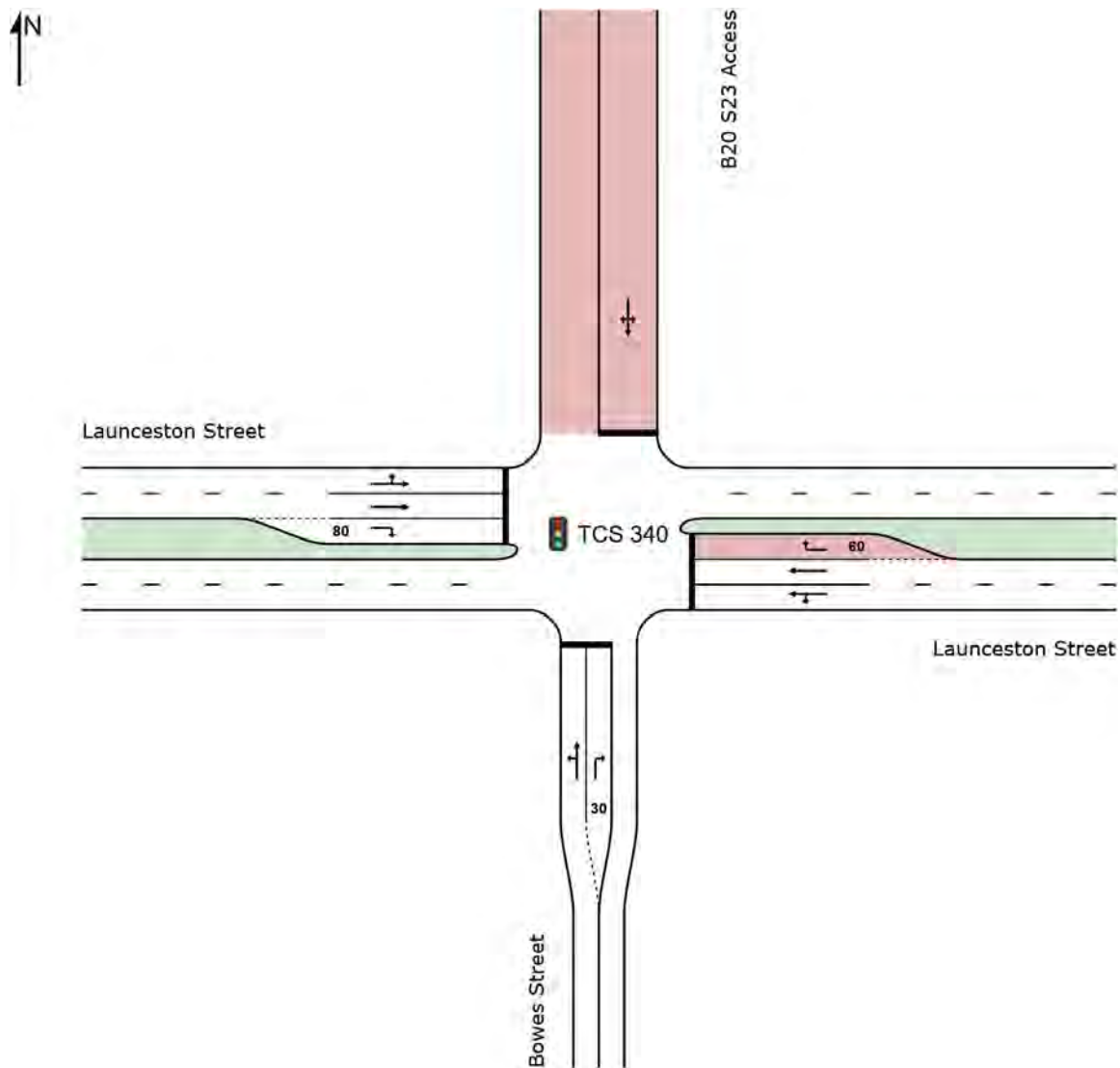
Phase Sequence: SCATS

Reference Phase: Phase A

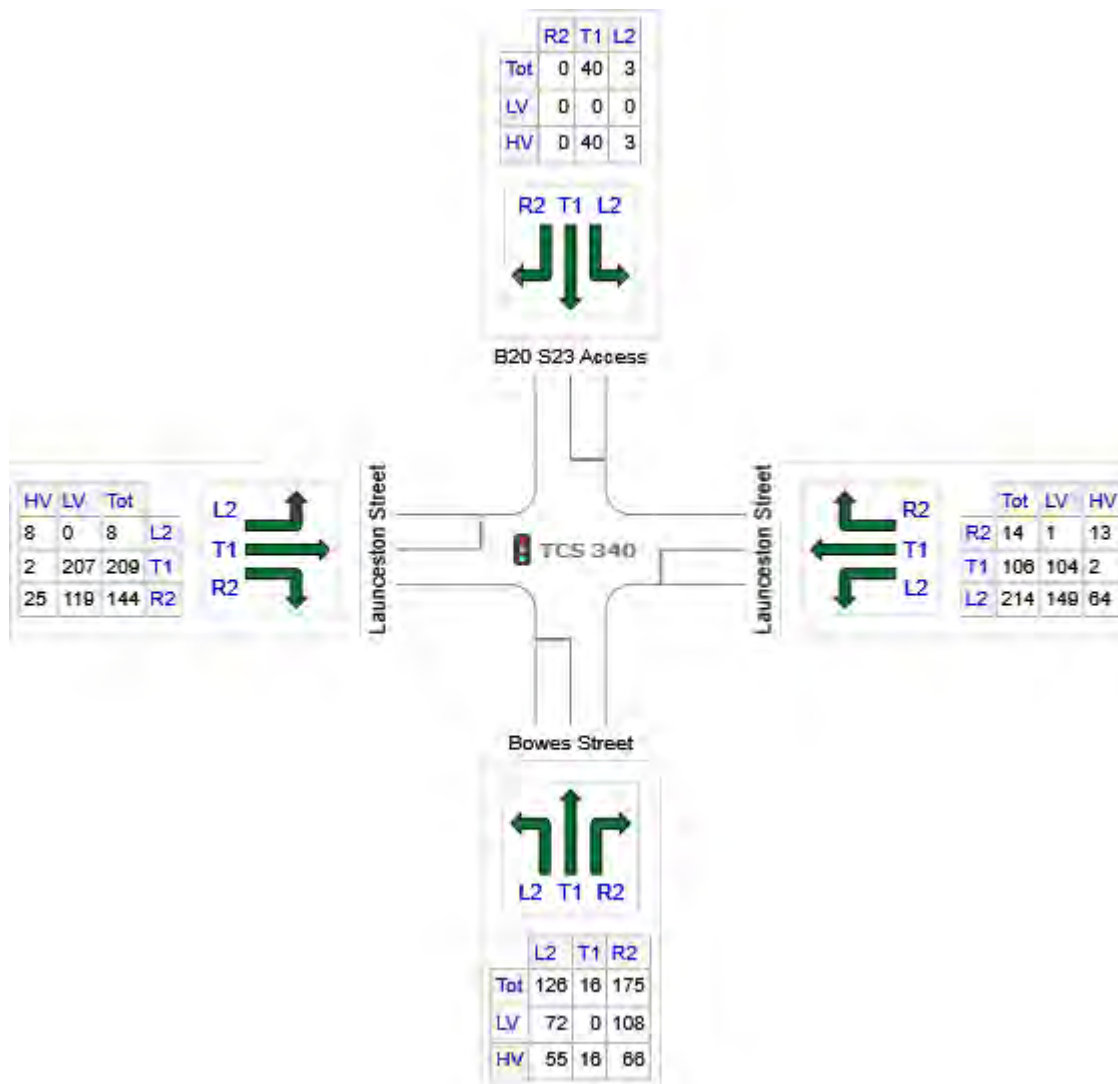
Input Phase Sequence: A, D, E, G

Output Phase Sequence: A, D, E, G

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	317	180	137
E: Launceston Street	334	255	79
N: B20 S23 Access	43	0	43
W: Launceston Street	362	326	36
Total	1056	761	295

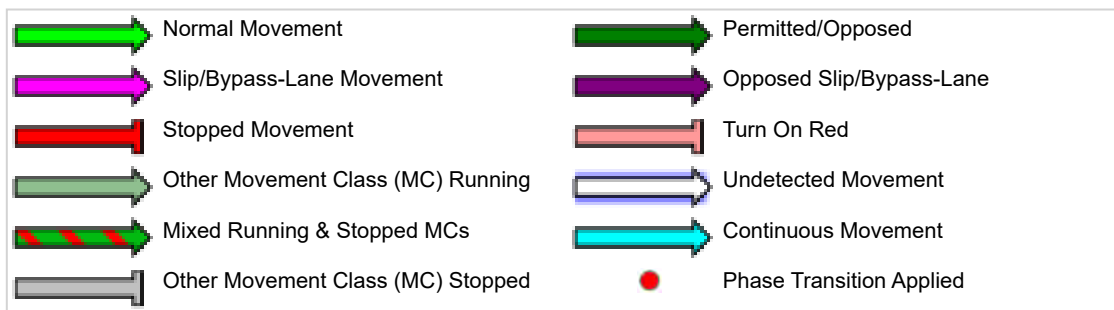
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	G
Phase Change Time (sec)	0	27	55	67
Green Time (sec)	22	22	6	6
Phase Time (sec)	28	28	11	11
Phase Split	36%	36%	14%	14%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	126	43.3	0.288	14.3	LOS A	2.6	26.2	0.75	0.73	0.75	20.0
2	T1	16	100.0	0.288	14.8	LOS B	2.6	26.2	0.75	0.73	0.75	12.5
3	R2	175	38.0	0.424	28.5	LOS C	5.6	51.8	0.86	0.78	0.86	12.6
Approach		317	43.2	0.424	22.2	LOS B	5.6	51.8	0.81	0.76	0.81	15.0
East: Launceston Street												
4	L2	214	30.0	0.218	11.8	LOS A	3.4	29.7	0.44	0.69	0.44	22.9
5	T1	106	2.0	0.196	23.1	LOS B	3.1	22.1	0.80	0.63	0.80	21.7
6	R2	14	92.3	0.159	46.2	LOS D	0.5	6.7	0.96	0.69	0.96	8.9
Approach		334	23.7	0.218	16.8	LOS B	3.4	29.7	0.58	0.67	0.58	21.3
North: B20 S23 Access												
7	L2	3	100.0	0.440	41.1	LOS C	1.7	22.7	0.99	0.74	0.99	8.7
8	T1	40	100.0	0.440	41.1	LOS C	1.7	22.7	0.99	0.74	0.99	5.6
9	R2	0	100.0	0.440	41.1	LOS C	1.7	22.7	0.99	0.74	0.99	9.2
Approach		43	100.0	0.440	41.1	LOS C	1.7	22.7	0.99	0.74	0.99	5.8
West: Launceston Street												
10	L2	8	100.0	0.180	28.8	LOS C	3.1	23.1	0.79	0.65	0.79	15.2
11	T1	209	1.0	0.180	22.9	LOS B	3.2	22.9	0.79	0.64	0.79	21.7
12	R2	144	17.5	0.996	79.3	LOS F	8.2	66.4	1.00	1.23	2.12	6.2
Approach		362	9.9	0.996	45.6	LOS D	8.2	66.4	0.88	0.87	1.32	11.9
All Vehicles		1056	27.9	0.996	29.3	LOS C	8.2	66.4	0.77	0.77	0.92	14.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	142	49.6	494	0.288	100	14.4	LOS A	2.6	26.2	Full	35	0.0	40.9 ⁸
Lane 2	175	38.0	412	0.424	100	28.5	LOS C	5.6	51.8	Short	30	0.0	NA
Approach	317	43.2		0.424		22.2	LOS B	5.6	51.8				
East: Launceston Street													
Lane 1	214	30.0	980	0.218	100	11.8	LOS A	3.4	29.7	Full	95	0.0	0.0
Lane 2	106	2.0	543	0.196	90 ⁵	23.1	LOS B	3.1	22.1	Full	95	0.0	0.0
Lane 3	14	92.3	86	0.159	100	46.2	LOS D	0.5	6.7	Short	60	0.0	NA
Approach	334	23.7		0.218		16.8	LOS B	3.4	29.7				
North: B20 S23 Access													
Lane 1	43	100.0	98	0.440	100	41.1	LOS C	1.7	22.7	Full	30	0.0	0.0
Approach	43	100.0		0.440		41.1	LOS C	1.7	22.7				
West: Launceston Street													
Lane 1	106	8.9	586	0.180	100	23.8	LOS B	3.1	23.1	Full	105	0.0	0.0
Lane 2	112	1.0	623	0.180	100	22.9	LOS B	3.2	22.9	Full	105	0.0	0.0
Lane 3	144	17.5	145	0.996	100	79.3	LOS F	8.2	66.4	Short	80	0.0	NA
Approach	362	9.9		0.996		45.6	LOS D	8.2	66.4				
Intersection	1056	27.9		0.996		29.3	LOS C	8.2	66.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▼ Site: [2025 ExCond - AM: BS-WS]

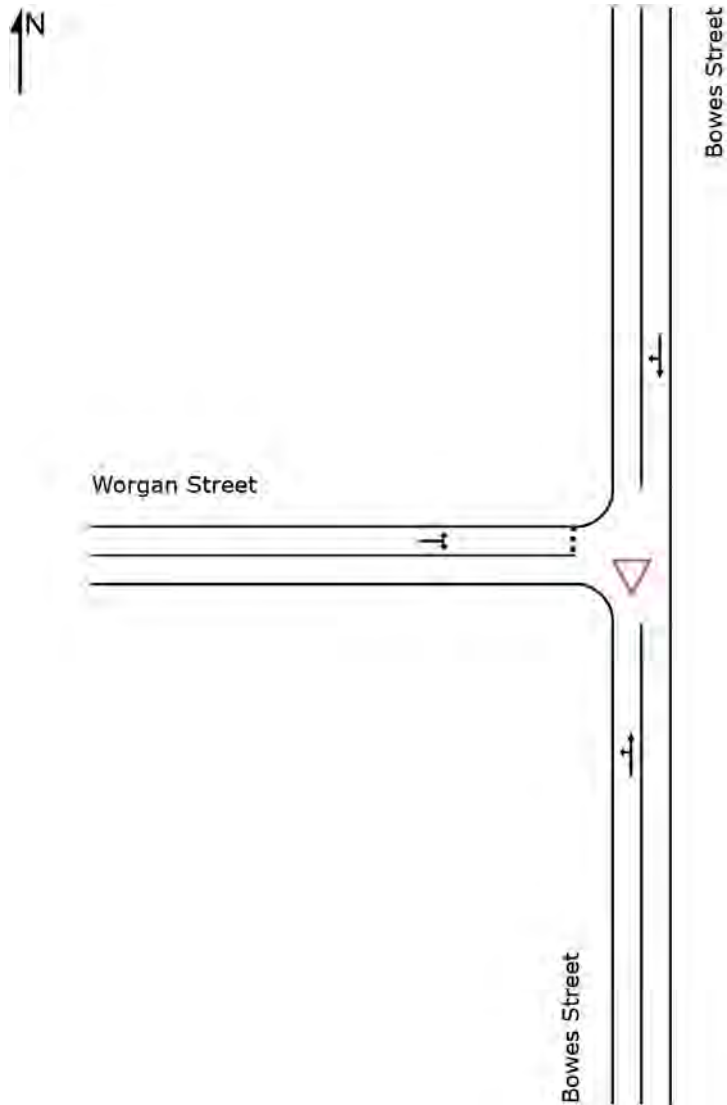
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

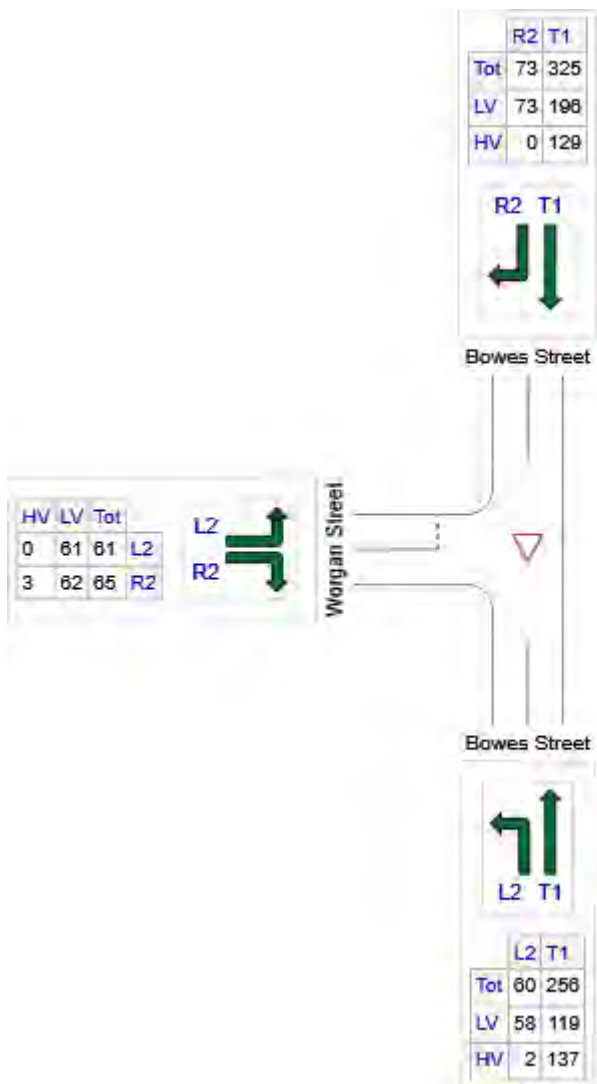
Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	316	177	139
N: Bowes Street	398	268	129
W: Worgan Street	126	123	3
Total	840	568	272

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	60	3.5	0.210	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	32.9
2	T1	256	53.5	0.210	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	44.0
Approach		316	44.0	0.210	0.9	NA	0.0	0.0	0.00	0.10	0.00	41.3
North: Bowes Street												
8	T1	325	39.8	0.262	0.5	LOS A	0.6	5.2	0.16	0.12	0.16	43.6
9	R2	73	0.0	0.262	5.0	LOS A	0.6	5.2	0.16	0.12	0.16	17.1
Approach		398	32.5	0.262	1.3	NA	0.6	5.2	0.16	0.12	0.16	37.4
West: Worgan Street												
10	L2	61	0.0	0.162	4.4	LOS A	0.6	4.2	0.48	0.68	0.48	18.6
12	R2	65	4.8	0.162	7.7	LOS A	0.6	4.2	0.48	0.68	0.48	29.2
Approach		126	2.5	0.162	6.1	LOS A	0.6	4.2	0.48	0.68	0.48	24.5
All Vehicles		840	32.3	0.262	1.9	NA	0.6	5.2	0.15	0.20	0.15	36.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	316	44.0	1504	0.210	100	0.9	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	316	44.0		0.210		0.9	NA	0.0	0.0				
North: Bowes Street													
Lane 1	398	32.5	1517	0.262	100	1.3	LOS A	0.6	5.2	Full	35	0.0	0.0
Approach	398	32.5		0.262		1.3	NA	0.6	5.2				
West: Worgan Street													
Lane 1	126	2.5	779	0.162	100	6.1	LOS A	0.6	4.2	Full	35	0.0	0.0
Approach	126	2.5		0.162		6.1	LOS A	0.6	4.2				
Intersection	840	32.3		0.262		1.9	NA	0.6	5.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2025 ExCond - AM: AS-BS-MS]

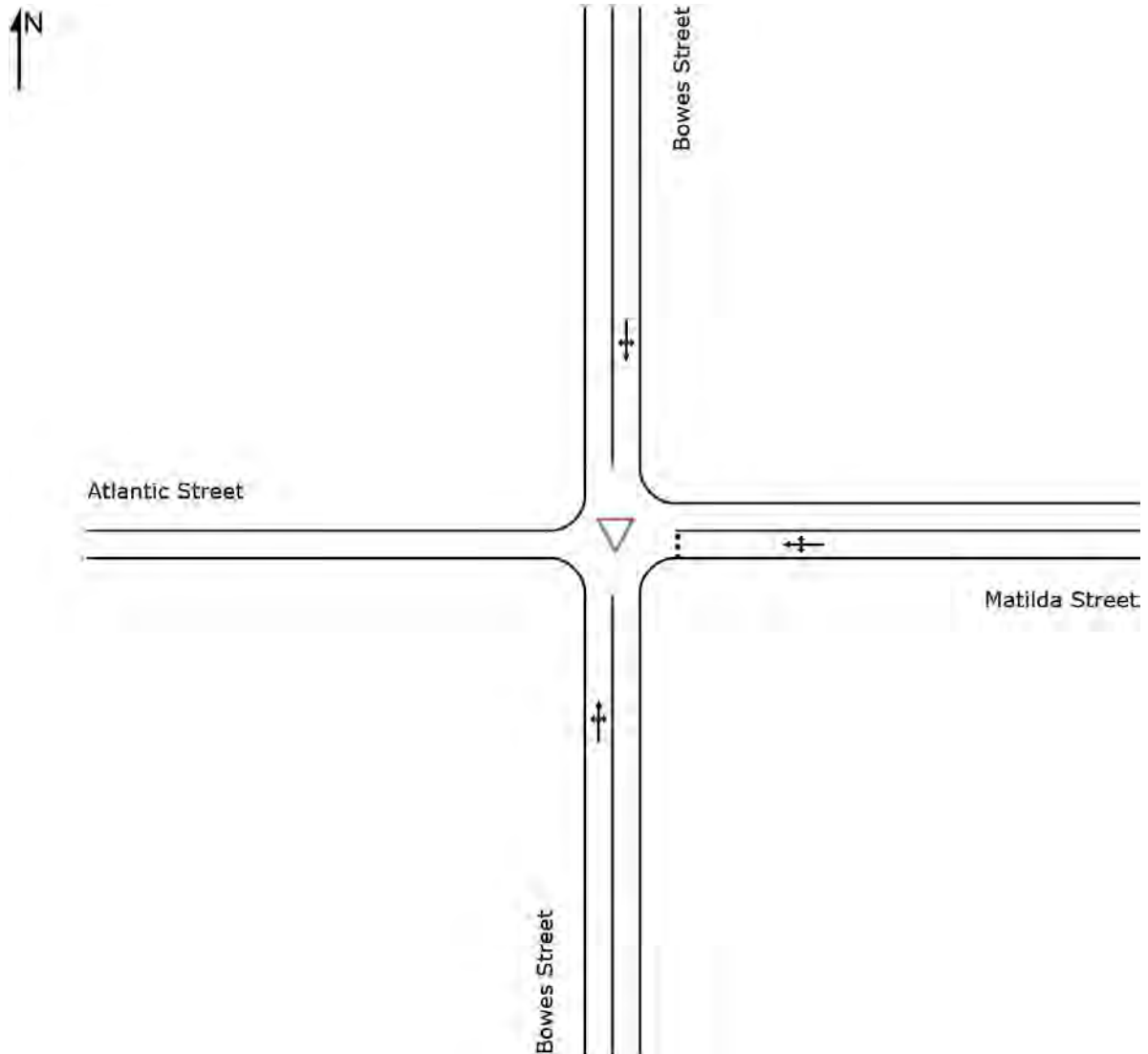
Atlantic Street / Bowes Street / Matilda Street

Existing Priority-Controlled (Give-Way) T-Intersection

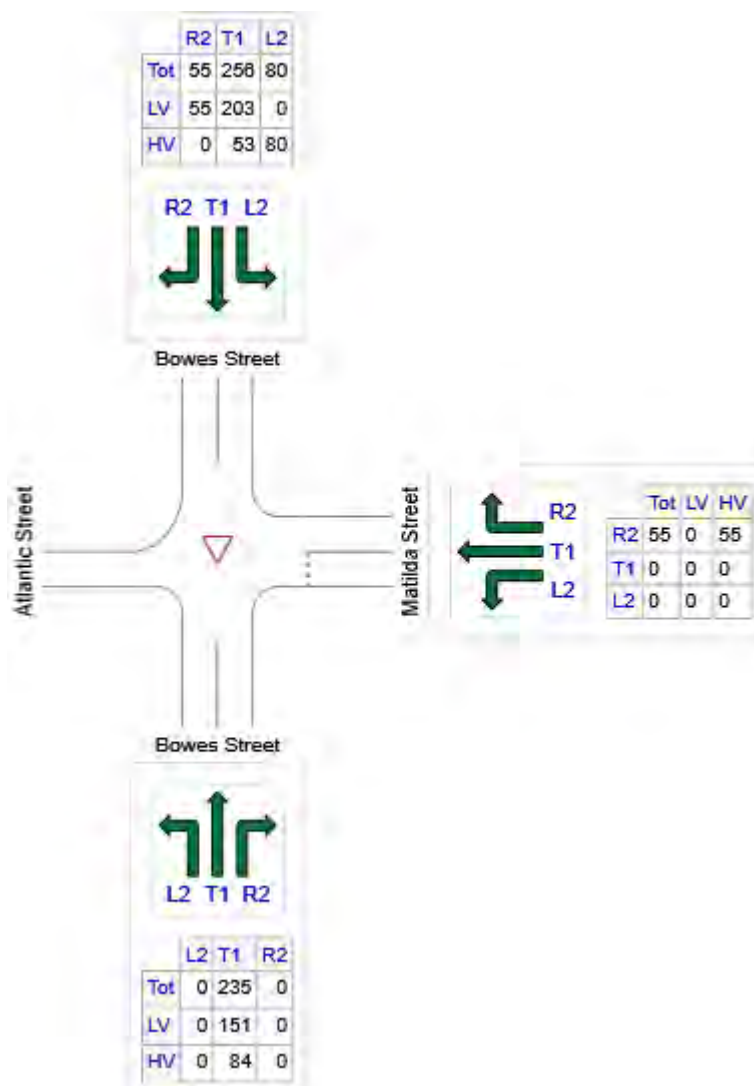
Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	235	151	84
E: Matilda Street	55	0	55
N: Bowes Street	391	258	133
Total	681	409	272

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.149	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	235	35.9	0.149	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.149	5.3	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		235	35.8	0.149	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	0	0.0	0.247	6.5	LOS A	0.9	11.1	0.76	0.86	0.85	15.7
5	T1	0	0.0	0.247	8.8	LOS A	0.9	11.1	0.76	0.86	0.85	16.1
6	R2	55	99.8	0.247	20.6	LOS B	0.9	11.1	0.76	0.86	0.85	17.4
Approach		55	99.4	0.247	20.6	LOS B	0.9	11.1	0.76	0.86	0.85	17.4
North: Bowes Street												
7	L2	80	99.9	0.256	5.9	LOS A	0.6	5.1	0.17	0.18	0.17	35.7
8	T1	256	20.6	0.256	0.3	LOS A	0.6	5.1	0.17	0.18	0.17	43.8
9	R2	55	0.0	0.256	6.0	LOS A	0.6	5.1	0.17	0.18	0.17	28.1
Approach		391	34.0	0.256	2.2	NA	0.6	5.1	0.17	0.18	0.17	37.8
All Vehicles		681	39.9	0.256	3.0	NA	0.9	11.1	0.16	0.17	0.16	36.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	235	35.8	1581	0.149	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	235	35.8		0.149		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	55	99.4	223	0.247	100	20.6	LOS B	0.9	11.1	Full	80	0.0	0.0
Approach	55	99.4		0.247		20.6	LOS B	0.9	11.1				
North: Bowes Street													
Lane 1	391	34.0	1526	0.256	100	2.2	LOS A	0.6	5.1	Full	110	0.0	0.0
Approach	391	34.0		0.256		2.2	NA	0.6	5.1				
Intersection	681	39.9		0.256		3.0	NA	0.9	11.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2025 ExCond - AM: BS-S7]

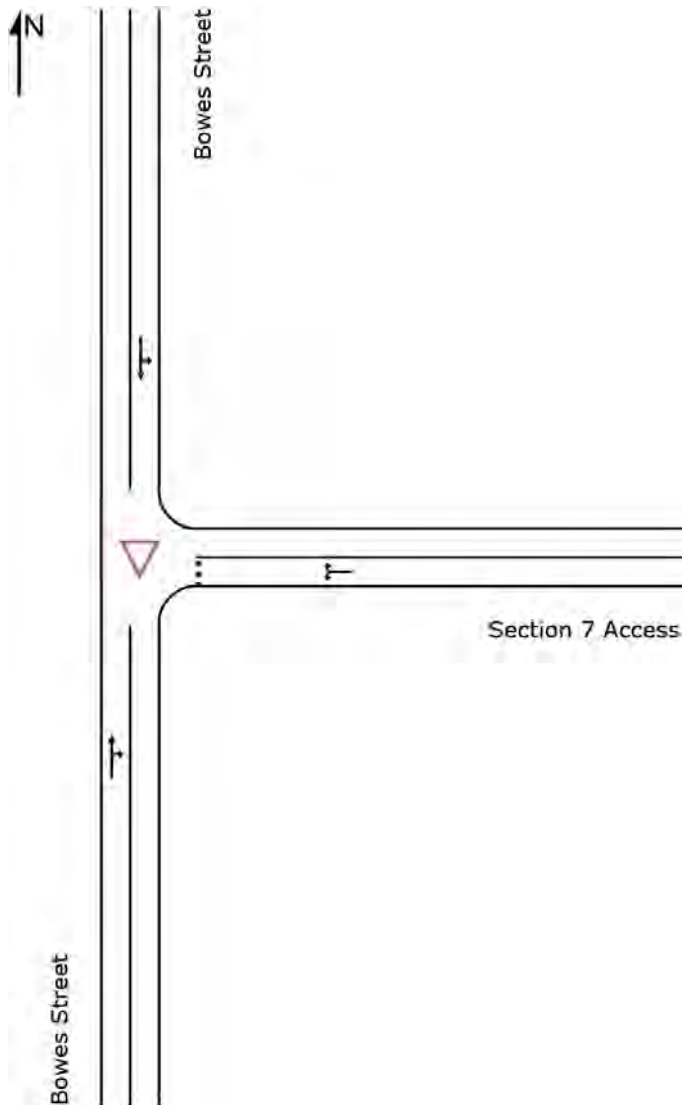
Bowes Street / Section 7 Access

Existing Priority-Controlled (Give-Way) T-Intersection

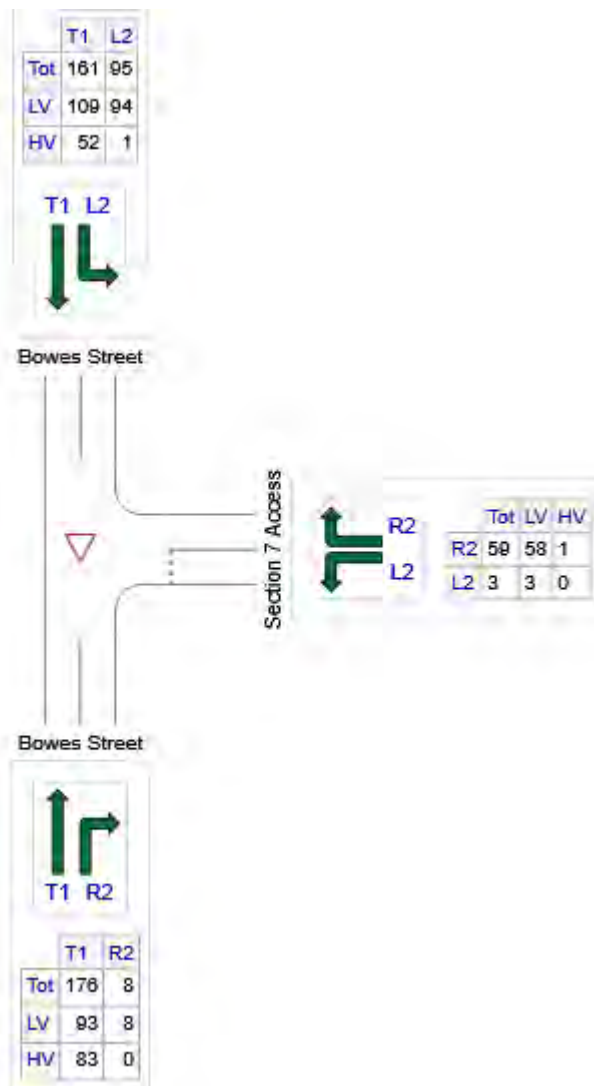
Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	184	101	83
E: Section 7 Access	62	61	1
N: Bowes Street	256	203	53
Total	502	365	137

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	176	47.3	0.123	0.1	LOS A	0.1	0.6	0.04	0.03	0.04	47.4
3	R2	8	0.0	0.123	5.4	LOS A	0.1	0.6	0.04	0.03	0.04	47.5
Approach		184	45.1	0.123	0.3	NA	0.1	0.6	0.04	0.03	0.04	47.4
East: Section 7 Access												
4	L2	3	0.0	0.073	0.6	LOS A	0.2	1.7	0.41	0.41	0.41	23.2
6	R2	59	1.8	0.073	2.6	LOS A	0.2	1.7	0.41	0.41	0.41	22.6
Approach		62	1.7	0.073	2.5	LOS A	0.2	1.7	0.41	0.41	0.41	22.6
North: Bowes Street												
7	L2	95	1.1	0.151	4.3	LOS A	0.0	0.0	0.00	0.20	0.00	23.0
8	T1	161	32.0	0.151	0.0	LOS A	0.0	0.0	0.00	0.20	0.00	41.3
Approach		256	20.6	0.151	1.6	NA	0.0	0.0	0.00	0.20	0.00	33.8
All Vehicles		502	27.3	0.151	1.2	NA	0.2	1.7	0.07	0.16	0.07	36.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	184	45.1	1499	0.123	100	0.3	LOS A	0.1	0.6	Full	60	0.0	0.0
Approach	184	45.1		0.123		0.3	NA	0.1	0.6				
East: Section 7 Access													
Lane 1	62	1.7	850	0.073	100	2.5	LOS A	0.2	1.7	Full	15	0.0	0.0
Approach	62	1.7		0.073		2.5	LOS A	0.2	1.7				
North: Bowes Street													
Lane 1	256	20.6	1692	0.151	100	1.6	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	256	20.6		0.151		1.6	NA	0.0	0.0				
Intersection	502	27.3		0.151		1.2	NA	0.2	1.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2025 ExCond - AM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 66 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

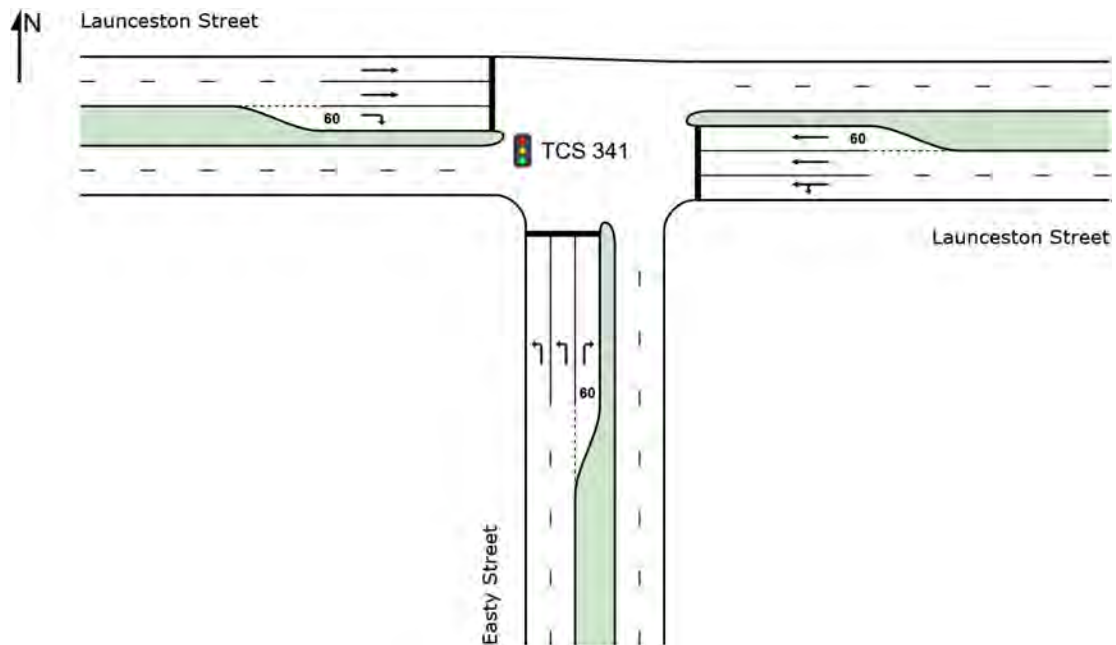
Phase Sequence: SCATS

Reference Phase: Phase A

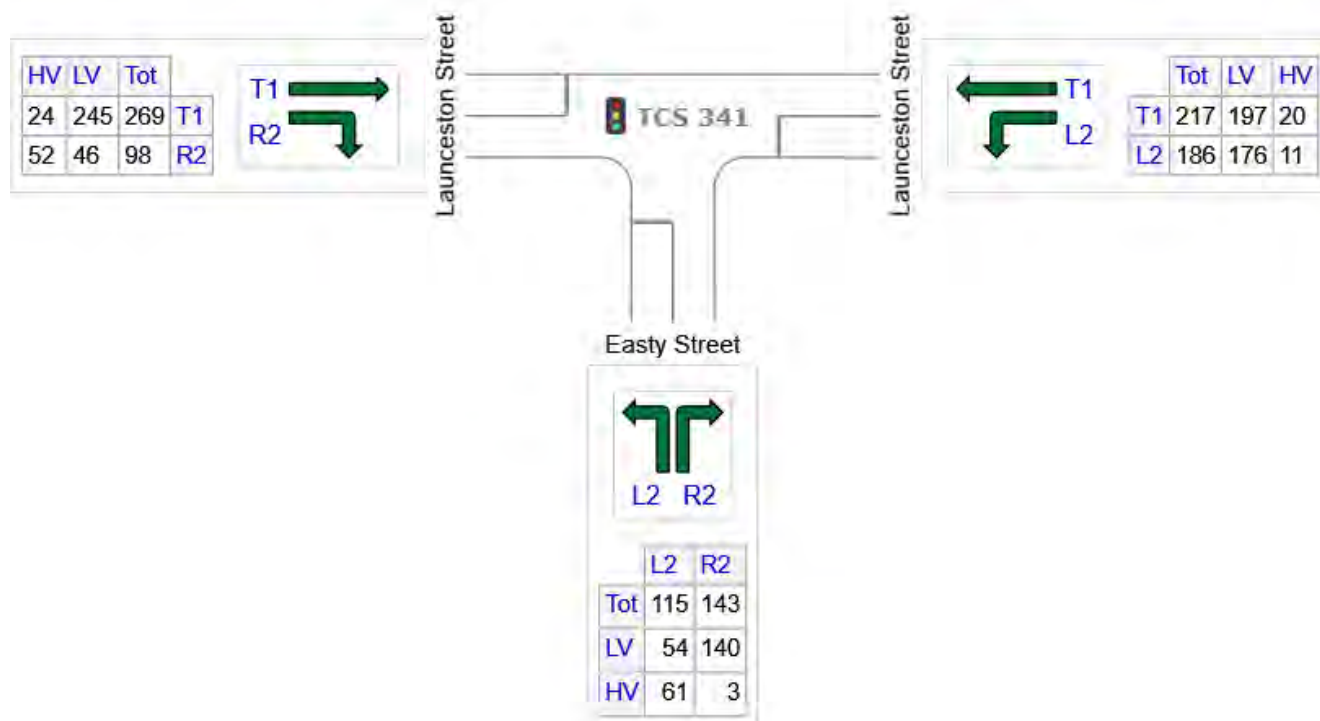
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



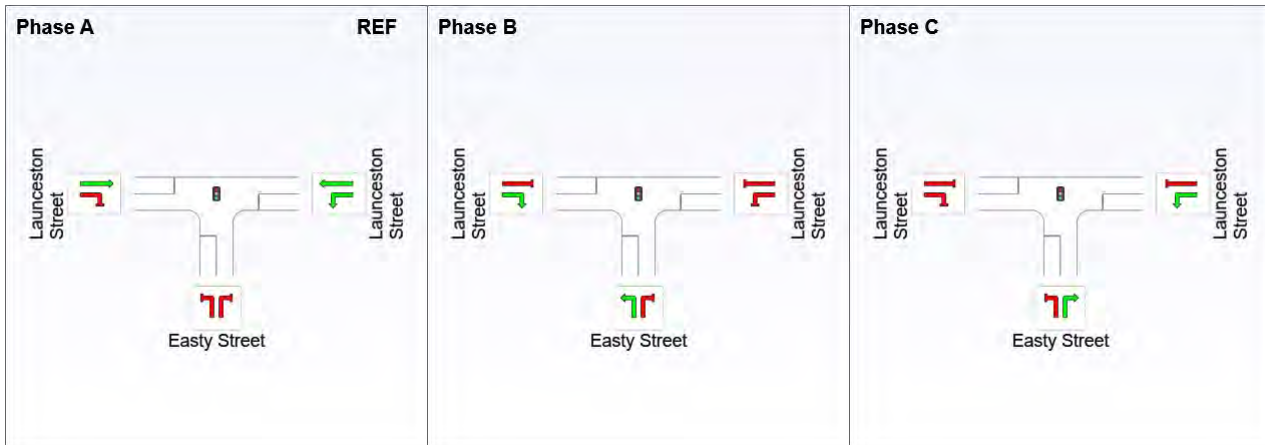
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	258	194	64
E: Launceston Street	403	373	31
W: Launceston Street	367	292	76
Total	1028	858	171

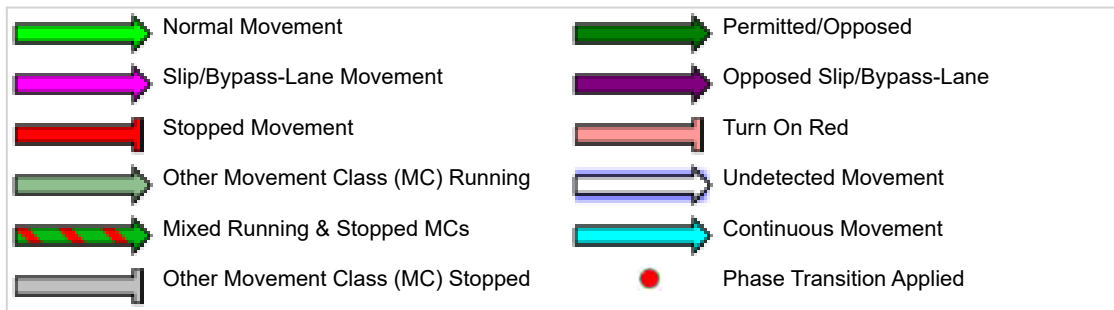
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	31	48
Green Time (sec)	25	11	12
Phase Time (sec)	31	17	18
Phase Split	47%	26%	27%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	115	53.2	0.256	31.1	LOS C	1.7	17.4	0.91	0.74	0.91	22.7
3	R2	143	2.2	0.431	30.3	LOS C	4.3	30.5	0.93	0.78	0.93	25.6
Approach		258	24.9	0.431	30.7	LOS C	4.3	30.5	0.92	0.76	0.92	24.4
East: Launceston Street												
4	L2	186	5.6	0.160	8.2	LOS A	2.3	17.0	0.41	0.61	0.41	34.8
5	T1	217	9.2	0.156	14.7	LOS B	2.3	17.5	0.69	0.55	0.69	28.6
Approach		403	7.6	0.160	11.7	LOS A	2.3	17.5	0.56	0.58	0.56	31.7
West: Launceston Street												
11	T1	269	9.0	0.193	14.9	LOS B	2.9	22.1	0.71	0.57	0.71	28.5
12	R2	98	52.7	0.435	32.1	LOS C	3.0	30.8	0.94	0.77	0.94	22.6
Approach		367	20.6	0.435	19.5	LOS B	3.0	30.8	0.77	0.62	0.77	26.5
All Vehicles		1028	16.6	0.435	19.2	LOS B	4.3	30.8	0.73	0.64	0.73	27.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	57	53.2	224	0.256	100	31.1	LOS C	1.7	17.4	Full	305	0.0	0.0
Lane 2	57	53.2	224	0.256	100	31.1	LOS C	1.7	17.4	Full	305	0.0	0.0
Lane 3	143	2.2	332	0.431	100	30.3	LOS C	4.3	30.5	Short	60	0.0	NA
Approach	258	24.9		0.431		30.7	LOS C	4.3	30.5				
East: Launceston Street													
Lane 1	186	5.6	1163	0.160	100	8.2	LOS A	2.3	17.0	Full	260	0.0	0.0
Lane 2	108	9.2	697	0.156	97 ⁵	14.7	LOS B	2.3	17.5	Full	260	0.0	0.0
Lane 3	108	9.2	697	0.156	97 ⁵	14.7	LOS B	2.3	17.5	Short	60	0.0	NA
Approach	403	7.6		0.160		11.7	LOS A	2.3	17.5				
West: Launceston Street													
Lane 1	135	9.0	698	0.193	100	14.9	LOS B	2.9	22.1	Full	130	0.0	0.0
Lane 2	135	9.0	698	0.193	100	14.9	LOS B	2.9	22.1	Full	130	0.0	0.0
Lane 3	98	52.7	225	0.435	100	32.1	LOS C	3.0	30.8	Short	60	0.0	NA
Approach	367	20.6		0.435		19.5	LOS B	3.0	30.8				
Intersection	1028	16.6		0.435		19.2	LOS B	4.3	30.8				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:18:37 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2025 ExCond - AM - LS-YD]

 Network: 1 [2025 ExCond - AM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (CCG User-Given Phase Times)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times specified by the user

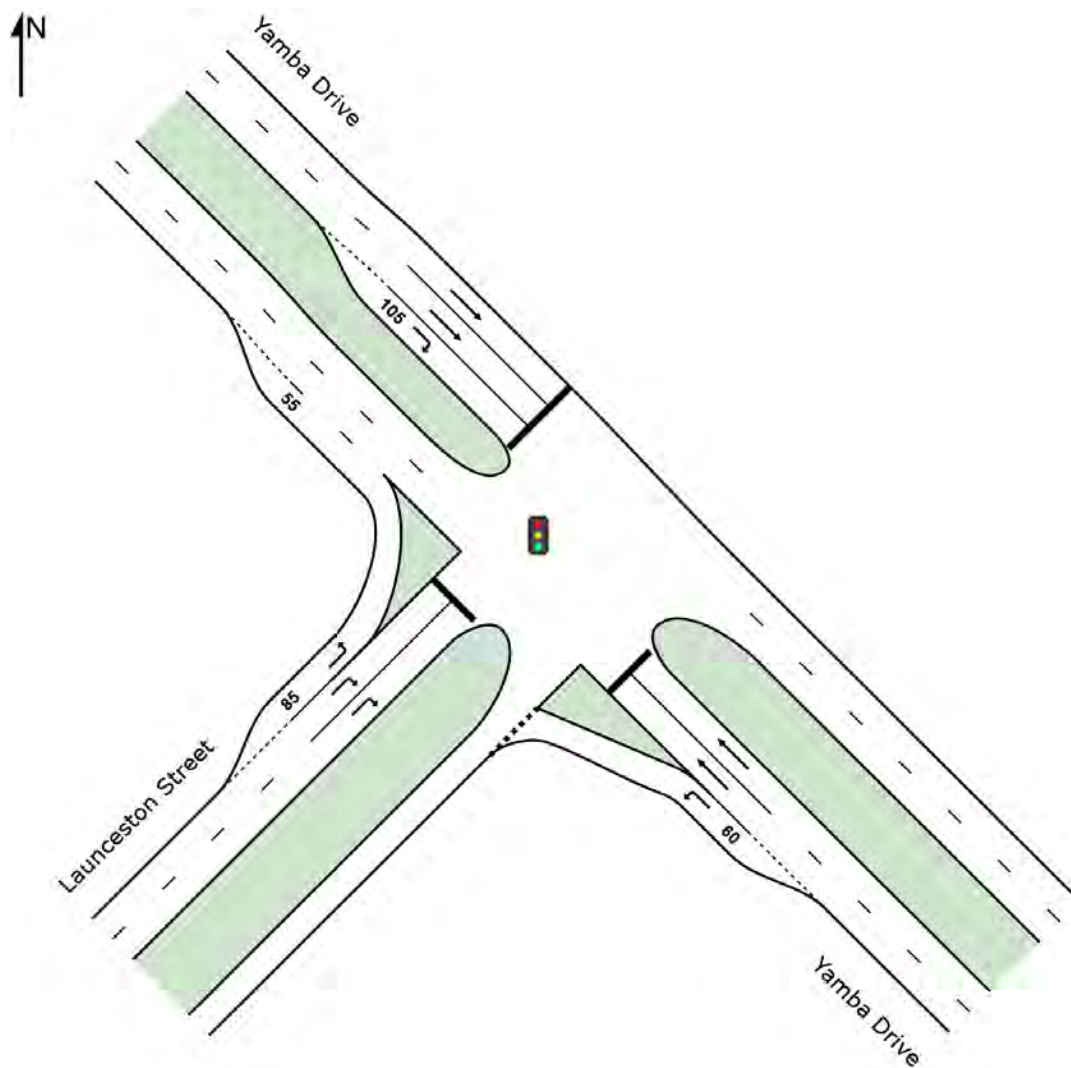
Phase Sequence: SCATS

Reference Phase: Phase A

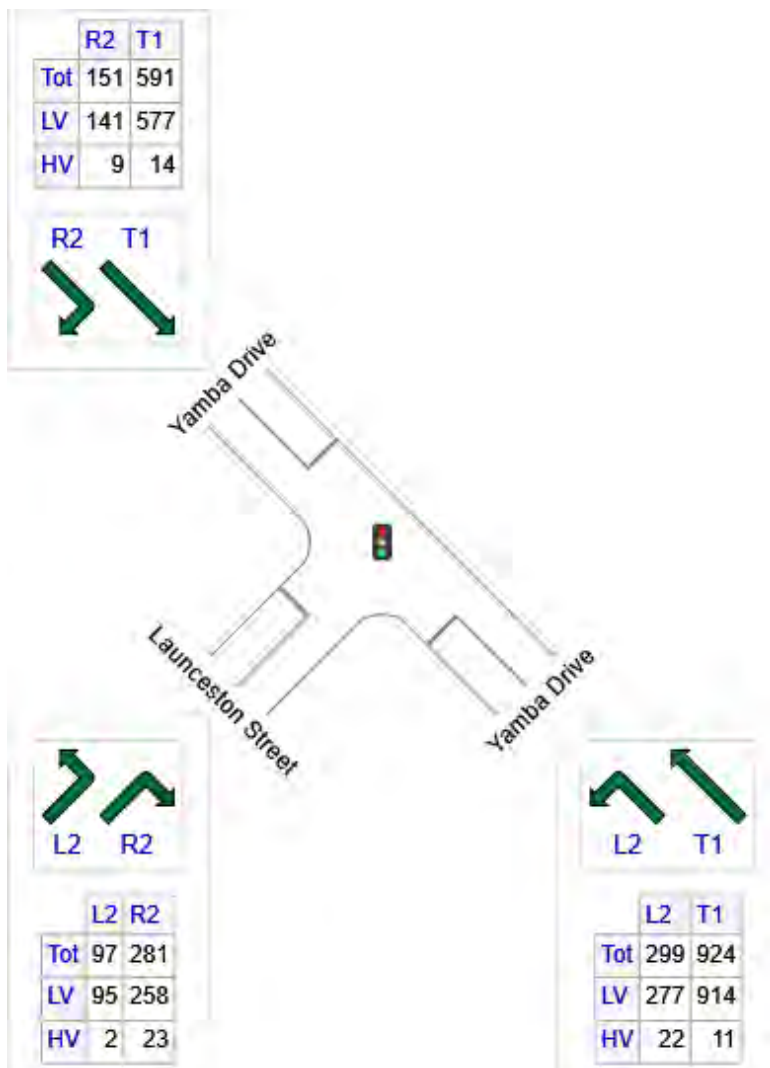
Input Phase Sequence: A, D, E

Output Phase Sequence: A, D, E

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1223	1191	33
NW: Yamba Drive	741	718	23
SW: Launceston Street	378	353	25
Total	2342	2261	81

Input Phase Sequence (CCG)

Movement Class: All Movement Classes



REF: Reference Phase

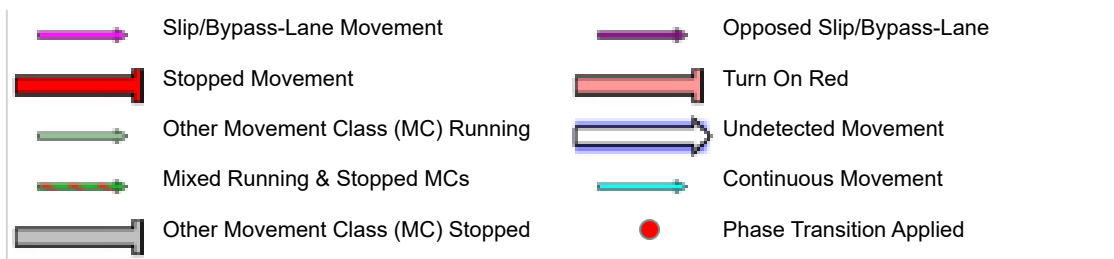
VAR: Variable Phase



Normal Movement



Permitted/Opposed



Phase Timing Summary (CCG)

Phase	A	D	E
Phase Change Time (sec)	0	66	93
Green Time (sec)	60	21	29
Phase Time (sec)	66	27	35
Phase Split	52%	21%	27%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	299	7.4	299	7.4	0.208	4.8	LOS A	0.4	2.7	0.03	0.58	0.03	40.6
5	T1	924	1.1	924	1.1	0.509	6.5	LOS A	9.7	68.6	0.25	0.23	0.25	53.9
Approach		1223	2.7	1223	2.7	0.509	6.1	LOS A	9.7	68.6	0.20	0.31	0.20	49.4
NorthWest: Yamba Drive														
11	T1	591	2.3	591	2.3	0.380	23.4	LOS C	11.8	84.1	0.69	0.60	0.69	24.7
12	R2	151	6.3	151	6.3	0.374	52.6	LOS D	8.0	58.9	0.89	0.80	0.89	20.9
Approach		741	3.1	741	3.1	0.380	29.3	LOS C	11.8	84.1	0.73	0.64	0.73	23.2
SouthWest: Launceston Street														
1	L2	97	2.2	97	2.2	0.053	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	39.5
3	R2	281	8.2	281	8.2	0.566	58.0	LOS E	8.3	62.3	0.97	0.80	0.97	12.0
Approach		378	6.7	378	6.7	0.566	43.9	LOS D	8.3	62.3	0.72	0.69	0.72	16.4
All Vehicles		2342	3.5	2342	3.5	0.566	19.5	LOS B	11.8	84.1	0.45	0.48	0.45	29.3

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	Total veh/h	HV %						Veh	Dist m				
SouthEast: Yamba Drive															
Lane 1	299	7.4	299	7.4	1434	0.208	100	4.8	LOS A	0.4	2.7	Short	60	0.0	NA
Lane 2	462	1.1	462	1.1	907	0.509	100	3.3	LOS A	3.8	26.8	Full	65	0.0	0.0
Lane 3	462	1.1	462	1.1	907	0.509	100	9.6	LOS A	9.7	68.6	Full	65	0.0	9.9
Approach	1223	2.7	1223	2.7		0.509		6.1	LOS A	9.7	68.6				
NorthWest: Yamba Drive															
Lane 1	295	2.3	295	2.3	776	0.380	100	23.4	LOS C	11.8	84.1	Full	215	-13.8 ^{N3}	0.0
Lane 2	295	2.3	295	2.3	776	0.380	100	23.4	LOS C	11.8	84.1	Full	215	-13.8 ^{N3}	0.0
Lane 3	151	6.3	151	6.3	403	0.374	100	52.6	LOS D	8.0	58.9	Short	105	0.0	NA
Approach	741	3.1	741	3.1		0.380		29.3	LOS C	11.8	84.1				
SouthWest: Launceston Street															
Lane 1	97	2.2	97	2.2	1829	0.053	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	141	8.2	141	8.2	248	0.566	100	58.0	LOS E	8.3	62.3	Full	260	-13.8 ^{N3}	0.0
Lane 3	141	8.2	141	8.2	248	0.566	100	58.0	LOS E	8.3	62.3	Full	260	-13.8 ^{N3}	0.0
Approach	378	6.7	378	6.7		0.566		43.9	LOS D	8.3	62.3				
Intersection	2342	3.5	2342	3.5		0.566		19.5	LOS B	11.8	84.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2025 ExCond - AM - WS-YD]**

Network: 1 [2025 ExCond - AM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2025 Existing Conditions - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (CCG User-Given Phase Times)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times specified by the user

Phase Sequence: SCATS

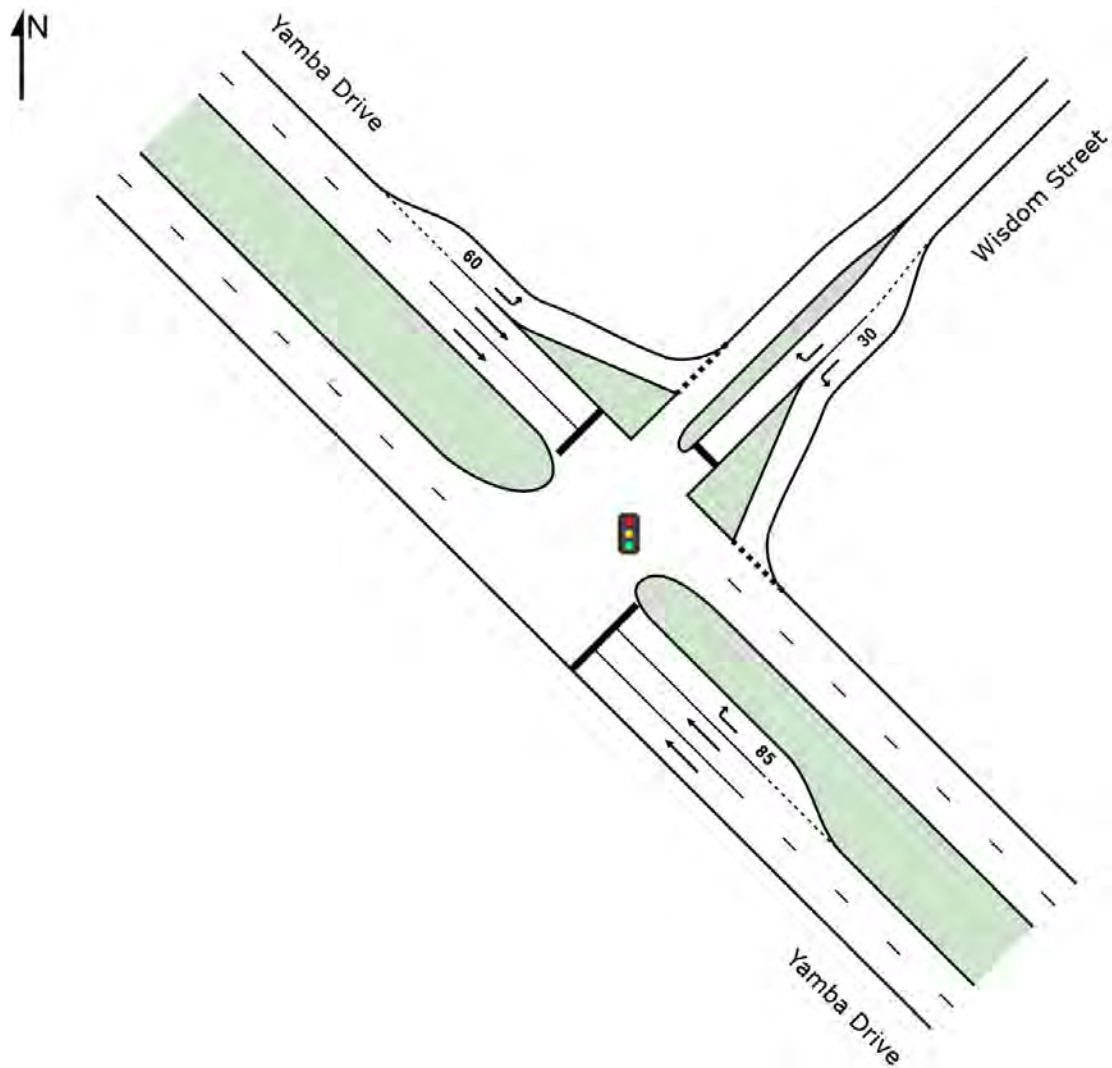
Reference Phase: Phase A

Input Phase Sequence: A, D, E

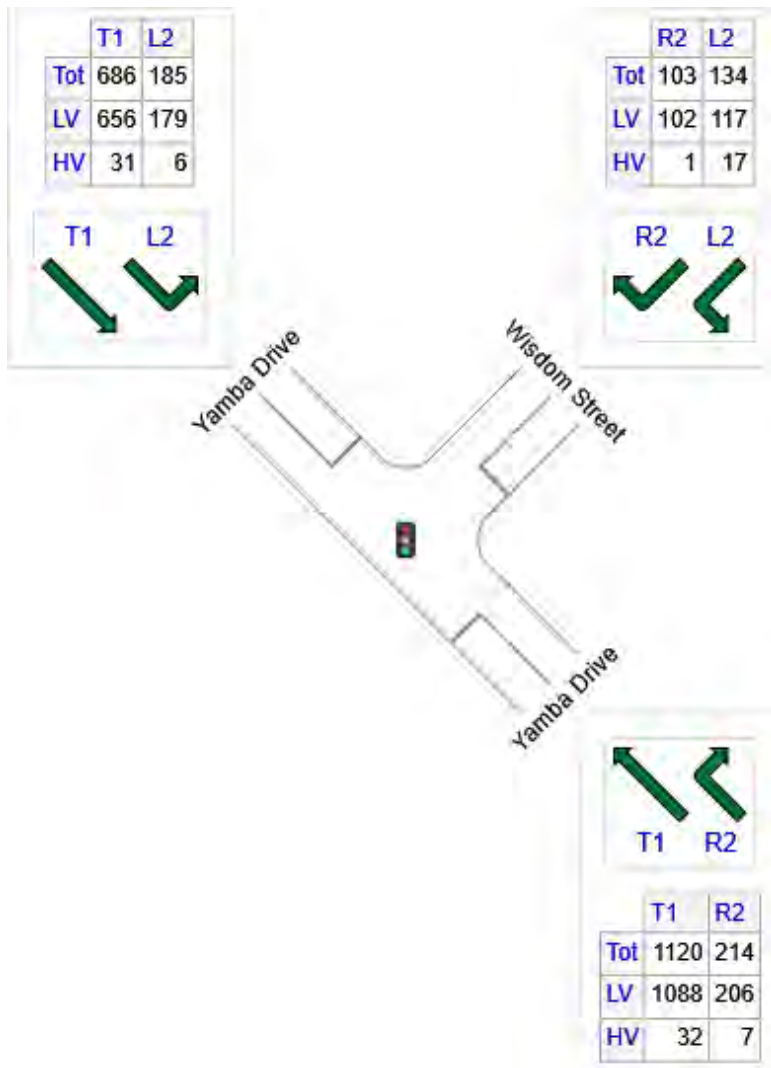
Output Phase Sequence: A, D, E

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1334	1295	39
NE: Wisdom Street	237	219	18
NW: Yamba Drive	872	835	37
Total	2442	2348	94

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
11	T1	1120	2.8	1120	2.8	0.694	27.8	LOS C	30.3	217.1	0.83	0.74	0.83	43.8
12	R2	214	3.4	214	3.4	0.520	54.1	LOS D	11.8	85.0	0.93	0.82	0.93	34.6
Approach		1334	2.9	1334	2.9	0.694	32.0	LOS C	30.3	217.1	0.85	0.76	0.85	40.9
NorthEast: Wisdom Street														
1	L2	134	12.6	134	12.6	0.125	4.7	LOS A	1.3	9.9	0.21	0.49	0.21	47.6
3	R2	103	1.0	103	1.0	0.379	55.7	LOS E	5.9	41.3	0.94	0.78	0.94	21.2
Approach		237	7.6	237	7.6	0.379	26.9	LOS C	5.9	41.3	0.53	0.62	0.53	35.5
NorthWest: Yamba Drive														
4	L2	185	3.4	185	3.4	0.130	4.8	LOS A	0.2	1.5	0.02	0.58	0.02	40.3
5	T1	686	4.4	686	4.4	0.386	17.7	LOS B	9.9	71.6	0.50	0.44	0.50	53.9
Approach		872	4.2	872	4.2	0.386	15.0	LOS B	9.9	71.6	0.40	0.47	0.40	50.4
All Vehicles		2442	3.8	2442	3.8	0.694	25.5	LOS C	30.3	217.1	0.66	0.64	0.66	42.8

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	623	2.8	623	2.8	898	0.694	100	28.5	LOS C	30.3	217.1	Full	735	0.0	0.0
Lane 2	497	2.8	497	2.8	716 ¹	0.694	100	27.0	LOS C	22.9	164.4	Full	735	-9.9 ^{N3}	0.0
Lane 3	214	3.4	214	3.4	411	0.520	100	54.1	LOS D	11.8	85.0	Short	85	0.0	NA
Approach	1334	2.9	1334	2.9		0.694		32.0	LOS C	30.3	217.1				
NorthEast: Wisdom Street															
Lane 1	134	12.6	134	12.6	1066	0.125	100	4.7	LOS A	1.3	9.9	Short	30	0.0	NA
Lane 2	103	1.0	103	1.0	272	0.379	100	55.7	LOS E	5.9	41.3	Full	680	-9.9 ^{N3}	0.0
Approach	237	7.6	237	7.6		0.379		26.9	LOS C	5.9	41.3				
NorthWest: Yamba Drive															
Lane 1	185	3.4	185	3.4	1424	0.130	100	4.8	LOS A	0.2	1.5	Short	60	0.0	NA
Lane 2	343	4.4	343	4.4	888	0.386	100	17.7	LOS B	9.9	71.6	Full	65	0.0	13.8
Lane 3	343	4.4	343	4.4	888	0.386	100	17.7	LOS B	9.9	71.6	Full	65	0.0	13.8
Approach	872	4.2	872	4.2		0.386		15.0	LOS B	9.9	71.6				
Intersection	2442	3.8	2442	3.8		0.694		25.5	LOS C	30.3	217.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:20:15 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2025 ExCond - PM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 109 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

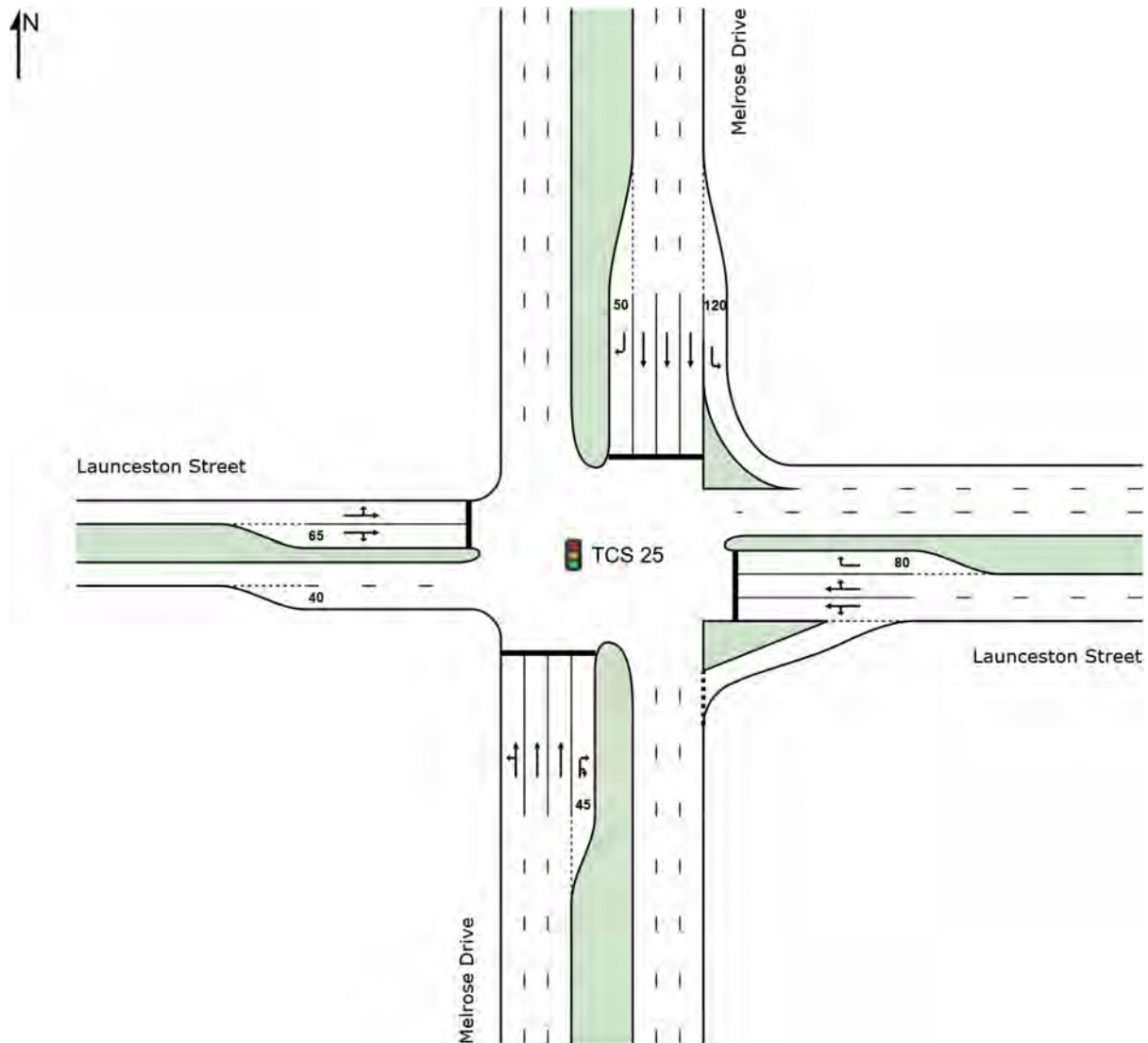
Phase Sequence: SCATS

Reference Phase: Phase A

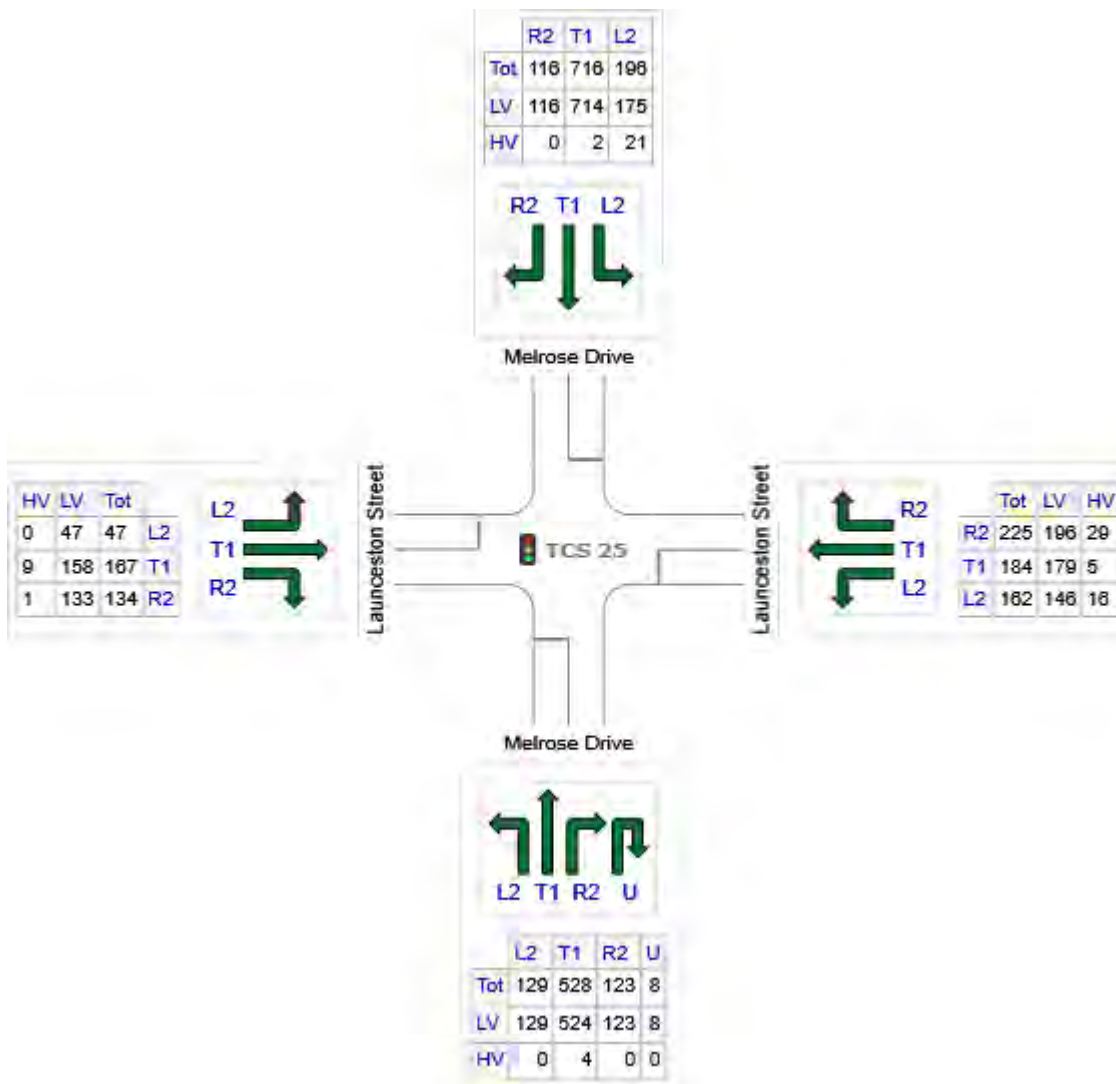
Input Phase Sequence: A, B, D, E, F

Output Phase Sequence: A, B, D, E, F

Site Layout



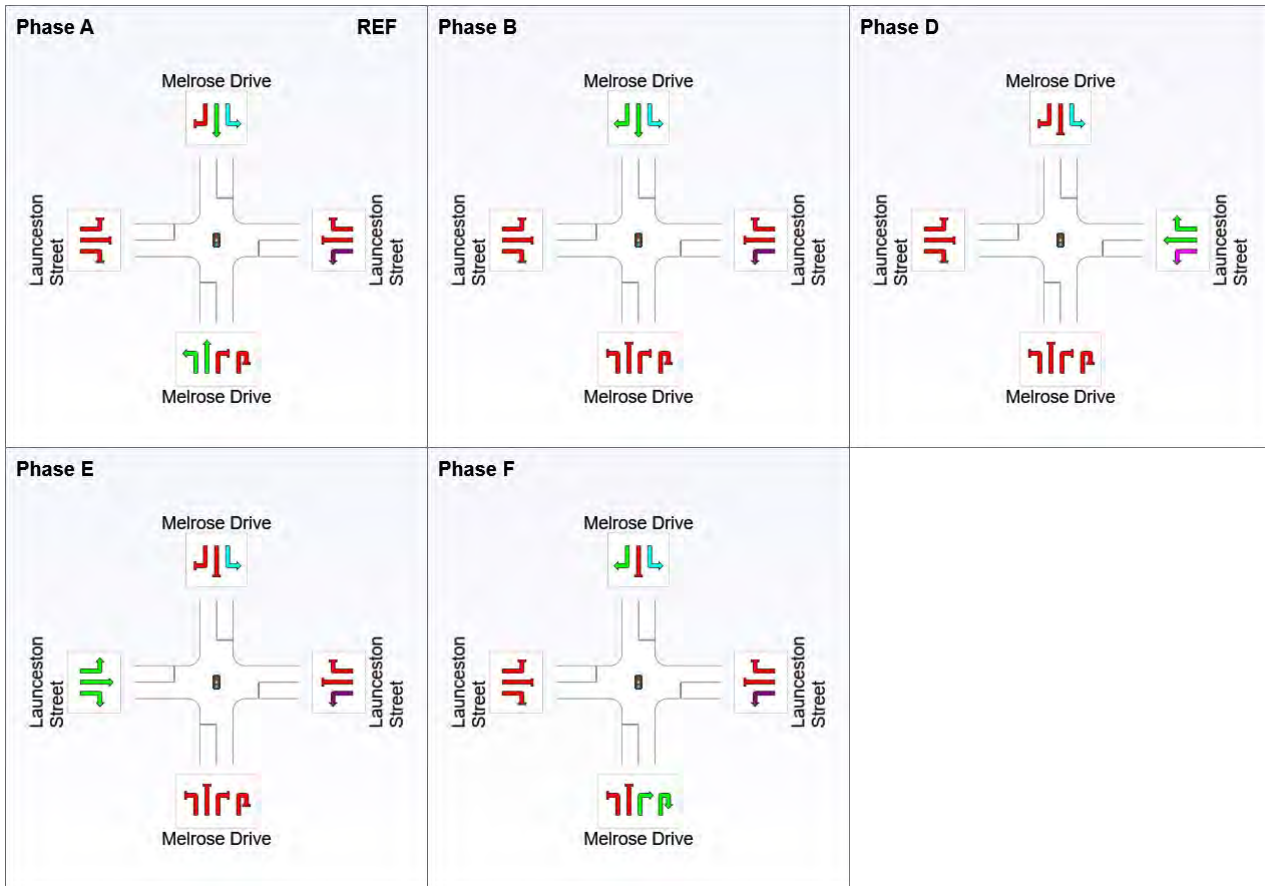
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	789	785	4
E: Launceston Street	572	521	51
N: Melrose Drive	1027	1004	23
W: Launceston Street	348	338	11
Total	2737	2648	88

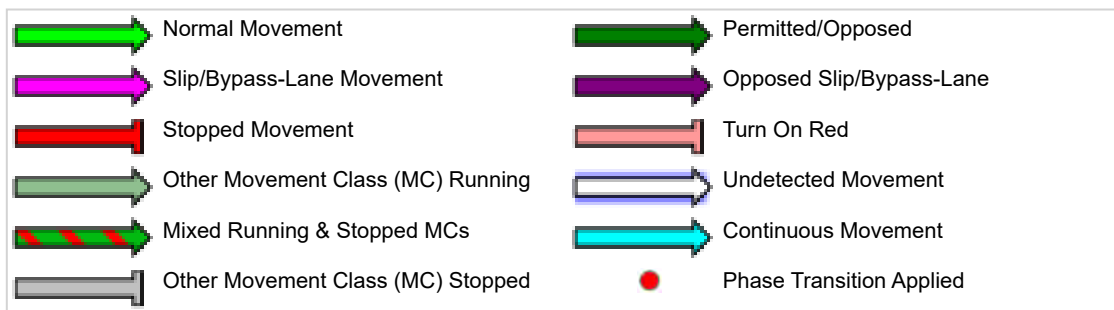
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	F
Phase Change Time (sec)	0	29	36	59	89
Green Time (sec)	23	1	23	24	14
Phase Time (sec)	29	1	29	30	20
Phase Split	27%	1%	27%	28%	18%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	129	0.0	0.540	47.4	LOS D	10.4	72.7	0.94	0.80	0.94	17.3
2	T1	528	0.8	0.540	41.8	LOS C	10.6	74.9	0.94	0.79	0.94	29.8
3	R2	123	0.0	0.563	55.4	LOS D	6.8	47.7	0.99	0.80	0.99	13.8
3u	U	8	0.0	0.563	56.8	LOS E	6.8	47.7	0.99	0.80	0.99	18.7
Approach		789	0.5	0.563	45.0	LOS D	10.6	74.9	0.95	0.79	0.95	25.5
East: Launceston Street												
4	L2	162	9.7	0.176	9.0	LOS A	2.5	18.7	0.33	0.62	0.33	38.6
5	T1	184	2.9	0.518	38.8	LOS C	9.8	71.2	0.87	0.77	0.87	14.3
6	R2	225	13.1	0.518	47.3	LOS D	9.8	71.2	0.94	0.81	0.94	25.4
Approach		572	8.8	0.518	33.7	LOS C	9.8	71.2	0.74	0.74	0.74	24.0
North: Melrose Drive												
7	L2	196	10.8	0.114	5.7	LOS A	0.0	0.0	0.00	0.52	0.00	49.2
8	T1	716	0.3	0.445	35.3	LOS C	10.5	73.8	0.88	0.74	0.88	32.6
9	R2	116	0.0	0.453	45.8	LOS D	4.9	34.4	0.96	0.81	1.15	25.5
Approach		1027	2.3	0.453	30.8	LOS C	10.5	73.8	0.72	0.70	0.74	33.6
West: Launceston Street												
10	L2	47	0.0	0.424	44.4	LOS D	8.1	58.8	0.91	0.76	0.91	26.7
11	T1	167	5.7	0.424	39.8	LOS C	8.1	58.8	0.91	0.76	0.91	13.9
12	R2	134	0.8	0.424	44.4	LOS D	8.0	57.1	0.91	0.78	0.91	17.8
Approach		348	3.0	0.424	42.2	LOS C	8.1	58.8	0.91	0.77	0.91	17.7
All Vehicles		2737	3.2	0.563	37.0	LOS C	10.6	74.9	0.81	0.75	0.82	27.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	215	0.3	399	0.540	100	45.2	LOS D	10.4	72.7	Full	205	0.0	0.0
Lane 2	221	0.8	409	0.540	100	41.8	LOS C	10.6	74.9	Full	205	0.0	0.0
Lane 3	221	0.8	409	0.540	100	41.8	LOS C	10.6	74.9	Full	205	0.0	0.0
Lane 4	132	0.0	234	0.563	100	55.5	LOS D	6.8	47.7	Short	45	0.0	NA
Approach	789	0.5		0.563		45.0	LOS D	10.6	74.9				
East: Launceston Street													
Lane 1	182	9.0	1032	0.176	34 ⁶	8.5	LOS A	2.5	18.7	Full	90	0.0	0.0
Lane 2	204	4.8	394	0.518	100	43.7	LOS D	9.8	71.2	Full	90	0.0	0.0
Lane 3	186	13.1	358	0.518	100	47.3	LOS D	8.9	69.4	Short	80	0.0	NA
Approach	572	8.8		0.518		33.7	LOS C	9.8	71.2				
North: Melrose Drive													
Lane 1	196	10.8	1725	0.114	100	5.7	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	239	0.3	536	0.445	100	35.3	LOS C	10.5	73.8	Full	470	0.0	0.0
Lane 3	239	0.3	536	0.445	100	35.3	LOS C	10.5	73.8	Full	470	0.0	0.0
Lane 4	239	0.3	536	0.445	100	35.3	LOS C	10.5	73.8	Full	470	0.0	0.0
Lane 5	116	0.0	256	0.453	100	45.8	LOS D	4.9	34.4	Short	50	0.0	NA
Approach	1027	2.3		0.453		30.8	LOS C	10.5	73.8				
West: Launceston Street													
Lane 1	175	4.1	413	0.424	100	41.1	LOS C	8.1	58.8	Full	95	0.0	0.0
Lane 2	173	1.9	408	0.424	100	43.3	LOS D	8.0	57.1	Short	65	0.0	NA
Approach	348	3.0		0.424		42.2	LOS C	8.1	58.8				
Intersection	2737	3.2		0.563		37.0	LOS C	10.6	74.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁶ Lane under-utilisation due to downstream effects

Site: TCS 340 [2025 ExCond - PM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 82 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

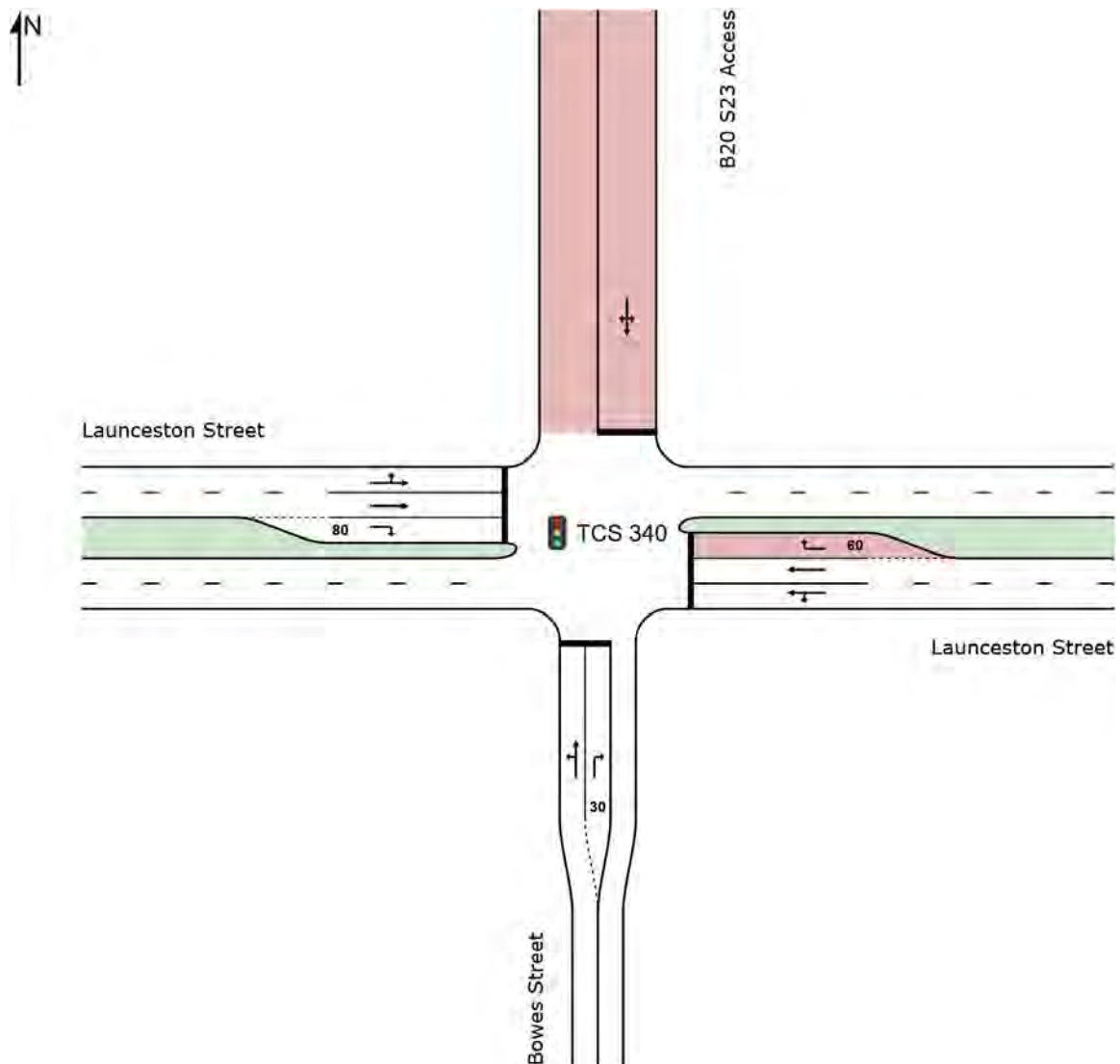
Phase Sequence: SCATS

Reference Phase: Phase A

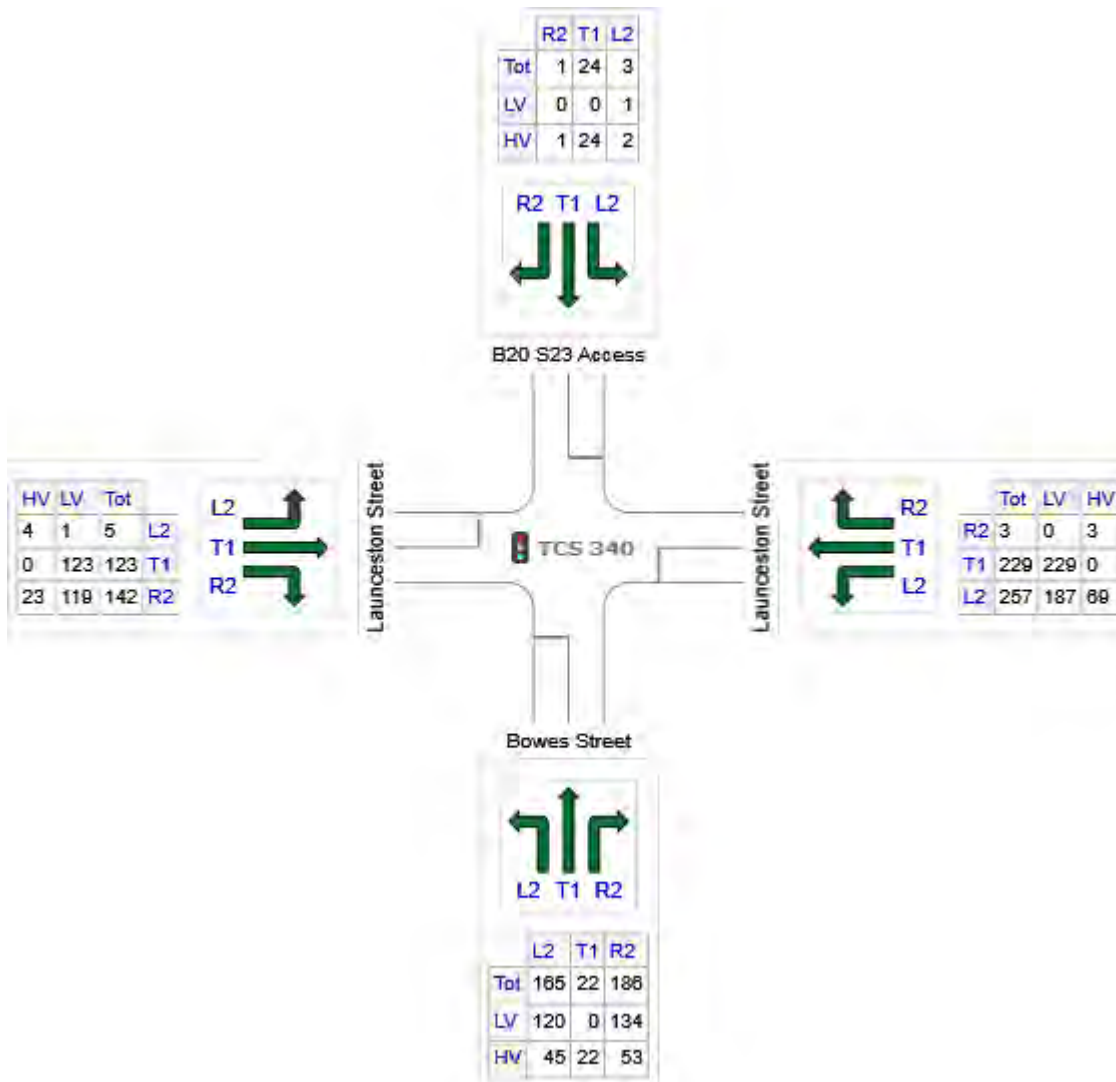
Input Phase Sequence: A, D, E, G

Output Phase Sequence: A, D, E, G

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	374	254	120
E: Launceston Street	489	417	73
N: B20 S23 Access	28	1	27
W: Launceston Street	271	243	27
Total	1162	915	247

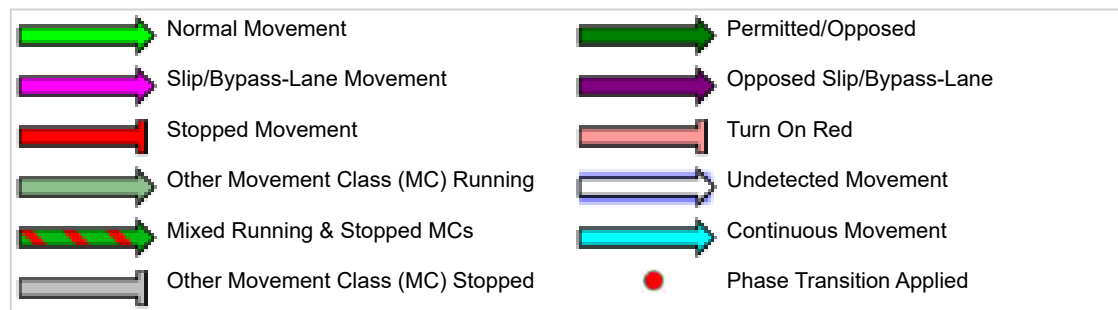
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	G
Phase Change Time (sec)	0	29	62	73
Green Time (sec)	24	27	5	5
Phase Time (sec)	30	33	9	10
Phase Split	37%	40%	11%	12%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	165	27.4	0.321	14.5	LOS A	3.7	34.1	0.74	0.74	0.74	20.5
2	T1	22	100.0	0.321	15.0	LOS B	3.7	34.1	0.74	0.74	0.74	12.4
3	R2	186	28.2	0.366	26.2	LOS B	5.8	50.3	0.81	0.77	0.81	13.5
Approach		374	32.1	0.366	20.4	LOS B	5.8	50.3	0.77	0.75	0.77	16.0
East: Launceston Street												
4	L2	257	27.0	0.357	18.5	LOS B	6.8	57.4	0.64	0.74	0.64	18.2
5	T1	229	0.0	0.357	23.6	LOS B	6.8	57.4	0.81	0.70	0.81	21.1
6	R2	3	100.0	0.048	49.0	LOS D	0.1	1.7	0.96	0.64	0.96	8.5
Approach		489	14.8	0.357	21.1	LOS B	6.8	57.4	0.72	0.72	0.72	19.6
North: B20 S23 Access												
7	L2	3	66.7	0.361	44.5	LOS D	1.2	15.6	0.99	0.72	0.99	8.1
8	T1	24	100.0	0.361	44.5	LOS D	1.2	15.6	0.99	0.72	0.99	5.3
9	R2	1	100.0	0.361	44.5	LOS D	1.2	15.6	0.99	0.72	0.99	8.7
Approach		28	96.3	0.361	44.5	LOS D	1.2	15.6	0.99	0.72	0.99	5.7
West: Launceston Street												
10	L2	5	80.0	0.082	28.4	LOS B	1.8	13.3	0.76	0.59	0.76	15.6
11	T1	123	0.0	0.082	22.4	LOS B	1.9	13.2	0.76	0.58	0.76	22.1
12	R2	142	16.3	0.997	79.2	LOS F	8.2	65.4	1.00	1.20	2.06	6.2
Approach		271	10.1	0.997	52.4	LOS D	8.2	65.4	0.88	0.91	1.44	10.3
All Vehicles		1162	21.3	0.997	28.7	LOS C	8.2	65.4	0.78	0.77	0.91	14.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	187	36.0	584	0.321	100	14.6	LOS B	3.7	34.1	Full	35	0.0	38.1 ⁸
Lane 2	186	28.2	509	0.366	100	26.2	LOS B	5.8	50.3	Short	30	0.0	NA
Approach	374	32.1		0.366		20.4	LOS B	5.8	50.3				
East: Launceston Street													
Lane 1	282	24.6	791	0.357	100	17.9	LOS B	6.8	57.4	Full	95	0.0	0.0
Lane 2	204	0.0	571	0.357	100	24.9	LOS B	6.5	45.6	Full	95	0.0	0.0
Lane 3	3	100.0	66	0.048	100	49.0	LOS D	0.1	1.7	Short	60	0.0	NA
Approach	489	14.8		0.357		21.1	LOS B	6.8	57.4				
North: B20 S23 Access													
Lane 1	28	96.3	79	0.361	100	44.5	LOS D	1.2	15.6	Full	30	0.0	0.0
Approach	28	96.3		0.361		44.5	LOS D	1.2	15.6				
West: Launceston Street													
Lane 1	63	6.7	760	0.082	100	22.9	LOS B	1.8	13.3	Full	105	0.0	0.0
Lane 2	66	0.0	802	0.082	100	22.4	LOS B	1.9	13.2	Full	105	0.0	0.0
Lane 3	142	16.3	143	0.997	100	79.2	LOS F	8.2	65.4	Short	80	0.0	NA
Approach	271	10.1		0.997		52.4	LOS D	8.2	65.4				
Intersection	1162	21.3		0.997		28.7	LOS C	8.2	65.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▼ Site: [2025 ExCond - PM: BS-WS]

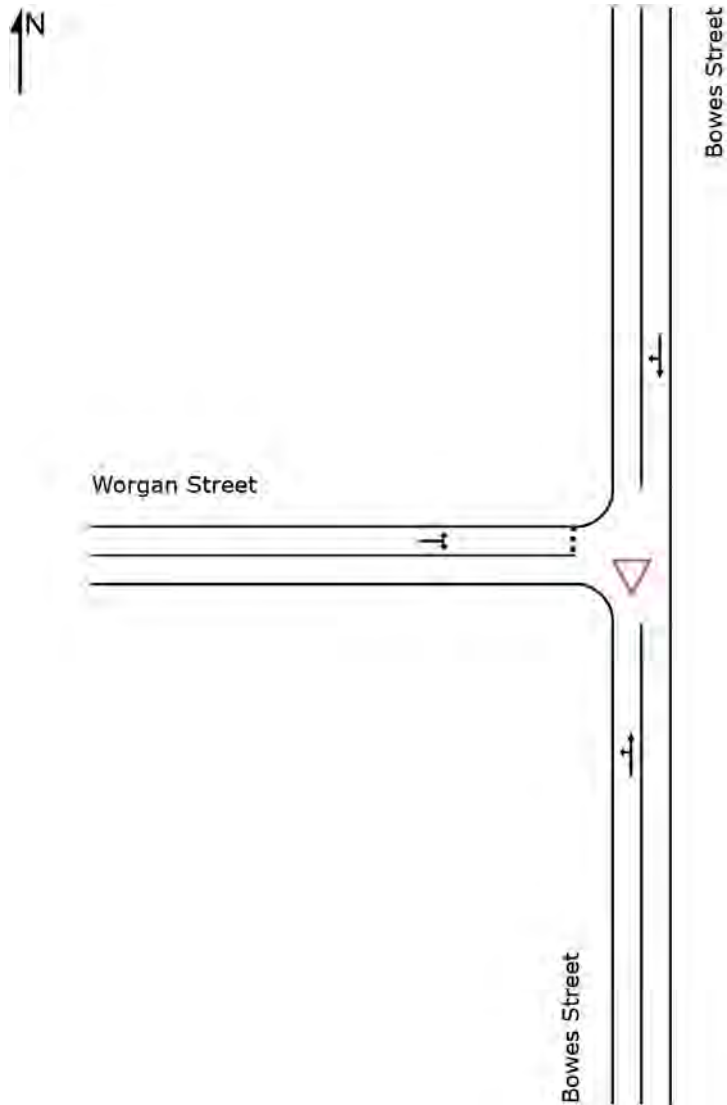
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

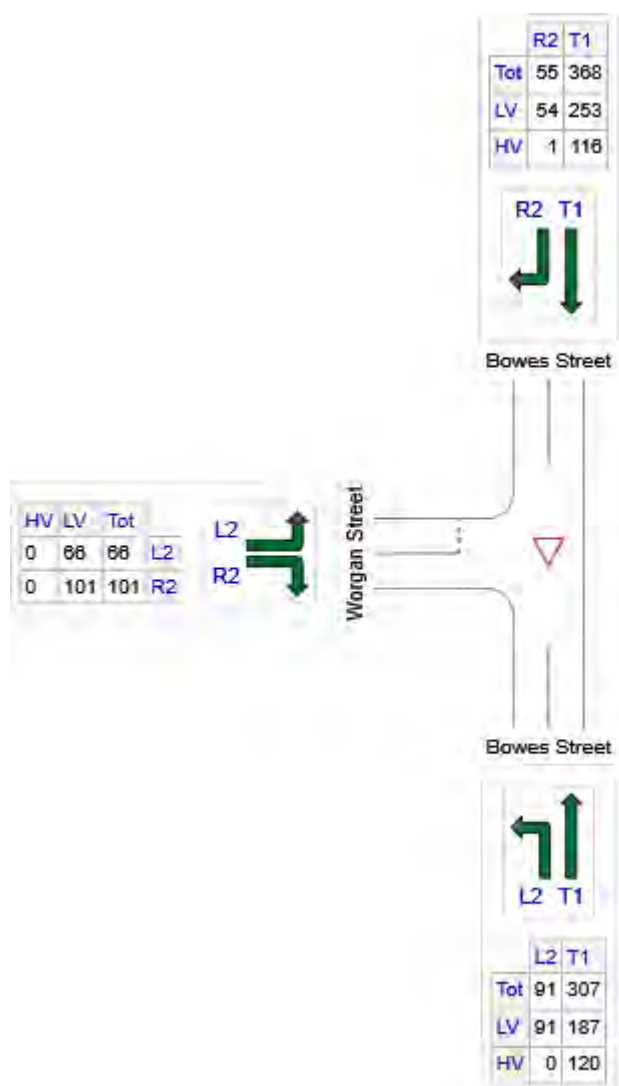
Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	398	278	120
N: Bowes Street	423	306	117
W: Worgan Street	167	167	0
Total	988	752	237

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	91	0.0	0.246	4.6	LOS A	0.0	0.0	0.00	0.12	0.00	32.9
2	T1	307	39.0	0.246	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	44.0
Approach		398	30.2	0.246	1.0	NA	0.0	0.0	0.00	0.12	0.00	40.9
North: Bowes Street												
8	T1	368	31.4	0.273	0.5	LOS A	0.5	4.5	0.15	0.08	0.15	44.7
9	R2	55	1.9	0.273	5.5	LOS A	0.5	4.5	0.15	0.08	0.15	17.4
Approach		423	27.6	0.273	1.1	NA	0.5	4.5	0.15	0.08	0.15	40.1
West: Worgan Street												
10	L2	66	0.0	0.238	4.7	LOS A	0.9	6.2	0.53	0.74	0.55	17.6
12	R2	101	0.0	0.238	8.4	LOS A	0.9	6.2	0.53	0.74	0.55	28.4
Approach		167	0.0	0.238	6.9	LOS A	0.9	6.2	0.53	0.74	0.55	24.5
All Vehicles		988	24.0	0.273	2.1	NA	0.9	6.2	0.15	0.21	0.16	36.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	398	30.2	1615	0.246	100	1.0	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	398	30.2		0.246		1.0	NA	0.0	0.0				
North: Bowes Street													
Lane 1	423	27.6	1551	0.273	100	1.1	LOS A	0.5	4.5	Full	35	0.0	0.0
Approach	423	27.6		0.273		1.1	NA	0.5	4.5				
West: Worgan Street													
Lane 1	167	0.0	702	0.238	100	6.9	LOS A	0.9	6.2	Full	35	0.0	0.0
Approach	167	0.0		0.238		6.9	LOS A	0.9	6.2				
Intersection	988	24.0		0.273		2.1	NA	0.9	6.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2025 ExCond - PM: AS-BS-MS]

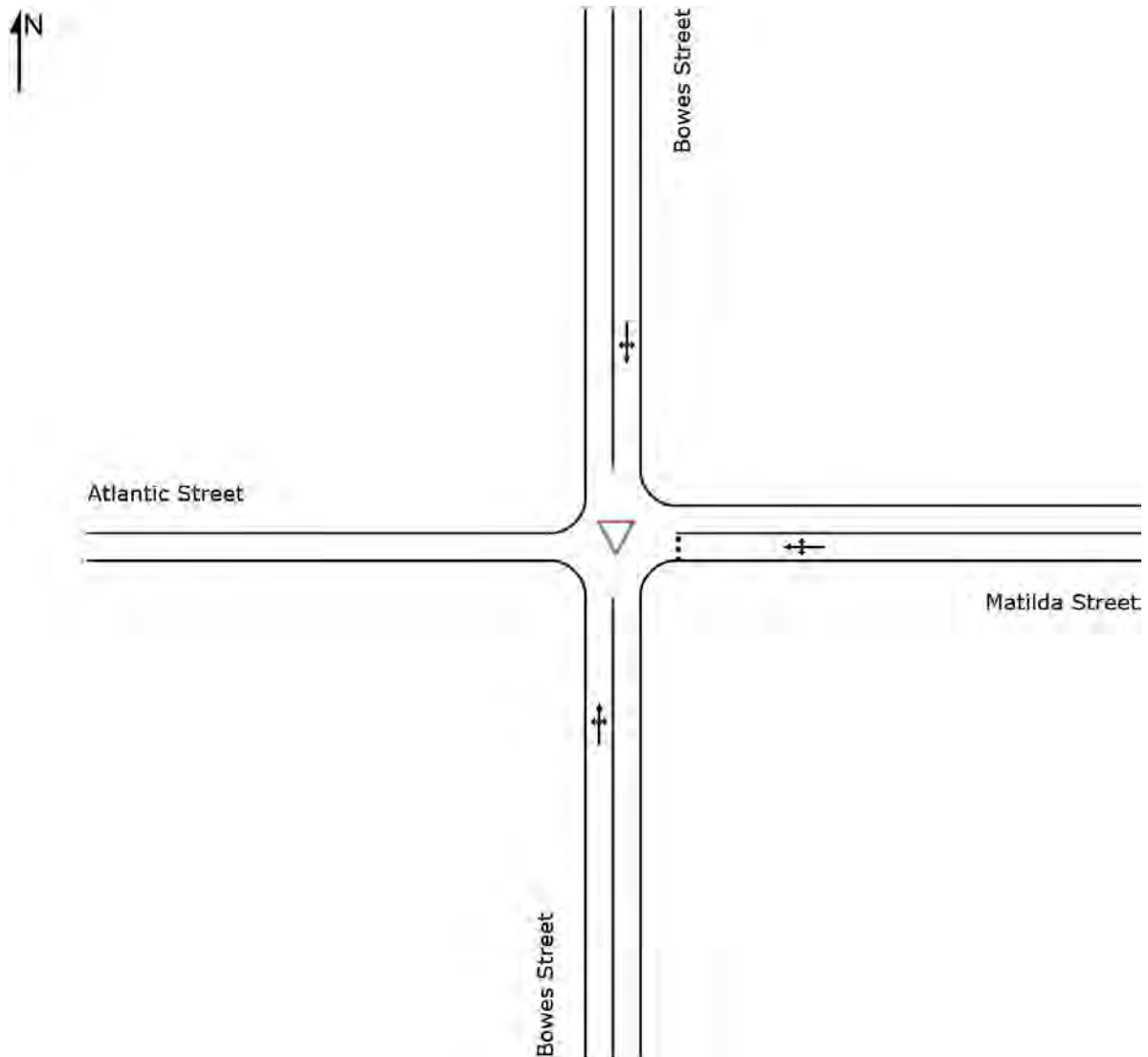
Atlantic Street / Bowes Street / Matilda Street

Existing Priority-Controlled (Give-Way) T-Intersection

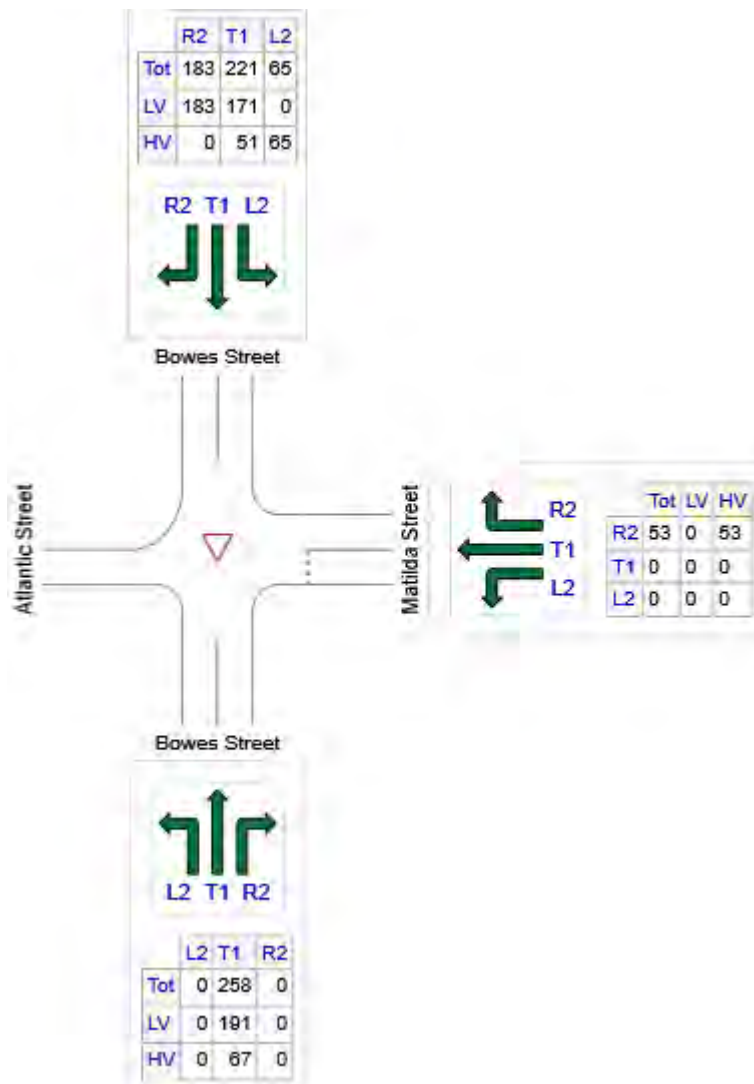
Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	258	191	67
E: Matilda Street	53	0	53
N: Bowes Street	470	354	116
Total	781	545	236

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.155	4.5	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	258	26.1	0.155	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.155	5.0	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		258	26.1	0.155	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	0	0.0	0.301	7.5	LOS A	1.0	13.5	0.82	0.90	0.97	13.1
5	T1	0	0.0	0.301	11.1	LOS A	1.0	13.5	0.82	0.90	0.97	14.3
6	R2	53	99.8	0.301	26.8	LOS B	1.0	13.5	0.82	0.90	0.97	15.2
Approach		53	99.4	0.301	26.7	LOS B	1.0	13.5	0.82	0.90	0.97	15.1
North: Bowes Street												
7	L2	65	99.8	0.310	6.5	LOS A	1.5	13.1	0.38	0.33	0.38	32.1
8	T1	221	22.9	0.310	0.9	LOS A	1.5	13.1	0.38	0.33	0.38	37.6
9	R2	183	0.0	0.310	6.2	LOS A	1.5	13.1	0.38	0.33	0.38	26.3
Approach		470	24.7	0.310	3.7	NA	1.5	13.1	0.38	0.33	0.38	30.6
All Vehicles		781	30.2	0.310	4.1	NA	1.5	13.5	0.29	0.26	0.30	31.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	258	26.1	1667	0.155	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	258	26.1		0.155		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	53	99.4	176	0.301	100	26.7	LOS B	1.0	13.5	Full	80	0.0	0.0
Approach	53	99.4		0.301		26.7	LOS B	1.0	13.5				
North: Bowes Street													
Lane 1	470	24.7	1516	0.310	100	3.7	LOS A	1.5	13.1	Full	110	0.0	0.0
Approach	470	24.7		0.310		3.7	NA	1.5	13.1				
Intersection	781	30.2		0.310		4.1	NA	1.5	13.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2025 ExCond - PM: BS-S7]

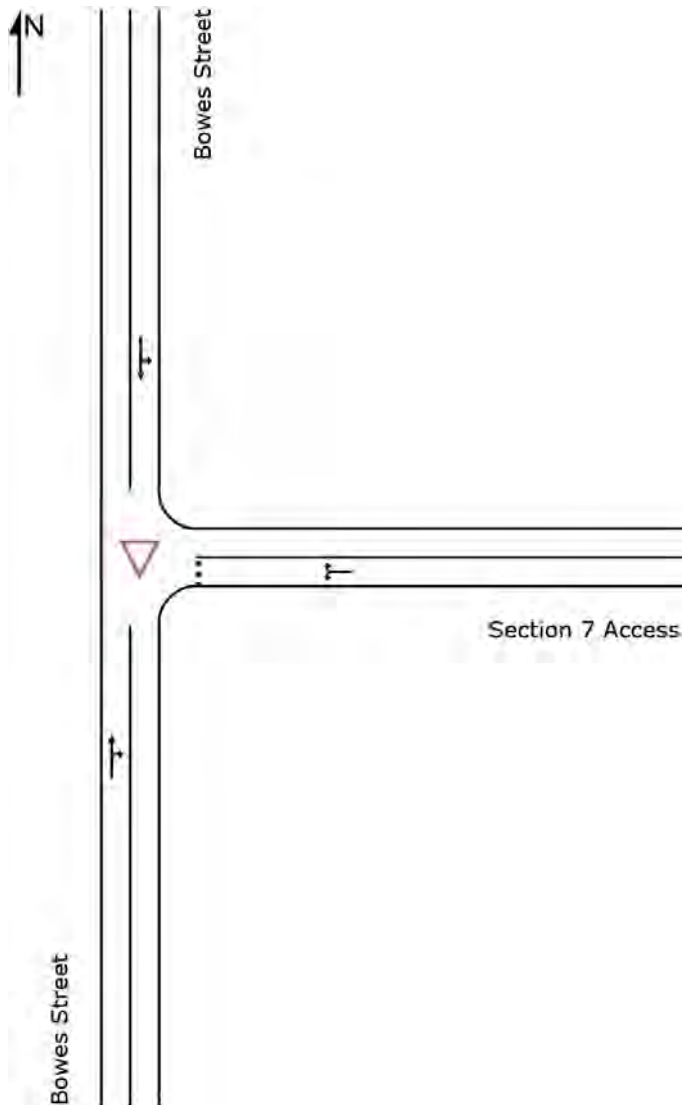
Bowes Street / Section 7 Access

Existing Priority-Controlled (Give-Way) T-Intersection

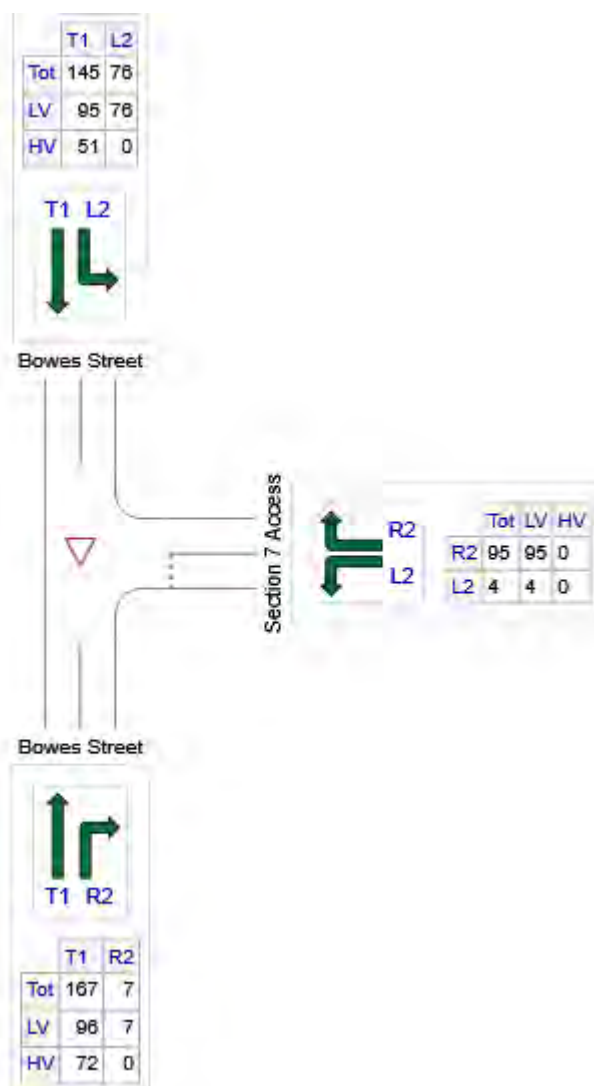
Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	175	103	72
E: Section 7 Access	99	99	0
N: Bowes Street	221	171	51
Total	495	373	122

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	167	42.8	0.114	0.0	LOS A	0.1	0.5	0.03	0.02	0.03	47.7
3	R2	7	0.0	0.114	5.2	LOS A	0.1	0.5	0.03	0.02	0.03	48.0
Approach		175	41.0	0.114	0.3	NA	0.1	0.5	0.03	0.02	0.03	47.7
East: Section 7 Access												
4	L2	4	0.0	0.111	0.5	LOS A	0.4	2.6	0.40	0.40	0.40	23.5
6	R2	95	0.0	0.111	2.4	LOS A	0.4	2.6	0.40	0.40	0.40	22.9
Approach		99	0.0	0.111	2.3	LOS A	0.4	2.6	0.40	0.40	0.40	23.0
North: Bowes Street												
7	L2	76	0.0	0.132	4.3	LOS A	0.0	0.0	0.00	0.19	0.00	23.1
8	T1	145	34.8	0.132	0.0	LOS A	0.0	0.0	0.00	0.19	0.00	41.6
Approach		221	22.9	0.132	1.5	NA	0.0	0.0	0.00	0.19	0.00	34.5
All Vehicles		495	24.7	0.132	1.2	NA	0.4	2.6	0.09	0.17	0.09	35.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	175	41.0	1533	0.114	100	0.3	LOS A	0.1	0.5	Full	60	0.0	0.0
Approach	175	41.0		0.114		0.3	NA	0.1	0.5				
East: Section 7 Access													
Lane 1	99	0.0	895	0.111	100	2.3	LOS A	0.4	2.6	Full	15	0.0	0.0
Approach	99	0.0		0.111		2.3	LOS A	0.4	2.6				
North: Bowes Street													
Lane 1	221	22.9	1673	0.132	100	1.5	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	221	22.9		0.132		1.5	NA	0.0	0.0				
Intersection	495	24.7		0.132		1.2	NA	0.4	2.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2025 ExCond - PM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 72 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

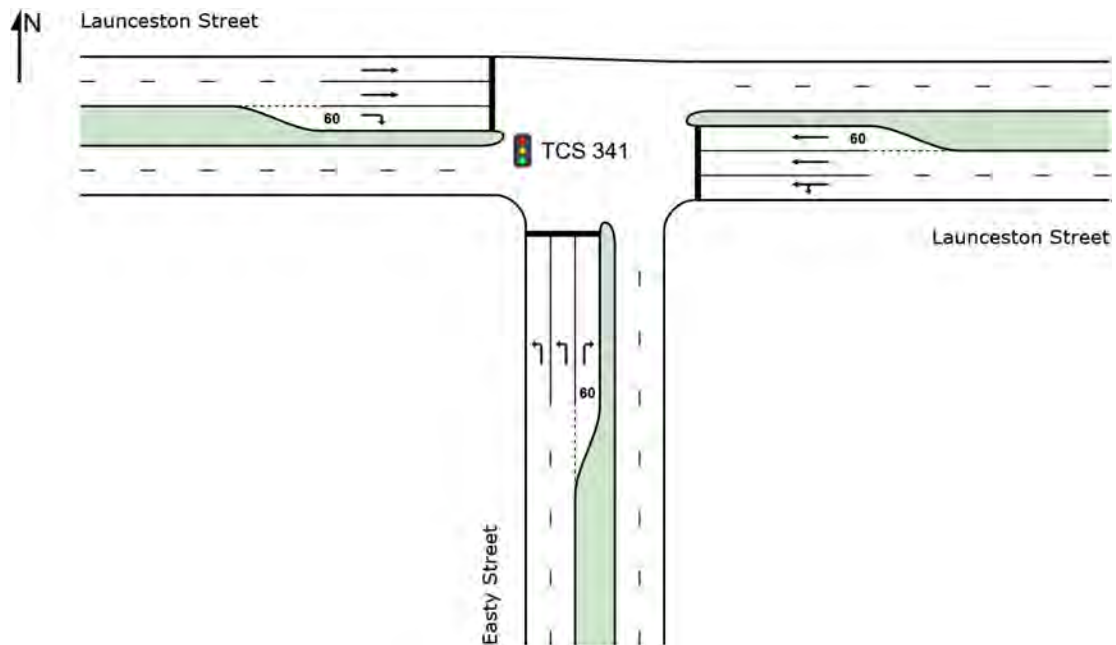
Phase Sequence: SCATS

Reference Phase: Phase A

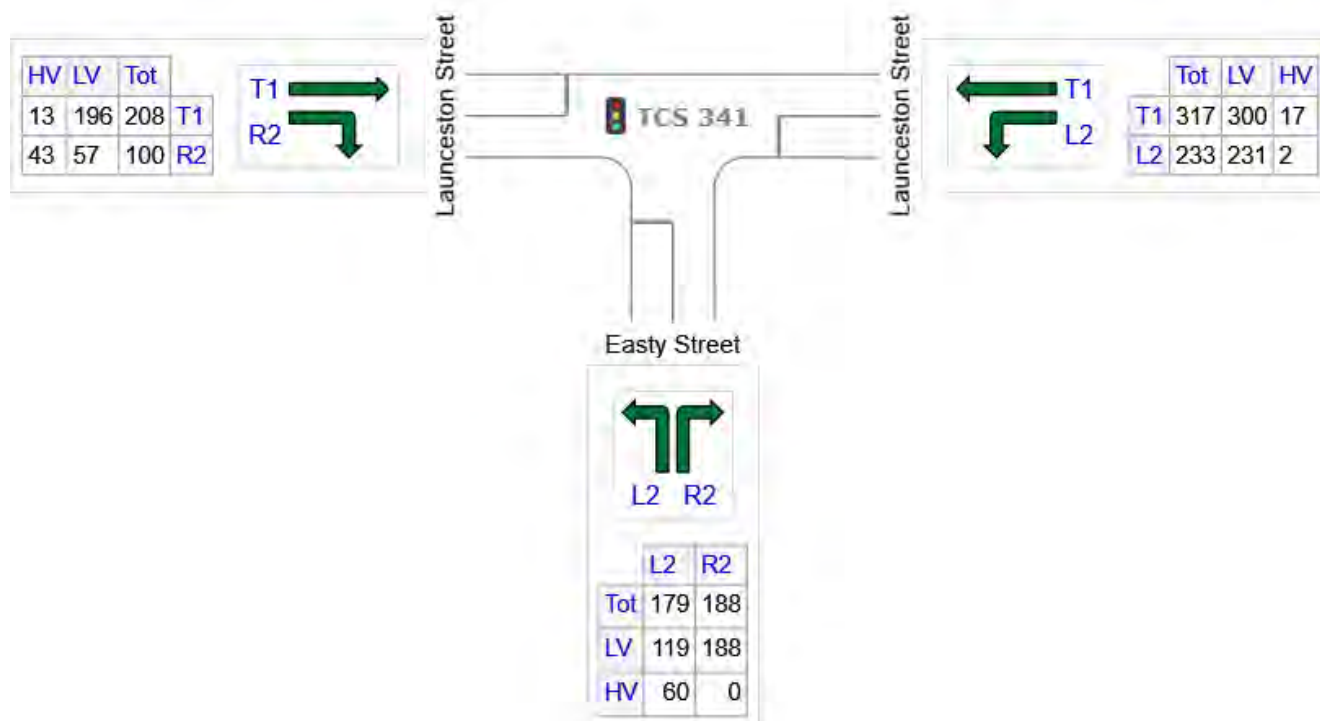
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



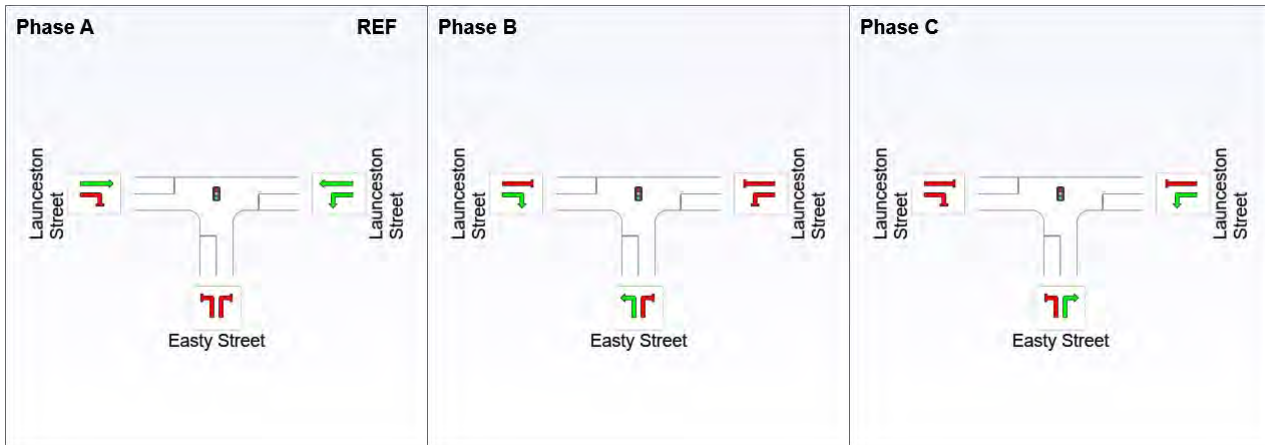
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	367	307	60
E: Launceston Street	549	531	19
W: Launceston Street	308	253	56
Total	1225	1091	135

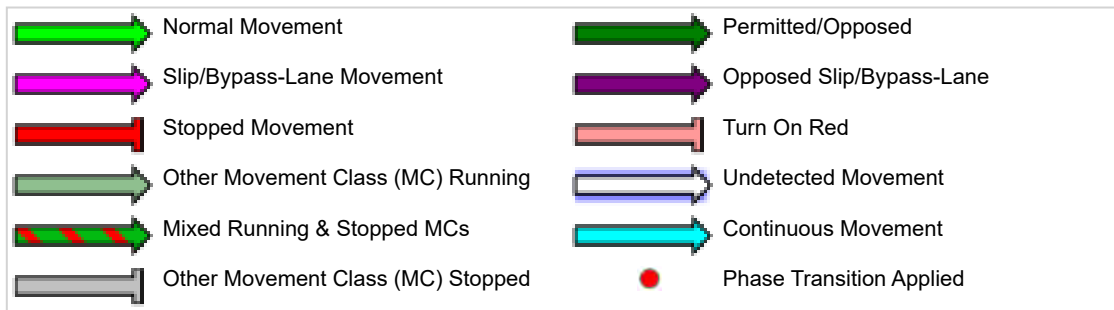
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	33	50
Green Time (sec)	27	11	16
Phase Time (sec)	33	17	22
Phase Split	46%	24%	31%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	179	33.5	0.391	35.0	LOS C	3.0	27.1	0.94	0.76	0.94	21.6
3	R2	188	0.0	0.457	30.3	LOS C	5.9	41.4	0.91	0.79	0.91	25.6
Approach		367	16.3	0.457	32.5	LOS C	5.9	41.4	0.93	0.78	0.93	23.7
East: Launceston Street												
4	L2	233	0.9	0.185	7.9	LOS A	3.0	20.8	0.39	0.61	0.39	35.0
5	T1	317	5.3	0.224	16.6	LOS B	3.8	28.0	0.72	0.59	0.72	27.6
Approach		549	3.4	0.224	12.9	LOS A	3.8	28.0	0.58	0.60	0.58	30.9
West: Launceston Street												
11	T1	208	6.1	0.148	16.1	LOS B	2.4	17.9	0.70	0.55	0.70	27.9
12	R2	100	43.2	0.461	35.5	LOS C	3.4	32.7	0.95	0.77	0.95	21.6
Approach		308	18.1	0.461	22.4	LOS B	3.4	32.7	0.78	0.63	0.78	25.3
All Vehicles		1225	11.0	0.461	21.2	LOS B	5.9	41.4	0.73	0.66	0.73	26.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	89	33.5	229	0.391	100	35.0	LOS C	3.0	27.1	Full	305	0.0	0.0
Lane 2	89	33.5	229	0.391	100	35.0	LOS C	3.0	27.1	Full	305	0.0	0.0
Lane 3	188	0.0	413	0.457	100	30.3	LOS C	5.9	41.4	Short	60	0.0	NA
Approach	367	16.3		0.457		32.5	LOS C	5.9	41.4				
East: Launceston Street													
Lane 1	233	0.9	1256	0.185	83 ⁵	7.9	LOS A	3.0	20.8	Full	260	0.0	0.0
Lane 2	158	5.3	707	0.224	100	16.6	LOS B	3.8	28.0	Full	260	0.0	0.0
Lane 3	158	5.3	707	0.224	100	16.6	LOS B	3.8	28.0	Short	60	0.0	NA
Approach	549	3.4		0.224		12.9	LOS A	3.8	28.0				
West: Launceston Street													
Lane 1	104	6.1	704	0.148	100	16.1	LOS B	2.4	17.9	Full	130	0.0	0.0
Lane 2	104	6.1	704	0.148	100	16.1	LOS B	2.4	17.9	Full	130	0.0	0.0
Lane 3	100	43.2	217	0.461	100	35.5	LOS C	3.4	32.7	Short	60	0.0	NA
Approach	308	18.1		0.461		22.4	LOS B	3.4	32.7				
Intersection	1225	11.0		0.461		21.2	LOS B	5.9	41.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:24:39 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2025 ExCond - PM - LS-YD]

 Network: 2 [2025 ExCond - PM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (CCG User-Given Phase Times)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times specified by the user

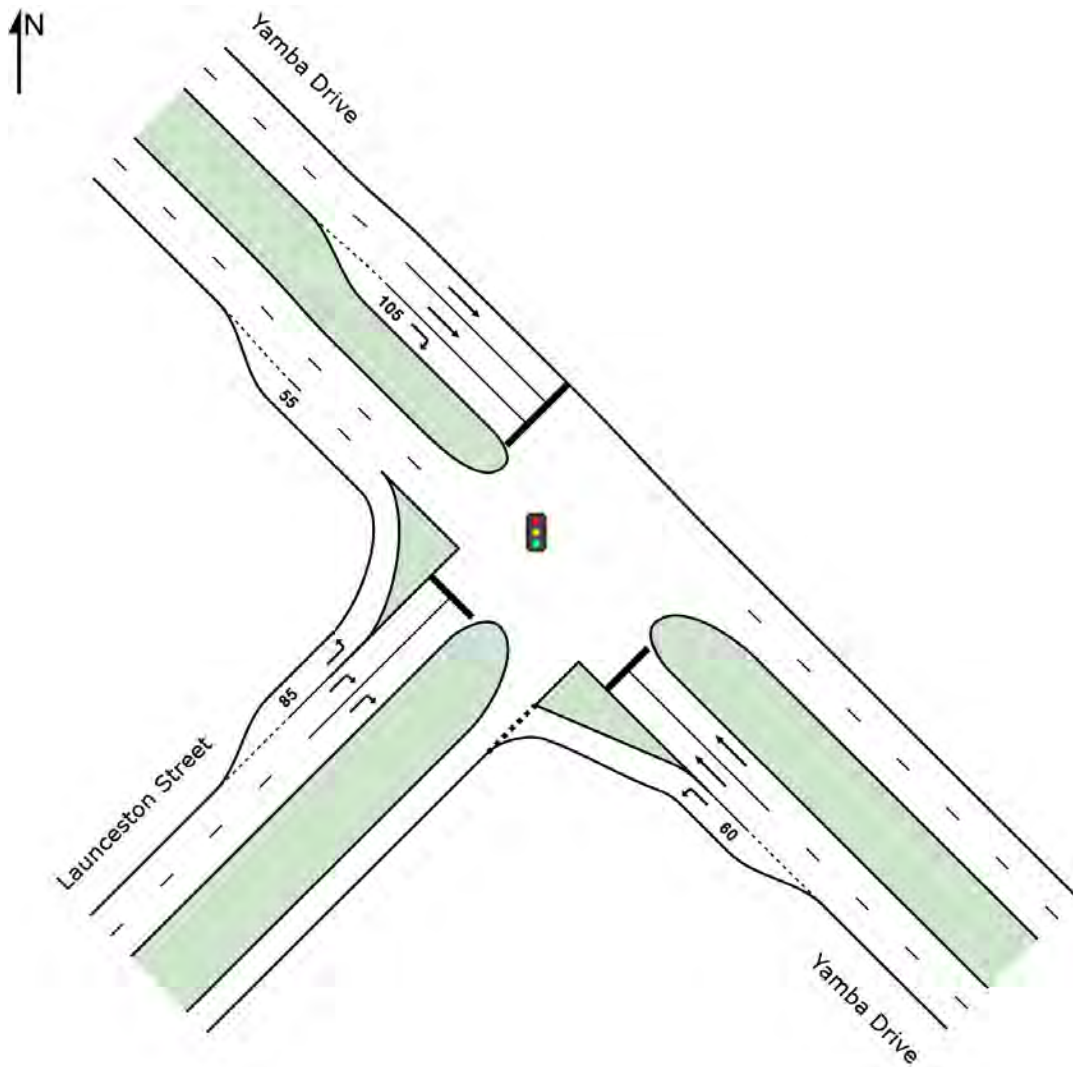
Phase Sequence: SCATS

Reference Phase: Phase A

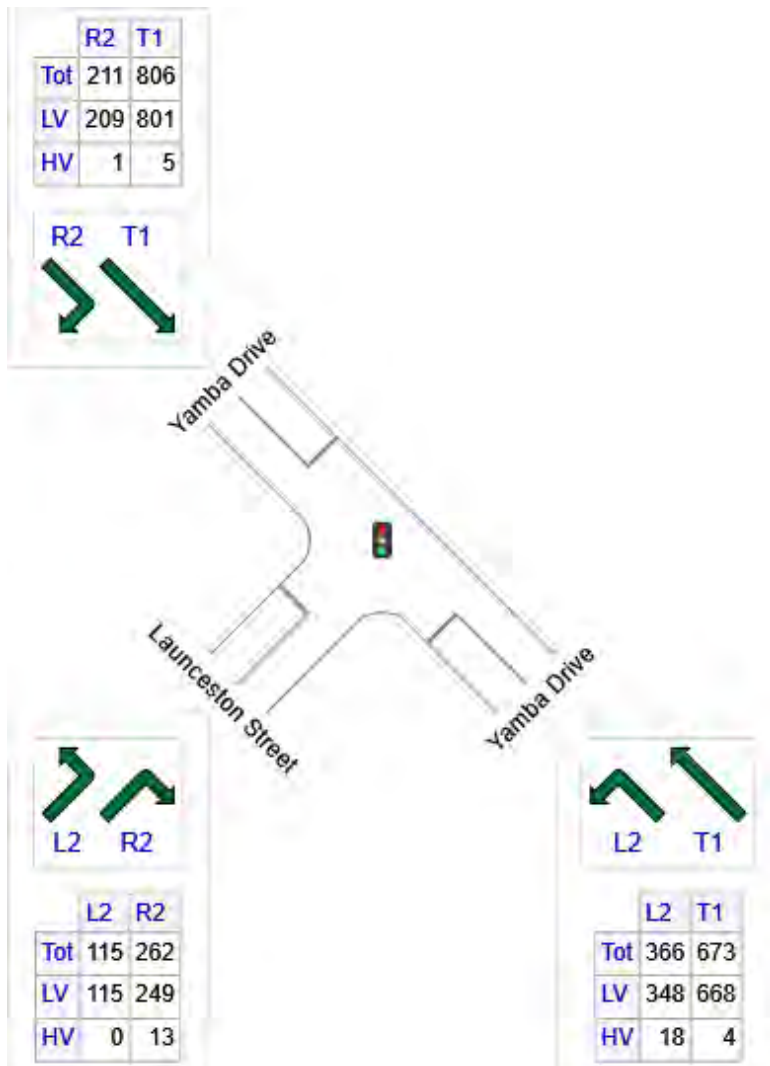
Input Phase Sequence: A, D, E

Output Phase Sequence: A, D, E

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1039	1017	22
NW: Yamba Drive	1017	1011	6
SW: Launceston Street	377	364	13
Total	2433	2392	41

Input Phase Sequence (CCG)

Movement Class: All Movement Classes



REF: Reference Phase

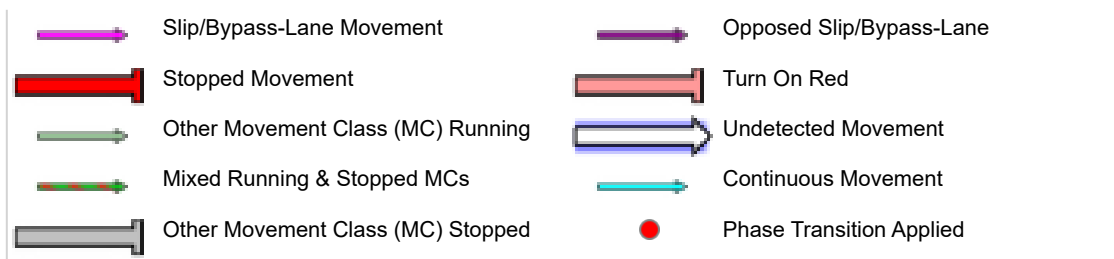
VAR: Variable Phase



Normal Movement



Permitted/Opposed



Phase Timing Summary (CCG)

Phase	A	D	E
Phase Change Time (sec)	0	63	87
Green Time (sec)	57	18	21
Phase Time (sec)	63	24	27
Phase Split	55%	21%	24%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	366	4.9	366	4.9	0.258	4.9	LOS A	0.4	3.3	0.03	0.59	0.03	40.6
5	T1	673	0.6	673	0.6	0.346	7.5	LOS A	6.3	44.4	0.27	0.24	0.27	51.3
Approach		1039	2.1	1039	2.1	0.346	6.5	LOS A	6.3	44.4	0.19	0.36	0.19	46.5
NorthWest: Yamba Drive														
11	T1	806	0.7	806	0.7	0.563	21.3	LOS C	15.6	109.6	0.75	0.66	0.75	26.3
12	R2	211	0.5	211	0.5	0.618	54.2	LOS D	11.0	77.3	0.97	0.82	0.97	20.5
Approach		1017	0.6	1017	0.6	0.618	28.1	LOS C	15.6	109.6	0.79	0.70	0.79	23.8
SouthWest: Launceston Street														
1	L2	115	0.0	115	0.0	0.062	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	39.5
3	R2	262	4.8	262	4.8	0.627	54.3	LOS D	7.2	52.2	0.98	0.83	1.02	12.6
Approach		377	3.4	377	3.4	0.627	38.6	LOS D	7.2	52.2	0.68	0.69	0.71	18.1
All Vehicles		2433	1.7	2433	1.7	0.627	20.5	LOS C	15.6	109.6	0.52	0.55	0.52	28.3

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	Total veh/h	HV %						Veh	Dist m				
SouthEast: Yamba Drive															
Lane 1	366	4.9	366	4.9	1417	0.258	100	4.9	LOS A	0.4	3.3	Short	60	0.0	NA
Lane 2	336	0.6	336	0.6	971	0.346	100	4.3	LOS A	3.1	21.8	Full	65	0.0	0.0
Lane 3	336	0.6	336	0.6	971	0.346	100	10.7	LOS B	6.3	44.4	Full	65	0.0	0.0
Approach	1039	2.1	1039	2.1		0.346		6.5	LOS A	6.3	44.4				
NorthWest: Yamba Drive															
Lane 1	403	0.7	403	0.7	716	0.563	100	21.3	LOS C	15.6	109.6	Full	215	-26.3 ^{N3}	0.0
Lane 2	403	0.7	403	0.7	716	0.563	100	21.3	LOS C	15.6	109.6	Full	215	-26.3 ^{N3}	0.0
Lane 3	211	0.5	211	0.5	341	0.618	100	54.2	LOS D	11.0	77.3	Short	105	0.0	NA
Approach	1017	0.6	1017	0.6		0.618		28.1	LOS C	15.6	109.6				
SouthWest: Launceston Street															
Lane 1	115	0.0	115	0.0	1857	0.062	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	131	4.8	131	4.8	209	0.627	100	54.3	LOS D	7.2	52.2	Full	260	-26.3 ^{N3}	0.0
Lane 3	131	4.8	131	4.8	209	0.627	100	54.3	LOS D	7.2	52.2	Full	260	-26.3 ^{N3}	0.0
Approach	377	3.4	377	3.4		0.627		38.6	LOS D	7.2	52.2				
Intersection	2433	1.7	2433	1.7		0.627		20.5	LOS C	15.6	109.6				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2025 ExCond - PM - WS-YD]**

Network: 2 [2025 ExCond - PM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2025 Existing Conditions - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (CCG User-Given Phase Times)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times specified by the user

Phase Sequence: SCATS

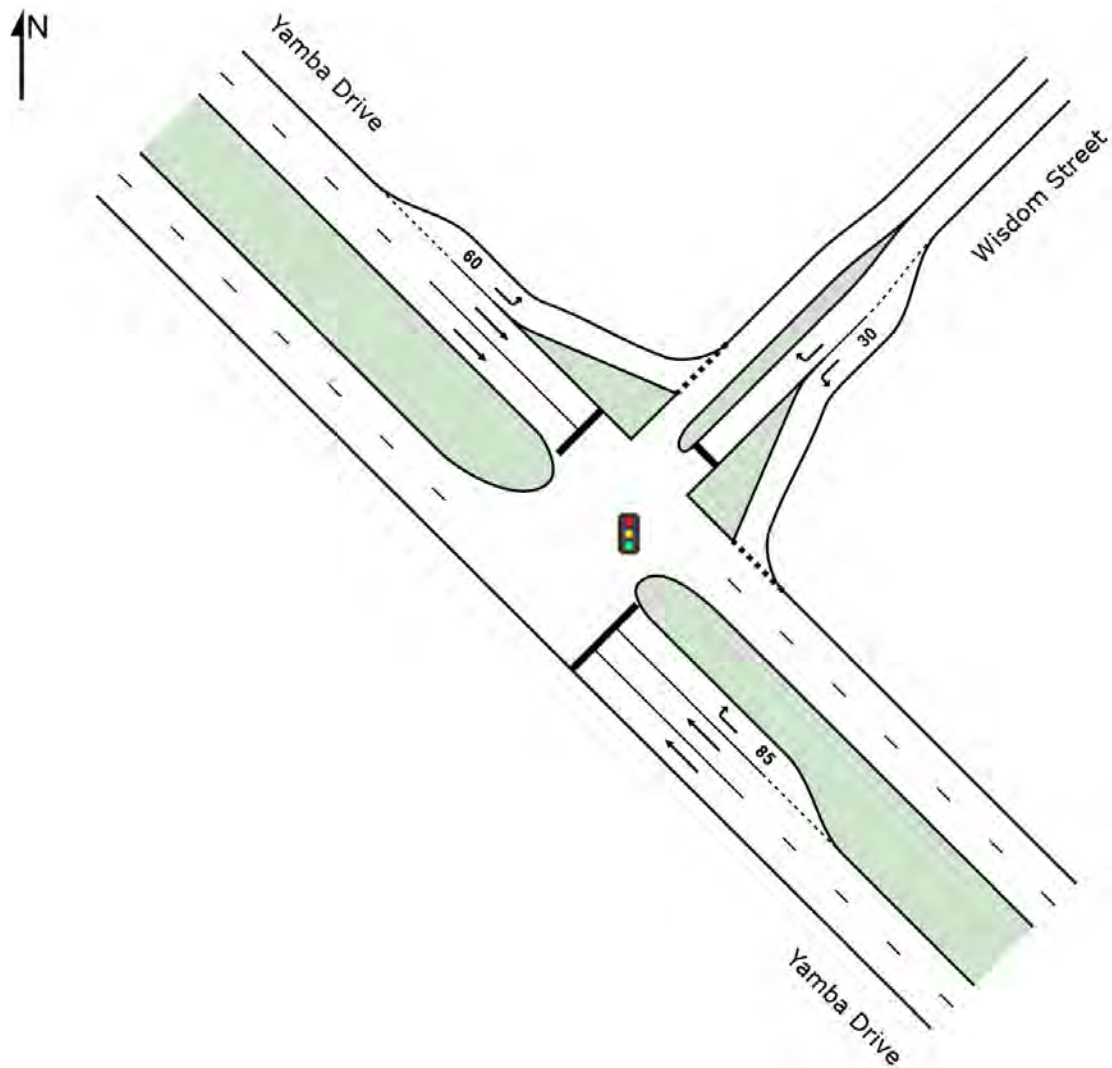
Reference Phase: Phase A

Input Phase Sequence: A, D, E

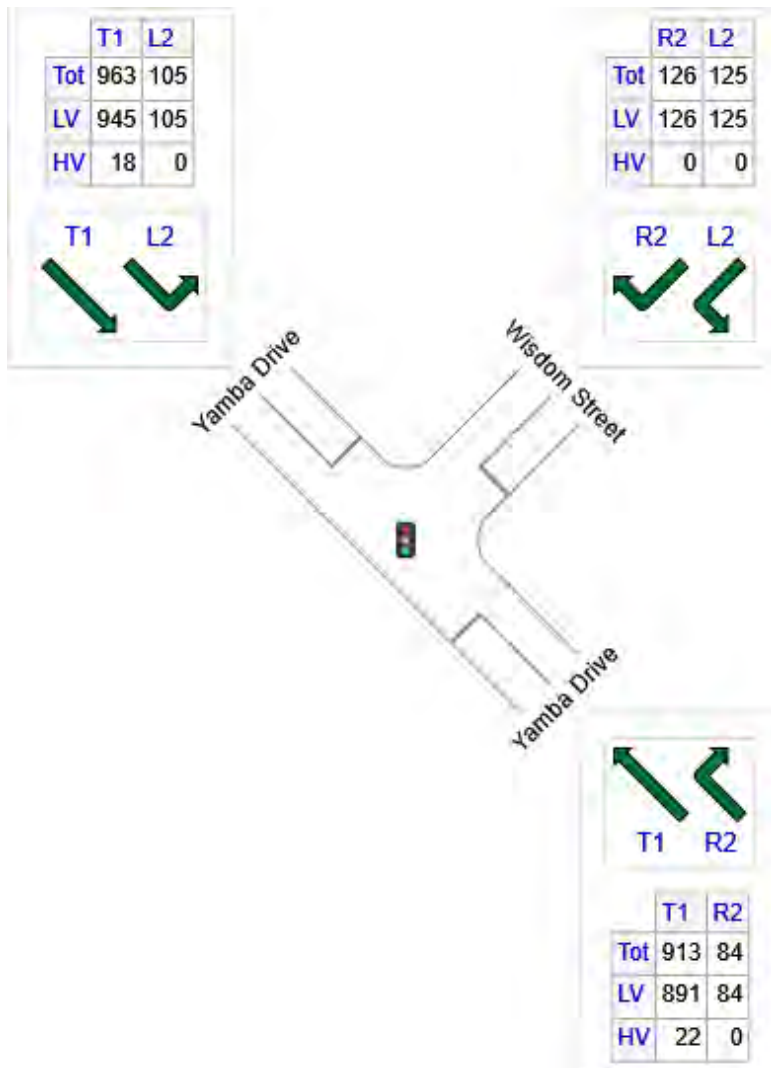
Output Phase Sequence: A, D, E

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	997	975	22
NE: Wisdom Street	252	252	0
NW: Yamba Drive	1068	1051	18
Total	2317	2277	40

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
11	T1	913	2.4	913	2.4	0.475	19.9	LOS B	16.4	117.5	0.70	0.62	0.70	50.3
12	R2	84	0.0	84	0.0	0.246	50.2	LOS D	4.1	28.4	0.90	0.77	0.90	35.5
Approach		997	2.2	997	2.2	0.475	22.4	LOS C	16.4	117.5	0.72	0.63	0.72	47.4
NorthEast: Wisdom Street														
1	L2	125	0.0	125	0.0	0.123	5.3	LOS A	1.4	9.6	0.26	0.52	0.26	49.6
3	R2	126	0.0	126	0.0	0.431	51.1	LOS D	6.5	45.4	0.95	0.78	0.95	22.0
Approach		252	0.0	252	0.0	0.431	28.3	LOS C	6.5	45.4	0.61	0.65	0.61	35.2
NorthWest: Yamba Drive														
4	L2	105	0.0	105	0.0	0.067	4.7	LOS A	0.1	0.6	0.02	0.59	0.02	40.4
5	T1	963	1.9	963	1.9	0.500	13.0	LOS B	11.6	82.1	0.47	0.42	0.47	59.1
Approach		1068	1.7	1068	1.7	0.500	12.2	LOS B	11.6	82.1	0.43	0.43	0.43	56.6
All Vehicles		2317	1.7	2317	1.7	0.500	18.3	LOS B	16.4	117.5	0.57	0.54	0.57	48.6

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	456	2.4	456	2.4	960	0.475	100	19.9	LOS B	16.4	117.5	Full	735	0.0	0.0
Lane 2	456	2.4	456	2.4	960	0.475	100	19.9	LOS B	16.4	117.5	Full	735	0.0	0.0
Lane 3	84	0.0	84	0.0	342	0.246	100	50.2	LOS D	4.1	28.4	Short	85	0.0	NA
Approach	997	2.2	997	2.2		0.475		22.4	LOS C	16.4	117.5				
NorthEast: Wisdom Street															
Lane 1	125	0.0	125	0.0	1017	0.123	100	5.3	LOS A	1.4	9.6	Short	30	0.0	NA
Lane 2	126	0.0	126	0.0	293	0.431	100	51.1	LOS D	6.5	45.4	Full	680	0.0	0.0
Approach	252	0.0	252	0.0		0.431		28.3	LOS C	6.5	45.4				
NorthWest: Yamba Drive															
Lane 1	105	0.0	105	0.0	1566	0.067	100	4.7	LOS A	0.1	0.6	Short	60	0.0	NA
Lane 2	482	1.9	482	1.9	963	0.500	100	13.0	LOS B	11.6	82.1	Full	65	0.0	26.3
Lane 3	482	1.9	482	1.9	963	0.500	100	13.0	LOS B	11.6	82.1	Full	65	0.0	26.3
Approach	1068	1.7	1068	1.7		0.500		12.2	LOS B	11.6	82.1				
Intersection	2317	1.7	2317	1.7		0.500		18.3	LOS B	16.4	117.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix B:

Intersection Performance Results – 2030 Base Scenario

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2030 Base - AM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2030 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 103 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

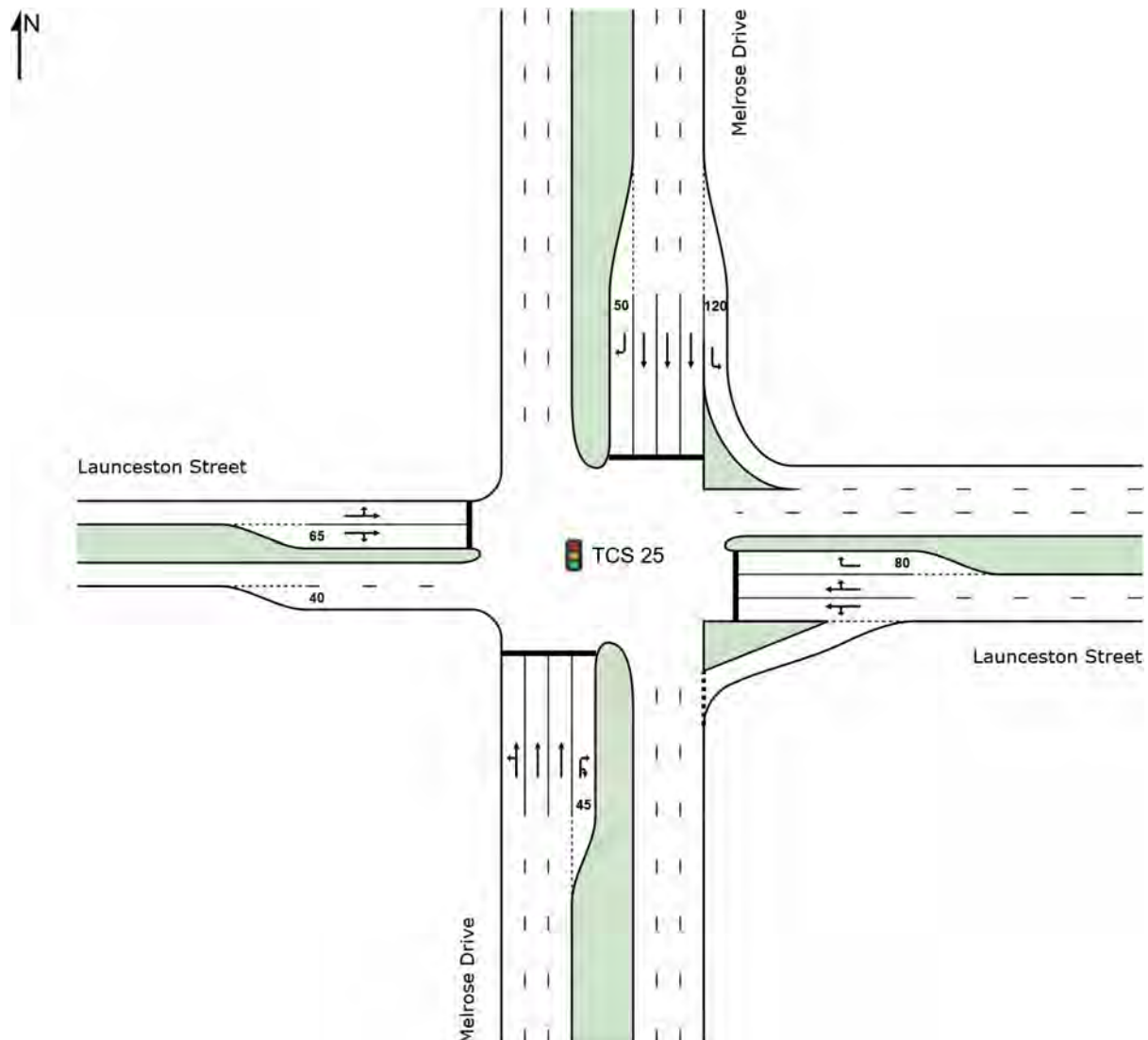
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

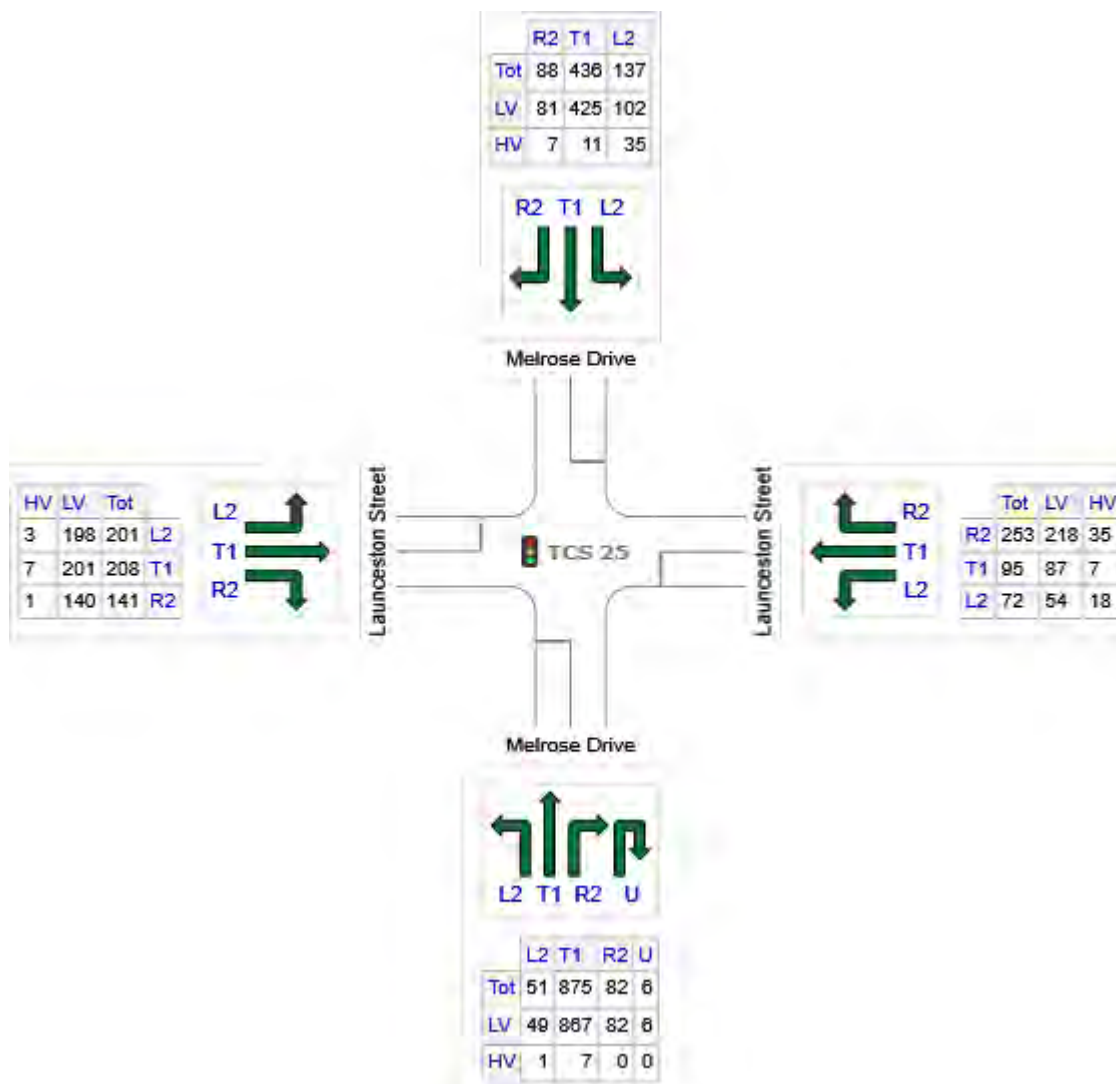
Output Phase Sequence: A, D, E, F

(* Variable Phase)

Site Layout



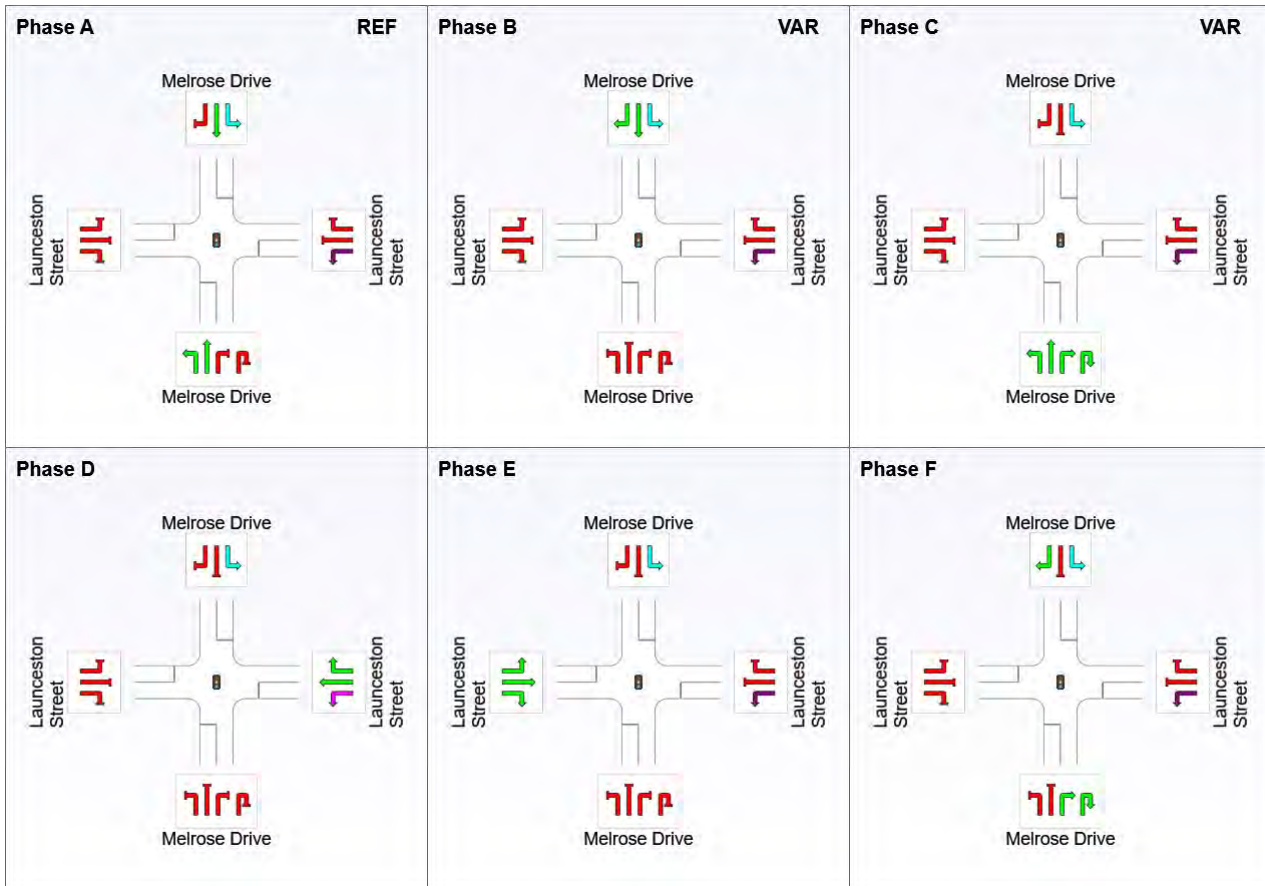
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	1014	1005	8
E: Launceston Street	419	359	60
N: Melrose Drive	661	608	53
W: Launceston Street	551	539	12
Total	2644	2512	133

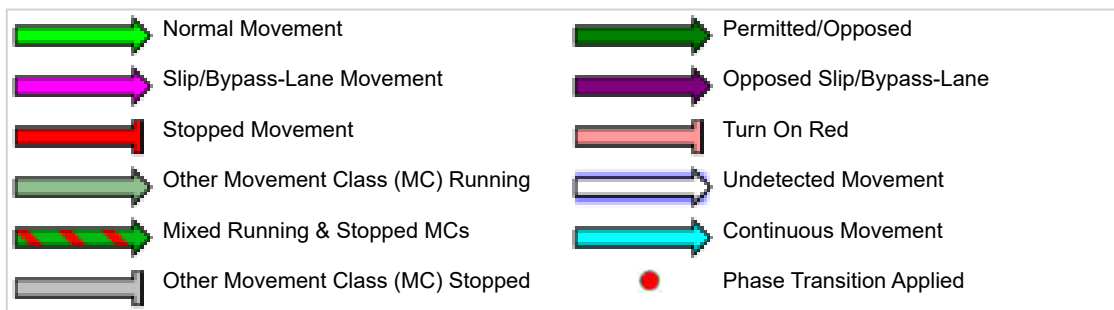
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	33	58	88
Green Time (sec)	27	19	24	9
Phase Time (sec)	33	25	30	15
Phase Split	32%	24%	29%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	51	2.1	0.630	42.1	LOS C	14.2	100.5	0.94	0.81	0.94	19.7
2	T1	875	0.8	0.630	36.3	LOS C	14.4	101.3	0.93	0.80	0.93	32.0
3	R2	82	0.0	0.558	57.0	LOS E	4.5	31.6	1.00	0.78	1.01	13.5
3u	U	6	0.0	0.558	58.4	LOS E	4.5	31.6	1.00	0.78	1.01	18.3
Approach		1014	0.8	0.630	38.4	LOS C	14.4	101.3	0.94	0.79	0.94	29.9
East: Launceston Street												
4	L2	72	25.0	0.166	14.3	LOS A	2.0	16.1	0.59	0.65	0.59	32.4
5	T1	95	7.8	0.490	30.0	LOS C	7.3	56.1	0.81	0.74	0.81	16.4
6	R2	253	13.8	0.490	47.1	LOS D	7.3	56.1	0.94	0.80	0.94	25.5
Approach		419	14.3	0.490	37.6	LOS C	7.3	56.1	0.85	0.76	0.85	24.7
North: Melrose Drive												
7	L2	137	25.4	0.087	5.9	LOS A	0.0	0.0	0.00	0.51	0.00	48.8
8	T1	436	2.4	0.289	32.8	LOS C	5.9	41.8	0.84	0.68	0.84	33.6
9	R2	88	8.3	0.577	57.4	LOS E	4.5	34.1	1.00	0.79	1.03	22.3
Approach		661	8.0	0.577	30.5	LOS C	5.9	41.8	0.69	0.66	0.69	33.6
West: Launceston Street												
10	L2	201	1.6	0.633	43.5	LOS D	12.6	89.6	0.96	0.82	0.96	26.1
11	T1	208	3.5	0.633	38.9	LOS C	12.7	90.6	0.96	0.82	0.96	13.9
12	R2	141	0.7	0.633	43.4	LOS D	12.7	90.6	0.96	0.82	0.96	18.5
Approach		551	2.1	0.633	41.7	LOS C	12.7	90.6	0.96	0.82	0.96	20.5
All Vehicles		2644	5.0	0.633	37.0	LOS C	14.4	101.3	0.87	0.76	0.87	28.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	317	1.0	504	0.630	100	37.4	LOS C	14.2	100.5	Full	205	0.0	0.0
Lane 2	320	0.8	508	0.630	100	36.5	LOS C	14.4	101.3	Full	205	0.0	0.0
Lane 3	288	0.8	457 ¹	0.630	100	35.8	LOS C	12.7	89.3	Full	205	0.0	0.0
Lane 4	88	0.0	159	0.558	100	57.1	LOS E	4.5	31.6	Short	45	0.0	NA
Approach	1014	0.8		0.630		38.4	LOS C	14.4	101.3				
East: Launceston Street													
Lane 1	108	19.2	652	0.166	34 ⁶	12.8	LOS A	2.0	16.1	Full	90	0.0	0.0
Lane 2	158	11.6	323	0.490	100	45.5	LOS D	7.3	56.1	Full	90	0.0	0.0
Lane 3	153	13.8	312	0.490	100	47.1	LOS D	7.1	55.3	Short	80	0.0	NA
Approach	419	14.3		0.490		37.6	LOS C	7.3	56.1				
North: Melrose Drive													
Lane 1	137	25.4	1573	0.087	100	5.9	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	145	2.4	503	0.289	100	32.8	LOS C	5.9	41.8	Full	470	0.0	0.0
Lane 3	145	2.4	503	0.289	100	32.8	LOS C	5.9	41.8	Full	470	0.0	0.0
Lane 4	145	2.4	503	0.289	100	32.8	LOS C	5.9	41.8	Full	470	0.0	0.0
Lane 5	88	8.3	153	0.577	100	57.4	LOS E	4.5	34.1	Short	50	0.0	NA
Approach	661	8.0		0.577		30.5	LOS C	5.9	41.8				
West: Launceston Street													
Lane 1	274	2.1	432	0.633	100	42.2	LOS C	12.6	89.6	Full	95	0.0	0.8 ⁸
Lane 2	277	2.1	437	0.633	100	41.2	LOS C	12.7	90.6	Short	65	0.0	NA
Approach	551	2.1		0.633		41.7	LOS C	12.7	90.6				
Intersection	2644	5.0		0.633		37.0	LOS C	14.4	101.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Site: TCS 340 [2030 Base - AM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2030 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 78 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

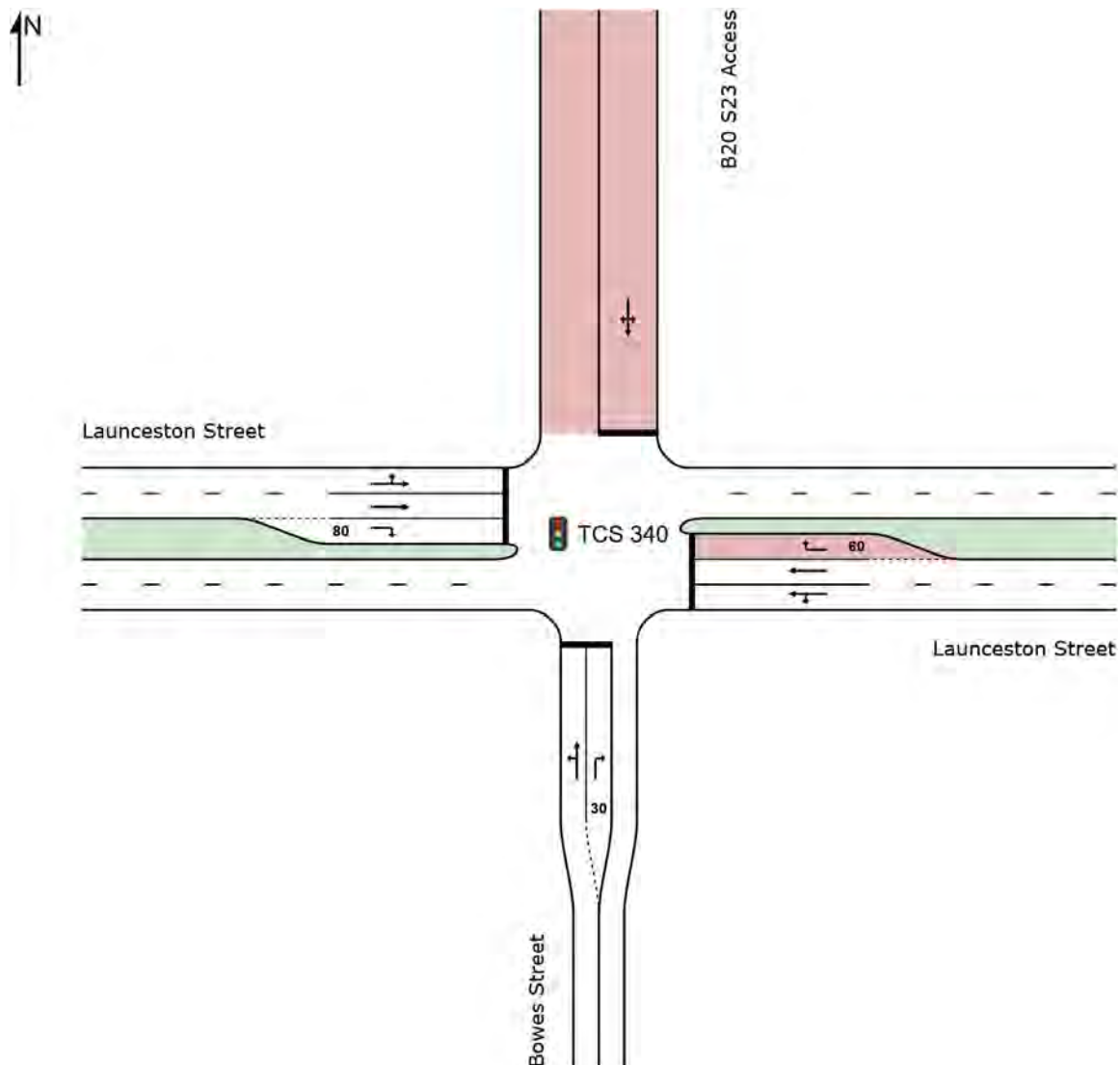
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

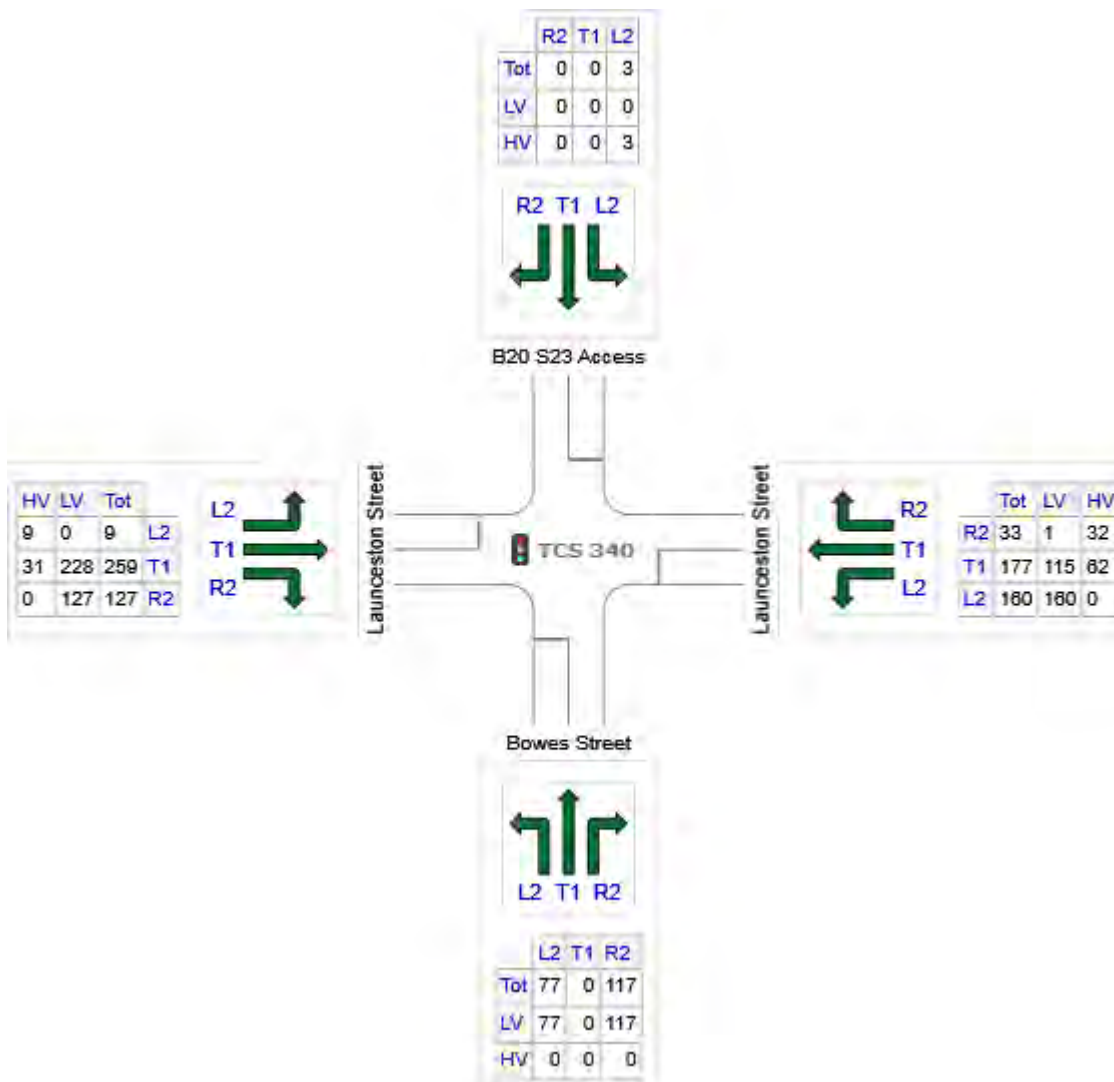
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



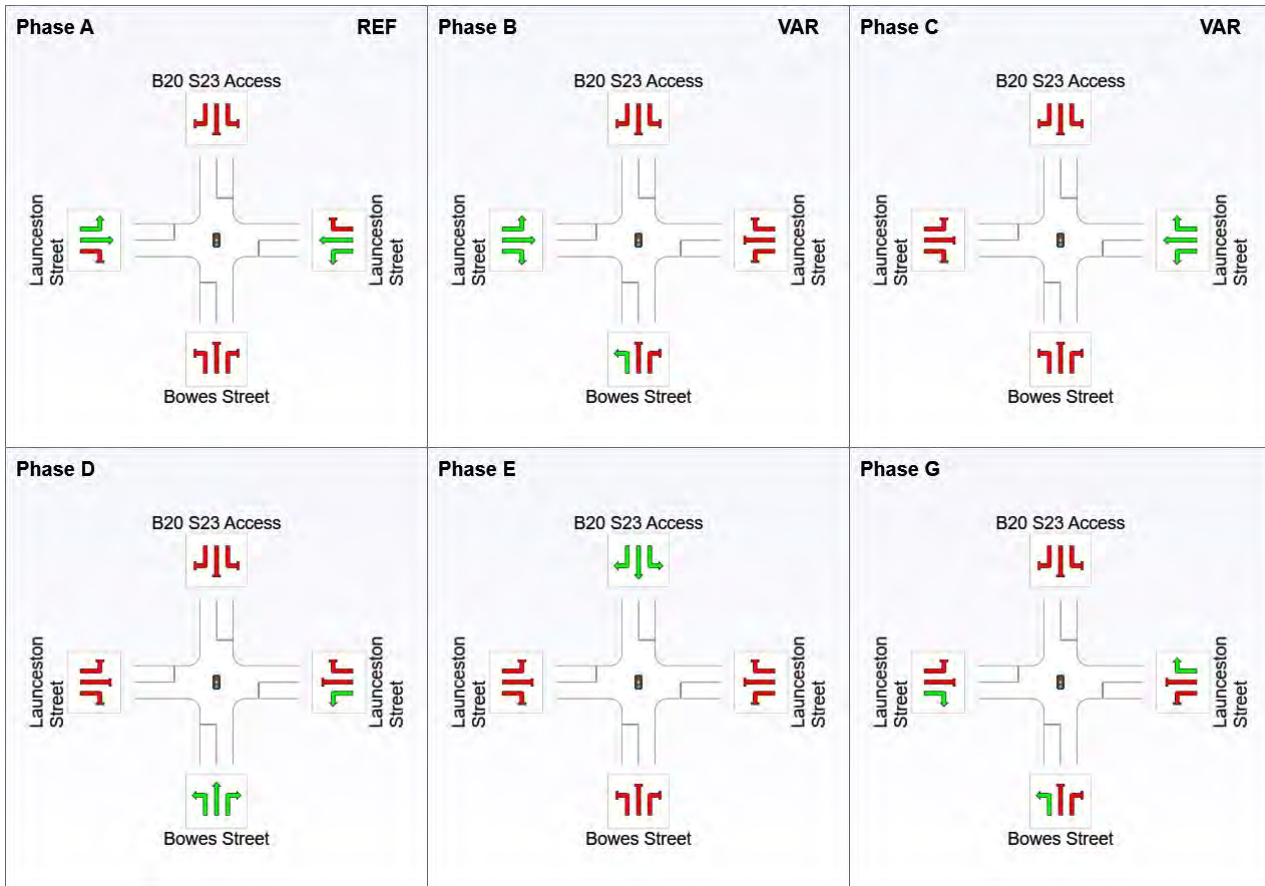
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	194	194	0
E: Launceston Street	369	276	94
N: B20 S23 Access	3	0	3
W: Launceston Street	396	356	40
Total	962	825	137

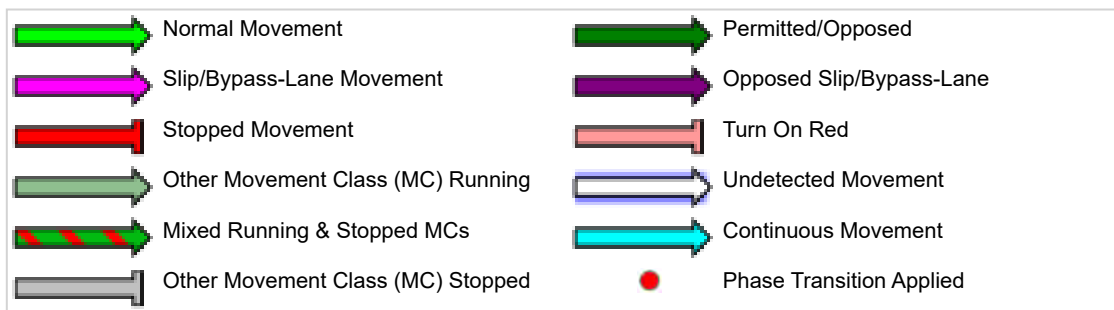
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	23	35	54	66
Green Time (sec)	17	6	13	6	6
Phase Time (sec)	23	12	19	12	12
Phase Split	29%	15%	24%	15%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	77	0.0	0.101	11.4	LOS A	1.1	7.7	0.64	0.68	0.64	24.3
2	T1	0	0.0	0.101	11.8	LOS A	1.1	7.7	0.64	0.68	0.64	14.2
3	R2	117	0.0	0.377	35.5	LOS C	4.1	28.7	0.93	0.77	0.93	11.1
Approach		194	0.0	0.377	25.9	LOS B	4.1	28.7	0.82	0.74	0.82	14.3
East: Launceston Street												
4	L2	160	0.0	0.385	19.3	LOS B	4.3	31.9	0.84	0.76	0.84	17.9
5	T1	177	35.1	0.385	25.2	LOS B	4.5	40.7	0.88	0.73	0.88	19.9
6	R2	33	96.8	0.386	47.5	LOS D	1.3	17.0	0.99	0.73	0.99	8.7
Approach		369	25.4	0.386	24.6	LOS B	4.5	40.7	0.87	0.75	0.87	17.6
North: B20 S23 Access												
7	L2	3	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	8.9
8	T1	0	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	5.7
9	R2	0	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	9.4
Approach		3	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	8.8
West: Launceston Street												
10	L2	9	100.0	0.179	23.6	LOS B	3.4	27.2	0.71	0.60	0.71	17.8
11	T1	259	11.8	0.179	17.7	LOS B	3.5	27.1	0.71	0.58	0.71	25.3
12	R2	127	0.0	0.391	23.0	LOS B	2.6	18.5	0.94	0.77	0.94	16.3
Approach		396	10.1	0.391	19.7	LOS B	3.5	27.2	0.78	0.64	0.78	22.0
All Vehicles		962	14.2	0.391	22.9	LOS B	4.5	40.7	0.83	0.70	0.83	18.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	77	0.0	760	0.101	100	11.4	LOS A	1.1	7.7	Full	35	0.0	0.0
Lane 2	117	0.0	310	0.377	100	35.5	LOS C	4.1	28.7	Short	30	0.0	NA
Approach	194	0.0		0.377		25.9	LOS B	4.1	28.7				
East: Launceston Street													
Lane 1	204	7.5	530	0.385	100	18.1	LOS B	4.3	31.9	Full	95	0.0	0.0
Lane 2	133	35.1	346	0.385	100	29.0	LOS C	4.5	40.7	Full	95	0.0	0.0
Lane 3	33	96.8	85	0.386	100	47.5	LOS D	1.3	17.0	Short	60	0.0	NA
Approach	369	25.4		0.386		24.6	LOS B	4.5	40.7				
North: B20 S23 Access													
Lane 1	3	100.0	91	0.037	100	38.6	LOS C	0.1	1.7	Full	30	0.0	0.0
Approach	3	100.0		0.037		38.6	LOS C	0.1	1.7				
West: Launceston Street													
Lane 1	131	18.2	732	0.179	100	18.5	LOS B	3.4	27.2	Full	105	0.0	0.0
Lane 2	137	11.8	768	0.179	100	17.7	LOS B	3.5	27.1	Full	105	0.0	0.0
Lane 3	127	0.0	326	0.391	100	23.0	LOS B	2.6	18.5	Short	80	0.0	NA
Approach	396	10.1		0.391		19.7	LOS B	3.5	27.2				
Intersection	962	14.2		0.391		22.9	LOS B	4.5	40.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Base - AM: BS-WS]

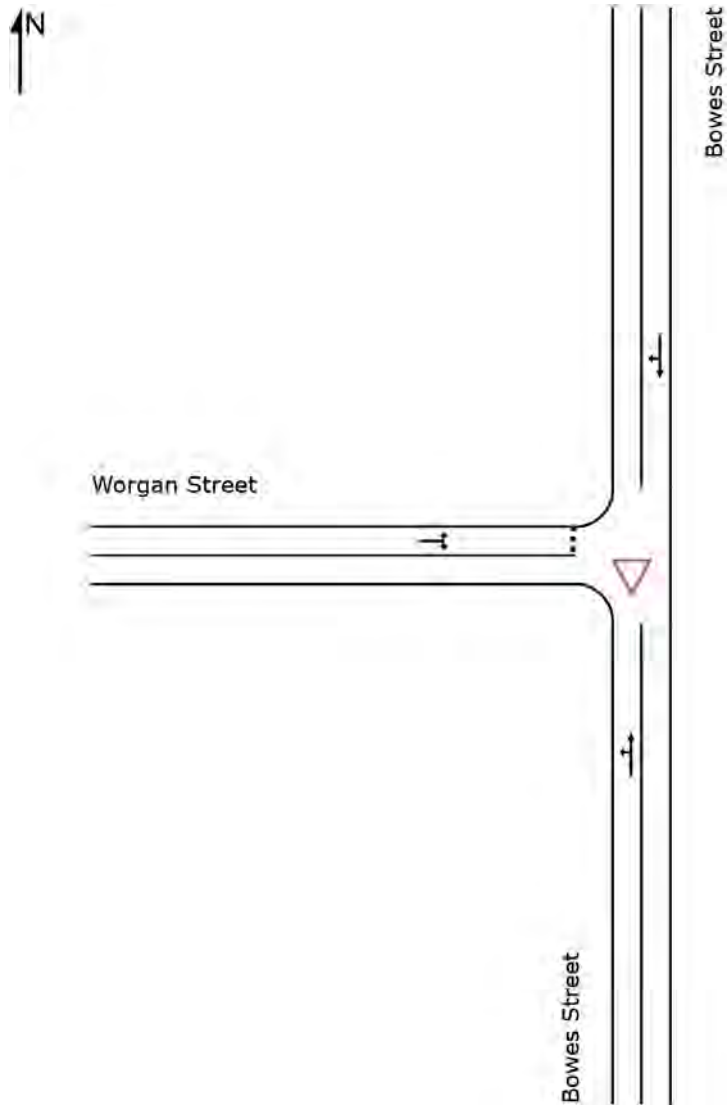
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

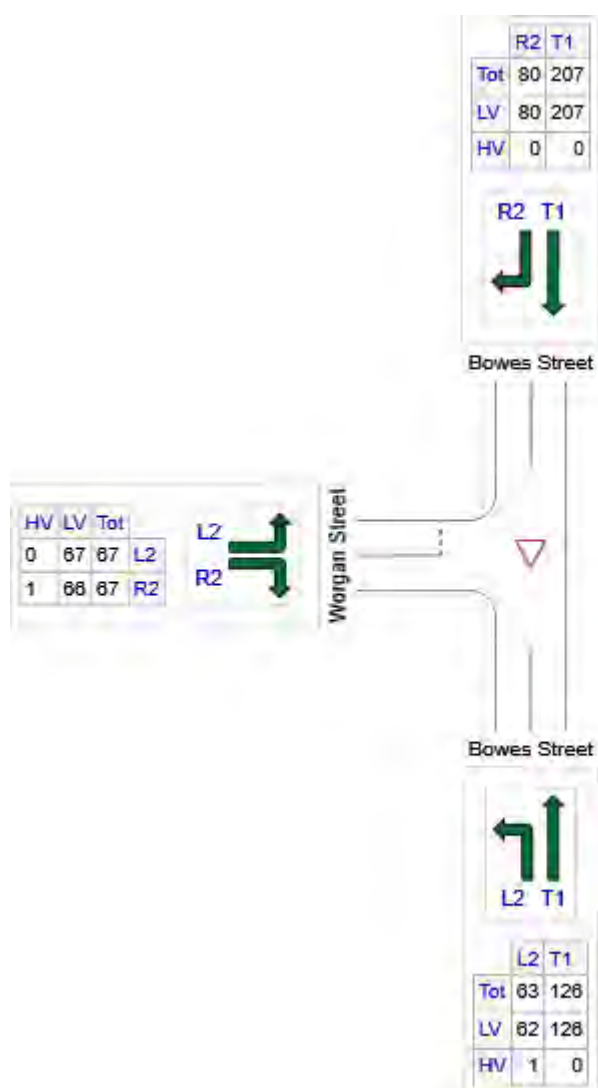
Site Category: 2030 Base Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	189	188	1
N: Bowes Street	287	287	0
W: Worgan Street	135	134	1
Total	612	609	2

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	63	1.7	0.099	4.6	LOS A	0.0	0.0	0.00	0.18	0.00	32.9
2	T1	126	0.0	0.099	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	43.9
Approach		189	0.6	0.099	1.5	NA	0.0	0.0	0.00	0.18	0.00	39.5
North: Bowes Street												
8	T1	207	0.0	0.160	0.3	LOS A	0.5	3.3	0.14	0.15	0.14	44.7
9	R2	80	0.0	0.160	3.8	LOS A	0.5	3.3	0.14	0.15	0.14	17.4
Approach		287	0.0	0.160	1.3	NA	0.5	3.3	0.14	0.15	0.14	35.3
West: Worgan Street												
10	L2	67	0.0	0.122	3.6	LOS A	0.5	3.3	0.27	0.55	0.27	21.0
12	R2	67	1.6	0.122	5.0	LOS A	0.5	3.3	0.27	0.55	0.27	32.7
Approach		135	0.8	0.122	4.3	LOS A	0.5	3.3	0.27	0.55	0.27	27.4
All Vehicles		612	0.3	0.160	2.0	NA	0.5	3.3	0.13	0.25	0.13	34.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	189	0.6	1910	0.099	100	1.5	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	189	0.6		0.099		1.5	NA	0.0	0.0				
North: Bowes Street													
Lane 1	287	0.0	1790	0.160	100	1.3	LOS A	0.5	3.3	Full	35	0.0	0.0
Approach	287	0.0		0.160		1.3	NA	0.5	3.3				
West: Worgan Street													
Lane 1	135	0.8	1103	0.122	100	4.3	LOS A	0.5	3.3	Full	35	0.0	0.0
Approach	135	0.8		0.122		4.3	LOS A	0.5	3.3				
Intersection	612	0.3		0.160		2.0	NA	0.5	3.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

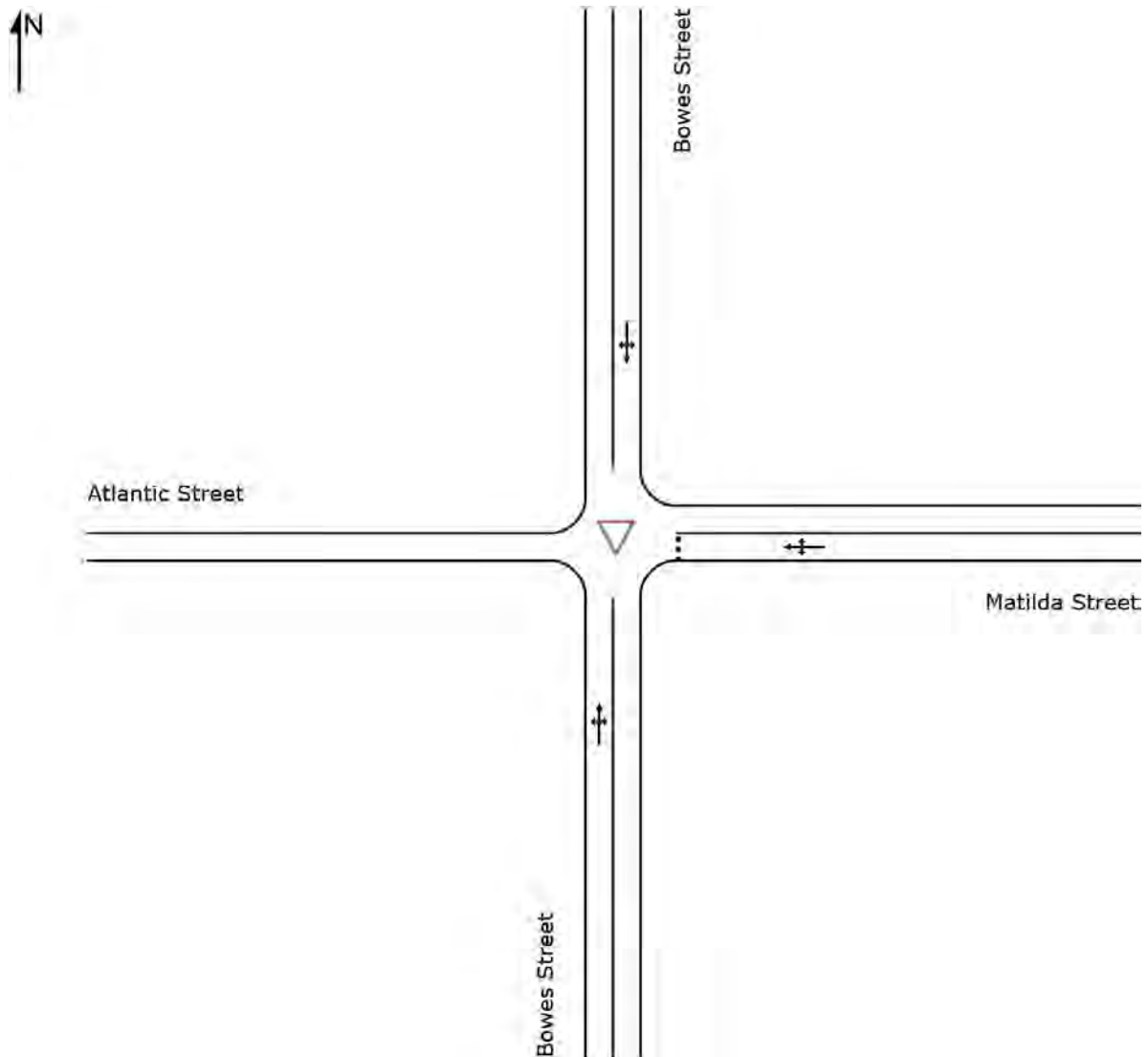
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

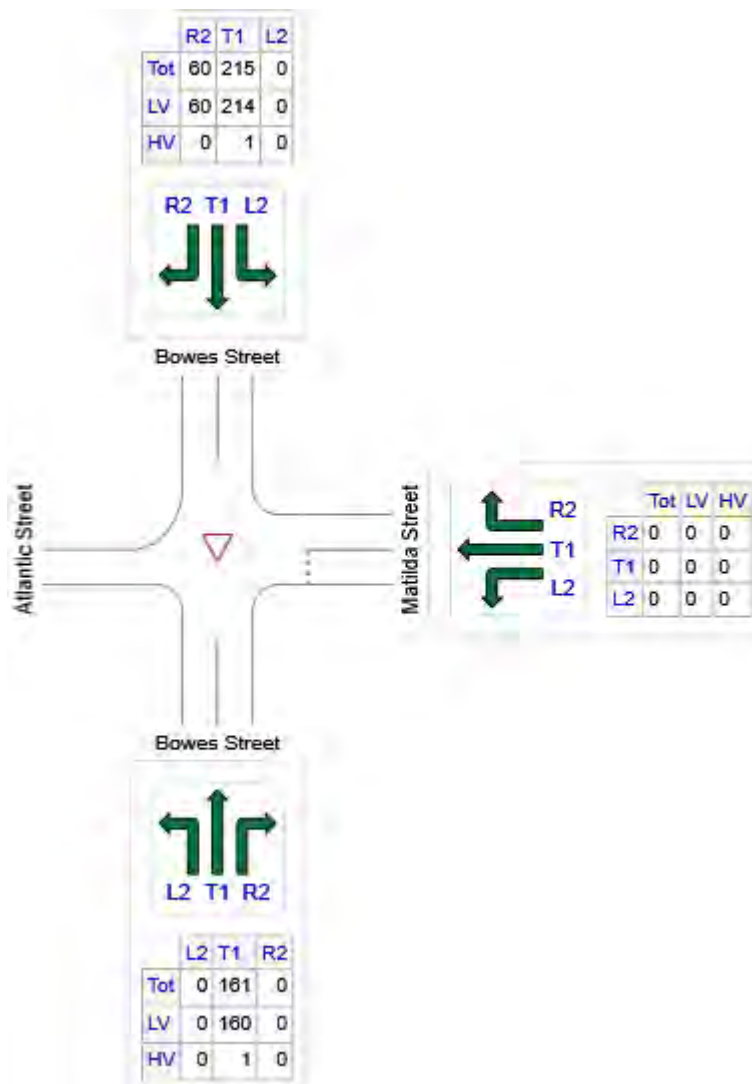
▼ Site: [2030 Base - AM: AS-BS-MS]

Atlantic Street / Bowes Street / Matilda Street
Existing Priority-Controlled (Give-Way) T-Intersection
Site Category: 2030 Base Scenario - Weekday Morning Peak Hour
Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	161	160	1
E: Matilda Street	0	0	0
N: Bowes Street	275	274	1
Total	436	434	2

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.083	4.1	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	161	0.7	0.083	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.083	4.3	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		161	0.7	0.083	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	0	0.0	0.000	5.1	LOS A	0.0	0.0	0.36	0.50	0.36	28.1
5	T1	0	0.0	0.000	5.7	LOS A	0.0	0.0	0.36	0.50	0.36	22.3
6	R2	0	0.0	0.000	6.8	LOS A	0.0	0.0	0.36	0.50	0.36	33.2
Approach		0	0.0	0.000	5.9	LOS A	0.0	0.0	0.36	0.50	0.36	26.8
North: Bowes Street												
7	L2	0	0.0	0.150	5.1	LOS A	0.4	2.9	0.14	0.13	0.14	43.0
8	T1	215	0.5	0.150	0.2	LOS A	0.4	2.9	0.14	0.13	0.14	44.0
9	R2	60	0.0	0.150	5.4	LOS A	0.4	2.9	0.14	0.13	0.14	28.2
Approach		275	0.4	0.150	1.3	NA	0.4	2.9	0.14	0.13	0.14	37.7
All Vehicles		436	0.5	0.150	0.8	NA	0.4	2.9	0.09	0.08	0.09	41.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	161	0.7	1941	0.083	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	161	0.7		0.083		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	0	0.0	902	0.000	100	5.9	LOS A	0.0	0.0	Full	80	0.0	0.0
Approach	0	0.0		0.000		5.9	LOS A	0.0	0.0				
North: Bowes Street													
Lane 1	275	0.4	1831	0.150	100	1.3	LOS A	0.4	2.9	Full	110	0.0	0.0
Approach	275	0.4		0.150		1.3	NA	0.4	2.9				
Intersection	436	0.5		0.150		0.8	NA	0.4	2.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Base - AM: BS-S7]

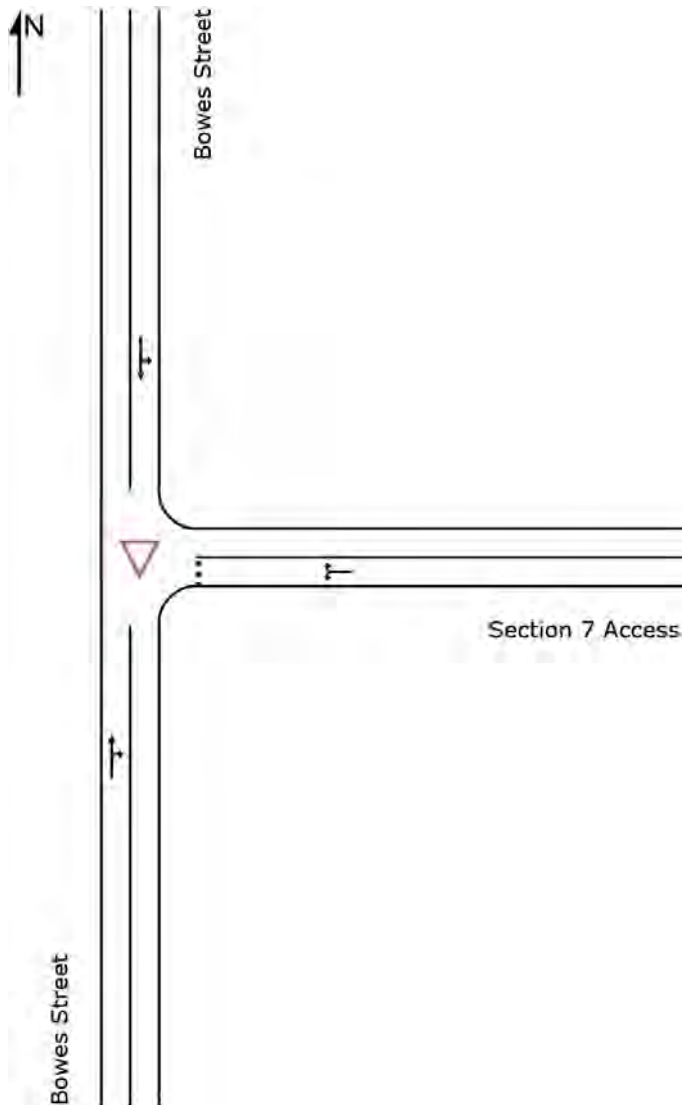
Bowes Street / Section 7 Access

Existing Priority-Controlled (Give-Way) T-Intersection

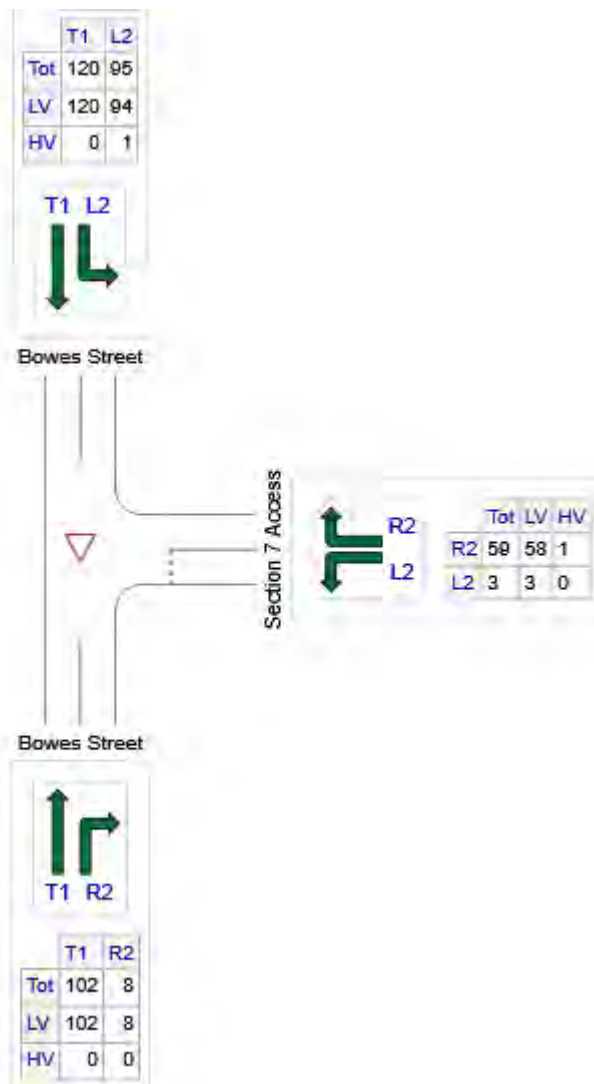
Site Category: 2030 Base Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	111	111	0
E: Section 7 Access	62	61	1
N: Bowes Street	215	214	1
Total	387	385	2

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	102	0.0	0.058	0.1	LOS A	0.1	0.4	0.06	0.04	0.06	47.2
3	R2	8	0.0	0.058	5.0	LOS A	0.1	0.4	0.06	0.04	0.06	47.2
Approach		111	0.0	0.058	0.5	NA	0.1	0.4	0.06	0.04	0.06	47.2
East: Section 7 Access												
4	L2	3	0.0	0.061	0.4	LOS A	0.2	1.4	0.31	0.30	0.31	24.7
6	R2	59	1.8	0.061	1.7	LOS A	0.2	1.4	0.31	0.30	0.31	24.0
Approach		62	1.7	0.061	1.6	LOS A	0.2	1.4	0.31	0.30	0.31	24.0
North: Bowes Street												
7	L2	95	1.1	0.113	4.3	LOS A	0.0	0.0	0.00	0.24	0.00	23.2
8	T1	120	0.0	0.113	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	41.7
Approach		215	0.5	0.113	1.9	NA	0.0	0.0	0.00	0.24	0.00	32.7
All Vehicles		387	0.5	0.113	1.4	NA	0.2	1.4	0.07	0.19	0.07	34.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	111	0.0	1898	0.058	100	0.5	LOS A	0.1	0.4	Full	60	0.0	0.0
Approach	111	0.0		0.058		0.5	NA	0.1	0.4				
East: Section 7 Access													
Lane 1	62	1.7	1013	0.061	100	1.6	LOS A	0.2	1.4	Full	15	0.0	0.0
Approach	62	1.7		0.061		1.6	LOS A	0.2	1.4				
North: Bowes Street													
Lane 1	215	0.5	1901	0.113	100	1.9	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	215	0.5		0.113		1.9	NA	0.0	0.0				
Intersection	387	0.5		0.113		1.4	NA	0.2	1.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2030 Base - AM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2030 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 66 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

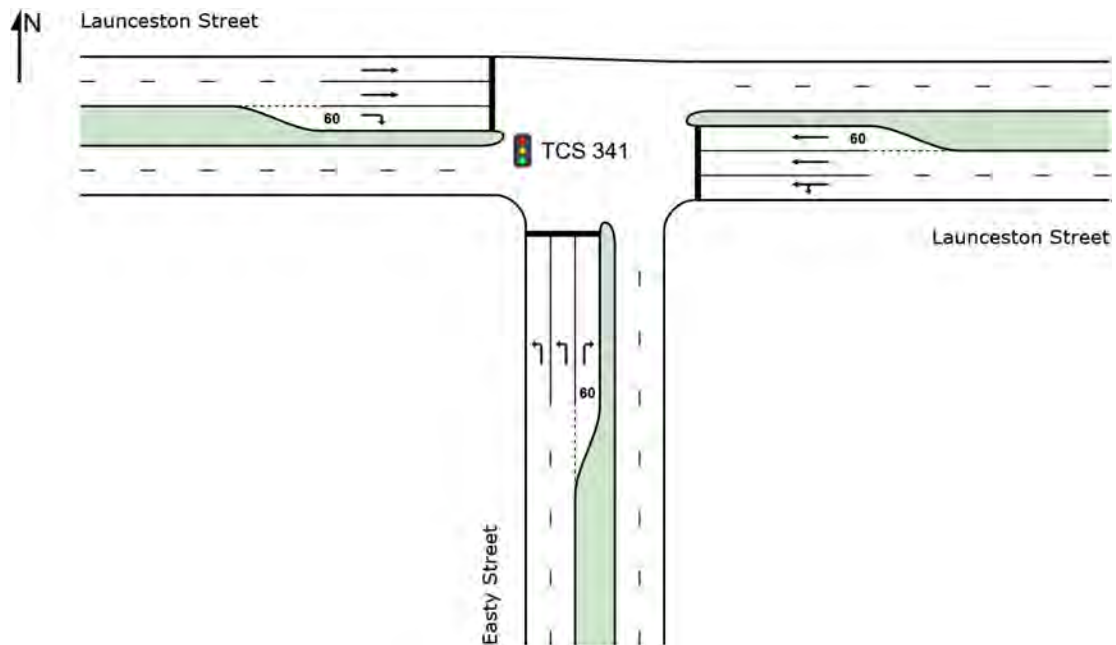
Phase Sequence: SCATS

Reference Phase: Phase A

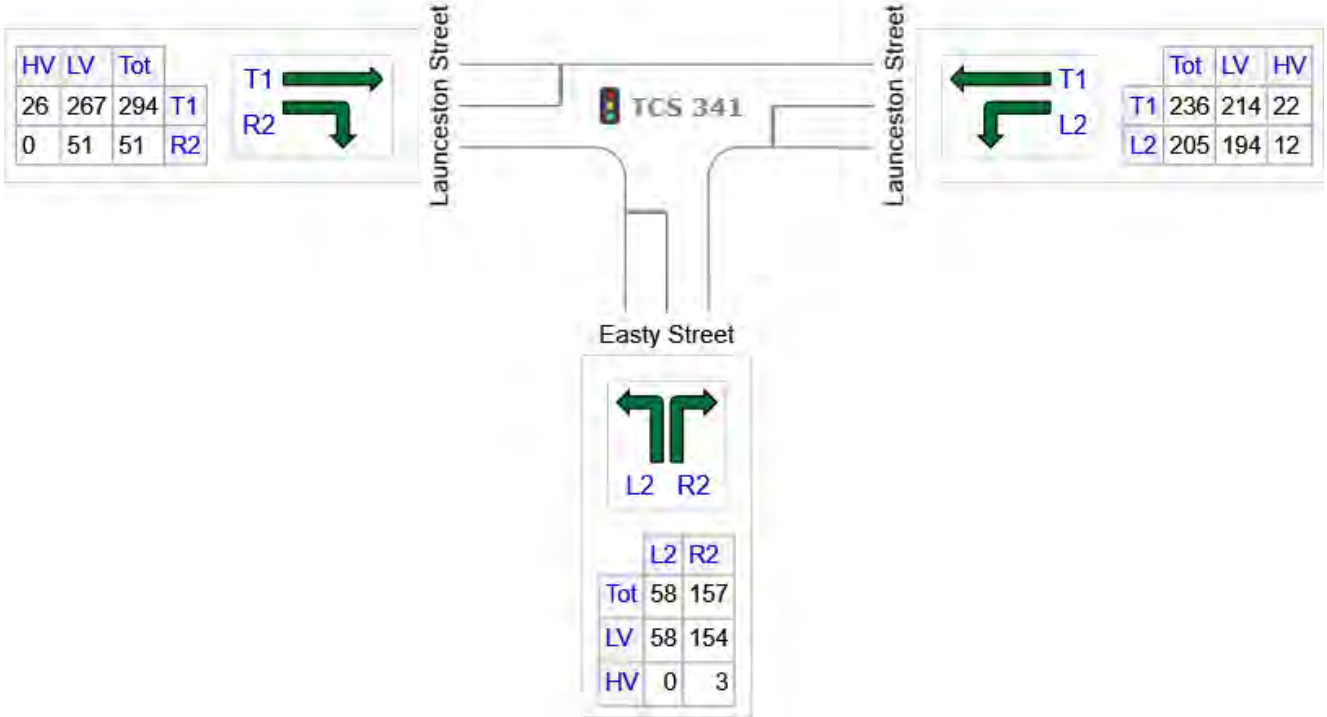
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



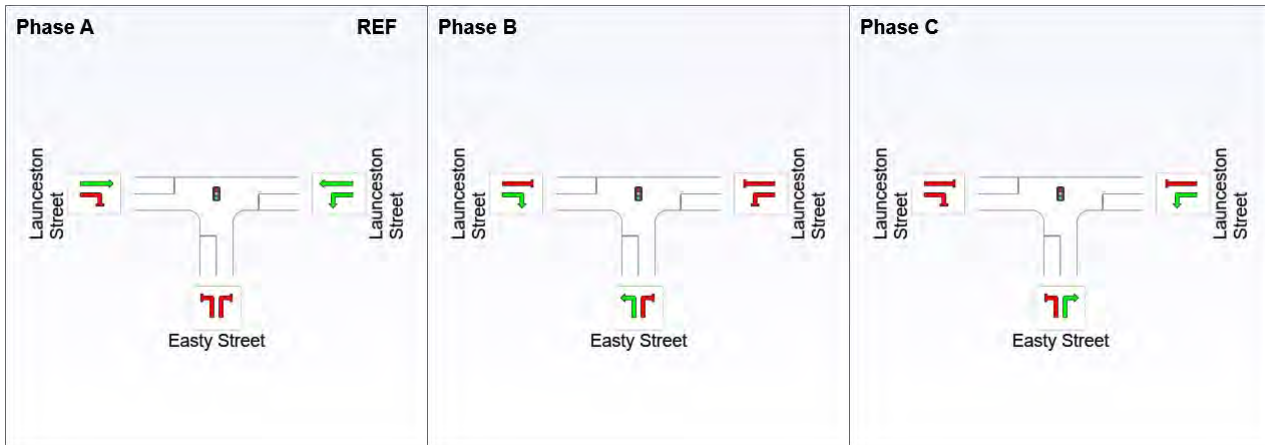
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	215	212	3
E: Launceston Street	441	407	34
W: Launceston Street	344	318	26
Total	1000	937	63

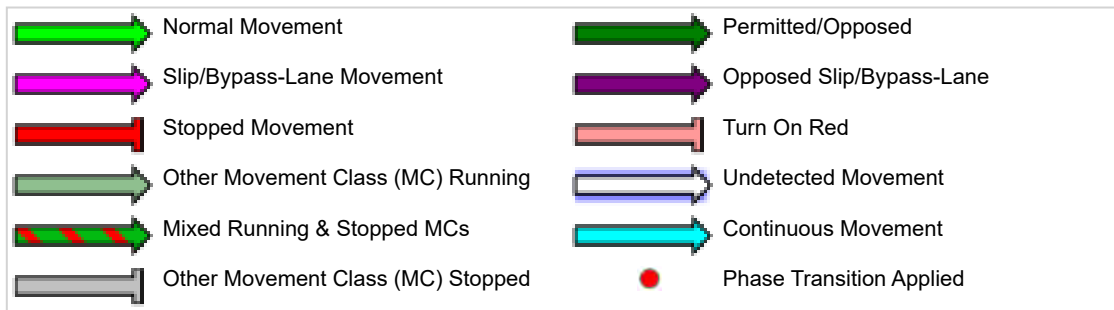
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	39
Green Time (sec)	20	7	21
Phase Time (sec)	26	13	27
Phase Split	39%	20%	41%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	58	0.0	0.147	33.9	LOS C	0.9	6.3	0.94	0.70	0.94	21.9
3	R2	157	2.0	0.269	21.7	LOS B	3.8	27.3	0.79	0.73	0.79	28.6
Approach		215	1.5	0.269	25.0	LOS B	3.8	27.3	0.83	0.73	0.83	26.7
East: Launceston Street												
4	L2	205	5.6	0.161	6.7	LOS A	2.1	15.6	0.35	0.59	0.35	35.6
5	T1	236	9.4	0.212	18.8	LOS B	2.9	21.8	0.78	0.63	0.78	26.5
Approach		441	7.6	0.212	13.2	LOS A	2.9	21.8	0.58	0.61	0.58	30.9
West: Launceston Street												
11	T1	294	9.0	0.263	19.1	LOS B	3.7	27.5	0.80	0.65	0.80	26.3
12	R2	51	0.0	0.257	34.4	LOS C	1.6	11.2	0.95	0.73	0.95	21.9
Approach		344	7.6	0.263	21.4	LOS B	3.7	27.5	0.82	0.66	0.82	25.5
All Vehicles		1000	6.3	0.269	18.5	LOS B	3.8	27.5	0.72	0.65	0.72	28.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	29	0.0	197	0.147	100	33.9	LOS C	0.9	6.3	Full	305	0.0	0.0
Lane 2	29	0.0	197	0.147	100	33.9	LOS C	0.9	6.3	Full	305	0.0	0.0
Lane 3	157	2.0	583	0.269	100	21.7	LOS B	3.8	27.3	Short	60	0.0	NA
Approach	215	1.5		0.269		25.0	LOS B	3.8	27.3				
East: Launceston Street													
Lane 1	205	5.6	1271	0.161	76 ⁵	6.7	LOS A	2.1	15.6	Full	260	0.0	0.0
Lane 2	118	9.4	557	0.212	100	18.8	LOS B	2.9	21.8	Full	260	0.0	0.0
Lane 3	118	9.4	557	0.212	100	18.8	LOS B	2.9	21.8	Short	60	0.0	NA
Approach	441	7.6		0.212		13.2	LOS A	2.9	21.8				
West: Launceston Street													
Lane 1	147	9.0	558	0.263	100	19.1	LOS B	3.7	27.5	Full	130	0.0	0.0
Lane 2	147	9.0	558	0.263	100	19.1	LOS B	3.7	27.5	Full	130	0.0	0.0
Lane 3	51	0.0	197	0.257	100	34.4	LOS C	1.6	11.2	Short	60	0.0	NA
Approach	344	7.6		0.263		21.4	LOS B	3.7	27.5				
Intersection	1000	6.3		0.269		18.5	LOS B	3.8	27.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:26:10 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2030 Base - AM - LS-YD]

 Network: 3 [2030 Base - AM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2030 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

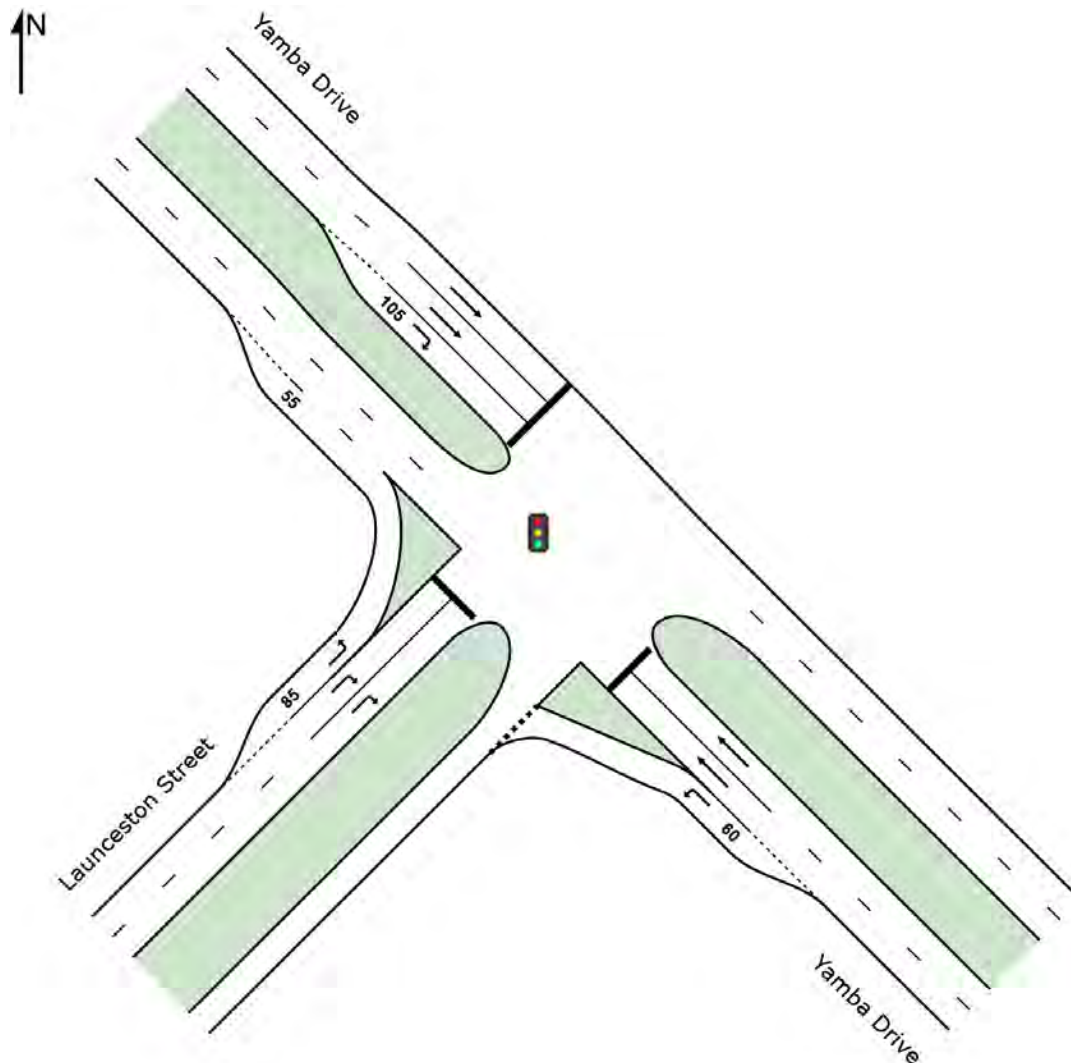
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

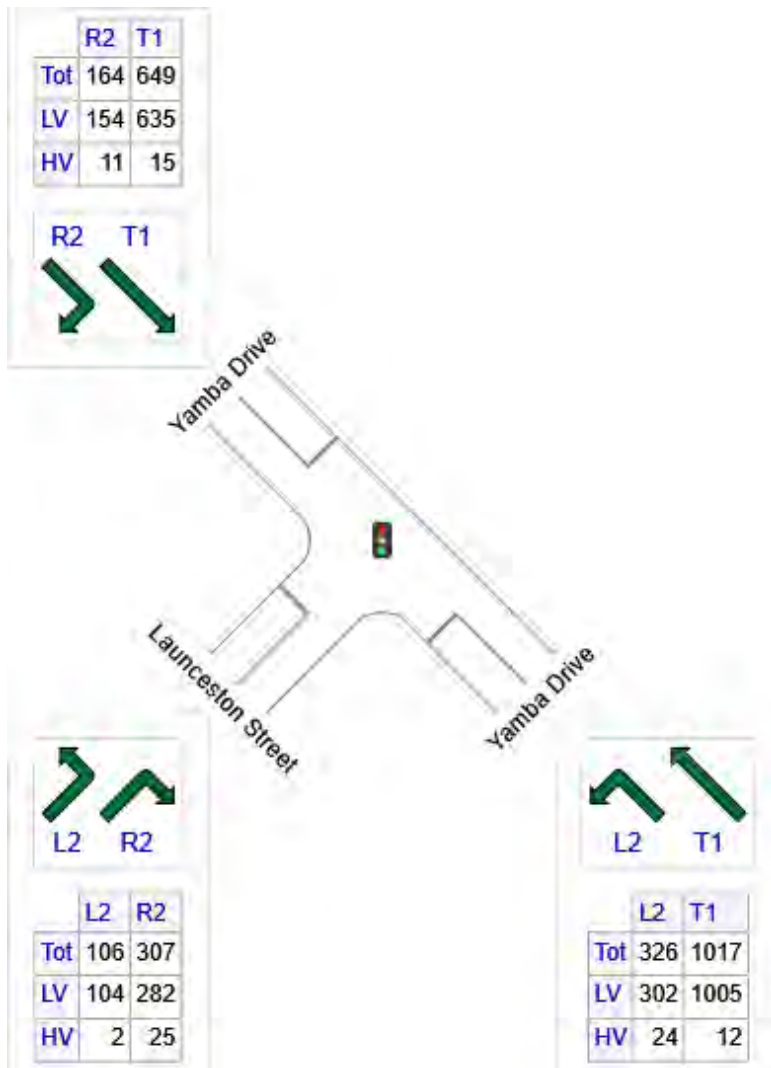
Output Phase Sequence: A, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1343	1307	36
NW: Yamba Drive	814	788	25
SW: Launceston Street	414	386	27
Total	2571	2482	88

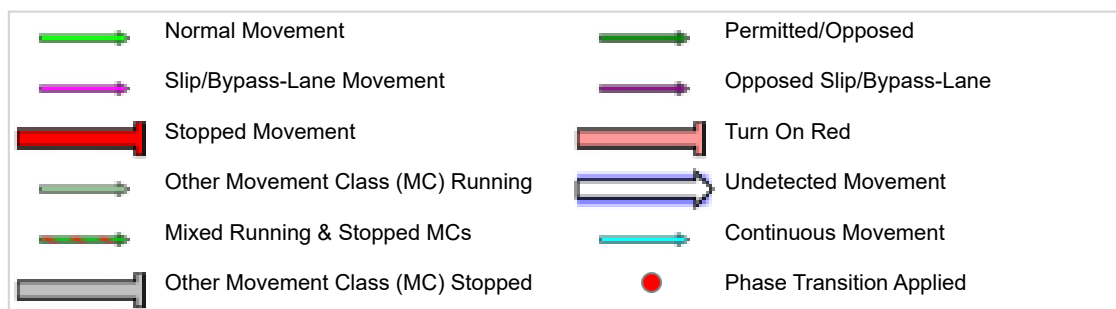
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	D	E
Phase Change Time (sec)	0	70	100
Green Time (sec)	64	24	22
Phase Time (sec)	70	30	28
Phase Split	55%	23%	22%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	326	7.4	326	7.4	0.226	4.8	LOS A	0.4	3.1	0.03	0.58	0.03	40.6
5	T1	1017	1.1	1017	1.1	0.525	9.5	LOS A	13.1	92.8	0.34	0.31	0.34	46.8
Approach		1343	2.7	1343	2.7	0.525	8.4	LOS A	13.1	92.8	0.27	0.37	0.27	44.9
NorthWest: Yamba Drive														
11	T1	649	2.3	649	2.3	0.530	23.4	LOS C	13.8	98.3	0.73	0.65	0.73	24.6
12	R2	164	6.4	164	6.4	0.538	60.3	LOS E	9.5	70.4	0.96	0.81	0.96	19.1
Approach		814	3.1	814	3.1	0.538	30.8	LOS C	13.8	98.3	0.78	0.68	0.78	22.4
SouthWest: Launceston Street														
1	L2	106	2.0	106	2.0	0.058	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	39.5
3	R2	307	8.2	307	8.2	0.732	61.2	LOS E	9.8	73.3	1.00	0.90	1.11	11.6
Approach		414	6.6	414	6.6	0.732	46.2	LOS D	9.8	73.3	0.74	0.76	0.83	15.9
All Vehicles		2571	3.4	2571	3.4	0.732	21.6	LOS C	13.8	98.3	0.50	0.53	0.52	27.8

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	Total veh/h	HV %						Veh	Dist m				
SouthEast: Yamba Drive															
Lane 1	326	7.4	326	7.4	1444	0.226	100	4.8	LOS A	0.4	3.1	Short	60	0.0	NA
Lane 2	508	1.1	508	1.1	968	0.525	100	5.4	LOS A	6.9	48.8	Full	65	0.0	0.0
Lane 3	508	1.1	508	1.1	968	0.525	100	13.5	LOS B	13.1	92.8	Full	65	0.0	37.5
Approach	1343	2.7	1343	2.7		0.525		8.4	LOS A	13.1	92.8				
NorthWest: Yamba Drive															
Lane 1	325	2.3	325	2.3	613	0.530	100	23.4	LOS C	13.8	98.3	Full	215	-36.2 ^{N3}	0.0
Lane 2	325	2.3	325	2.3	613	0.530	100	23.4	LOS C	13.8	98.3	Full	215	-36.2 ^{N3}	0.0
Lane 3	164	6.4	164	6.4	305	0.538	100	60.3	LOS E	9.5	70.4	Short	105	0.0	NA
Approach	814	3.1	814	3.1		0.538		30.8	LOS C	13.8	98.3				
SouthWest: Launceston Street															
Lane 1	106	2.0	106	2.0	1831	0.058	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	154	8.2	154	8.2	210	0.732	100	61.2	LOS E	9.8	73.3	Full	260	-36.2 ^{N3}	0.0
Lane 3	154	8.2	154	8.2	210	0.732	100	61.2	LOS E	9.8	73.3	Full	260	-36.2 ^{N3}	0.0
Approach	414	6.6	414	6.6		0.732		46.2	LOS D	9.8	73.3				
Intersection	2571	3.4	2571	3.4		0.732		21.6	LOS C	13.8	98.3				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2030 Base - AM - WS-YD]**

Network: 3 [2030 Base - AM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2030 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

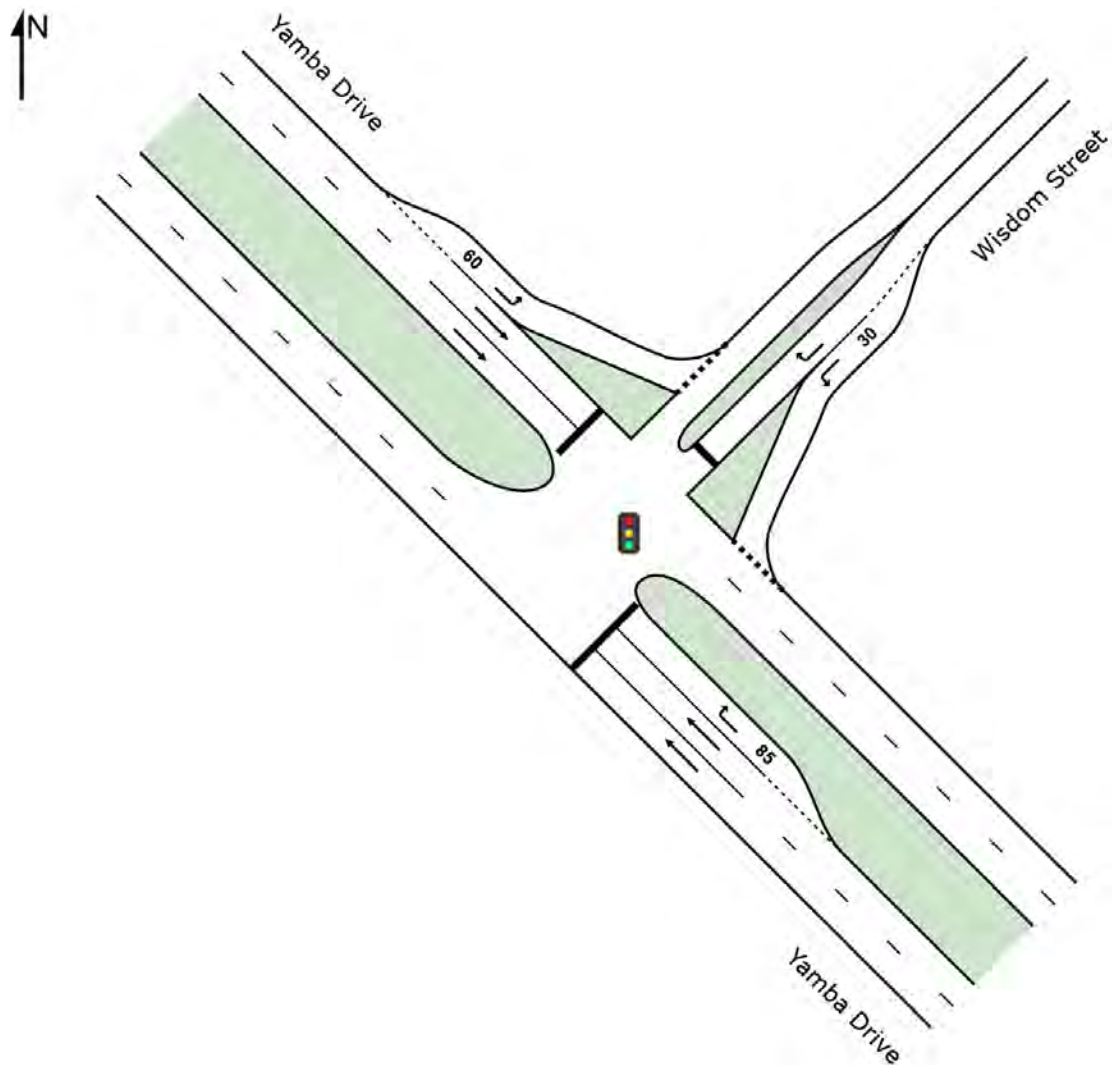
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, D, E

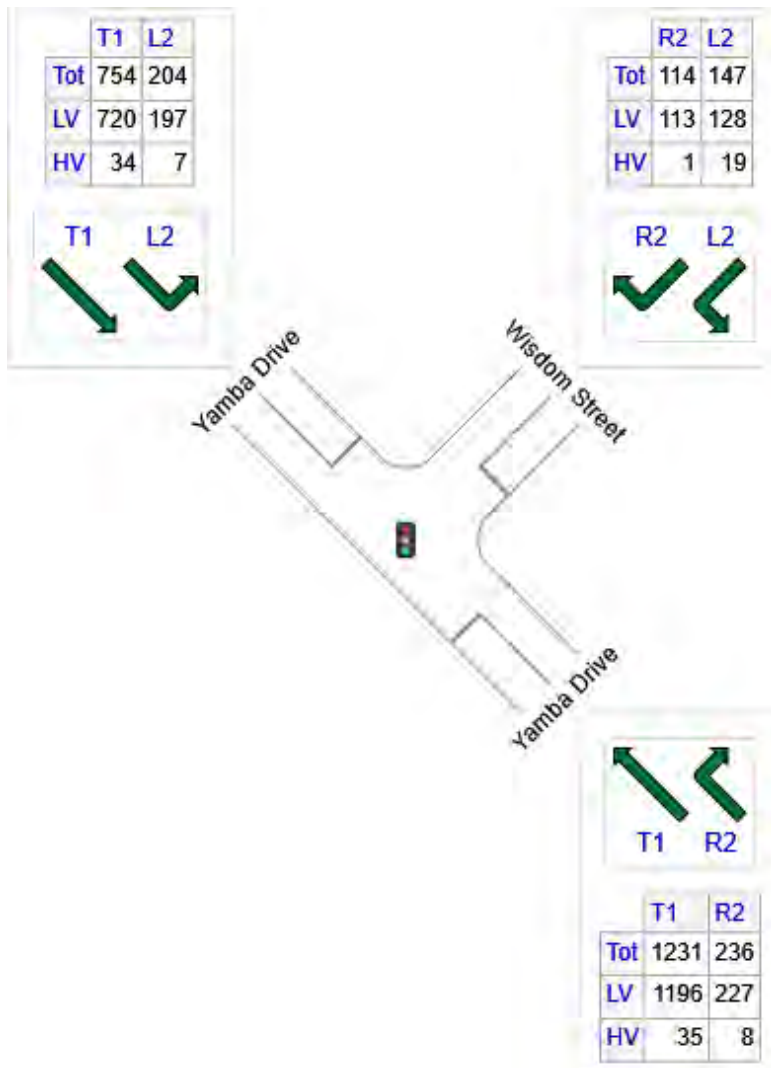
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1466	1423	43
NE: Wisdom Street	261	241	20
NW: Yamba Drive	958	917	41
Total	2685	2581	104

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
11	T1	1231	2.8	1231	2.8	0.761	26.6	LOS C	36.2	259.7	0.84	0.76	0.84	44.7
12	R2	236	3.6	236	3.6	0.758	64.7	LOS E	14.8	106.5	1.00	0.86	1.09	32.3
Approach		1466	2.9	1466	2.9	0.761	32.7	LOS C	36.2	259.7	0.86	0.78	0.88	40.5
NorthEast: Wisdom Street														
1	L2	147	12.9	147	12.9	0.146	4.9	LOS A	1.5	12.0	0.23	0.50	0.23	47.5
3	R2	114	0.9	114	0.9	0.396	53.4	LOS D	6.3	44.8	0.92	0.78	0.92	21.6
Approach		261	7.7	261	7.7	0.396	26.1	LOS C	6.3	44.8	0.53	0.62	0.53	35.8
NorthWest: Yamba Drive														
4	L2	204	3.6	204	3.6	0.143	5.6	LOS A	1.0	6.9	0.09	0.60	0.09	39.8
5	T1	754	4.5	754	4.5	0.398	15.7	LOS B	10.2	74.2	0.47	0.41	0.47	56.0
Approach		958	4.3	958	4.3	0.398	13.5	LOS B	10.2	74.2	0.39	0.45	0.39	51.7
All Vehicles		2685	3.9	2685	3.9	0.761	25.2	LOS C	36.2	259.7	0.66	0.65	0.67	42.9

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	728	2.8	728	2.8	957	0.761	100	27.4	LOS C	36.2	259.7	Full	735	0.0	0.0
Lane 2	502	2.8	502	2.8	660 ¹	0.761	100	25.4	LOS C	22.9	164.5	Full	735	-17.0 ^{N3}	0.0
Lane 3	236	3.6	236	3.6	311	0.758	100	64.7	LOS E	14.8	106.5	Short	85	0.0	NA
Approach	1466	2.9	1466	2.9		0.761		32.7	LOS C	36.2	259.7				
NorthEast: Wisdom Street															
Lane 1	147	12.9	147	12.9	1009	0.146	100	4.9	LOS A	1.5	12.0	Short	30	0.0	NA
Lane 2	114	0.9	114	0.9	287	0.396	100	53.4	LOS D	6.3	44.8	Full	680	-17.0 ^{N3}	0.0
Approach	261	7.7	261	7.7		0.396		26.1	LOS C	6.3	44.8				
NorthWest: Yamba Drive															
Lane 1	204	3.6	204	3.6	1428	0.143	100	5.6	LOS A	1.0	6.9	Short	60	0.0	NA
Lane 2	377	4.5	377	4.5	947	0.398	100	15.7	LOS B	10.2	74.2	Full	65	0.0	17.0
Lane 3	377	4.5	377	4.5	947	0.398	100	15.7	LOS B	10.2	74.2	Full	65	0.0	17.0
Approach	958	4.3	958	4.3		0.398		13.5	LOS B	10.2	74.2				
Intersection	2685	3.9	2685	3.9		0.761		25.2	LOS C	36.2	259.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:21:04 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2030 Base - PM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2030 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 109 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

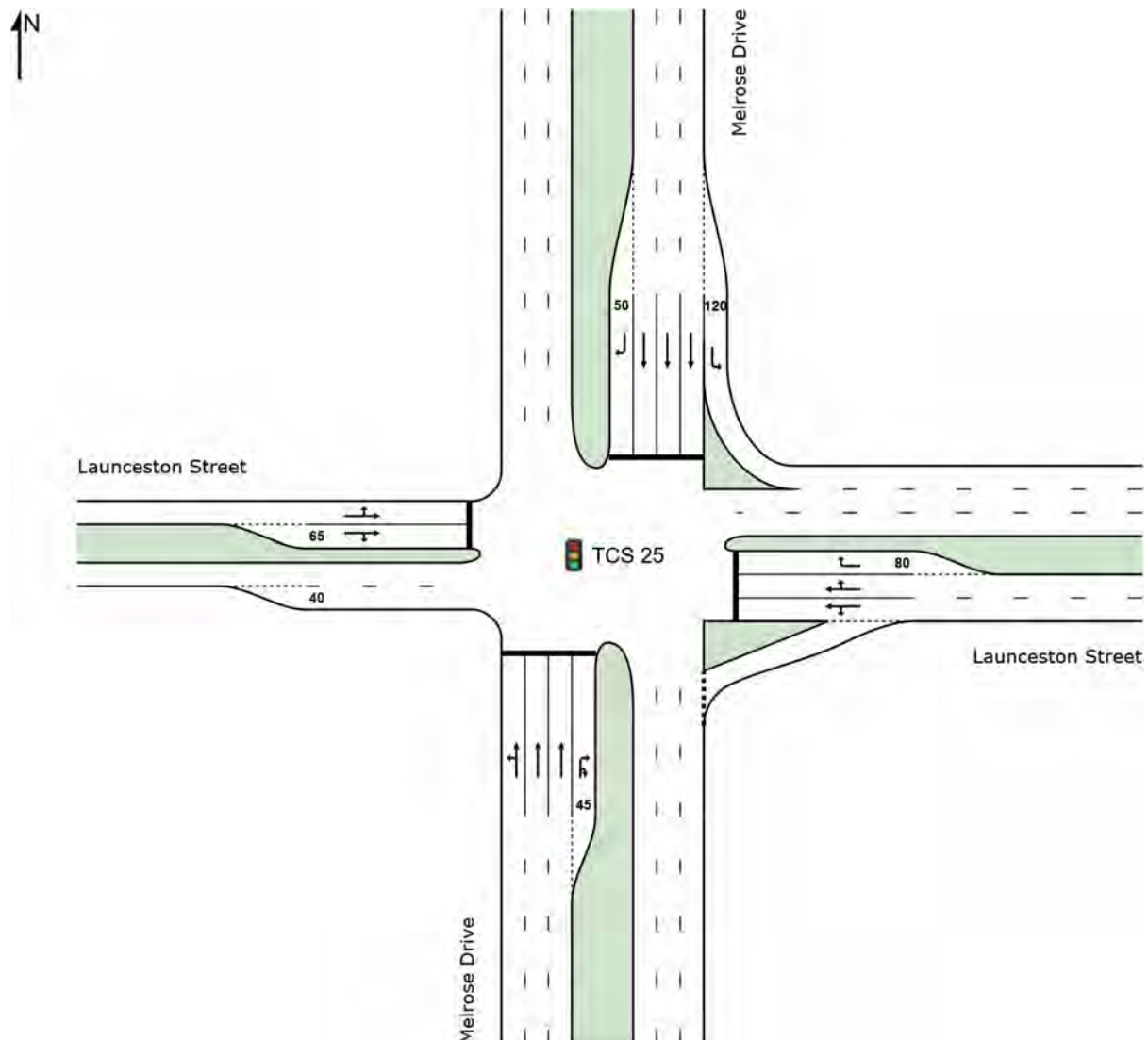
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

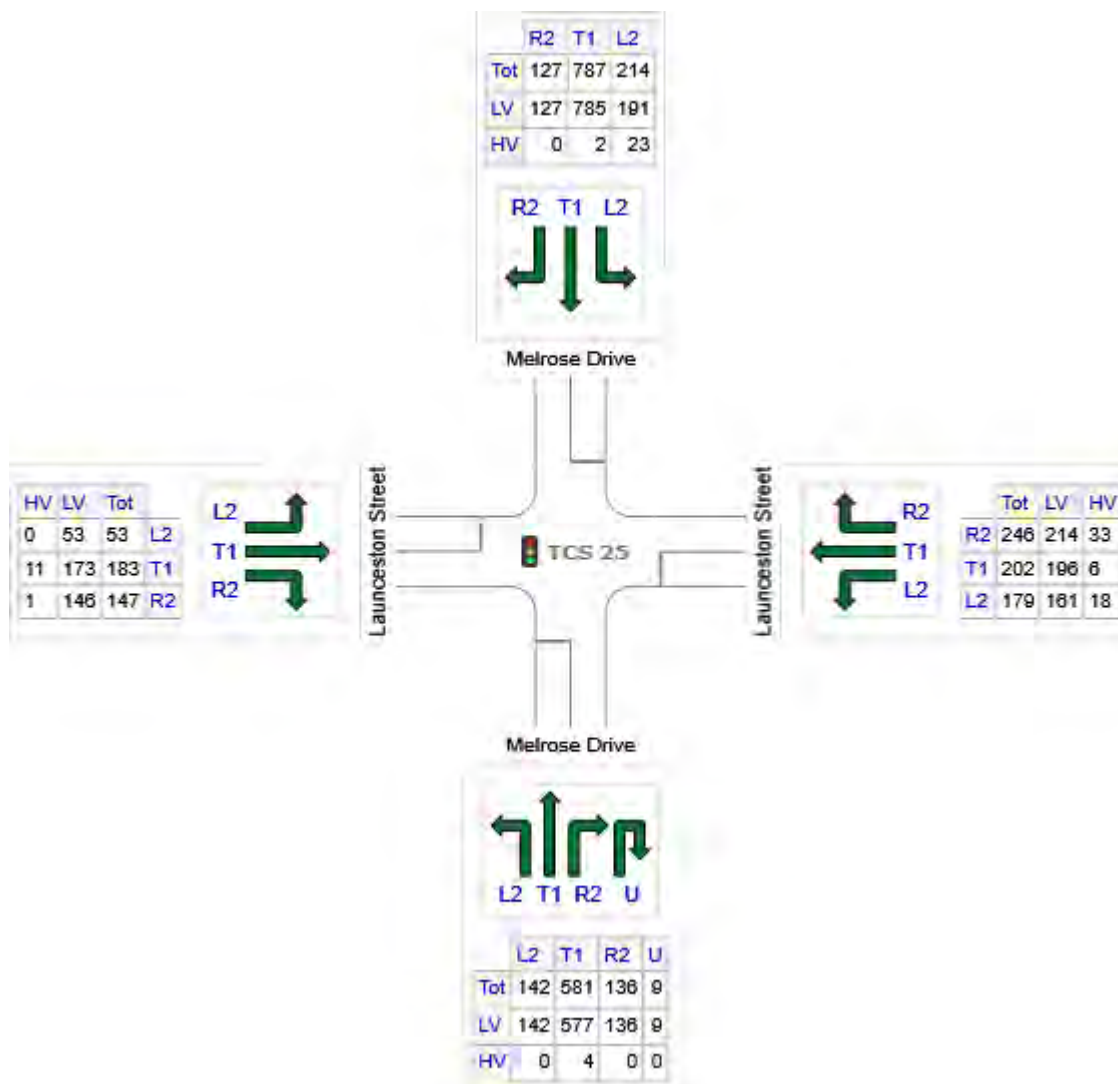
Output Phase Sequence: A, C*, D, E, F

(* Variable Phase)

Site Layout



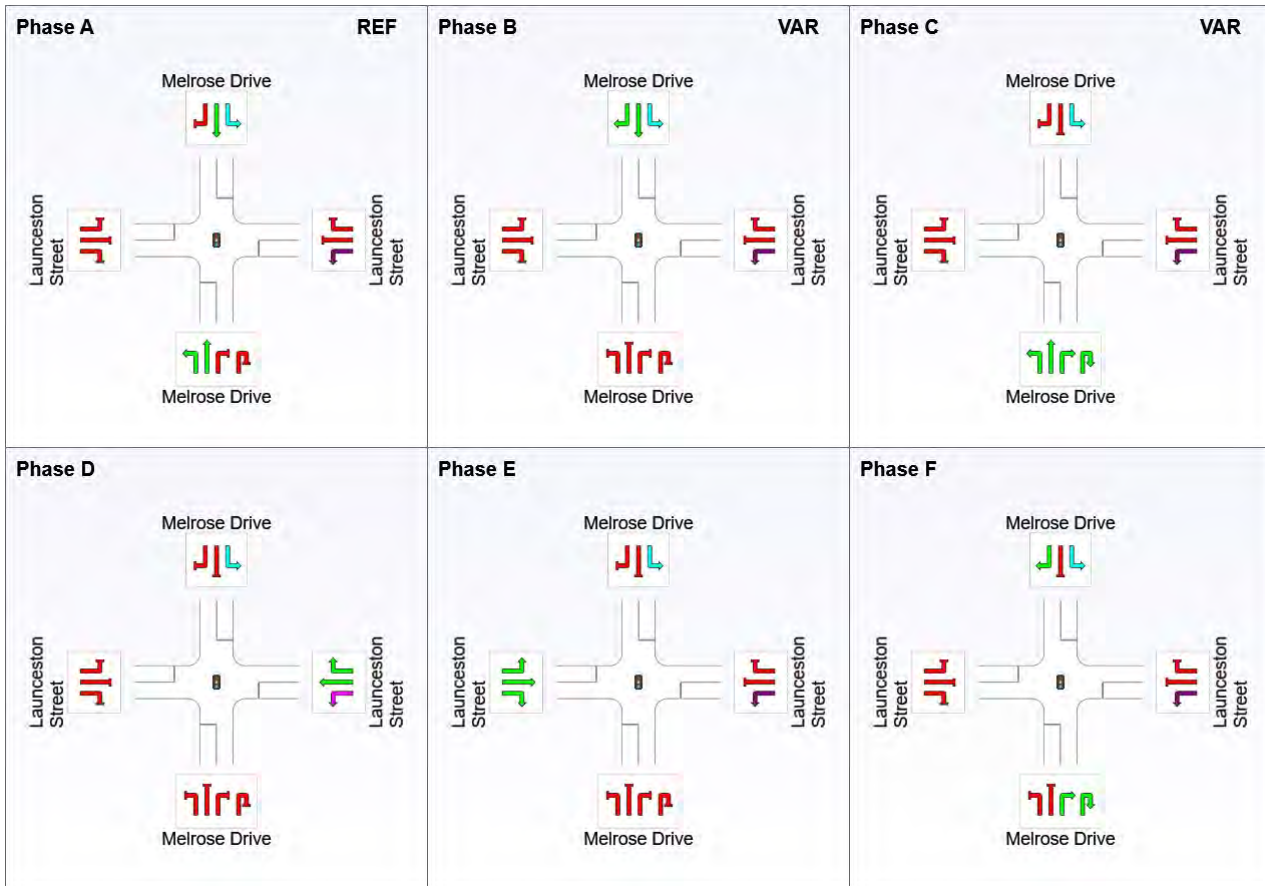
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	868	864	4
E: Launceston Street	627	571	57
N: Melrose Drive	1128	1103	25
W: Launceston Street	383	372	12
Total	3007	2909	98

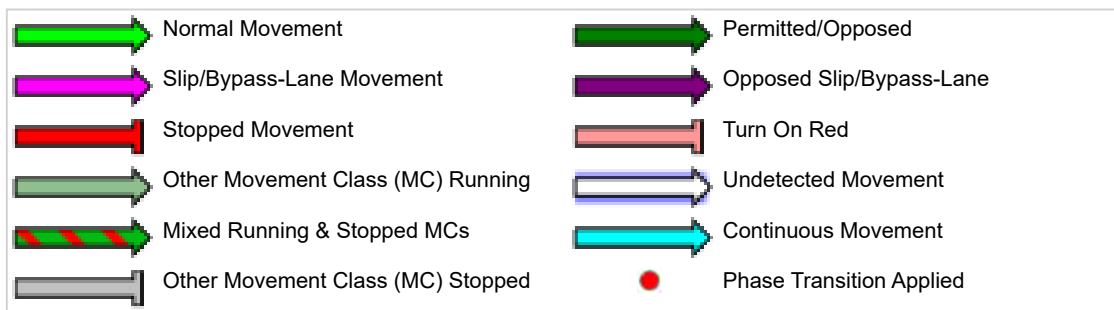
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	C	D	E	F
Phase Change Time (sec)	0	28	40	68	91
Green Time (sec)	22	6	22	17	12
Phase Time (sec)	28	12	28	23	18
Phase Split	26%	11%	26%	21%	17%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	142	0.0	0.402	37.3	LOS C	9.9	69.6	0.84	0.76	0.84	20.5
2	T1	581	0.7	0.402	31.7	LOS C	10.2	71.6	0.84	0.71	0.84	33.9
3	R2	136	0.0	0.484	30.6	LOS C	4.6	32.2	0.95	0.79	0.95	19.7
3u	U	9	0.0	0.484	32.0	LOS C	4.6	32.2	0.95	0.79	0.95	26.6
Approach		868	0.5	0.484	32.5	LOS C	10.2	71.6	0.85	0.73	0.85	30.1
East: Launceston Street												
4	L2	179	10.0	0.204	12.3	LOS A	3.8	28.6	0.44	0.66	0.44	34.6
5	T1	202	3.1	0.600	41.6	LOS C	11.1	81.3	0.92	0.80	0.92	13.6
6	R2	246	13.2	0.600	49.0	LOS D	11.1	81.3	0.96	0.82	0.96	24.9
Approach		627	9.1	0.600	36.1	LOS C	11.1	81.3	0.80	0.77	0.80	23.0
North: Melrose Drive												
7	L2	214	10.8	0.124	5.7	LOS A	0.0	0.0	0.00	0.52	0.00	49.2
8	T1	787	0.3	0.674	44.2	LOS D	13.3	93.3	0.98	0.83	0.99	29.2
9	R2	127	0.0	0.623	57.9	LOS E	6.8	47.5	1.00	0.81	1.03	22.2
Approach		1128	2.2	0.674	38.5	LOS C	13.3	93.3	0.80	0.77	0.81	30.3
West: Launceston Street												
10	L2	53	0.0	0.659	52.9	LOS D	10.0	72.4	0.99	0.83	1.02	24.1
11	T1	183	5.7	0.659	48.3	LOS D	10.0	72.4	0.99	0.83	1.02	12.0
12	R2	147	0.7	0.659	52.9	LOS D	9.9	70.4	0.99	0.83	1.02	15.8
Approach		383	3.0	0.659	50.7	LOS D	10.0	72.4	0.99	0.83	1.02	15.6
All Vehicles		3007	3.3	0.674	37.8	LOS C	13.3	93.3	0.84	0.77	0.85	27.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	237	0.3	589	0.402	100	35.1	LOS C	9.9	69.6	Full	205	0.0	0.0
Lane 2	243	0.7	605	0.402	100	31.7	LOS C	10.2	71.6	Full	205	0.0	0.0
Lane 3	243	0.7	605	0.402	100	31.7	LOS C	10.2	71.6	Full	205	0.0	0.0
Lane 4	145	0.0	300	0.484	100	30.7	LOS C	4.6	32.2	Short	45	0.0	NA
Approach	868	0.5		0.484		32.5	LOS C	10.2	71.6				
East: Launceston Street													
Lane 1	195	9.4	958	0.204	34 ⁶	12.0	LOS A	3.8	28.6	Full	90	0.0	0.0
Lane 2	226	4.9	377	0.600	100	45.3	LOS D	11.1	81.3	Full	90	0.0	0.0
Lane 3	206	13.2	342	0.600	100	49.0	LOS D	10.2	79.1	Short	80	0.0	NA
Approach	627	9.1		0.600		36.1	LOS C	11.1	81.3				
North: Melrose Drive													
Lane 1	214	10.8	1724	0.124	100	5.7	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	265	0.3	393	0.674	100	44.2	LOS D	13.3	93.3	Full	470	0.0	0.0
Lane 3	265	0.3	393	0.674	100	44.2	LOS D	13.3	93.3	Full	470	0.0	0.0
Lane 4	258	0.3	383 ¹	0.674	100	44.1	LOS D	12.9	90.5	Full	470	0.0	0.0
Lane 5	127	0.0	204	0.623	100	57.9	LOS E	6.8	47.5	Short	50	0.0	NA
Approach	1128	2.2		0.674		38.5	LOS C	13.3	93.3				
West: Launceston Street													
Lane 1	193	4.2	292	0.659	100	49.6	LOS D	10.0	72.4	Full	95	0.0	0.0
Lane 2	191	1.9	289	0.659	100	51.9	LOS D	9.9	70.4	Short	65	0.0	NA
Approach	383	3.0		0.659		50.7	LOS D	10.0	72.4				
Intersection	3007	3.3		0.674		37.8	LOS C	13.3	93.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: TCS 340 [2030 Base - PM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2030 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 82 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

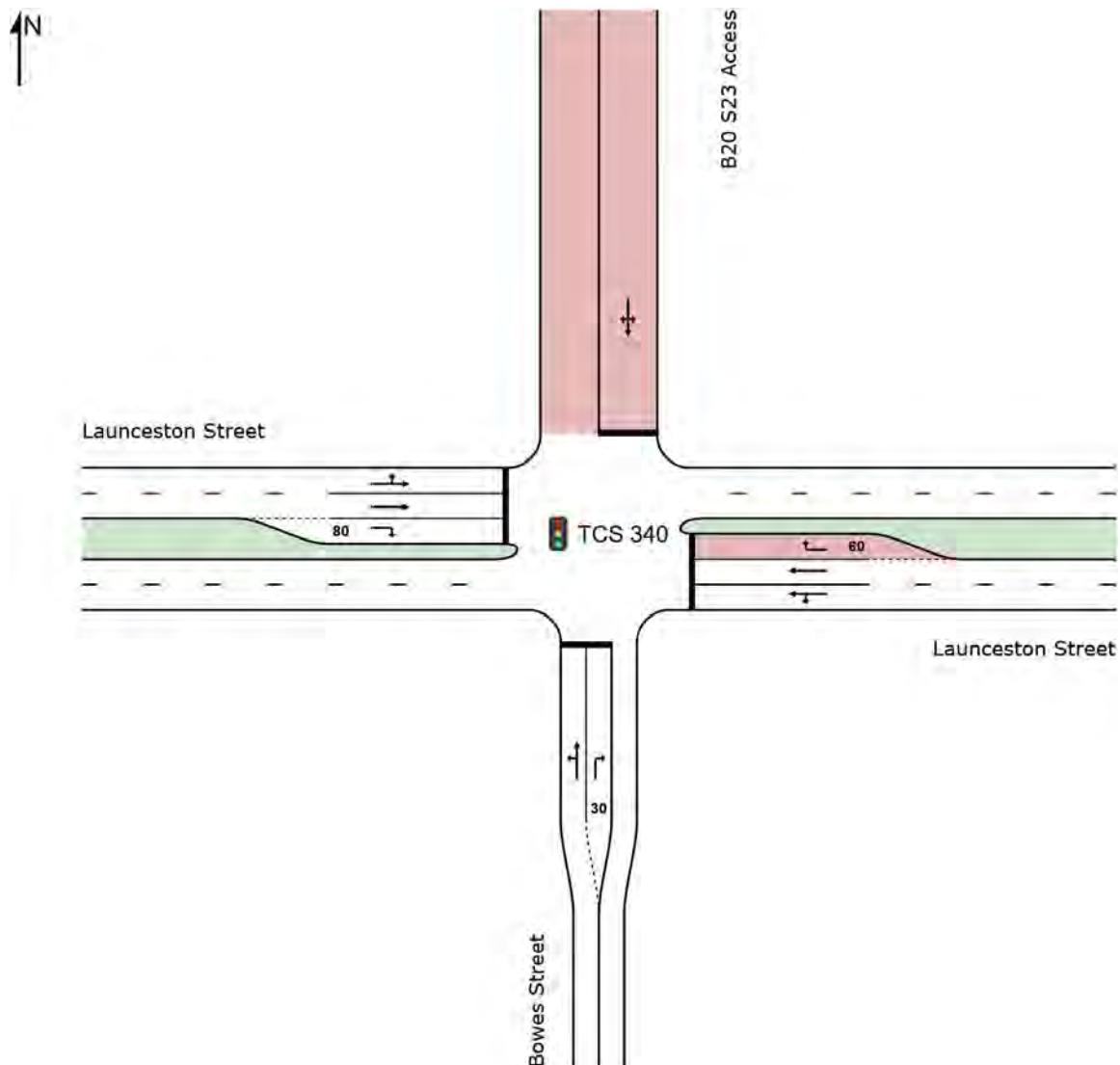
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

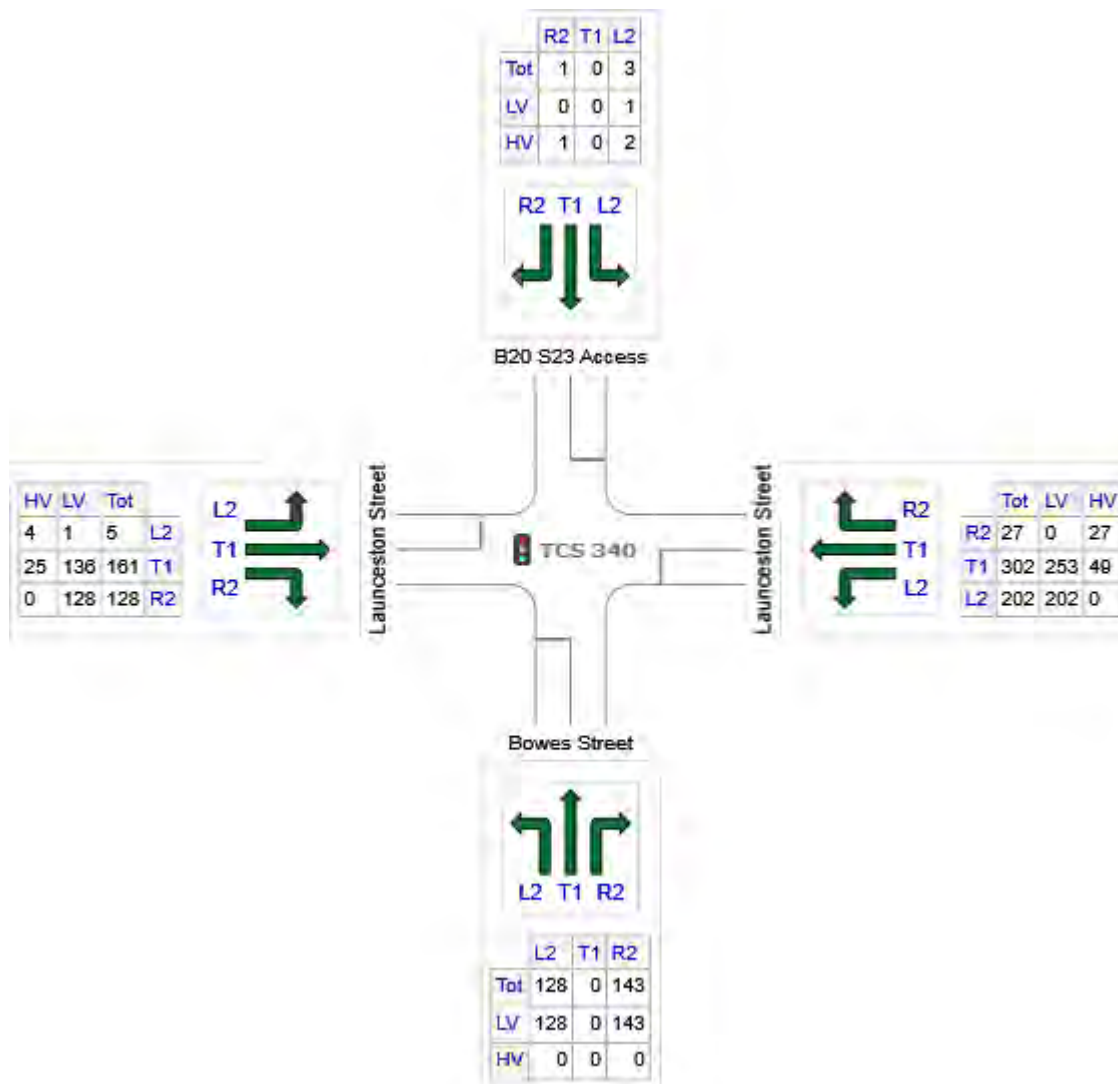
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



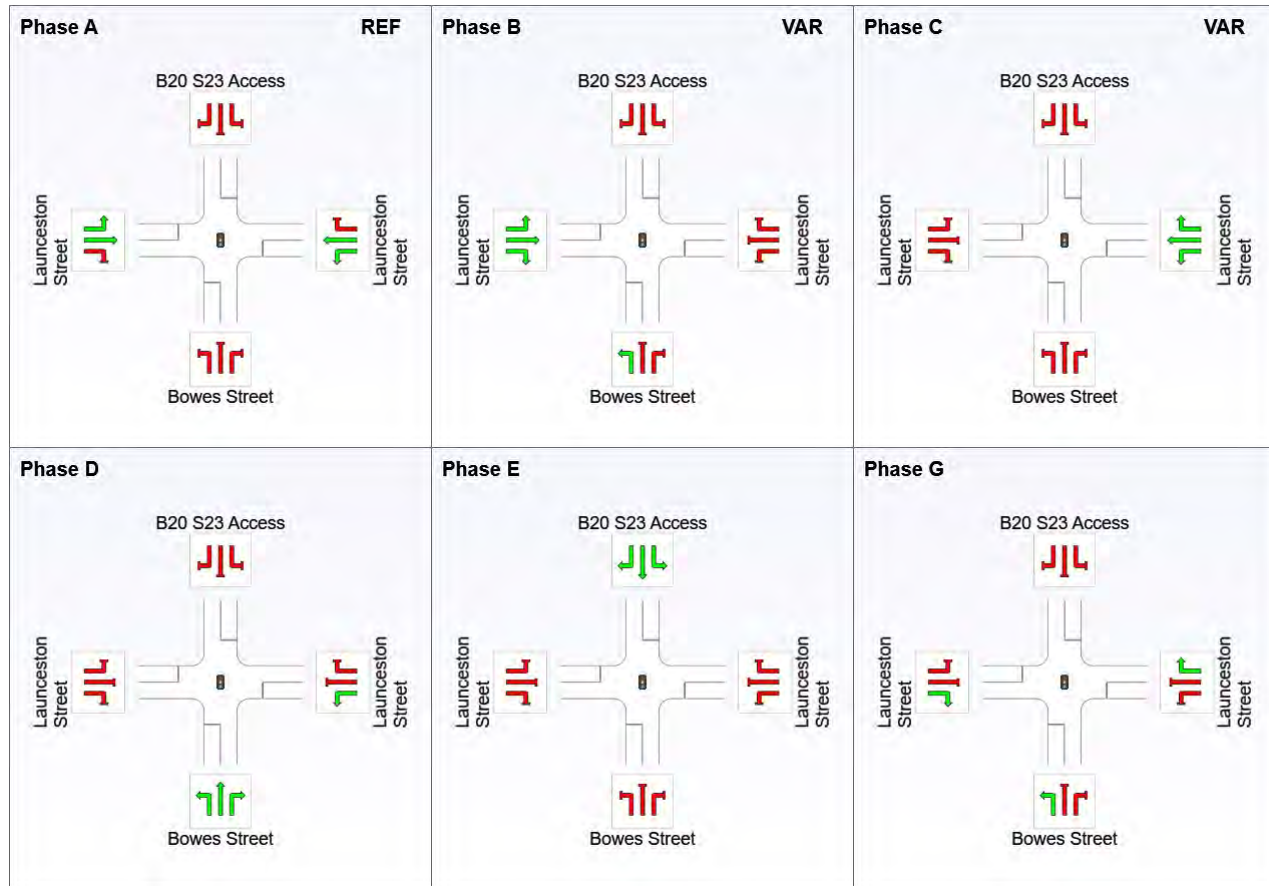
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	272	272	0
E: Launceston Street	532	455	77
N: B20 S23 Access	4	1	3
W: Launceston Street	295	265	29
Total	1102	993	110

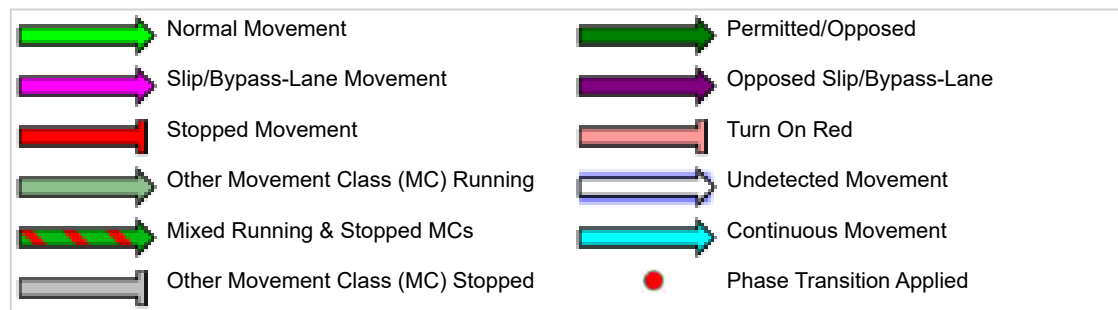
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	28	40	58	70
Green Time (sec)	22	6	12	6	6
Phase Time (sec)	28	12	18	12	12
Phase Split	34%	15%	22%	15%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	128	0.0	0.183	13.4	LOS A	2.2	15.7	0.70	0.71	0.70	22.4
2	T1	0	0.0	0.183	13.9	LOS A	2.2	15.7	0.70	0.71	0.70	12.9
3	R2	143	0.0	0.527	39.6	LOS C	5.5	38.7	0.97	0.79	0.97	10.2
Approach		272	0.0	0.527	27.2	LOS B	5.5	38.7	0.84	0.75	0.84	13.9
East: Launceston Street												
4	L2	202	0.0	0.474	19.3	LOS B	6.1	44.4	0.84	0.77	0.84	18.3
5	T1	302	16.4	0.474	24.0	LOS B	7.7	61.2	0.88	0.75	0.88	20.5
6	R2	27	100.0	0.345	49.7	LOS D	1.2	15.2	0.98	0.73	0.98	8.4
Approach		532	14.5	0.474	23.6	LOS B	7.7	61.2	0.87	0.76	0.87	18.8
North: B20 S23 Access												
7	L2	3	66.7	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	8.6
8	T1	0	100.0	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	5.6
9	R2	1	100.0	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	9.2
Approach		4	75.6	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	8.7
West: Launceston Street												
10	L2	5	80.0	0.082	21.4	LOS B	2.0	16.0	0.64	0.51	0.64	19.5
11	T1	161	15.7	0.082	15.4	LOS B	2.0	16.0	0.64	0.50	0.64	27.5
12	R2	128	0.0	0.336	23.5	LOS B	2.5	17.6	0.94	0.76	0.94	16.0
Approach		295	10.0	0.336	19.0	LOS B	2.5	17.6	0.77	0.62	0.77	21.8
All Vehicles		1102	9.9	0.527	23.3	LOS B	7.7	61.2	0.84	0.72	0.84	18.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	129	0.0	701	0.183	100	13.4	LOS A	2.2	15.7	Full	35	0.0	14.2 ⁸
Lane 2	143	0.0	272	0.527	100	39.6	LOS C	5.5	38.7	Short	30	0.0	NA
Approach	272	0.0		0.527		27.2	LOS B	5.5	38.7				
East: Launceston Street													
Lane 1	280	4.6	592	0.474	100	17.7	LOS B	6.1	44.4	Full	95	0.0	0.0
Lane 2	224	16.4	473	0.474	100	27.6	LOS B	7.7	61.2	Full	95	0.0	0.0
Lane 3	27	100.0	79	0.345	100	49.7	LOS D	1.2	15.2	Short	60	0.0	NA
Approach	532	14.5		0.474		23.6	LOS B	7.7	61.2				
North: B20 S23 Access													
Lane 1	4	75.6	96	0.045	100	40.7	LOS C	0.2	2.0	Full	30	0.0	0.0
Approach	4	75.6		0.045		40.7	LOS C	0.2	2.0				
West: Launceston Street													
Lane 1	82	19.8	999	0.082	100	15.8	LOS B	2.0	16.0	Full	105	0.0	0.0
Lane 2	84	15.7	1031	0.082	100	15.4	LOS B	2.0	16.0	Full	105	0.0	0.0
Lane 3	128	0.0	382	0.336	100	23.5	LOS B	2.5	17.6	Short	80	0.0	NA
Approach	295	10.0		0.336		19.0	LOS B	2.5	17.6				
Intersection	1102	9.9		0.527		23.3	LOS B	7.7	61.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▼ Site: [2030 Base - PM: BS-WS]

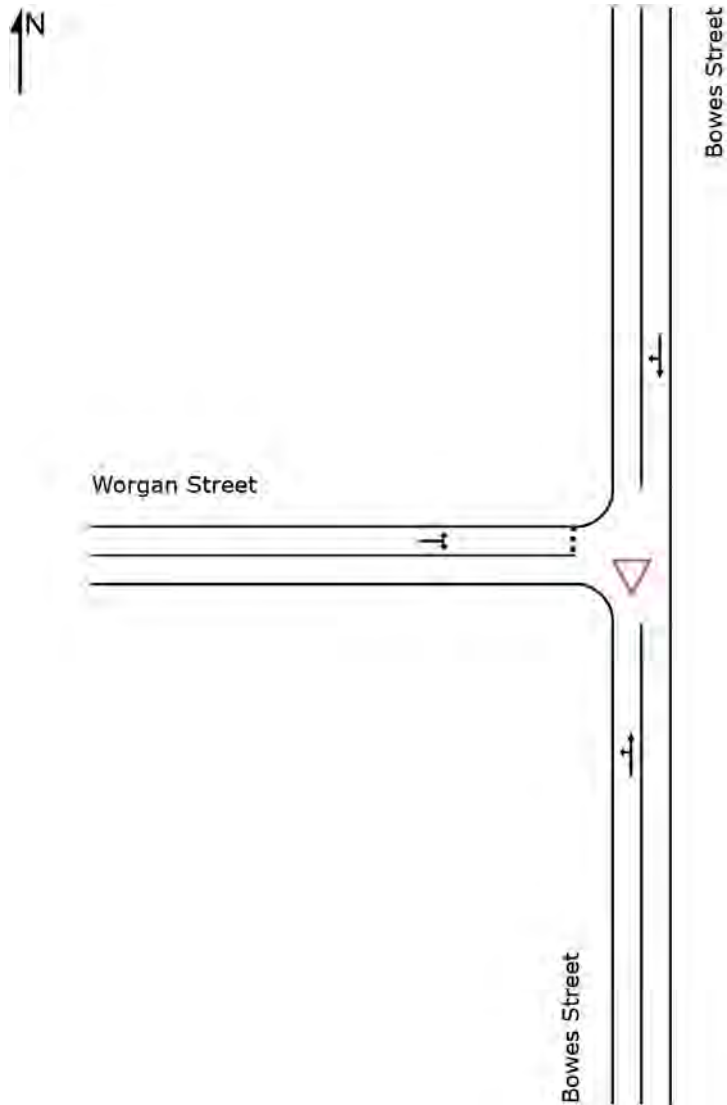
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

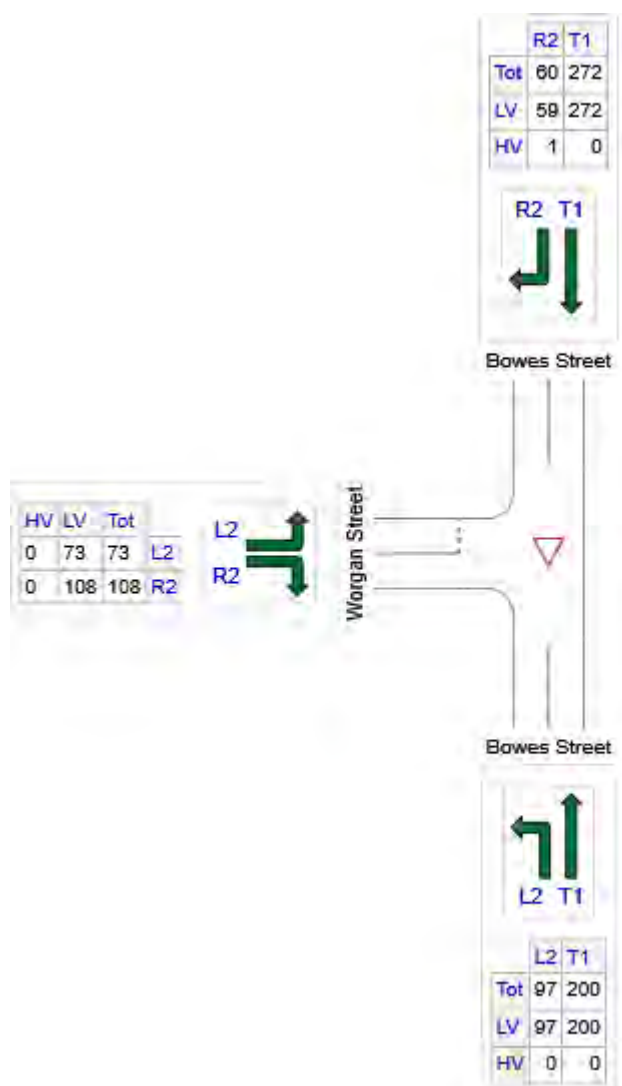
Site Category: 2030 Base Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	297	297	0
N: Bowes Street	332	331	1
W: Worgan Street	181	181	0
Total	809	808	1

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	97	0.0	0.155	4.6	LOS A	0.0	0.0	0.00	0.18	0.00	32.9
2	T1	200	0.0	0.155	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	44.0
Approach		297	0.0	0.155	1.5	NA	0.0	0.0	0.00	0.18	0.00	39.7
North: Bowes Street												
8	T1	272	0.0	0.185	0.4	LOS A	0.4	3.1	0.13	0.10	0.13	45.5
9	R2	60	1.8	0.185	4.3	LOS A	0.4	3.1	0.13	0.10	0.13	17.6
Approach		332	0.3	0.185	1.1	NA	0.4	3.1	0.13	0.10	0.13	39.0
West: Worgan Street												
10	L2	73	0.0	0.191	3.9	LOS A	0.7	5.1	0.39	0.63	0.39	19.8
12	R2	108	0.0	0.191	5.8	LOS A	0.7	5.1	0.39	0.63	0.39	31.4
Approach		181	0.0	0.191	5.1	LOS A	0.7	5.1	0.39	0.63	0.39	27.2
All Vehicles		809	0.1	0.191	2.1	NA	0.7	5.1	0.14	0.25	0.14	36.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	297	0.0	1919	0.155	100	1.5	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	297	0.0		0.155		1.5	NA	0.0	0.0				
North: Bowes Street													
Lane 1	332	0.3	1789	0.185	100	1.1	LOS A	0.4	3.1	Full	35	0.0	0.0
Approach	332	0.3		0.185		1.1	NA	0.4	3.1				
West: Worgan Street													
Lane 1	181	0.0	946	0.191	100	5.1	LOS A	0.7	5.1	Full	35	0.0	0.0
Approach	181	0.0		0.191		5.1	LOS A	0.7	5.1				
Intersection	809	0.1		0.191		2.1	NA	0.7	5.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

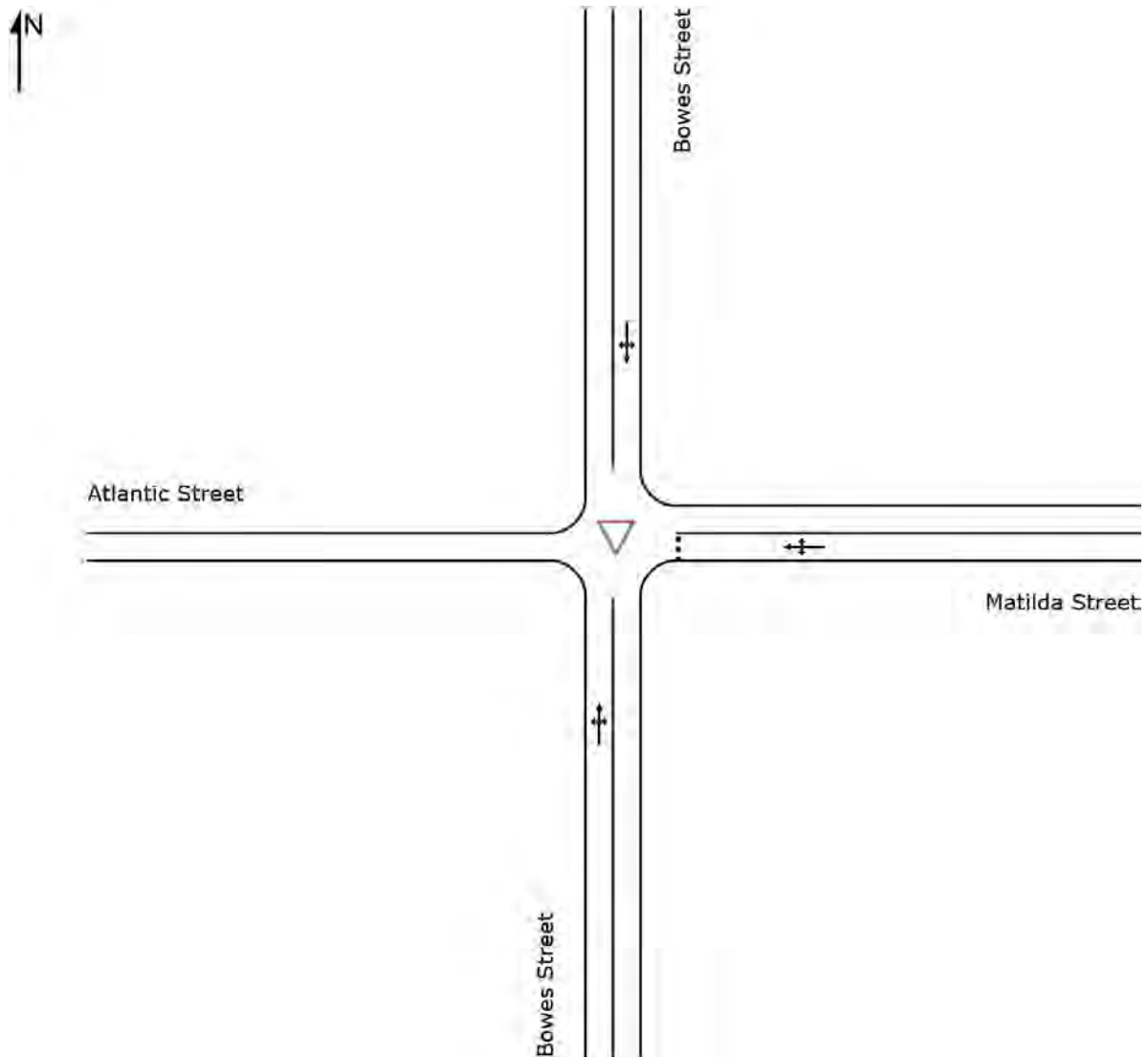
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

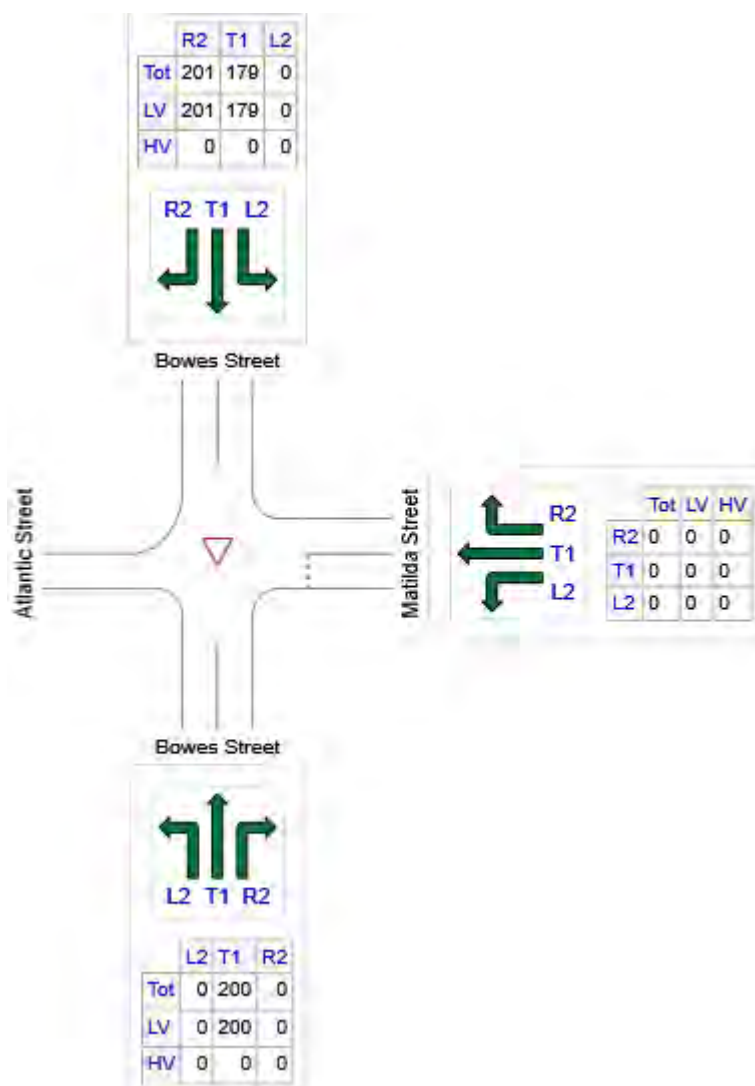
▼ Site: [2030 Base - PM: AS-BS-MS]

Atlantic Street / Bowes Street / Matilda Street
Existing Priority-Controlled (Give-Way) T-Intersection
Site Category: 2030 Base Scenario - Weekday Evening Peak Hour
Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	200	200	0
E: Matilda Street	0	0	0
N: Bowes Street	380	380	0
Total	581	581	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.103	4.0	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	200	0.0	0.103	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.103	4.2	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		200	0.0	0.103	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	0	0.0	0.000	5.0	LOS A	0.0	0.0	0.37	0.51	0.37	27.1
5	T1	0	0.0	0.000	6.6	LOS A	0.0	0.0	0.37	0.51	0.37	21.9
6	R2	0	0.0	0.000	7.9	LOS A	0.0	0.0	0.37	0.51	0.37	32.3
Approach		0	0.0	0.000	6.5	LOS A	0.0	0.0	0.37	0.51	0.37	26.1
North: Bowes Street												
7	L2	0	0.0	0.228	5.3	LOS A	1.2	8.3	0.32	0.32	0.32	38.2
8	T1	179	0.0	0.228	0.6	LOS A	1.2	8.3	0.32	0.32	0.32	38.1
9	R2	201	0.0	0.228	5.6	LOS A	1.2	8.3	0.32	0.32	0.32	26.4
Approach		380	0.0	0.228	3.3	NA	1.2	8.3	0.32	0.32	0.32	29.8
All Vehicles		581	0.0	0.228	2.1	NA	1.2	8.3	0.21	0.21	0.21	33.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	200	0.0	1950	0.103	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	200	0.0		0.103		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	0	0.0	785	0.000	100	6.5	LOS A	0.0	0.0	Full	80	0.0	0.0
Approach	0	0.0		0.000		6.5	LOS A	0.0	0.0				
North: Bowes Street													
Lane 1	380	0.0	1668	0.228	100	3.3	LOS A	1.2	8.3	Full	110	0.0	0.0
Approach	380	0.0		0.228		3.3	NA	1.2	8.3				
Intersection	581	0.0		0.228		2.1	NA	1.2	8.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Base - PM: BS-S7]

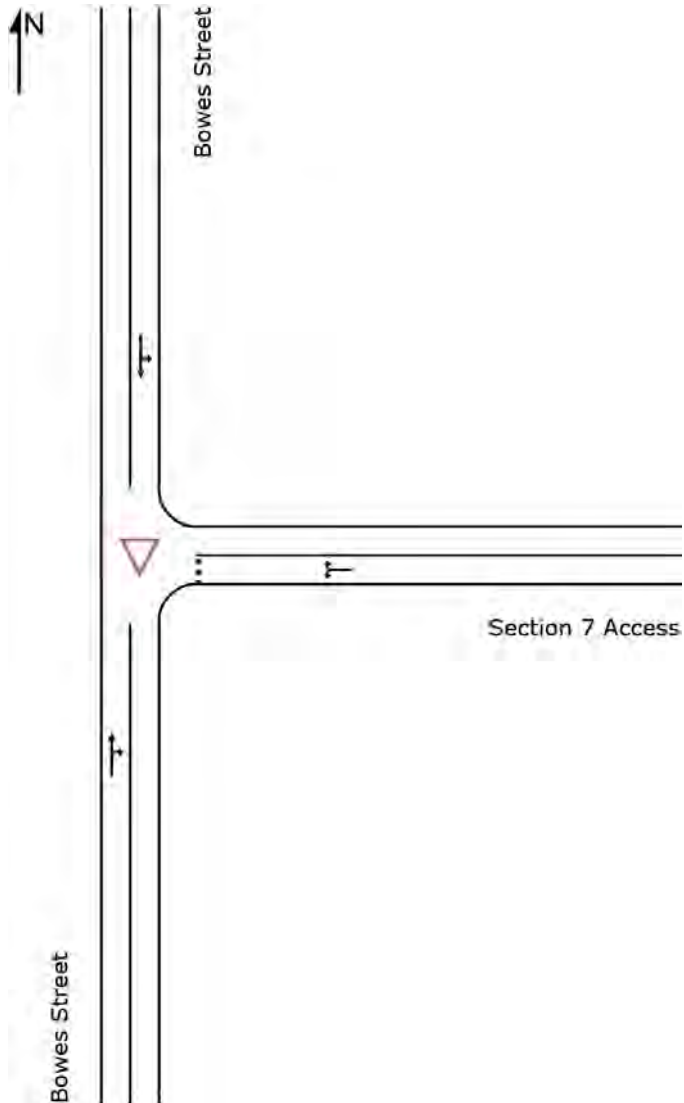
Bowes Street / Section 7 Access

Existing Priority-Controlled (Give-Way) T-Intersection

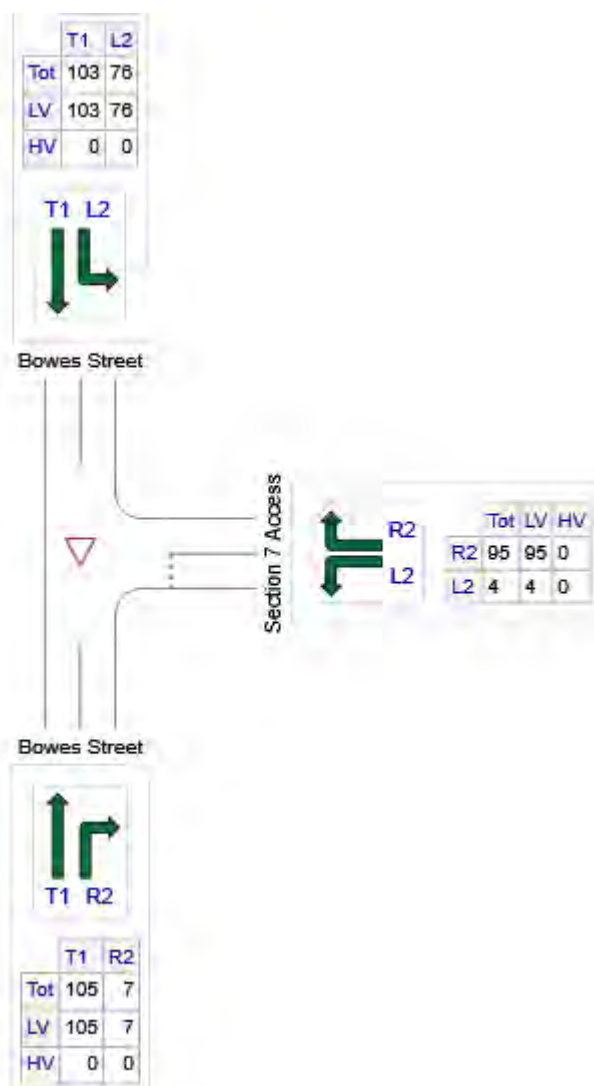
Site Category: 2030 Base Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	113	113	0
E: Section 7 Access	99	99	0
N: Bowes Street	179	179	0
Total	391	391	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	105	0.0	0.059	0.1	LOS A	0.1	0.4	0.04	0.04	0.04	47.6
3	R2	7	0.0	0.059	4.9	LOS A	0.1	0.4	0.04	0.04	0.04	47.9
Approach		113	0.0	0.059	0.4	NA	0.1	0.4	0.04	0.04	0.04	47.7
East: Section 7 Access												
4	L2	4	0.0	0.095	0.3	LOS A	0.3	2.2	0.30	0.29	0.30	24.8
6	R2	95	0.0	0.095	1.6	LOS A	0.3	2.2	0.30	0.29	0.30	24.1
Approach		99	0.0	0.095	1.5	LOS A	0.3	2.2	0.30	0.29	0.30	24.2
North: Bowes Street												
7	L2	76	0.0	0.094	4.3	LOS A	0.0	0.0	0.00	0.23	0.00	23.3
8	T1	103	0.0	0.094	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	41.9
Approach		179	0.0	0.094	1.8	NA	0.0	0.0	0.00	0.23	0.00	33.2
All Vehicles		391	0.0	0.095	1.3	NA	0.3	2.2	0.09	0.19	0.09	34.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	113	0.0	1910	0.059	100	0.4	LOS A	0.1	0.4	Full	60	0.0	0.0
Approach	113	0.0		0.059		0.4	NA	0.1	0.4				
East: Section 7 Access													
Lane 1	99	0.0	1046	0.095	100	1.5	LOS A	0.3	2.2	Full	15	0.0	0.0
Approach	99	0.0		0.095		1.5	LOS A	0.3	2.2				
North: Bowes Street													
Lane 1	179	0.0	1910	0.094	100	1.8	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	179	0.0		0.094		1.8	NA	0.0	0.0				
Intersection	391	0.0		0.095		1.3	NA	0.3	2.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2030 Base - PM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2030 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

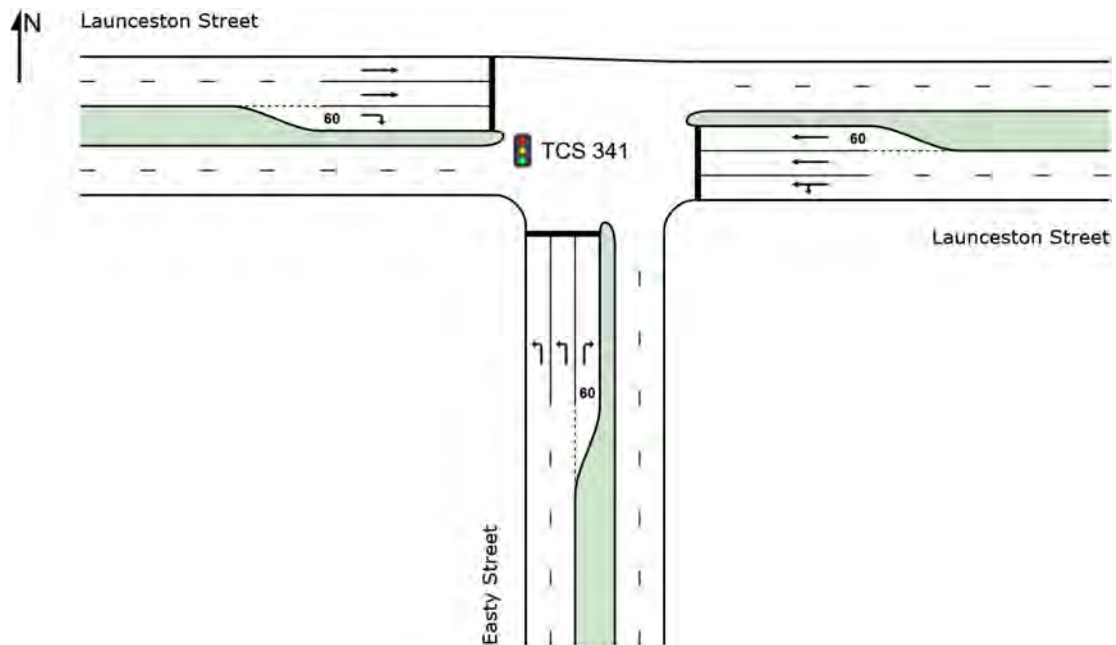
Phase Sequence: SCATS

Reference Phase: Phase A

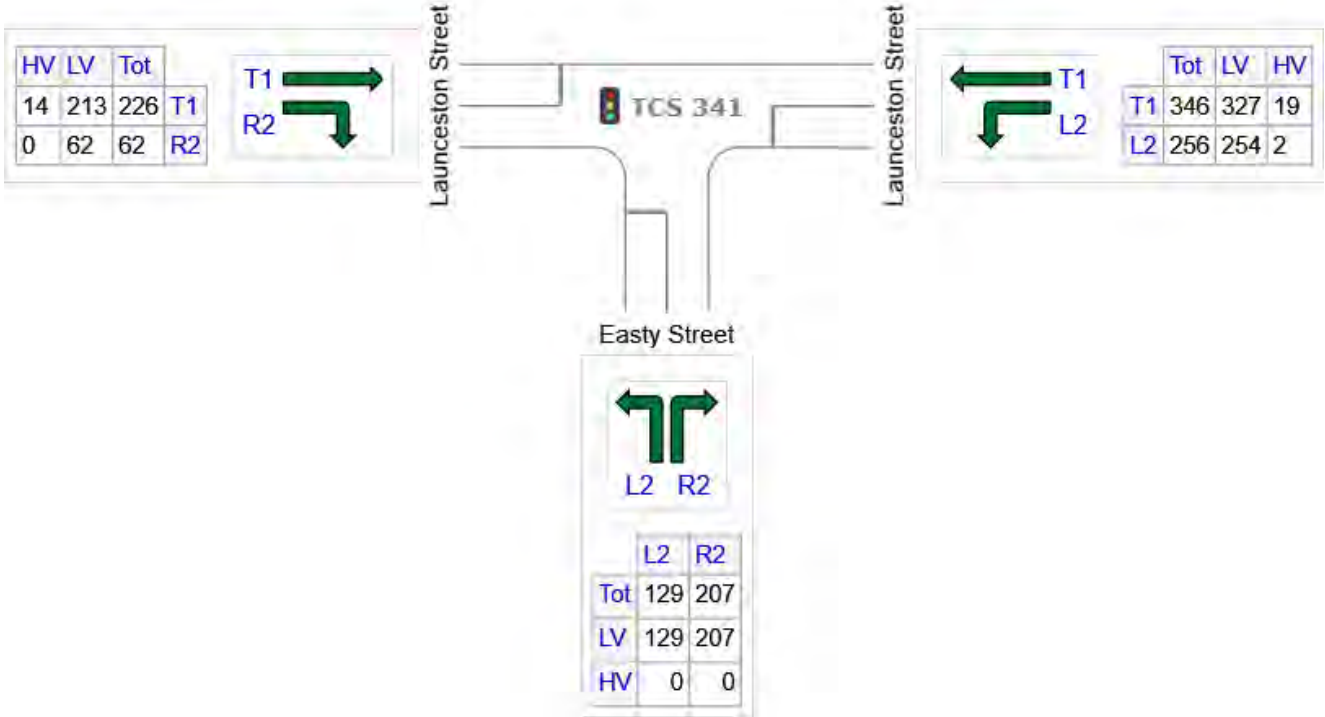
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



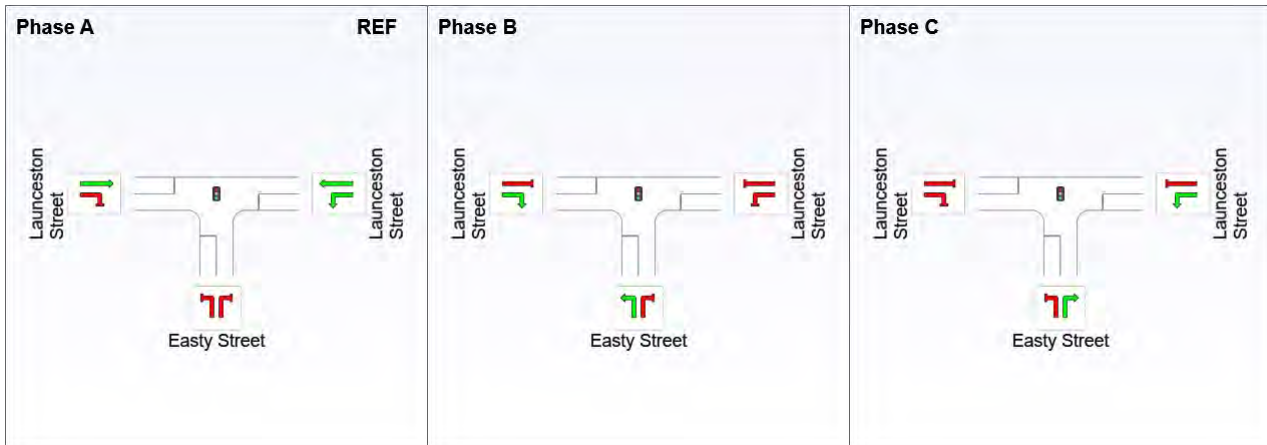
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	337	337	0
E: Launceston Street	602	581	21
W: Launceston Street	288	275	14
Total	1227	1193	35

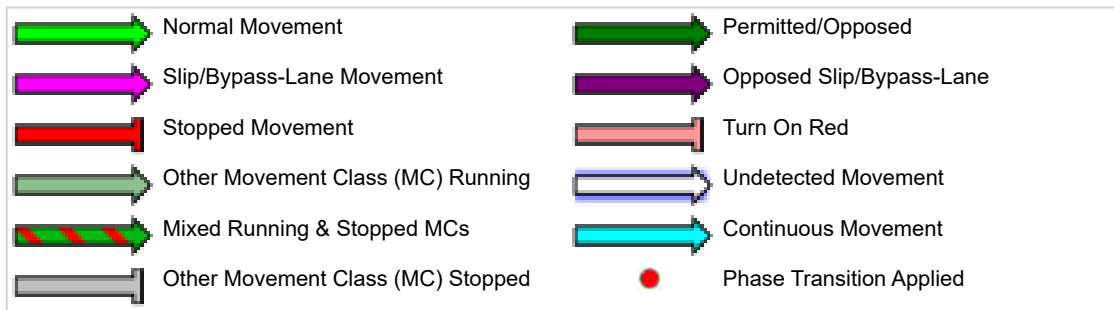
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	27	41
Green Time (sec)	21	8	25
Phase Time (sec)	27	14	31
Phase Split	38%	19%	43%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	129	0.0	0.314	37.0	LOS C	2.2	15.5	0.96	0.74	0.96	21.0
3	R2	207	0.0	0.322	22.1	LOS B	5.4	37.9	0.78	0.74	0.78	28.4
Approach		337	0.0	0.322	27.9	LOS B	5.4	37.9	0.85	0.74	0.85	25.5
East: Launceston Street												
4	L2	256	0.8	0.192	6.8	LOS A	2.9	20.2	0.34	0.59	0.34	35.6
5	T1	346	5.5	0.315	21.8	LOS B	4.8	35.4	0.82	0.67	0.82	25.1
Approach		602	3.5	0.315	15.4	LOS B	4.8	35.4	0.62	0.64	0.62	29.6
West: Launceston Street												
11	T1	226	6.0	0.207	21.0	LOS B	3.0	22.4	0.79	0.63	0.79	25.5
12	R2	62	0.0	0.301	36.9	LOS C	2.1	14.9	0.96	0.74	0.96	21.2
Approach		288	4.7	0.301	24.4	LOS B	3.0	22.4	0.83	0.66	0.83	24.3
All Vehicles		1227	2.8	0.322	21.0	LOS B	5.4	37.9	0.73	0.67	0.73	27.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	65	0.0	206	0.314	100	37.0	LOS C	2.2	15.5	Full	305	0.0	0.0
Lane 2	65	0.0	206	0.314	100	37.0	LOS C	2.2	15.5	Full	305	0.0	0.0
Lane 3	207	0.0	645	0.322	100	22.1	LOS B	5.4	37.9	Short	60	0.0	NA
Approach	337	0.0		0.322		27.9	LOS B	5.4	37.9				
East: Launceston Street													
Lane 1	256	0.8	1333	0.192	61 ⁵	6.8	LOS A	2.9	20.2	Full	260	0.0	0.0
Lane 2	173	5.5	549	0.315	100	21.8	LOS B	4.8	35.4	Full	260	0.0	0.0
Lane 3	173	5.5	549	0.315	100	21.8	LOS B	4.8	35.4	Short	60	0.0	NA
Approach	602	3.5		0.315		15.4	LOS B	4.8	35.4				
West: Launceston Street													
Lane 1	113	6.0	547	0.207	100	21.0	LOS B	3.0	22.4	Full	130	0.0	0.0
Lane 2	113	6.0	547	0.207	100	21.0	LOS B	3.0	22.4	Full	130	0.0	0.0
Lane 3	62	0.0	206	0.301	100	36.9	LOS C	2.1	14.9	Short	60	0.0	NA
Approach	288	4.7		0.301		24.4	LOS B	3.0	22.4				
Intersection	1227	2.8		0.322		21.0	LOS B	5.4	37.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:26:46 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2030 Base - PM - LS-YD]

 Network: 4 [2030 Base - PM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2030 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

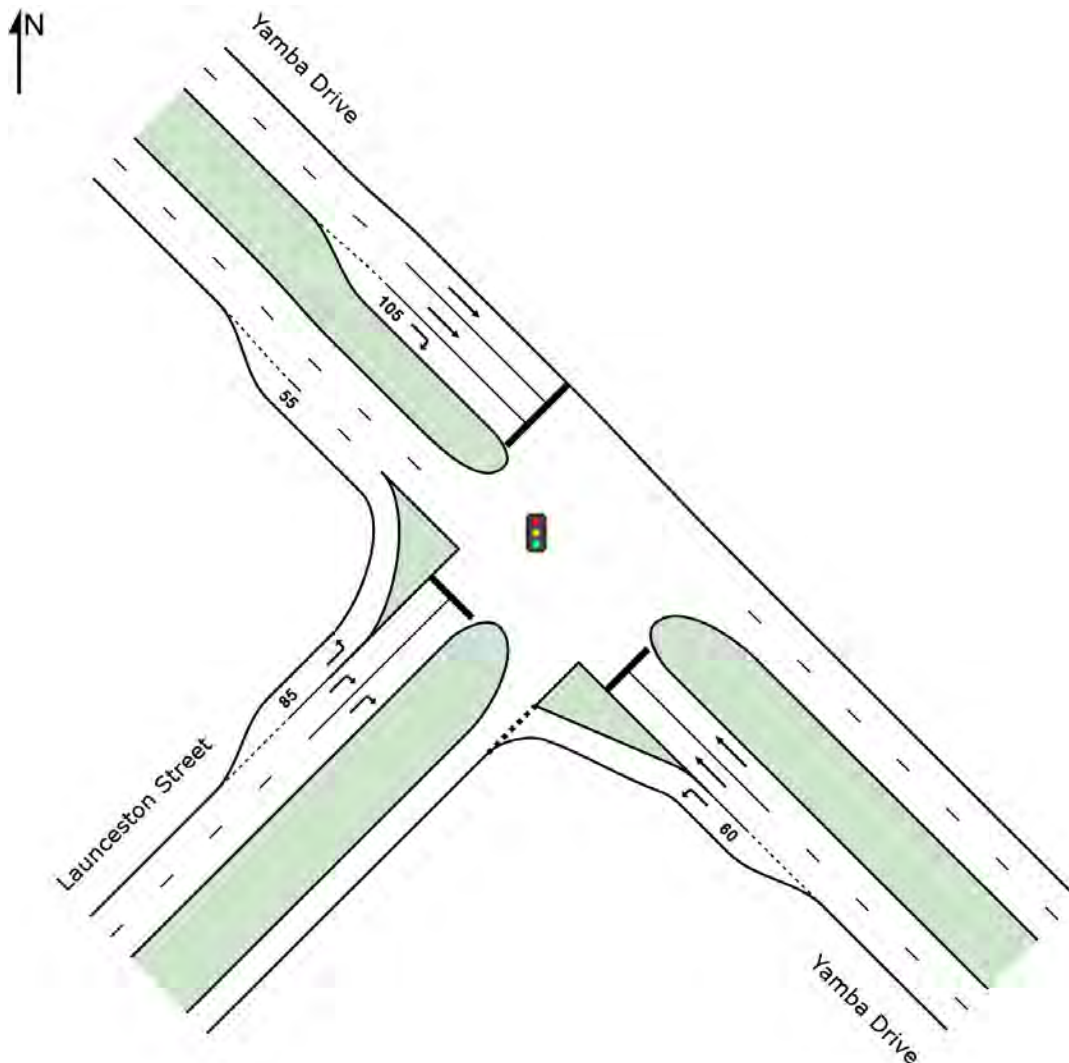
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

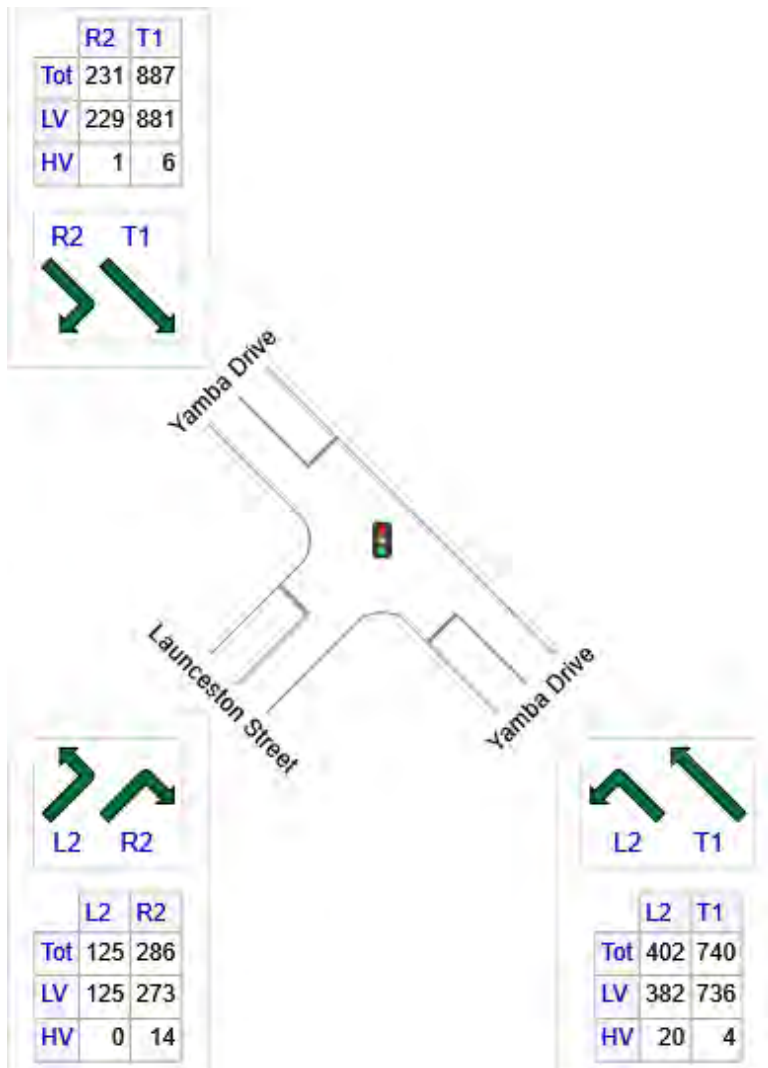
Output Phase Sequence: A, C*, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1142	1118	24
NW: Yamba Drive	1118	1111	7
SW: Launceston Street	412	398	14
Total	2672	2626	45

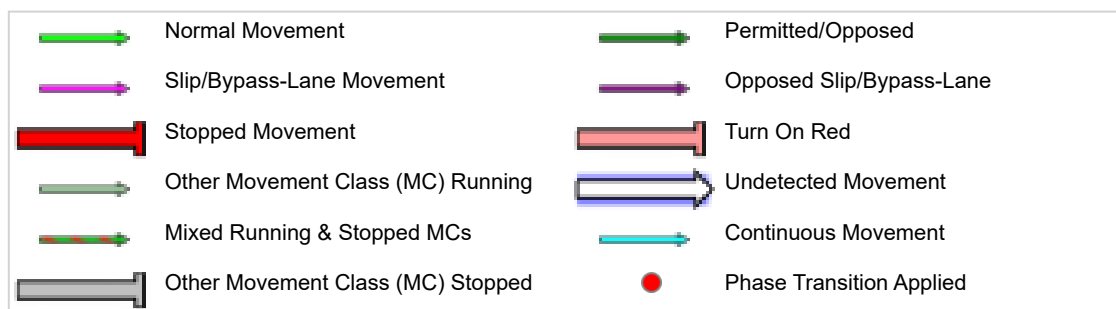
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	C	D	E
Phase Change Time (sec)	0	54	73	99
Green Time (sec)	48	13	20	9
Phase Time (sec)	54	19	26	15
Phase Split	47%	17%	23%	13%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	402	5.0	402	5.0	0.290	5.1	LOS A	1.0	7.1	0.06	0.60	0.06	40.2
5	T1	740	0.6	740	0.6	0.452	8.1	LOS A	7.9	55.9	0.31	0.27	0.31	49.7
Approach		1142	2.1	1142	2.1	0.452	7.1	LOS A	7.9	55.9	0.22	0.38	0.22	45.5
NorthWest: Yamba Drive														
11	T1	887	0.7	887	0.7	0.563	15.5	LOS B	15.1	106.6	0.66	0.60	0.66	32.1
12	R2	231	0.5	231	0.5	0.645	33.4	LOS C	8.1	56.7	0.97	0.82	0.97	26.9
Approach		1118	0.7	1118	0.7	0.645	19.2	LOS B	15.1	106.6	0.73	0.64	0.73	30.0
SouthWest: Launceston Street														
1	L2	125	0.0	125	0.0	0.067	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	39.5
3	R2	286	4.8	286	4.8	0.657	53.5	LOS D	7.9	57.3	0.98	0.85	1.04	12.7
Approach		412	3.3	412	3.3	0.657	38.1	LOS D	7.9	57.3	0.68	0.70	0.72	18.2
All Vehicles		2672	1.7	2672	1.7	0.657	16.9	LOS B	15.1	106.6	0.51	0.54	0.51	31.2

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand		Arrival		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	402	5.0	402	5.0	1388	0.290	100	5.1	LOS A	1.0	7.1	Short	60	0.0	NA
Lane 2	370	0.6	370	0.6	818	0.452	100	5.0	LOS A	3.9	27.6	Full	65	0.0	0.0
Lane 3	370	0.6	370	0.6	818	0.452	100	11.3	LOS B	7.9	55.9	Full	65	0.0	0.0
Approach	1142	2.1	1142	2.1		0.452		7.1	LOS A	7.9	55.9				
NorthWest: Yamba Drive															
Lane 1	444	0.7	444	0.7	789	0.563	100	15.5	LOS B	15.1	106.6	Full	215	-30.9 ^{N3}	0.0
Lane 2	444	0.7	444	0.7	789	0.563	100	15.5	LOS B	15.1	106.6	Full	215	-30.9 ^{N3}	0.0
Lane 3	231	0.5	231	0.5	357	0.645	100	33.4	LOS C	8.1	56.7	Short	105	0.0	NA
Approach	1118	0.7	1118	0.7		0.645		19.2	LOS B	15.1	106.6				
SouthWest: Launceston Street															
Lane 1	125	0.0	125	0.0	1857	0.067	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	143	4.8	143	4.8	218	0.657	100	53.5	LOS D	7.9	57.3	Full	260	-30.9 ^{N3}	0.0
Lane 3	143	4.8	143	4.8	218	0.657	100	53.5	LOS D	7.9	57.3	Full	260	-30.9 ^{N3}	0.0
Approach	412	3.3	412	3.3		0.657		38.1	LOS D	7.9	57.3				
Intersection	2672	1.7	2672	1.7		0.657		16.9	LOS B	15.1	106.6				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2030 Base - PM - WS-YD]**

Network: 4 [2030 Base - PM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2030 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

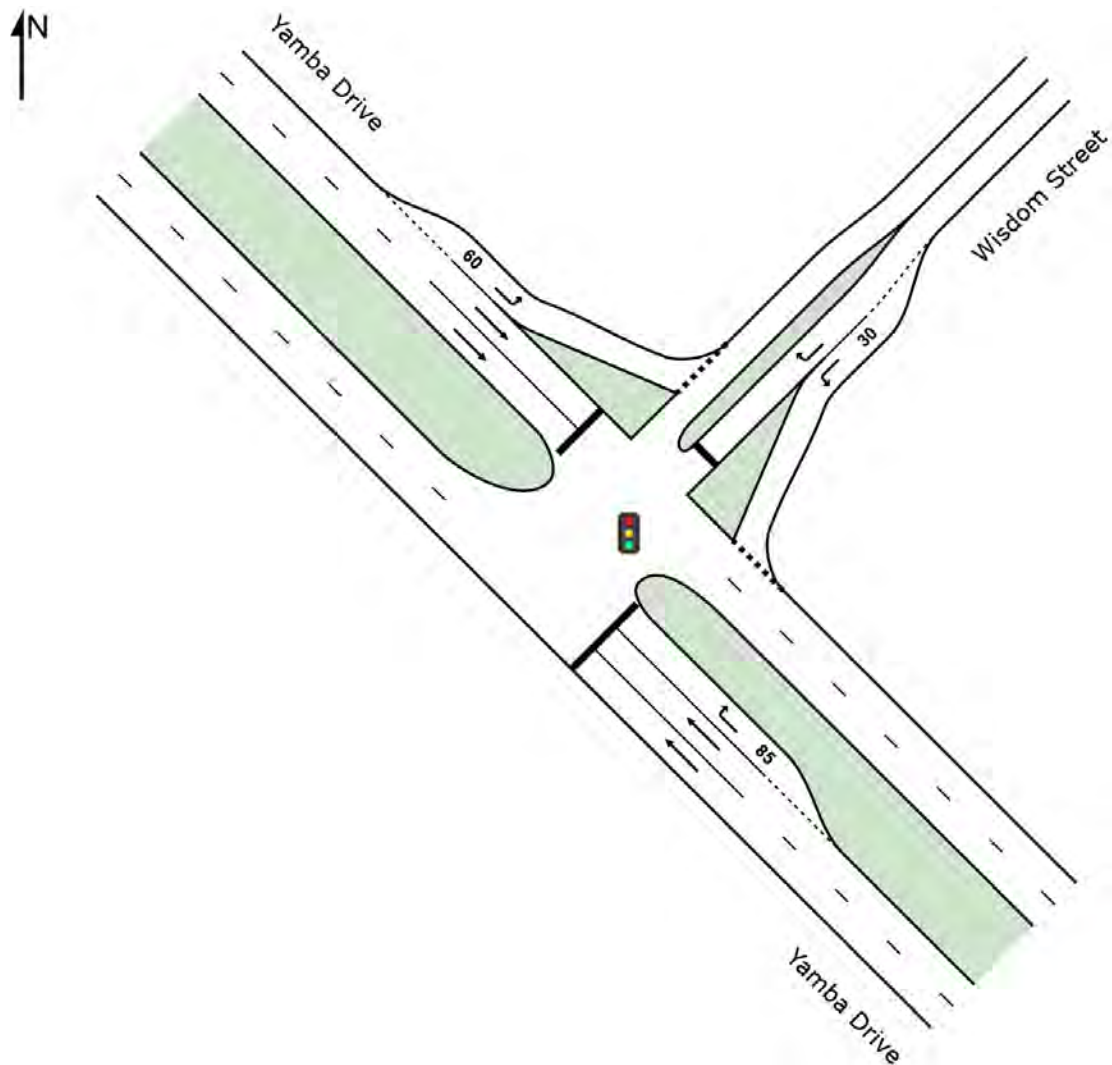
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, C*, D, E

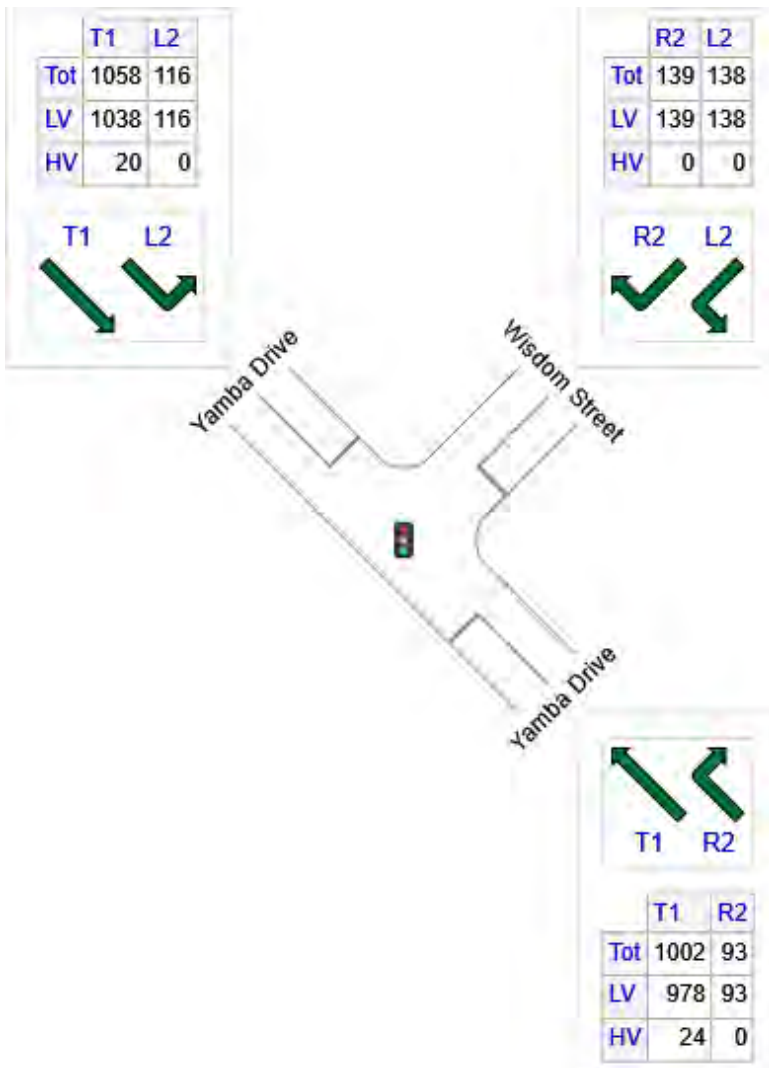
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1095	1071	24
NE: Wisdom Street	277	277	0
NW: Yamba Drive	1174	1154	20
Total	2545	2501	44

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
SouthEast: Yamba Drive														
11	T1	1002	2.4	1002	2.4	0.634	27.6	LOS C	22.4	160.0	0.84	0.75	0.84	43.9
12	R2	93	0.0	93	0.0	0.632	65.3	LOS E	5.3	37.3	1.00	0.80	1.07	32.2
Approach		1095	2.2	1095	2.2	0.634	30.8	LOS C	22.4	160.0	0.86	0.75	0.86	41.6
NorthEast: Wisdom Street														
1	L2	138	0.0	138	0.0	0.158	5.6	LOS A	1.7	11.8	0.29	0.53	0.29	49.4
3	R2	139	0.0	139	0.0	0.426	49.3	LOS D	7.0	49.1	0.94	0.79	0.94	22.4
Approach		277	0.0	277	0.0	0.426	27.5	LOS C	7.0	49.1	0.61	0.66	0.61	35.4
NorthWest: Yamba Drive														
4	L2	116	0.0	116	0.0	0.072	4.7	LOS A	0.1	0.7	0.02	0.59	0.02	40.3
5	T1	1058	1.9	1058	1.9	0.467	11.0	LOS B	12.1	86.4	0.45	0.40	0.45	61.6
Approach		1174	1.7	1174	1.7	0.467	10.3	LOS B	12.1	86.4	0.41	0.42	0.41	58.7
All Vehicles		2545	1.7	2545	1.7	0.634	21.0	LOS C	22.4	160.0	0.62	0.59	0.63	46.5

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	513	2.4	513	2.4	808	0.634	100	27.9	LOS C	22.4	160.0	Full	735	0.0	0.0
Lane 2	489	2.4	489	2.4	771 ¹	0.634	100	27.4	LOS C	21.0	150.0	Full	735	0.0	0.0
Lane 3	93	0.0	93	0.0	147	0.632	100	65.3	LOS E	5.3	37.3	Short	85	0.0	NA
Approach	1095	2.2	1095	2.2		0.634		30.8	LOS C	22.4	160.0				
NorthEast: Wisdom Street															
Lane 1	138	0.0	138	0.0	870	0.158	100	5.6	LOS A	1.7	11.8	Short	30	0.0	NA
Lane 2	139	0.0	139	0.0	326	0.426	100	49.3	LOS D	7.0	49.1	Full	680	0.0	0.0
Approach	277	0.0	277	0.0		0.426		27.5	LOS C	7.0	49.1				
NorthWest: Yamba Drive															
Lane 1	116	0.0	116	0.0	1600	0.072	100	4.7	LOS A	0.1	0.7	Short	60	0.0	NA
Lane 2	529	1.9	529	1.9	1132	0.467	100	11.0	LOS B	12.1	86.4	Full	65	0.0	30.9
Lane 3	529	1.9	529	1.9	1132	0.467	100	11.0	LOS B	12.1	86.4	Full	65	0.0	30.9
Approach	1174	1.7	1174	1.7		0.467		10.3	LOS B	12.1	86.4				
Intersection	2545	1.7	2545	1.7		0.634		21.0	LOS C	22.4	160.0				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

Appendix C:

Intersection Performance Results – 2040 Base Scenario

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2040 Base - AM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2040 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 103 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

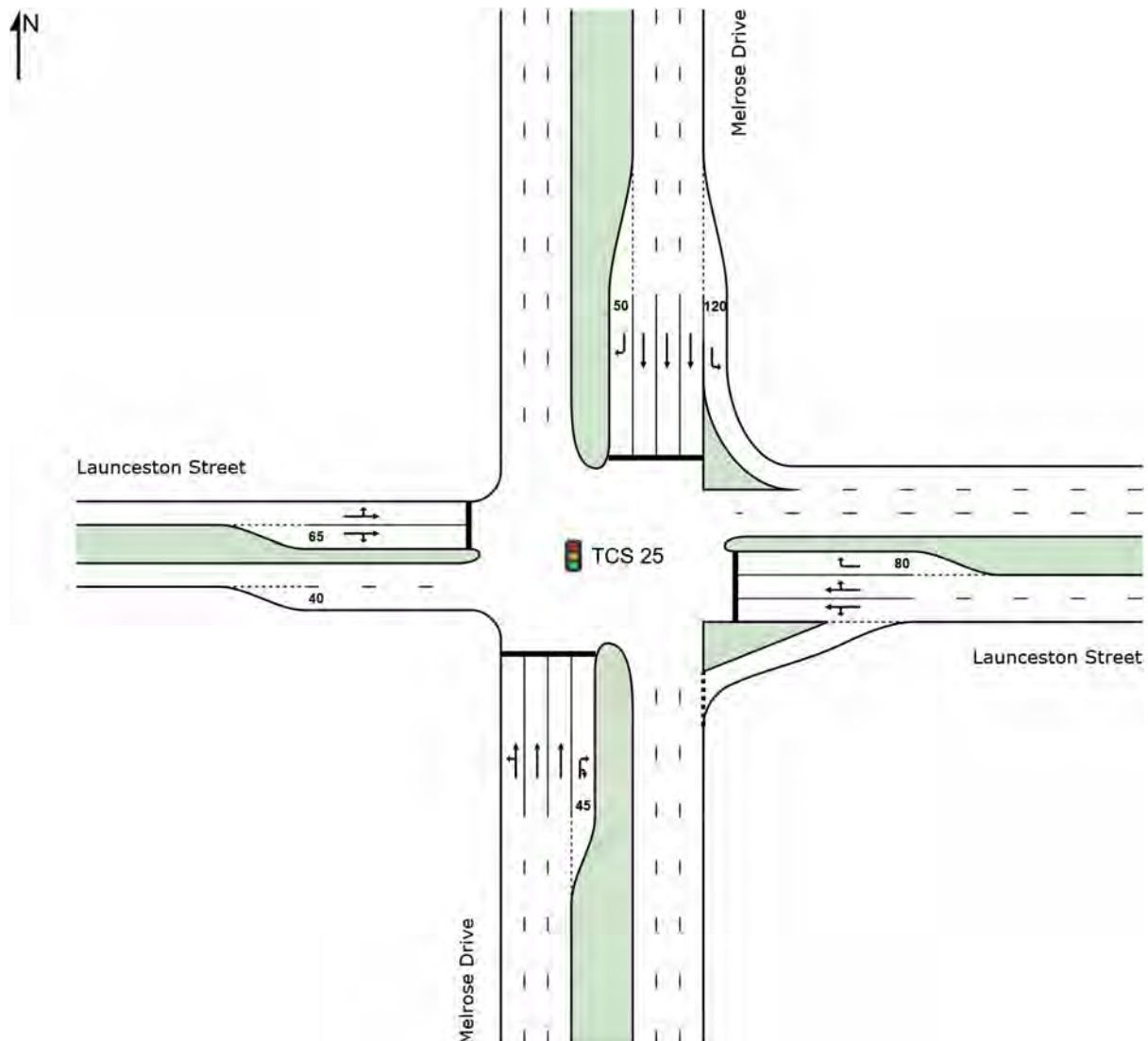
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

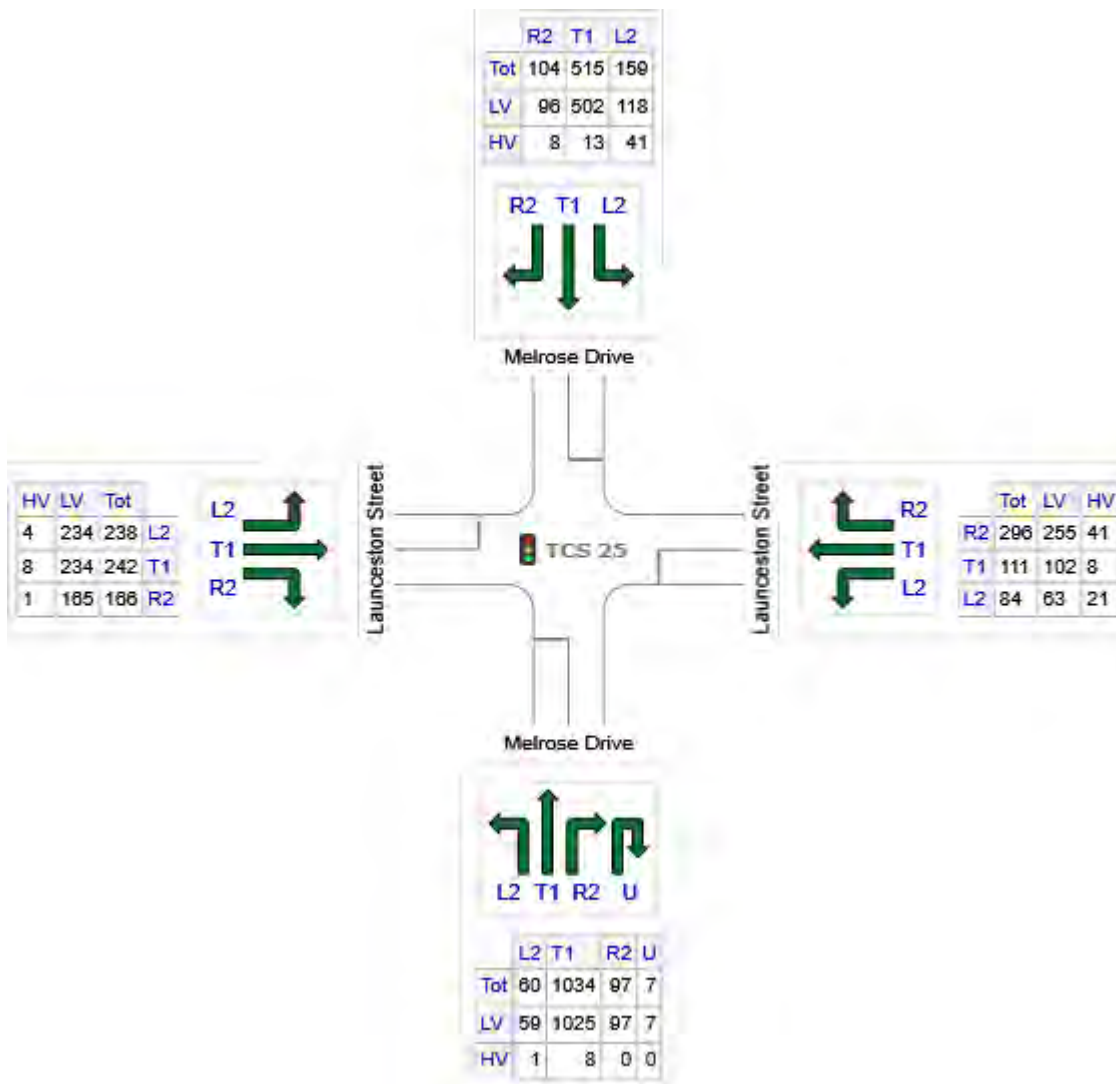
Output Phase Sequence: A, D, E, F

(* Variable Phase)

Site Layout



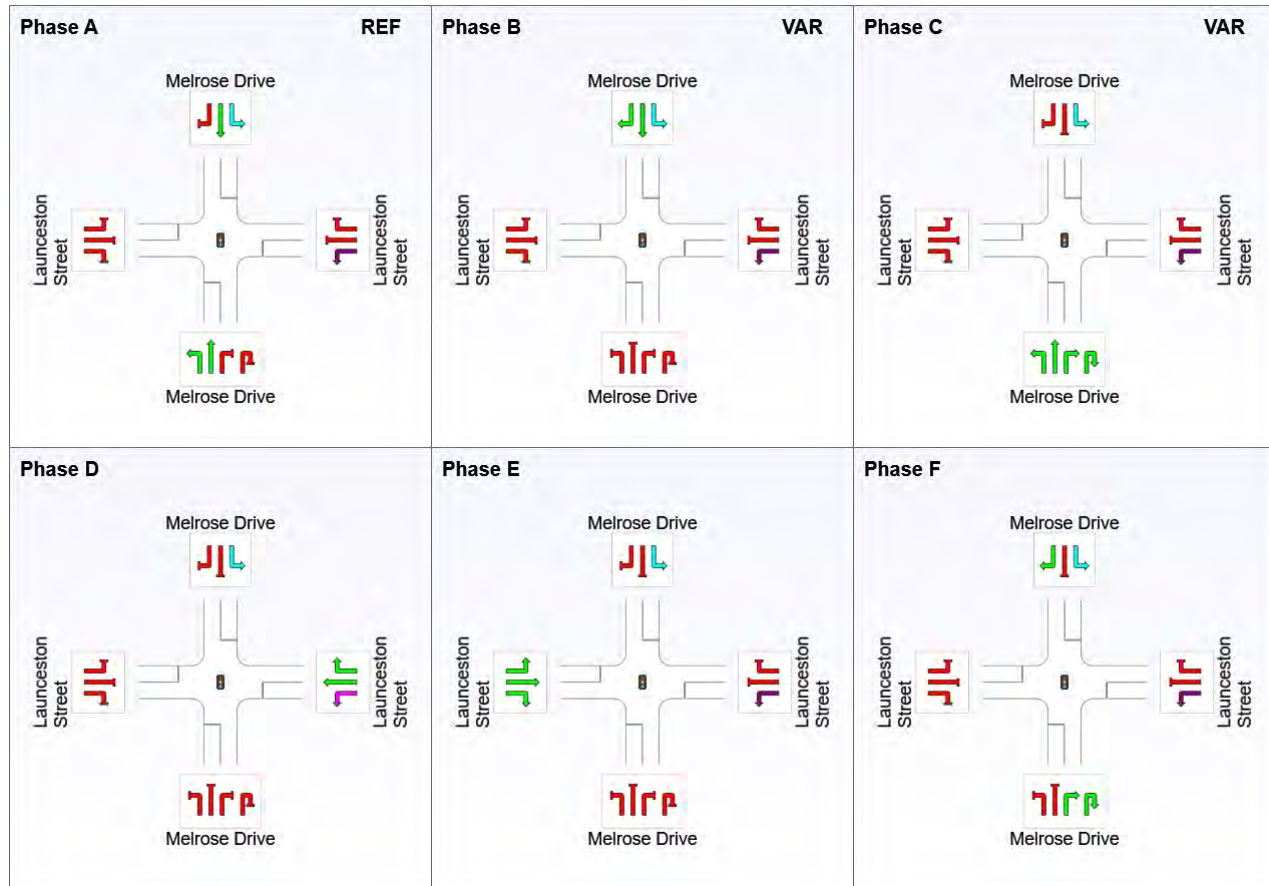
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	1198	1188	9
E: Launceston Street	491	420	71
N: Melrose Drive	778	716	62
W: Launceston Street	646	633	14
Total	3113	2957	156

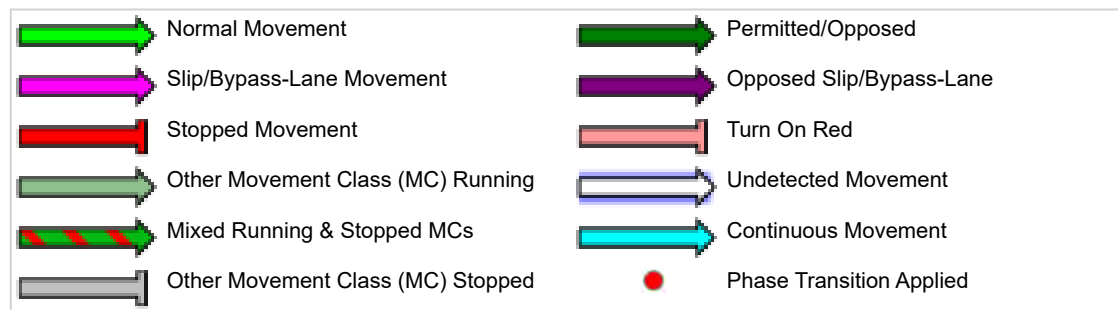
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	33	58	88
Green Time (sec)	27	19	24	9
Phase Time (sec)	33	25	30	15
Phase Split	32%	24%	29%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	60	1.8	0.755	45.3	LOS D	18.4	129.7	0.98	0.89	1.04	18.7
2	T1	1034	0.8	0.755	39.5	LOS C	18.5	130.6	0.97	0.88	1.03	30.8
3	R2	97	0.0	0.657	58.3	LOS E	5.4	38.1	1.00	0.82	1.09	13.3
3u	U	7	0.0	0.657	59.7	LOS E	5.4	38.1	1.00	0.82	1.09	18.0
Approach		1198	0.8	0.755	41.4	LOS C	18.5	130.6	0.97	0.87	1.04	28.7
East: Launceston Street												
4	L2	84	25.0	0.195	14.0	LOS A	2.1	17.4	0.60	0.66	0.60	32.6
5	T1	111	7.6	0.573	30.3	LOS C	8.7	66.9	0.82	0.75	0.82	16.3
6	R2	296	13.9	0.573	47.9	LOS D	8.7	66.9	0.96	0.81	0.96	25.2
Approach		491	14.4	0.573	38.1	LOS C	8.7	66.9	0.87	0.77	0.87	24.5
North: Melrose Drive												
7	L2	159	25.8	0.101	5.9	LOS A	0.0	0.0	0.00	0.51	0.00	48.8
8	T1	515	2.5	0.341	33.3	LOS C	7.0	50.2	0.86	0.70	0.86	33.4
9	R2	104	8.1	0.679	58.8	LOS E	5.5	41.1	1.00	0.83	1.12	22.0
Approach		778	8.0	0.679	31.1	LOS C	7.0	50.2	0.70	0.68	0.72	33.3
West: Launceston Street												
10	L2	238	1.8	0.744	46.4	LOS D	15.7	112.1	0.99	0.88	1.05	25.2
11	T1	242	3.5	0.744	41.8	LOS C	15.9	113.2	0.99	0.88	1.05	13.2
12	R2	166	0.6	0.744	46.3	LOS D	15.9	113.2	0.99	0.89	1.05	17.7
Approach		646	2.1	0.744	44.6	LOS D	15.9	113.2	0.99	0.88	1.05	19.6
All Vehicles		3113	5.0	0.755	39.0	LOS C	18.5	130.6	0.89	0.81	0.93	27.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	380	1.0	504	0.755	100	40.7	LOS C	18.4	129.7	Full	205	0.0	0.0
Lane 2	384	0.8	508	0.755	100	39.7	LOS C	18.5	130.6	Full	205	0.0	0.0
Lane 3	329	0.8	436 ¹	0.755	100	39.0	LOS C	15.5	109.3	Full	205	0.0	0.0
Lane 4	104	0.0	159	0.657	100	58.4	LOS E	5.4	38.1	Short	45	0.0	NA
Approach	1198	0.8		0.755		41.4	LOS C	18.5	130.6				
East: Launceston Street													
Lane 1	127	19.1	655	0.195	34 ⁶	12.6	LOS A	2.1	17.4	Full	90	0.0	0.0
Lane 2	185	11.6	322	0.573	100	46.3	LOS D	8.7	66.9	Full	90	0.0	0.0
Lane 3	179	13.9	312	0.573	100	47.9	LOS D	8.4	65.9	Short	80	0.0	NA
Approach	491	14.4		0.573		38.1	LOS C	8.7	66.9				
North: Melrose Drive													
Lane 1	159	25.8	1568	0.101	100	5.9	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	172	2.5	503	0.341	100	33.3	LOS C	7.0	50.2	Full	470	0.0	0.0
Lane 3	172	2.5	503	0.341	100	33.3	LOS C	7.0	50.2	Full	470	0.0	0.0
Lane 4	172	2.5	503	0.341	100	33.3	LOS C	7.0	50.2	Full	470	0.0	0.0
Lane 5	104	8.1	153	0.679	100	58.8	LOS E	5.5	41.1	Short	50	0.0	NA
Approach	778	8.0		0.679		31.1	LOS C	7.0	50.2				
West: Launceston Street													
Lane 1	321	2.2	432	0.744	100	45.2	LOS D	15.7	112.1	Full	95	0.0	20.9 ⁸
Lane 2	325	2.0	437	0.744	100	44.1	LOS D	15.9	113.2	Short	65	0.0	NA
Approach	646	2.1		0.744		44.6	LOS D	15.9	113.2				
Intersection	3113	5.0		0.755		39.0	LOS C	18.5	130.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Site: TCS 340 [2040 Base - AM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2040 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 78 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

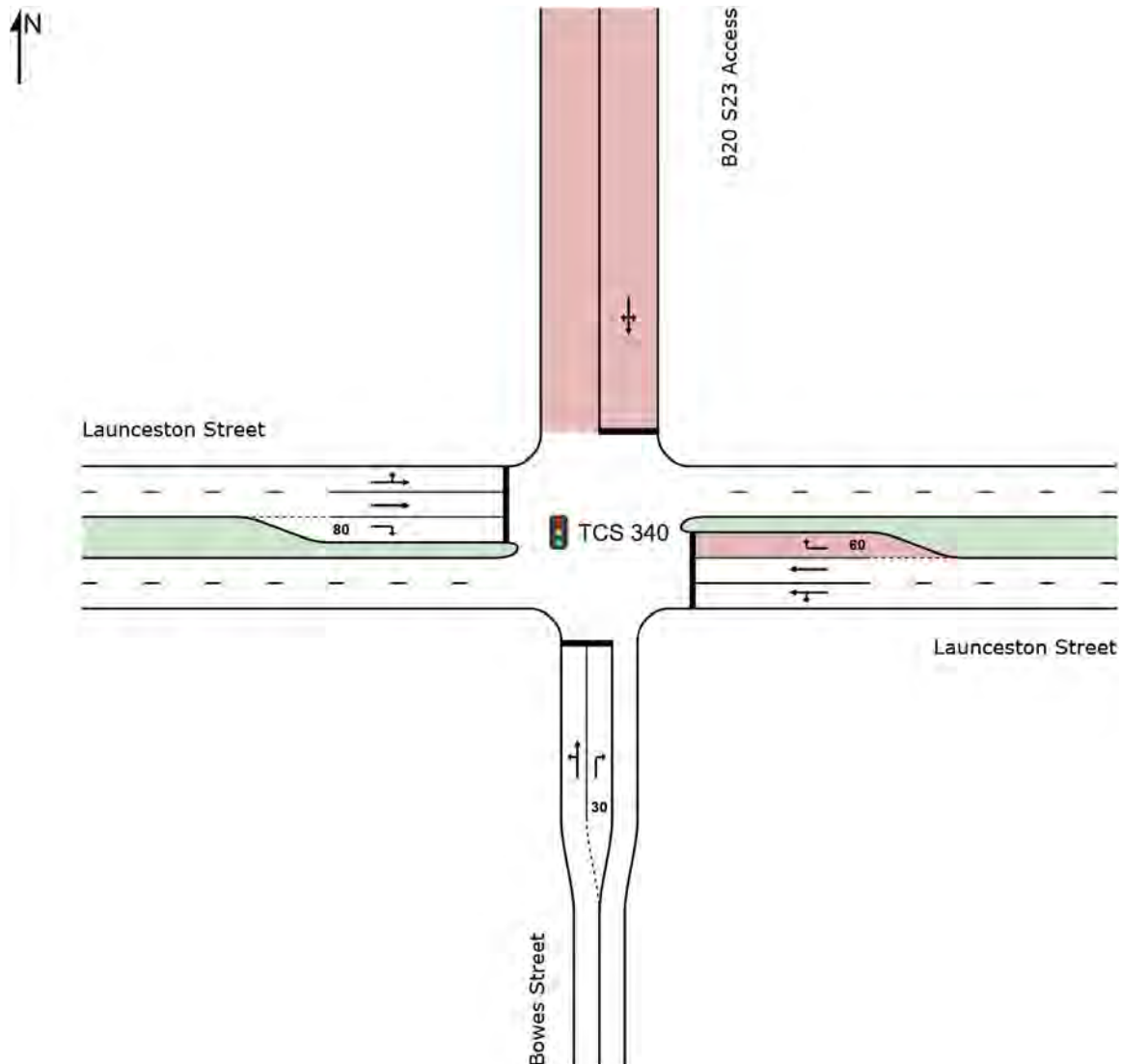
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

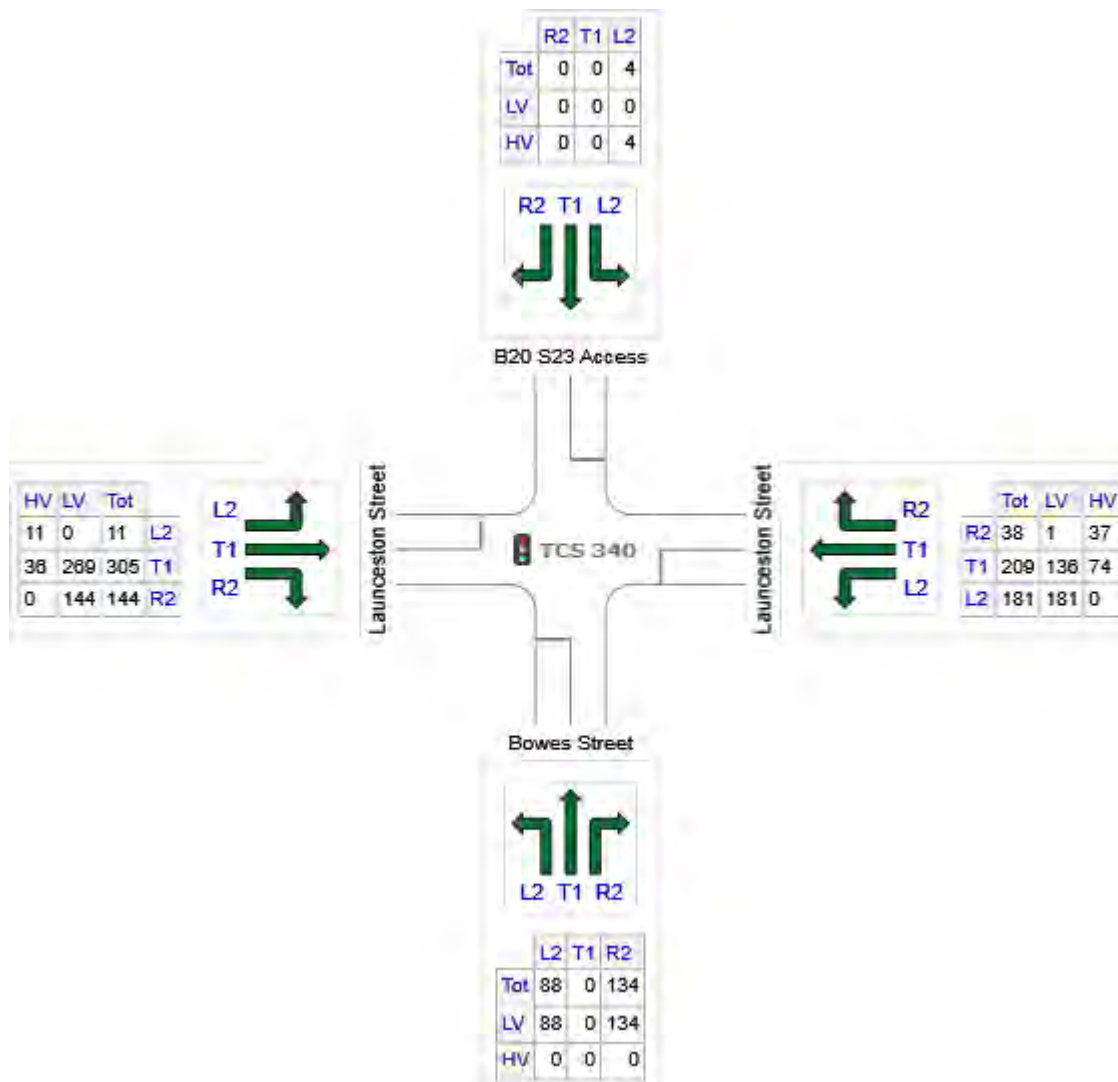
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



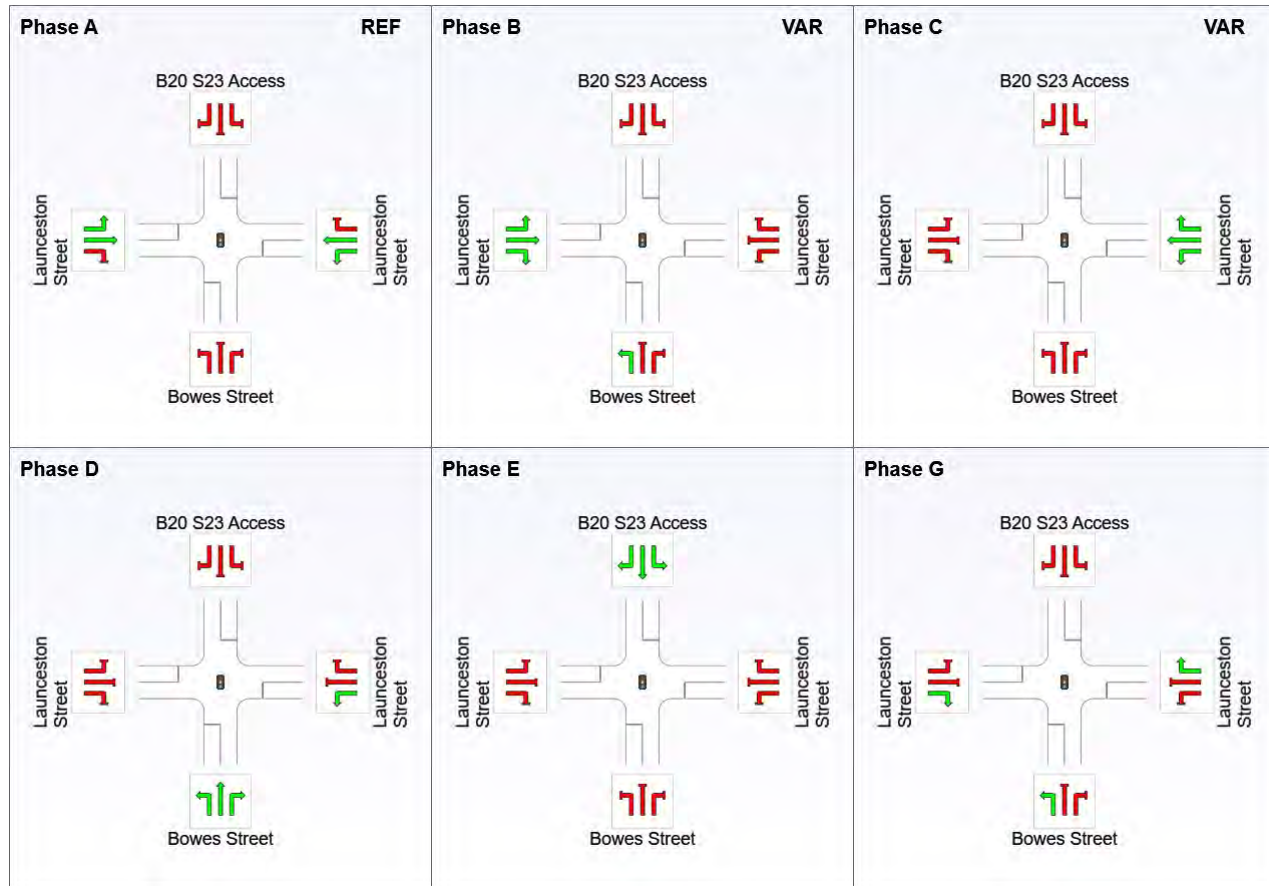
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	222	222	0
E: Launceston Street	428	318	111
N: B20 S23 Access	4	0	4
W: Launceston Street	460	414	46
Total	1115	954	161

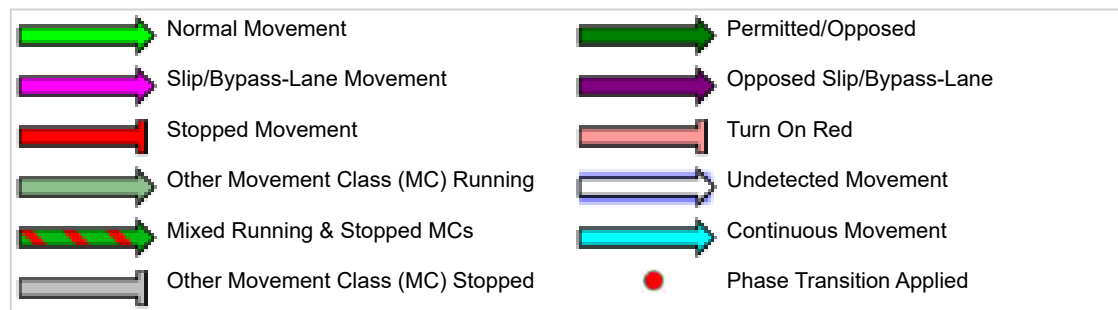
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	24	36	54	66
Green Time (sec)	18	6	12	6	6
Phase Time (sec)	24	12	18	12	12
Phase Split	31%	15%	23%	15%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	88	0.0	0.120	11.9	LOS A	1.3	9.3	0.66	0.69	0.66	23.8
2	T1	0	0.0	0.120	12.3	LOS A	1.3	9.3	0.66	0.69	0.66	13.9
3	R2	134	0.0	0.468	37.0	LOS C	4.8	33.9	0.96	0.78	0.96	10.8
Approach		222	0.0	0.468	27.0	LOS B	4.8	33.9	0.84	0.75	0.84	13.9
East: Launceston Street												
4	L2	181	0.0	0.429	19.0	LOS B	4.9	36.3	0.84	0.77	0.84	18.2
5	T1	209	35.2	0.429	24.7	LOS B	5.3	48.1	0.89	0.74	0.89	20.1
6	R2	38	97.2	0.449	47.9	LOS D	1.6	19.9	0.99	0.74	0.99	8.7
Approach		428	25.8	0.449	24.4	LOS B	5.3	48.1	0.88	0.75	0.88	17.8
North: B20 S23 Access												
7	L2	4	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	8.9
8	T1	0	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	5.6
9	R2	0	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	9.4
Approach		4	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	8.8
West: Launceston Street												
10	L2	11	100.0	0.203	23.1	LOS B	3.9	31.6	0.70	0.60	0.70	18.1
11	T1	305	11.7	0.203	17.2	LOS B	4.1	31.5	0.70	0.59	0.70	25.7
12	R2	144	0.0	0.443	23.1	LOS B	2.9	20.6	0.95	0.78	0.95	16.2
Approach		460	10.1	0.443	19.3	LOS B	4.1	31.6	0.78	0.65	0.78	22.3
All Vehicles		1115	14.5	0.468	22.8	LOS B	5.3	48.1	0.83	0.71	0.83	18.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	89	0.0	736	0.120	100	11.9	LOS A	1.3	9.3	Full	35	0.0	2.1 ⁸
Lane 2	134	0.0	286	0.468	100	37.0	LOS C	4.8	33.9	Short	30	0.0	NA
Approach	222	0.0		0.468		27.0	LOS B	4.8	33.9				
East: Launceston Street													
Lane 1	233	7.9	544	0.429	100	17.8	LOS B	4.9	36.3	Full	95	0.0	0.0
Lane 2	157	35.2	366	0.429	100	28.5	LOS B	5.3	48.1	Full	95	0.0	0.0
Lane 3	38	97.2	84	0.449	100	47.9	LOS D	1.6	19.9	Short	60	0.0	NA
Approach	428	25.8		0.449		24.4	LOS B	5.3	48.1				
North: B20 S23 Access													
Lane 1	4	100.0	91	0.049	100	38.8	LOS C	0.2	2.2	Full	30	0.0	0.0
Approach	4	100.0		0.049		38.8	LOS C	0.2	2.2				
West: Launceston Street													
Lane 1	154	17.7	760	0.203	100	18.0	LOS B	3.9	31.6	Full	105	0.0	0.0
Lane 2	161	11.7	794	0.203	100	17.2	LOS B	4.1	31.5	Full	105	0.0	0.0
Lane 3	144	0.0	326	0.443	100	23.1	LOS B	2.9	20.6	Short	80	0.0	NA
Approach	460	10.1		0.443		19.3	LOS B	4.1	31.6				
Intersection	1115	14.5		0.468		22.8	LOS B	5.3	48.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▽ Site: [2040 Base - AM: BS-WS]

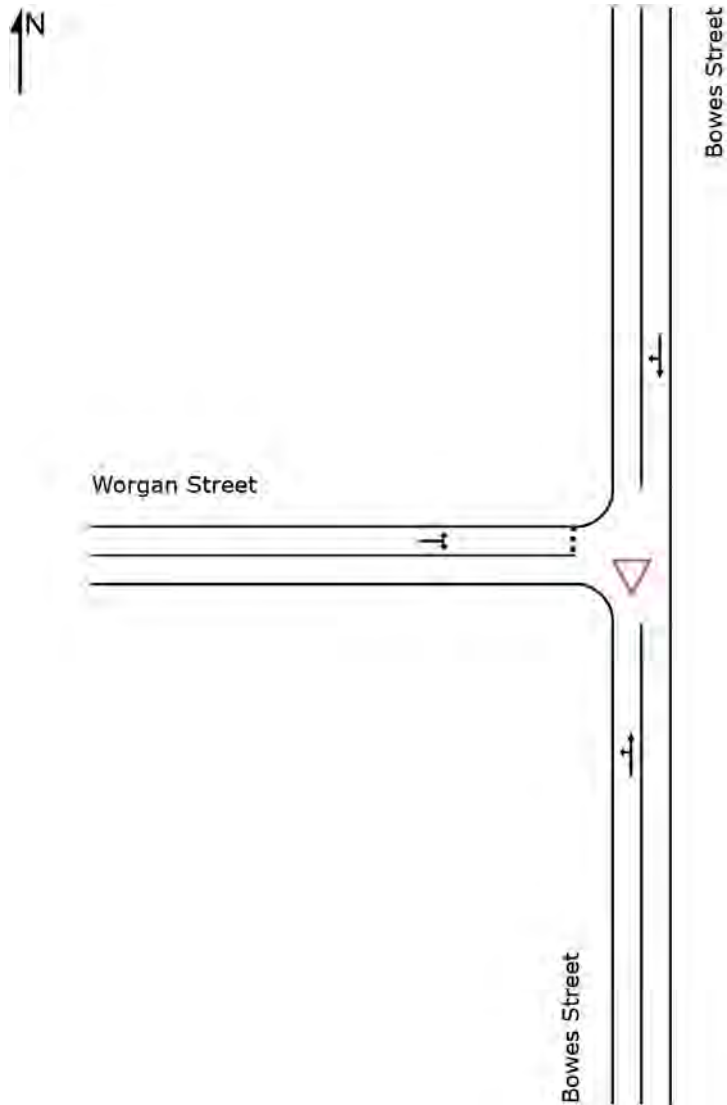
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

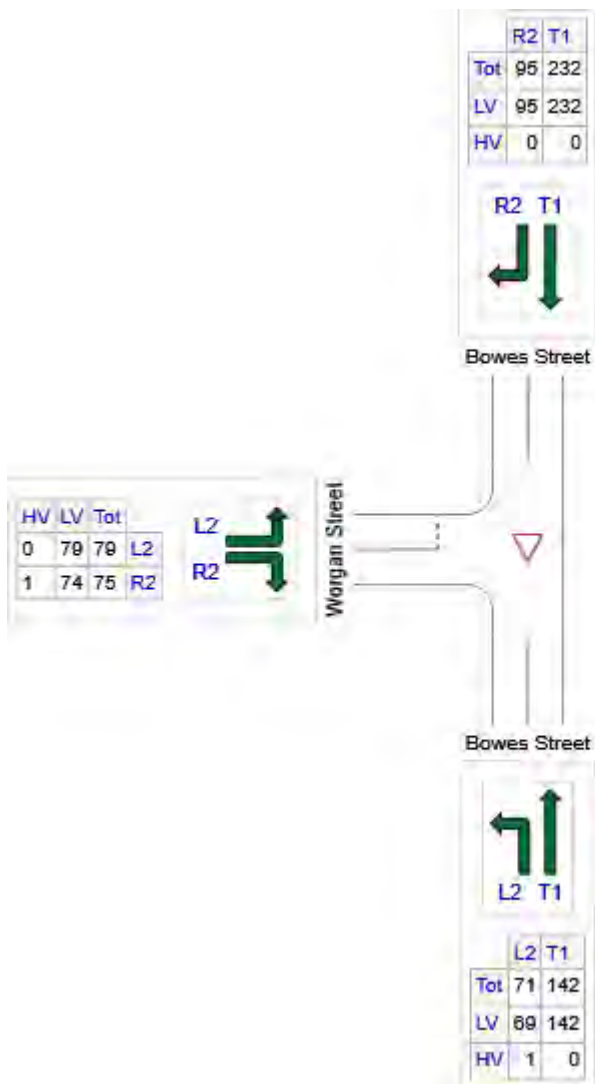
Site Category: 2040 Base Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	213	212	1
N: Bowes Street	326	326	0
W: Worgan Street	154	153	1
Total	693	691	2

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	71	1.5	0.111	4.6	LOS A	0.0	0.0	0.00	0.18	0.00	32.9
2	T1	142	0.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	44.0
Approach		213	0.5	0.111	1.5	NA	0.0	0.0	0.00	0.18	0.00	39.6
North: Bowes Street												
8	T1	232	0.0	0.184	0.4	LOS A	0.6	4.1	0.16	0.16	0.16	44.3
9	R2	95	0.0	0.184	3.9	LOS A	0.6	4.1	0.16	0.16	0.16	17.3
Approach		326	0.0	0.184	1.4	NA	0.6	4.1	0.16	0.16	0.16	34.6
West: Worgan Street												
10	L2	79	0.0	0.144	3.7	LOS A	0.6	3.9	0.29	0.56	0.29	20.7
12	R2	75	1.4	0.144	5.3	LOS A	0.6	3.9	0.29	0.56	0.29	32.4
Approach		154	0.7	0.144	4.5	LOS A	0.6	3.9	0.29	0.56	0.29	26.9
All Vehicles		693	0.3	0.184	2.1	NA	0.6	4.1	0.14	0.26	0.14	34.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	213	0.5	1911	0.111	100	1.5	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	213	0.5		0.111		1.5	NA	0.0	0.0				
North: Bowes Street													
Lane 1	326	0.0	1771	0.184	100	1.4	LOS A	0.6	4.1	Full	35	0.0	0.0
Approach	326	0.0		0.184		1.4	NA	0.6	4.1				
West: Worgan Street													
Lane 1	154	0.7	1068	0.144	100	4.5	LOS A	0.6	3.9	Full	35	0.0	0.0
Approach	154	0.7		0.144		4.5	LOS A	0.6	3.9				
Intersection	693	0.3		0.184		2.1	NA	0.6	4.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

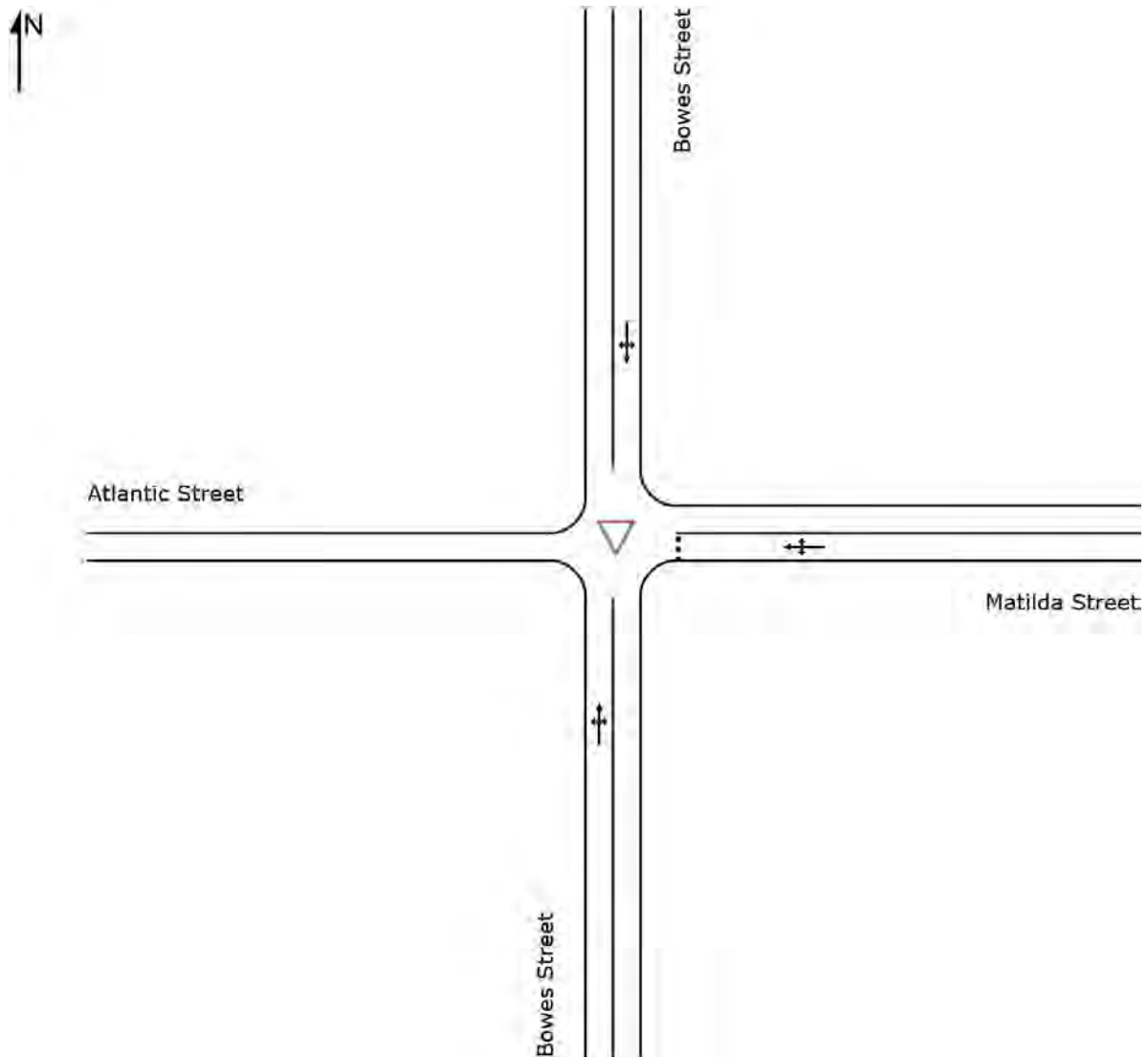
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

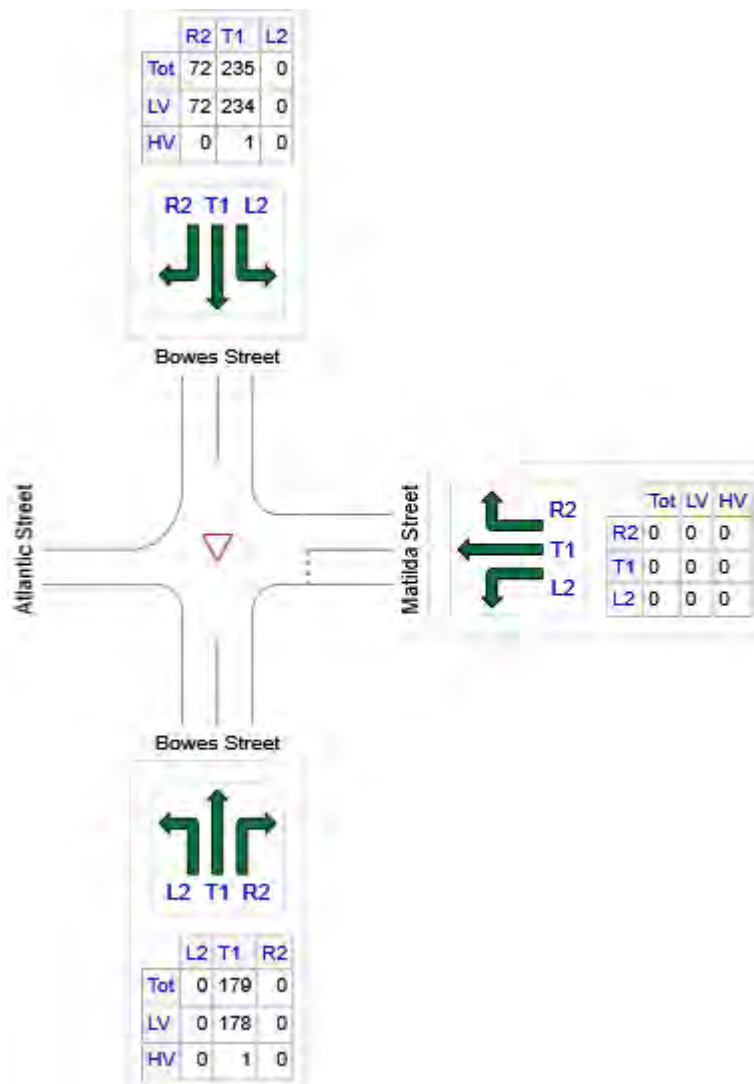
▼ Site: [2040 Base - AM: AS-BS-MS]

Atlantic Street / Bowes Street / Matilda Street
Existing Priority-Controlled (Give-Way) T-Intersection
Site Category: 2040 Base Scenario - Weekday Morning Peak Hour
Giveway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	179	178	1
E: Matilda Street	0	0	0
N: Bowes Street	306	305	1
Total	486	484	2

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.092	4.1	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	179	0.6	0.092	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.092	4.4	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		179	0.6	0.092	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	0	0.0	0.000	5.2	LOS A	0.0	0.0	0.39	0.50	0.39	27.8
5	T1	0	0.0	0.000	6.0	LOS A	0.0	0.0	0.39	0.50	0.39	22.1
6	R2	0	0.0	0.000	7.2	LOS A	0.0	0.0	0.39	0.50	0.39	32.9
Approach		0	0.0	0.000	6.1	LOS A	0.0	0.0	0.39	0.50	0.39	26.6
North: Bowes Street												
7	L2	0	0.0	0.169	5.2	LOS A	0.5	3.6	0.16	0.14	0.16	42.6
8	T1	235	0.4	0.169	0.2	LOS A	0.5	3.6	0.16	0.14	0.16	43.5
9	R2	72	0.0	0.169	5.5	LOS A	0.5	3.6	0.16	0.14	0.16	28.0
Approach		306	0.3	0.169	1.5	NA	0.5	3.6	0.16	0.14	0.16	37.0
All Vehicles		486	0.4	0.169	0.9	NA	0.5	3.6	0.10	0.09	0.10	40.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	179	0.6	1942	0.092	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	179	0.6		0.092		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	0	0.0	857	0.000	100	6.1	LOS A	0.0	0.0	Full	80	0.0	0.0
Approach	0	0.0		0.000		6.1	LOS A	0.0	0.0				
North: Bowes Street													
Lane 1	306	0.3	1816	0.169	100	1.5	LOS A	0.5	3.6	Full	110	0.0	0.0
Approach	306	0.3		0.169		1.5	NA	0.5	3.6				
Intersection	486	0.4		0.169		0.9	NA	0.5	3.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Base - AM: BS-S7]

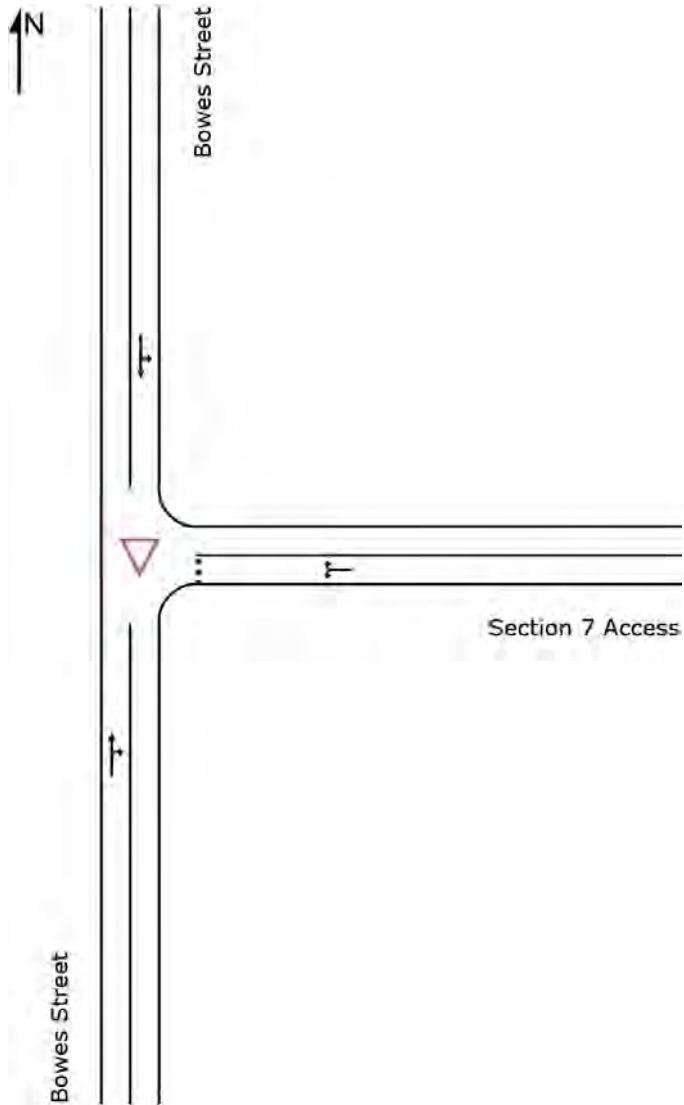
Bowes Street / Section 7 Access

Existing Priority-Controlled (Give-Way) T-Intersection

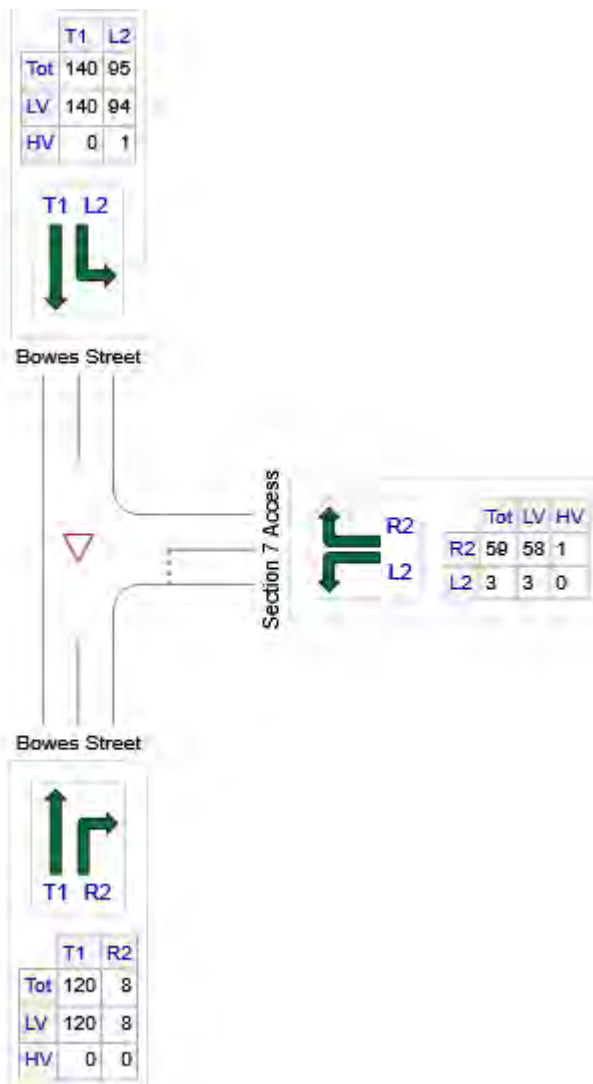
Site Category: 2040 Base Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	128	128	0
E: Section 7 Access	62	61	1
N: Bowes Street	235	234	1
Total	425	423	2

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	120	0.0	0.068	0.1	LOS A	0.1	0.4	0.05	0.04	0.05	47.5
3	R2	8	0.0	0.068	5.1	LOS A	0.1	0.4	0.05	0.04	0.05	47.6
Approach		128	0.0	0.068	0.4	NA	0.1	0.4	0.05	0.04	0.05	47.5
East: Section 7 Access												
4	L2	3	0.0	0.064	0.4	LOS A	0.2	1.5	0.33	0.32	0.33	24.5
6	R2	59	1.8	0.064	1.8	LOS A	0.2	1.5	0.33	0.32	0.33	23.8
Approach		62	1.7	0.064	1.8	LOS A	0.2	1.5	0.33	0.32	0.33	23.9
North: Bowes Street												
7	L2	95	1.1	0.123	4.3	LOS A	0.0	0.0	0.00	0.22	0.00	23.4
8	T1	140	0.0	0.123	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	42.3
Approach		235	0.4	0.123	1.8	NA	0.0	0.0	0.00	0.22	0.00	33.9
All Vehicles		425	0.5	0.123	1.3	NA	0.2	1.5	0.06	0.18	0.06	35.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	128	0.0	1902	0.068	100	0.4	LOS A	0.1	0.4	Full	60	0.0	0.0
Approach	128	0.0		0.068		0.4	NA	0.1	0.4				
East: Section 7 Access													
Lane 1	62	1.7	978	0.064	100	1.8	LOS A	0.2	1.5	Full	15	0.0	0.0
Approach	62	1.7		0.064		1.8	LOS A	0.2	1.5				
North: Bowes Street													
Lane 1	235	0.4	1905	0.123	100	1.8	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	235	0.4		0.123		1.8	NA	0.0	0.0				
Intersection	425	0.5		0.123		1.3	NA	0.2	1.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2040 Base - AM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2040 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 66 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

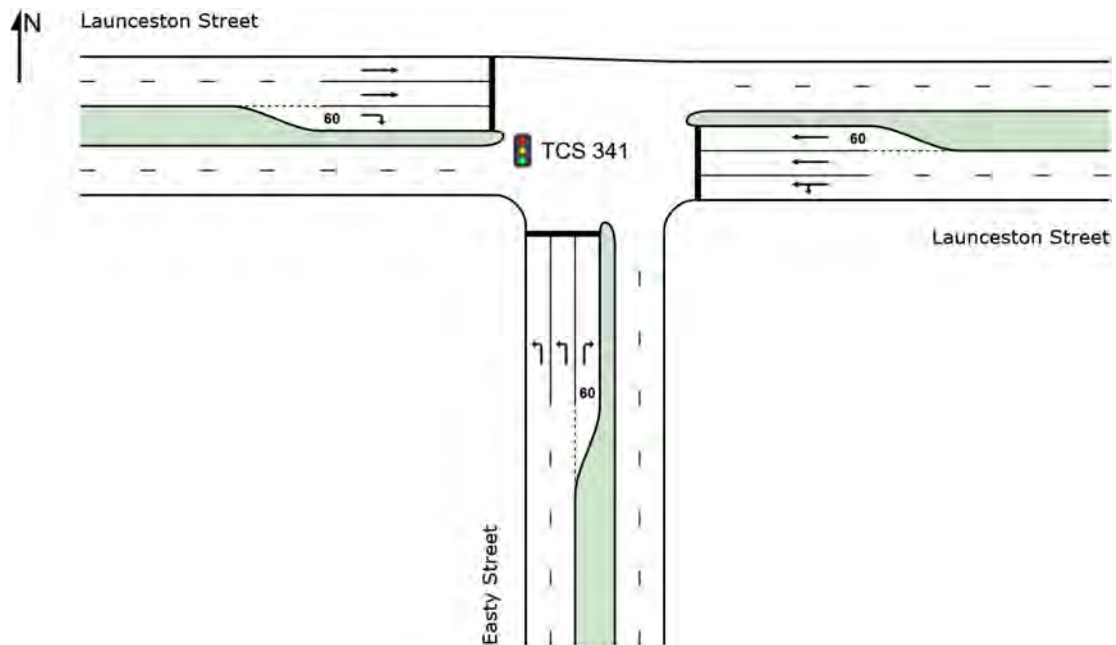
Phase Sequence: SCATS

Reference Phase: Phase A

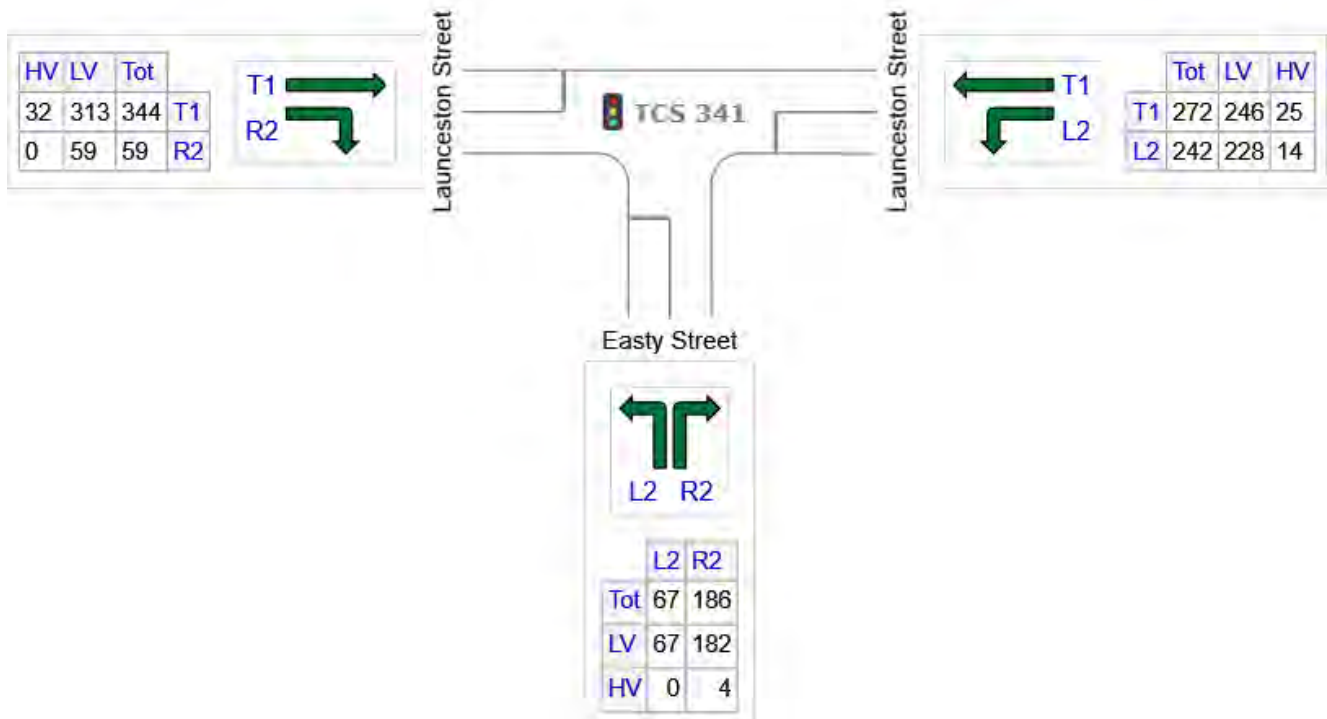
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



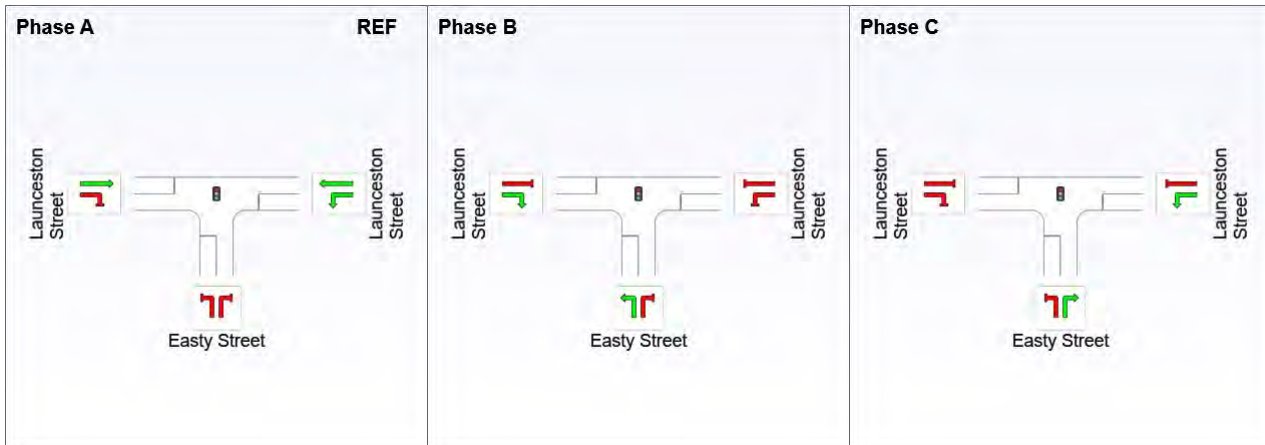
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	254	249	4
E: Launceston Street	514	475	39
W: Launceston Street	403	372	32
Total	1171	1096	75

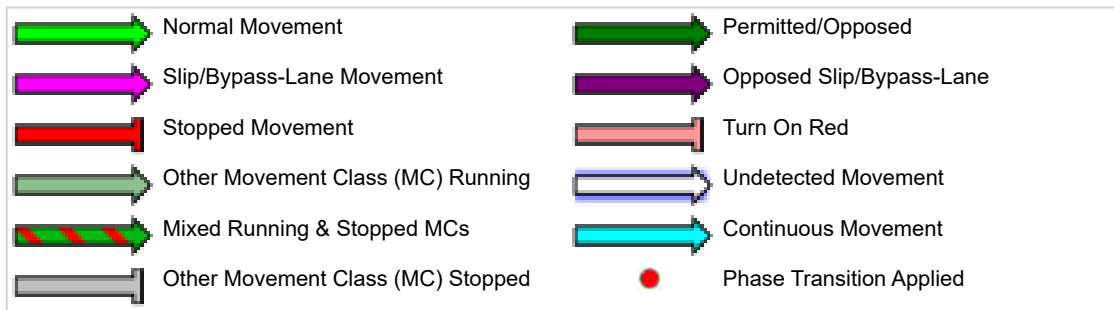
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	39
Green Time (sec)	20	7	21
Phase Time (sec)	26	13	27
Phase Split	39%	20%	41%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	67	0.0	0.171	34.1	LOS C	1.0	7.3	0.94	0.71	0.94	21.8
3	R2	186	2.3	0.320	22.1	LOS B	4.6	33.1	0.80	0.75	0.80	28.4
Approach		254	1.7	0.320	25.3	LOS B	4.6	33.1	0.84	0.74	0.84	26.7
East: Launceston Street												
4	L2	242	5.7	0.190	6.8	LOS A	2.6	18.9	0.35	0.59	0.35	35.6
5	T1	272	9.3	0.244	19.0	LOS B	3.4	25.3	0.79	0.64	0.79	26.4
Approach		514	7.6	0.244	13.2	LOS A	3.4	25.3	0.59	0.62	0.59	30.8
West: Launceston Street												
11	T1	344	9.2	0.309	19.4	LOS B	4.3	32.8	0.81	0.66	0.81	26.2
12	R2	59	0.0	0.299	34.6	LOS C	1.9	13.1	0.96	0.74	0.96	21.8
Approach		403	7.8	0.309	21.7	LOS B	4.3	32.8	0.83	0.67	0.83	25.4
All Vehicles		1171	6.4	0.320	18.7	LOS B	4.6	33.1	0.73	0.66	0.73	28.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	34	0.0	197	0.171	100	34.1	LOS C	1.0	7.3	Full	305	0.0	0.0
Lane 2	34	0.0	197	0.171	100	34.1	LOS C	1.0	7.3	Full	305	0.0	0.0
Lane 3	186	2.3	582	0.320	100	22.1	LOS B	4.6	33.1	Short	60	0.0	NA
Approach	254	1.7		0.320		25.3	LOS B	4.6	33.1				
East: Launceston Street													
Lane 1	242	5.7	1271	0.190	78 ⁵	6.8	LOS A	2.6	18.9	Full	260	0.0	0.0
Lane 2	136	9.3	557	0.244	100	19.0	LOS B	3.4	25.3	Full	260	0.0	0.0
Lane 3	136	9.3	557	0.244	100	19.0	LOS B	3.4	25.3	Short	60	0.0	NA
Approach	514	7.6		0.244		13.2	LOS A	3.4	25.3				
West: Launceston Street													
Lane 1	172	9.2	558	0.309	100	19.4	LOS B	4.3	32.8	Full	130	0.0	0.0
Lane 2	172	9.2	558	0.309	100	19.4	LOS B	4.3	32.8	Full	130	0.0	0.0
Lane 3	59	0.0	197	0.299	100	34.6	LOS C	1.9	13.1	Short	60	0.0	NA
Approach	403	7.8		0.309		21.7	LOS B	4.3	32.8				
Intersection	1171	6.4		0.320		18.7	LOS B	4.6	33.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:28:09 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2040 Base - AM - LS-YD]

 Network: 5 [2040 Base - AM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2040 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

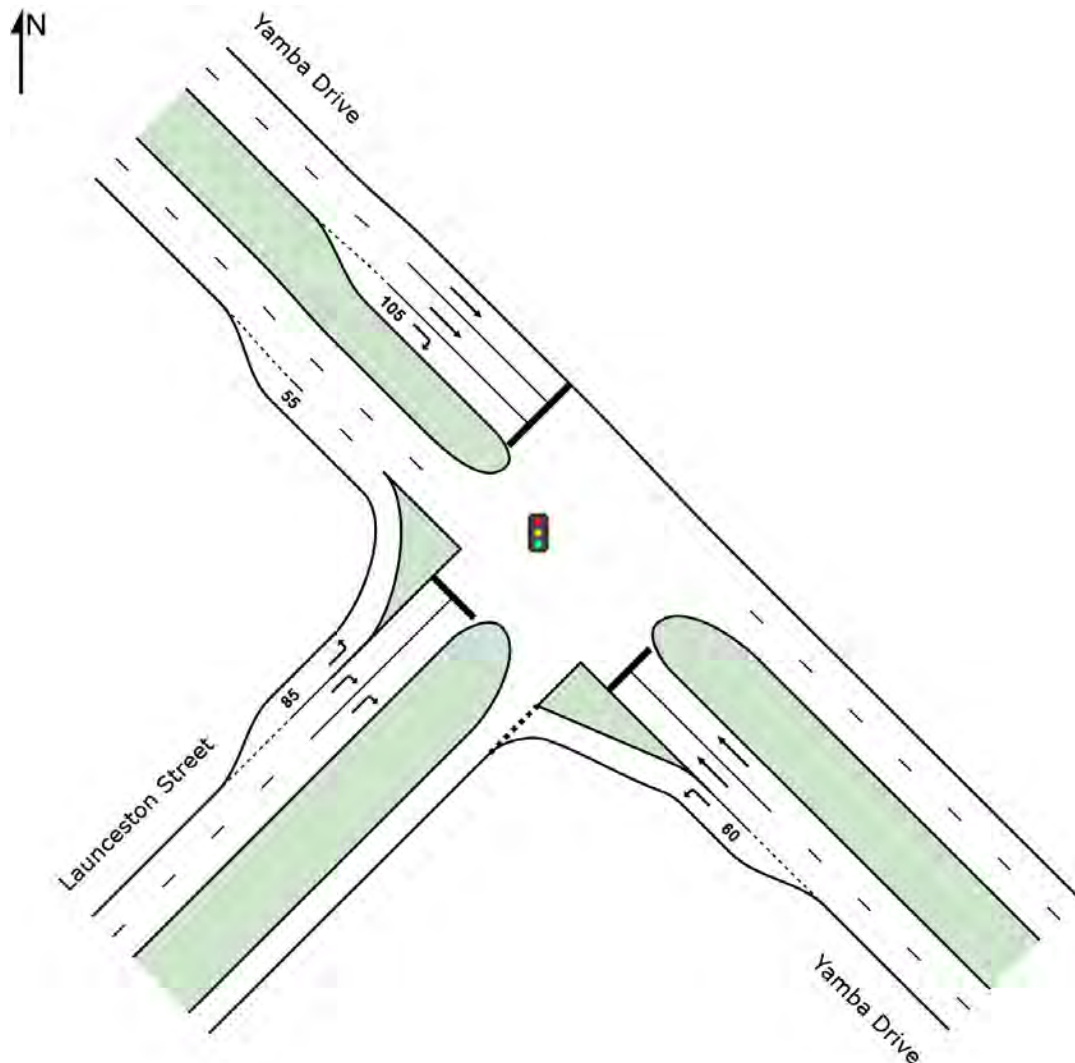
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

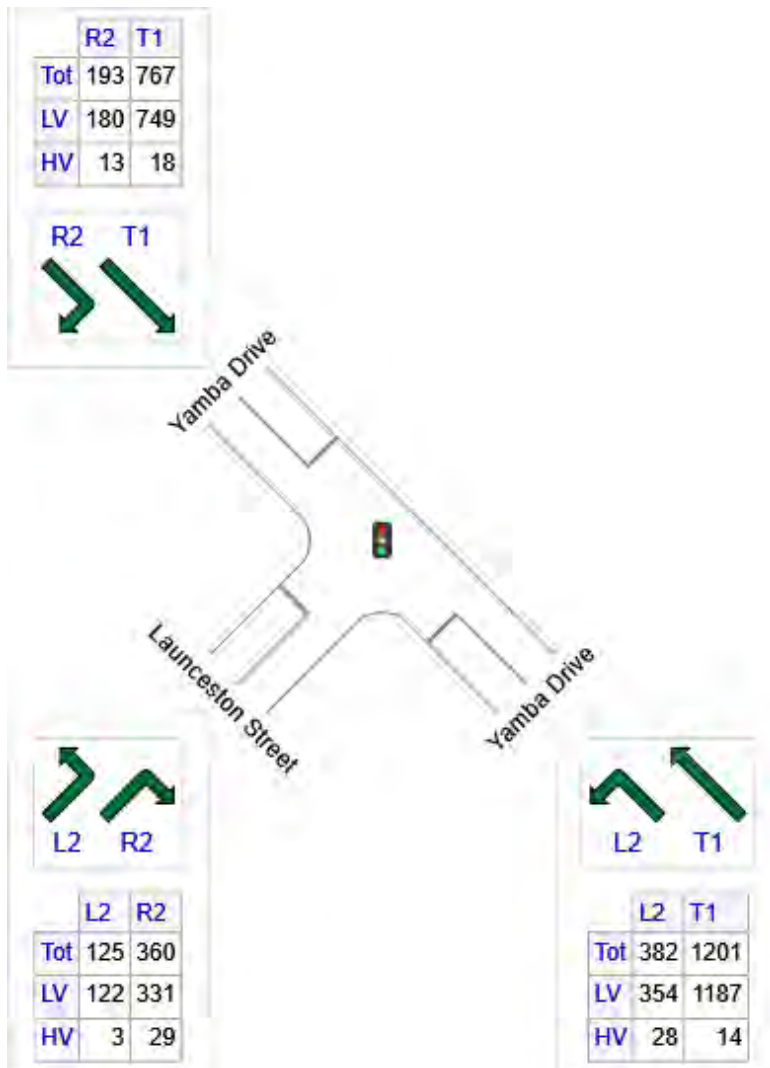
Output Phase Sequence: A, B*, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1583	1541	42
NW: Yamba Drive	960	929	31
SW: Launceston Street	485	453	33
Total	3028	2923	105

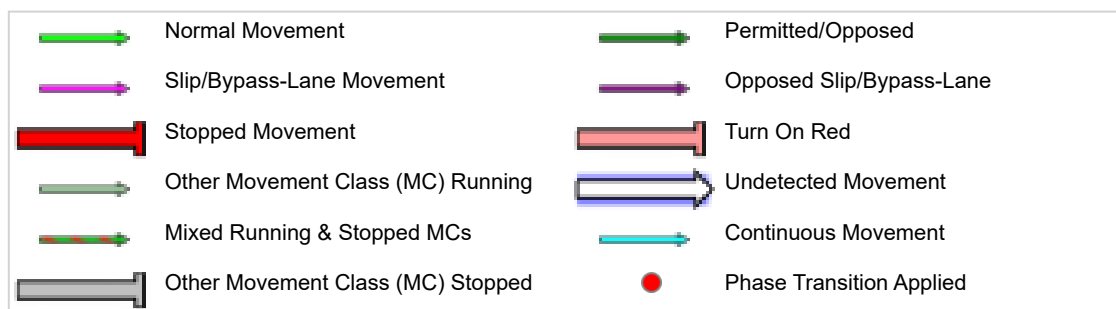
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	B	D	E
Phase Change Time (sec)	0	59	74	107
Green Time (sec)	53	9	27	15
Phase Time (sec)	59	15	33	21
Phase Split	46%	12%	26%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	382	7.4	382	7.4	0.265	4.9	LOS A	0.5	3.6	0.03	0.59	0.06	40.5
5	T1	1201	1.1	1201	1.1	0.584	8.5	LOS A	15.0	106.1	0.33	0.30	0.33	48.9
Approach		1583	2.7	1583	2.7	0.584	7.6	LOS A	15.0	106.1	0.26	0.37	0.26	46.3
NorthWest: Yamba Drive														
11	T1	767	2.3	767	2.3	0.965	87.3	LOS F	34.7	247.7	1.00	1.18	1.50	8.5
12	R2	193	6.6	193	6.6	0.926	86.5	LOS F	14.4	106.3	1.00	0.98	1.46	14.9
Approach		960	3.2	960	3.2	0.965	87.2	LOS F	34.7	247.7	1.00	1.14	1.49	10.0
SouthWest: Launceston Street														
1	L2	125	2.5	125	2.5	0.069	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	39.5
3	R2	360	8.2	360	8.2	0.973	105.5	LOS F	16.2	121.7	1.00	1.24	1.68	7.6
Approach		485	6.7	485	6.7	0.973	79.0	LOS E	16.2	121.7	0.74	1.01	1.25	11.1
All Vehicles		3028	3.5	3028	3.5	0.973	44.3	LOS D	34.7	247.7	0.57	0.72	0.81	17.6

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
SouthEast: Yamba Drive															
Lane 1	382	7.4	382	7.4	1443	0.265	100	4.9	LOS A	0.5	3.6	Short	60	0.0	NA
Lane 2	601	1.1	601	1.1	1028	0.584	100	3.2	LOS A	5.6	39.3	Full	65	0.0	0.0
Lane 3	601	1.1	601	1.1	1028	0.584	100	13.8	LOS B	15.0 ^{N4}	106.1 ^{N4}	Full	65	0.0	50.0
Approach	1583	2.7	1583	2.7		0.584		7.6	LOS A	15.0	106.1				
NorthWest: Yamba Drive															
Lane 1	384	2.3	384	2.3	398	0.965	100	87.3	LOS F	34.7	247.7	Full	215	-50.0 ^{N3}	17.8
Lane 2	384	2.3	384	2.3	398	0.965	100	87.3	LOS F	34.7	247.7	Full	215	-50.0 ^{N3}	17.8
Lane 3	193	6.6	193	6.6	208	0.926	100	86.5	LOS F	14.4	106.3	Short	105	0.0	NA
Approach	960	3.2	960	3.2		0.965		87.2	LOS F	34.7	247.7				
SouthWest: Launceston Street															
Lane 1	125	2.5	125	2.5	1824	0.069	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	180	8.2	180	8.2	185	0.973	100	105.5	LOS F	16.2	121.7	Full	260	-50.0 ^{N3}	0.0
Lane 3	180	8.2	180	8.2	185	0.973	100	105.5	LOS F	16.2	121.7	Full	260	-50.0 ^{N3}	0.0
Approach	485	6.7	485	6.7		0.973		79.0	LOS E	16.2	121.7				
Intersection	3028	3.5	3028	3.5		0.973		44.3	LOS D	34.7	247.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

^{N4} Average back of queue has been restricted to the available queue storage space.

 **Site: [2040 Base - AM - WS-YD]**

Network: 5 [2040 Base - AM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2040 Base Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

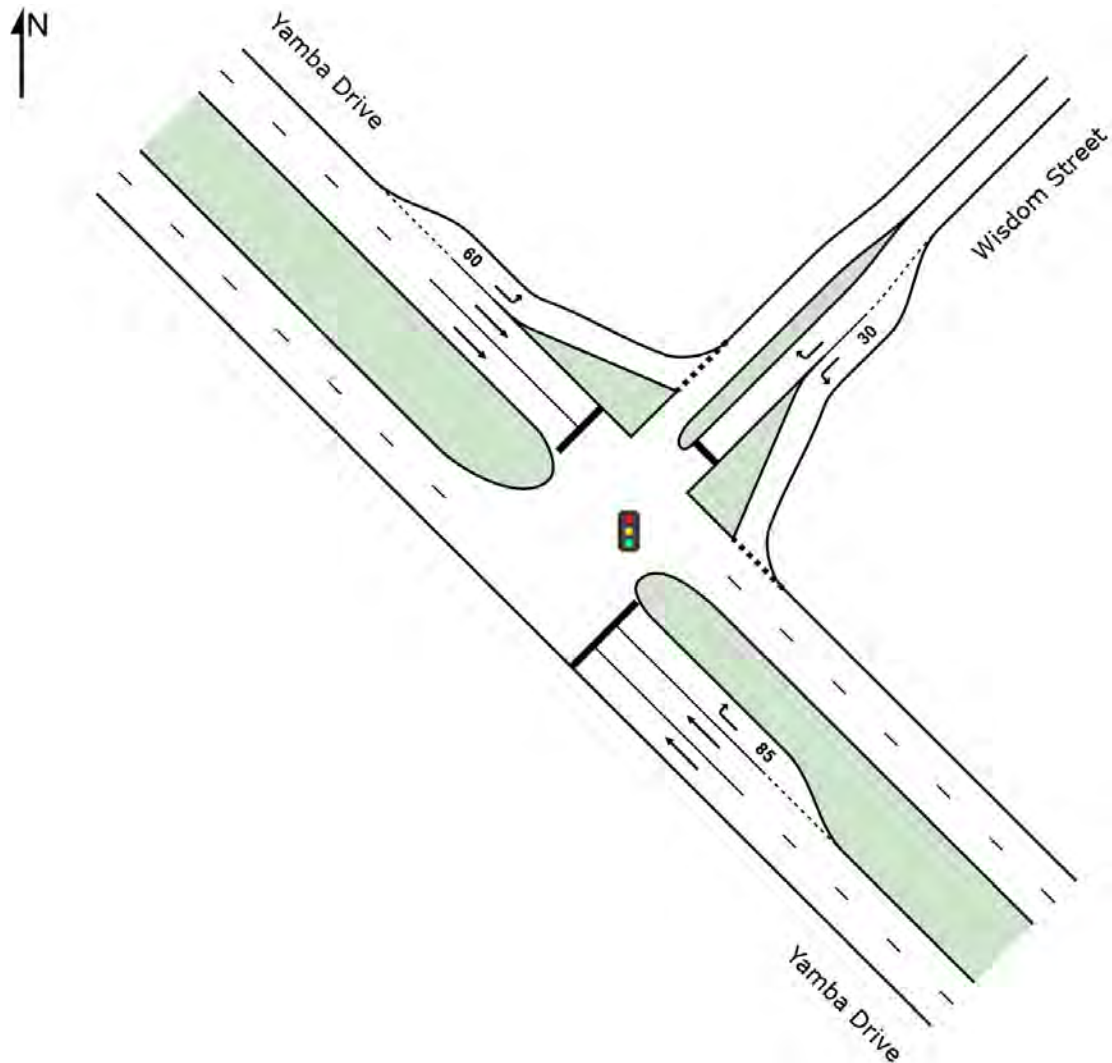
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, B*, D, E

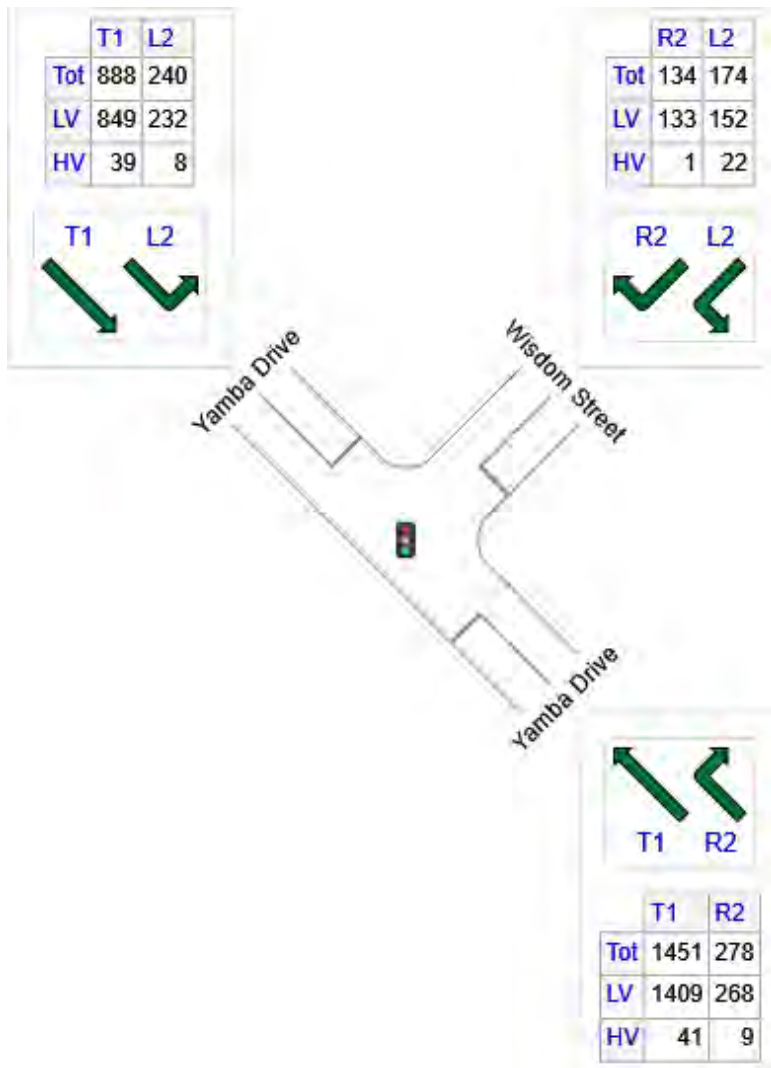
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1728	1678	51
NE: Wisdom Street	307	284	23
NW: Yamba Drive	1128	1081	47
Total	3164	3043	121

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
11	T1	1451	2.8	1451	2.8	0.978	74.2	LOS E	83.4	598.3	0.99	1.18	1.36	25.0
12	R2	278	3.4	278	3.4	0.817	48.4	LOS D	11.9	85.4	1.00	0.92	1.27	36.0
Approach		1728	2.9	1728	2.9	0.978	70.1	LOS E	83.4	598.3	0.99	1.14	1.35	27.2
NorthEast: Wisdom Street														
1	L2	174	12.7	174	12.7	0.172	5.9	LOS A	2.3	18.2	0.28	0.53	0.28	47.0
3	R2	134	0.8	134	0.8	0.754	60.7	LOS E	8.6	60.4	0.98	0.92	1.15	20.3
Approach		307	7.5	307	7.5	0.754	29.8	LOS C	8.6	60.4	0.58	0.70	0.66	34.7
NorthWest: Yamba Drive														
4	L2	240	3.5	240	3.5	0.174	4.9	LOS A	0.3	2.1	0.03	0.59	0.03	40.2
5	T1	888	4.4	888	4.4	0.569	17.3	LOS B	14.6	106.1	0.57	0.50	0.57	54.4
Approach		1128	4.2	1128	4.2	0.569	14.6	LOS B	14.6	106.1	0.46	0.52	0.46	50.7
All Vehicles		3164	3.8	3164	3.8	0.978	46.4	LOS D	83.4	598.3	0.76	0.88	0.96	33.2

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	Total veh/h	HV %						veh/h	v/c				
SouthEast: Yamba Drive															
Lane 1	995	2.8	995	2.8	1017	0.978	100	68.3	LOS E	83.4	598.3	Full	735	0.0	0.0
Lane 2	456	2.8	456	2.8	466 ¹	0.978	100	87.2	LOS F	41.3	295.9	Full	735	-50.0 ^{N3}	0.0
Lane 3	278	3.4	278	3.4	340	0.817	100	48.4	LOS D	11.9	85.4	Short	85	0.0	NA
Approach	1728	2.9	1728	2.9		0.978		70.1	LOS E	83.4	598.3				
NorthEast: Wisdom Street															
Lane 1	174	12.7	174	12.7	1008	0.172	100	5.9	LOS A	2.3	18.2	Short	30	0.0	NA
Lane 2	134	0.8	134	0.8	177 ¹	0.754	100	60.7	LOS E	8.6	60.4	Full	680	-50.0 ^{N3}	0.0
Approach	307	7.5	307	7.5		0.754		29.8	LOS C	8.6	60.4				
NorthWest: Yamba Drive															
Lane 1	240	3.5	240	3.5	1379	0.174	100	4.9	LOS A	0.3	2.1	Short	60	0.0	NA
Lane 2	442	4.4	442	4.4	778 ¹	0.569	100	17.2	LOS B	14.5	105.4	Full	65	0.0	49.4
Lane 3	446	4.4	446	4.4	785	0.569	100	17.3	LOS B	14.6 ^{N4}	106.1 ^{N4}	Full	65	0.0	50.0
Approach	1128	4.2	1128	4.2		0.569		14.6	LOS B	14.6	106.1				
Intersection	3164	3.8	3164	3.8		0.978		46.4	LOS D	83.4	598.3				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

^{N4} Average back of queue has been restricted to the available queue storage space.

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:21:57 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2040 Base - PM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2040 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 109 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

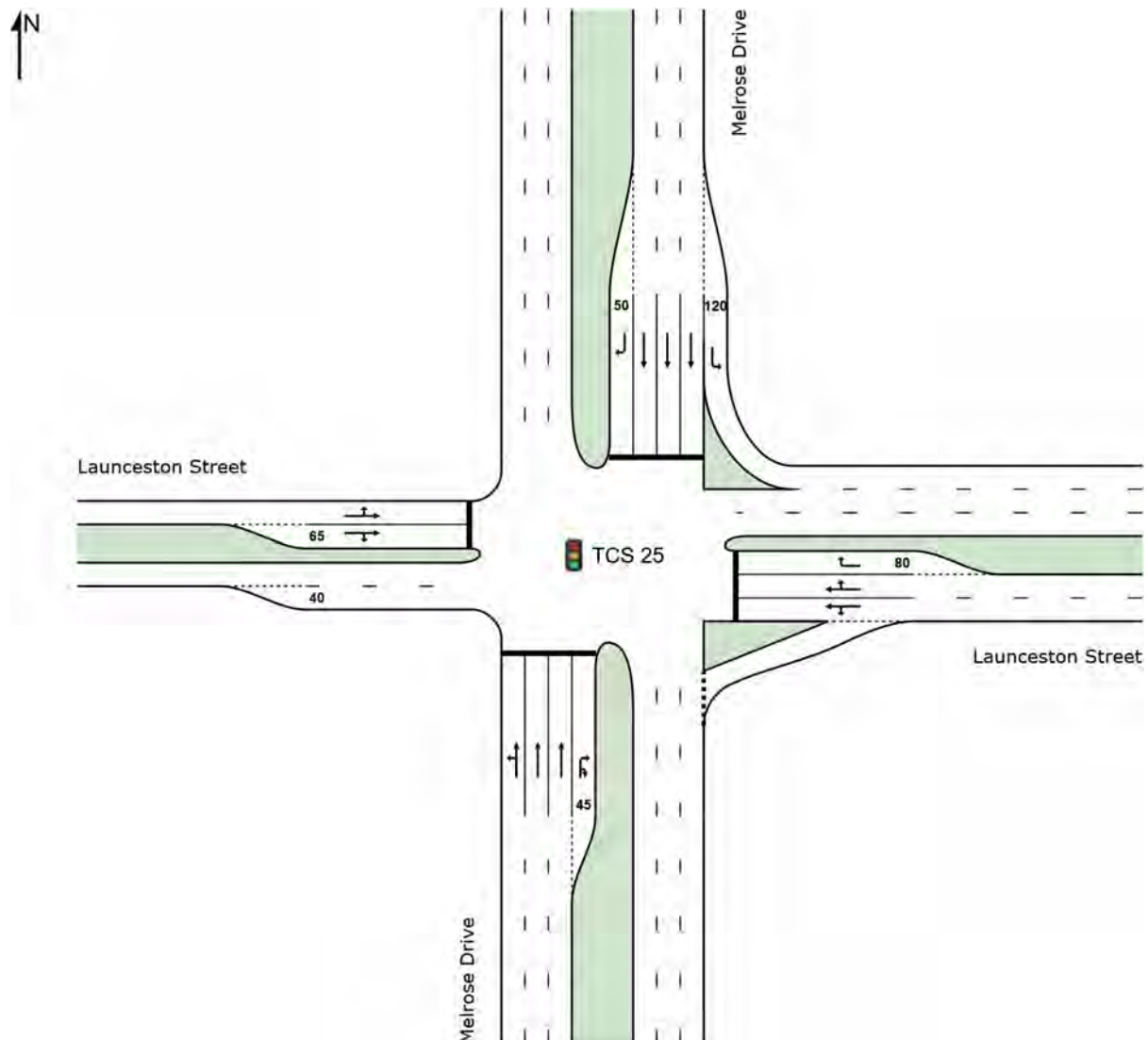
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

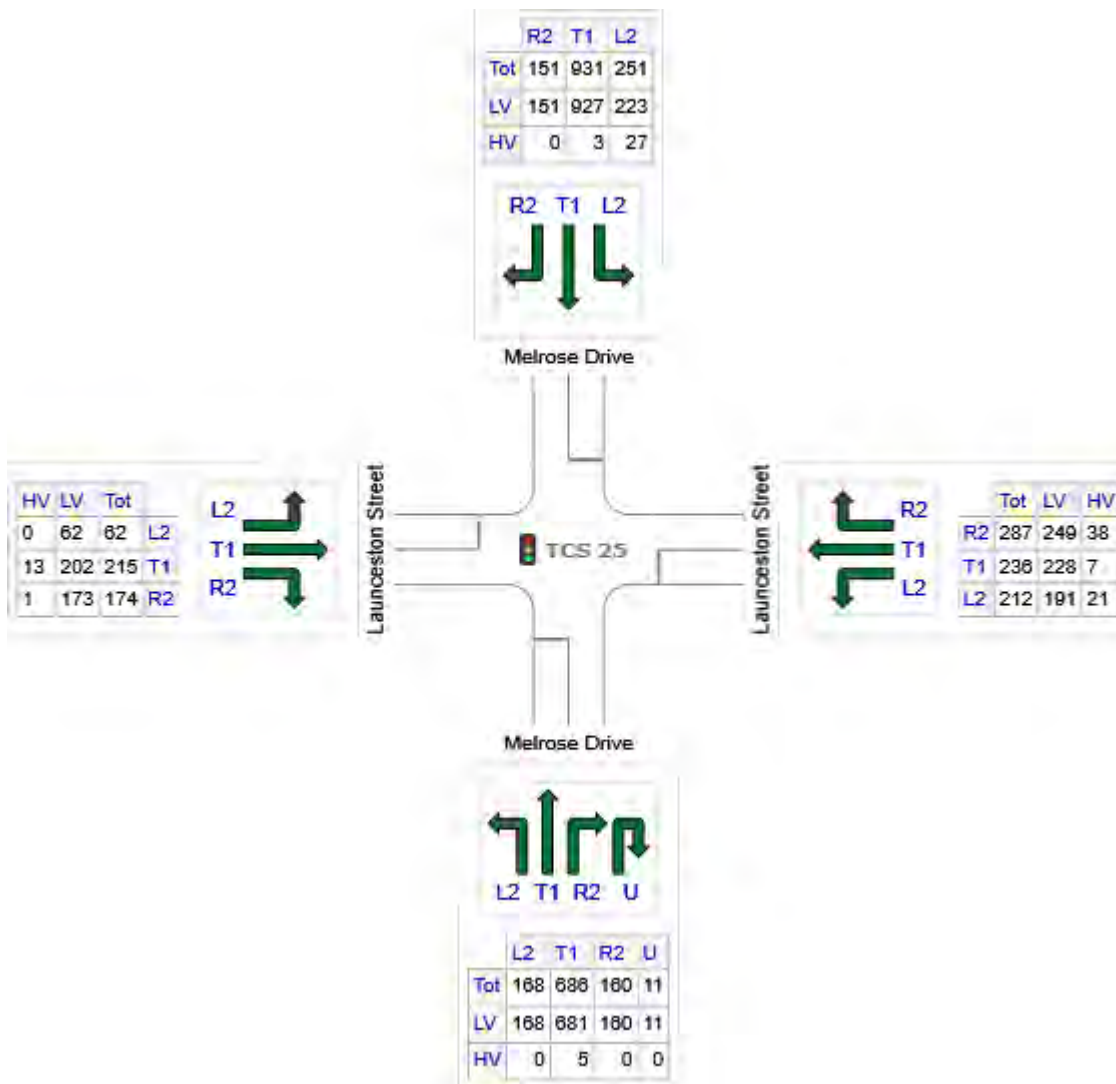
Output Phase Sequence: A, D, E, F

(* Variable Phase)

Site Layout



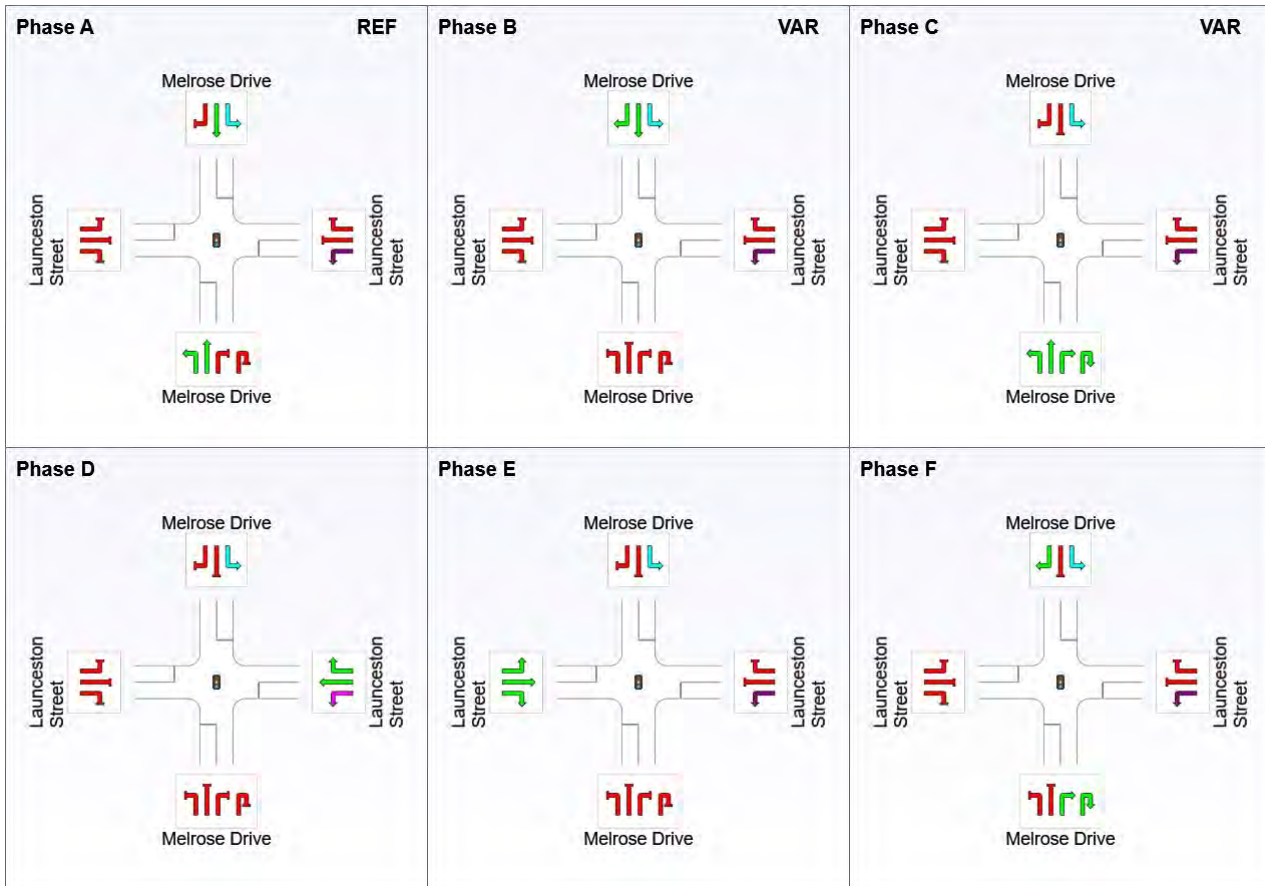
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	1025	1020	5
E: Launceston Street	735	668	66
N: Melrose Drive	1332	1301	31
W: Launceston Street	451	437	14
Total	3542	3426	116

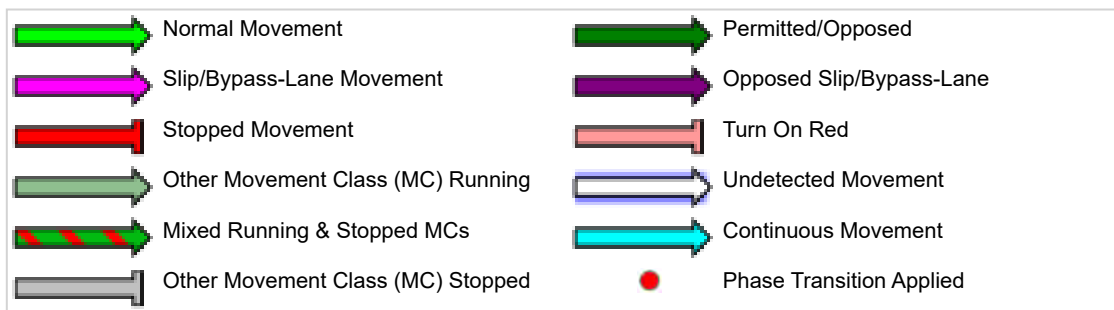
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	32	62	88
Green Time (sec)	26	24	20	15
Phase Time (sec)	32	30	26	21
Phase Split	29%	28%	24%	19%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	168	0.0	0.644	46.2	LOS D	14.1	98.7	0.96	0.83	0.96	17.7
2	T1	686	0.8	0.644	40.3	LOS C	14.4	101.6	0.95	0.80	0.95	30.3
3	R2	160	0.0	0.681	56.3	LOS D	9.1	63.5	1.00	0.84	1.06	13.6
3u	U	11	0.0	0.681	57.7	LOS E	9.1	63.5	1.00	0.84	1.06	18.5
Approach		1025	0.5	0.681	44.0	LOS D	14.4	101.6	0.96	0.81	0.97	25.8
East: Launceston Street												
4	L2	212	10.0	0.224	11.8	LOS A	4.0	30.6	0.43	0.67	0.43	34.8
5	T1	236	3.1	0.660	43.0	LOS D	13.4	97.8	0.96	0.82	0.96	13.4
6	R2	287	13.2	0.660	48.2	LOS D	13.4	97.8	0.97	0.83	0.97	25.1
Approach		735	9.0	0.660	36.1	LOS C	13.4	97.8	0.81	0.78	0.81	23.1
North: Melrose Drive												
7	L2	251	10.9	0.145	5.7	LOS A	0.0	0.0	0.00	0.52	0.00	49.1
8	T1	931	0.3	0.688	41.2	LOS C	15.7	110.2	0.96	0.82	0.97	30.3
9	R2	151	0.0	0.589	54.6	LOS D	7.8	54.3	0.99	0.80	0.99	23.0
Approach		1332	2.3	0.688	36.0	LOS C	15.7	110.2	0.78	0.77	0.79	31.3
West: Launceston Street												
10	L2	62	0.0	0.659	50.3	LOS D	11.5	83.3	0.98	0.83	1.00	24.8
11	T1	215	5.9	0.659	45.7	LOS D	11.5	83.3	0.98	0.83	1.00	12.6
12	R2	174	0.6	0.659	50.3	LOS D	11.4	80.9	0.98	0.83	1.00	16.3
Approach		451	3.0	0.659	48.1	LOS D	11.5	83.3	0.98	0.83	1.00	16.2
All Vehicles		3542	3.3	0.688	39.9	LOS C	15.7	110.2	0.87	0.79	0.87	26.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	290	0.3	451	0.644	100	43.9	LOS D	14.1	98.7	Full	205	0.0	0.0
Lane 2	298	0.8	463	0.644	100	40.6	LOS C	14.4	101.6	Full	205	0.0	0.0
Lane 3	266	0.8	414 ¹	0.644	100	39.8	LOS C	12.6	89.1	Full	205	0.0	0.0
Lane 4	171	0.0	250	0.681	100	56.4	LOS D	9.1	63.5	Short	45	0.0	NA
Approach	1025	0.5		0.681		44.0	LOS D	14.4	101.6				
East: Launceston Street													
Lane 1	215	9.8	960	0.224	34 ⁶	11.7	LOS A	4.0	30.6	Full	90	0.0	0.0
Lane 2	273	4.6	413	0.660	100	44.3	LOS D	13.4	97.8	Full	90	0.0	12.5
Lane 3	247	13.2	374	0.660	100	48.3	LOS D	12.3	95.4	Short	80	0.0	NA
Approach	735	9.0		0.660		36.1	LOS C	13.4	97.8				
North: Melrose Drive													
Lane 1	251	10.9	1723	0.145	100	5.7	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	319	0.3	464	0.688	100	41.3	LOS C	15.7	110.2	Full	470	0.0	0.0
Lane 3	319	0.3	464	0.688	100	41.3	LOS C	15.7	110.2	Full	470	0.0	0.0
Lane 4	292	0.3	424 ¹	0.688	100	40.8	LOS C	14.2	99.5	Full	470	0.0	0.0
Lane 5	151	0.0	256	0.589	100	54.6	LOS D	7.8	54.3	Short	50	0.0	NA
Approach	1332	2.3		0.688		36.0	LOS C	15.7	110.2				
West: Launceston Street													
Lane 1	226	4.3	344	0.659	100	47.0	LOS D	11.5	83.3	Full	95	0.0	0.0
Lane 2	224	1.8	340	0.659	100	49.3	LOS D	11.4	80.9	Short	65	0.0	NA
Approach	451	3.0		0.659		48.1	LOS D	11.5	83.3				
Intersection	3542	3.3		0.688		39.9	LOS C	15.7	110.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: TCS 340 [2040 Base - PM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2040 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 82 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

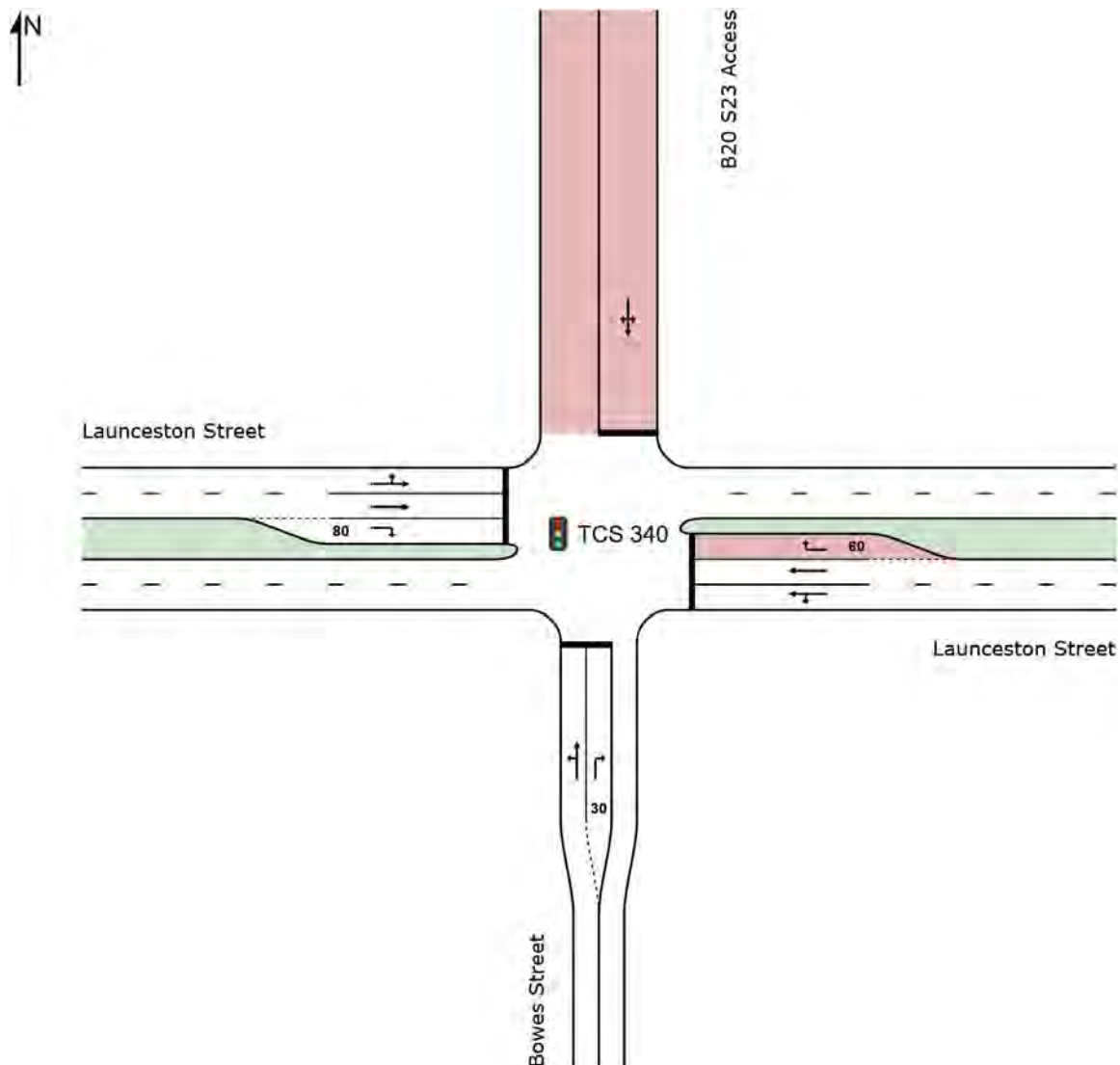
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

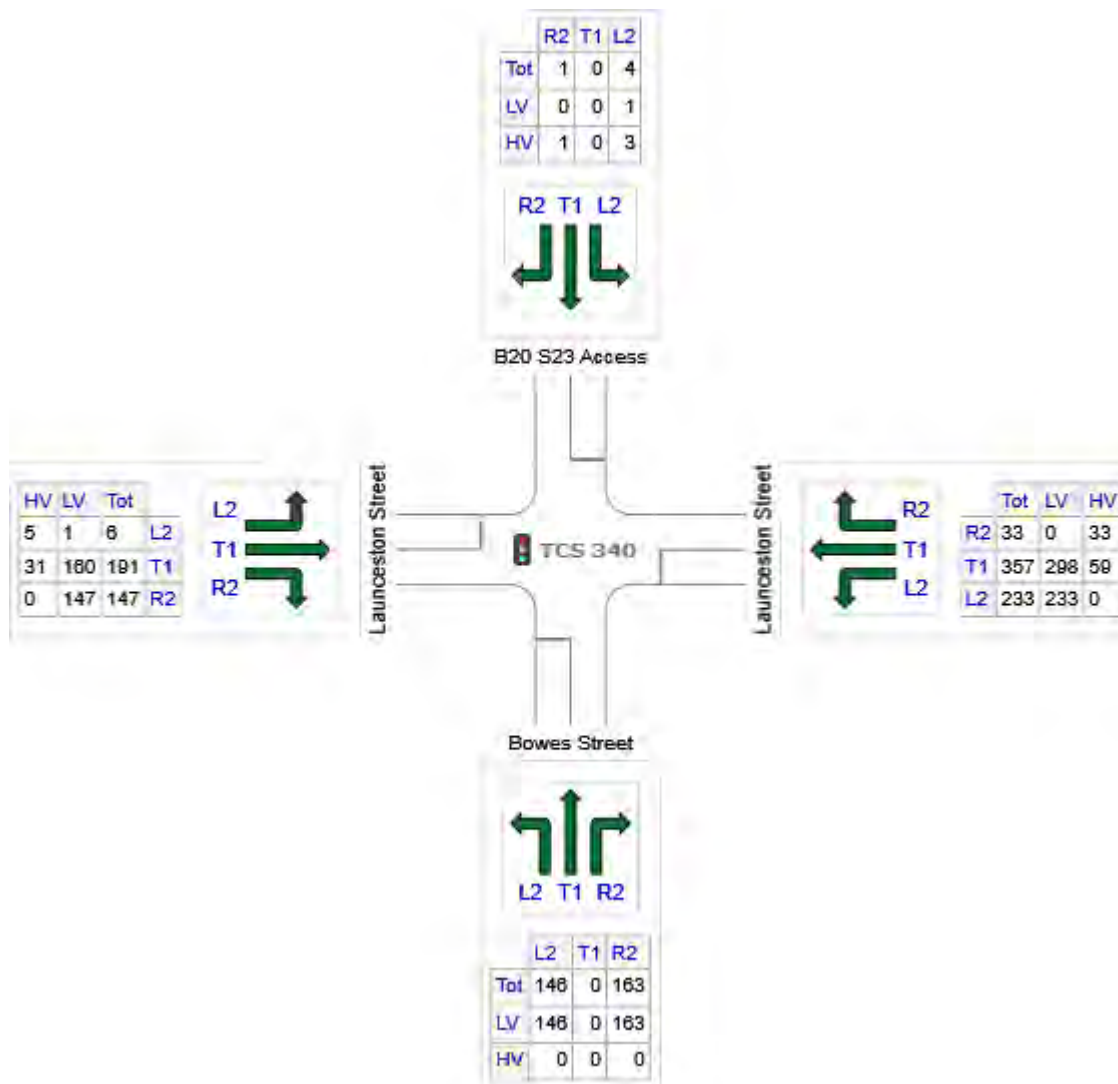
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



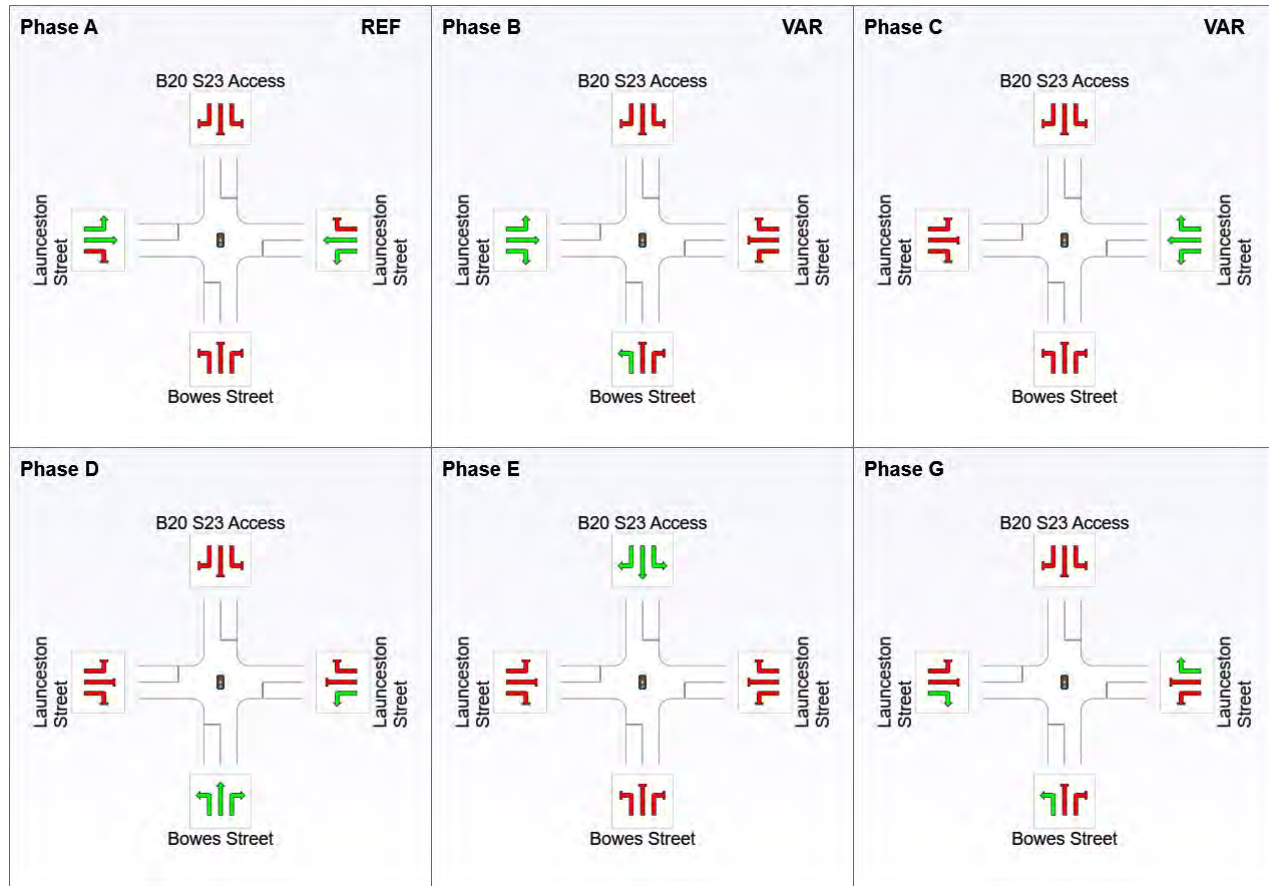
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	310	310	0
E: Launceston Street	622	531	92
N: B20 S23 Access	5	1	4
W: Launceston Street	344	308	36
Total	1281	1150	132

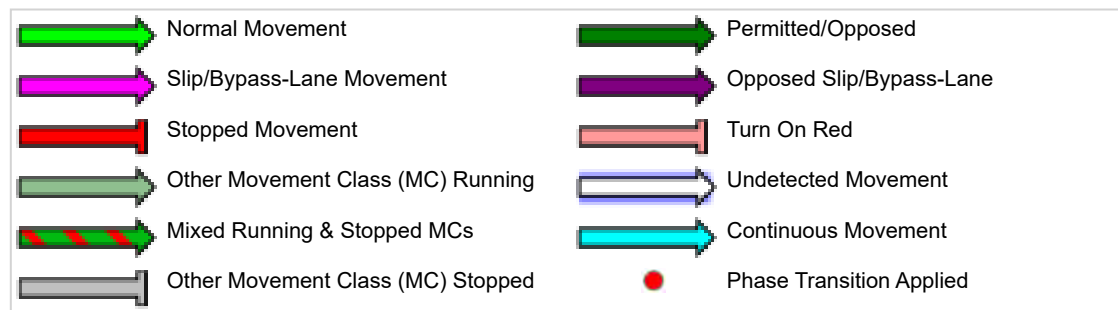
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	28	40	58	70
Green Time (sec)	22	6	12	6	6
Phase Time (sec)	28	12	18	12	12
Phase Split	34%	15%	22%	15%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	146	0.0	0.209	13.5	LOS A	2.6	18.1	0.71	0.72	0.71	22.2
2	T1	0	0.0	0.209	14.0	LOS A	2.6	18.1	0.71	0.72	0.71	12.9
3	R2	163	0.0	0.600	40.2	LOS C	6.4	44.9	0.98	0.81	1.00	10.1
Approach		310	0.0	0.600	27.6	LOS B	6.4	44.9	0.85	0.77	0.86	13.8
East: Launceston Street												
4	L2	233	0.0	0.556	19.8	LOS B	7.3	53.5	0.88	0.79	0.88	18.0
5	T1	357	16.5	0.556	24.7	LOS B	9.2	73.9	0.90	0.77	0.90	20.2
6	R2	33	100.0	0.411	50.1	LOS D	1.4	18.2	0.99	0.74	0.99	8.4
Approach		622	14.7	0.556	24.2	LOS B	9.2	73.9	0.90	0.78	0.90	18.5
North: B20 S23 Access												
7	L2	4	75.0	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	8.6
8	T1	0	100.0	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	5.6
9	R2	1	100.0	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	9.2
Approach		5	80.4	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	8.6
West: Launceston Street												
10	L2	6	83.3	0.097	21.5	LOS B	2.3	19.2	0.64	0.52	0.64	19.4
11	T1	191	16.0	0.097	15.5	LOS B	2.4	19.1	0.64	0.51	0.64	27.4
12	R2	147	0.0	0.386	23.7	LOS B	2.9	20.4	0.95	0.77	0.95	16.0
Approach		344	10.4	0.386	19.1	LOS B	2.9	20.4	0.77	0.62	0.77	21.8
All Vehicles		1281	10.3	0.600	23.7	LOS B	9.2	73.9	0.85	0.73	0.86	17.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	146	0.0	701	0.209	100	13.5	LOS A	2.6	18.1	Full	35	0.0	27.7 ⁸
Lane 2	163	0.0	272	0.600	100	40.2	LOS C	6.4	44.9	Short	30	0.0	NA
Approach	310	0.0		0.600		27.6	LOS B	6.4	44.9				
East: Launceston Street													
Lane 1	327	4.8	588	0.556	100	18.2	LOS B	7.3	53.5	Full	95	0.0	0.0
Lane 2	263	16.5	472	0.556	100	28.4	LOS B	9.2	73.9	Full	95	0.0	0.0
Lane 3	33	100.0	79	0.411	100	50.1	LOS D	1.4	18.2	Short	60	0.0	NA
Approach	622	14.7		0.556		24.2	LOS B	9.2	73.9				
North: B20 S23 Access													
Lane 1	5	80.4	94	0.057	100	41.0	LOS C	0.2	2.5	Full	30	0.0	0.0
Approach	5	80.4		0.057		41.0	LOS C	0.2	2.5				
West: Launceston Street													
Lane 1	97	20.4	995	0.097	100	15.9	LOS B	2.3	19.2	Full	105	0.0	0.0
Lane 2	100	16.0	1029	0.097	100	15.5	LOS B	2.4	19.1	Full	105	0.0	0.0
Lane 3	147	0.0	382	0.386	100	23.7	LOS B	2.9	20.4	Short	80	0.0	NA
Approach	344	10.4		0.386		19.1	LOS B	2.9	20.4				
Intersection	1281	10.3		0.600		23.7	LOS B	9.2	73.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▽ Site: [2040 Base - PM: BS-WS]

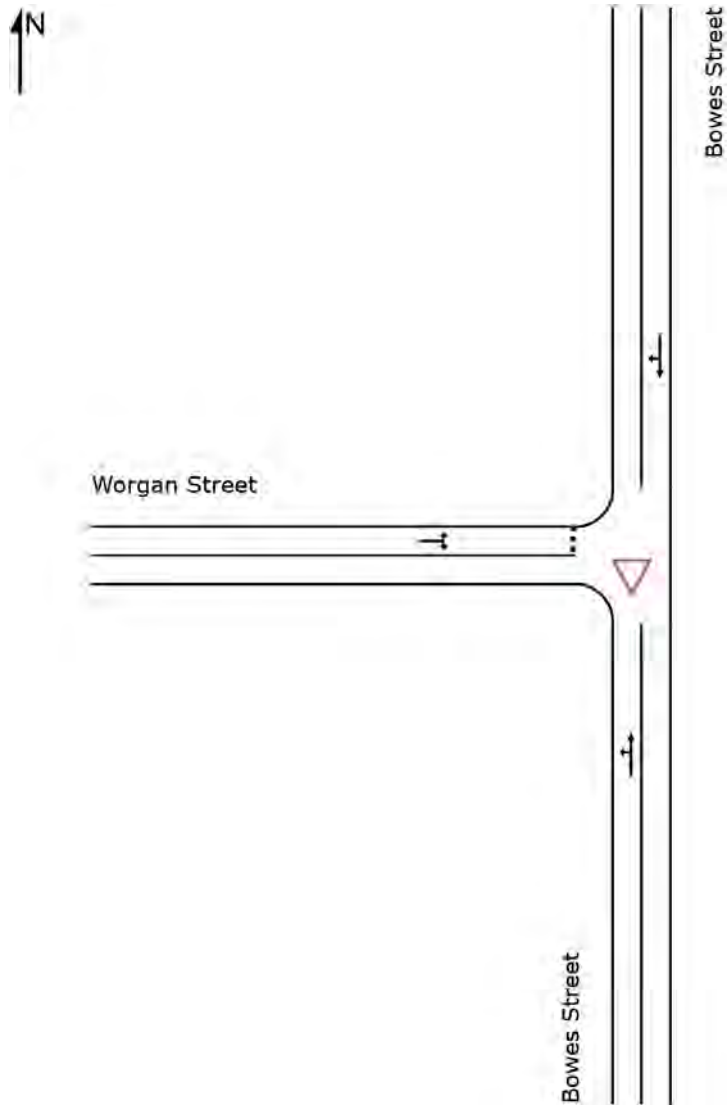
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

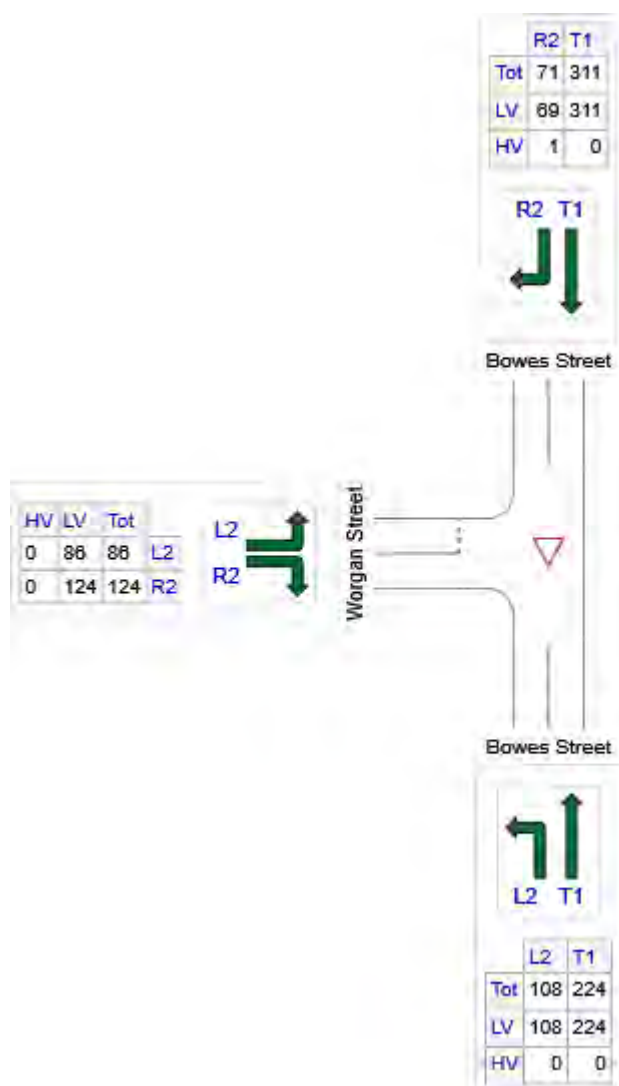
Site Category: 2040 Base Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	333	333	0
N: Bowes Street	381	380	1
W: Worgan Street	211	211	0
Total	924	923	1

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	108	0.0	0.173	4.6	LOS A	0.0	0.0	0.00	0.18	0.00	32.9
2	T1	224	0.0	0.173	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	44.0
Approach		333	0.0	0.173	1.5	NA	0.0	0.0	0.00	0.18	0.00	39.7
North: Bowes Street												
8	T1	311	0.0	0.215	0.4	LOS A	0.5	3.9	0.15	0.11	0.15	45.0
9	R2	71	1.5	0.215	4.6	LOS A	0.5	3.9	0.15	0.11	0.15	17.5
Approach		381	0.3	0.215	1.2	NA	0.5	3.9	0.15	0.11	0.15	38.5
West: Worgan Street												
10	L2	86	0.0	0.236	4.0	LOS A	0.9	6.4	0.42	0.66	0.42	19.3
12	R2	124	0.0	0.236	6.5	LOS A	0.9	6.4	0.42	0.66	0.42	30.7
Approach		211	0.0	0.236	5.5	LOS A	0.9	6.4	0.42	0.66	0.42	26.4
All Vehicles		924	0.1	0.236	2.3	NA	0.9	6.4	0.16	0.26	0.16	35.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	333	0.0	1919	0.173	100	1.5	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	333	0.0		0.173		1.5	NA	0.0	0.0				
North: Bowes Street													
Lane 1	381	0.3	1770	0.215	100	1.2	LOS A	0.5	3.9	Full	35	0.0	0.0
Approach	381	0.3		0.215		1.2	NA	0.5	3.9				
West: Worgan Street													
Lane 1	211	0.0	891	0.236	100	5.5	LOS A	0.9	6.4	Full	35	0.0	0.0
Approach	211	0.0		0.236		5.5	LOS A	0.9	6.4				
Intersection	924	0.1		0.236		2.3	NA	0.9	6.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

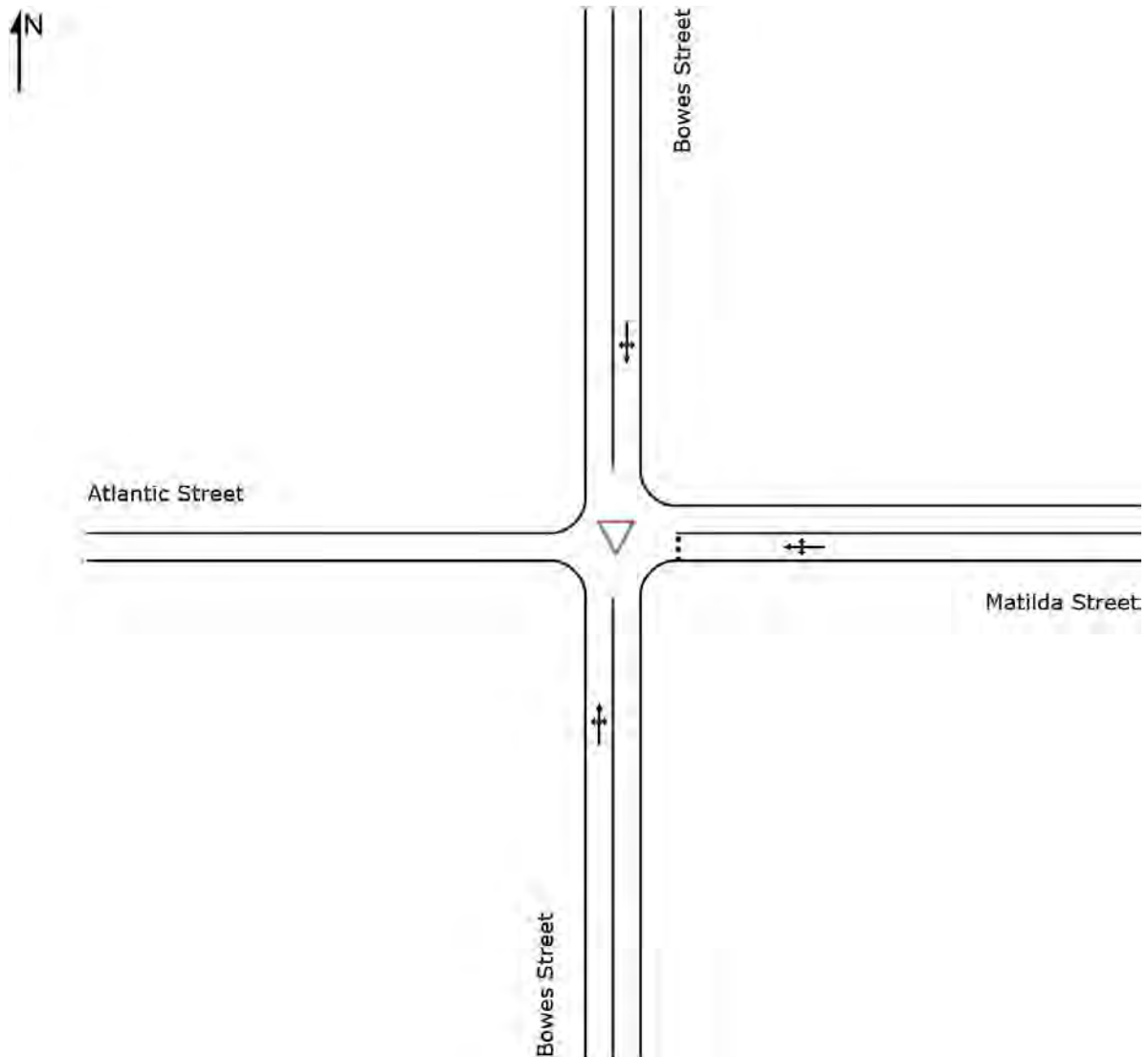
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

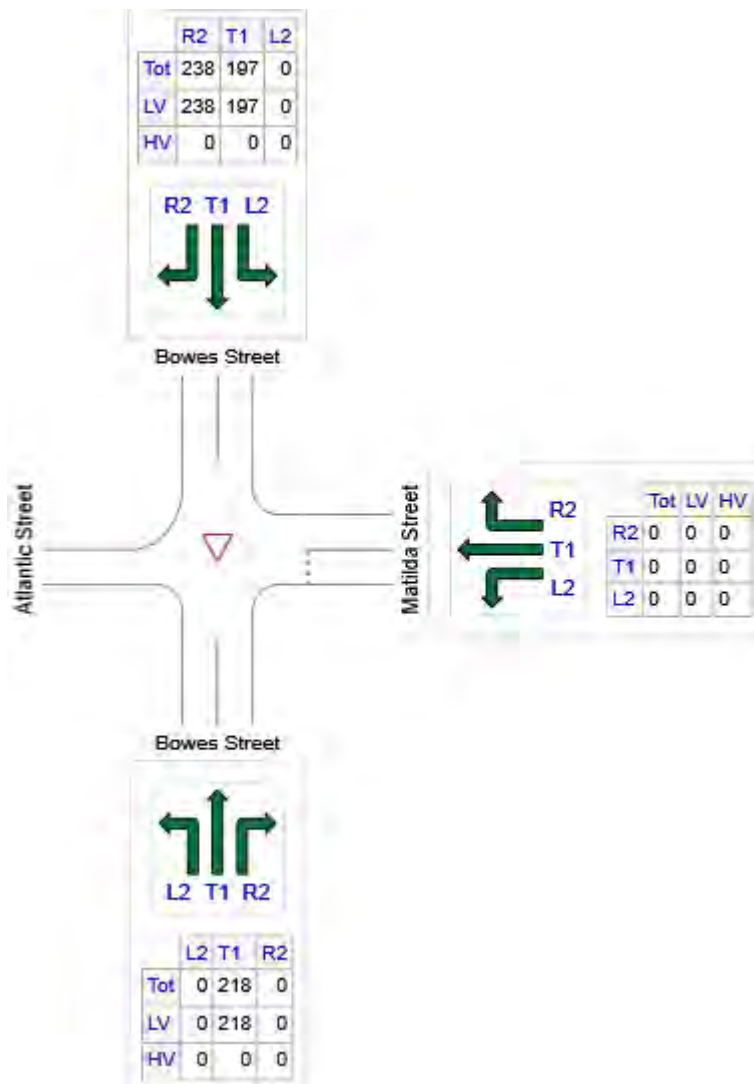
▼ Site: [2040 Base - PM: AS-BS-MS]

Atlantic Street / Bowes Street / Matilda Street
Existing Priority-Controlled (Give-Way) T-Intersection
Site Category: 2040 Base Scenario - Weekday Evening Peak Hour
Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	218	218	0
E: Matilda Street	0	0	0
N: Bowes Street	435	435	0
Total	653	653	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.112	4.0	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	218	0.0	0.112	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.112	4.3	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		218	0.0	0.112	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	0	0.0	0.000	5.1	LOS A	0.0	0.0	0.40	0.52	0.40	26.5
5	T1	0	0.0	0.000	7.2	LOS A	0.0	0.0	0.40	0.52	0.40	21.6
6	R2	0	0.0	0.000	8.7	LOS A	0.0	0.0	0.40	0.52	0.40	31.7
Approach		0	0.0	0.000	7.0	LOS A	0.0	0.0	0.40	0.52	0.40	25.7
North: Bowes Street												
7	L2	0	0.0	0.265	5.5	LOS A	1.4	10.1	0.35	0.34	0.35	37.8
8	T1	197	0.0	0.265	0.7	LOS A	1.4	10.1	0.35	0.34	0.35	37.6
9	R2	238	0.0	0.265	5.7	LOS A	1.4	10.1	0.35	0.34	0.35	26.3
Approach		435	0.0	0.265	3.5	NA	1.4	10.1	0.35	0.34	0.35	29.4
All Vehicles		653	0.0	0.265	2.3	NA	1.4	10.1	0.23	0.22	0.23	33.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	218	0.0	1950	0.112	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	218	0.0		0.112		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	0	0.0	722	0.000	100	7.0	LOS A	0.0	0.0	Full	80	0.0	0.0
Approach	0	0.0		0.000		7.0	LOS A	0.0	0.0				
North: Bowes Street													
Lane 1	435	0.0	1643	0.265	100	3.5	LOS A	1.4	10.1	Full	110	0.0	0.0
Approach	435	0.0		0.265		3.5	NA	1.4	10.1				
Intersection	653	0.0		0.265		2.3	NA	1.4	10.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Base - PM: BS-S7]

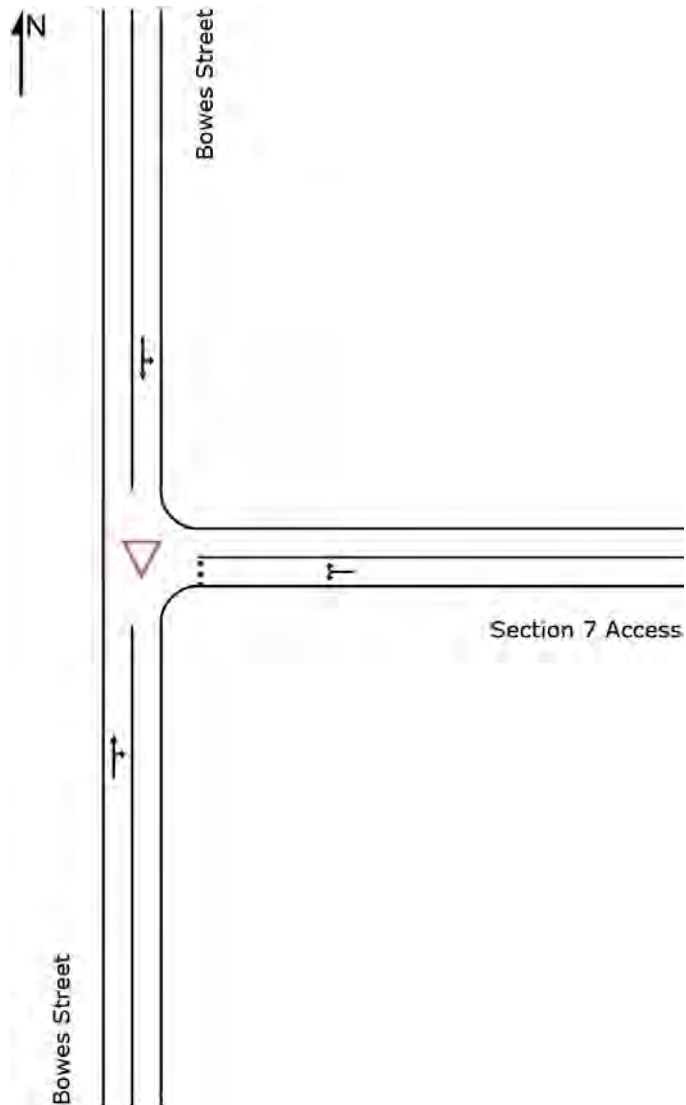
Bowes Street / Section 7 Access

Existing Priority-Controlled (Give-Way) T-Intersection

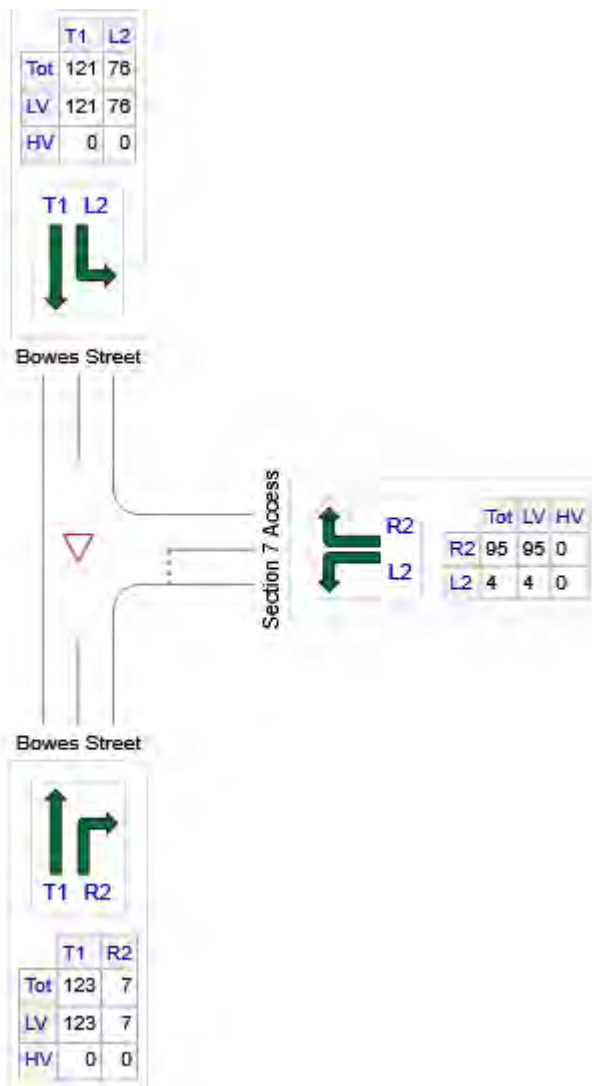
Site Category: 2040 Base Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	131	131	0
E: Section 7 Access	99	99	0
N: Bowes Street	197	197	0
Total	426	426	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	123	0.0	0.068	0.1	LOS A	0.1	0.4	0.04	0.03	0.04	47.9
3	R2	7	0.0	0.068	5.0	LOS A	0.1	0.4	0.04	0.03	0.04	48.3
Approach		131	0.0	0.068	0.3	NA	0.1	0.4	0.04	0.03	0.04	47.9
East: Section 7 Access												
4	L2	4	0.0	0.098	0.4	LOS A	0.3	2.3	0.32	0.32	0.32	24.6
6	R2	95	0.0	0.098	1.7	LOS A	0.3	2.3	0.32	0.32	0.32	24.0
Approach		99	0.0	0.098	1.7	LOS A	0.3	2.3	0.32	0.32	0.32	24.0
North: Bowes Street												
7	L2	76	0.0	0.103	4.3	LOS A	0.0	0.0	0.00	0.21	0.00	23.5
8	T1	121	0.0	0.103	0.0	LOS A	0.0	0.0	0.00	0.21	0.00	42.5
Approach		197	0.0	0.103	1.7	NA	0.0	0.0	0.00	0.21	0.00	34.4
All Vehicles		426	0.0	0.103	1.3	NA	0.3	2.3	0.09	0.18	0.09	35.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	131	0.0	1913	0.068	100	0.3	LOS A	0.1	0.4	Full	60	0.0	0.0
Approach	131	0.0		0.068		0.3	NA	0.1	0.4				
East: Section 7 Access													
Lane 1	99	0.0	1012	0.098	100	1.7	LOS A	0.3	2.3	Full	15	0.0	0.0
Approach	99	0.0		0.098		1.7	LOS A	0.3	2.3				
North: Bowes Street													
Lane 1	197	0.0	1913	0.103	100	1.7	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	197	0.0		0.103		1.7	NA	0.0	0.0				
Intersection	426	0.0		0.103		1.3	NA	0.3	2.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2040 Base - PM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2040 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

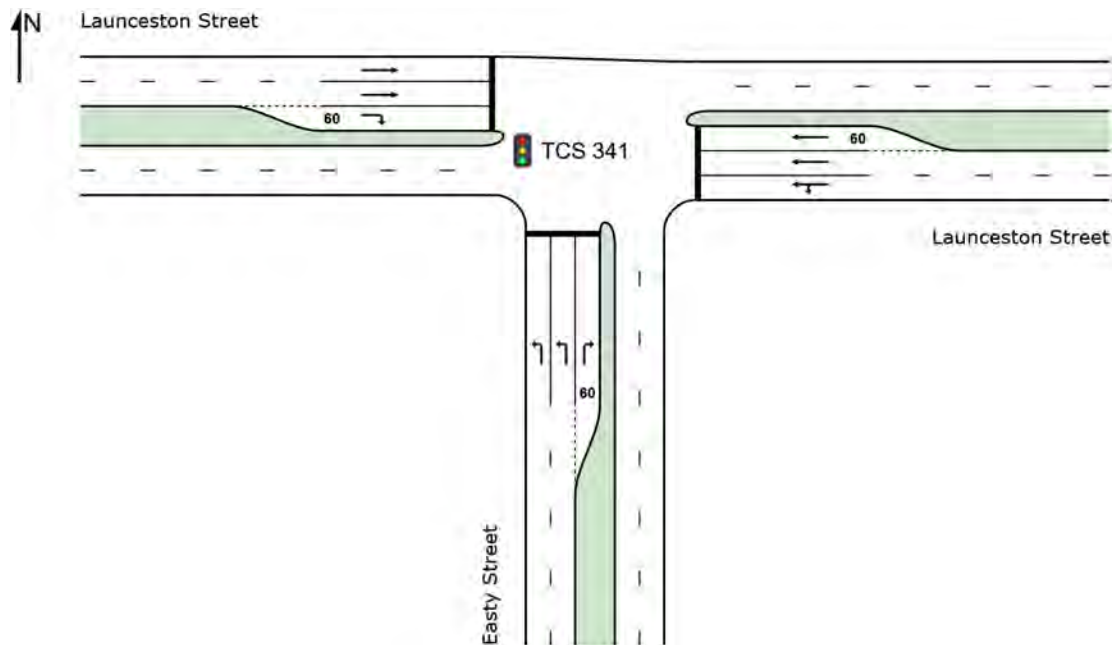
Phase Sequence: SCATS

Reference Phase: Phase A

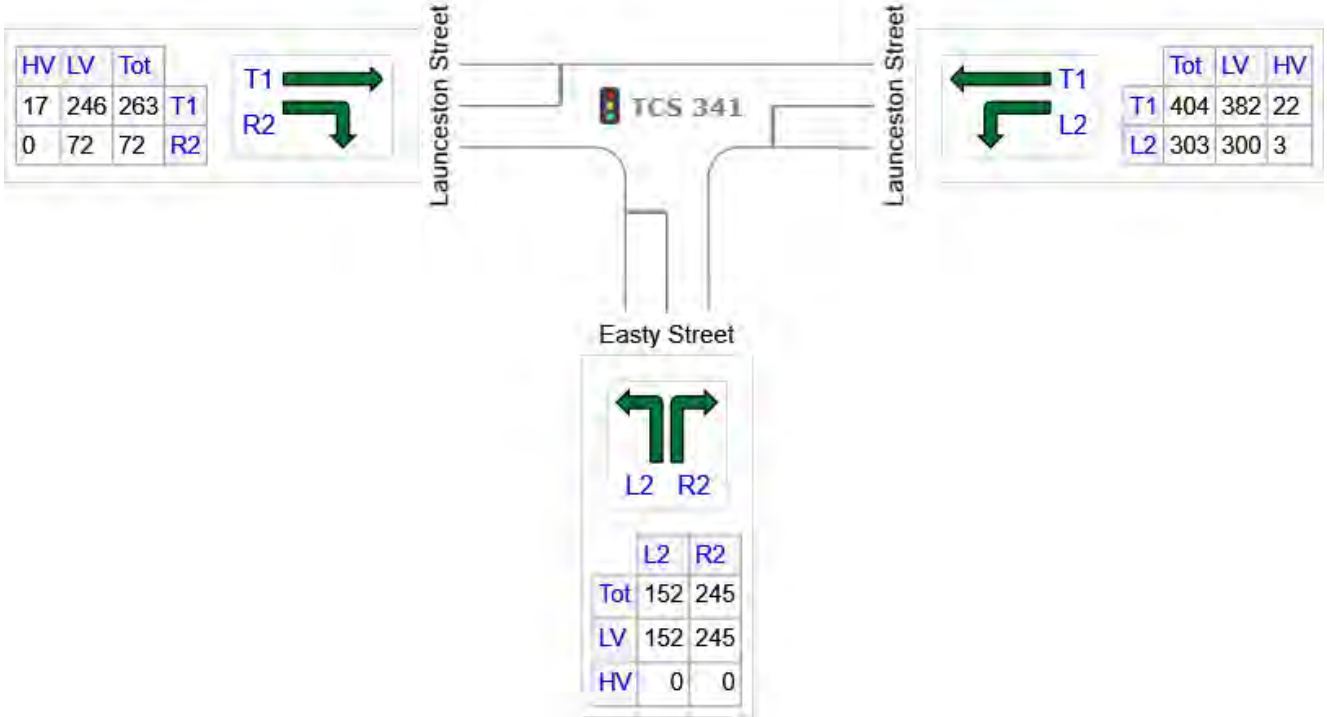
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



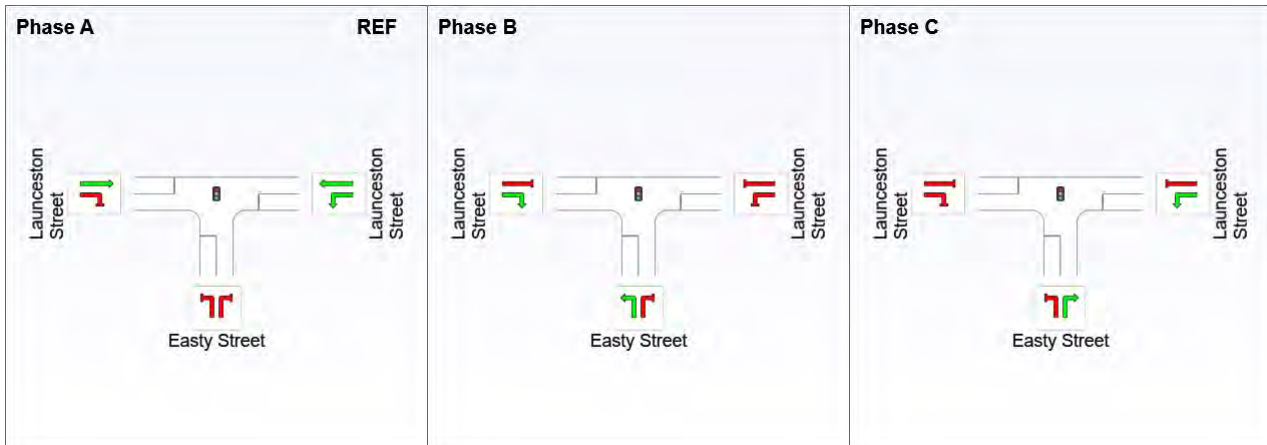
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	397	397	0
E: Launceston Street	707	682	25
W: Launceston Street	335	318	17
Total	1439	1397	42

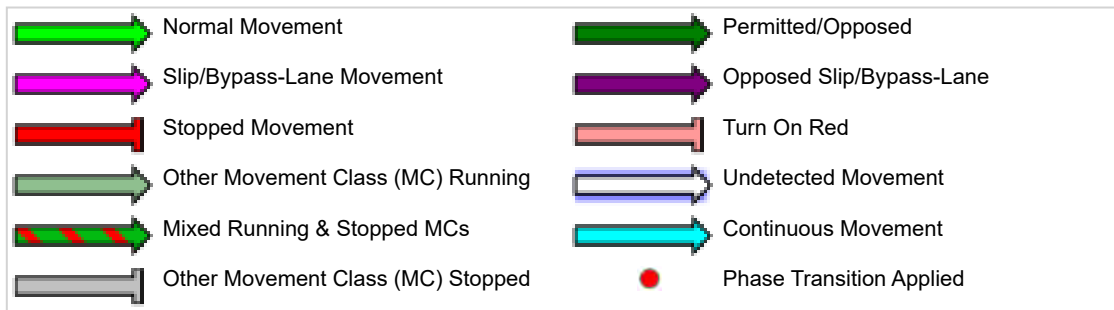
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	27	41
Green Time (sec)	21	8	25
Phase Time (sec)	27	14	31
Phase Split	38%	19%	43%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	152	0.0	0.367	37.3	LOS C	2.6	18.3	0.97	0.75	0.97	20.9
3	R2	245	0.0	0.380	22.6	LOS B	6.6	46.0	0.80	0.76	0.80	28.2
Approach		397	0.0	0.380	28.2	LOS B	6.6	46.0	0.86	0.76	0.86	25.4
East: Launceston Street												
4	L2	303	1.0	0.228	7.0	LOS A	3.5	24.7	0.35	0.60	0.35	35.5
5	T1	404	5.5	0.368	22.2	LOS B	5.7	42.1	0.84	0.69	0.84	25.0
Approach		707	3.6	0.368	15.7	LOS B	5.7	42.1	0.63	0.65	0.63	29.5
West: Launceston Street												
11	T1	263	6.4	0.241	21.2	LOS B	3.6	26.4	0.80	0.65	0.80	25.4
12	R2	72	0.0	0.347	37.1	LOS C	2.5	17.3	0.96	0.75	0.96	21.1
Approach		335	5.0	0.347	24.6	LOS B	3.6	26.4	0.84	0.67	0.84	24.3
All Vehicles		1439	2.9	0.380	21.2	LOS B	6.6	46.0	0.74	0.68	0.74	27.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	76	0.0	206	0.367	100	37.3	LOS C	2.6	18.3	Full	305	0.0	0.0
Lane 2	76	0.0	206	0.367	100	37.3	LOS C	2.6	18.3	Full	305	0.0	0.0
Lane 3	245	0.0	645	0.380	100	22.6	LOS B	6.6	46.0	Short	60	0.0	NA
Approach	397	0.0		0.380		28.2	LOS B	6.6	46.0				
East: Launceston Street													
Lane 1	303	1.0	1331	0.228	62 ⁵	7.0	LOS A	3.5	24.7	Full	260	0.0	0.0
Lane 2	202	5.5	549	0.368	100	22.2	LOS B	5.7	42.1	Full	260	0.0	0.0
Lane 3	202	5.5	549	0.368	100	22.2	LOS B	5.7	42.1	Short	60	0.0	NA
Approach	707	3.6		0.368		15.7	LOS B	5.7	42.1				
West: Launceston Street													
Lane 1	132	6.4	546	0.241	100	21.2	LOS B	3.6	26.4	Full	130	0.0	0.0
Lane 2	132	6.4	546	0.241	100	21.2	LOS B	3.6	26.4	Full	130	0.0	0.0
Lane 3	72	0.0	206	0.347	100	37.1	LOS C	2.5	17.3	Short	60	0.0	NA
Approach	335	5.0		0.347		24.6	LOS B	3.6	26.4				
Intersection	1439	2.9		0.380		21.2	LOS B	6.6	46.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:28:41 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2040 Base - PM - LS-YD]

 Network: 6 [2040 Base - PM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2040 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

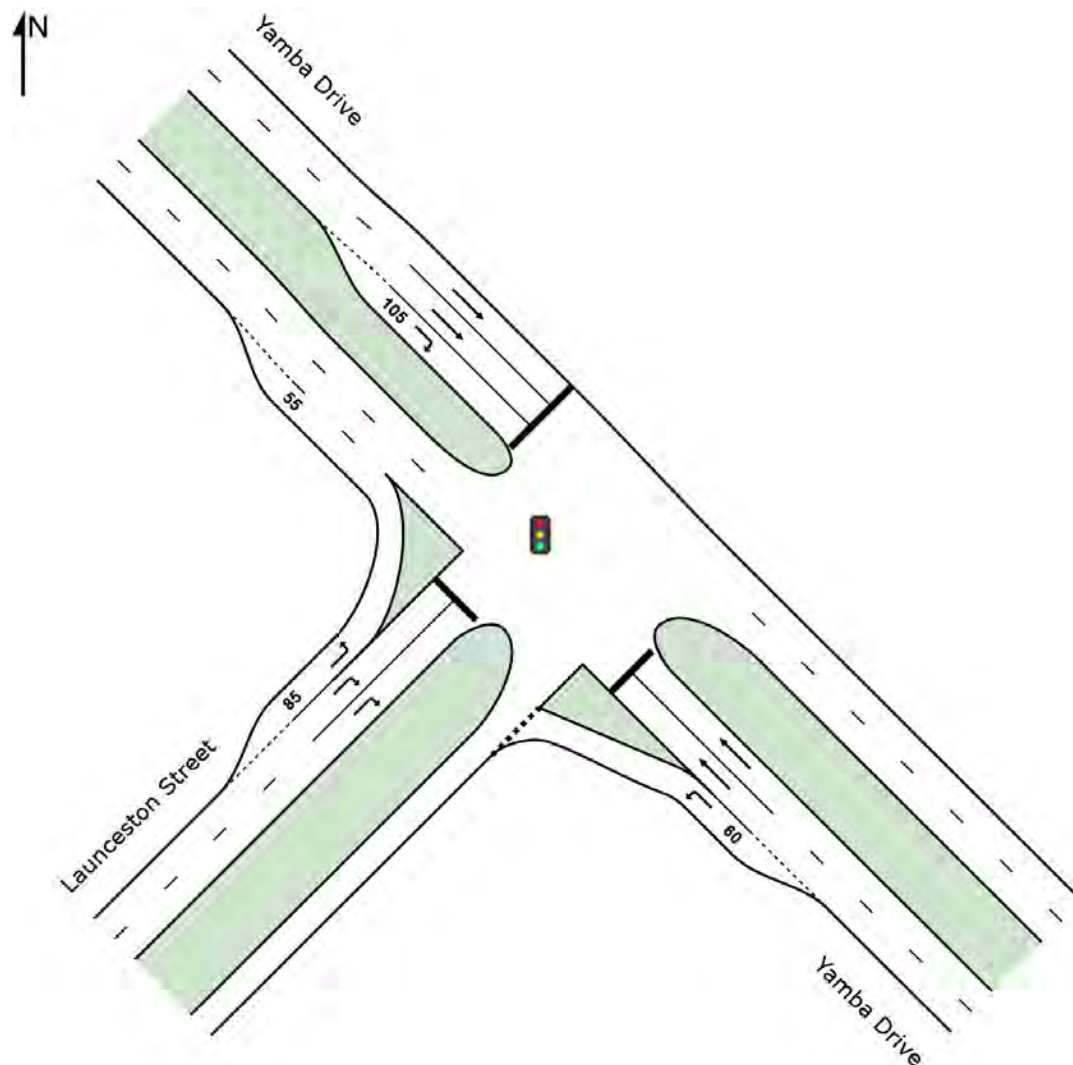
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

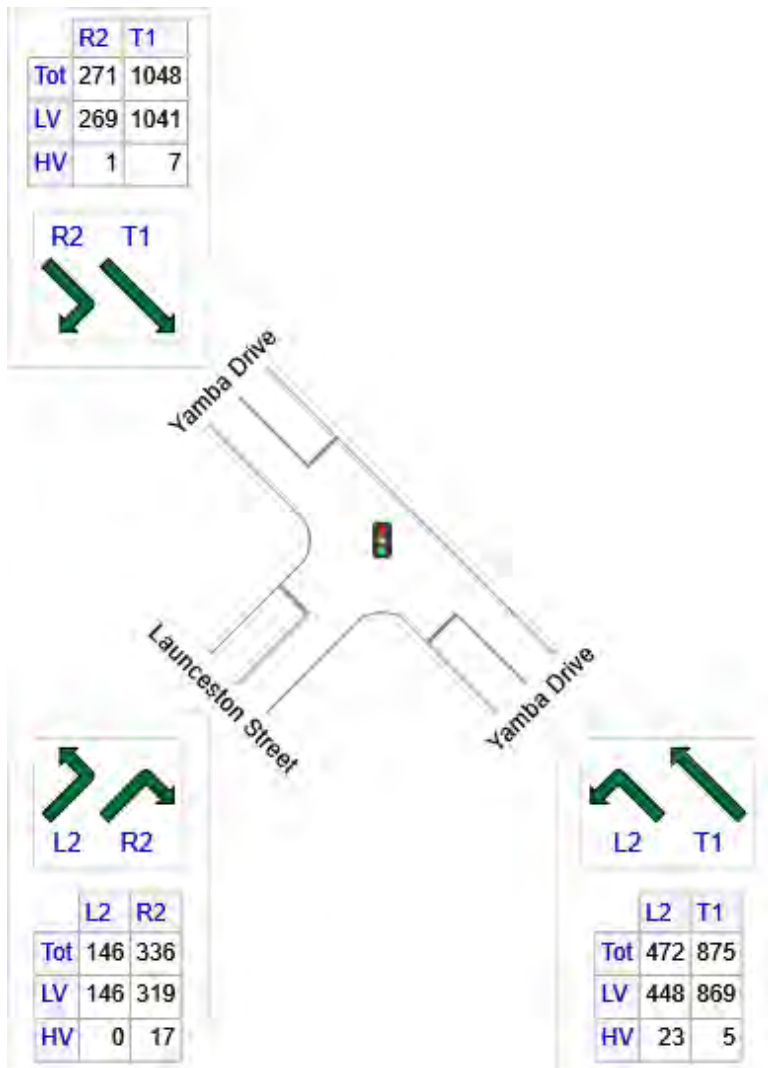
Output Phase Sequence: A, C*, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1346	1318	28
NW: Yamba Drive	1319	1311	8
SW: Launceston Street	482	465	17
Total	3147	3094	54

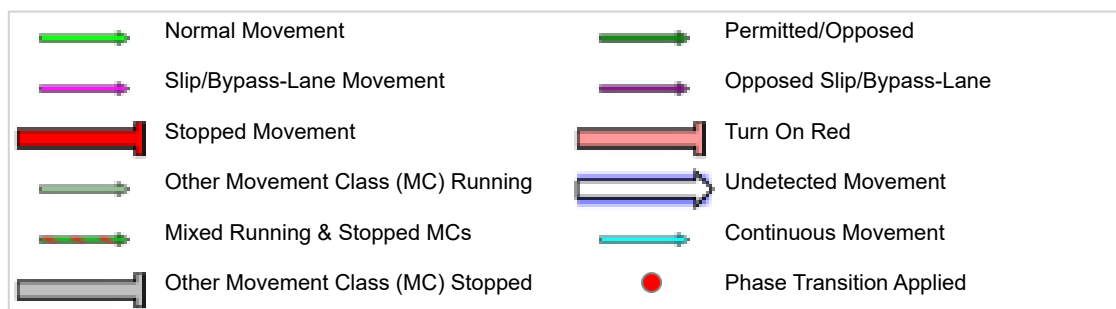
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
 VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	C	D	E
Phase Change Time (sec)	0	52	71	100
Green Time (sec)	46	13	23	8
Phase Time (sec)	52	19	29	14
Phase Split	46%	17%	25%	12%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
SouthEast: Yamba Drive														
4	L2	472	4.9	472	4.9	0.347	6.3	LOS A	3.4	24.6	0.18	0.63	0.18	38.8
5	T1	875	0.6	875	0.6	0.558	11.6	LOS B	12.5	87.7	0.45	0.40	0.45	42.7
Approach		1346	2.1	1346	2.1	0.558	9.8	LOS A	12.5	87.7	0.35	0.48	0.35	41.1
NorthWest: Yamba Drive														
11	T1	1048	0.7	1048	0.7	0.958	70.5	LOS E	43.2	304.4	1.00	1.20	1.46	10.3
12	R2	271	0.4	271	0.4	0.793	37.6	LOS D	10.2	71.5	1.00	0.88	1.13	25.3
Approach		1319	0.6	1319	0.6	0.958	63.8	LOS E	43.2	304.4	1.00	1.13	1.39	13.0
SouthWest: Launceston Street														
1	L2	146	0.0	146	0.0	0.079	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	39.5
3	R2	336	5.0	336	5.0	0.928	81.4	LOS F	12.4	90.7	1.00	1.18	1.59	9.4
Approach		482	3.5	482	3.5	0.928	57.5	LOS E	12.4	90.7	0.70	0.93	1.11	14.2
All Vehicles		3147	1.7	3147	1.7	0.958	39.7	LOS D	43.2	304.4	0.68	0.82	0.90	19.0

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
SouthEast: Yamba Drive															
Lane 1	472	4.9	472	4.9	1361	0.347	100	6.3	LOS A	3.4	24.6	Short	60	0.0	NA
Lane 2	437	0.6	437	0.6	784	0.558	100	8.3	LOS A	7.9	55.4	Full	65	0.0	0.0
Lane 3	437	0.6	437	0.6	784	0.558	100	15.0	LOS B	12.5	87.7	Full	65	0.0	32.3
Approach	1346	2.1	1346	2.1		0.558		9.8	LOS A	12.5	87.7				
NorthWest: Yamba Drive															
Lane 1	530	0.7	530	0.7	553	0.958	100	70.6	LOS E	43.2	304.4	Full	215	-50.0 ^{N3}	36.7
Lane 2	518	0.7	518	0.7	541 ¹	0.958	100	70.5	LOS E	41.6	293.1	Full	215	-50.0 ^{N3}	33.2
Lane 3	271	0.4	271	0.4	341	0.793	100	37.6	LOS D	10.2	71.5	Short	105	0.0	NA
Approach	1319	0.6	1319	0.6		0.958		63.8	LOS E	43.2	304.4				
SouthWest: Launceston Street															
Lane 1	146	0.0	146	0.0	1857	0.079	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	168	5.0	168	5.0	181	0.928	100	81.4	LOS F	12.4	90.7	Full	260	-50.0 ^{N3}	0.0
Lane 3	168	5.0	168	5.0	181	0.928	100	81.4	LOS F	12.4	90.7	Full	260	-50.0 ^{N3}	0.0
Approach	482	3.5	482	3.5		0.928		57.5	LOS E	12.4	90.7				
Intersection	3147	1.7	3147	1.7		0.958		39.7	LOS D	43.2	304.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2040 Base - PM - WS-YD]**

Network: 6 [2040 Base - PM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2040 Base Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

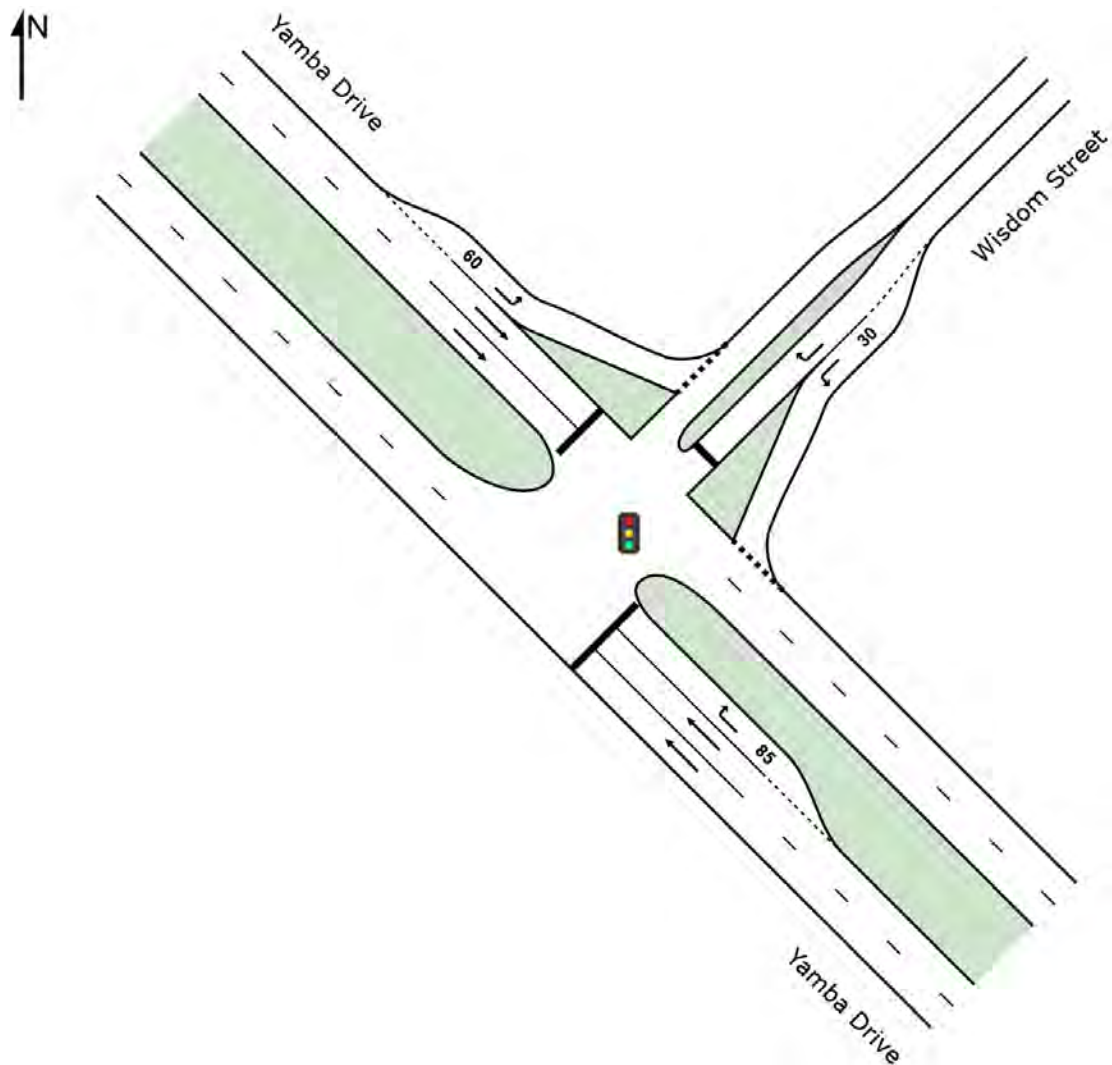
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, C*, D, E

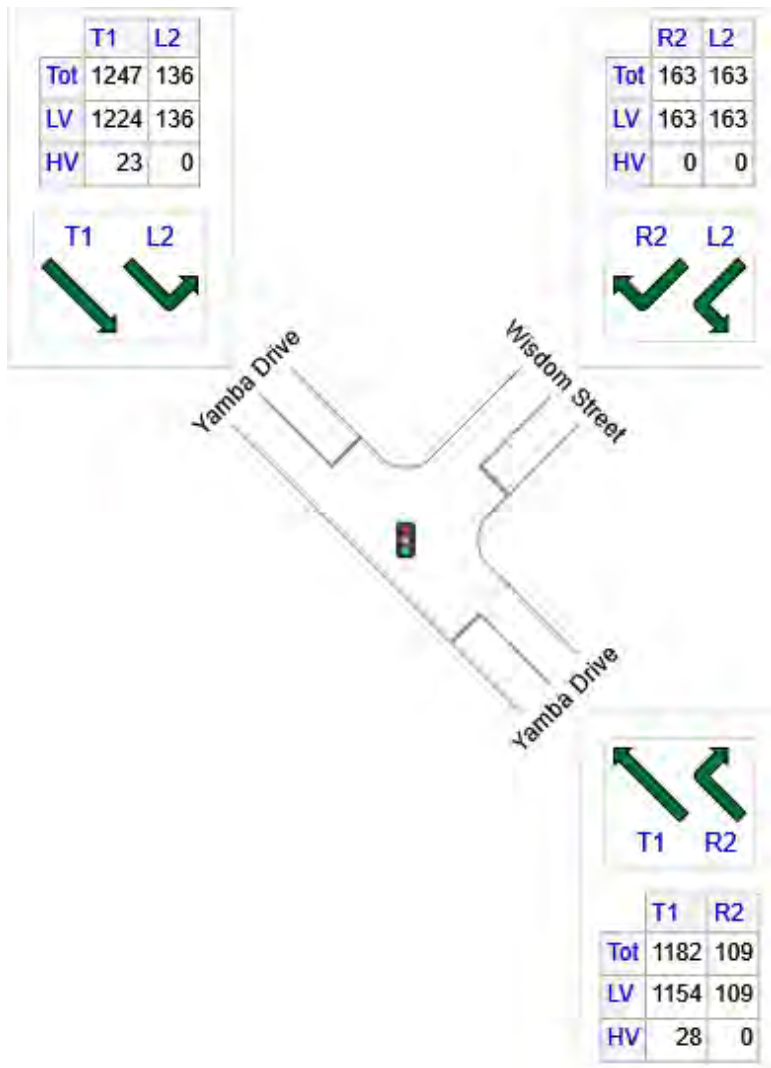
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1292	1263	28
NE: Wisdom Street	326	326	0
NW: Yamba Drive	1383	1360	23
Total	3001	2949	52

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
11	T1	1182	2.4	1182	2.4	0.824	36.1	LOS D	33.5	239.4	0.95	0.89	1.02	38.6
12	R2	109	0.0	109	0.0	0.840	71.9	LOS E	6.8	47.4	1.00	0.90	1.36	30.9
Approach		1292	2.2	1292	2.2	0.840	39.1	LOS D	33.5	239.4	0.95	0.89	1.04	37.2
NorthEast: Wisdom Street														
1	L2	163	0.0	163	0.0	0.195	6.5	LOS A	2.5	17.8	0.35	0.56	0.35	49.0
3	R2	163	0.0	163	0.0	0.782	52.9	LOS D	8.8	61.8	0.93	0.91	1.14	21.7
Approach		326	0.0	326	0.0	0.782	29.7	LOS C	8.8	61.8	0.64	0.73	0.74	34.7
NorthWest: Yamba Drive														
4	L2	136	0.0	136	0.0	0.085	4.8	LOS A	0.1	0.8	0.02	0.59	0.02	40.3
5	T1	1247	1.9	1247	1.9	0.568	10.7	LOS B	14.6	103.6	0.46	0.42	0.46	61.8
Approach		1383	1.7	1383	1.7	0.568	10.2	LOS B	14.6	103.6	0.42	0.43	0.42	58.9
All Vehicles		3001	1.7	3001	1.7	0.840	24.8	LOS C	33.5	239.4	0.67	0.66	0.72	44.0

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	638	2.4	638	2.4	775	0.824	100	36.0	LOS D	33.5	239.4	Full	735	0.0	0.0
Lane 2	544	2.4	544	2.4	660 ¹	0.824	100	36.2	LOS D	28.2	201.6	Full	735	-7.8 ^{N3}	0.0
Lane 3	109	0.0	109	0.0	130	0.840	100	71.9	LOS E	6.8	47.4	Short	85	0.0	NA
Approach	1292	2.2	1292	2.2		0.840		39.1	LOS D	33.5	239.4				
NorthEast: Wisdom Street															
Lane 1	163	0.0	163	0.0	835	0.195	100	6.5	LOS A	2.5	17.8	Short	30	0.0	NA
Lane 2	163	0.0	163	0.0	209 ¹	0.782	100	52.9	LOS D	8.8	61.8	Full	680	-7.8 ^{N3}	0.0
Approach	326	0.0	326	0.0		0.782		29.7	LOS C	8.8	61.8				
NorthWest: Yamba Drive															
Lane 1	136	0.0	136	0.0	1591	0.085	100	4.8	LOS A	0.1	0.8	Short	60	0.0	NA
Lane 2	624	1.9	624	1.9	1099	0.568	100	10.7	LOS B	14.6	103.6	Full	65	0.0	47.8
Lane 3	624	1.9	624	1.9	1099	0.568	100	10.7	LOS B	14.6	103.6	Full	65	0.0	47.8
Approach	1383	1.7	1383	1.7		0.568		10.2	LOS B	14.6	103.6				
Intersection	3001	1.7	3001	1.7		0.840		24.8	LOS C	33.5	239.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:22:21 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

Appendix D:

Car Parking Conditions – 2025 Existing Conditions

2024-0487: Section 7, Phillip
Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked						
						Thursday, 27 March 2025						
						08:00	10:00	12:00	14:00	16:00	18:00	20:00
Irving St	Building No.12 to Spoering St	South / East	>400m	No Stopping	-	0	0	0	0	0	0	0
			>400m	No Stopping	-	0	0	0	0	0	0	0
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	12	8	10	11	11	12	12	10
			>400m	No Stopping	-	0	0	0	0	0	0	0
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	16	9	10	14	15	16	16	14
			>400m	No Stopping	-	0	0	0	0	0	0	0
	Spoering St (East) to Spoering St (West)	North / West	>400m	No Stopping	-	0	0	0	0	0	0	0
			>400m	No Stopping	-	0	0	0	0	0	0	0
			>400m	P 5mins 7:30am-6pm Mon-Fri	5	0	1	2	2	1	3	2
			>400m	Bus Zone	-	0	0	0	0	0	0	0
			>400m	No Parking	9	0	0	0	0	0	0	0
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	5	2	3	5	4	5	5	2
			>400m	No Parking	2	0	0	0	0	0	0	0
			>400m	Loading Zone	3	1	1	0	1	0	1	0
			>400m	No Parking	2	0	0	0	0	0	0	0
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	5	2	3	4	1	2	2	1
			>400m	No Parking	1	0	0	0	0	0	0	0
				Capacity		43	43	43	43	43	43	43
				Vehicles Parked		21	27	36	33	36	38	29
				Vacant Spaces		22	16	7	10	7	5	14
				Occupancy		49%	63%	84%	77%	84%	88%	67%
Spoering St	Irving St to Irving St	South / East	>400m	No Stopping	1	0	0	0	0	0	0	0
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	3	2	3	3	3	2	1	1
			>400m	No Stopping	2	0	0	0	0	0	0	0
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	18	12	13	14	14	16	18	14
			>400m	No Stopping	4	0	0	0	0	0	0	0
		North / West	>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	4	1	0	1	4	2	4	1
			>400m	No Stopping	3	0	0	0	0	0	0	0
			>400m	No Stopping	5	0	0	0	0	0	0	0
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	22	5	13	15	14	16	18	18
			>400m	No Stopping	4	0	0	0	0	0	0	0
				Capacity		47	47	47	47	47	47	47
				Vehicles Parked		20	29	33	35	36	41	34
				Vacant Spaces		27	18	14	12	11	6	13
				Occupancy		43%	62%	70%	74%	77%	87%	72%
Furzer St	Launceston St to Worgan St	East	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Parking	10	0	0	0	0	0	0	0
			200m-400m	No Stopping	25	0	0	0	0	0	0	0
			200m-400m	No Parking	2	0	0	0	0	0	0	0
	Worgan St to W2 Woden	West	200m-400m	No Parking	1	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	2	0	2	2	1	1	1	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	7	2	4	2	3	2	3	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	2	1	2	2	2	1	2	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
				Capacity		11	11	11	11	11	11	11
				Vehicles Parked		3	8	6	6	4	6	0
				Vacant Spaces		8	3	5	5	7	5	11
				Occupancy		27%	73%	55%	55%	36%	55%	0%

2024-0487: Section 7, Phillip
Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked							
						Thursday, 27 March 2025							
						08:00	10:00	12:00	14:00	16:00	18:00	20:00	
Bowes St	Launceston St to Matilda St	East	100m-200m	No Stopping	-	0	0	0	0	0	0	0	0
			100m-200m	No Parking	6	0	0	0	0	0	0	0	0
			<100m	No Stopping	-	0	0	0	0	0	0	0	0
	Matilda St to Callam St	North / East	Adjacent	No Parking	5	0	0	0	0	0	0	0	0
			Adjacent	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	2	0	1	2	2	2	1	0	0
			Adjacent	No Parking	12	0	0	0	0	0	0	0	0
	Callam St to Bowes Pl	South	Adjacent	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	5	2	3	5	2	4	4	1	1
			<100m	No Stopping	-	0	0	0	0	0	0	0	0
			<100m	No Parking	8	0	0	0	0	0	0	0	0
	Bowes Pl to Atlantic St	West	<100m	No Parking	1	0	0	0	0	0	0	0	0
			<100m	No Stopping	-	0	0	0	0	0	0	0	0
			<100m	Loading Zone 30mins 7:30am-6pm Mon-Fri	2	0	1	2	2	1	0	0	0
			<100m	No Parking	3	0	0	0	0	0	0	0	0
			<100m	No Stopping	-	0	0	0	0	0	0	0	0
			<100m	No Stopping	-	0	0	0	0	0	0	0	0
	Atlantic St to Worgan St	West	<100m	Loading Zone 30mins 7:30am-6pm Mon-Fri	2	0	1	2	1	2	1	0	0
			100m-200m	No Parking	12	0	0	0	0	0	0	0	0
	Worgan St to Launceston St		100m-200m	No Stopping	-	0	0	0	0	0	0	0	0
			100m-200m	No Parking	2	0	0	0	0	0	0	0	0
			100m-200m	No Stopping	-	0	0	0	0	0	0	0	0
				Capacity		7	7	7	7	7	11	11	
				Vehicles Parked		2	4	7	4	6	6	1	
				Vacant Spaces		5	3	0	3	1	5	10	
				Occupancy		29%	57%	100%	57%	86%	55%	9%	
Easty St	Launceston St to Opp Wilbow St	East	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
			200m-400m	No Parking	5	0	0	0	0	0	0	0	0
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
			200m-400m	No Parking	2	0	0	0	0	0	0	0	0
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0
			200m-400m	No Parking	1	0	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0
			200m-400m	No Parking	4	0	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
			200m-400m	No Parking	12	0	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
	Wilbow St to Launceston St	West	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
			200m-400m	No Parking	18	0	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
			200m-400m	No Parking	5	0	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
				Capacity		0	0	0	0	0	0	0	0
				Vehicles Parked		0	0	0	0	0	0	0	0
				Vacant Spaces		0	0	0	0	0	0	0	0
				Occupancy		-	-	-	-	-	-	-	-

2024-0487: Section 7, Phillip
Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked								
						Thursday, 27 March 2025								
						08:00	10:00	12:00	14:00	16:00	18:00	20:00		
Launceston St	Irving St to Opp Easty St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	19	0	0	0	0	0	0	0	0	
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	4	0	0	0	0	0	0	0	0	
	Easty St to Callam St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	18	0	0	0	0	0	0	0	0	
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	100m-200m		No Parking	11	0	0	0	0	0	0	0	0		
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Parking	4	0	0	0	0	0	0	0	0		
	200m-400m		Bus Zone	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	Bowes St to Furzer St		South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
				200m-400m	No Parking	4	0	0	0	0	0	0	0	0
				200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0
				200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
Furzer St to Opp Irving St		200m-400m	No Stopping	-	0	0	0	0	0	0	0	0		
			Capacity		0	0	0	0	0	0	0	0		
			Vehicles Parked		0	0	0	0	0	0	0	0		
			Vacant Spaces		0	0	0	0	0	0	0	0		
			Occupancy		-	-	-	-	-	-	-	-		
Worgan St	Melrose Dr to Furzer St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	3	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	2	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
	Furzer St to Bowes St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
	200m-400m		1P Pay Parking 8:30am-5:30pm Mon-Fri, P 15mins 7am-8:30am, 5:30pm-6pm Mon-Fri	5	2	3	5	5	5	4	1	1		
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		1P Pay Parking 8:30am-5:30pm Mon-Fri	2	0	0	1	2	2	1	1	1		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		1P Pay Parking 8:30am-5:30pm Mon-Fri	9	6	7	8	8	8	7	6	6		
	200m-400m		No Parking Pick Up and Set Down Only	2	0	0	1	1	2	1	1	1		
	200m-400m		Taxi Zone	2	0	1	2	1	0	0	1	1		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		Loading Zone	3	2	1	2	2	2	1	0	0		
	200m-400m		2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	6	3	5	6	6	2	6	2	2		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
			South		Capacity		22	22	22	22	22	22	22	22
					Vehicles Parked		11	15	20	21	17	18	10	10
					Vacant Spaces		11	7	2	1	5	4	12	12
				Occupancy		50%	68%	91%	95%	77%	82%	45%	45%	

2024-0487: Section 7, Phillip
Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked						
						Thursday, 27 March 2025						
						08:00	10:00	12:00	14:00	16:00	18:00	20:00
Corinna St	Melrose Dr to Furzer St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	4	2	3	4	4	4	2	3
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	1/2P 8:30am-5:30pm Mon-Fri	2	2	2	2	2	2	2	1
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
	Furzer St to Corinna St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	1/2P 8:30am-5:30pm Mon-Fri	2	1	0	2	1	1	1	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
	Corinna St to Melrose Dr	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	6	3	4	5	6	6	6	4
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			Capacity		14	14	14	14	14	14	14	14
			Vehicles Parked		8	9	13	13	13	13	11	8
			Vacant Spaces		6	5	1	1	1	1	3	6
			Occupancy		57%	64%	93%	93%	93%	79%	57%	
Neptune St	Bradley St to Callam St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
	Callam St to Bradley St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	Loading Zone 30mins 7:30am-6pm Mon-Fri	3	3	1	2	3	3	3	1
			200m-400m	P 5mins	3	2	1	2	2	1	2	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			Capacity		3	3	3	3	3	3	6	6
			Vehicles Parked		2	1	2	2	1	5	1	
			Vacant Spaces		1	2	1	1	2	1	5	
			Occupancy		67%	33%	67%	67%	33%	83%	17%	
Wilbow St	Callam St to Easty St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Parking	7	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
	Easty St to Callam St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0
			200m-400m	No Parking	8	0	0	0	0	0	0	0
			200m-400m	No Stopping	-	0	0	0	0	0	0	0
			Capacity		0	0	0	0	0	0	0	0
			Vehicles Parked		0	0	0	0	0	0	0	0
			Vacant Spaces		0	0	0	0	0	0	0	0
			Occupancy		-	-	-	-	-	-	-	-
S104 Off-Street Carpark (ACT Government)	>400m		P Disabled Only		6	2	4	5	5	6	5	4
			Pay Parking 8:30am-5:30pm Mon-Fri,		393	129	287	366	370	276	175	122
			P Motorbikes Only		5	0	1	1	1	1	0	1
			Capacity		399	399	399	399	399	399	399	399
			Vehicles Parked		131	291	371	375	282	180	126	
			Vacant Spaces		268	108	28	24	117	219	273	
S23 Off-Street Carpark (ACT Government)			Occupancy		33%	73%	93%	94%	71%	45%	32%	
			200m-400m	Pay Parking 8:30am-5:30pm Mon-Fri,	37	0	0	0	0	0	0	0
			Capacity		37	37	37	37	37	37	37	
			Vehicles Parked		0	0	0	0	0	0	0	0
			Vacant Spaces		37	37	37	37	37	37	37	
B3 S16 Off-Street Carpark (Skypark)			Occupancy		0%	0%	0%	0%	0%	0%	0%	
			200m-400m	P Disabled Only	6	2	3	5	4	2	2	2
			Pay Parking		989	361	643	789	862	743	92	8
			Capacity		995	995	995	995	995	995	995	
			Vehicles Parked		363	646	794	866	745	94	10	
			Vacant Spaces		632	349	201	129	250	901	985	
			Occupancy		36%	65%	80%	87%	75%	9%	1%	

2024-0487: Section 7, Phillip
Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked							
						Thursday, 27 March 2025							
						08:00	10:00	12:00	14:00	16:00	18:00	20:00	
S6 Off-Street Carpark (Hellenic Club)			<100m	Pay Parking 8:30am-5:30pm Mon-Fri,	237	28	98	178	192	115	237	237	
			<100m	P Disabled Only	12	2	4	5	7	8	8	10	
			<100m	Motorbikes Parking	4	0	0	0	0	0	0	0	
				Capacity	249	249	249	249	249	249	249	249	
				Vehicles Parked	30	102	183	199	123	245	247		
				Vacant Spaces	219	147	66	50	126	4	2		
				Occupancy		12%	41%	73%	80%	49%	98%	99%	
S7 Off-Street Carpark (ACT Government)			On-Site	Pay Parking 8:30am-5:30pm Mon-Fri,	70	56	67	69	68	42	51	49	
			On-Site	P Disabled Only	15	8	10	12	12	10	10	8	
			On-Site	Motorbikes Parking	25	4	3	5	3	6	6	5	
			On-Site	Permit Zone 7:30am-5:30pm	78	67	69	59	29	24	30	19	
			On-Site	4P Ticket Pay Parking 8:30am-5:30pm Mon-Fri	81	79	71	69	63	60	29	21	
				Capacity	166	166	166	166	166	166	244	244	
				Vehicles Parked	143	148	150	143	112	120	97		
B33 S80 Off-Street Carpark (ACT Government)				Vacant Spaces	23	18	16	23	54	124	147		
				Occupancy		86%	89%	90%	86%	67%	49%	40%	
			<100m	Closed due to construction works	-	0	0	0	0	0	0	0	
				Capacity	0	0	0	0	0	0	0	0	
				Vehicles Parked	0	0	0	0	0	0	0	0	
B30 S80 Off-Street Carpark (ACT Government)				Vacant Spaces	0	0	0	0	0	0	0	0	
				Occupancy		-	-	-	-	-	-	-	
			100m-200m	P Disabled Only	3	1	1	2	2	2	2	1	
			100m-200m	Loading Zone	2	0	0	0	0	0	0	0	
			100m-200m	1P Parking	4	1	3	2	3	1	0	0	
			100m-200m	Permit Zone Government Vehicles Only	20	4	14	12	13	2	1	0	
			100m-200m	Pay Parking 8:30am-5:30pm Mon-Fri,	248	186	229	223	198	194	43	22	
				Capacity	255	255	255	255	255	255	255	255	
				Vehicles Parked	188	233	227	203	197	45	23		
				Vacant Spaces	67	22	28	52	58	210	232		
B29 S80 Off-Street Carpark (ACT Government)				Occupancy		74%	91%	89%	80%	77%	18%	9%	
			100m-200m	Pay Parking 8:30am-5:30pm Mon-Fri,	70	25	46	47	48	21	18	3	
				Capacity	70	70	70	70	70	70	70	70	
				Vehicles Parked	25	46	47	48	21	18	3		
				Vacant Spaces	45	24	23	22	49	52	67		
Easty St Off-Street Carpark (ACT Government)				Occupancy		36%	66%	67%	69%	30%	26%	4%	
			200m-400m	Pay Parking 8:30am-5:30pm Mon-Fri,	44	31	44	43	42	29	3	1	
				Capacity	44	44	44	44	44	44	44	44	
				Vehicles Parked	31	44	43	42	29	3	1		
				Vacant Spaces	13	0	1	2	15	41	43		
S64 Off-Street Carpark (Westfield)				Occupancy		70%	100%	98%	95%	66%	7%	2%	
			100m-200m	Pay Parking	752	149	498	539	557	467	376	107	
			100m-200m	P Disabled Only	17	0	3	4	6	6	3	0	
				Capacity	769	769	769	769	769	769	769	769	
				Vehicles Parked	149	501	543	563	473	379	107		
				Vacant Spaces	620	268	226	206	296	390	662		
				Occupancy	19%	65%	71%	73%	62%	49%	14%		
On-Site				Capacity	166	166	166	166	166	244	244		
				Vehicles Parked	143	148	150	143	112	120	97		
				Vacant Spaces	23	18	16	23	54	124	147		
				Occupancy		86%	89%	90%	86%	67%	49%	40%	
On-Site or Adjacent				Capacity	173	173	173	173	173	251	251		
				Vehicles Parked	145	152	157	147	118	125	98		
				Vacant Spaces	28	21	16	26	55	126	153		
				Occupancy	84%	88%	91%	85%	68%	50%	39%		
On-Site or Within 100m				Capacity	422	422	422	422	422	504	504		
				Vehicles Parked	175	254	340	346	241	371	345		
				Vacant Spaces	247	168	82	76	181	133	159		
				Occupancy		41%	60%	81%	82%	57%	74%	68%	

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Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked						
						Thursday, 27 March 2025						
						08:00	10:00	12:00	14:00	16:00	18:00	20:00
On-Site or Within 200m				Capacity		1,516	1,516	1,516	1,516	1,516	1,598	1,598
				Vehicles Parked		537	1,034	1,157	1,160	932	813	478
				Vacant Spaces		979	482	359	356	584	785	1,120
				Occupancy		35%	68%	76%	77%	61%	51%	30%
On-Site or Within 400m				Capacity		2,642	2,642	2,642	2,642	2,642	2,727	2,727
				Vehicles Parked		955	1,757	2,035	2,110	1,741	950	508
				Vacant Spaces		1,687	885	607	532	901	1,777	2,219
				Occupancy		36%	67%	77%	80%	66%	35%	19%
Total				Capacity		3,131	3,131	3,131	3,131	3,131	3,216	3,216
				Vehicles Parked		1,127	2,104	2,475	2,553	2,095	1,209	697
				Vacant Spaces		2,004	1,027	656	578	1,036	2,007	2,519
				Occupancy		36%	67%	79%	82%	67%	38%	22%

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Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked							
						Saturday, 29 March 2025							
						08:00	10:00	12:00	14:00	16:00	18:00	20:00	
Irving St	Building No.12 to Spoering St	South / East	>400m	No Stopping	-	0	0	0	0	0	0	0	
	>400m		No Stopping	-	0	0	0	0	0	0	0		
	Spoering St (East) to Spoering St (West)		>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	12	5	6	6	10	12	12	12	
			>400m	No Stopping	-	0	0	0	0	0	0	0	
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	16	8	7	6	10	14	12	14	
			>400m	No Stopping	-	0	0	0	0	0	0	0	
	Spoering St to Launceston St	North / West	>400m	No Stopping	-	0	0	0	0	0	0	0	
	>400m		No Stopping	-	0	0	0	0	0	0	0		
	>400m		P 5mins 7:30am-6pm Mon-Fri	5	2	1	2	1	0	1	2		
	>400m		Bus Zone	-	0	0	0	0	0	0	0		
	>400m		No Parking	9	0	0	0	0	0	0	0		
	>400m		2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	5	3	2	2	3	3	2	4		
	>400m		No Parking	2	0	0	0	0	0	0	0		
	>400m		Loading Zone	3	0	1	2	1	0	0	0		
	>400m		No Parking	2	0	0	0	0	0	0	0		
	>400m		2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	5	3	5	4	1	2	3	2		
	>400m		No Parking	1	0	0	0	0	0	0	0		
			Capacity		43	43	43	43	43	43	43		
			Vehicles Parked		21	21	20	25	31	30	34		
			Vacant Spaces		22	22	23	18	12	13	9		
			Occupancy		49%	49%	47%	58%	72%	70%	79%		
Spoering St	Irving St to Irving St	South / East	>400m	No Stopping	1	0	0	0	0	0	0	0	
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	3	1	1	2	1	3	3	3	
			>400m	No Stopping	2	0	0	0	0	0	0	0	
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	18	14	12	12	14	10	12	15	
			>400m	No Stopping	4	0	0	0	0	0	0	0	
		North / West	>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	4	2	3	2	2	4	2	3	
			>400m	No Stopping	3	0	0	0	0	0	0	0	
			>400m	No Stopping	5	0	0	0	0	0	0	0	
			>400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	22	10	12	12	10	13	13	12	
			>400m	No Stopping	4	0	0	0	0	0	0	0	
		Capacity		47	47	47	47	47	47	47			
		Vehicles Parked		27	28	28	27	30	30	33			
		Vacant Spaces		20	19	19	20	17	17	14			
		Occupancy		57%	60%	60%	57%	64%	64%	70%			
Furzer St	Launceston St to Worgan St	East	200m-400m	No Stopping	-	0	0	0	0	0	0	0	
	200m-400m		No Parking	10	0	0	0	0	0	0	0		
	200m-400m		No Stopping	25	0	0	0	0	0	0	0		
	Worgan St to W2 Woden	West	200m-400m	No Parking	2	0	0	0	0	0	0	0	
	200m-400m		No Parking	1	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	2	1	2	2	1	0	1	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	7	0	1	3	4	5	4	3		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	200m-400m		2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	2	1	1	2	2	1	0	1		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0		
	Capacity		11	11	11	11	11	11	11				
	Vehicles Parked		2	4	7	7	6	5	4				
	Vacant Spaces		9	7	4	4	5	6	7				
	Occupancy		18%	36%	64%	64%	55%	45%	36%				

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Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked									
						Saturday, 29 March 2025									
						08:00	10:00	12:00	14:00	16:00	18:00	20:00			
Bowes St	Launceston St to Matilda St	East	100m-200m	No Stopping	-	0	0	0	0	0	0	0	0		
			100m-200m	No Parking	6	0	0	0	0	0	0	0			
			<100m	No Stopping	-	0	0	0	0	0	0	0			
	Matilda St to Callam St	North / East	Adjacent	No Parking	5	0	0	0	0	0	0	0			
			Adjacent	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	2	1	2	2	1	0	1	0			
			Adjacent	No Parking	12	0	0	0	0	0	0	0			
	Callam St to Bowes Pl	South	Adjacent	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	5	2	2	3	3	2	1	1			
			<100m	No Stopping	-	0	0	0	0	0	0	0			
			<100m	No Parking	8	0	0	0	0	0	0	0			
	Bowes Pl to Atlantic St	West	<100m	No Parking	1	0	0	0	0	0	0	0	0		
			<100m	No Stopping	-	0	0	0	0	0	0	0	0		
			<100m	Loading Zone 30mins 7:30am-6pm Mon-Fri	2	0	0	0	1	1	1	0	0		
			<100m	No Parking	3	0	0	0	0	0	0	0	0		
			<100m	No Stopping	-	0	0	0	0	0	0	0	0		
			<100m	No Stopping	-	0	0	0	0	0	0	0	0		
			<100m	Loading Zone 30mins 7:30am-6pm Mon-Fri	2	0	1	1	0	0	1	0	0		
			100m-200m	No Parking	12	0	0	0	0	0	0	0	0		
			100m-200m	No Stopping	-	0	0	0	0	0	0	0	0		
			100m-200m	No Parking	2	0	0	0	0	0	0	0	0		
			100m-200m	No Stopping	-	0	0	0	0	0	0	0	0		
						Capacity		11	11	11	11	11	11	11	
				Vehicles Parked		3	5	6	5	3	4	1			
				Vacant Spaces		8	6	5	6	8	7	10			
				Occupancy		27%	45%	55%	45%	27%	36%	9%			
Easty St	Launceston St to Opp Wilbow St	East	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0		
			200m-400m	No Parking	5	0	0	0	0	0	0	0	0		
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0		
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0		
			200m-400m	No Parking	2	0	0	0	0	0	0	0	0		
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0		
			200m-400m	No Parking	1	0	0	0	0	0	0	0	0		
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0		
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0		
			200m-400m	No Parking	4	0	0	0	0	0	0	0	0		
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0		
			200m-400m	No Parking	12	0	0	0	0	0	0	0	0		
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0		
			Wilbow St to Launceston St	West	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
					200m-400m	No Parking	18	0	0	0	0	0	0	0	0
	200m-400m	No Stopping			-	0	0	0	0	0	0	0	0		
	200m-400m	No Parking			5	0	0	0	0	0	0	0	0		
	200m-400m	No Stopping			-	0	0	0	0	0	0	0	0		
					Capacity		0	0	0	0	0	0	0		
					Vehicles Parked		0	0	0	0	0	0	0		
					Vacant Spaces		0	0	0	0	0	0	0		
					Occupancy		-	-	-	-	-	-	-		

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Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked								
						Saturday, 29 March 2025								
						08:00	10:00	12:00	14:00	16:00	18:00	20:00		
Launceston St	Irving St to Opp Easty St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	19	0	0	0	0	0	0	0	0	
			200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	4	0	0	0	0	0	0	0	0	
	Easty St to Callam St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	18	0	0	0	0	0	0	0	0	
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	100m-200m		No Parking	11	0	0	0	0	0	0	0	0		
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Parking	4	0	0	0	0	0	0	0	0		
	200m-400m		Bus Zone	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	Bowes St to Furzer St		South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
				200m-400m	No Parking	4	0	0	0	0	0	0	0	0
				200m-400m	Bus Zone	-	0	0	0	0	0	0	0	0
				200m-400m	No Stopping	-	0	0	0	0	0	0	0	0
Furzer St to Opp Irving St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0		
			Capacity	-	0	0	0	0	0	0	0	0		
			Vehicles Parked	-	0	0	0	0	0	0	0	0		
			Vacant Spaces	-	0	0	0	0	0	0	0	0		
			Occupancy	-	-	-	-	-	-	-	-			
Worgan St	Melrose Dr to Furzer St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	3	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Parking	2	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
	200m-400m		No Stopping	-	0	0	0	0	0	0	0	0		
	200m-400m		1P Pay Parking 8:30am-5:30pm Mon-Fri, P 15mins 7am-8:30am, 5:30pm-6pm Mon-Fri	5	2	1	2	3	5	4	2			
	100m-200m		No Stopping	-	0	0	0	0	0	0	0	0		
	Bowes St to Furzer St	South	100m-200m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	1P Pay Parking 8:30am-5:30pm Mon-Fri	2	0	0	1	1	1	2	1		
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	1P Pay Parking 8:30am-5:30pm Mon-Fri	9	5	6	4	7	5	5	4		
			200m-400m	No Parking Pick Up and Set Down Only	2	0	0	1	1	1	0	0		
			200m-400m	Taxi Zone	2	1	0	1	2	1	0	0		
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
	Furzer St to Melrose Dr		200m-400m	Loading Zone	3	0	0	1	2	2	1	0		
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	6	2	2	5	4	1	2	2		
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	0	
				Capacity	-	22	22	22	22	22	22	22		
					Vehicles Parked	-	9	9	12	15	12	13	9	
					Vacant Spaces	-	13	13	10	7	10	9	13	
				Occupancy	-	41%	41%	55%	68%	55%	59%	41%		

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Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked							
						Saturday, 29 March 2025							
						08:00	10:00	12:00	14:00	16:00	18:00	20:00	
Corinna St	Melrose Dr to Furzer St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	4	3	3	4	4	2	4	3	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	1/2P 8:30am-5:30pm Mon-Fri	2	1	2	2	2	2	2	1	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
	Furzer St to Corinna St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	1/2P 8:30am-5:30pm Mon-Fri	2	1	1	2	1	1	2	1	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	2P Pay Parking 8:30am-5:30pm Mon-Fri, 8:30am-12pm Sat	6	3	2	5	4	6	5	4	
	Corinna St to Melrose Dr		200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			Capacity	14	14	14	14	14	14	14	14		
			Vehicles Parked	8	8	13	11	11	13	9			
			Vacant Spaces	6	6	1	3	3	1	5			
			Occupancy	57%	57%	93%	79%	79%	93%	64%			
Neptune St	Bradley St to Callam St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
	Callam St to Bradley St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	Loading Zone 30mins 7:30am-6pm Mon-Fri	3	1	2	3	3	3	2	1	
			200m-400m	P 5mins	3	1	2	1	0	0	1	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			Capacity	6	6	6	6	6	6	6			
			Vehicles Parked	2	4	4	3	3	3	1			
			Vacant Spaces	4	2	2	3	3	3	5			
			Occupancy	33%	67%	67%	50%	50%	50%	17%			
Wilbow St	Callam St to Easty St	North	200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	No Parking	7	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
	Easty St to Callam St	South	200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			200m-400m	No Parking	8	0	0	0	0	0	0	0	
			200m-400m	No Stopping	-	0	0	0	0	0	0	0	
			Capacity	0	0	0	0	0	0	0			
			Vehicles Parked	0	0	0	0	0	0	0			
			Vacant Spaces	0	0	0	0	0	0	0			
			Occupancy	-	-	-	-	-	-	-			
S104 Off-Street Carpark (ACT Government)			>400m	P Disabled Only	6	4	3	2	1	2	4	4	
			>400m	Pay Parking 8:30am-5:30pm Mon-Fri,	393	89	156	246	229	267	193	175	
			>400m	P Motorbikes Only	5	1	2	2	2	1	1	1	
			Capacity	399	399	399	399	399	399	399			
			Vehicles Parked	93	159	248	230	269	197	179			
			Vacant Spaces	306	240	151	169	130	202	220			
			Occupancy	23%	40%	62%	58%	67%	49%	45%			
	S23 Off-Street Carpark (ACT Government)			200m-400m	Pay Parking 8:30am-5:30pm Mon-Fri,	37	0	0	1	0	0	0	0
				Capacity	37	37	37	37	37	37	37		
				Vehicles Parked	0	0	1	0	0	0	0		
		Vacant Spaces	37	37	36	37	37	37	37				
		Occupancy	0%	0%	3%	0%	0%	0%	0%				
B3 S16 Off-Street Carpark (Skypark)			200m-400m	P Disabled Only	6	0	2	2	2	1	1	1	
			200m-400m	Pay Parking	989	45	73	60	54	36	33	20	
			Capacity	995	995	995	995	995	995	995			
			Vehicles Parked	45	75	62	56	37	34	21			
			Vacant Spaces	950	920	933	939	958	961	974			
			Occupancy	5%	8%	6%	6%	4%	3%	2%			

2024-0487: Section 7, Phillip
Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked							
						Saturday, 29 March 2025							
						08:00	10:00	12:00	14:00	16:00	18:00	20:00	
S6 Off-Street Carpark (Hellenic Club)			<100m	Pay Parking 8:30am-5:30pm Mon-Fri,	237	22	44	198	232	188	212	237	
			<100m	P Disabled Only	12	0	1	2	5	4	8	7	
			<100m	Motorbikes Parking	4	0	0	0	0	0	0	0	
				Capacity	249	249	249	249	249	249	249	249	
				Vehicles Parked	22	45	200	237	192	220	244		
				Vacant Spaces	227	204	49	12	57	29	5		
				Occupancy	9%	18%	80%	95%	77%	88%	98%		
S7 Off-Street Carpark (ACT Government)			On-Site	Pay Parking 8:30am-5:30pm Mon-Fri,	70	29	51	53	54	54	39	43	
			On-Site	P Disabled Only	15	8	7	12	12	10	10	8	
			On-Site	Motorbikes Parking	25	2	2	2	2	2	2	2	
			On-Site	Permit Zone 7:30am-5:30pm	78	41	52	43	41	44	29	18	
			On-Site	4P Ticket Pay Parking 8:30am-5:30pm Mon-Fri	81	34	75	62	42	29	21	22	
				Capacity	166	166	166	166	166	166	244	244	
				Vehicles Parked	71	133	127	108	93	99	91		
				Vacant Spaces	95	33	39	58	73	145	153		
B33 S80 Off-Street Carpark (ACT Government)			<100m	Closed due to construction works	-	0	0	0	0	0	0	0	
				Capacity	0	0	0	0	0	0	0	0	
				Vehicles Parked	0	0	0	0	0	0	0	0	
				Vacant Spaces	0	0	0	0	0	0	0	0	
				Occupancy	-	-	-	-	-	-	-	-	
B30 S80 Off-Street Carpark (ACT Government)			100m-200m	P Disabled Only	3	1	0	1	0	0	0	0	
			100m-200m	Loading Zone	2	0	0	0	0	0	0	0	
			100m-200m	1P Parking	4	1	2	1	0	0	0	0	
			100m-200m	Permit Zone Government Vehicles Only	20	1	2	2	4	5	1	0	
			100m-200m	Pay Parking 8:30am-5:30pm Mon-Fri,	248	58	59	61	43	34	20	24	
				Capacity	255	255	255	255	255	255	255	255	
				Vehicles Parked	60	61	63	43	34	20	24		
				Vacant Spaces	195	194	192	212	221	235	231		
B29 S80 Off-Street Carpark (ACT Government)				Occupancy	24%	24%	25%	17%	13%	8%	9%		
			100m-200m	Pay Parking 8:30am-5:30pm Mon-Fri,	70	9	21	34	38	21	3	0	
				Capacity	70	70	70	70	70	70	70	70	
				Vehicles Parked	9	21	34	38	21	3	0		
				Vacant Spaces	61	49	36	32	49	67	70		
Easty St Off-Street Carpark (ACT Government)				Occupancy	13%	30%	49%	54%	30%	4%	0%		
			200m-400m	Pay Parking 8:30am-5:30pm Mon-Fri,	44	34	37	31	24	1	0	0	
				Capacity	44	44	44	44	44	44	44	44	
				Vehicles Parked	34	37	31	24	1	0	0		
				Vacant Spaces	10	7	13	20	43	44	44		
S64 Off-Street Carpark (Westfield)				Occupancy	77%	84%	70%	55%	2%	0%	0%		
			100m-200m	Pay Parking	752	74	197	299	450	455	211	91	
			100m-200m	P Disabled Only	17	1	3	5	7	8	7	2	
				Capacity	769	769	769	769	769	769	769	769	
				Vehicles Parked	75	200	304	457	463	218	93		
On-Site				Vacant Spaces	694	569	465	312	306	551	676		
				Occupancy	10%	26%	40%	59%	60%	28%	12%		
				Capacity	166	166	166	166	166	244	244		
				Vehicles Parked	71	133	127	108	93	99	91		
				Vacant Spaces	95	33	39	58	73	145	153		
On-Site or Adjacent				Occupancy	43%	80%	77%	65%	56%	41%	37%		
				Capacity	173	173	173	173	173	251	251		
				Vehicles Parked	74	137	132	112	95	101	92		
				Vacant Spaces	99	36	41	61	78	150	159		
				Occupancy	43%	79%	76%	65%	55%	40%	37%		
On-Site or Within 100m				Capacity	426	426	426	426	426	504	504		
				Vehicles Parked	96	183	333	350	288	323	336		
				Vacant Spaces	330	243	93	76	138	181	168		
				Occupancy	23%	43%	78%	82%	68%	64%	67%		

2024-0487: Section 7, Phillip
Existing Conditions Car Parking Data



Street	Section	Side	Walking Distance Zone	Restriction	Capacity	Cars Parked						
						Saturday, 29 March 2025						
						08:00	10:00	12:00	14:00	16:00	18:00	20:00
On-Site or Within 200m				Capacity		1,520	1,520	1,520	1,520	1,520	1,598	1,598
				Vehicles Parked		240	465	734	888	806	564	453
				Vacant Spaces		1,280	1,055	786	632	714	1,034	1,145
				Occupancy		16%	31%	48%	58%	53%	35%	28%
On-Site or Within 400m				Capacity		2,649	2,649	2,649	2,649	2,649	2,727	2,727
				Vehicles Parked		340	602	864	1,004	876	632	497
				Vacant Spaces		2,309	2,047	1,785	1,645	1,773	2,095	2,230
				Occupancy		13%	23%	33%	38%	33%	23%	18%
Total				Capacity		3,138	3,138	3,138	3,138	3,138	3,216	3,216
				Vehicles Parked		481	810	1,160	1,286	1,206	889	743
				Vacant Spaces		2,657	2,328	1,978	1,852	1,932	2,327	2,473
				Occupancy		15%	26%	37%	41%	38%	28%	23%

Appendix E:

Intersection Performance Results – 2030 Development Scenario

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2030 Dev - AM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 103 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

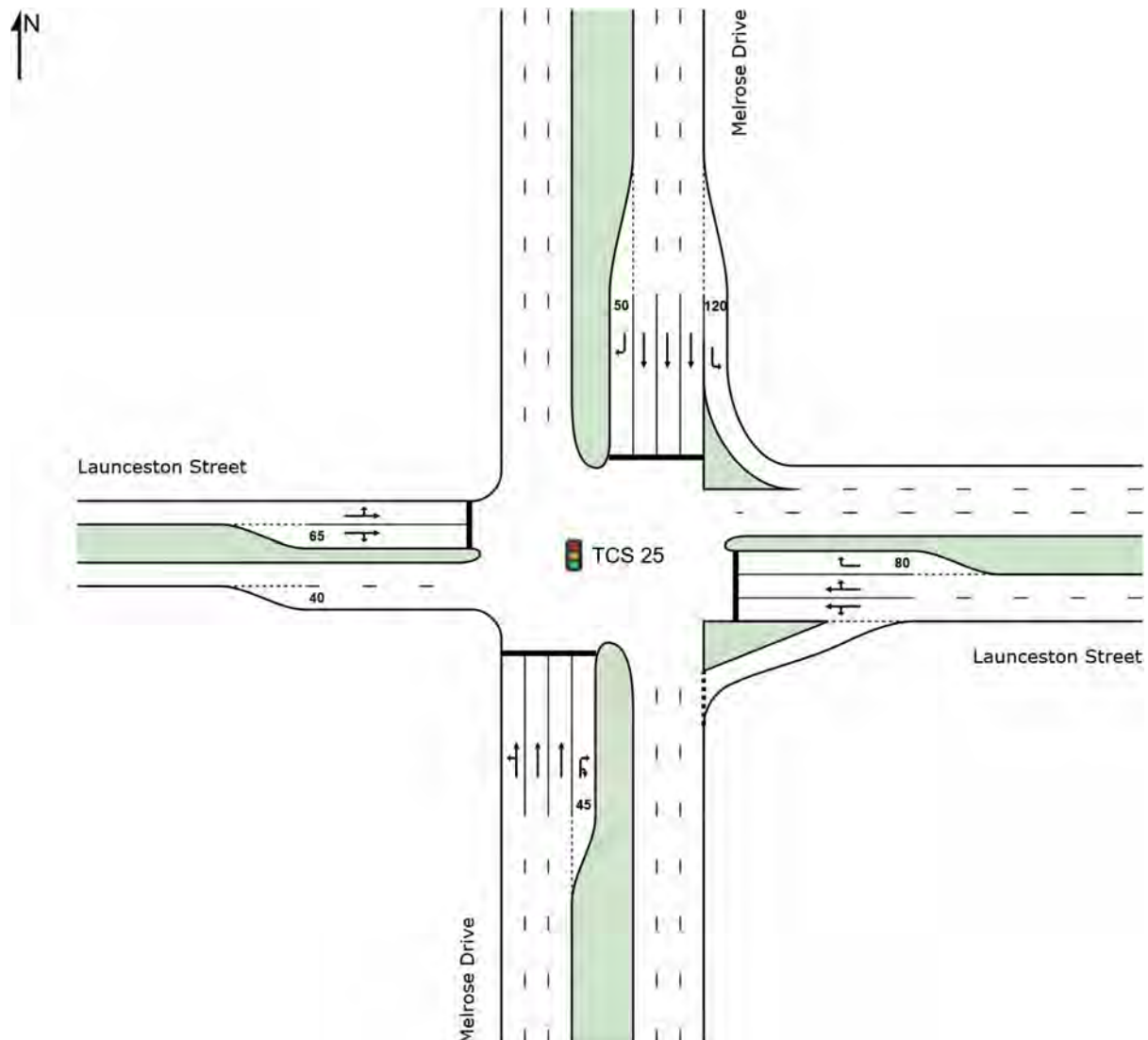
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

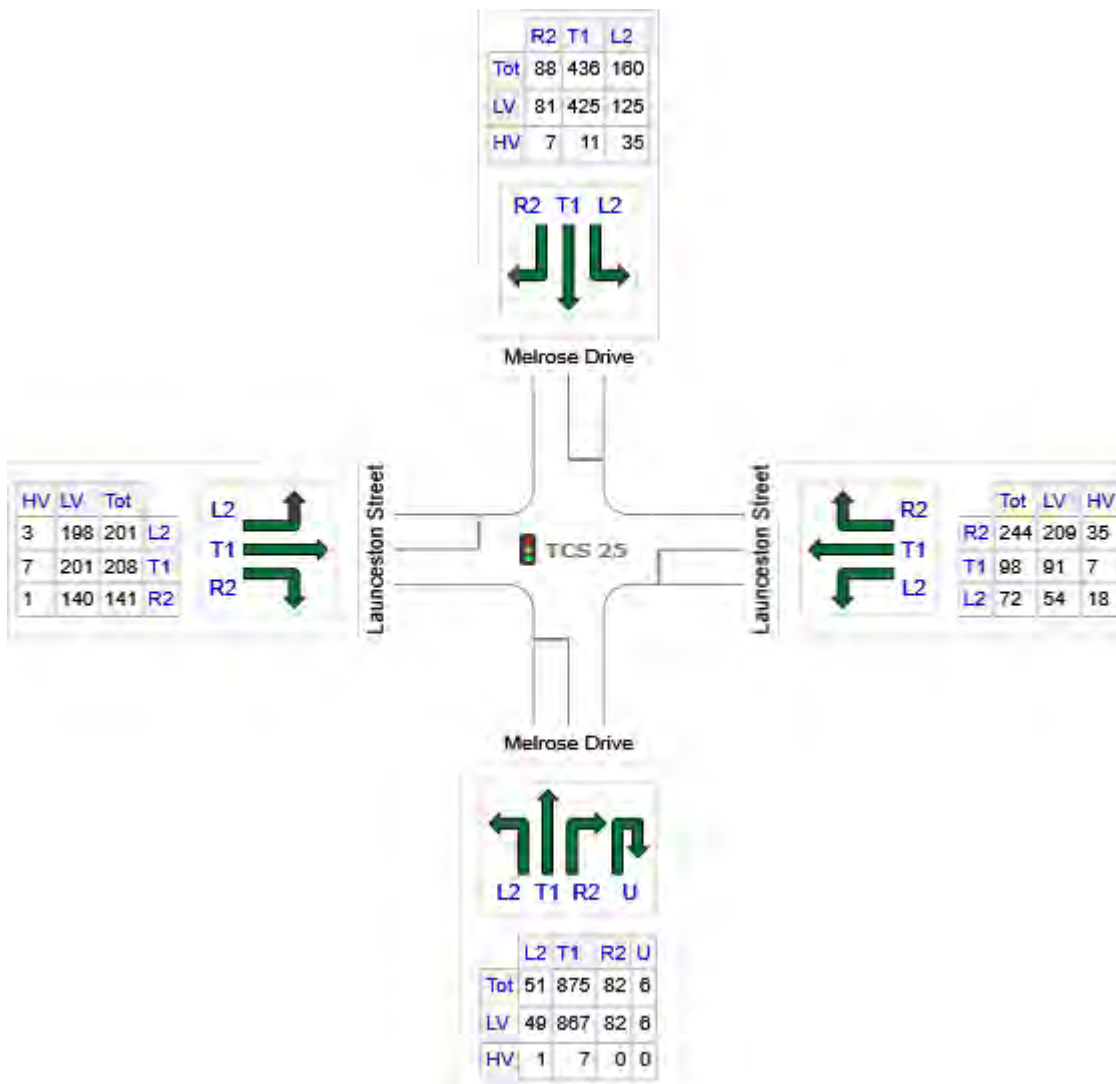
Output Phase Sequence: A, D, E, F

(* Variable Phase)

Site Layout



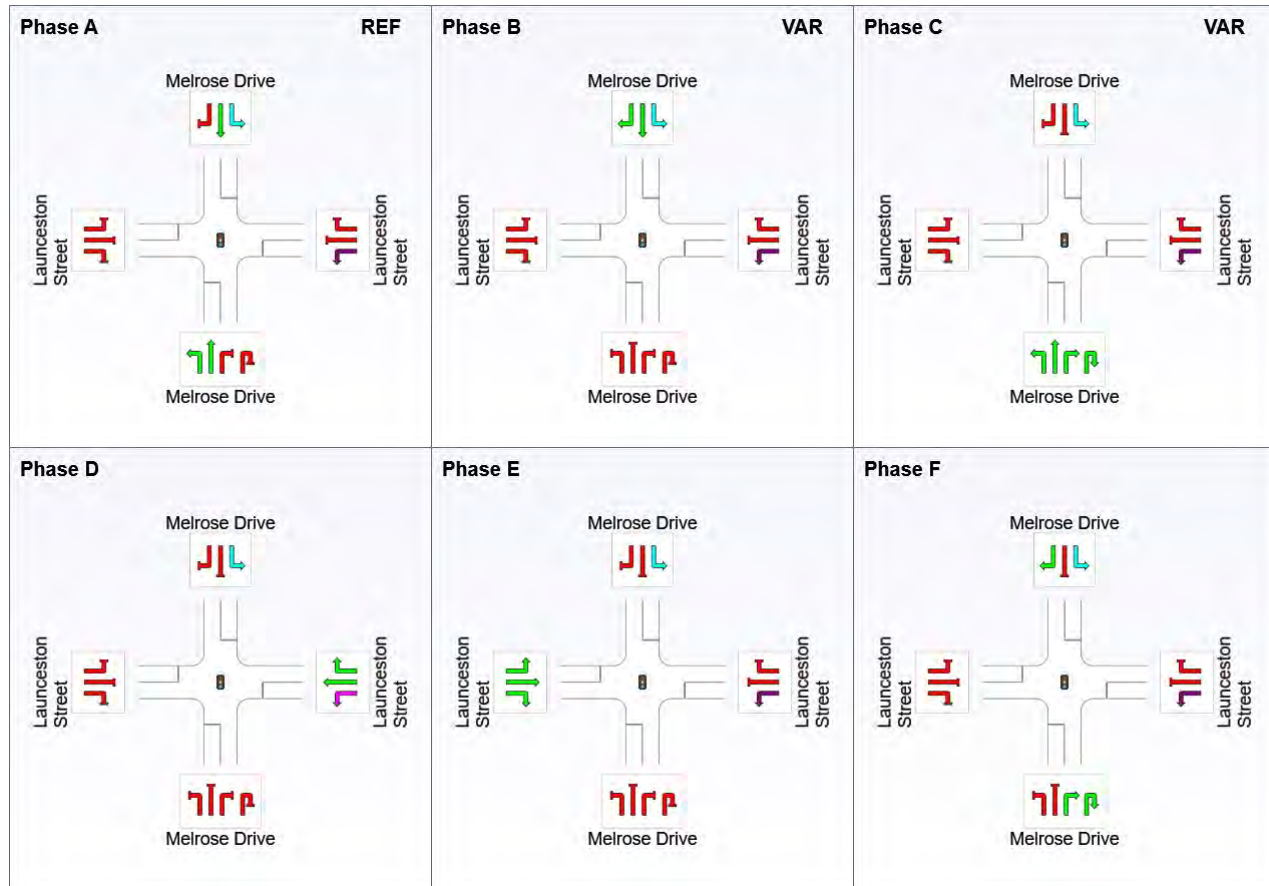
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	1014	1005	8
E: Launceston Street	414	354	60
N: Melrose Drive	684	632	53
W: Launceston Street	551	539	12
Total	2662	2529	133

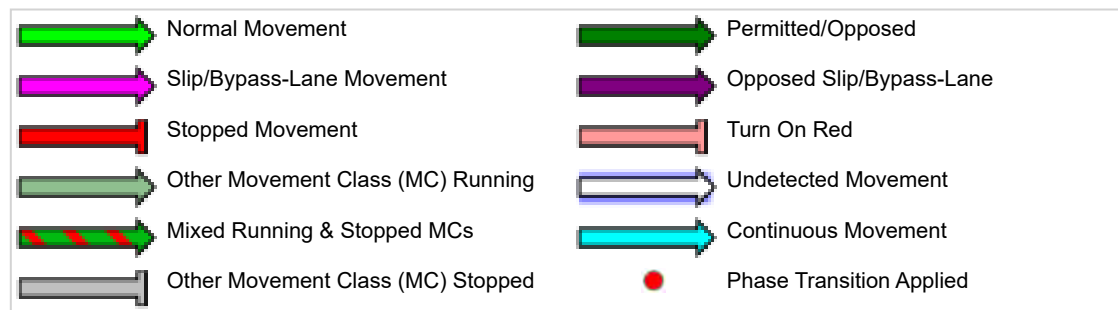
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	33	58	88
Green Time (sec)	27	19	24	9
Phase Time (sec)	33	25	30	15
Phase Split	32%	24%	29%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	51	2.1	0.630	42.1	LOS C	14.2	100.5	0.94	0.81	0.94	19.7
2	T1	875	0.8	0.630	36.3	LOS C	14.4	101.3	0.93	0.80	0.93	32.0
3	R2	82	0.0	0.558	57.0	LOS E	4.5	31.6	1.00	0.78	1.01	13.5
3u	U	6	0.0	0.558	58.4	LOS E	4.5	31.6	1.00	0.78	1.01	18.3
Approach		1014	0.8	0.630	38.4	LOS C	14.4	101.3	0.94	0.79	0.94	29.9
East: Launceston Street												
4	L2	72	25.0	0.164	14.3	LOS A	2.0	16.0	0.59	0.65	0.59	32.4
5	T1	98	7.5	0.483	30.6	LOS C	7.2	55.3	0.81	0.74	0.81	16.2
6	R2	244	14.2	0.483	47.1	LOS D	7.2	55.3	0.94	0.79	0.94	25.5
Approach		414	14.5	0.483	37.5	LOS C	7.2	55.3	0.85	0.76	0.85	24.6
North: Melrose Drive												
7	L2	160	21.7	0.099	5.8	LOS A	0.0	0.0	0.00	0.52	0.00	48.9
8	T1	436	2.4	0.289	32.8	LOS C	5.9	41.8	0.84	0.68	0.84	33.6
9	R2	88	8.3	0.577	57.4	LOS E	4.5	34.1	1.00	0.79	1.03	22.3
Approach		684	7.7	0.577	29.7	LOS C	5.9	41.8	0.67	0.66	0.67	33.9
West: Launceston Street												
10	L2	201	1.6	0.633	43.5	LOS D	12.6	89.6	0.96	0.82	0.96	26.1
11	T1	208	3.5	0.633	38.9	LOS C	12.7	90.6	0.96	0.82	0.96	13.9
12	R2	141	0.7	0.633	43.4	LOS D	12.7	90.6	0.96	0.82	0.96	18.5
Approach		551	2.1	0.633	41.7	LOS C	12.7	90.6	0.96	0.82	0.96	20.5
All Vehicles		2662	5.0	0.633	36.7	LOS C	14.4	101.3	0.86	0.76	0.86	28.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	317	1.0	504	0.630	100	37.4	LOS C	14.2	100.5	Full	205	0.0	0.0
Lane 2	320	0.8	508	0.630	100	36.5	LOS C	14.4	101.3	Full	205	0.0	0.0
Lane 3	288	0.8	457 ¹	0.630	100	35.8	LOS C	12.7	89.3	Full	205	0.0	0.0
Lane 4	88	0.0	159	0.558	100	57.1	LOS E	4.5	31.6	Short	45	0.0	NA
Approach	1014	0.8		0.630		38.4	LOS C	14.4	101.3				
East: Launceston Street													
Lane 1	108	19.1	657	0.164	34 ⁶	12.8	LOS A	2.0	16.0	Full	90	0.0	0.0
Lane 2	156	11.6	323	0.483	100	45.3	LOS D	7.2	55.3	Full	90	0.0	0.0
Lane 3	150	14.2	311	0.483	100	47.1	LOS D	6.9	54.5	Short	80	0.0	NA
Approach	414	14.5		0.483		37.5	LOS C	7.2	55.3				
North: Melrose Drive													
Lane 1	160	21.7	1608	0.099	100	5.8	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	145	2.4	503	0.289	100	32.8	LOS C	5.9	41.8	Full	470	0.0	0.0
Lane 3	145	2.4	503	0.289	100	32.8	LOS C	5.9	41.8	Full	470	0.0	0.0
Lane 4	145	2.4	503	0.289	100	32.8	LOS C	5.9	41.8	Full	470	0.0	0.0
Lane 5	88	8.3	153	0.577	100	57.4	LOS E	4.5	34.1	Short	50	0.0	NA
Approach	684	7.7		0.577		29.7	LOS C	5.9	41.8				
West: Launceston Street													
Lane 1	274	2.1	432	0.633	100	42.2	LOS C	12.6	89.6	Full	95	0.0	0.8 ⁸
Lane 2	277	2.1	437	0.633	100	41.2	LOS C	12.7	90.6	Short	65	0.0	NA
Approach	551	2.1		0.633		41.7	LOS C	12.7	90.6				
Intersection	2662	5.0		0.633		36.7	LOS C	14.4	101.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Site: TCS 340 [2030 Dev - AM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 78 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

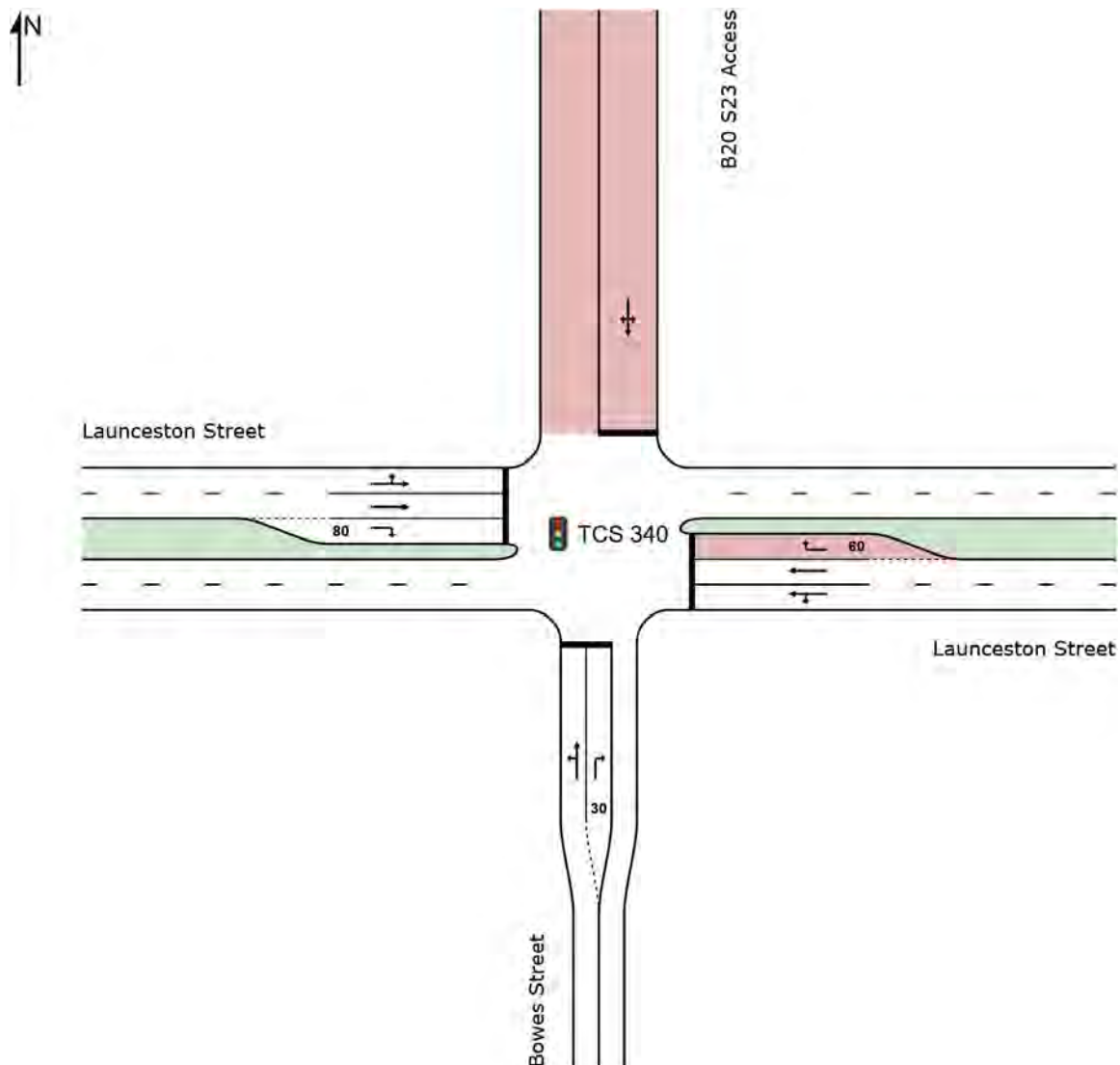
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

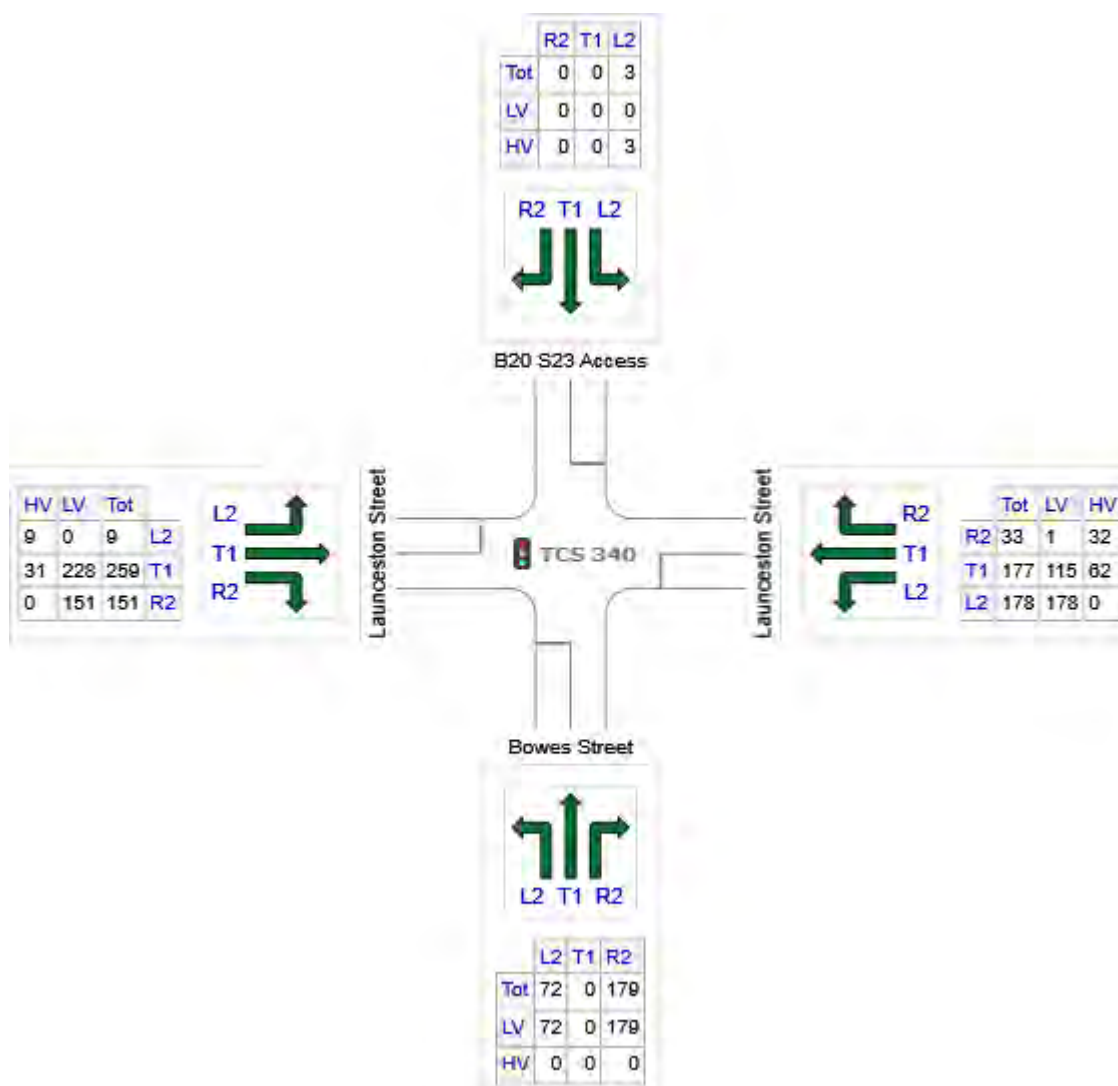
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



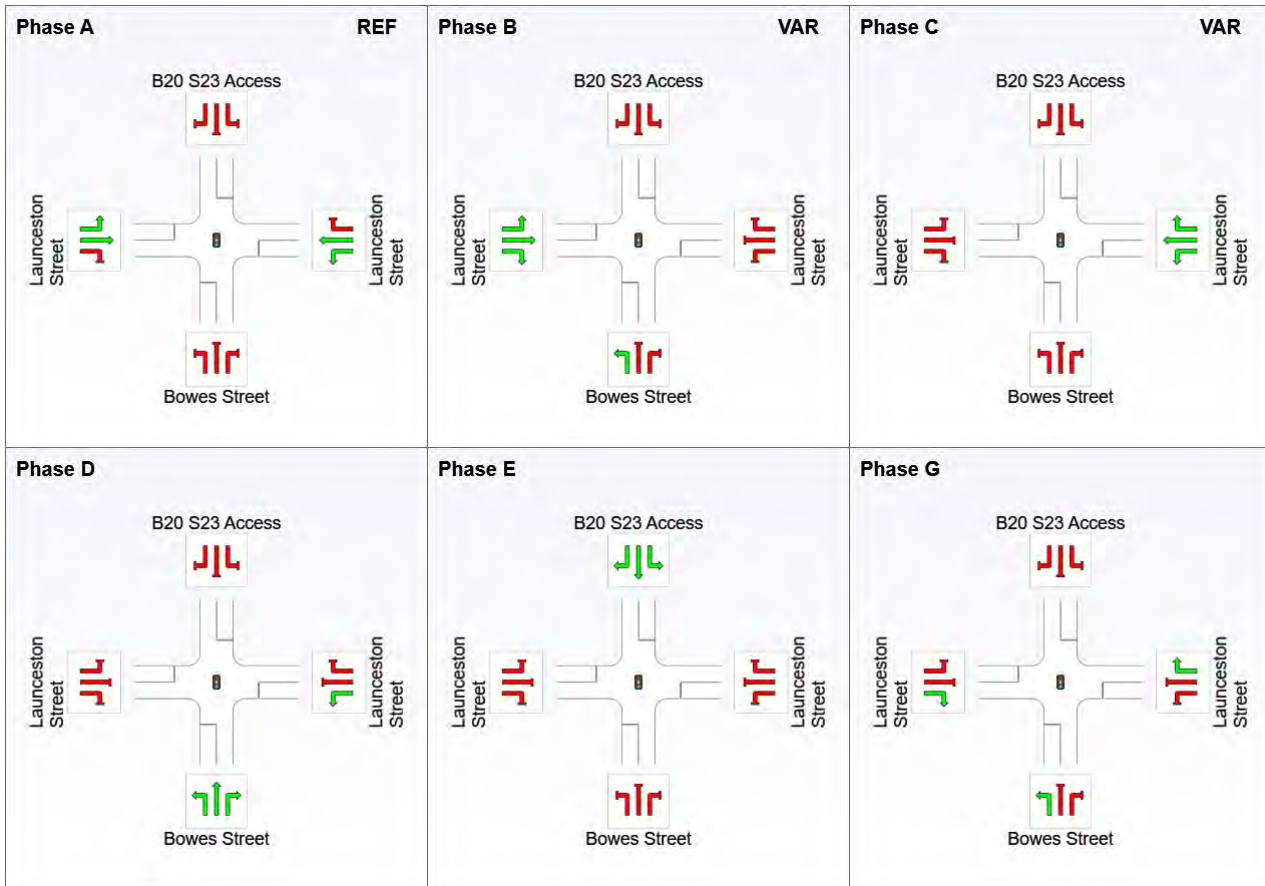
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	251	251	0
E: Launceston Street	387	294	94
N: B20 S23 Access	3	0	3
W: Launceston Street	419	379	40
Total	1060	923	137

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	20	32	53	65
Green Time (sec)	14	6	15	6	7
Phase Time (sec)	20	12	21	12	13
Phase Split	26%	15%	27%	15%	17%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	72	0.0	0.086	10.2	LOS A	0.9	6.4	0.60	0.67	0.60	25.7
2	T1	0	0.0	0.086	10.6	LOS A	0.9	6.4	0.60	0.67	0.60	15.1
3	R2	179	0.0	0.501	34.6	LOS C	6.3	44.1	0.94	0.80	0.94	11.3
Approach		251	0.0	0.501	27.6	LOS B	6.3	44.1	0.84	0.76	0.84	13.6
East: Launceston Street												
4	L2	178	0.0	0.465	20.8	LOS B	5.0	37.4	0.88	0.78	0.88	17.0
5	T1	177	35.1	0.465	28.0	LOS B	5.0	37.4	0.93	0.76	0.93	18.6
6	R2	33	96.8	0.331	45.9	LOS D	1.3	16.5	0.97	0.73	0.97	9.0
Approach		387	24.2	0.465	26.2	LOS B	5.0	43.0	0.91	0.77	0.91	16.8
North: B20 S23 Access												
7	L2	3	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	8.9
8	T1	0	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	5.7
9	R2	0	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	9.4
Approach		3	100.0	0.037	38.6	LOS C	0.1	1.7	0.95	0.61	0.95	8.8
West: Launceston Street												
10	L2	9	100.0	0.200	25.9	LOS B	3.6	28.9	0.75	0.63	0.75	16.6
11	T1	259	11.8	0.200	20.1	LOS B	3.7	28.9	0.75	0.62	0.75	23.6
12	R2	151	0.0	0.427	23.1	LOS B	3.3	23.1	0.94	0.78	0.94	16.2
Approach		419	9.5	0.427	21.4	LOS B	3.7	28.9	0.82	0.67	0.82	20.7
All Vehicles		1060	12.9	0.501	24.6	LOS B	6.3	44.1	0.86	0.73	0.86	17.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	72	0.0	831	0.086	100	10.2	LOS A	0.9	6.4	Full	35	0.0	26.0 ⁸
Lane 2	179	0.0	357	0.501	100	34.6	LOS C	6.3	44.1	Short	30	0.0	NA
Approach	251	0.0		0.501		27.6	LOS B	6.3	44.1				
East: Launceston Street													
Lane 1	222	7.0	478	0.465	100	19.7	LOS B	5.0	37.4	Full	95	0.0	0.0
Lane 2	132	35.1	285	0.465	100	32.2	LOS C	4.7	43.0	Full	95	0.0	0.0
Lane 3	33	96.8	99	0.331	100	45.9	LOS D	1.3	16.5	Short	60	0.0	NA
Approach	387	24.2		0.465		26.2	LOS B	5.0	43.0				
North: B20 S23 Access													
Lane 1	3	100.0	91	0.037	100	38.6	LOS C	0.1	1.7	Full	30	0.0	0.0
Approach	3	100.0		0.037		38.6	LOS C	0.1	1.7				
West: Launceston Street													
Lane 1	131	18.2	656	0.200	100	20.9	LOS B	3.6	28.9	Full	105	0.0	0.0
Lane 2	137	11.8	688	0.200	100	20.0	LOS B	3.7	28.9	Full	105	0.0	0.0
Lane 3	151	0.0	353	0.427	100	23.1	LOS B	3.3	23.1	Short	80	0.0	NA
Approach	419	9.5		0.427		21.4	LOS B	3.7	28.9				
Intersection	1060	12.9		0.501		24.6	LOS B	6.3	44.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▽ Site: [2030 Dev - AM: BS-WS]

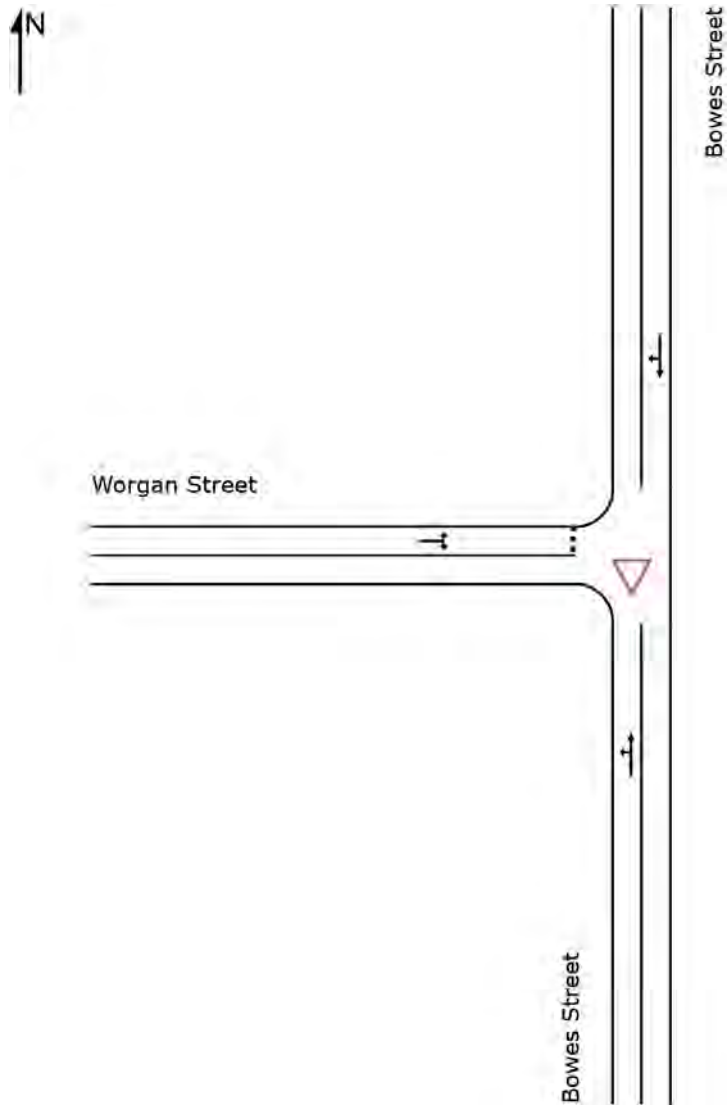
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

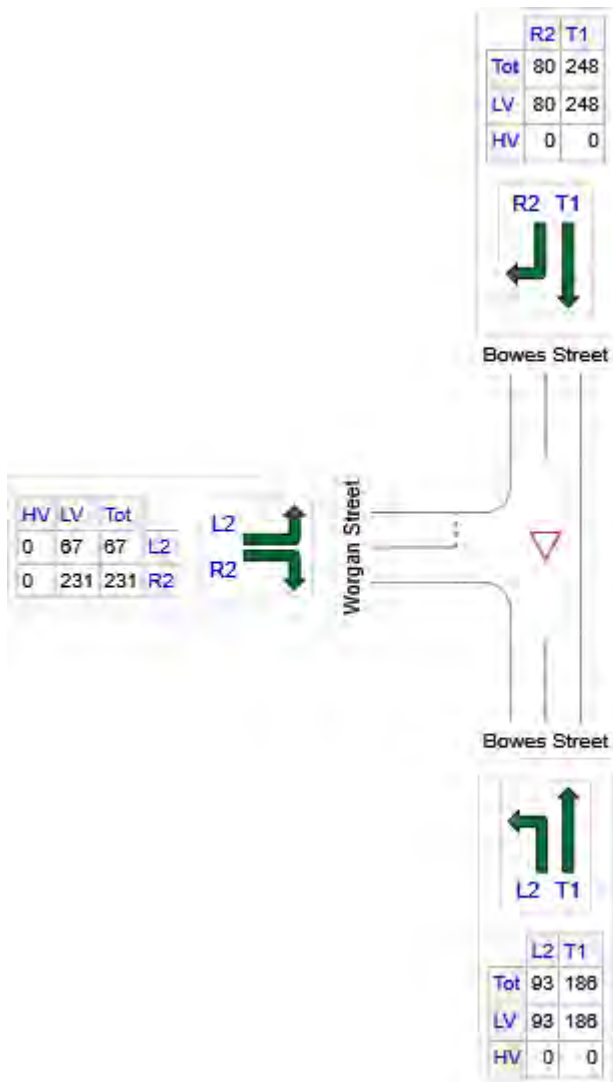
Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	279	279	0
N: Bowes Street	328	328	0
W: Worgan Street	298	298	0
Total	905	905	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	93	0.0	0.145	4.6	LOS A	0.0	0.0	0.00	0.18	0.00	32.9
2	T1	186	0.0	0.145	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	43.9
Approach		279	0.0	0.145	1.5	NA	0.0	0.0	0.00	0.18	0.00	39.5
North: Bowes Street												
8	T1	248	0.0	0.187	0.4	LOS A	0.5	3.8	0.16	0.14	0.16	44.4
9	R2	80	0.0	0.187	4.2	LOS A	0.5	3.8	0.16	0.14	0.16	17.3
Approach		328	0.0	0.187	1.3	NA	0.5	3.8	0.16	0.14	0.16	36.2
West: Worgan Street												
10	L2	67	0.0	0.337	4.2	LOS A	1.6	11.0	0.46	0.72	0.51	18.7
12	R2	231	0.0	0.337	6.3	LOS A	1.6	11.0	0.46	0.72	0.51	30.0
Approach		298	0.0	0.337	5.8	LOS A	1.6	11.0	0.46	0.72	0.51	27.7
All Vehicles		905	0.0	0.337	2.9	NA	1.6	11.0	0.21	0.34	0.23	33.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	279	0.0	1918	0.145	100	1.5	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	279	0.0		0.145		1.5	NA	0.0	0.0				
North: Bowes Street													
Lane 1	328	0.0	1761	0.187	100	1.3	LOS A	0.5	3.8	Full	35	0.0	0.0
Approach	328	0.0		0.187		1.3	NA	0.5	3.8				
West: Worgan Street													
Lane 1	298	0.0	883	0.337	100	5.8	LOS A	1.6	11.0	Full	35	0.0	0.0
Approach	298	0.0		0.337		5.8	LOS A	1.6	11.0				
Intersection	905	0.0		0.337		2.9	NA	1.6	11.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2030 Dev - AM: AS-BS-MS]

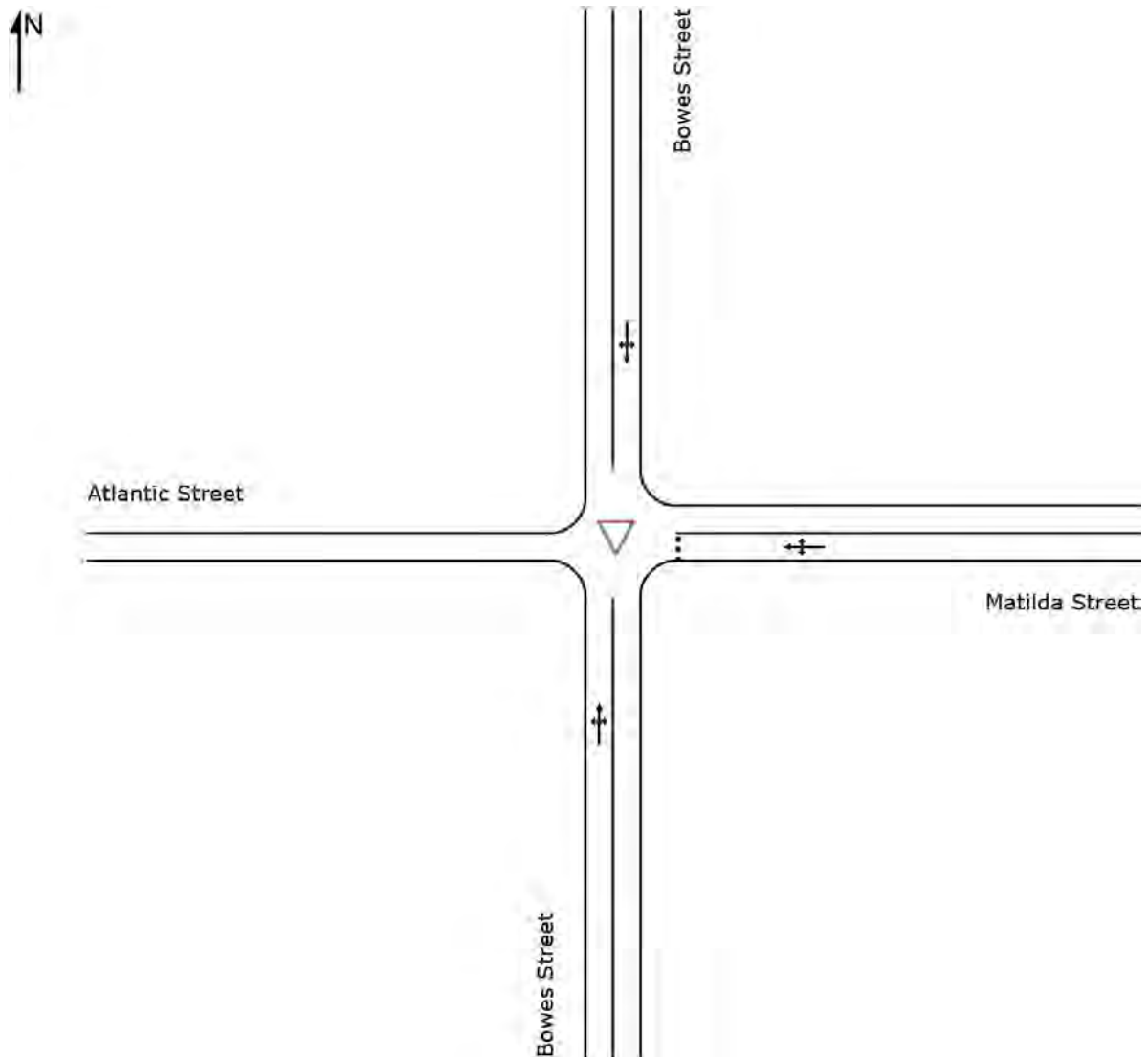
Atlantic Street / Bowes Street / Matilda Street

Existing Priority-Controlled (Give-Way) T-Intersection

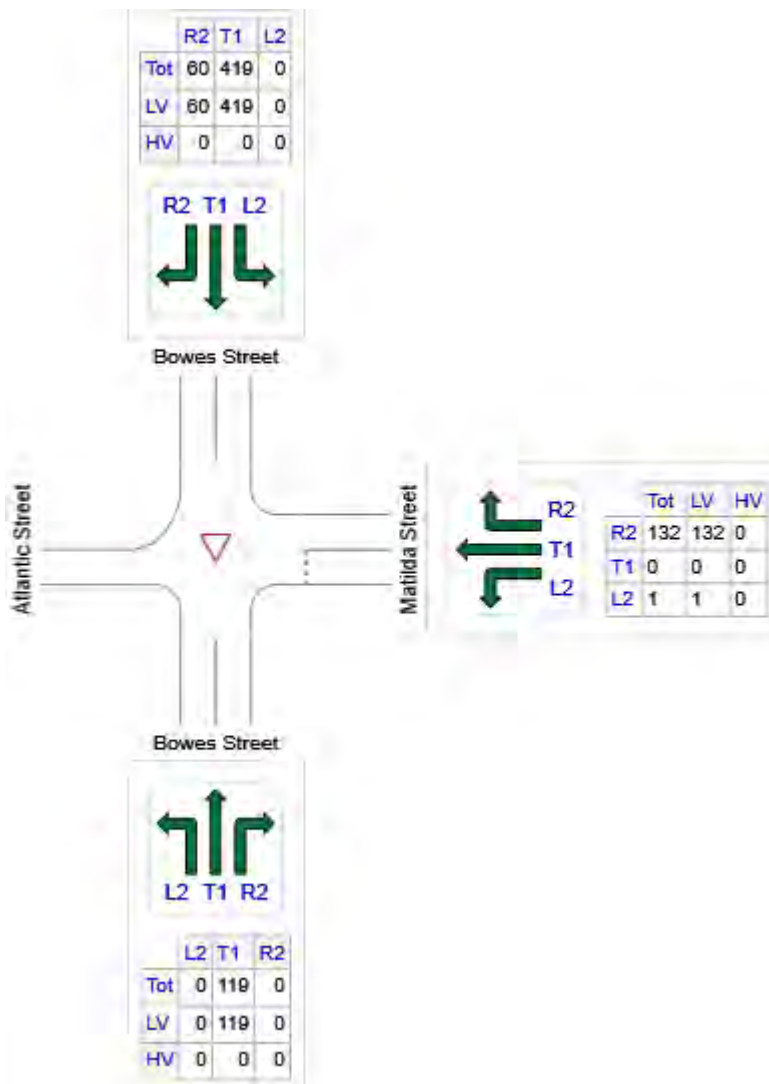
Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	119	119	0
E: Matilda Street	133	133	0
N: Bowes Street	479	479	0
Total	731	731	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.061	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	119	0.0	0.061	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.061	5.2	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		119	0.0	0.061	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	1	0.0	0.238	6.4	LOS A	0.9	6.0	0.57	0.82	0.61	23.3
5	T1	0	0.0	0.238	7.8	LOS A	0.9	6.0	0.57	0.82	0.61	20.2
6	R2	132	0.0	0.238	9.4	LOS A	0.9	6.0	0.57	0.82	0.61	28.6
Approach		133	0.0	0.238	9.4	LOS A	0.9	6.0	0.57	0.82	0.61	28.6
North: Bowes Street												
7	L2	0	0.0	0.253	5.0	LOS A	0.5	3.3	0.08	0.08	0.08	44.9
8	T1	419	0.0	0.253	0.1	LOS A	0.5	3.3	0.08	0.08	0.08	46.4
9	R2	60	0.0	0.253	5.3	LOS A	0.5	3.3	0.08	0.08	0.08	28.8
Approach		479	0.0	0.253	0.7	NA	0.5	3.3	0.08	0.08	0.08	41.8
All Vehicles		731	0.0	0.253	2.2	NA	0.9	6.0	0.15	0.20	0.16	39.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	119	0.0	1949	0.061	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	119	0.0		0.061		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	133	0.0	557	0.238	100	9.4	LOS A	0.9	6.0	Full	80	0.0	0.0
Approach	133	0.0		0.238		9.4	LOS A	0.9	6.0				
North: Bowes Street													
Lane 1	479	0.0	1892	0.253	100	0.7	LOS A	0.5	3.3	Full	110	0.0	0.0
Approach	479	0.0		0.253		0.7	NA	0.5	3.3				
Intersection	731	0.0		0.253		2.2	NA	0.9	6.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - AM: BS-EWL]

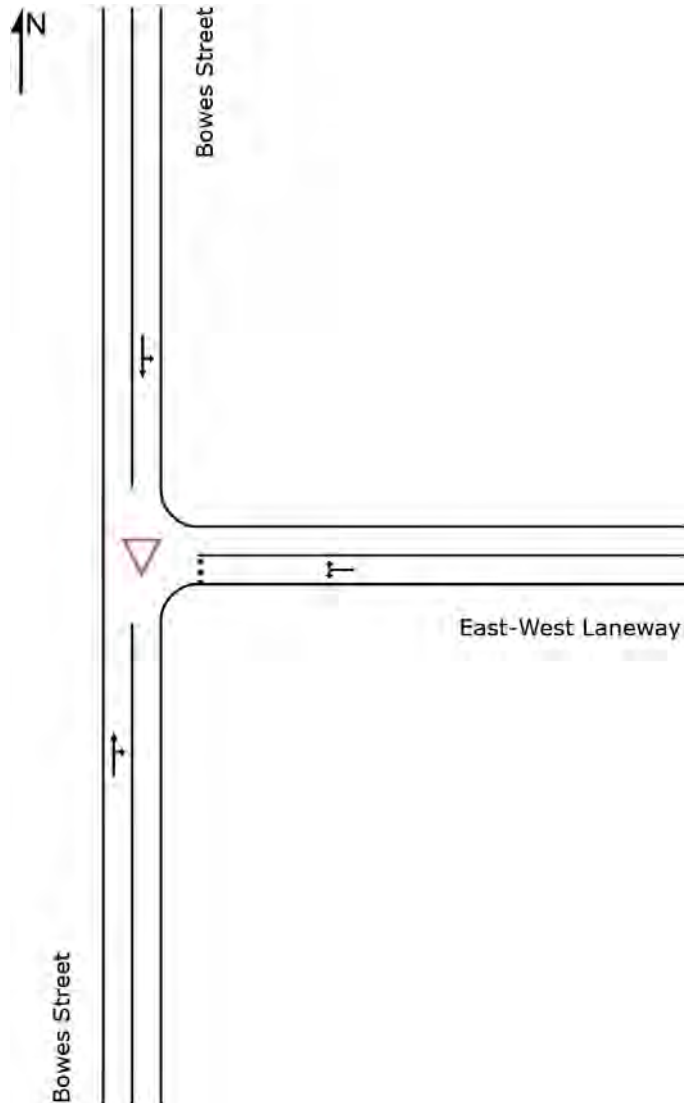
Bowes Street / East-West Laneway

Proposed Priority-Controlled (Give-Way) T-Intersection

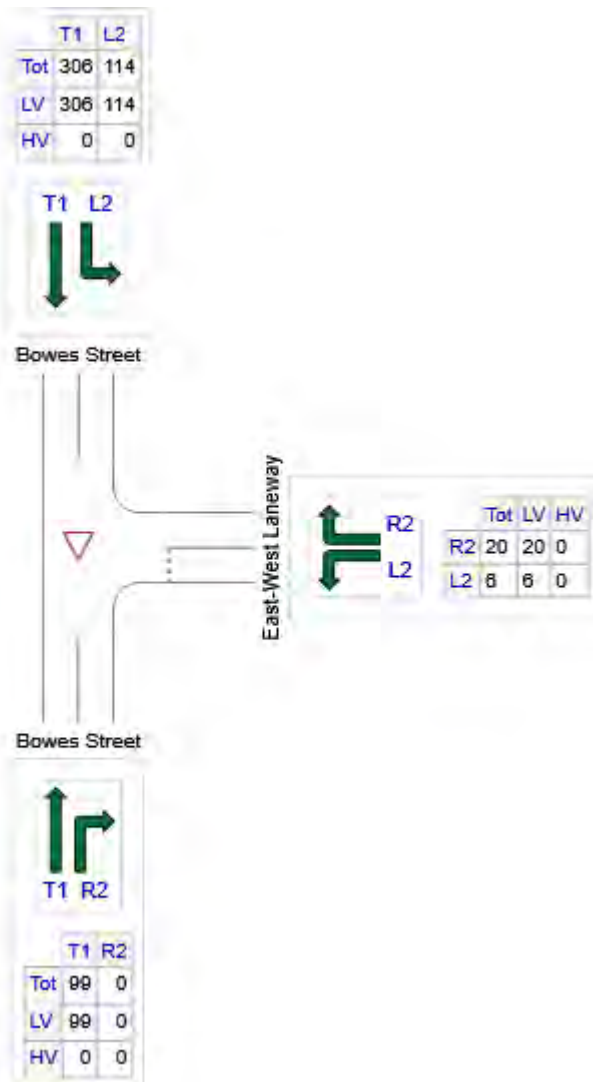
Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	99	99	0
E: East-West Laneway	26	26	0
N: Bowes Street	420	420	0
Total	545	545	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	99	0.0	0.051	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	0	0.0	0.051	5.9	LOS A	0.0	0.0	0.00	0.00	0.00	41.7
Approach		99	0.0	0.051	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: East-West Laneway												
4	L2	6	0.0	0.029	1.0	LOS A	0.1	0.7	0.40	0.35	0.40	23.1
6	R2	20	0.0	0.029	2.5	LOS A	0.1	0.7	0.40	0.35	0.40	22.7
Approach		26	0.0	0.029	2.1	LOS A	0.1	0.7	0.40	0.35	0.40	22.8
North: Bowes Street												
7	L2	114	0.0	0.218	4.3	LOS A	0.0	0.0	0.00	0.15	0.00	25.4
8	T1	306	0.0	0.218	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	44.5
Approach		420	0.0	0.218	1.2	NA	0.0	0.0	0.00	0.15	0.00	38.1
All Vehicles		545	0.0	0.218	1.0	NA	0.1	0.7	0.02	0.13	0.02	38.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	99	0.0	1949	0.051	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	99	0.0		0.051		0.0	NA	0.0	0.0				
East: East-West Laneway													
Lane 1	26	0.0	902	0.029	100	2.1	LOS A	0.1	0.7	Full	30	0.0	0.0
Approach	26	0.0		0.029		2.1	LOS A	0.1	0.7				
North: Bowes Street													
Lane 1	420	0.0	1924	0.218	100	1.2	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	420	0.0		0.218		1.2	NA	0.0	0.0				
Intersection	545	0.0		0.218		1.0	NA	0.1	0.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

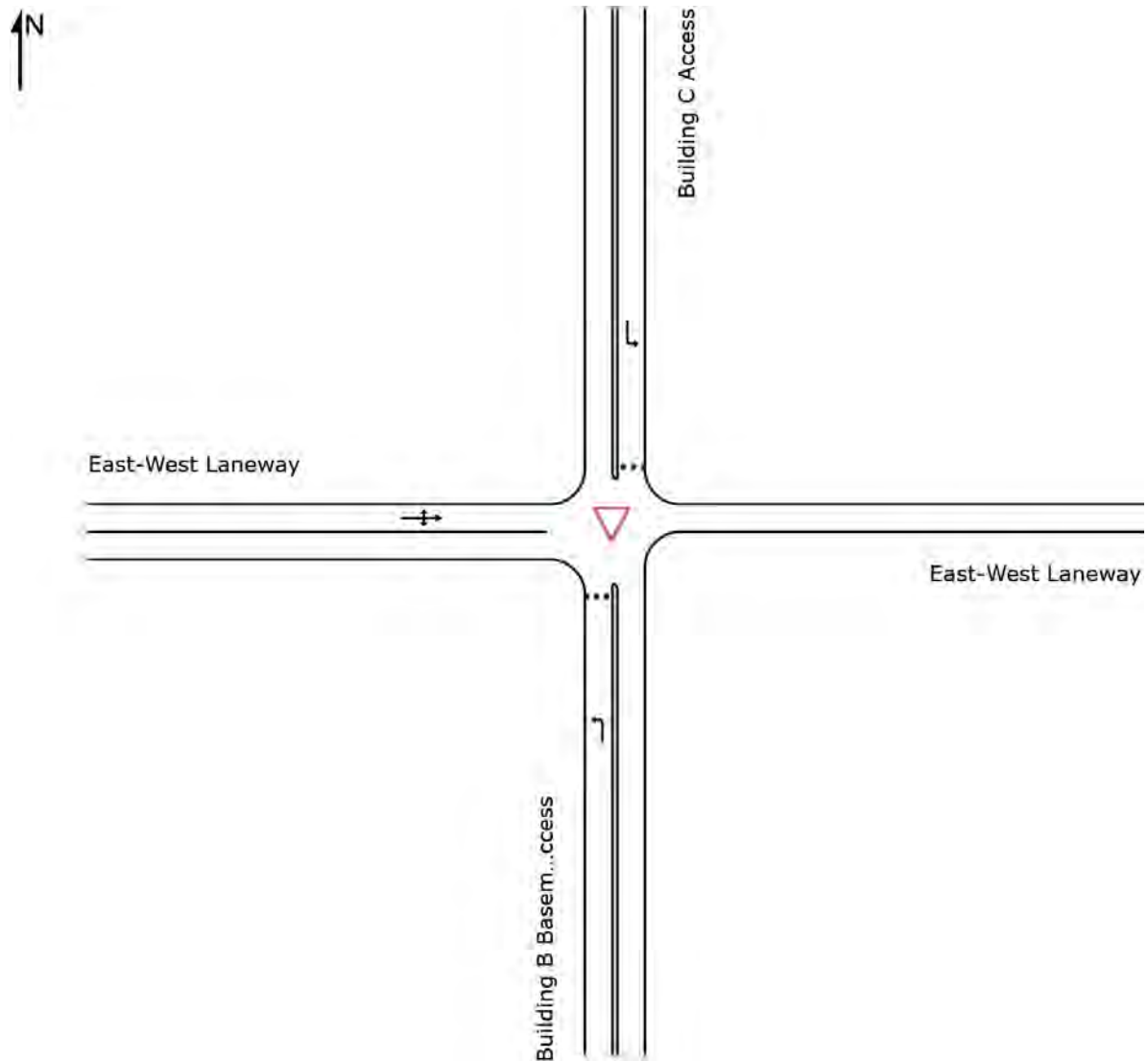
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

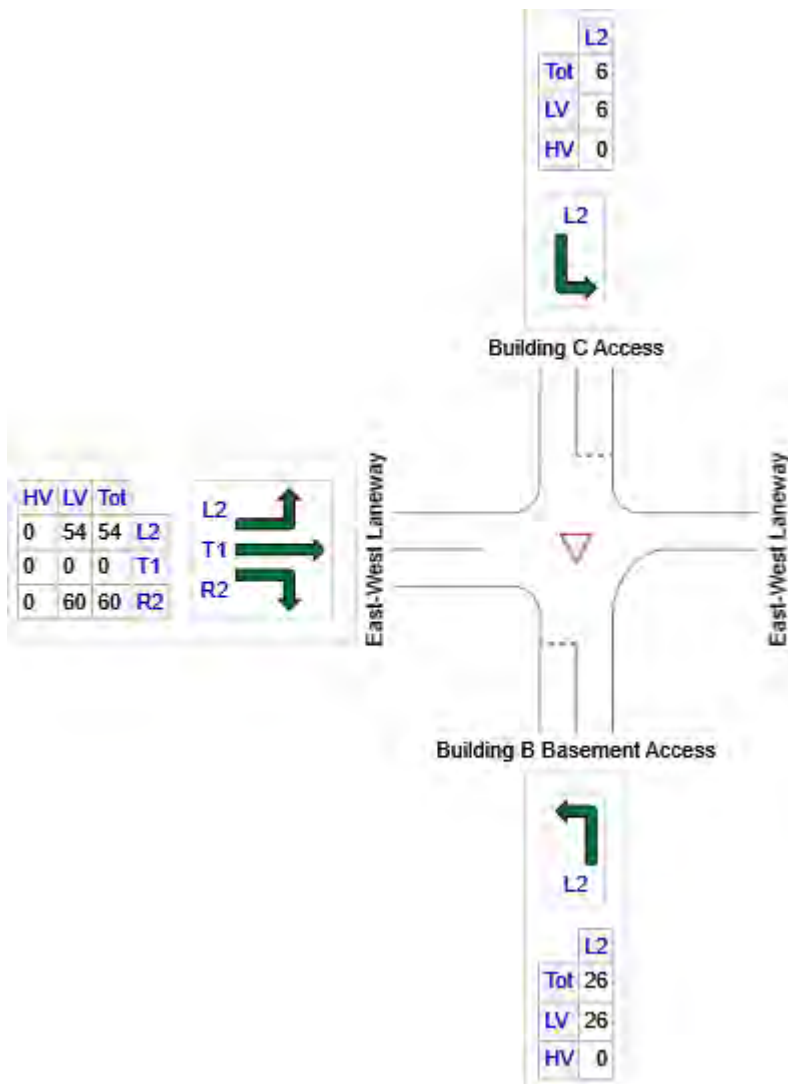
▼ Site: [2030 Dev - AM: BldgBB-BldgC-EWL]

Building B Basement Access / Building C Access / East-West Laneway
Proposed Priority-Controlled (Give-Way) T-Intersection
Site Category: 2030 Development Scenario - Weekday Morning Peak Hour
Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Building B Basement Access	26	26	0
N: Building C Access	6	6	0
W: East-West Laneway	114	114	0
Total	146	146	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Building B Basement Access												
1	L2	26	0.0	0.014	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
Approach		26	0.0	0.014	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
North: Building C Access												
4	L2	6	0.0	0.004	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	26.3
Approach		6	0.0	0.004	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	26.3
West: East-West Laneway												
7	L2	54	0.0	0.061	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	23.1
8	T1	0	0.0	0.061	0.2	LOS A	0.0	0.0	0.00	0.53	0.00	39.0
12	R2	60	0.0	0.061	2.9	LOS A	0.0	0.0	0.00	0.53	0.00	25.6
Approach		114	0.0	0.061	3.0	NA	0.0	0.0	0.00	0.53	0.00	24.3
All Vehicles		146	0.0	0.061	2.7	NA	0.0	0.1	0.00	0.50	0.00	24.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Building B Basement Access													
Lane 1	26	0.0	1857	0.014	100	2.3	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	26	0.0		0.014		2.3	LOS A	0.0	0.0				
North: Building C Access													
Lane 1	6	0.0	1636	0.004	100	0.0	LOS A	0.0	0.1	Full	10	0.0	0.0
Approach	6	0.0		0.004		0.0	LOS A	0.0	0.1				
West: East-West Laneway													
Lane 1	114	0.0	1857	0.061	100	3.0	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	114	0.0		0.061		3.0	NA	0.0	0.0				
Intersection	146	0.0		0.061		2.7	NA	0.0	0.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2030 Dev - AM: BldgBP-BS]

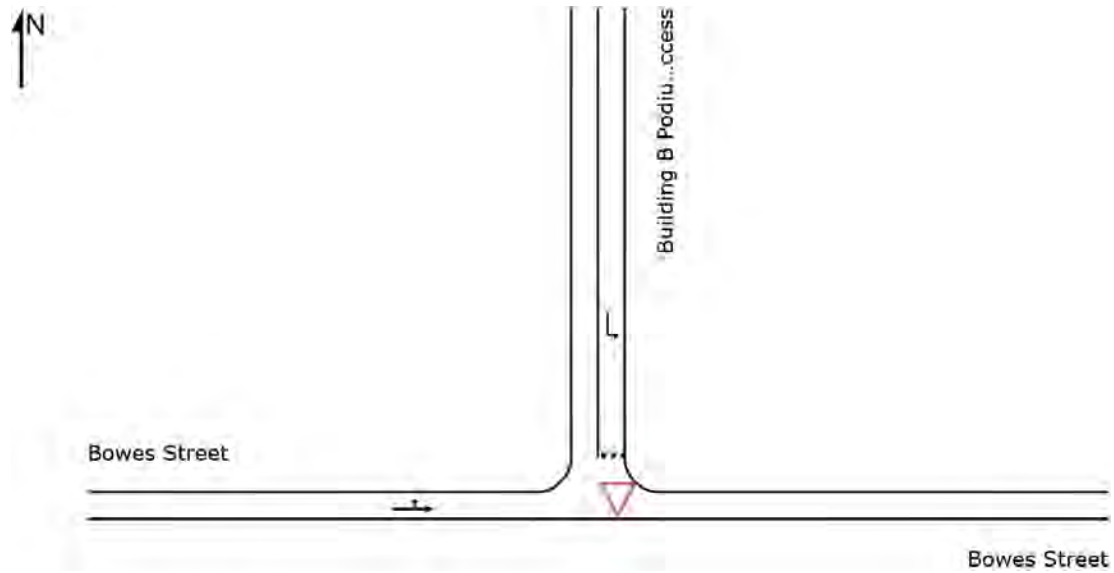
Building B Podium Access / Bowes Street

Proposed Priority-Controlled (Give-Way) T-Intersection

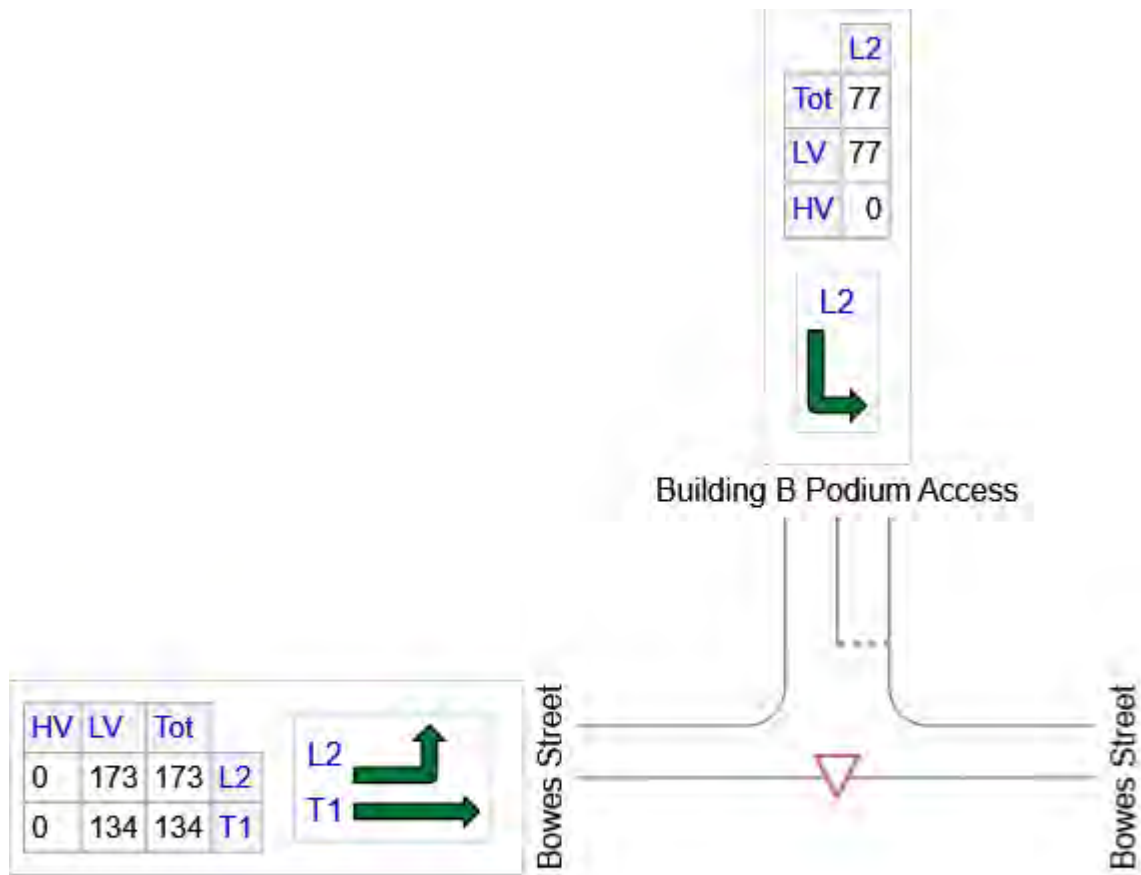
Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
N: Building B Podium Access	77	77	0
W: Bowes Street	306	306	0
Total	383	383	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
North: Building B Podium Access												
4	L2	77	0.0	0.053	0.4	LOS A	0.2	1.5	0.23	0.10	0.23	21.5
Approach		77	0.0	0.053	0.4	LOS A	0.2	1.5	0.23	0.10	0.23	21.5
West: Bowes Street												
7	L2	173	0.0	0.162	3.5	LOS A	0.0	0.0	0.00	0.30	0.00	24.3
8	T1	134	0.0	0.162	0.0	LOS A	0.0	0.0	0.00	0.30	0.00	37.7
Approach		306	0.0	0.162	1.9	NA	0.0	0.0	0.00	0.30	0.00	29.4
All Vehicles		383	0.0	0.162	1.6	NA	0.2	1.5	0.05	0.26	0.05	27.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
North: Building B Podium Access													
Lane 1	77	0.0	1461	0.053	100	0.4	LOS A	0.2	1.5	Full	15	0.0	0.0
Approach	77	0.0		0.053		0.4	LOS A	0.2	1.5				
West: Bowes Street													
Lane 1	306	0.0	1897	0.162	100	1.9	LOS A	0.0	0.0	Full	40	0.0	0.0
Approach	306	0.0		0.162		1.9	NA	0.0	0.0				
Intersection	383	0.0		0.162		1.6	NA	0.2	1.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - AM: BldgA-NSR]

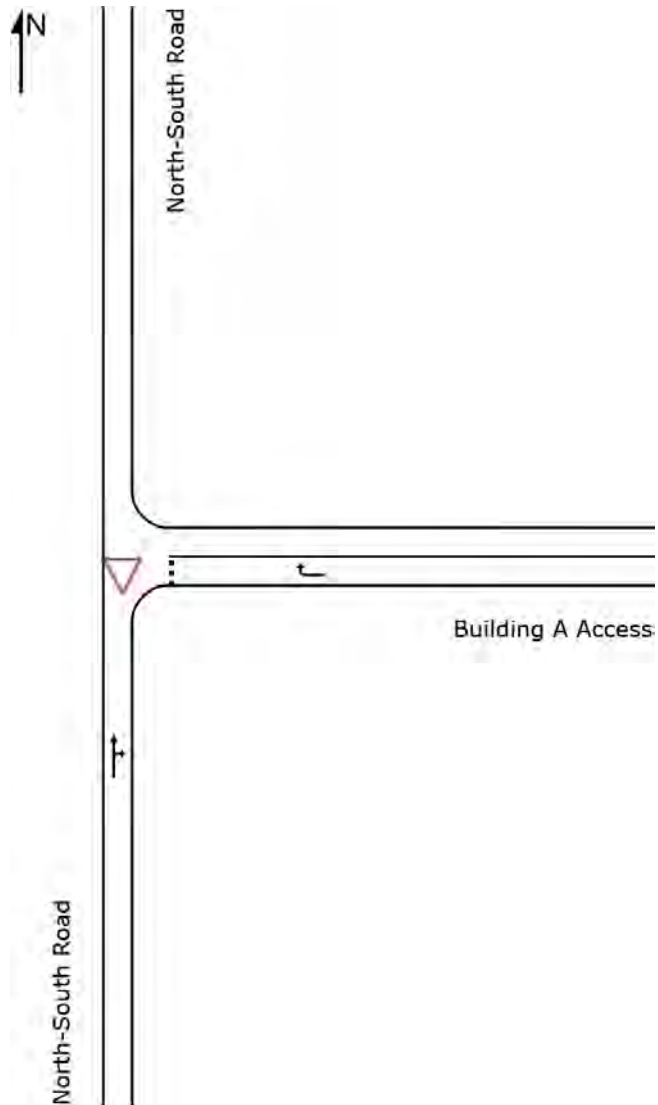
Building A Access / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

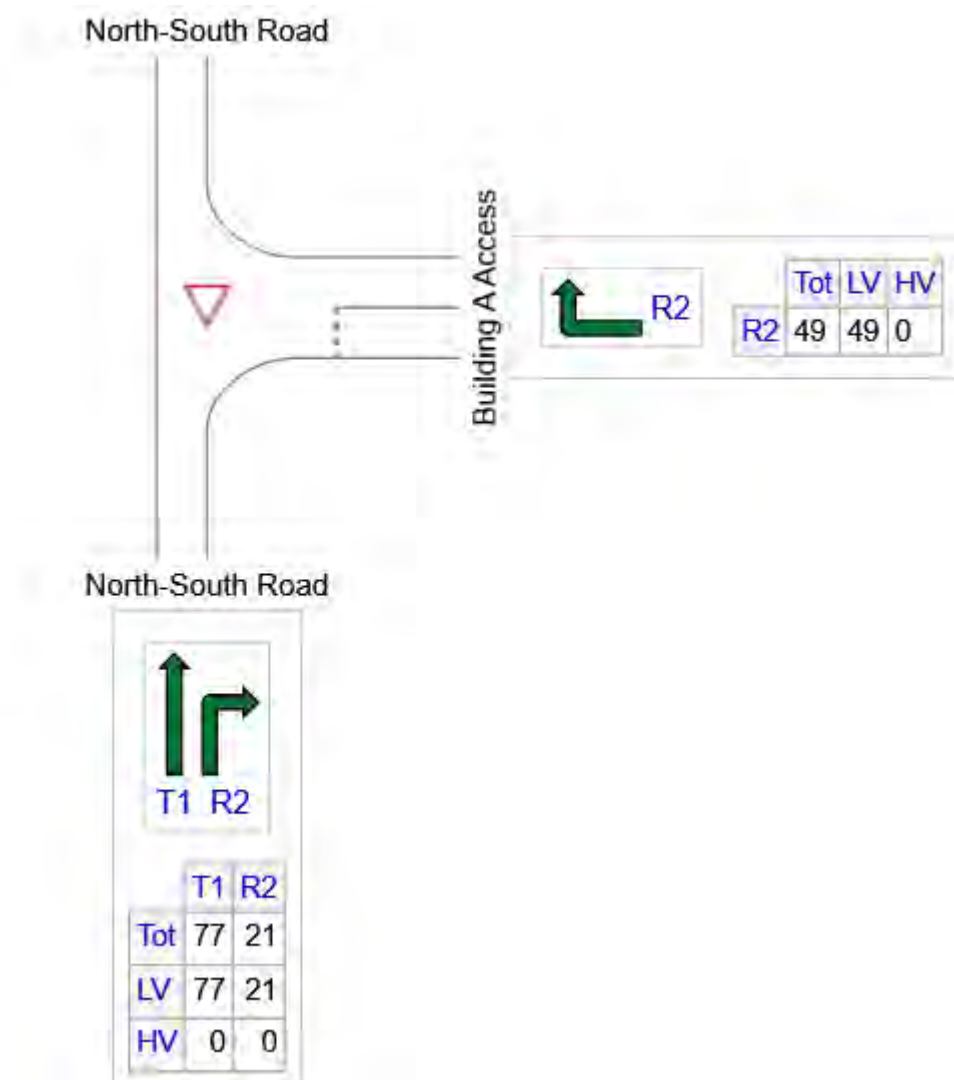
Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	98	98	0
E: Building A Access	49	49	0
Total	147	147	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	77	0.0	0.051	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	44.4
3	R2	21	0.0	0.051	2.1	LOS A	0.0	0.0	0.00	0.12	0.00	28.7
Approach		98	0.0	0.051	0.5	NA	0.0	0.0	0.00	0.12	0.00	40.8
East: Building A Access												
6	R2	49	0.0	0.037	1.2	LOS A	0.1	0.8	0.16	0.25	0.16	19.5
Approach		49	0.0	0.037	1.2	LOS A	0.1	0.8	0.16	0.25	0.16	19.5
All Vehicles		147	0.0	0.051	0.7	NA	0.1	0.8	0.05	0.17	0.05	29.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	98	0.0	1929	0.051	100	0.5	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	98	0.0		0.051		0.5	NA	0.0	0.0				
East: Building A Access													
Lane 1	49	0.0	1340	0.037	100	1.2	LOS A	0.1	0.8	Full	15	0.0	0.0
Approach	49	0.0		0.037		1.2	LOS A	0.1	0.8				
Intersection	147	0.0		0.051		0.7	NA	0.1	0.8				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - AM: EWL-NSR]

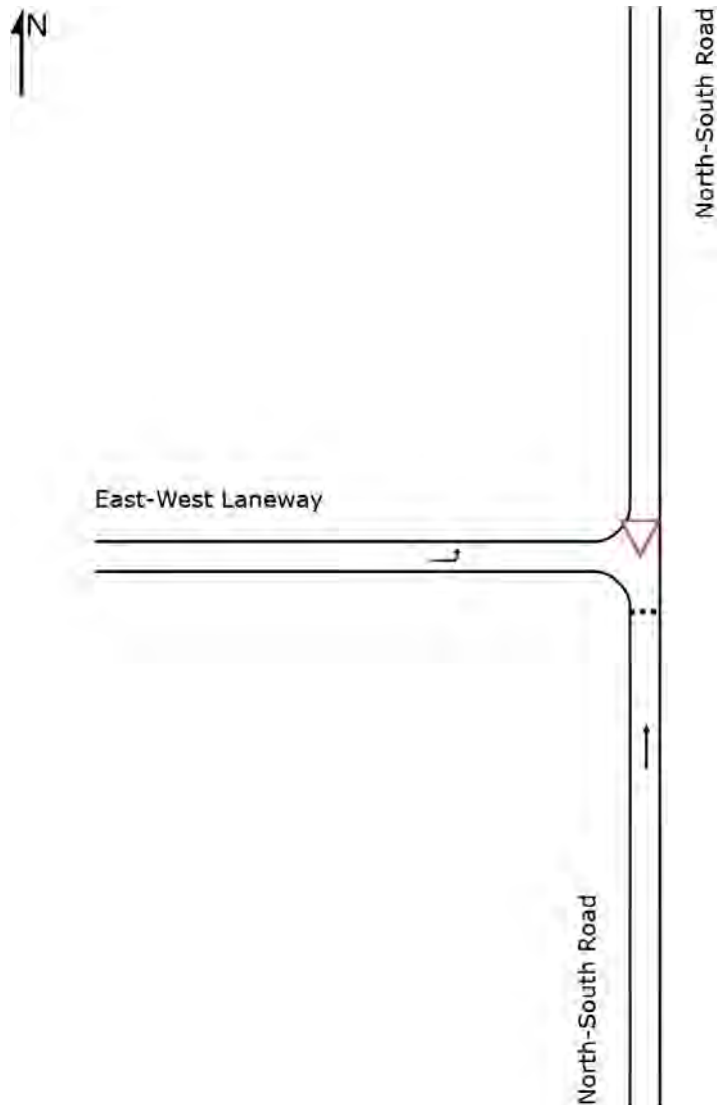
East-West Laneway / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	126	126	0
W: East-West Laneway	6	6	0
Total	133	133	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	126	0.0	0.085	1.9	LOS A	0.3	2.2	0.04	0.46	0.04	37.2
Approach		126	0.0	0.085	1.9	LOS A	0.3	2.2	0.04	0.46	0.04	37.2
West: East-West Laneway												
7	L2	6	0.0	0.003	3.7	LOS A	0.0	0.0	0.00	0.52	0.00	31.5
Approach		6	0.0	0.003	3.7	NA	0.0	0.0	0.00	0.52	0.00	31.5
All Vehicles		133	0.0	0.085	2.0	NA	0.3	2.2	0.03	0.47	0.03	36.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	126	0.0	1493	0.085	100	1.9	LOS A	0.3	2.2	Full	30	0.0	0.0
Approach	126	0.0		0.085		1.9	LOS A	0.3	2.2				
West: East-West Laneway													
Lane 1	6	0.0	1857	0.003	100	3.7	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	6	0.0		0.003		3.7	NA	0.0	0.0				
Intersection	133	0.0		0.085		2.0	NA	0.3	2.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - AM: MS-NSR]

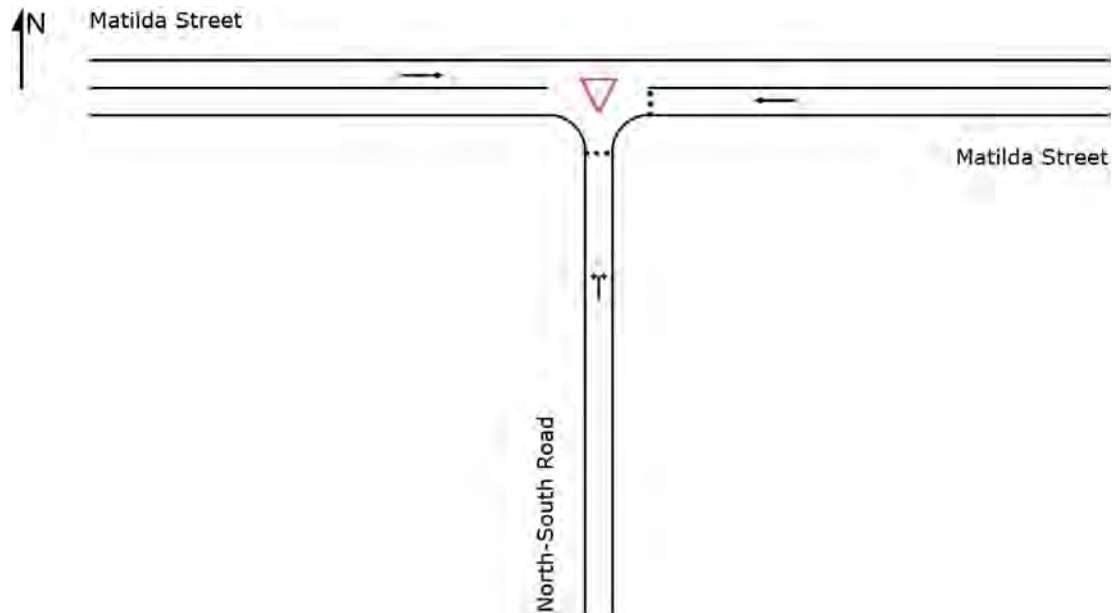
Matilda Street / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

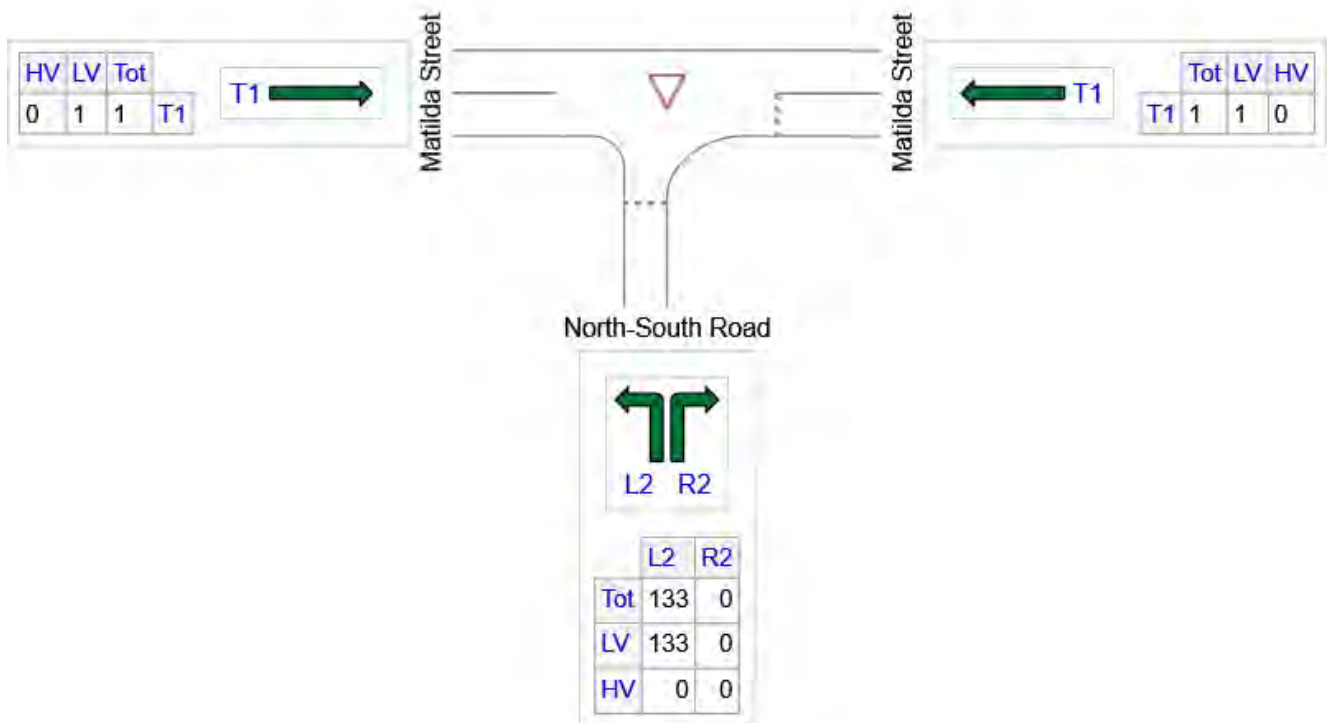
Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	133	133	0
E: Matilda Street	1	1	0
W: Matilda Street	1	1	0
Total	135	135	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
1	L2	133	0.0	0.081	4.7	LOS A	0.3	2.4	0.01	0.56	0.01	35.2
3	R2	0	0.0	0.081	4.9	LOS A	0.3	2.4	0.01	0.56	0.01	29.6
Approach		133	0.0	0.081	4.7	LOS A	0.3	2.4	0.01	0.56	0.01	35.2
East: Matilda Street												
5	T1	1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
Approach		1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
West: Matilda Street												
11	T1	1	0.0	0.001	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		1	0.0	0.001	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		135	0.0	0.081	4.7	NA	0.3	2.4	0.01	0.55	0.01	35.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	133	0.0	1635	0.081	100	4.7	LOS A	0.3	2.4	Full	70	0.0	0.0
Approach	133	0.0		0.081		4.7	LOS A	0.3	2.4				
East: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	1.9	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	1	0.0		0.001		1.9	LOS A	0.0	0.0				
West: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	0.0	LOS A	0.0	0.0	Full	90	0.0	0.0
Approach	1	0.0		0.001		0.0	NA	0.0	0.0				
Intersection	135	0.0		0.081		4.7	NA	0.3	2.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2030 Dev - AM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 66 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

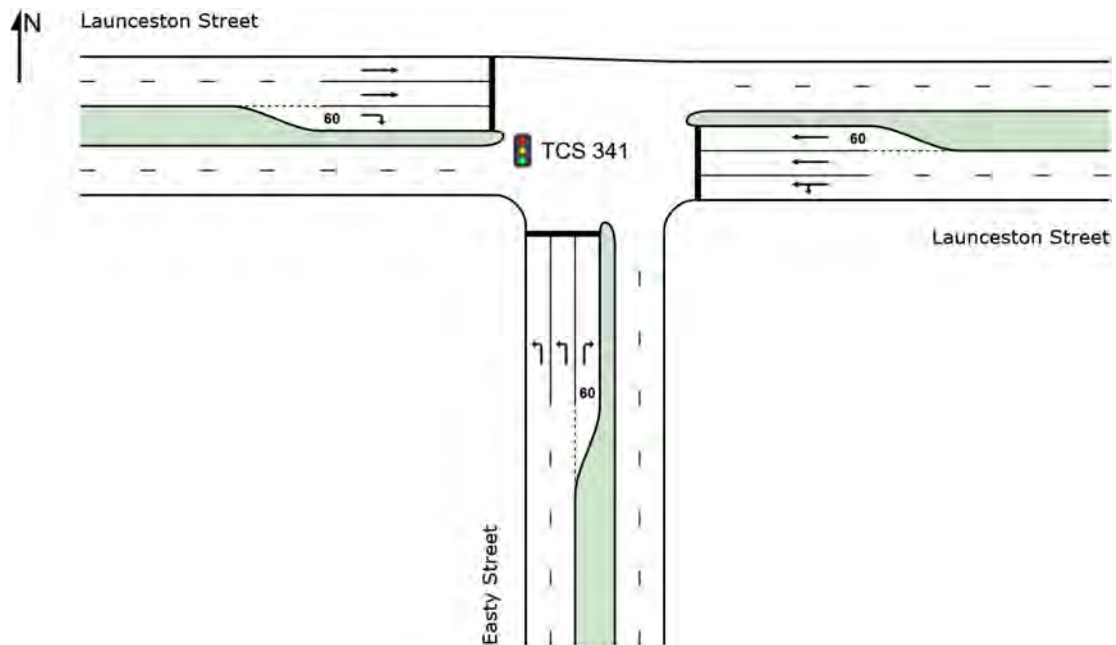
Phase Sequence: SCATS

Reference Phase: Phase A

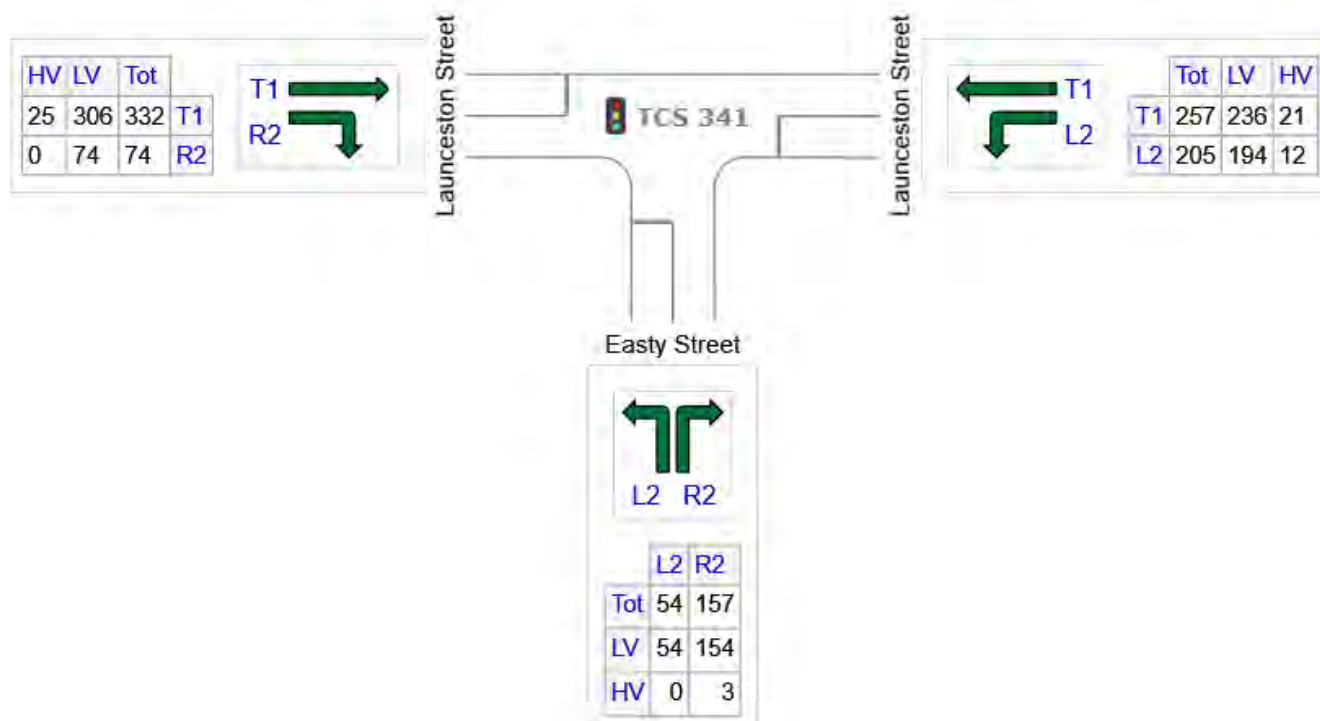
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



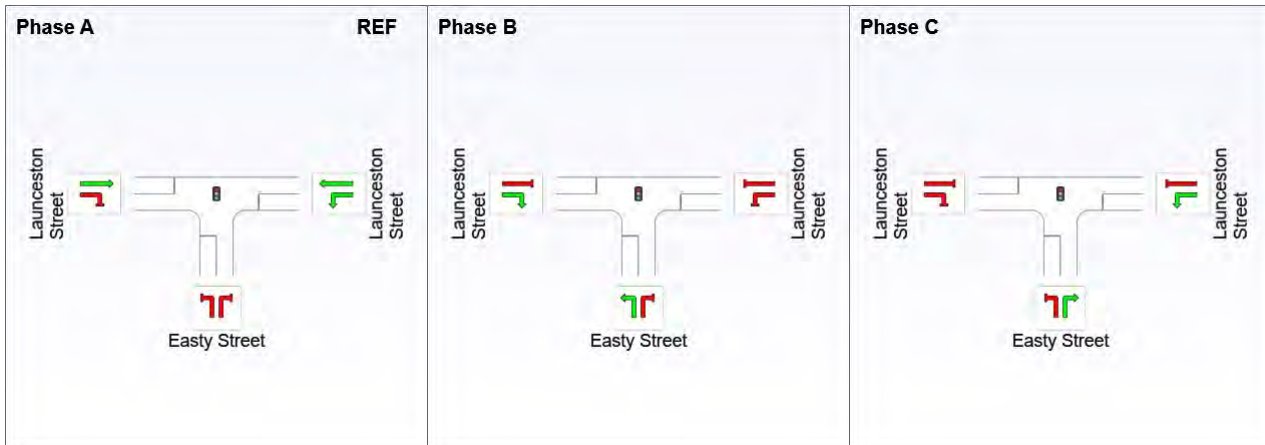
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	211	207	3
E: Launceston Street	462	429	33
W: Launceston Street	405	380	25
Total	1078	1017	61

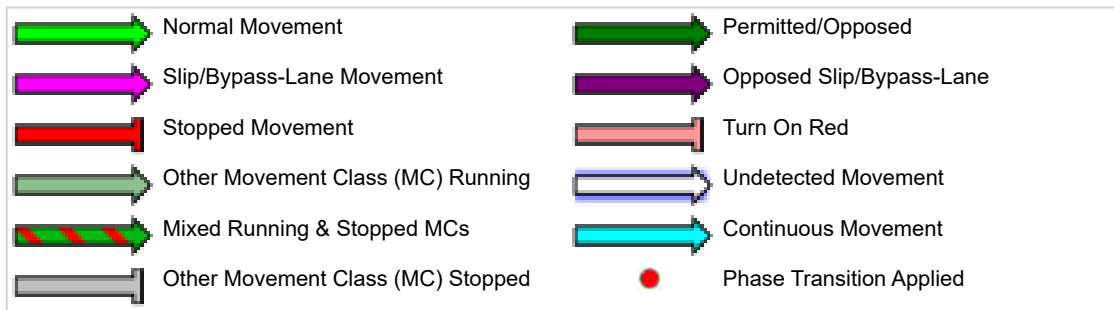
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	41
Green Time (sec)	20	9	19
Phase Time (sec)	26	15	25
Phase Split	39%	23%	38%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	54	0.0	0.106	31.4	LOS C	0.8	5.5	0.91	0.70	0.91	22.6
3	R2	157	2.0	0.298	23.5	LOS B	4.0	28.6	0.82	0.75	0.82	27.9
Approach		211	1.5	0.298	25.5	LOS B	4.0	28.6	0.84	0.73	0.84	26.6
East: Launceston Street												
4	L2	205	5.6	0.169	7.5	LOS A	2.4	17.3	0.38	0.60	0.38	35.2
5	T1	257	8.2	0.229	18.9	LOS B	3.2	23.6	0.79	0.63	0.79	26.5
Approach		462	7.1	0.229	13.8	LOS A	3.2	23.6	0.61	0.62	0.61	30.5
West: Launceston Street												
11	T1	332	7.6	0.294	19.3	LOS B	4.2	31.1	0.81	0.66	0.81	26.2
12	R2	74	0.0	0.291	32.4	LOS C	2.2	15.7	0.94	0.74	0.94	22.5
Approach		405	6.2	0.294	21.7	LOS B	4.2	31.1	0.83	0.67	0.83	25.4
All Vehicles		1078	5.7	0.298	19.1	LOS B	4.2	31.1	0.74	0.66	0.74	27.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	27	0.0	253	0.106	100	31.4	LOS C	0.8	5.5	Full	305	0.0	0.0
Lane 2	27	0.0	253	0.106	100	31.4	LOS C	0.8	5.5	Full	305	0.0	0.0
Lane 3	157	2.0	527	0.298	100	23.5	LOS B	4.0	28.6	Short	60	0.0	NA
Approach	211	1.5		0.298		25.5	LOS B	4.0	28.6				
East: Launceston Street													
Lane 1	205	5.6	1217	0.169	74 ⁵	7.5	LOS A	2.4	17.3	Full	260	0.0	0.0
Lane 2	128	8.2	561	0.229	100	18.9	LOS B	3.2	23.6	Full	260	0.0	0.0
Lane 3	128	8.2	561	0.229	100	18.9	LOS B	3.2	23.6	Short	60	0.0	NA
Approach	462	7.1		0.229		13.8	LOS A	3.2	23.6				
West: Launceston Street													
Lane 1	166	7.6	563	0.294	100	19.3	LOS B	4.2	31.1	Full	130	0.0	0.0
Lane 2	166	7.6	563	0.294	100	19.3	LOS B	4.2	31.1	Full	130	0.0	0.0
Lane 3	74	0.0	253	0.291	100	32.4	LOS C	2.2	15.7	Short	60	0.0	NA
Approach	405	6.2		0.294		21.7	LOS B	4.2	31.1				
Intersection	1078	5.7		0.298		19.1	LOS B	4.2	31.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:30:23 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2030 Dev - AM - LS-YD]

 Network: 9 [2030 Dev - AM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

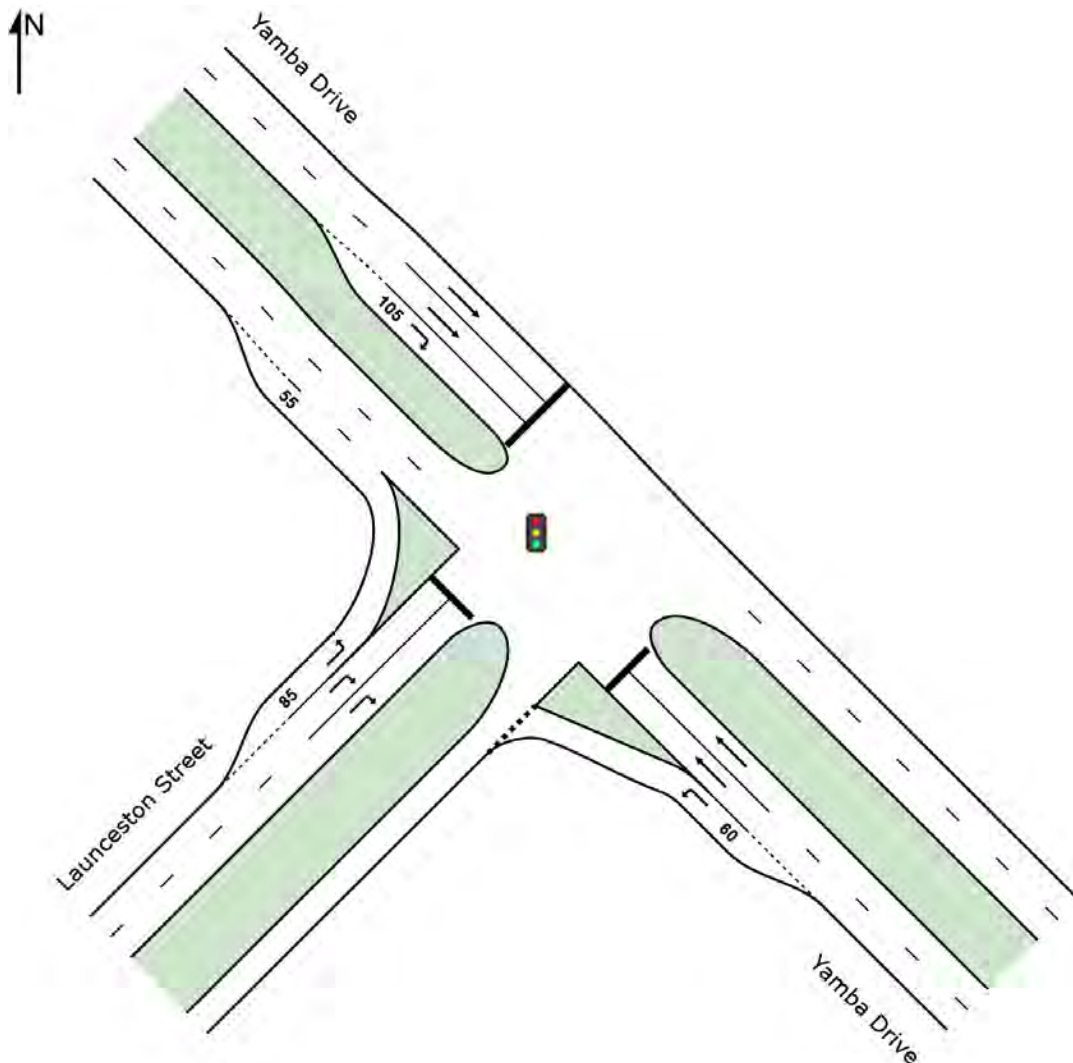
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

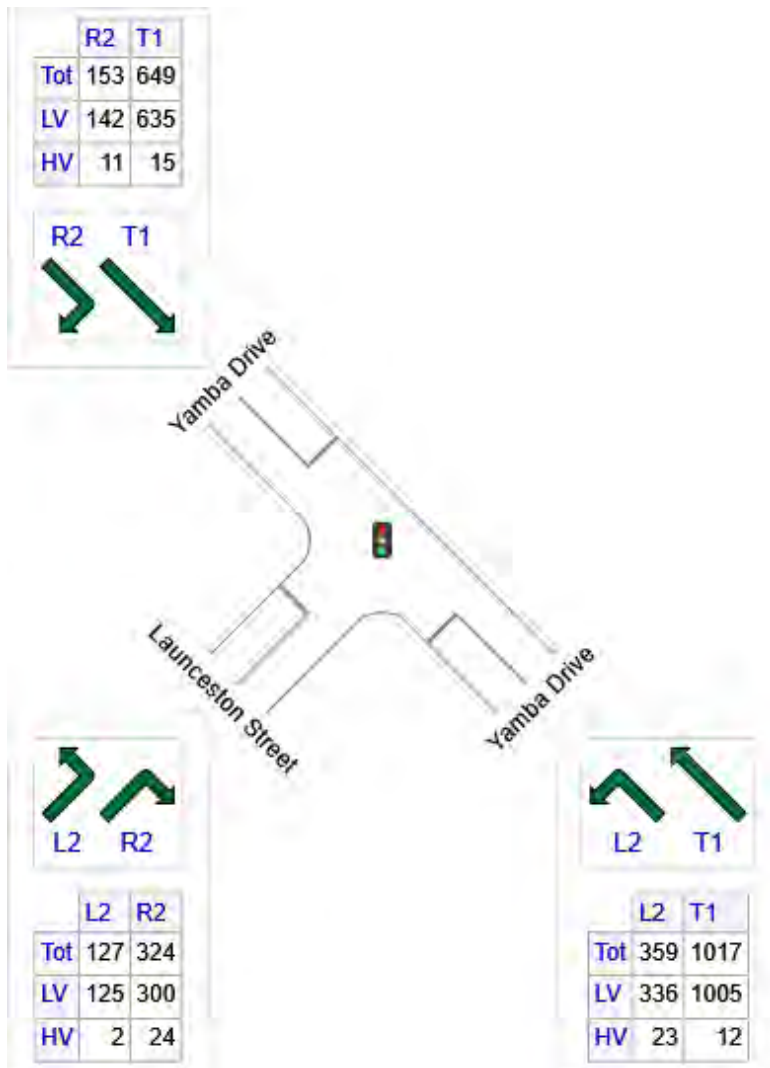
Output Phase Sequence: A, B*, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1376	1341	35
NW: Yamba Drive	802	777	25
SW: Launceston Street	452	425	26
Total	2629	2543	86

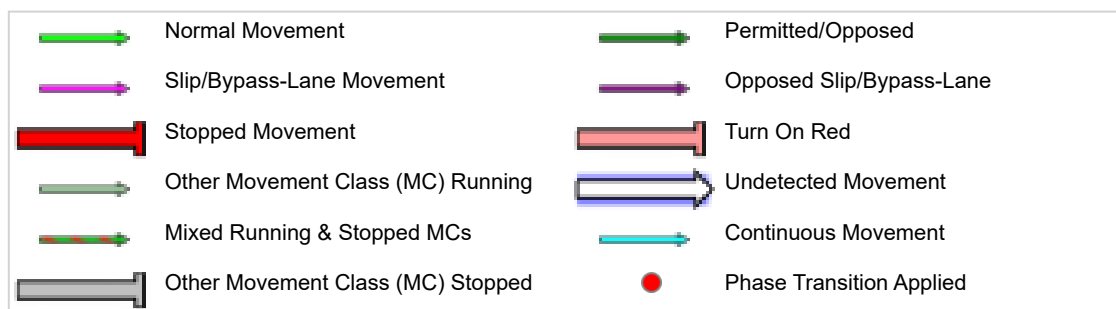
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	B	D	E
Phase Change Time (sec)	0	55	74	107
Green Time (sec)	49	13	27	15
Phase Time (sec)	55	19	33	21
Phase Split	43%	15%	26%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Back of Queue Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
SouthEast: Yamba Drive														
4	L2	359	6.5	359	6.5	0.242	4.8	LOS A	0.5	3.4	0.03	0.58	0.03	40.6
5	T1	1017	1.1	1017	1.1	0.494	7.4	LOS A	11.5	81.6	0.28	0.25	0.28	51.5
Approach		1376	2.5	1376	2.5	0.494	6.7	LOS A	11.5	81.6	0.21	0.34	0.21	47.7
NorthWest: Yamba Drive														
11	T1	649	2.3	649	2.3	0.734	38.4	LOS D	18.1	128.9	0.92	0.83	0.95	17.1
12	R2	153	6.9	153	6.9	0.736	70.1	LOS E	9.8	72.6	1.00	0.85	1.11	17.3
Approach		802	3.1	802	3.1	0.736	44.4	LOS D	18.1	128.9	0.94	0.83	0.98	17.2
SouthWest: Launceston Street														
1	L2	127	1.7	127	1.7	0.069	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	39.5
3	R2	324	7.5	324	7.5	0.725	58.7	LOS E	10.2	75.7	0.99	0.89	1.09	11.9
Approach		452	5.8	452	5.8	0.725	43.0	LOS D	10.2	75.7	0.71	0.74	0.78	16.8
All Vehicles		2629	3.3	2629	3.3	0.736	24.4	LOS C	18.1	128.9	0.52	0.56	0.55	25.8

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand		Arrival		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	359	6.5	359	6.5	1483	0.242	100	4.8	LOS A	0.5	3.4	Short	60	0.0	NA
Lane 2	508	1.1	508	1.1	1028	0.494	100	3.4	LOS A	4.6	32.3	Full	65	0.0	0.0
Lane 3	508	1.1	508	1.1	1028	0.494	100	11.3	LOS B	11.5	81.6	Full	65	0.0	25.7
Approach	1376	2.5	1376	2.5		0.494		6.7	LOS A	11.5	81.6				
NorthWest: Yamba Drive															
Lane 1	325	2.3	325	2.3	442	0.734	100	38.4	LOS D	18.1	128.9	Full	215	-39.9 ^{N3}	0.0
Lane 2	325	2.3	325	2.3	442	0.734	100	38.4	LOS D	18.1	128.9	Full	215	-39.9 ^{N3}	0.0
Lane 3	153	6.9	153	6.9	207	0.736	100	70.1	LOS E	9.8	72.6	Short	105	0.0	NA
Approach	802	3.1	802	3.1		0.736		44.4	LOS D	18.1	128.9				
SouthWest: Launceston Street															
Lane 1	127	1.7	127	1.7	1836	0.069	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	162	7.5	162	7.5	224	0.725	100	58.7	LOS E	10.2	75.7	Full	260	-39.9 ^{N3}	0.0
Lane 3	162	7.5	162	7.5	224	0.725	100	58.7	LOS E	10.2	75.7	Full	260	-39.9 ^{N3}	0.0
Approach	452	5.8	452	5.8		0.725		43.0	LOS D	10.2	75.7				
Intersection	2629	3.3	2629	3.3		0.736		24.4	LOS C	18.1	128.9				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2030 Dev - AM - WS-YD]**

Network: 9 [2030 Dev - AM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2030 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

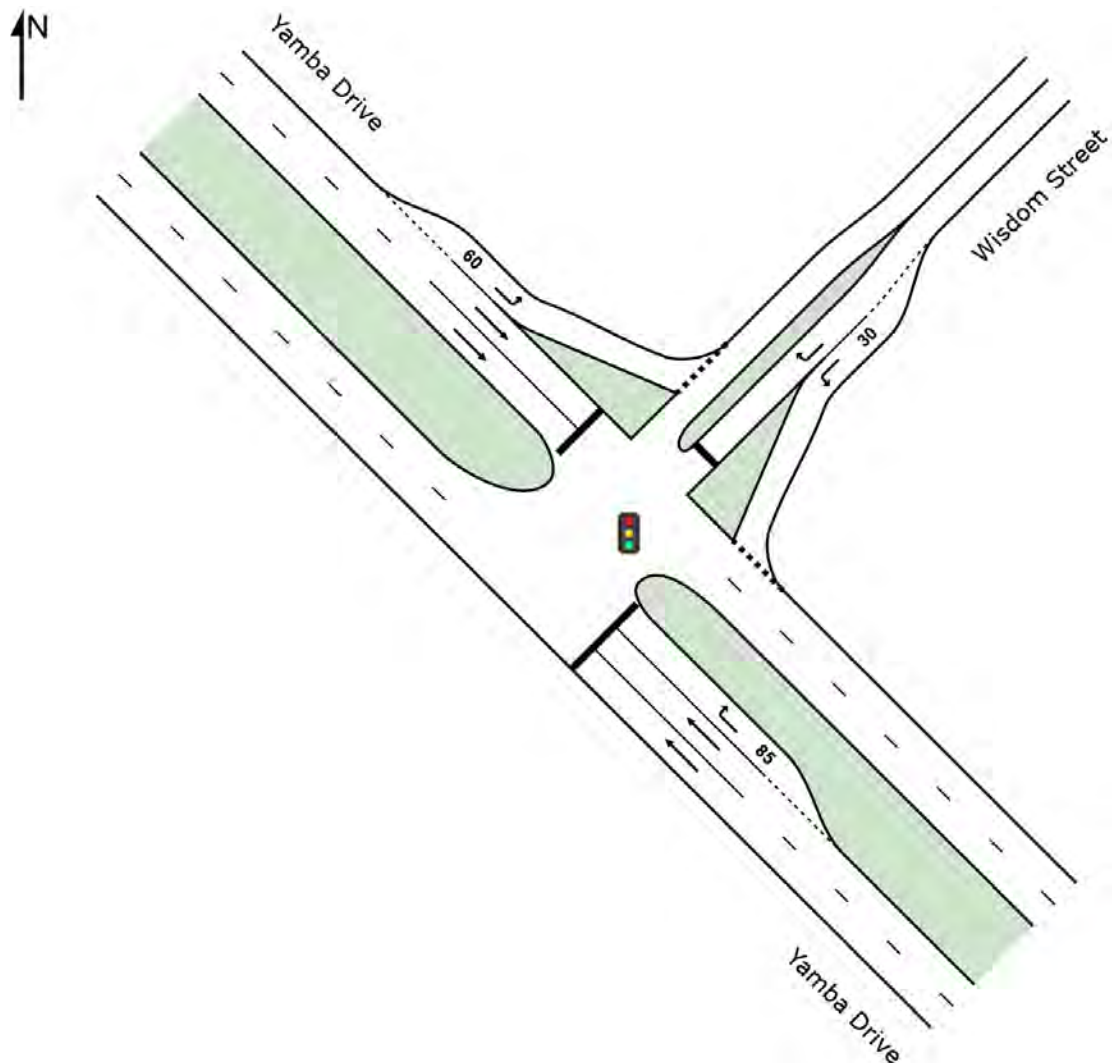
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, B*, D, E

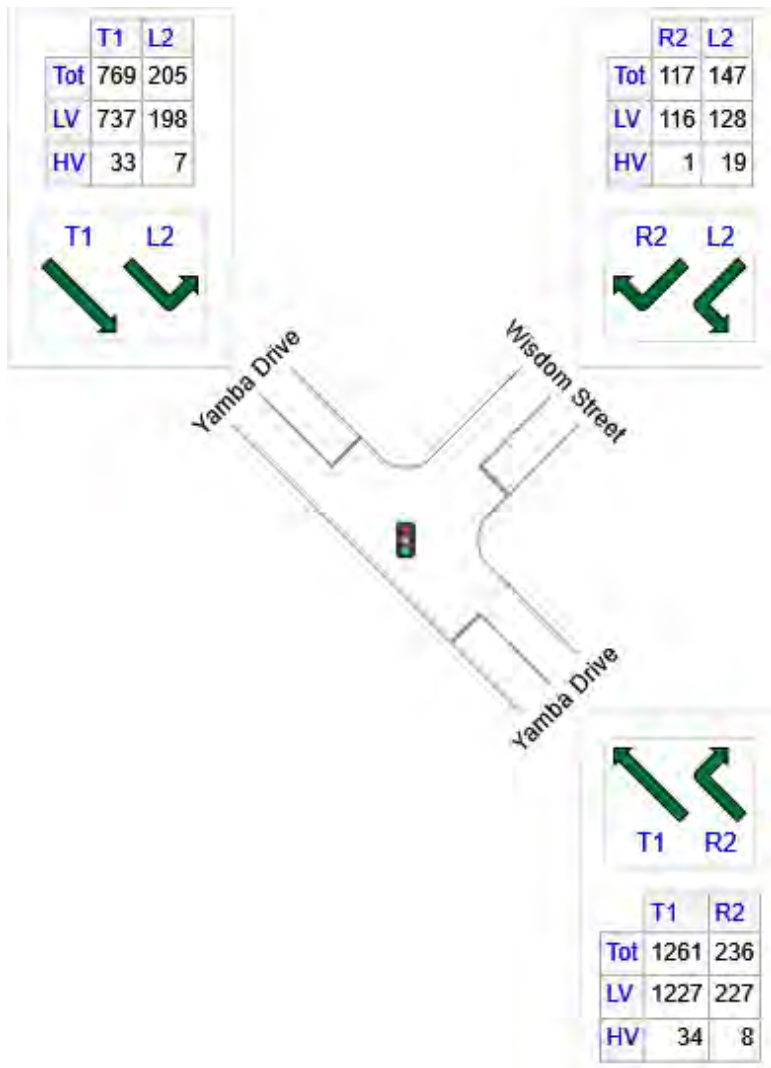
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1497	1455	42
NE: Wisdom Street	264	244	20
NW: Yamba Drive	975	935	40
Total	2736	2634	102

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
SouthEast: Yamba Drive														
11	T1	1261	2.7	1261	2.7	0.742	23.7	LOS C	36.0	257.8	0.80	0.73	0.80	47.0
12	R2	236	3.6	236	3.6	0.595	33.5	LOS C	8.5	61.0	0.95	0.82	0.95	40.2
Approach		1497	2.8	1497	2.8	0.742	25.2	LOS C	36.0	257.8	0.83	0.74	0.83	45.0
NorthEast: Wisdom Street														
1	L2	147	12.9	147	12.9	0.138	5.2	LOS A	1.6	12.6	0.24	0.51	0.24	47.3
3	R2	117	0.9	117	0.9	0.374	50.7	LOS D	6.3	44.8	0.90	0.78	0.90	22.1
Approach		264	7.6	264	7.6	0.374	25.3	LOS C	6.3	44.8	0.53	0.62	0.53	36.0
NorthWest: Yamba Drive														
4	L2	205	3.6	205	3.6	0.147	4.9	LOS A	0.2	1.7	0.03	0.59	0.03	40.3
5	T1	769	4.2	769	4.2	0.530	18.7	LOS B	12.8	93.1	0.58	0.50	0.58	52.9
Approach		975	4.1	975	4.1	0.530	15.8	LOS B	12.8	93.1	0.46	0.52	0.46	49.8
All Vehicles		2736	3.7	2736	3.7	0.742	21.9	LOS C	36.0	257.8	0.67	0.65	0.67	45.0

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	756	2.7	756	2.7	1018	0.742	100	24.6	LOS C	36.0	257.8	Full	735	0.0	0.0
Lane 2	505	2.7	505	2.7	681 ¹	0.742	100	22.3	LOS C	21.8	156.1	Full	735	-19.6 ^{N3}	0.0
Lane 3	236	3.6	236	3.6	396	0.595	100	33.5	LOS C	8.5	61.0	Short	85	0.0	NA
Approach	1497	2.8	1497	2.8		0.742		25.2	LOS C	36.0	257.8				
NorthEast: Wisdom Street															
Lane 1	147	12.9	147	12.9	1066	0.138	100	5.2	LOS A	1.6	12.6	Short	30	0.0	NA
Lane 2	117	0.9	117	0.9	313	0.374	100	50.7	LOS D	6.3	44.8	Full	680	-19.6 ^{N3}	0.0
Approach	264	7.6	264	7.6		0.374		25.3	LOS C	6.3	44.8				
NorthWest: Yamba Drive															
Lane 1	205	3.6	205	3.6	1400	0.147	100	4.9	LOS A	0.2	1.7	Short	60	0.0	NA
Lane 2	385	4.2	385	4.2	726	0.530	100	18.7	LOS B	12.8	93.1	Full	65	0.0	37.8
Lane 3	385	4.2	385	4.2	726	0.530	100	18.7	LOS B	12.8	93.1	Full	65	0.0	37.8
Approach	975	4.1	975	4.1		0.530		15.8	LOS B	12.8	93.1				
Intersection	2736	3.7	2736	3.7		0.742		21.9	LOS C	36.0	257.8				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:22:48 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2030 Dev - PM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 109 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

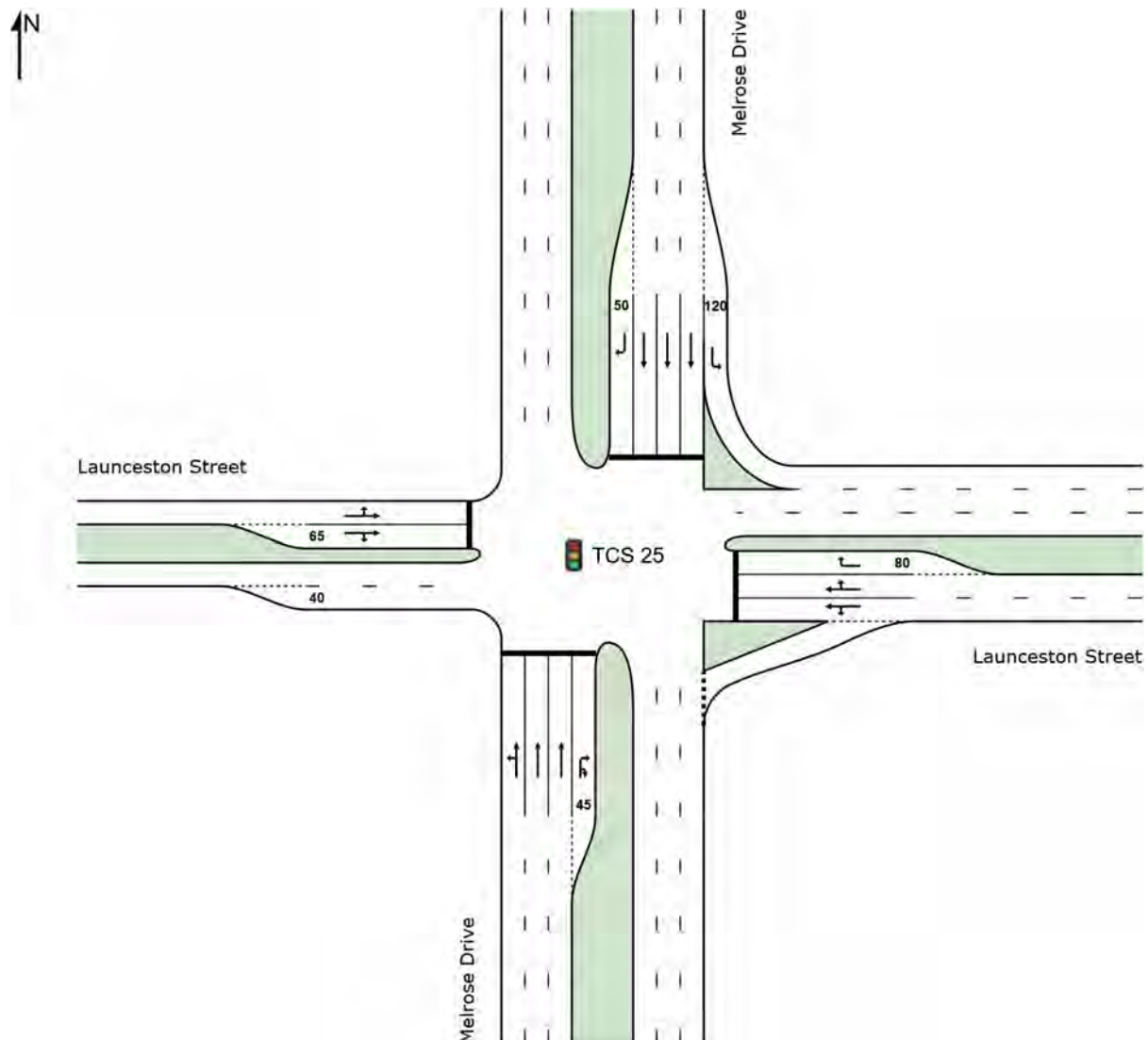
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

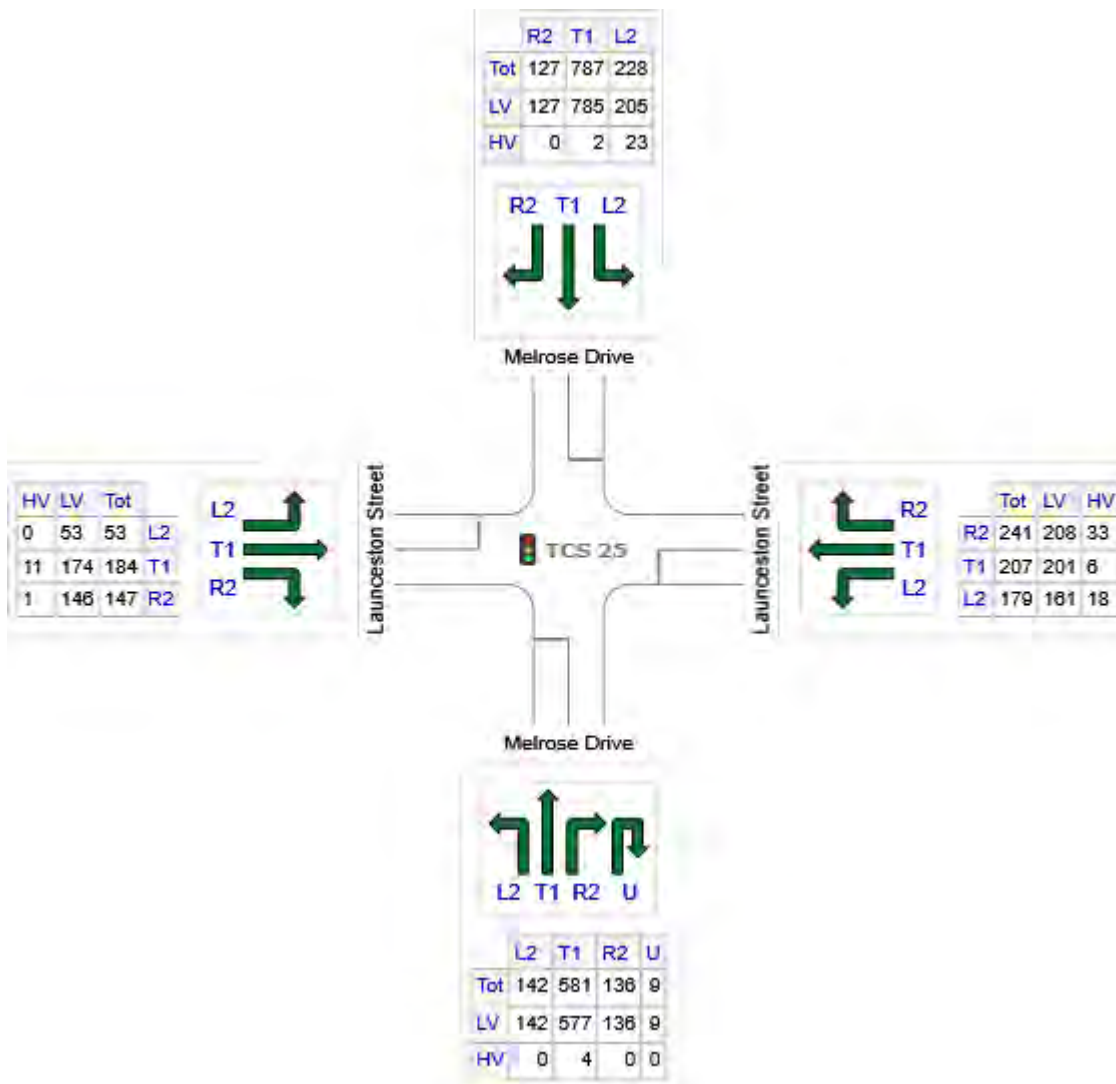
Output Phase Sequence: A, C*, D, E, F

(* Variable Phase)

Site Layout



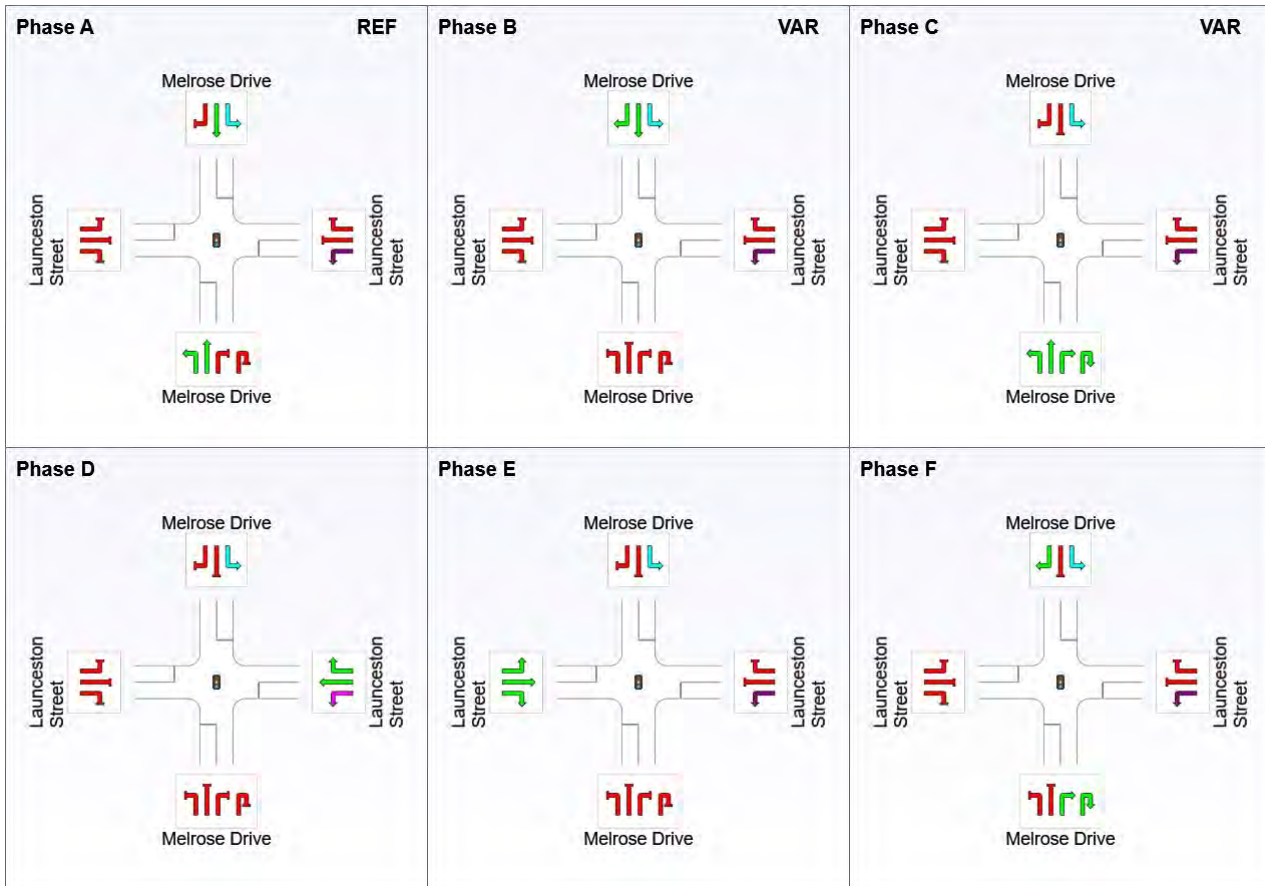
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	868	864	4
E: Launceston Street	627	571	57
N: Melrose Drive	1143	1118	25
W: Launceston Street	384	373	12
Total	3023	2925	98

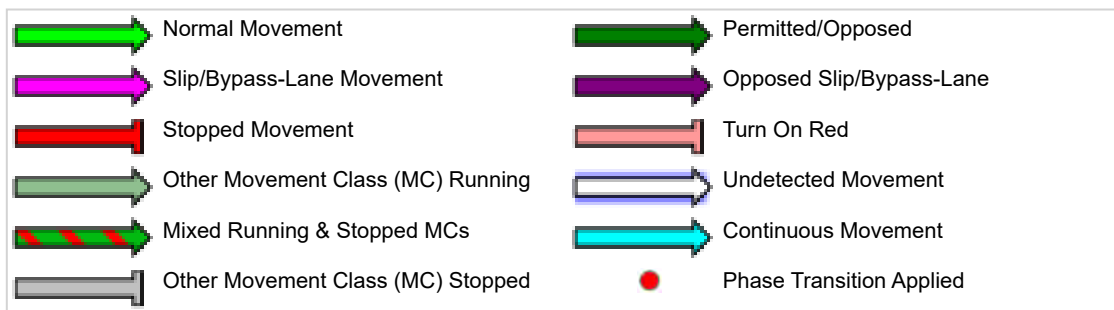
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	C	D	E	F
Phase Change Time (sec)	0	28	40	68	91
Green Time (sec)	22	6	22	17	12
Phase Time (sec)	28	12	28	23	18
Phase Split	26%	11%	26%	21%	17%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	142	0.0	0.402	37.3	LOS C	9.9	69.6	0.84	0.76	0.84	20.5
2	T1	581	0.7	0.402	31.7	LOS C	10.2	71.6	0.84	0.71	0.84	33.9
3	R2	136	0.0	0.484	30.6	LOS C	4.6	32.2	0.95	0.79	0.95	19.7
3u	U	9	0.0	0.484	32.0	LOS C	4.6	32.2	0.95	0.79	0.95	26.6
Approach		868	0.5	0.484	32.5	LOS C	10.2	71.6	0.85	0.73	0.85	30.1
East: Launceston Street												
4	L2	179	10.0	0.204	12.3	LOS A	3.8	28.6	0.44	0.66	0.44	34.6
5	T1	207	3.0	0.600	41.6	LOS C	11.2	81.3	0.92	0.80	0.92	13.6
6	R2	241	13.5	0.600	49.0	LOS D	11.2	81.3	0.96	0.82	0.96	24.9
Approach		627	9.1	0.600	36.1	LOS C	11.2	81.3	0.80	0.77	0.80	22.9
North: Melrose Drive												
7	L2	228	10.1	0.132	5.7	LOS A	0.0	0.0	0.00	0.52	0.00	49.2
8	T1	787	0.3	0.674	44.2	LOS D	13.3	93.3	0.98	0.83	0.99	29.2
9	R2	127	0.0	0.623	57.9	LOS E	6.8	47.5	1.00	0.81	1.03	22.2
Approach		1143	2.2	0.674	38.0	LOS C	13.3	93.3	0.79	0.77	0.80	30.5
West: Launceston Street												
10	L2	53	0.0	0.661	52.9	LOS D	10.0	72.6	0.99	0.84	1.02	24.1
11	T1	184	5.7	0.661	48.4	LOS D	10.0	72.6	0.99	0.84	1.02	12.0
12	R2	147	0.7	0.661	52.9	LOS D	9.9	70.6	0.99	0.84	1.02	15.7
Approach		384	3.0	0.661	50.7	LOS D	10.0	72.6	0.99	0.84	1.02	15.6
All Vehicles		3023	3.2	0.674	37.7	LOS C	13.3	93.3	0.83	0.77	0.84	27.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	237	0.3	589	0.402	100	35.1	LOS C	9.9	69.6	Full	205	0.0	0.0
Lane 2	243	0.7	605	0.402	100	31.7	LOS C	10.2	71.6	Full	205	0.0	0.0
Lane 3	243	0.7	605	0.402	100	31.7	LOS C	10.2	71.6	Full	205	0.0	0.0
Lane 4	145	0.0	300	0.484	100	30.7	LOS C	4.6	32.2	Short	45	0.0	NA
Approach	868	0.5		0.484		32.5	LOS C	10.2	71.6				
East: Launceston Street													
Lane 1	195	9.4	958	0.204	34 ⁶	12.0	LOS A	3.8	28.6	Full	90	0.0	0.0
Lane 2	227	4.7	378	0.600	100	45.2	LOS D	11.2	81.3	Full	90	0.0	0.0
Lane 3	205	13.5	342	0.600	100	49.0	LOS D	10.1	79.1	Short	80	0.0	NA
Approach	627	9.1		0.600		36.1	LOS C	11.2	81.3				
North: Melrose Drive													
Lane 1	228	10.1	1732	0.132	100	5.7	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	265	0.3	393	0.674	100	44.2	LOS D	13.3	93.3	Full	470	0.0	0.0
Lane 3	265	0.3	393	0.674	100	44.2	LOS D	13.3	93.3	Full	470	0.0	0.0
Lane 4	258	0.3	383 ¹	0.674	100	44.1	LOS D	12.9	90.5	Full	470	0.0	0.0
Lane 5	127	0.0	204	0.623	100	57.9	LOS E	6.8	47.5	Short	50	0.0	NA
Approach	1143	2.2		0.674		38.0	LOS C	13.3	93.3				
West: Launceston Street													
Lane 1	193	4.2	292	0.661	100	49.6	LOS D	10.0	72.6	Full	95	0.0	0.0
Lane 2	191	1.9	289	0.661	100	51.9	LOS D	9.9	70.6	Short	65	0.0	NA
Approach	384	3.0		0.661		50.7	LOS D	10.0	72.6				
Intersection	3023	3.2		0.674		37.7	LOS C	13.3	93.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: TCS 340 [2030 Dev - PM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 82 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

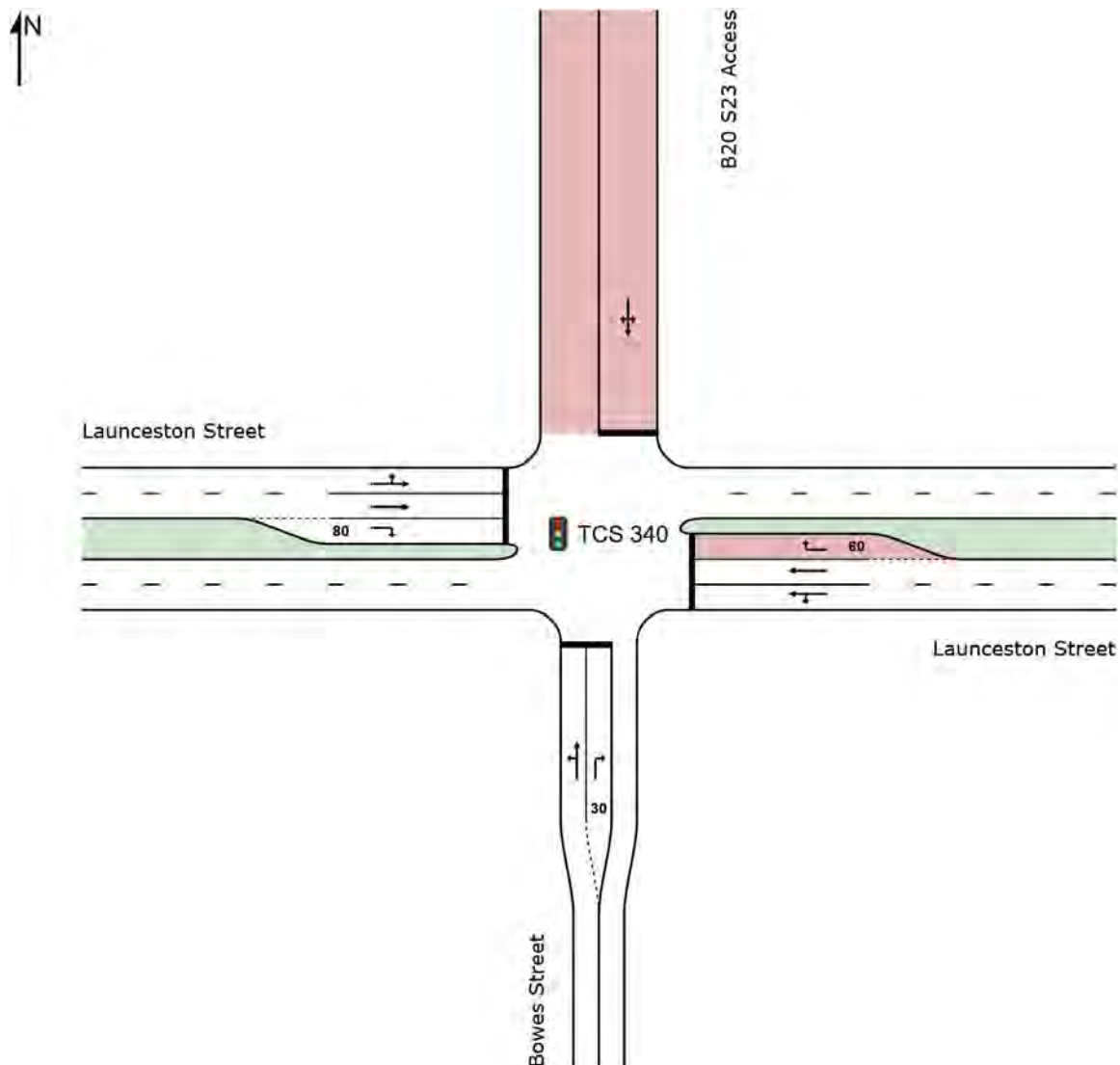
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

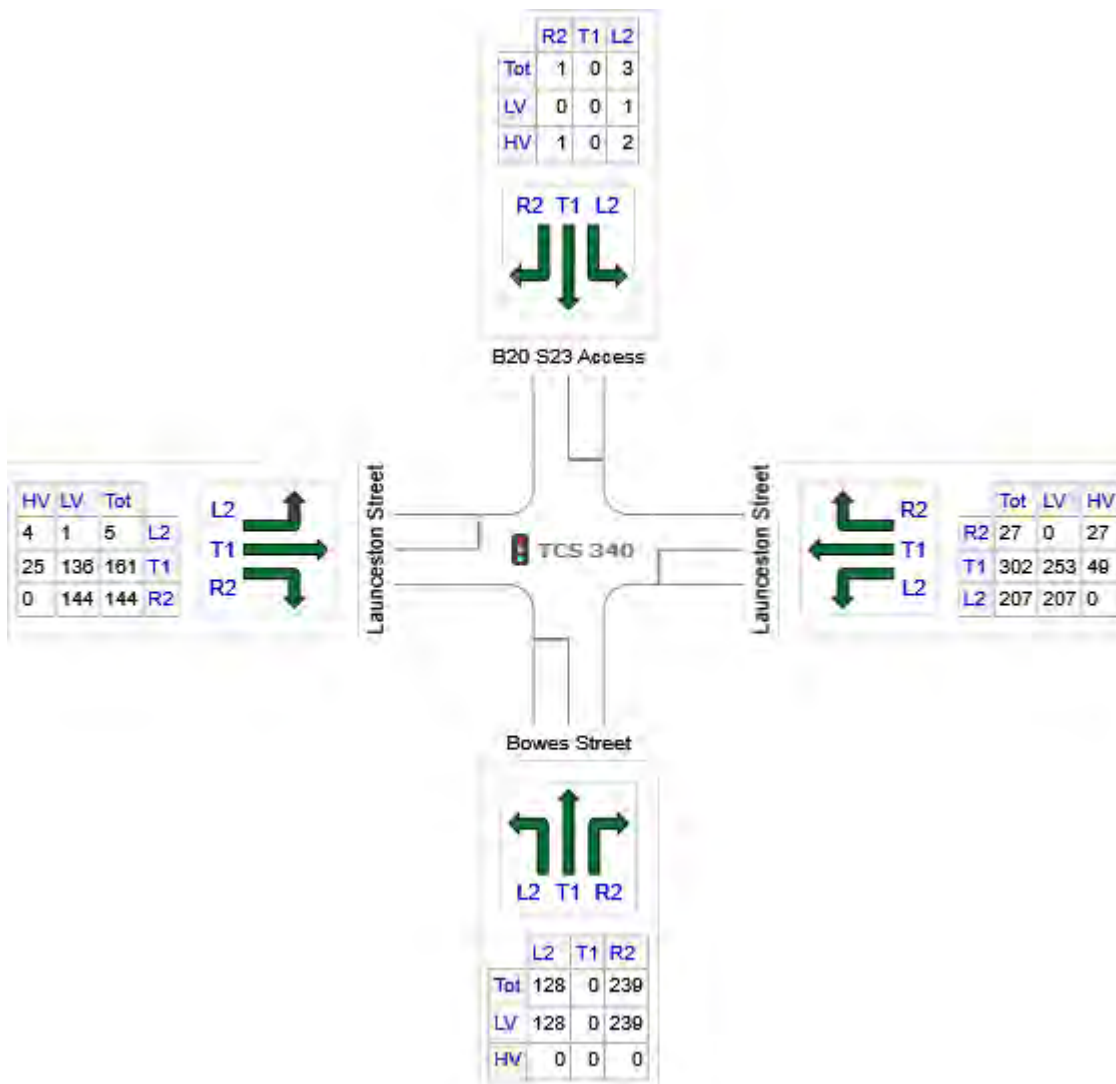
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



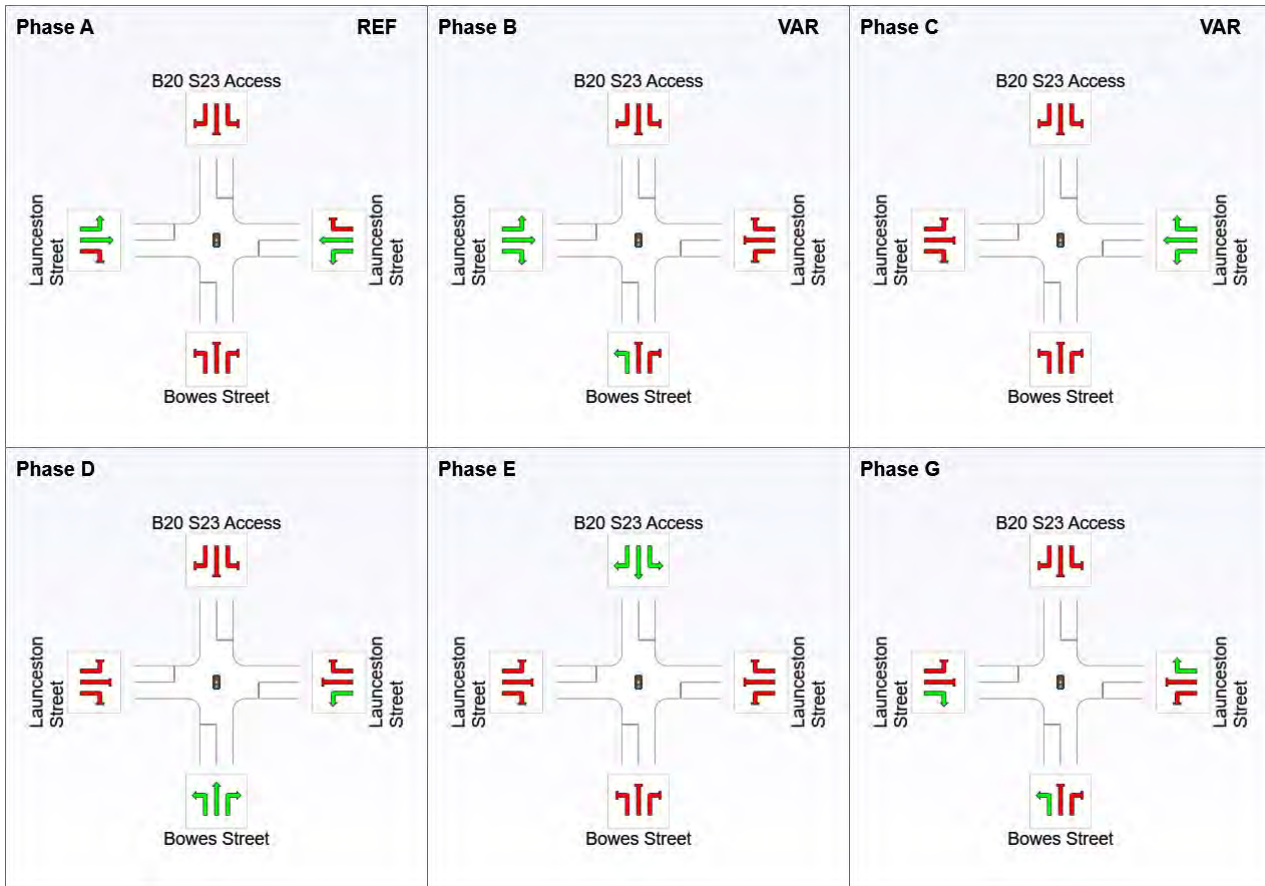
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	367	367	0
E: Launceston Street	537	460	77
N: B20 S23 Access	4	1	3
W: Launceston Street	311	281	29
Total	1219	1110	110

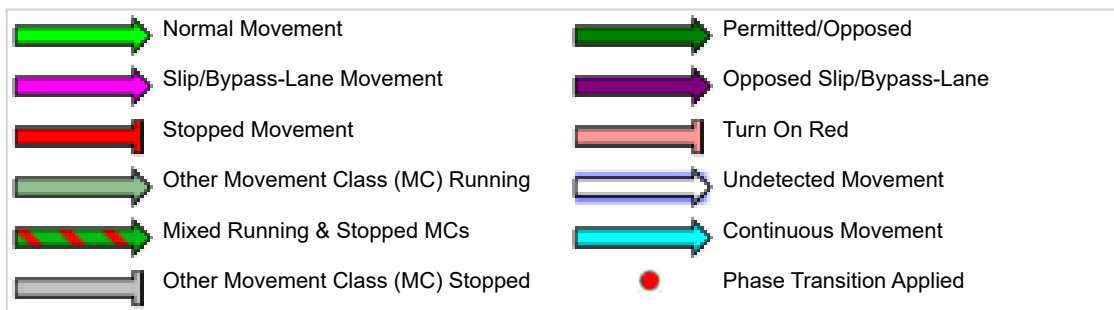
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	22	34	58	70
Green Time (sec)	16	6	18	6	6
Phase Time (sec)	22	12	24	12	12
Phase Split	27%	15%	29%	15%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	128	0.0	0.154	10.8	LOS A	1.8	12.8	0.62	0.69	0.62	25.0
2	T1	0	0.0	0.154	11.3	LOS A	1.8	12.8	0.62	0.69	0.62	14.6
3	R2	239	0.0	0.638	35.2	LOS C	8.9	62.0	0.95	0.82	0.97	11.2
Approach		367	0.0	0.638	26.7	LOS B	8.9	62.0	0.83	0.78	0.84	14.0
East: Launceston Street												
4	L2	207	0.0	0.633	23.4	LOS B	7.6	55.0	0.94	0.81	0.94	16.0
5	T1	302	16.4	0.633	29.6	LOS C	8.3	66.7	0.96	0.81	0.98	17.9
6	R2	27	100.0	0.345	49.7	LOS D	1.2	15.2	0.98	0.73	0.98	8.4
Approach		537	14.3	0.633	28.2	LOS B	8.3	66.7	0.95	0.81	0.96	16.6
North: B20 S23 Access												
7	L2	3	66.7	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	8.6
8	T1	0	100.0	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	5.6
9	R2	1	100.0	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	9.2
Approach		4	75.6	0.045	40.7	LOS C	0.2	2.0	0.95	0.62	0.95	8.7
West: Launceston Street												
10	L2	5	80.0	0.123	25.9	LOS B	2.2	18.4	0.72	0.58	0.72	16.8
11	T1	161	15.7	0.123	19.9	LOS B	2.3	18.4	0.72	0.57	0.72	23.8
12	R2	144	0.0	0.465	24.9	LOS B	3.4	24.0	0.96	0.78	0.96	15.4
Approach		311	9.5	0.465	22.4	LOS B	3.4	24.0	0.83	0.67	0.83	19.6
All Vehicles		1219	9.0	0.638	26.3	LOS B	8.9	66.7	0.89	0.76	0.89	16.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	129	0.0	837	0.154	100	10.8	LOS A	1.8	12.8	Full	35	0.0	57.8 ⁸
Lane 2	239	0.0	375 ¹	0.638	100	35.2	LOS C	8.9	62.0	Short	30	0.0	NA
Approach	367	0.0		0.638		26.7	LOS B	8.9	62.0				
East: Launceston Street													
Lane 1	292	4.7	461	0.633	100	21.8	LOS B	7.6	55.0	Full	95	0.0	0.0
Lane 2	218	16.4	344	0.633	100	34.1	LOS C	8.3	66.7	Full	95	0.0	0.0
Lane 3	27	100.0	79	0.345	100	49.7	LOS D	1.2	15.2	Short	60	0.0	NA
Approach	537	14.3		0.633		28.2	LOS B	8.3	66.7				
North: B20 S23 Access													
Lane 1	4	75.6	96	0.045	100	40.7	LOS C	0.2	2.0	Full	30	0.0	0.0
Approach	4	75.6		0.045		40.7	LOS C	0.2	2.0				
West: Launceston Street													
Lane 1	82	19.8	668	0.123	100	20.3	LOS B	2.2	18.4	Full	105	0.0	0.0
Lane 2	84	15.7	689	0.123	100	19.9	LOS B	2.3	18.4	Full	105	0.0	0.0
Lane 3	144	0.0	310	0.465	100	24.9	LOS B	3.4	24.0	Short	80	0.0	NA
Approach	311	9.5		0.465		22.4	LOS B	3.4	24.0				
Intersection	1219	9.0		0.638		26.3	LOS B	8.9	66.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▼ Site: [2030 Dev - PM: BS-WS]

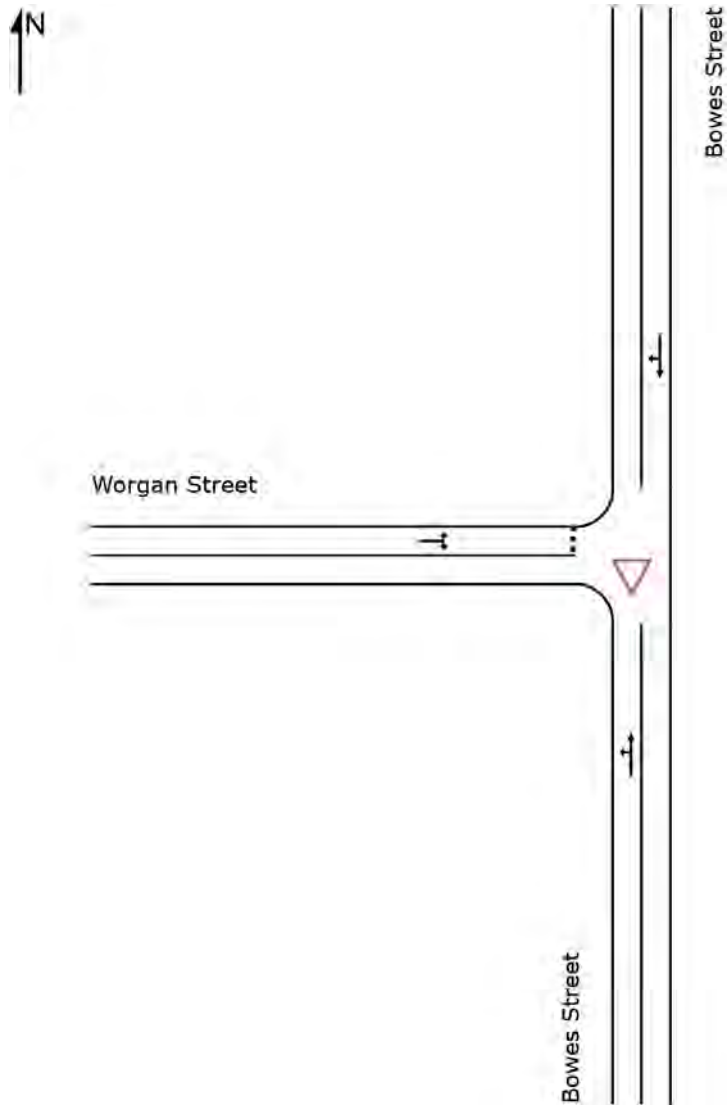
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

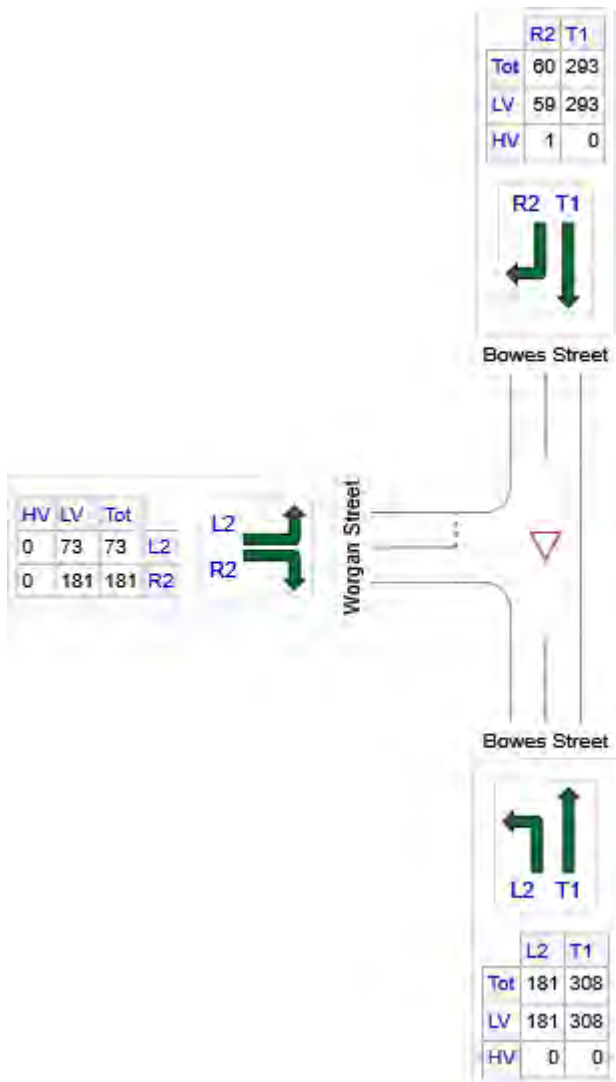
Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	489	489	0
N: Bowes Street	353	352	1
W: Worgan Street	254	254	0
Total	1096	1095	1

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	181	0.0	0.256	4.6	LOS A	0.0	0.0	0.00	0.20	0.00	32.6
2	T1	308	0.0	0.256	0.0	LOS A	0.0	0.0	0.00	0.20	0.00	43.3
Approach		489	0.0	0.256	1.7	NA	0.0	0.0	0.00	0.20	0.00	38.6
North: Bowes Street												
8	T1	293	0.0	0.207	0.7	LOS A	0.6	4.0	0.20	0.10	0.20	43.8
9	R2	60	1.8	0.207	5.5	LOS A	0.6	4.0	0.20	0.10	0.20	17.1
Approach		353	0.3	0.207	1.5	NA	0.6	4.0	0.20	0.10	0.20	38.0
West: Worgan Street												
10	L2	73	0.0	0.338	4.9	LOS A	1.5	10.7	0.54	0.78	0.65	17.4
12	R2	181	0.0	0.338	7.9	LOS A	1.5	10.7	0.54	0.78	0.65	28.1
Approach		254	0.0	0.338	7.1	LOS A	1.5	10.7	0.54	0.78	0.65	25.4
All Vehicles		1096	0.1	0.338	2.9	NA	1.5	10.7	0.19	0.30	0.21	34.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	489	0.0	1915	0.256	100	1.7	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	489	0.0		0.256		1.7	NA	0.0	0.0				
North: Bowes Street													
Lane 1	353	0.3	1702	0.207	100	1.5	LOS A	0.6	4.0	Full	35	0.0	0.0
Approach	353	0.3		0.207		1.5	NA	0.6	4.0				
West: Worgan Street													
Lane 1	254	0.0	751	0.338	100	7.1	LOS A	1.5	10.7	Full	35	0.0	0.0
Approach	254	0.0		0.338		7.1	LOS A	1.5	10.7				
Intersection	1096	0.1		0.338		2.9	NA	1.5	10.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2030 Dev - PM: AS-BS-MS]

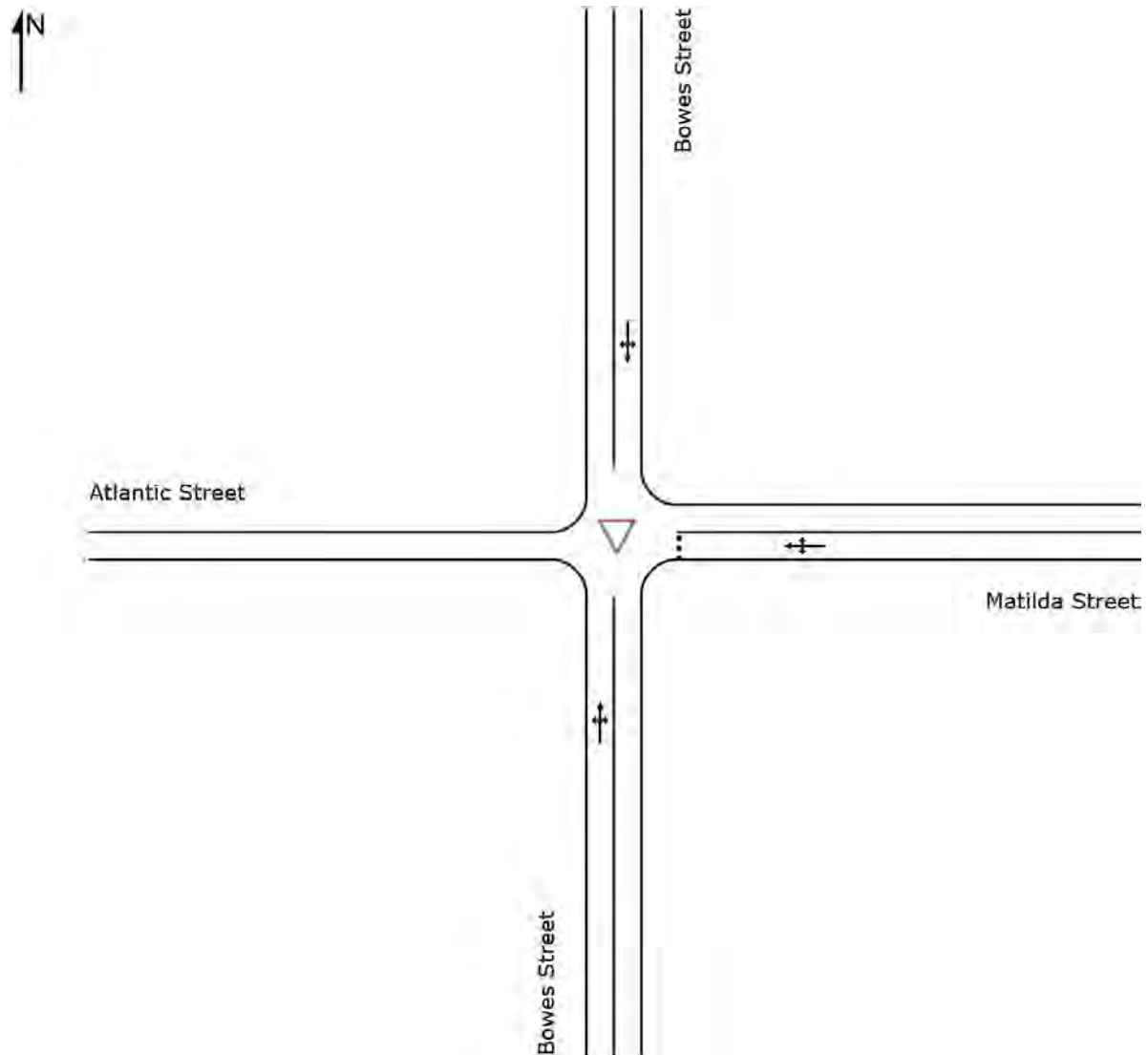
Atlantic Street / Bowes Street / Matilda Street

Existing Priority-Controlled (Give-Way) T-Intersection

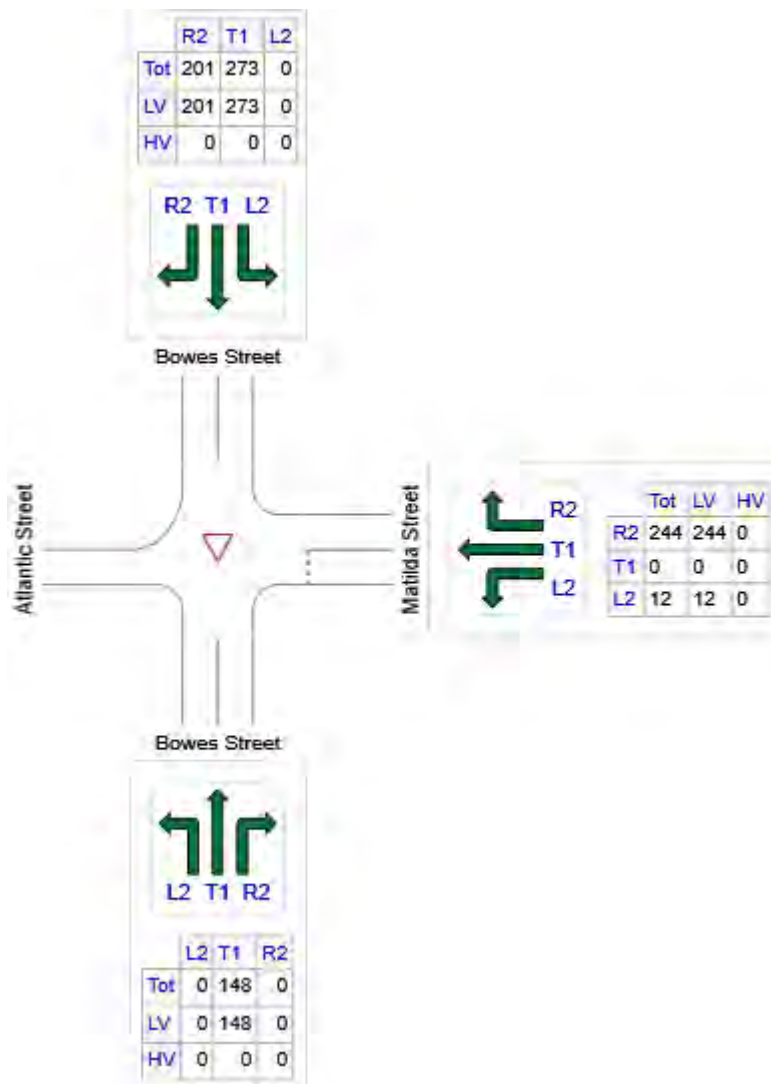
Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	149	149	0
E: Matilda Street	256	256	0
N: Bowes Street	474	474	0
Total	878	878	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.076	4.2	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	148	0.0	0.076	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.076	4.5	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		149	0.0	0.076	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	12	0.0	0.463	7.1	LOS A	2.3	16.4	0.65	0.94	0.95	21.2
5	T1	0	0.0	0.463	9.8	LOS A	2.3	16.4	0.65	0.94	0.95	19.2
6	R2	244	0.0	0.463	11.7	LOS A	2.3	16.4	0.65	0.94	0.95	26.4
Approach		256	0.0	0.463	11.5	LOS A	2.3	16.4	0.65	0.94	0.95	26.2
North: Bowes Street												
7	L2	0	0.0	0.270	5.2	LOS A	1.3	9.3	0.25	0.25	0.25	39.8
8	T1	273	0.0	0.270	0.4	LOS A	1.3	9.3	0.25	0.25	0.25	40.0
9	R2	201	0.0	0.270	5.4	LOS A	1.3	9.3	0.25	0.25	0.25	27.0
Approach		474	0.0	0.270	2.5	NA	1.3	9.3	0.25	0.25	0.25	31.9
All Vehicles		878	0.0	0.463	4.7	NA	2.3	16.4	0.32	0.41	0.41	31.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	149	0.0	1949	0.076	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	149	0.0		0.076		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	256	0.0	553	0.463	100	11.5	LOS A	2.3	16.4	Full	80	0.0	0.0
Approach	256	0.0		0.463		11.5	LOS A	2.3	16.4				
North: Bowes Street													
Lane 1	474	0.0	1754	0.270	100	2.5	LOS A	1.3	9.3	Full	110	0.0	0.0
Approach	474	0.0		0.270		2.5	NA	1.3	9.3				
Intersection	878	0.0		0.463		4.7	NA	2.3	16.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - PM: BS-EWL]

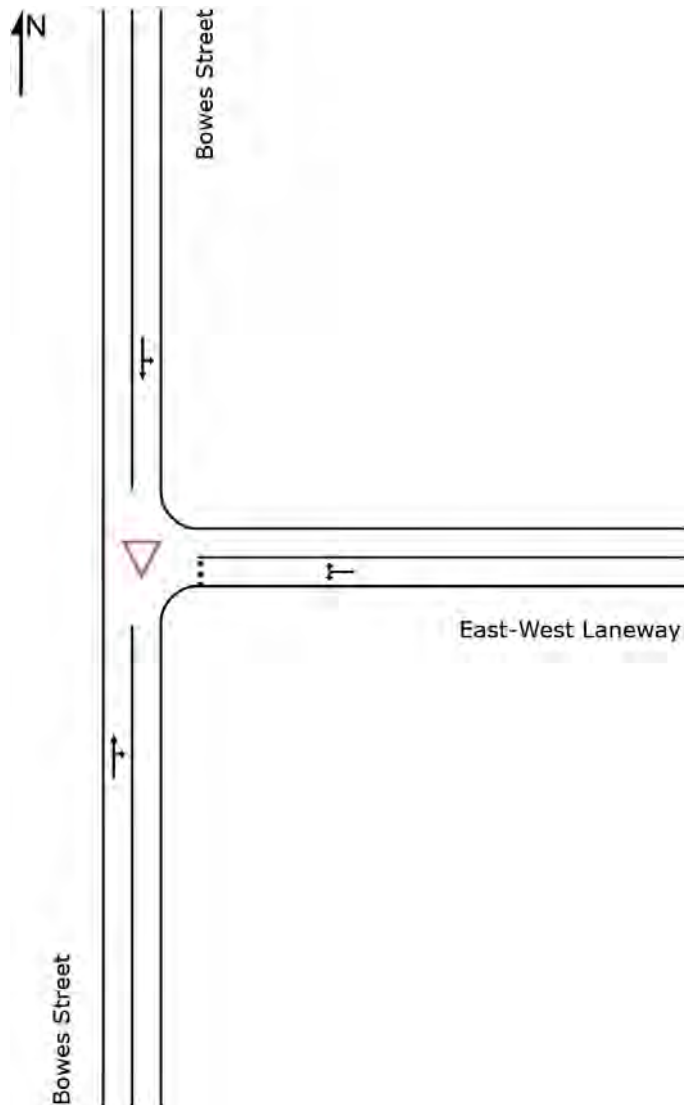
Bowes Street / East-West Laneway

Proposed Priority-Controlled (Give-Way) T-Intersection

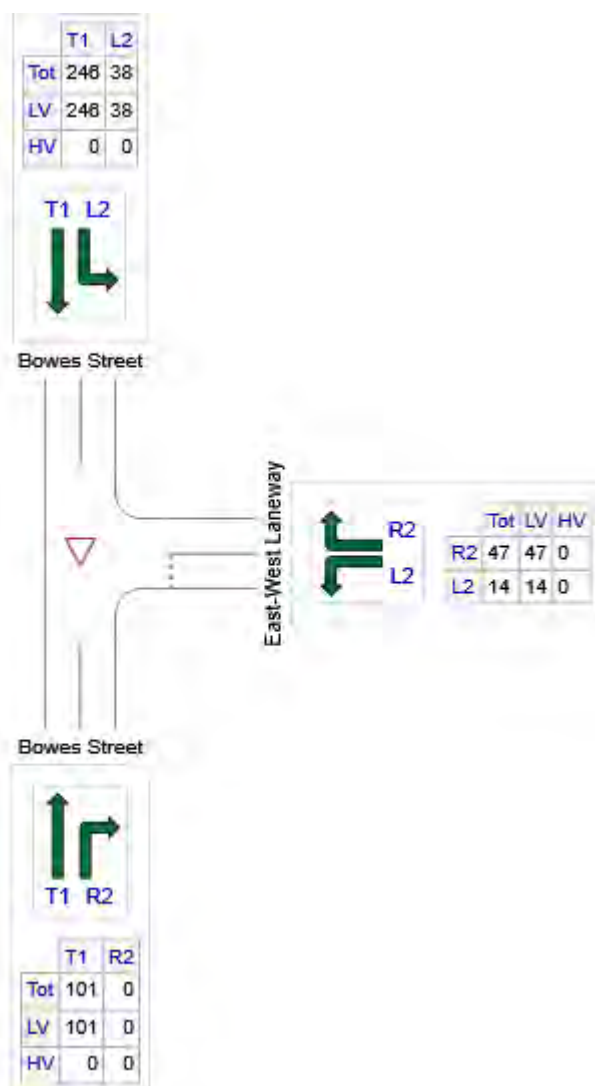
Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	101	101	0
E: East-West Laneway	61	61	0
N: Bowes Street	284	284	0
Total	446	446	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	101	0.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.052	5.3	LOS A	0.0	0.0	0.00	0.00	0.00	41.7
Approach		101	0.0	0.052	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: East-West Laneway												
4	L2	14	0.0	0.062	0.8	LOS A	0.2	1.5	0.36	0.32	0.36	23.6
6	R2	47	0.0	0.062	2.1	LOS A	0.2	1.5	0.36	0.32	0.36	23.1
Approach		61	0.0	0.062	1.8	LOS A	0.2	1.5	0.36	0.32	0.36	23.2
North: Bowes Street												
7	L2	38	0.0	0.147	4.3	LOS A	0.0	0.0	0.00	0.07	0.00	26.4
8	T1	246	0.0	0.147	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	47.1
Approach		284	0.0	0.147	0.6	NA	0.0	0.0	0.00	0.07	0.00	43.5
All Vehicles		446	0.0	0.147	0.6	NA	0.2	1.5	0.05	0.09	0.05	40.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	101	0.0	1949	0.052	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	101	0.0		0.052		0.0	NA	0.0	0.0				
East: East-West Laneway													
Lane 1	61	0.0	988	0.062	100	1.8	LOS A	0.2	1.5	Full	30	0.0	0.0
Approach	61	0.0		0.062		1.8	LOS A	0.2	1.5				
North: Bowes Street													
Lane 1	284	0.0	1937	0.147	100	0.6	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	284	0.0		0.147		0.6	NA	0.0	0.0				
Intersection	446	0.0		0.147		0.6	NA	0.2	1.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

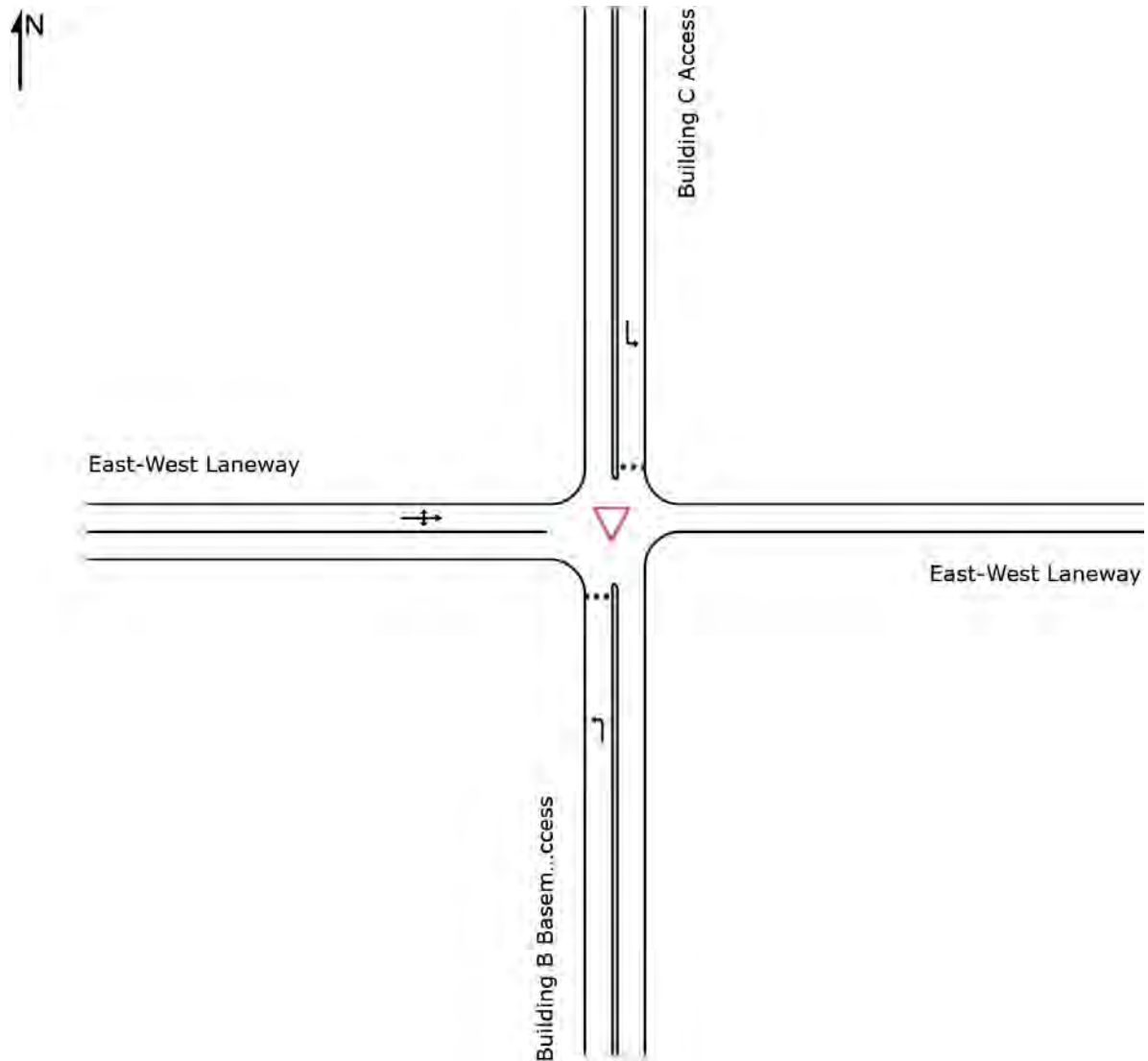
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

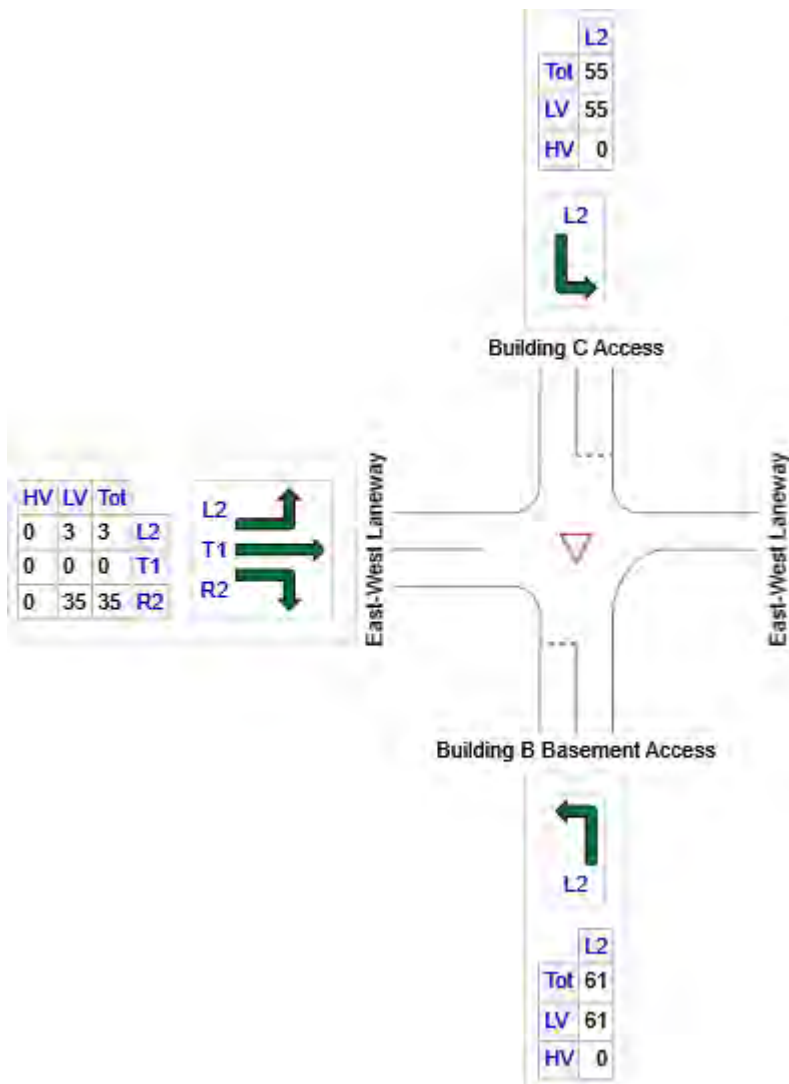
▼ Site: [2030 Dev - PM: BldgBB-BldgC-EWL]

Building B Basement Access / Building C Access / East-West Laneway
Proposed Priority-Controlled (Give-Way) T-Intersection
Site Category: 2030 Development Scenario - Weekday Evening Peak Hour
Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Building B Basement Access	61	61	0
N: Building C Access	55	55	0
W: East-West Laneway	38	38	0
Total	154	154	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Building B Basement Access												
1	L2	61	0.0	0.033	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
Approach		61	0.0	0.033	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
North: Building C Access												
4	L2	55	0.0	0.033	0.0	LOS A	0.1	0.9	0.00	0.00	0.00	26.3
Approach		55	0.0	0.033	0.0	LOS A	0.1	0.9	0.00	0.00	0.00	26.3
West: East-West Laneway												
7	L2	3	0.0	0.020	3.1	LOS A	0.0	0.0	0.00	0.54	0.00	26.5
8	T1	0	0.0	0.020	0.4	LOS A	0.0	0.0	0.00	0.54	0.00	40.2
12	R2	35	0.0	0.020	2.9	LOS A	0.0	0.0	0.00	0.54	0.00	25.9
Approach		38	0.0	0.020	2.9	NA	0.0	0.0	0.00	0.54	0.00	26.0
All Vehicles		154	0.0	0.033	1.6	NA	0.1	0.9	0.00	0.33	0.00	26.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Building B Basement Access													
Lane 1	61	0.0	1857	0.033	100	2.3	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	61	0.0		0.033		2.3	LOS A	0.0	0.0				
North: Building C Access													
Lane 1	55	0.0	1636	0.033	100	0.0	LOS A	0.1	0.9	Full	10	0.0	0.0
Approach	55	0.0		0.033		0.0	LOS A	0.1	0.9				
West: East-West Laneway													
Lane 1	38	0.0	1857	0.020	100	2.9	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	38	0.0		0.020		2.9	NA	0.0	0.0				
Intersection	154	0.0		0.033		1.6	NA	0.1	0.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2030 Dev - PM: BldgBP-BS]

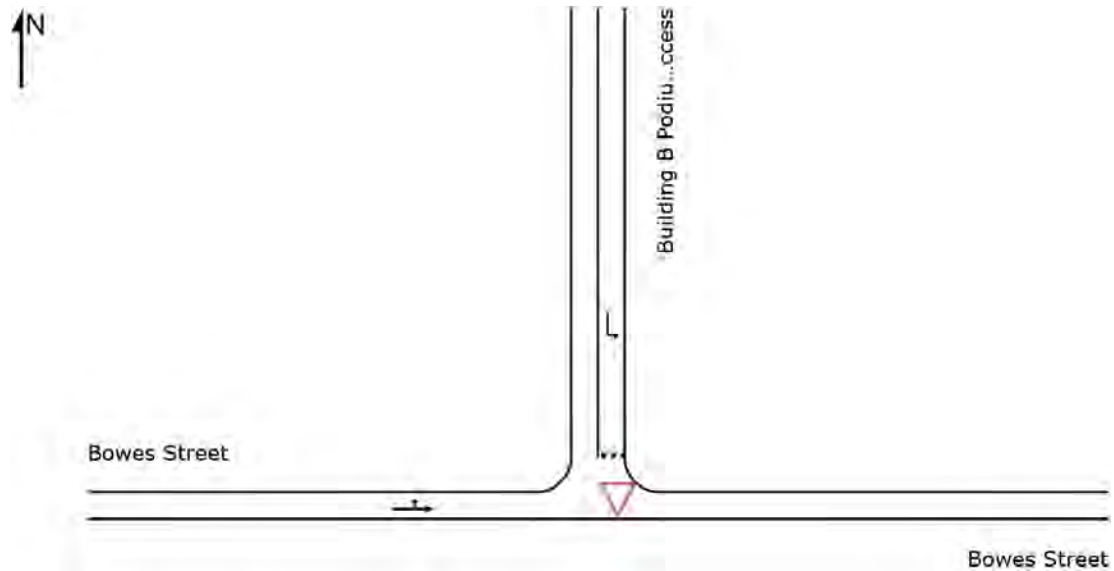
Building B Podium Access / Bowes Street

Proposed Priority-Controlled (Give-Way) T-Intersection

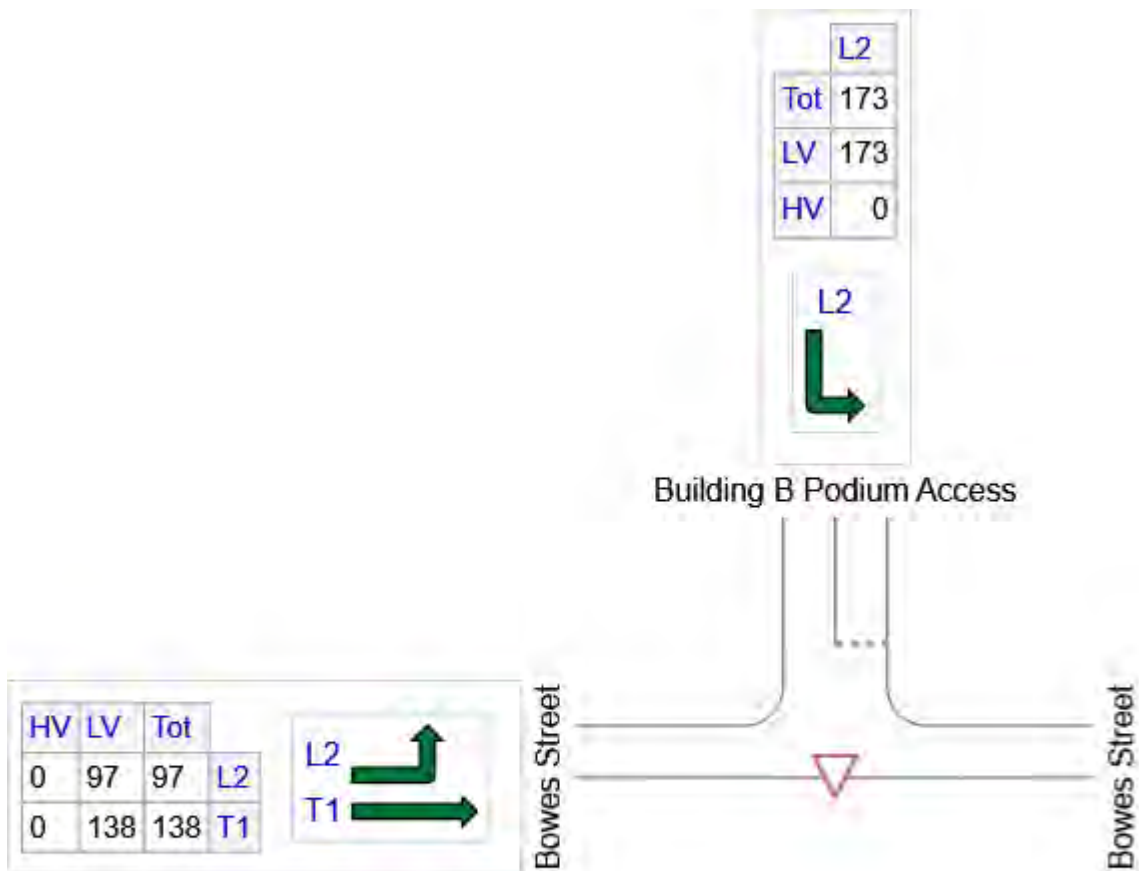
Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
N: Building B Podium Access	173	173	0
W: Bowes Street	235	235	0
Total	407	407	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
North: Building B Podium Access												
4	L2	173	0.0	0.119	0.4	LOS A	0.5	3.5	0.24	0.11	0.24	21.3
Approach		173	0.0	0.119	0.4	LOS A	0.5	3.5	0.24	0.11	0.24	21.3
West: Bowes Street												
7	L2	97	0.0	0.123	3.5	LOS A	0.0	0.0	0.00	0.22	0.00	25.5
8	T1	138	0.0	0.123	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	40.3
Approach		235	0.0	0.123	1.4	NA	0.0	0.0	0.00	0.22	0.00	33.3
All Vehicles		407	0.0	0.123	1.0	NA	0.5	3.5	0.10	0.17	0.10	27.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
North: Building B Podium Access													
Lane 1	173	0.0	1456	0.119	100	0.4	LOS A	0.5	3.5	Full	15	0.0	0.0
Approach	173	0.0		0.119		0.4	LOS A	0.5	3.5				
West: Bowes Street													
Lane 1	235	0.0	1911	0.123	100	1.4	LOS A	0.0	0.0	Full	40	0.0	0.0
Approach	235	0.0		0.123		1.4	NA	0.0	0.0				
Intersection	407	0.0		0.123		1.0	NA	0.5	3.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - PM: BldgA-NSR]

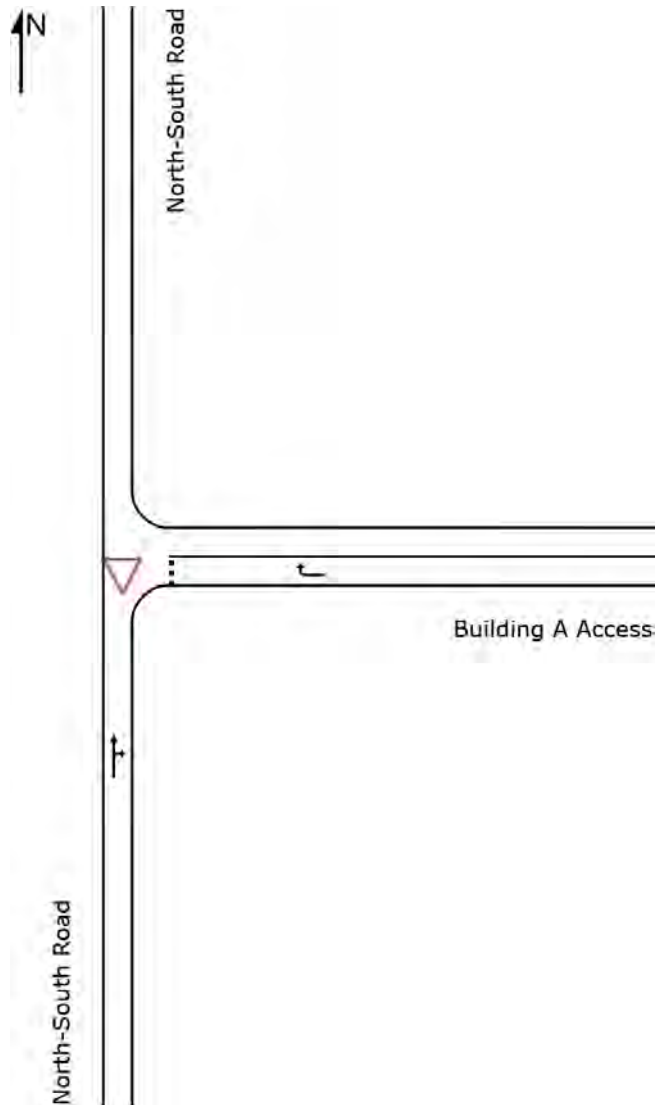
Building A Access / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

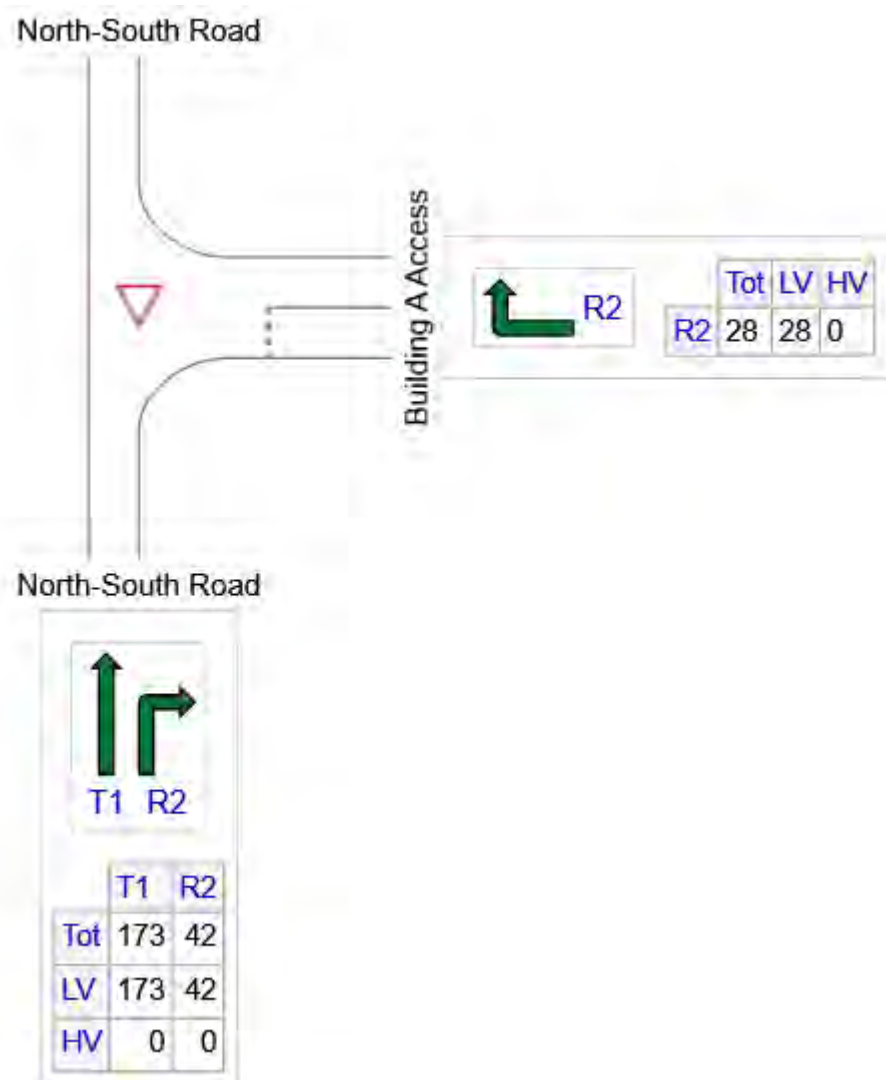
Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	215	215	0
E: Building A Access	28	28	0
Total	243	243	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	173	0.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	44.8
3	R2	42	0.0	0.111	2.1	LOS A	0.0	0.0	0.00	0.11	0.00	29.0
Approach		215	0.0	0.111	0.4	NA	0.0	0.0	0.00	0.11	0.00	41.5
East: Building A Access												
6	R2	28	0.0	0.023	1.5	LOS A	0.1	0.5	0.25	0.30	0.25	19.0
Approach		28	0.0	0.023	1.5	LOS A	0.1	0.5	0.25	0.30	0.25	19.0
All Vehicles		243	0.0	0.111	0.5	NA	0.1	0.5	0.03	0.13	0.03	35.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	215	0.0	1931	0.111	100	0.4	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	215	0.0		0.111		0.4	NA	0.0	0.0				
East: Building A Access													
Lane 1	28	0.0	1220	0.023	100	1.5	LOS A	0.1	0.5	Full	15	0.0	0.0
Approach	28	0.0		0.023		1.5	LOS A	0.1	0.5				
Intersection	243	0.0		0.111		0.5	NA	0.1	0.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - PM: EWL-NSR]

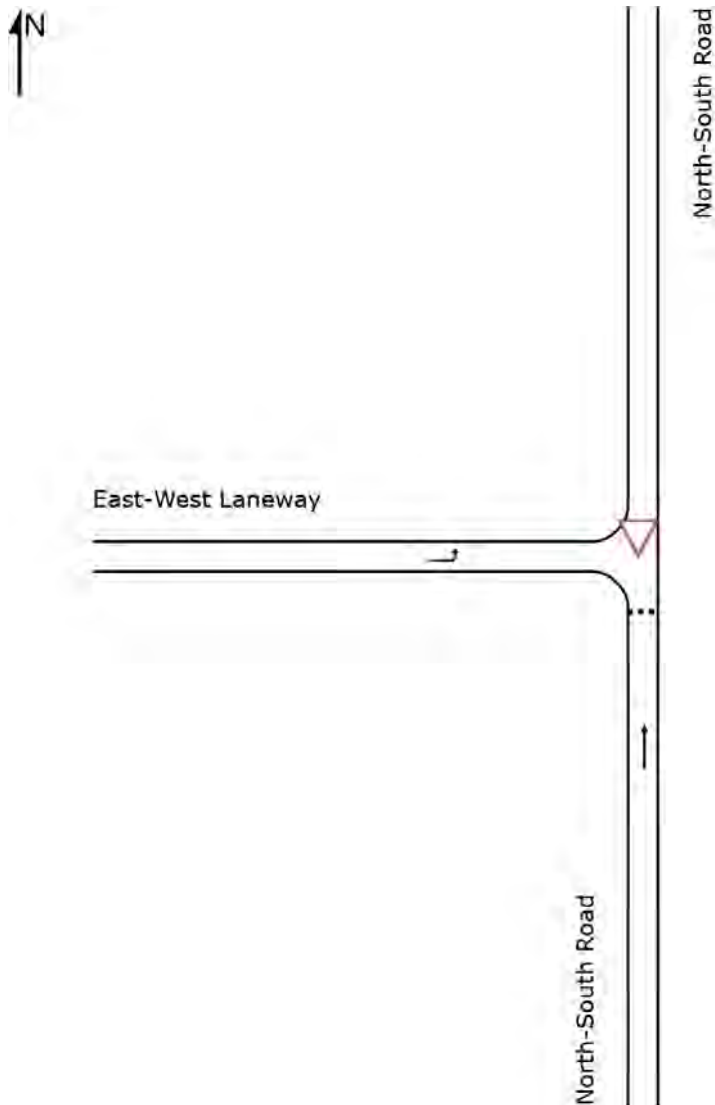
East-West Laneway / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	201	201	0
W: East-West Laneway	55	55	0
Total	256	256	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	201	0.0	0.140	2.1	LOS A	0.6	3.9	0.14	0.46	0.14	36.5
Approach		201	0.0	0.140	2.1	LOS A	0.6	3.9	0.14	0.46	0.14	36.5
West: East-West Laneway												
7	L2	55	0.0	0.029	3.7	LOS A	0.0	0.0	0.00	0.52	0.00	31.5
Approach		55	0.0	0.029	3.7	NA	0.0	0.0	0.00	0.52	0.00	31.5
All Vehicles		256	0.0	0.140	2.4	NA	0.6	3.9	0.11	0.47	0.11	35.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	201	0.0	1436	0.140	100	2.1	LOS A	0.6	3.9	Full	30	0.0	0.0
Approach	201	0.0		0.140		2.1	LOS A	0.6	3.9				
West: East-West Laneway													
Lane 1	55	0.0	1857	0.029	100	3.7	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	55	0.0		0.029		3.7	NA	0.0	0.0				
Intersection	256	0.0		0.140		2.4	NA	0.6	3.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2030 Dev - PM: MS-NSR]

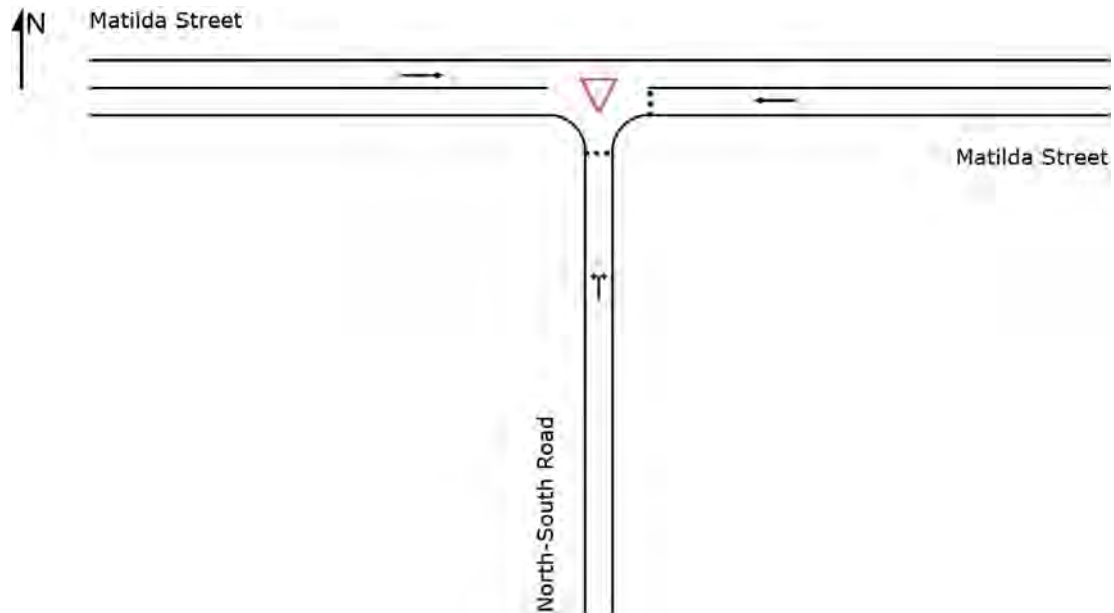
Matilda Street / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

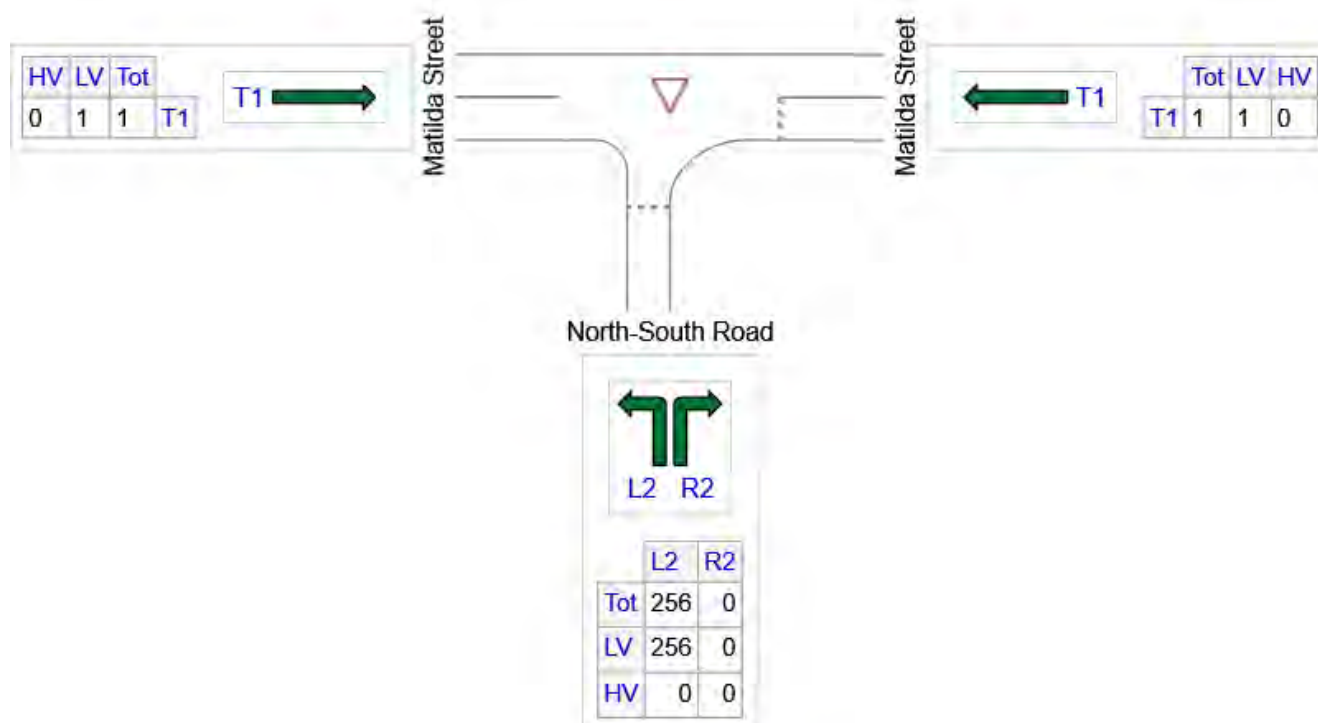
Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	256	256	0
E: Matilda Street	1	1	0
W: Matilda Street	1	1	0
Total	258	258	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
1	L2	256	0.0	0.157	4.7	LOS A	0.7	5.0	0.01	0.56	0.01	35.2
3	R2	0	0.0	0.157	4.9	LOS A	0.7	5.0	0.01	0.56	0.01	29.6
Approach		256	0.0	0.157	4.7	LOS A	0.7	5.0	0.01	0.56	0.01	35.2
East: Matilda Street												
5	T1	1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
Approach		1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
West: Matilda Street												
11	T1	1	0.0	0.001	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		1	0.0	0.001	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		258	0.0	0.157	4.7	NA	0.7	5.0	0.01	0.56	0.01	35.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	256	0.0	1635	0.157	100	4.7	LOS A	0.7	5.0	Full	70	0.0	0.0
Approach	256	0.0		0.157		4.7	LOS A	0.7	5.0				
East: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	1.9	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	1	0.0		0.001		1.9	LOS A	0.0	0.0				
West: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	0.0	LOS A	0.0	0.0	Full	90	0.0	0.0
Approach	1	0.0		0.001		0.0	NA	0.0	0.0				
Intersection	258	0.0		0.157		4.7	NA	0.7	5.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2030 Dev - PM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

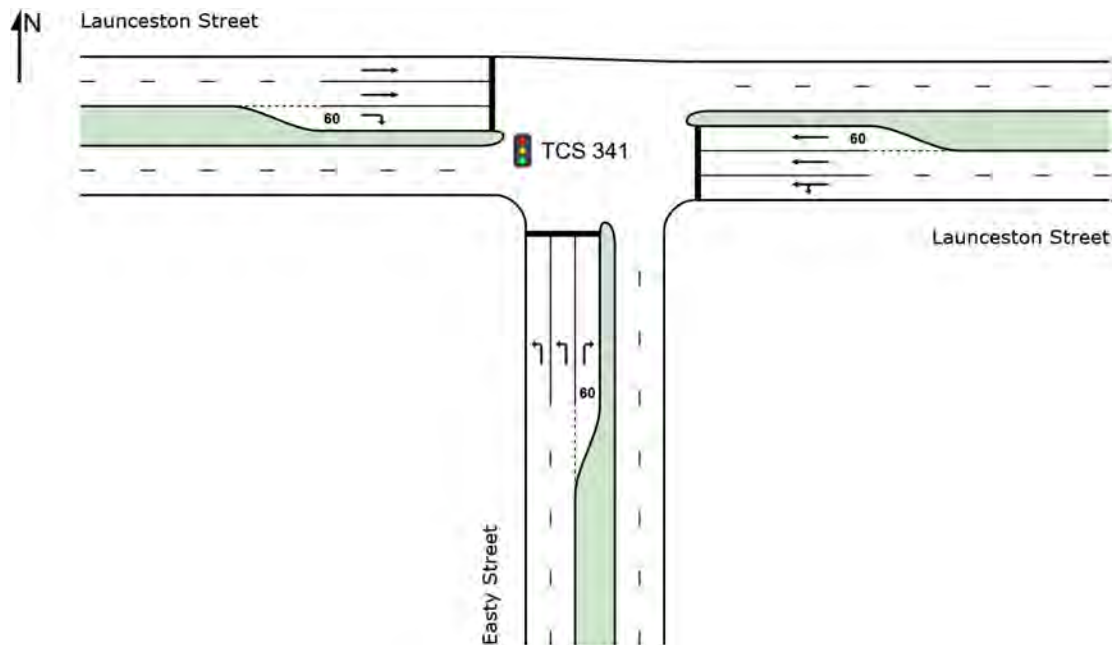
Phase Sequence: SCATS

Reference Phase: Phase A

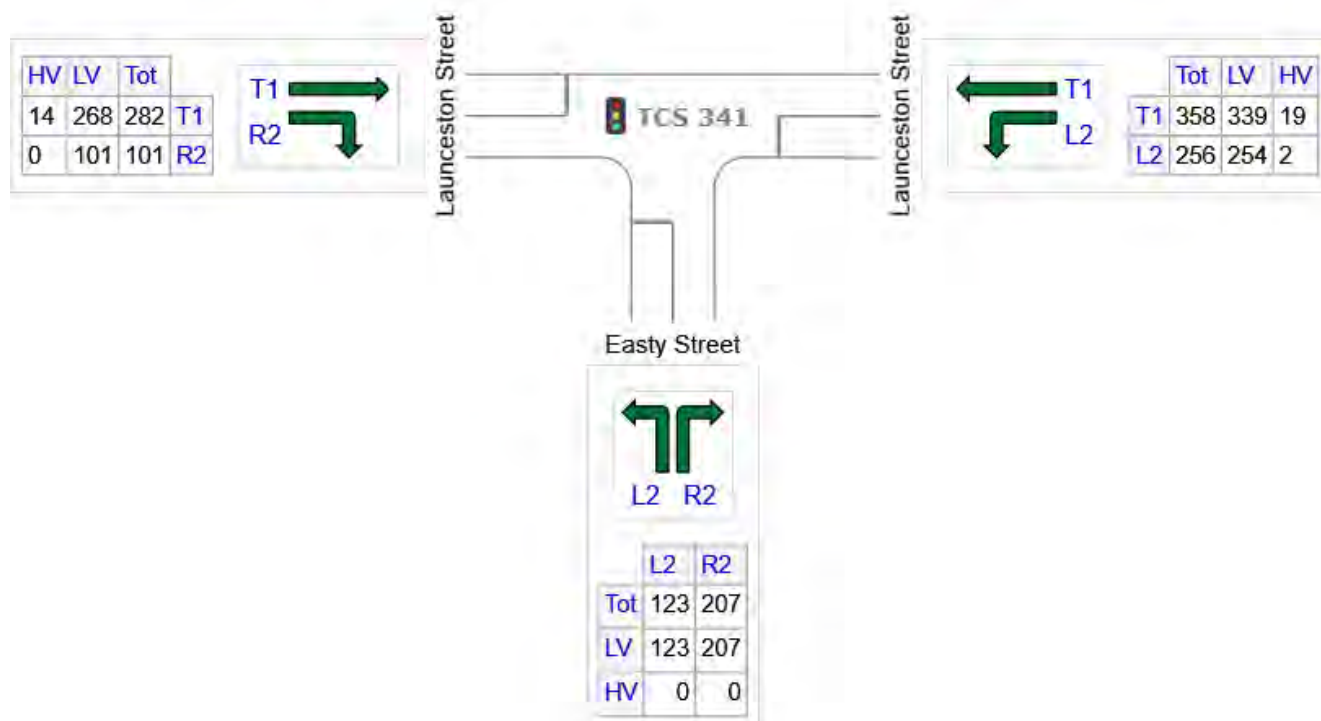
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



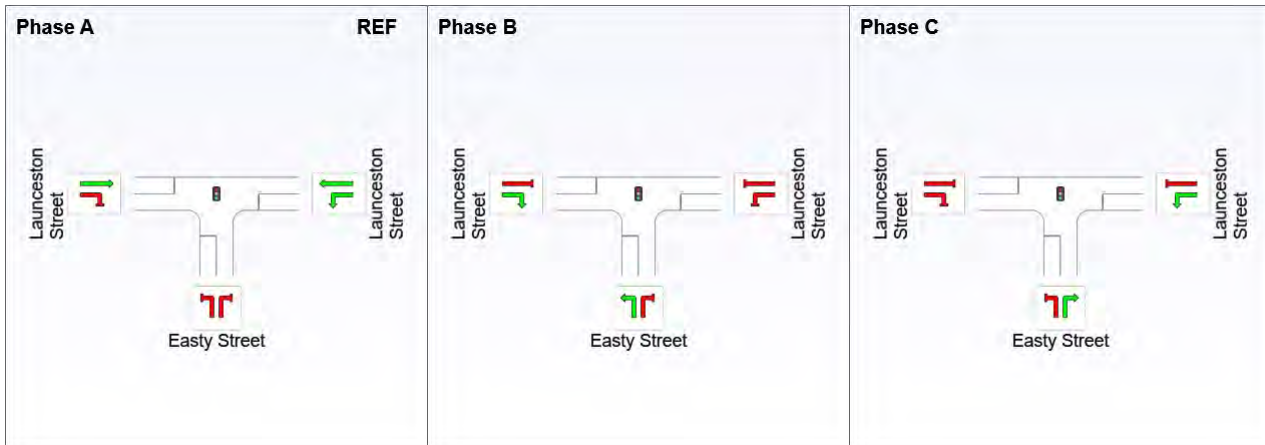
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	331	331	0
E: Launceston Street	614	593	21
W: Launceston Street	383	369	14
Total	1327	1293	35

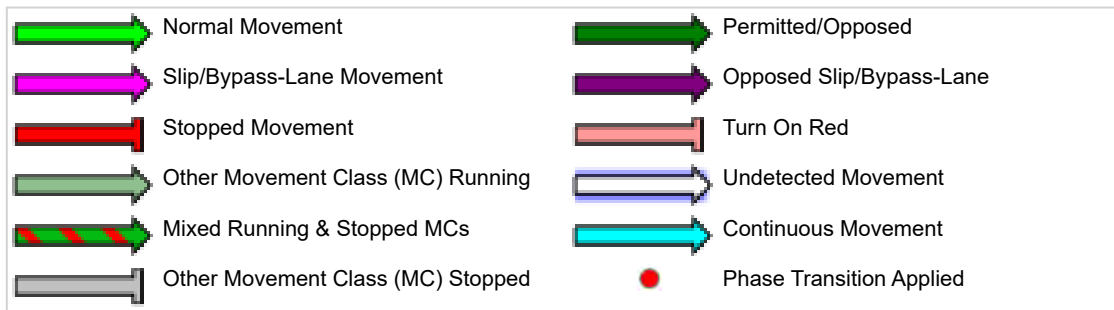
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	43
Green Time (sec)	20	11	23
Phase Time (sec)	26	17	29
Phase Split	36%	24%	40%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	123	0.0	0.217	33.3	LOS C	2.0	13.8	0.91	0.73	0.91	22.1
3	R2	207	0.0	0.350	23.9	LOS B	5.7	39.7	0.81	0.75	0.81	27.8
Approach		331	0.0	0.350	27.4	LOS B	5.7	39.7	0.85	0.75	0.85	25.7
East: Launceston Street												
4	L2	256	0.8	0.204	8.0	LOS A	3.3	23.3	0.39	0.61	0.39	34.9
5	T1	358	5.3	0.342	22.8	LOS B	5.1	37.4	0.84	0.69	0.84	24.7
Approach		614	3.4	0.342	16.6	LOS B	5.1	37.4	0.66	0.66	0.66	29.0
West: Launceston Street												
11	T1	282	4.9	0.269	22.2	LOS B	3.9	28.7	0.82	0.66	0.82	25.0
12	R2	101	0.0	0.356	34.1	LOS C	3.3	23.3	0.94	0.76	0.94	22.0
Approach		383	3.6	0.356	25.4	LOS B	3.9	28.7	0.85	0.69	0.85	24.0
All Vehicles		1327	2.6	0.356	21.8	LOS B	5.7	39.7	0.76	0.69	0.76	26.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	62	0.0	284	0.217	100	33.3	LOS C	2.0	13.8	Full	305	0.0	0.0
Lane 2	62	0.0	284	0.217	100	33.3	LOS C	2.0	13.8	Full	305	0.0	0.0
Lane 3	207	0.0	593	0.350	100	23.9	LOS B	5.7	39.7	Short	60	0.0	NA
Approach	331	0.0		0.350		27.4	LOS B	5.7	39.7				
East: Launceston Street													
Lane 1	256	0.8	1257	0.204	60 ⁵	8.0	LOS A	3.3	23.3	Full	260	0.0	0.0
Lane 2	179	5.3	524	0.342	100	22.8	LOS B	5.1	37.4	Full	260	0.0	0.0
Lane 3	179	5.3	524	0.342	100	22.8	LOS B	5.1	37.4	Short	60	0.0	NA
Approach	614	3.4		0.342		16.6	LOS B	5.1	37.4				
West: Launceston Street													
Lane 1	141	4.9	525	0.269	100	22.2	LOS B	3.9	28.7	Full	130	0.0	0.0
Lane 2	141	4.9	525	0.269	100	22.2	LOS B	3.9	28.7	Full	130	0.0	0.0
Lane 3	101	0.0	284	0.356	100	34.1	LOS C	3.3	23.3	Short	60	0.0	NA
Approach	383	3.6		0.356		25.4	LOS B	3.9	28.7				
Intersection	1327	2.6		0.356		21.8	LOS B	5.7	39.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:32:49 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2030 Dev - PM - LS-YD]

 Network: 10 [2030 Dev - PM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

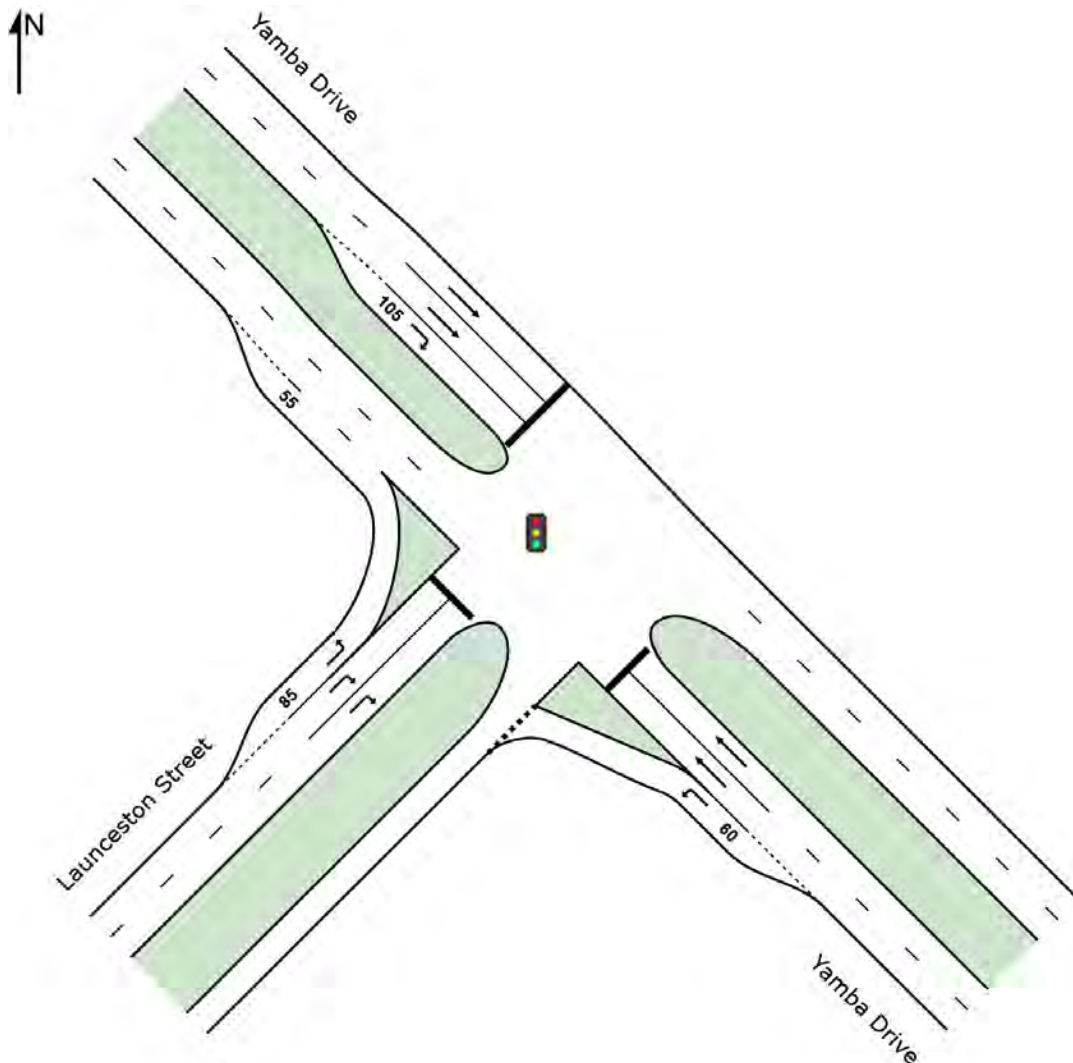
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

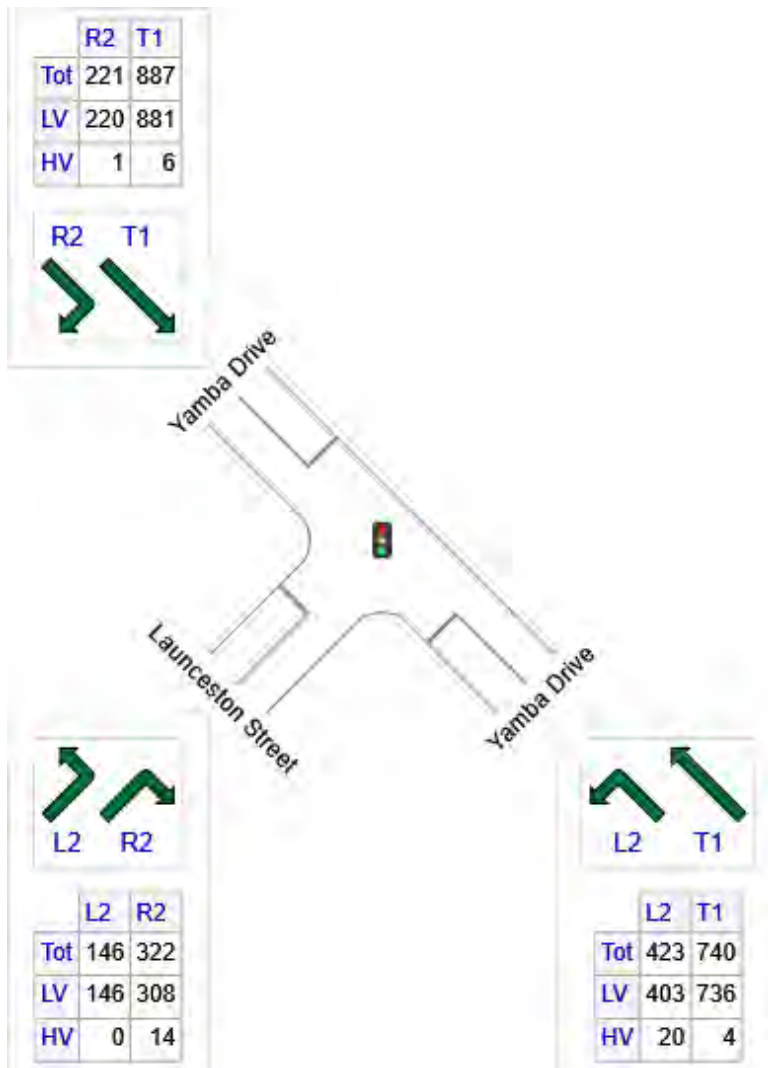
Output Phase Sequence: A, C*, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1163	1139	24
NW: Yamba Drive	1108	1101	7
SW: Launceston Street	468	455	14
Total	2740	2695	45

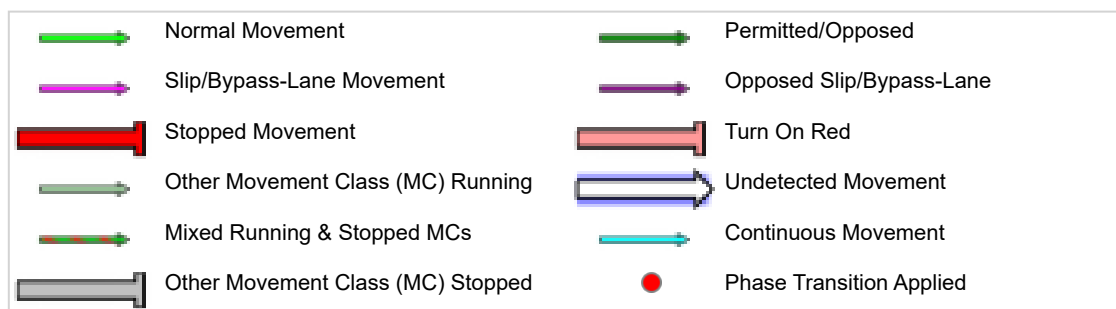
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	C	D	E
Phase Change Time (sec)	0	51	69	100
Green Time (sec)	45	12	25	8
Phase Time (sec)	51	18	31	14
Phase Split	45%	16%	27%	12%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	423	4.7	423	4.7	0.301	5.2	LOS A	1.2	8.9	0.07	0.60	0.07	40.1
5	T1	740	0.6	740	0.6	0.482	8.9	LOS A	8.5	59.6	0.34	0.29	0.34	48.0
Approach		1163	2.1	1163	2.1	0.482	7.6	LOS A	8.5	59.6	0.24	0.40	0.24	44.5
NorthWest: Yamba Drive														
11	T1	887	0.7	887	0.7	0.733	21.3	LOS C	18.9	133.1	0.81	0.74	0.82	26.3
12	R2	221	0.5	221	0.5	0.681	34.0	LOS C	7.4	52.4	0.99	0.83	1.02	26.7
Approach		1108	0.7	1108	0.7	0.733	23.8	LOS C	18.9	133.1	0.85	0.76	0.86	26.4
SouthWest: Launceston Street														
1	L2	146	0.0	146	0.0	0.079	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	39.5
3	R2	322	4.2	322	4.2	0.722	52.7	LOS D	9.1	65.8	0.98	0.90	1.10	12.8
Approach		468	2.9	468	2.9	0.722	37.1	LOS D	9.1	65.8	0.68	0.73	0.76	18.5
All Vehicles		2740	1.7	2740	1.7	0.733	19.2	LOS B	18.9	133.1	0.56	0.60	0.58	29.2

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
SouthEast: Yamba Drive															
Lane 1	423	4.7	423	4.7	1404	0.301	100	5.2	LOS A	1.2	8.9	Short	60	0.0	NA
Lane 2	370	0.6	370	0.6	767	0.482	100	5.6	LOS A	4.4	30.6	Full	65	0.0	0.0
Lane 3	370	0.6	370	0.6	767	0.482	100	12.2	LOS B	8.5	59.6	Full	65	0.0	0.0
Approach	1163	2.1	1163	2.1		0.482		7.6	LOS A	8.5	59.6				
NorthWest: Yamba Drive															
Lane 1	444	0.7	444	0.7	605	0.733	100	21.3	LOS C	18.9	133.1	Full	215	-43.6 ^{N3}	0.0
Lane 2	444	0.7	444	0.7	605	0.733	100	21.3	LOS C	18.9	133.1	Full	215	-43.6 ^{N3}	0.0
Lane 3	221	0.5	221	0.5	325	0.681	100	34.0	LOS C	7.4	52.4	Short	105	0.0	NA
Approach	1108	0.7	1108	0.7		0.733		23.8	LOS C	18.9	133.1				
SouthWest: Launceston Street															
Lane 1	146	0.0	146	0.0	1857	0.079	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	161	4.2	161	4.2	223	0.722	100	52.7	LOS D	9.1	65.8	Full	260	-43.6 ^{N3}	0.0
Lane 3	161	4.2	161	4.2	223	0.722	100	52.7	LOS D	9.1	65.8	Full	260	-43.6 ^{N3}	0.0
Approach	468	2.9	468	2.9		0.722		37.1	LOS D	9.1	65.8				
Intersection	2740	1.7	2740	1.7		0.733		19.2	LOS B	18.9	133.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2030 Dev - PM - WS-YD]**

Network: 10 [2030 Dev - PM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2030 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

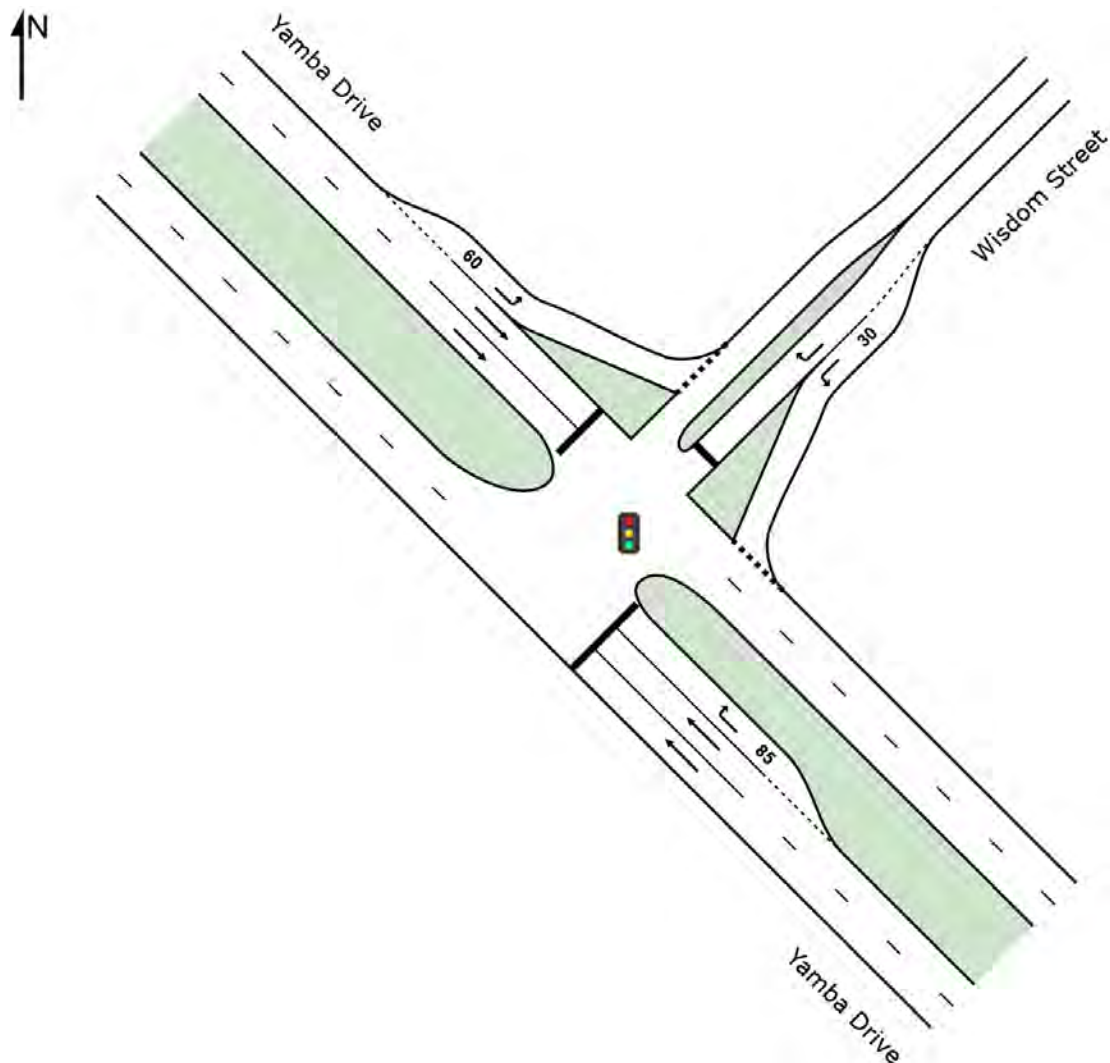
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, C*, D, E

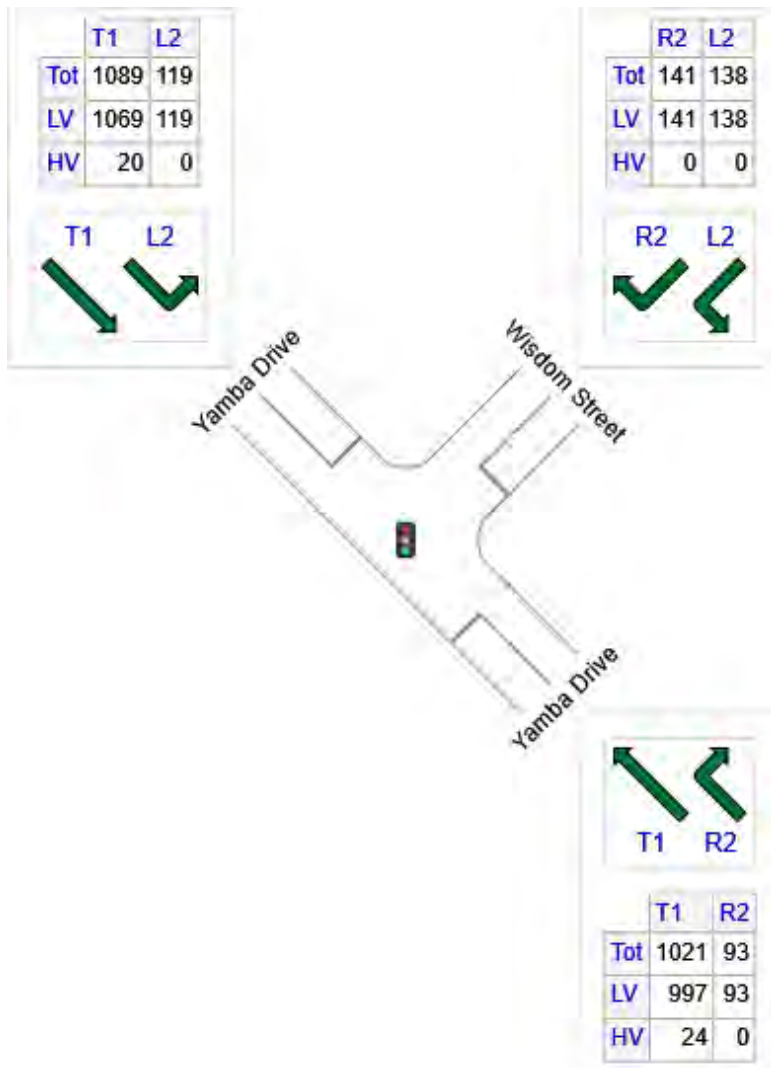
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1114	1089	24
NE: Wisdom Street	279	279	0
NW: Yamba Drive	1208	1188	20
Total	2601	2557	44

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
11	T1	1021	2.4	1021	2.4	0.703	30.5	LOS C	24.7	176.4	0.89	0.78	0.89	42.0
12	R2	93	0.0	93	0.0	0.711	67.7	LOS E	5.5	38.3	1.00	0.82	1.16	31.7
Approach		1114	2.2	1114	2.2	0.711	33.6	LOS C	24.7	176.4	0.90	0.79	0.91	40.1
NorthEast: Wisdom Street														
1	L2	138	0.0	138	0.0	0.153	6.1	LOS A	1.9	13.1	0.31	0.54	0.31	49.2
3	R2	141	0.0	141	0.0	0.346	44.2	LOS D	6.7	46.8	0.89	0.77	0.89	23.5
Approach		279	0.0	279	0.0	0.346	25.4	LOS C	6.7	46.8	0.60	0.66	0.60	36.1
NorthWest: Yamba Drive														
4	L2	119	0.0	119	0.0	0.074	4.7	LOS A	0.1	0.7	0.02	0.59	0.02	40.3
5	T1	1089	1.8	1089	1.8	0.512	13.0	LOS B	13.9	99.0	0.50	0.45	0.50	59.1
Approach		1208	1.7	1208	1.7	0.512	12.2	LOS B	13.9	99.0	0.46	0.46	0.46	56.6
All Vehicles		2601	1.7	2601	1.7	0.711	22.8	LOS C	24.7	176.4	0.66	0.62	0.67	45.3

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	533	2.4	533	2.4	758	0.703	100	31.0	LOS C	24.7	176.4	Full	735	0.0	0.0
Lane 2	489	2.4	489	2.4	695 ¹	0.703	100	30.0	LOS C	22.0	156.8	Full	735	0.0	0.0
Lane 3	93	0.0	93	0.0	130	0.711	100	67.7	LOS E	5.5	38.3	Short	85	0.0	NA
Approach	1114	2.2	1114	2.2		0.711		33.6	LOS C	24.7	176.4				
NorthEast: Wisdom Street															
Lane 1	138	0.0	138	0.0	902	0.153	100	6.1	LOS A	1.9	13.1	Short	30	0.0	NA
Lane 2	141	0.0	141	0.0	407	0.346	100	44.2	LOS D	6.7	46.8	Full	680	0.0	0.0
Approach	279	0.0	279	0.0		0.346		25.4	LOS C	6.7	46.8				
NorthWest: Yamba Drive															
Lane 1	119	0.0	119	0.0	1603	0.074	100	4.7	LOS A	0.1	0.7	Short	60	0.0	NA
Lane 2	545	1.8	545	1.8	1065	0.512	100	13.0	LOS B	13.9	99.0	Full	65	0.0	43.6
Lane 3	545	1.8	545	1.8	1065	0.512	100	13.0	LOS B	13.9	99.0	Full	65	0.0	43.6
Approach	1208	1.7	1208	1.7		0.512		12.2	LOS B	13.9	99.0				
Intersection	2601	1.7	2601	1.7		0.711		22.8	LOS C	24.7	176.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:23:18 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

Appendix F:

Intersection Performance Results – 2040 Development Scenario

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2040 Dev - AM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 103 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

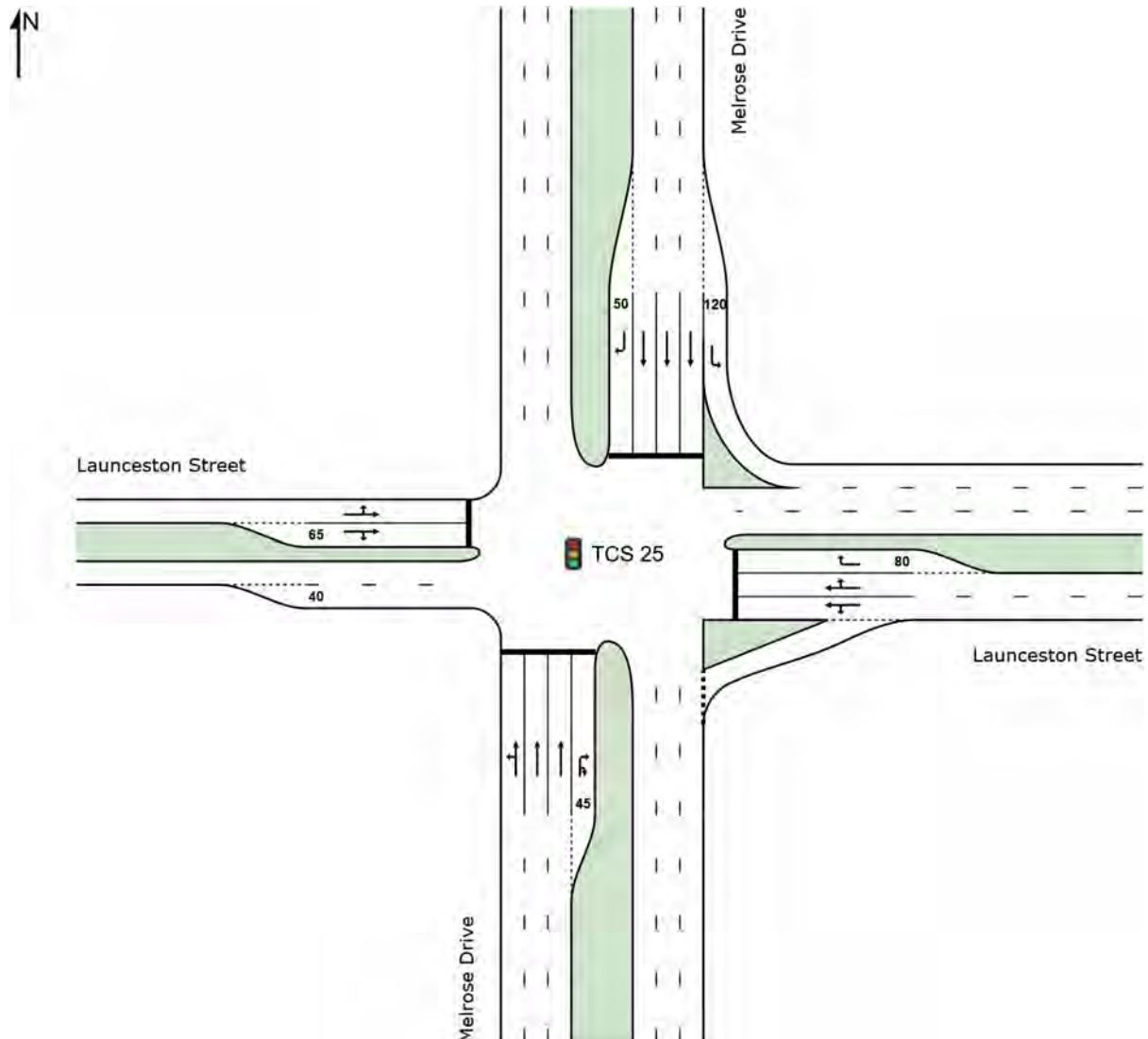
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

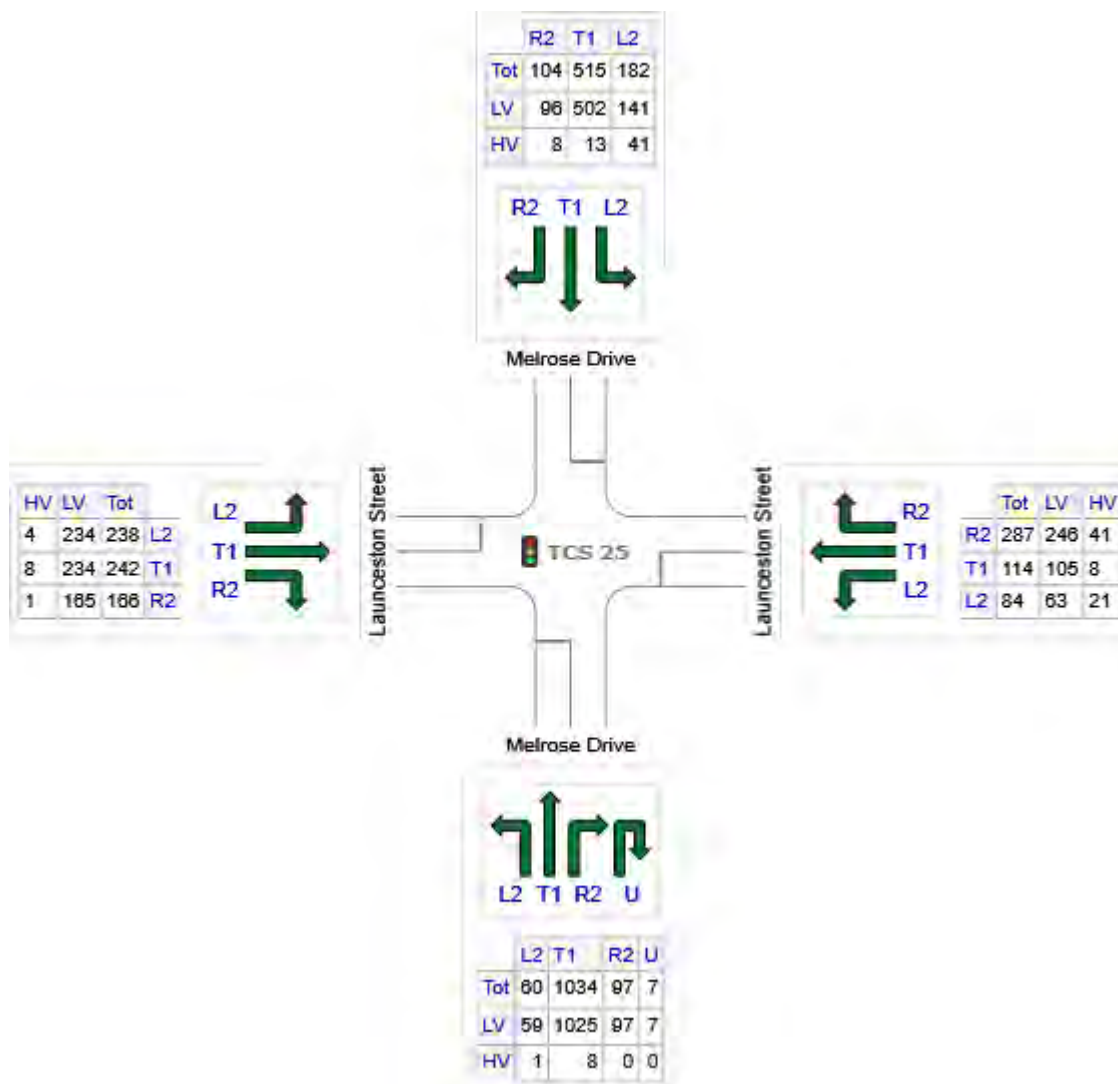
Output Phase Sequence: A, D, E, F

(* Variable Phase)

Site Layout



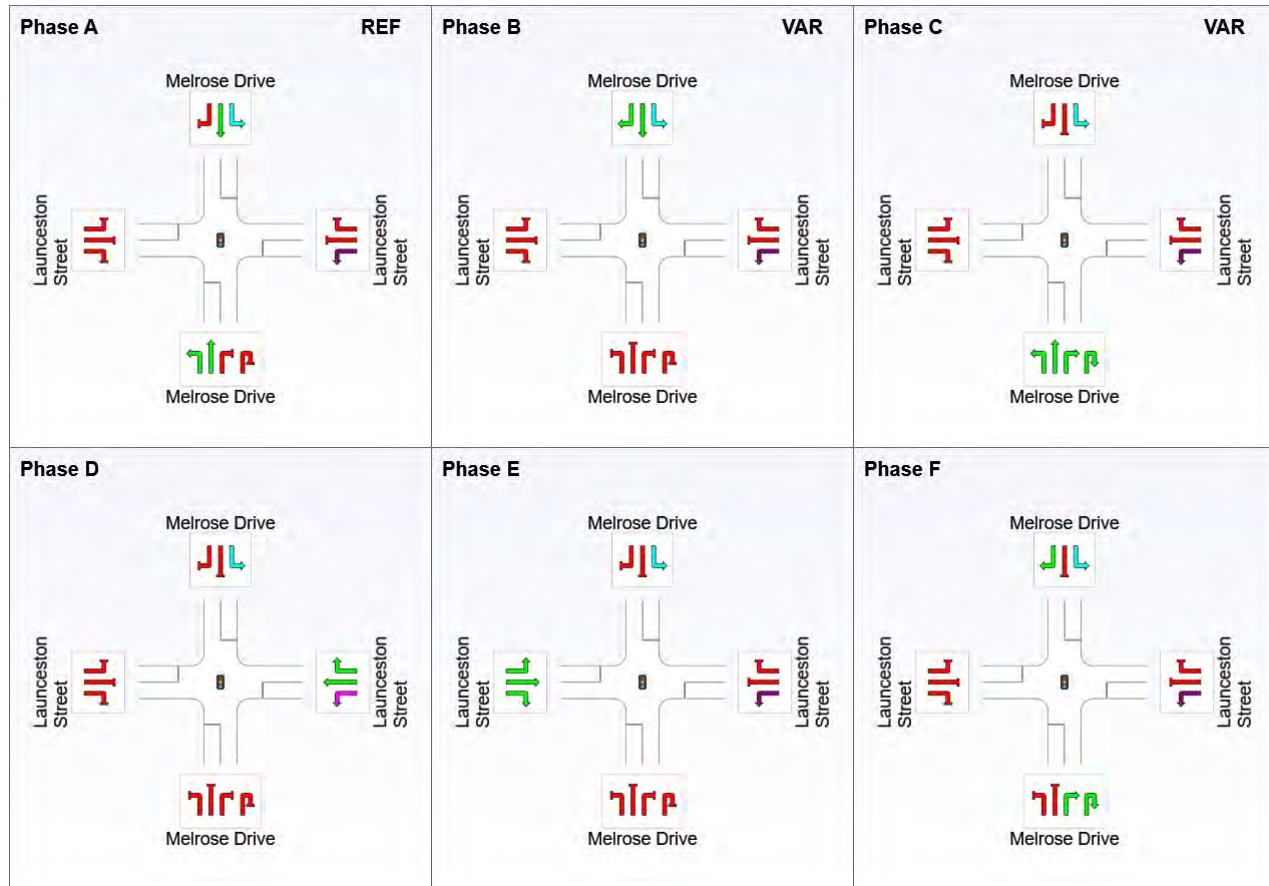
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	1198	1188	9
E: Launceston Street	485	415	71
N: Melrose Drive	801	739	62
W: Launceston Street	646	633	14
Total	3131	2975	156

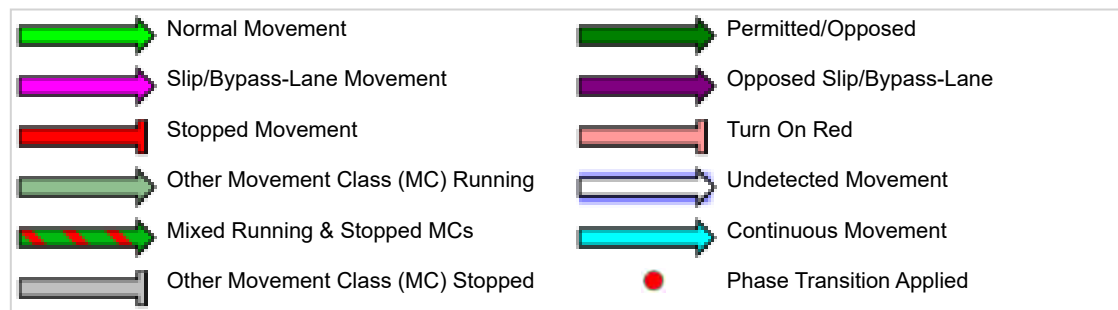
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	34	58	88
Green Time (sec)	28	18	24	9
Phase Time (sec)	34	24	30	15
Phase Split	33%	23%	29%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	60	1.8	0.729	43.5	LOS D	17.9	126.3	0.97	0.86	1.00	19.3
2	T1	1034	0.8	0.729	37.6	LOS C	18.0	127.1	0.96	0.85	0.99	31.5
3	R2	97	0.0	0.657	58.3	LOS E	5.4	38.1	1.00	0.82	1.09	13.3
3u	U	7	0.0	0.657	59.7	LOS E	5.4	38.1	1.00	0.82	1.09	18.0
Approach		1198	0.8	0.729	39.7	LOS C	18.0	127.1	0.96	0.85	1.00	29.4
East: Launceston Street												
4	L2	84	25.0	0.203	14.0	LOS A	2.1	17.4	0.60	0.66	0.60	32.6
5	T1	114	7.4	0.597	31.5	LOS C	8.7	66.9	0.83	0.75	0.83	15.9
6	R2	287	14.3	0.597	49.0	LOS D	8.7	66.9	0.97	0.81	0.97	24.9
Approach		485	14.5	0.597	38.8	LOS C	8.7	66.9	0.87	0.77	0.87	24.1
North: Melrose Drive												
7	L2	182	22.5	0.114	5.9	LOS A	0.0	0.0	0.00	0.52	0.00	48.8
8	T1	515	2.5	0.329	32.4	LOS C	6.9	49.5	0.84	0.69	0.84	33.8
9	R2	104	8.1	0.679	58.8	LOS E	5.5	41.1	1.00	0.83	1.12	22.0
Approach		801	7.8	0.679	29.8	LOS C	6.9	49.5	0.67	0.67	0.69	33.8
West: Launceston Street												
10	L2	238	1.8	0.744	46.4	LOS D	15.7	112.1	0.99	0.88	1.05	25.2
11	T1	242	3.5	0.744	41.8	LOS C	15.9	113.2	0.99	0.88	1.05	13.2
12	R2	166	0.6	0.744	46.3	LOS D	15.9	113.2	0.99	0.89	1.05	17.7
Approach		646	2.1	0.744	44.6	LOS D	15.9	113.2	0.99	0.88	1.05	19.6
All Vehicles		3131	5.0	0.744	38.1	LOS C	18.0	127.1	0.88	0.80	0.91	27.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	381	1.0	523	0.729	100	38.8	LOS C	17.9	126.3	Full	205	0.0	0.0
Lane 2	384	0.8	527	0.729	100	37.9	LOS C	18.0	127.1	Full	205	0.0	0.0
Lane 3	328	0.8	450 ¹	0.729	100	37.1	LOS C	15.0	105.7	Full	205	0.0	0.0
Lane 4	104	0.0	159	0.657	100	58.4	LOS E	5.4	38.1	Short	45	0.0	NA
Approach	1198	0.8		0.729		39.7	LOS C	18.0	127.1				
East: Launceston Street													
Lane 1	127	19.1	626	0.203	34 ⁶	12.6	LOS A	2.1	17.4	Full	90	0.0	0.0
Lane 2	182	11.6	305	0.597	100	47.2	LOS D	8.7	66.9	Full	90	0.0	0.0
Lane 3	176	14.3	295	0.597	100	49.0	LOS D	8.4	66.0	Short	80	0.0	NA
Approach	485	14.5		0.597		38.8	LOS C	8.7	66.9				
North: Melrose Drive													
Lane 1	182	22.5	1600	0.114	100	5.9	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	172	2.5	522	0.329	100	32.4	LOS C	6.9	49.5	Full	470	0.0	0.0
Lane 3	172	2.5	522	0.329	100	32.4	LOS C	6.9	49.5	Full	470	0.0	0.0
Lane 4	172	2.5	522	0.329	100	32.4	LOS C	6.9	49.5	Full	470	0.0	0.0
Lane 5	104	8.1	153	0.679	100	58.8	LOS E	5.5	41.1	Short	50	0.0	NA
Approach	801	7.8		0.679		29.8	LOS C	6.9	49.5				
West: Launceston Street													
Lane 1	321	2.2	432	0.744	100	45.2	LOS D	15.7	112.1	Full	95	0.0	20.9 ⁸
Lane 2	325	2.0	437	0.744	100	44.1	LOS D	15.9	113.2	Short	65	0.0	NA
Approach	646	2.1		0.744		44.6	LOS D	15.9	113.2				
Intersection	3131	5.0		0.744		38.1	LOS C	18.0	127.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Site: TCS 340 [2040 Dev - AM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 78 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

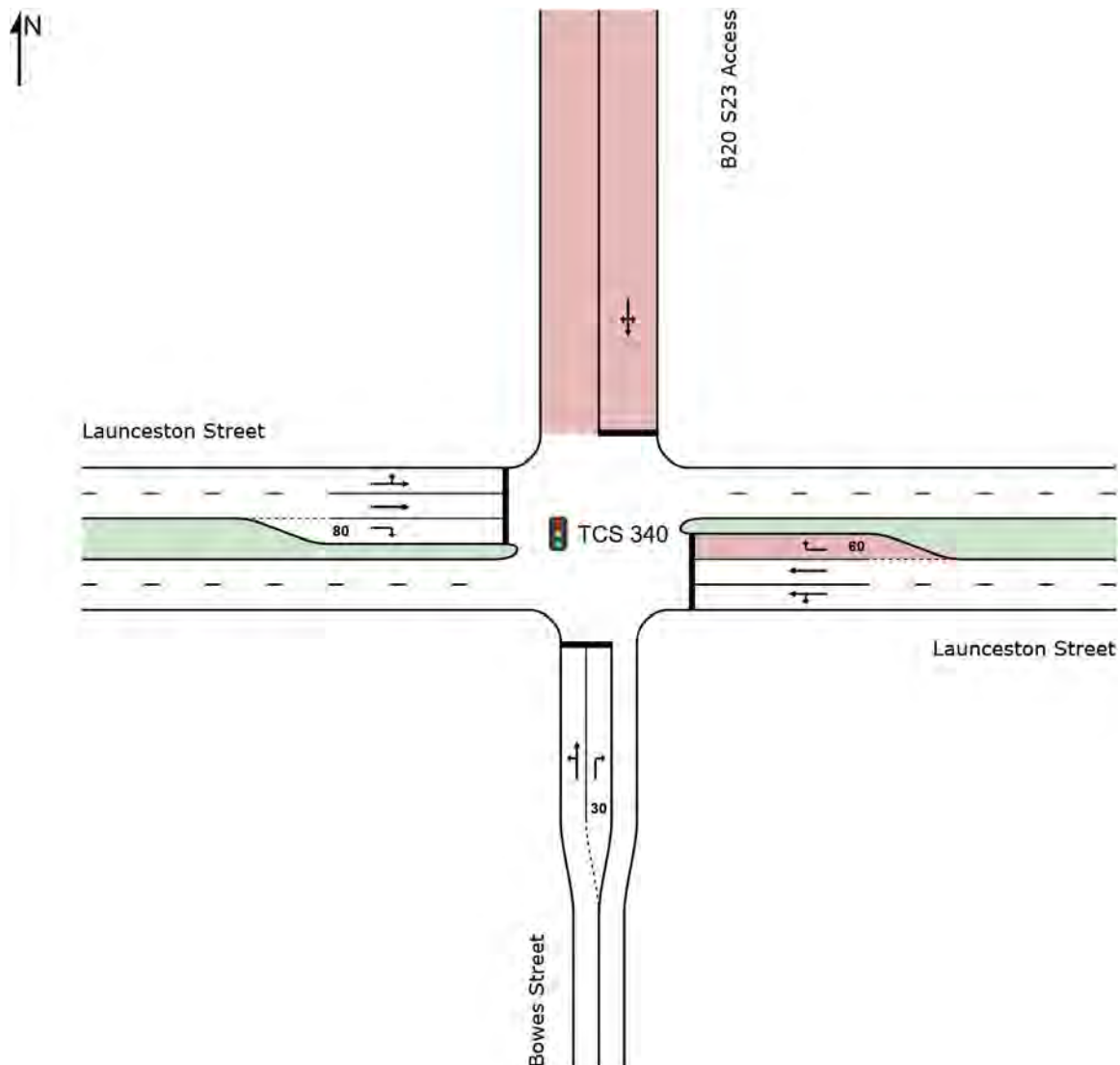
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

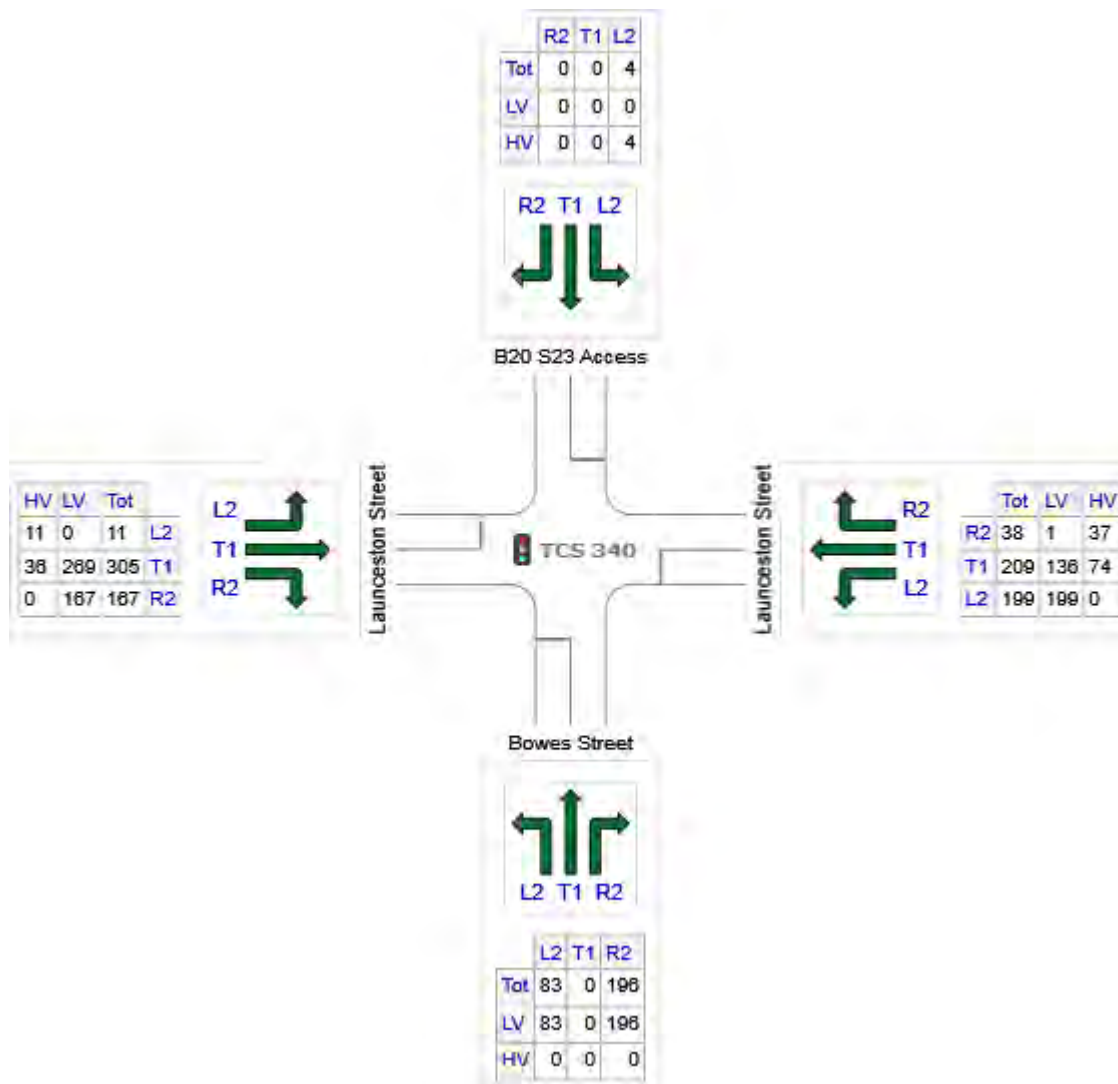
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



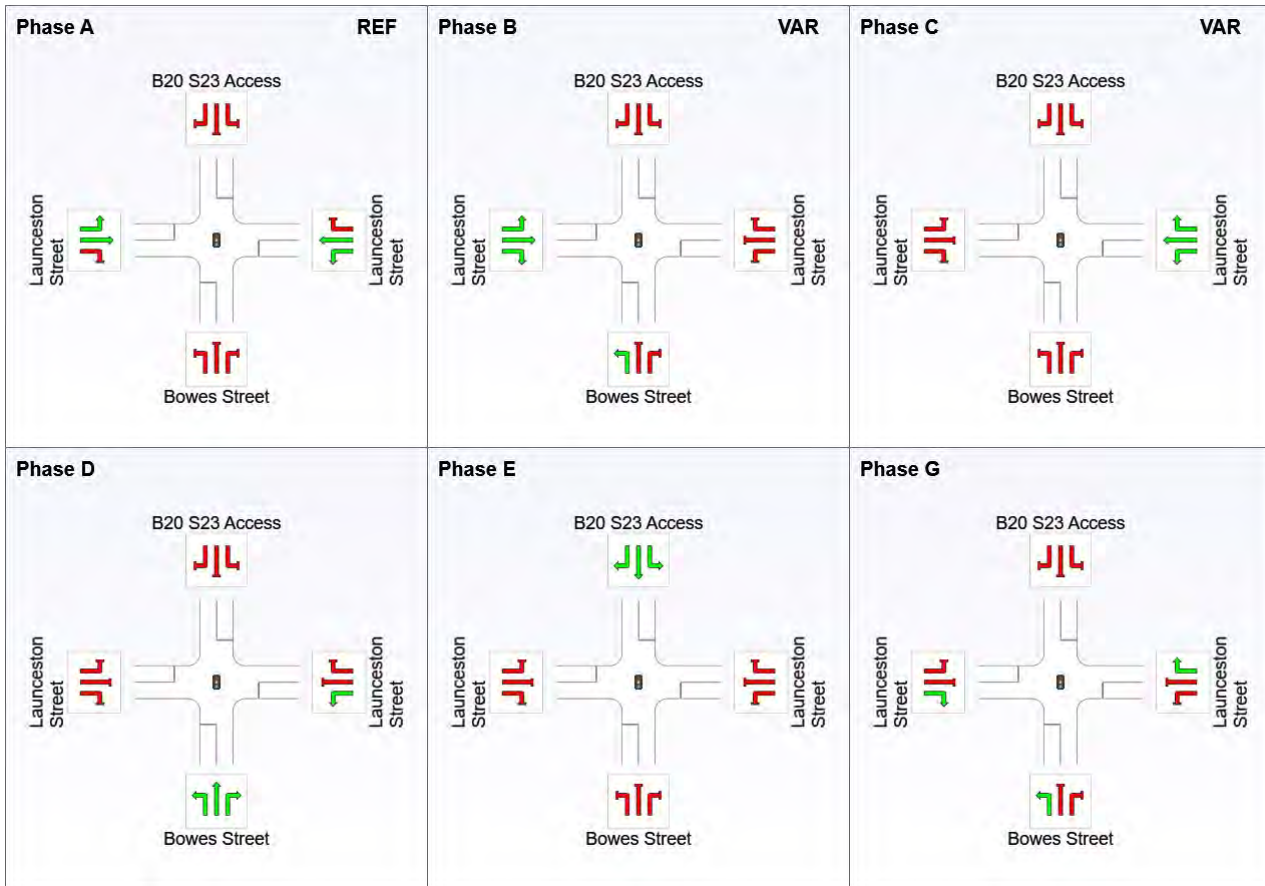
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	279	279	0
E: Launceston Street	446	336	111
N: B20 S23 Access	4	0	4
W: Launceston Street	483	437	46
Total	1213	1052	161

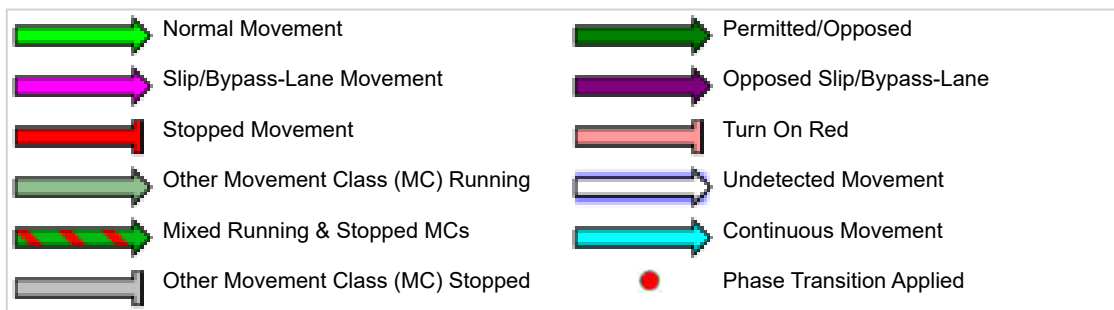
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	20	32	53	65
Green Time (sec)	14	6	15	6	7
Phase Time (sec)	20	12	21	12	13
Phase Split	26%	15%	27%	15%	17%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	83	0.0	0.100	10.2	LOS A	1.1	7.5	0.60	0.67	0.60	25.6
2	T1	0	0.0	0.100	10.7	LOS A	1.1	7.5	0.60	0.67	0.60	15.1
3	R2	196	0.0	0.548	34.9	LOS C	7.0	48.8	0.95	0.80	0.95	11.2
Approach		279	0.0	0.548	27.5	LOS B	7.0	48.8	0.85	0.76	0.85	13.6
East: Launceston Street												
4	L2	199	0.0	0.544	21.2	LOS B	5.9	43.8	0.90	0.79	0.90	16.8
5	T1	209	35.2	0.544	28.3	LOS B	5.9	43.8	0.94	0.78	0.94	18.4
6	R2	38	97.2	0.385	46.2	LOS D	1.5	19.4	0.98	0.74	0.98	8.9
Approach		446	24.8	0.544	26.7	LOS B	5.9	51.1	0.93	0.78	0.93	16.6
North: B20 S23 Access												
7	L2	4	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	8.9
8	T1	0	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	5.6
9	R2	0	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	9.4
Approach		4	100.0	0.049	38.8	LOS C	0.2	2.2	0.95	0.62	0.95	8.8
West: Launceston Street												
10	L2	11	100.0	0.234	26.2	LOS B	4.3	34.4	0.76	0.64	0.76	16.4
11	T1	305	11.7	0.234	20.3	LOS B	4.5	34.4	0.76	0.63	0.76	23.4
12	R2	167	0.0	0.474	23.2	LOS B	3.7	25.9	0.95	0.78	0.95	16.2
Approach		483	9.6	0.474	21.6	LOS B	4.5	34.4	0.83	0.68	0.83	20.7
All Vehicles		1213	13.3	0.548	24.8	LOS B	7.0	51.1	0.87	0.74	0.87	17.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	83	0.0	831	0.100	100	10.2	LOS A	1.1	7.5	Full	35	0.0	35.3 ⁸
Lane 2	196	0.0	357	0.548	100	34.9	LOS C	7.0	48.8	Short	30	0.0	NA
Approach	279	0.0		0.548		27.5	LOS B	7.0	48.8				
East: Launceston Street													
Lane 1	254	7.6	467	0.544	100	20.0	LOS B	5.9	43.8	Full	95	0.0	0.0
Lane 2	155	35.2	285	0.544	100	32.8	LOS C	5.6	51.1	Full	95	0.0	0.0
Lane 3	38	97.2	98	0.385	100	46.2	LOS D	1.5	19.4	Short	60	0.0	NA
Approach	446	24.8		0.544		26.7	LOS B	5.9	51.1				
North: B20 S23 Access													
Lane 1	4	100.0	91	0.049	100	38.8	LOS C	0.2	2.2	Full	30	0.0	0.0
Approach	4	100.0		0.049		38.8	LOS C	0.2	2.2				
West: Launceston Street													
Lane 1	154	17.7	658	0.234	100	21.1	LOS B	4.3	34.4	Full	105	0.0	0.0
Lane 2	161	11.7	689	0.234	100	20.3	LOS B	4.5	34.4	Full	105	0.0	0.0
Lane 3	167	0.0	353	0.474	100	23.2	LOS B	3.7	25.9	Short	80	0.0	NA
Approach	483	9.6		0.474		21.6	LOS B	4.5	34.4				
Intersection	1213	13.3		0.548		24.8	LOS B	7.0	51.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▽ Site: [2040 Dev - AM: BS-WS]

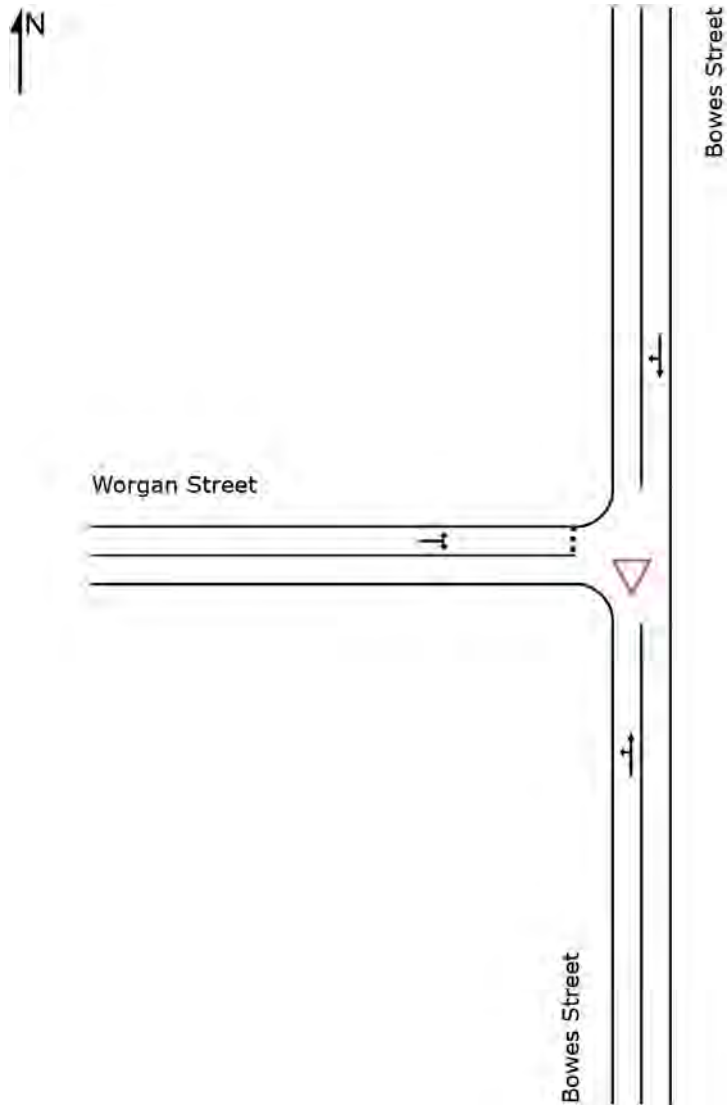
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

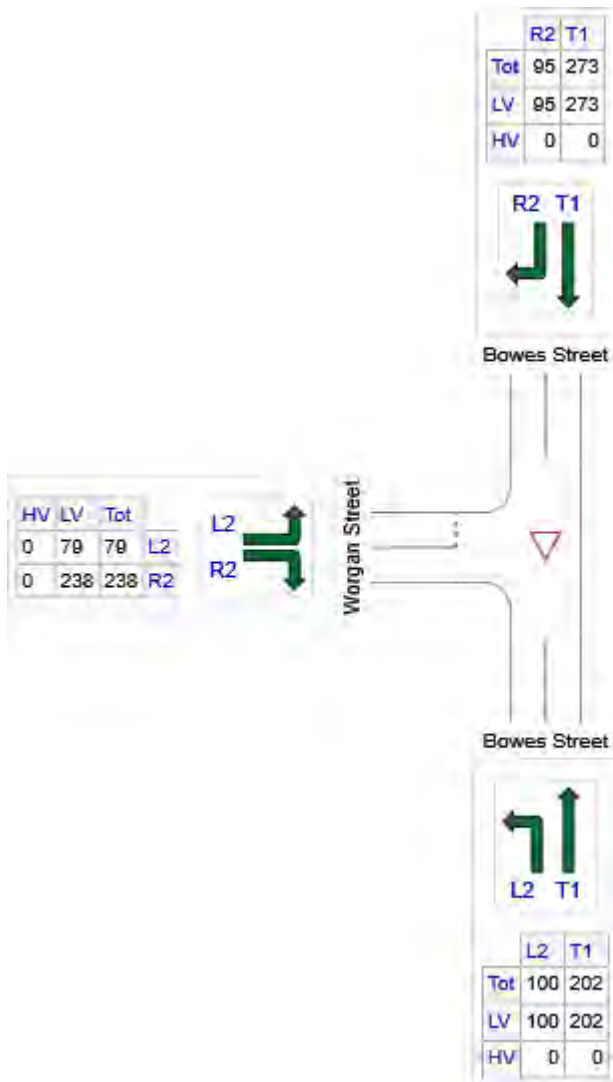
Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	302	302	0
N: Bowes Street	367	367	0
W: Worgan Street	317	317	0
Total	986	986	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	100	0.0	0.157	4.6	LOS A	0.0	0.0	0.00	0.18	0.00	32.9
2	T1	202	0.0	0.157	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	43.9
Approach		302	0.0	0.157	1.5	NA	0.0	0.0	0.00	0.18	0.00	39.5
North: Bowes Street												
8	T1	273	0.0	0.211	0.5	LOS A	0.7	4.7	0.18	0.15	0.18	43.9
9	R2	95	0.0	0.211	4.4	LOS A	0.7	4.7	0.18	0.15	0.18	17.2
Approach		367	0.0	0.211	1.5	NA	0.7	4.7	0.18	0.15	0.18	35.3
West: Worgan Street												
10	L2	79	0.0	0.374	4.5	LOS A	1.9	13.2	0.48	0.75	0.59	18.1
12	R2	238	0.0	0.374	7.0	LOS A	1.9	13.2	0.48	0.75	0.59	29.1
Approach		317	0.0	0.374	6.4	LOS A	1.9	13.2	0.48	0.75	0.59	26.6
All Vehicles		986	0.0	0.374	3.1	NA	1.9	13.2	0.22	0.35	0.26	33.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	302	0.0	1918	0.157	100	1.5	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	302	0.0		0.157		1.5	NA	0.0	0.0				
North: Bowes Street													
Lane 1	367	0.0	1738	0.211	100	1.5	LOS A	0.7	4.7	Full	35	0.0	0.0
Approach	367	0.0		0.211		1.5	NA	0.7	4.7				
West: Worgan Street													
Lane 1	317	0.0	848	0.374	100	6.4	LOS A	1.9	13.2	Full	35	0.0	0.0
Approach	317	0.0		0.374		6.4	LOS A	1.9	13.2				
Intersection	986	0.0		0.374		3.1	NA	1.9	13.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2040 Dev - AM: AS-BS-MS]

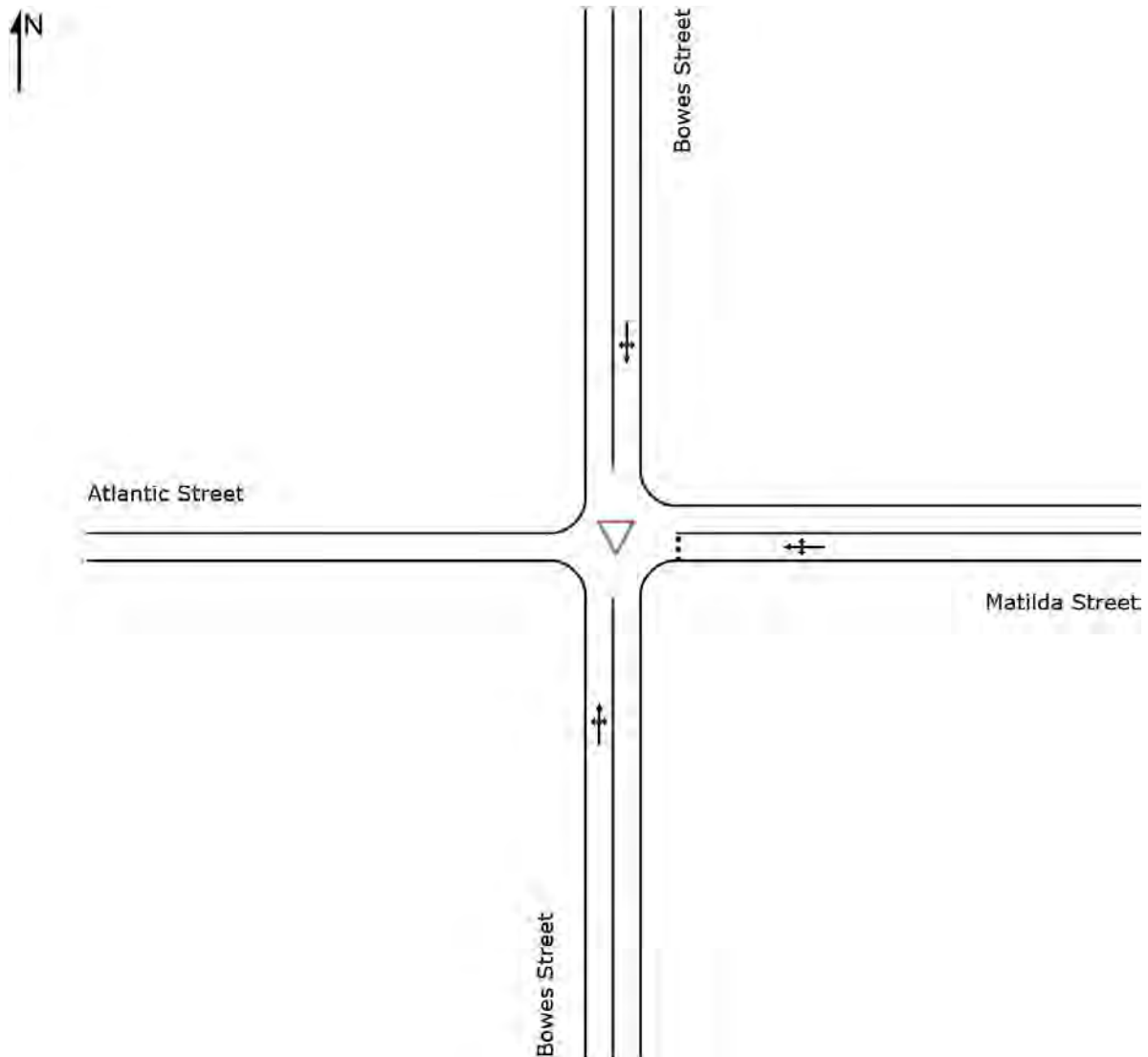
Atlantic Street / Bowes Street / Matilda Street

Existing Priority-Controlled (Give-Way) T-Intersection

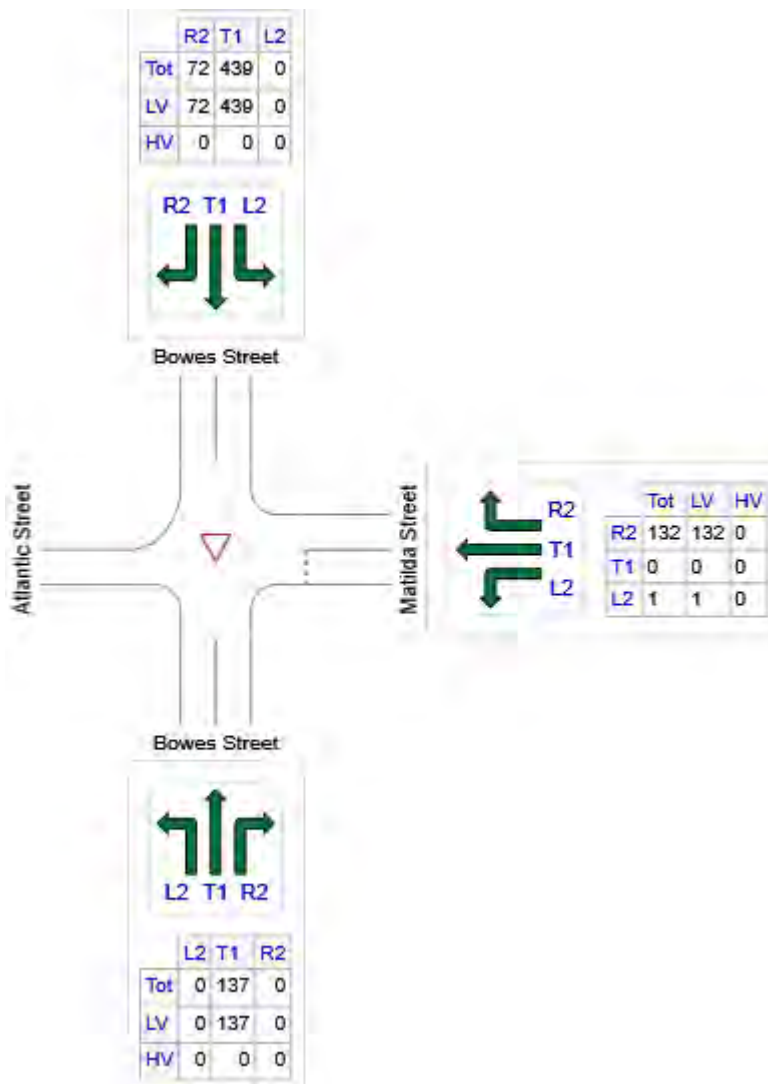
Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	137	137	0
E: Matilda Street	133	133	0
N: Bowes Street	511	511	0
Total	780	780	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.070	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	137	0.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.070	5.3	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		137	0.0	0.070	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	1	0.0	0.256	6.7	LOS A	0.9	6.6	0.61	0.85	0.68	22.5
5	T1	0	0.0	0.256	8.4	LOS A	0.9	6.6	0.61	0.85	0.68	19.8
6	R2	132	0.0	0.256	10.2	LOS A	0.9	6.6	0.61	0.85	0.68	27.7
Approach		133	0.0	0.256	10.1	LOS A	0.9	6.6	0.61	0.85	0.68	27.7
North: Bowes Street												
7	L2	0	0.0	0.272	5.1	LOS A	0.6	4.0	0.10	0.09	0.10	44.5
8	T1	439	0.0	0.272	0.1	LOS A	0.6	4.0	0.10	0.09	0.10	45.9
9	R2	72	0.0	0.272	5.4	LOS A	0.6	4.0	0.10	0.09	0.10	28.6
Approach		511	0.0	0.272	0.9	NA	0.6	4.0	0.10	0.09	0.10	41.0
All Vehicles		780	0.0	0.272	2.3	NA	0.9	6.6	0.17	0.20	0.18	38.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	137	0.0	1949	0.070	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	137	0.0		0.070		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	133	0.0	519	0.256	100	10.1	LOS A	0.9	6.6	Full	80	0.0	0.0
Approach	133	0.0		0.256		10.1	LOS A	0.9	6.6				
North: Bowes Street													
Lane 1	511	0.0	1880	0.272	100	0.9	LOS A	0.6	4.0	Full	110	0.0	0.0
Approach	511	0.0		0.272		0.9	NA	0.6	4.0				
Intersection	780	0.0		0.272		2.3	NA	0.9	6.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - AM: BS-EWL]

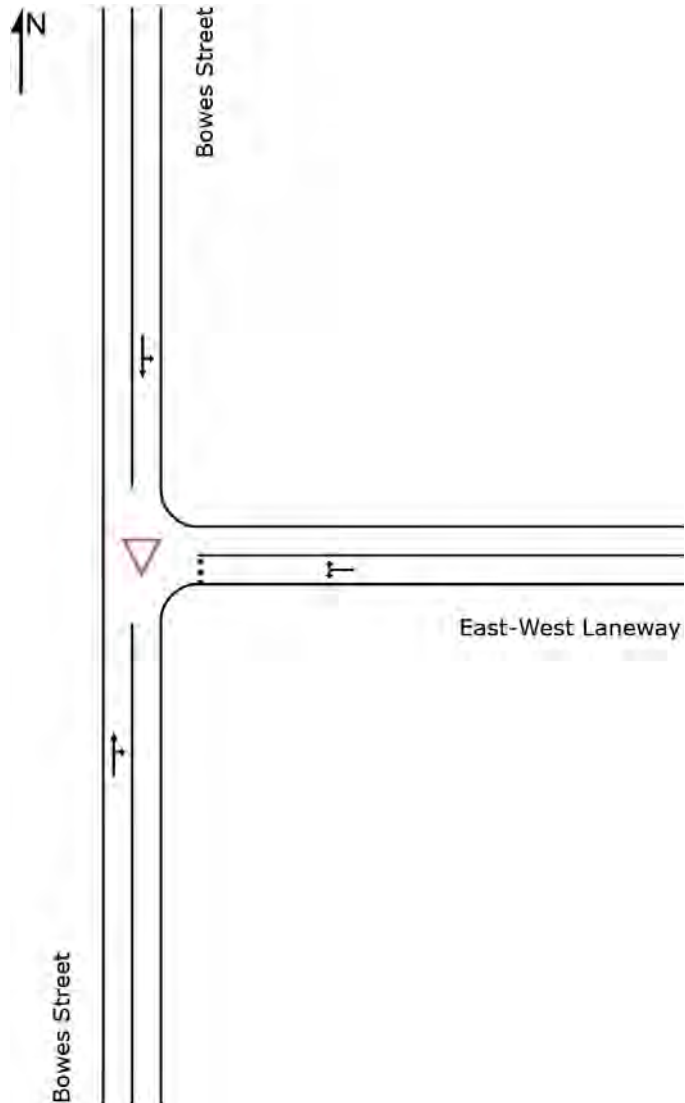
Bowes Street / East-West Laneway

Proposed Priority-Controlled (Give-Way) T-Intersection

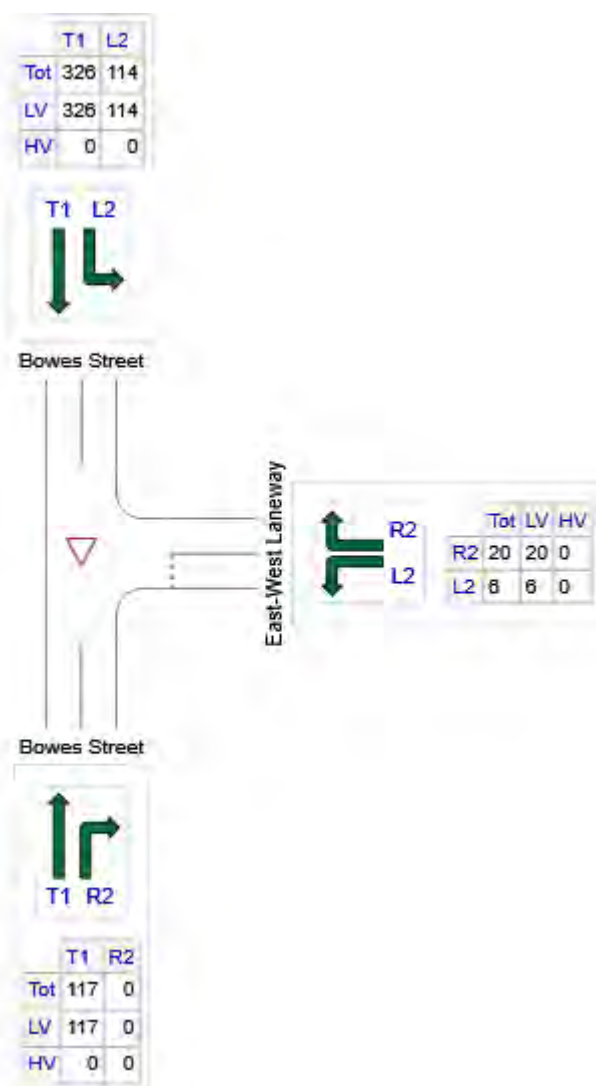
Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	117	117	0
E: East-West Laneway	26	26	0
N: Bowes Street	440	440	0
Total	583	583	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	117	0.0	0.060	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.060	6.0	LOS A	0.0	0.0	0.00	0.00	0.00	41.7
Approach		117	0.0	0.060	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: East-West Laneway												
4	L2	6	0.0	0.030	1.1	LOS A	0.1	0.7	0.41	0.37	0.41	22.9
6	R2	20	0.0	0.030	2.7	LOS A	0.1	0.7	0.41	0.37	0.41	22.4
Approach		26	0.0	0.030	2.3	LOS A	0.1	0.7	0.41	0.37	0.41	22.5
North: Bowes Street												
7	L2	114	0.0	0.229	4.3	LOS A	0.0	0.0	0.00	0.14	0.00	25.5
8	T1	326	0.0	0.229	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	44.7
Approach		440	0.0	0.229	1.1	NA	0.0	0.0	0.00	0.14	0.00	38.5
All Vehicles		583	0.0	0.229	1.0	NA	0.1	0.7	0.02	0.12	0.02	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	117	0.0	1949	0.060	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	117	0.0		0.060		0.0	NA	0.0	0.0				
East: East-West Laneway													
Lane 1	26	0.0	868	0.030	100	2.3	LOS A	0.1	0.7	Full	30	0.0	0.0
Approach	26	0.0		0.030		2.3	LOS A	0.1	0.7				
North: Bowes Street													
Lane 1	440	0.0	1925	0.229	100	1.1	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	440	0.0		0.229		1.1	NA	0.0	0.0				
Intersection	583	0.0		0.229		1.0	NA	0.1	0.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

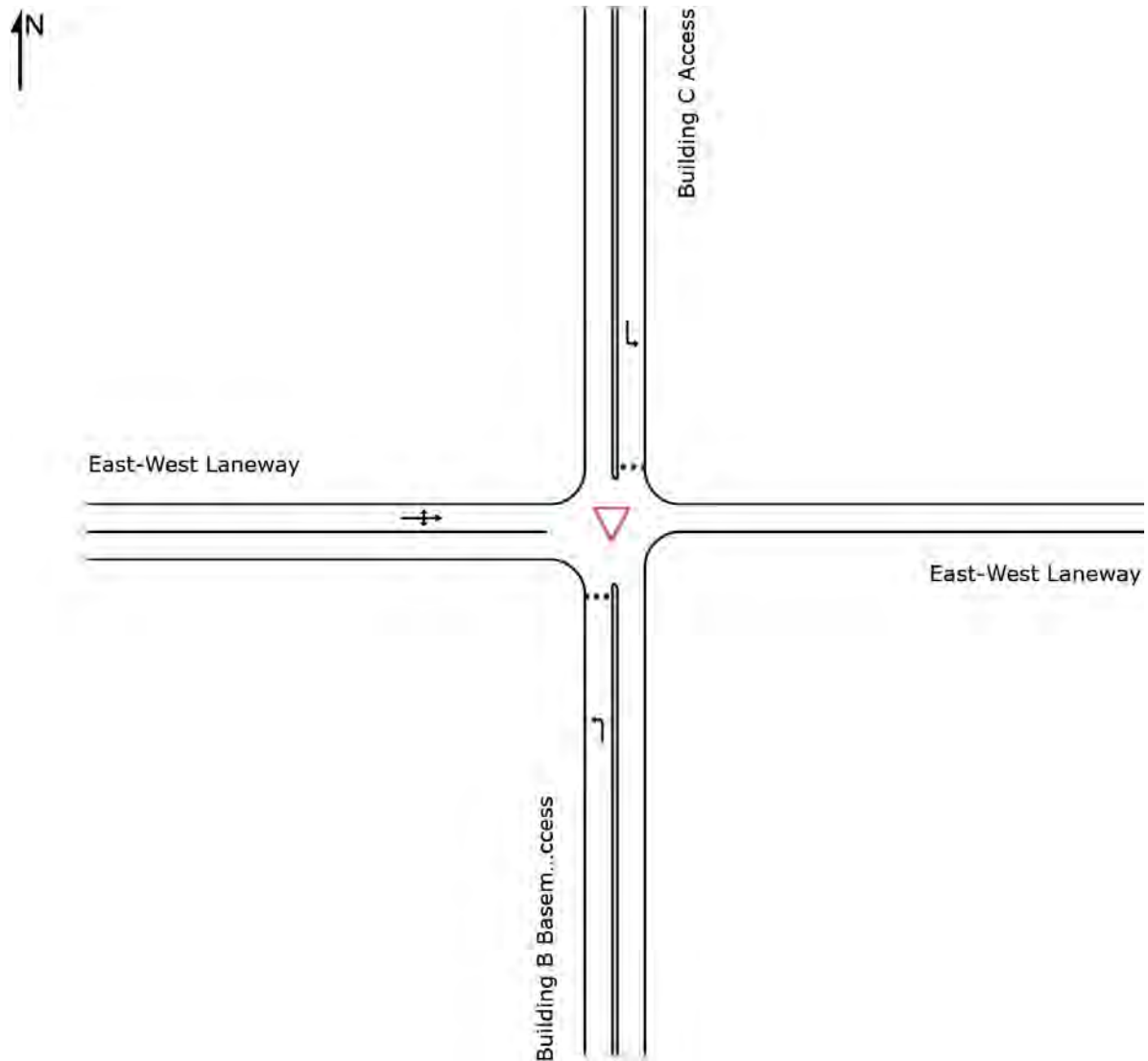
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

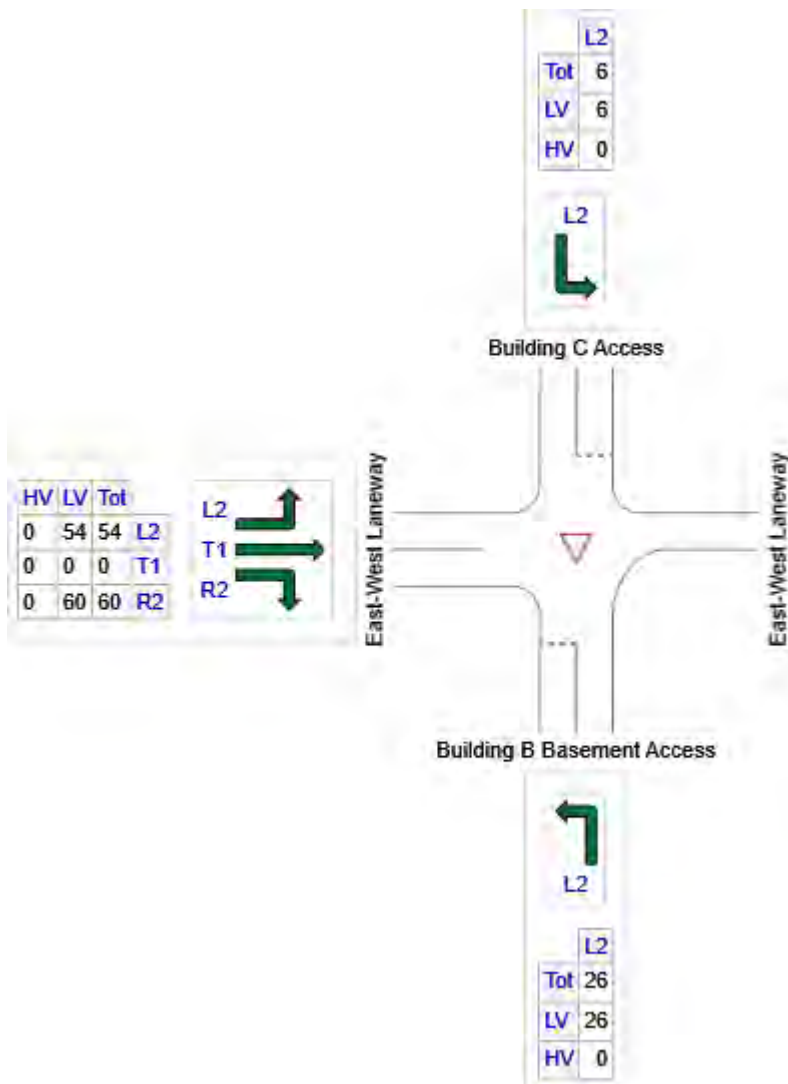
▼ Site: [2040 Dev - AM: BldgBB-BldgC-EWL]

Building B Basement Access / Building C Access / East-West Laneway
Proposed Priority-Controlled (Give-Way) T-Intersection
Site Category: 2040 Development Scenario - Weekday Morning Peak Hour
Giveway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Building B Basement Access	26	26	0
N: Building C Access	6	6	0
W: East-West Laneway	114	114	0
Total	146	146	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Building B Basement Access												
1	L2	26	0.0	0.014	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
Approach		26	0.0	0.014	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
North: Building C Access												
4	L2	6	0.0	0.004	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	26.3
Approach		6	0.0	0.004	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	26.3
West: East-West Laneway												
7	L2	54	0.0	0.061	3.1	LOS A	0.0	0.0	0.00	0.53	0.00	23.1
8	T1	0	0.0	0.061	0.2	LOS A	0.0	0.0	0.00	0.53	0.00	39.0
12	R2	60	0.0	0.061	2.9	LOS A	0.0	0.0	0.00	0.53	0.00	25.6
Approach		114	0.0	0.061	3.0	NA	0.0	0.0	0.00	0.53	0.00	24.3
All Vehicles		146	0.0	0.061	2.7	NA	0.0	0.1	0.00	0.50	0.00	24.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Building B Basement Access													
Lane 1	26	0.0	1857	0.014	100	2.3	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	26	0.0		0.014		2.3	LOS A	0.0	0.0				
North: Building C Access													
Lane 1	6	0.0	1636	0.004	100	0.0	LOS A	0.0	0.1	Full	10	0.0	0.0
Approach	6	0.0		0.004		0.0	LOS A	0.0	0.1				
West: East-West Laneway													
Lane 1	114	0.0	1857	0.061	100	3.0	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	114	0.0		0.061		3.0	NA	0.0	0.0				
Intersection	146	0.0		0.061		2.7	NA	0.0	0.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - AM: BldgBP-BS]

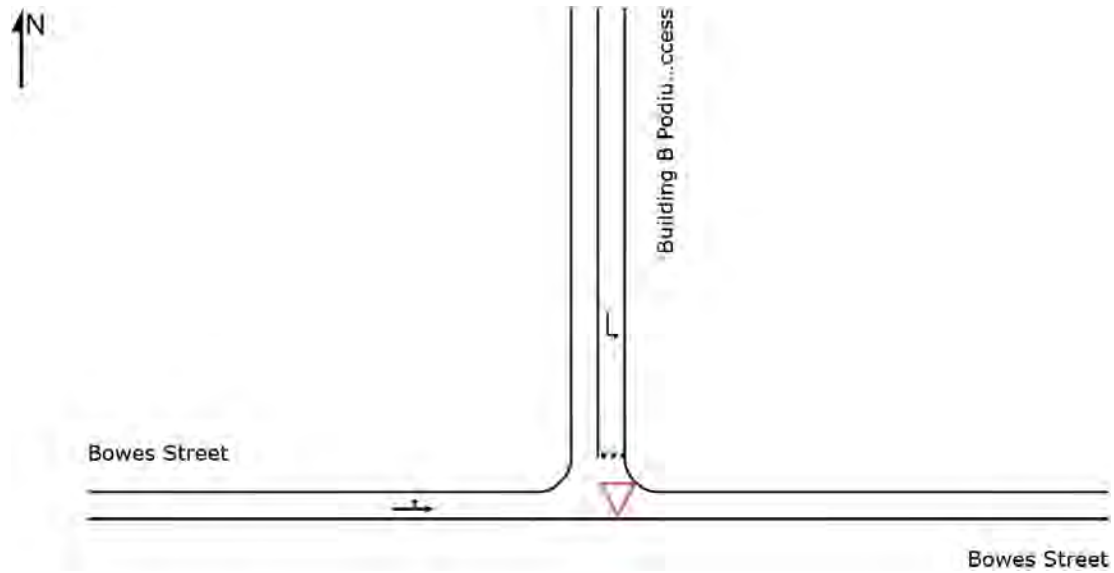
Building B Podium Access / Bowes Street

Proposed Priority-Controlled (Give-Way) T-Intersection

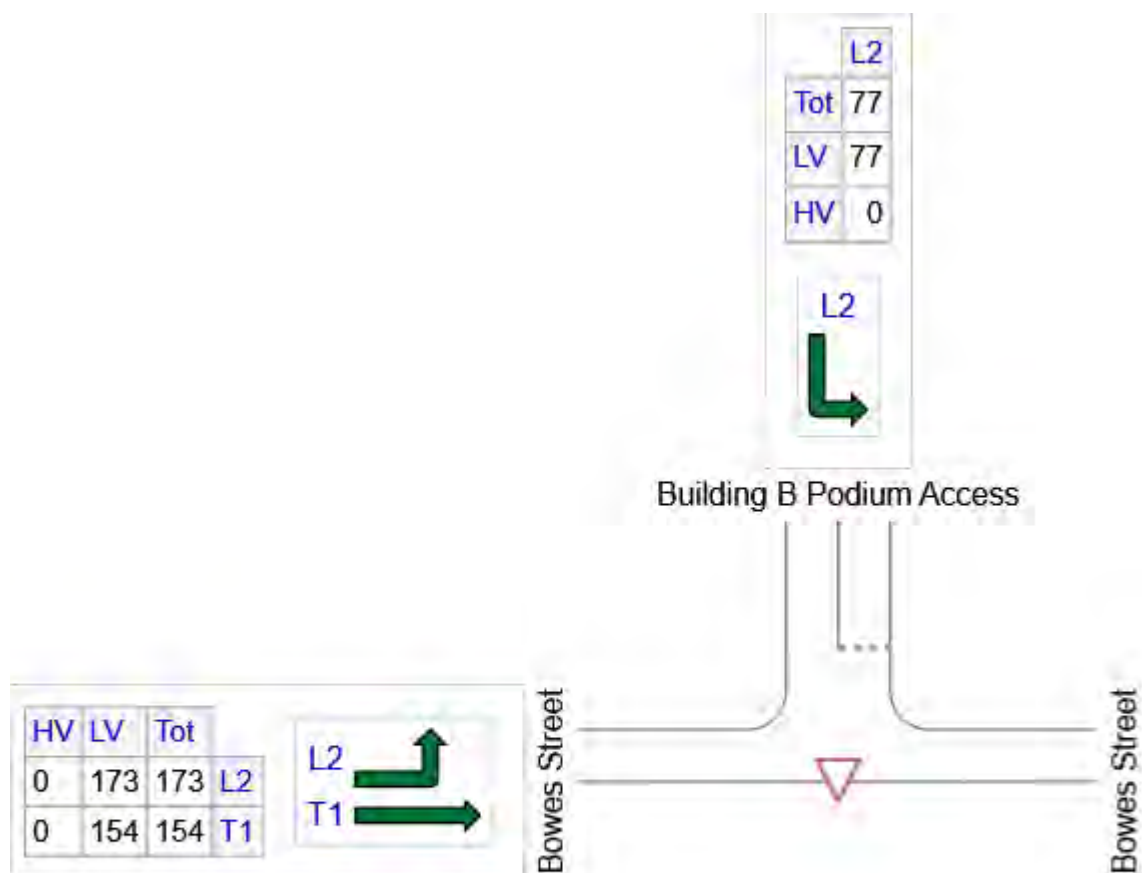
Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
N: Building B Podium Access	77	77	0
W: Bowes Street	326	326	0
Total	403	403	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
North: Building B Podium Access												
4	L2	77	0.0	0.054	0.5	LOS A	0.2	1.5	0.25	0.11	0.25	21.3
Approach		77	0.0	0.054	0.5	LOS A	0.2	1.5	0.25	0.11	0.25	21.3
West: Bowes Street												
7	L2	173	0.0	0.172	3.5	LOS A	0.0	0.0	0.00	0.28	0.00	24.6
8	T1	154	0.0	0.172	0.0	LOS A	0.0	0.0	0.00	0.28	0.00	38.3
Approach		326	0.0	0.172	1.8	NA	0.0	0.0	0.00	0.28	0.00	30.2
All Vehicles		403	0.0	0.172	1.6	NA	0.2	1.5	0.05	0.25	0.05	28.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
North: Building B Podium Access													
Lane 1	77	0.0	1435	0.054	100	0.5	LOS A	0.2	1.5	Full	15	0.0	0.0
Approach	77	0.0		0.054		0.5	LOS A	0.2	1.5				
West: Bowes Street													
Lane 1	326	0.0	1900	0.172	100	1.8	LOS A	0.0	0.0	Full	40	0.0	0.0
Approach	326	0.0		0.172		1.8	NA	0.0	0.0				
Intersection	403	0.0		0.172		1.6	NA	0.2	1.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - AM: BldgA-NSR]

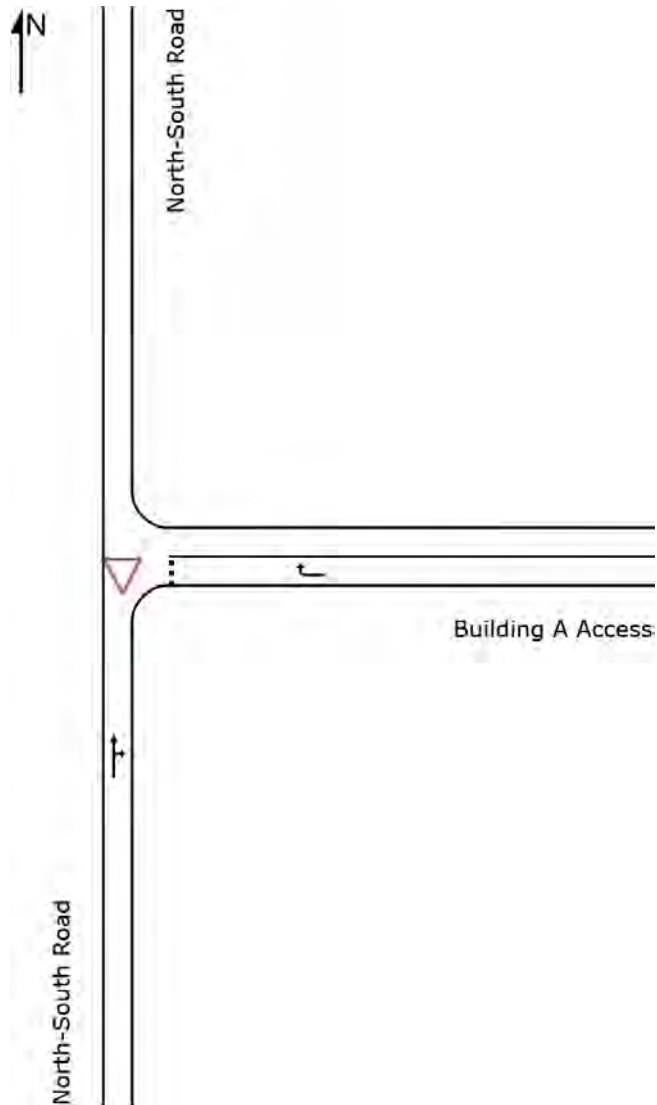
Building A Access / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

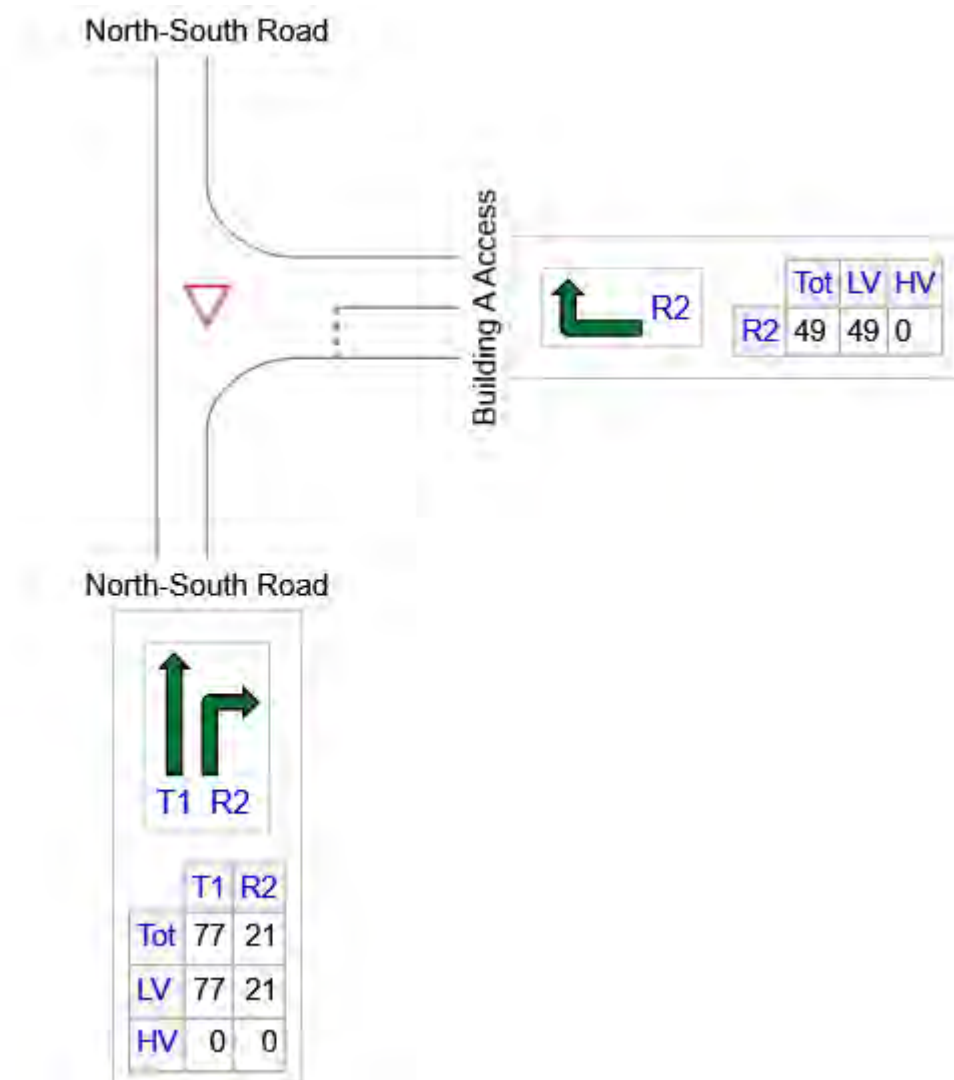
Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	98	98	0
E: Building A Access	49	49	0
Total	147	147	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	77	0.0	0.051	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	44.4
3	R2	21	0.0	0.051	2.1	LOS A	0.0	0.0	0.00	0.12	0.00	28.7
Approach		98	0.0	0.051	0.5	NA	0.0	0.0	0.00	0.12	0.00	40.8
East: Building A Access												
6	R2	49	0.0	0.037	1.2	LOS A	0.1	0.8	0.16	0.25	0.16	19.5
Approach		49	0.0	0.037	1.2	LOS A	0.1	0.8	0.16	0.25	0.16	19.5
All Vehicles		147	0.0	0.051	0.7	NA	0.1	0.8	0.05	0.17	0.05	29.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	98	0.0	1929	0.051	100	0.5	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	98	0.0		0.051		0.5	NA	0.0	0.0				
East: Building A Access													
Lane 1	49	0.0	1340	0.037	100	1.2	LOS A	0.1	0.8	Full	15	0.0	0.0
Approach	49	0.0		0.037		1.2	LOS A	0.1	0.8				
Intersection	147	0.0		0.051		0.7	NA	0.1	0.8				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - AM: EWL-NSR]

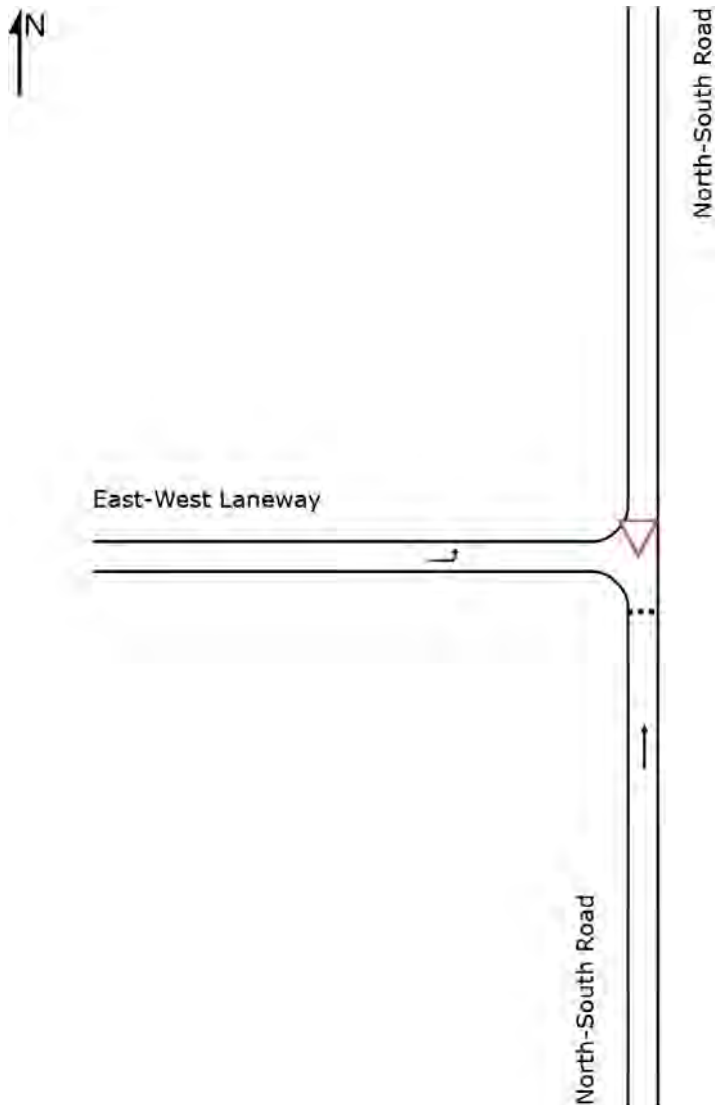
East-West Laneway / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	126	126	0
W: East-West Laneway	6	6	0
Total	133	133	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	126	0.0	0.085	1.9	LOS A	0.3	2.2	0.04	0.46	0.04	37.2
Approach		126	0.0	0.085	1.9	LOS A	0.3	2.2	0.04	0.46	0.04	37.2
West: East-West Laneway												
7	L2	6	0.0	0.003	3.7	LOS A	0.0	0.0	0.00	0.52	0.00	31.5
Approach		6	0.0	0.003	3.7	NA	0.0	0.0	0.00	0.52	0.00	31.5
All Vehicles		133	0.0	0.085	2.0	NA	0.3	2.2	0.03	0.47	0.03	36.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	126	0.0	1493	0.085	100	1.9	LOS A	0.3	2.2	Full	30	0.0	0.0
Approach	126	0.0		0.085		1.9	LOS A	0.3	2.2				
West: East-West Laneway													
Lane 1	6	0.0	1857	0.003	100	3.7	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	6	0.0		0.003		3.7	NA	0.0	0.0				
Intersection	133	0.0		0.085		2.0	NA	0.3	2.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - AM: MS-NSR]

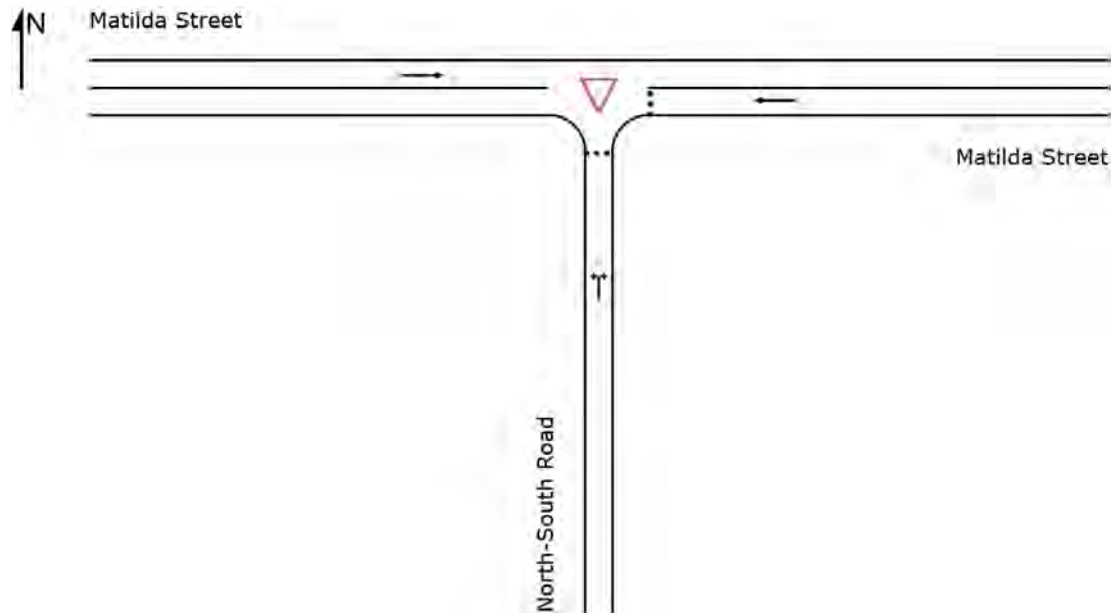
Matilda Street / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

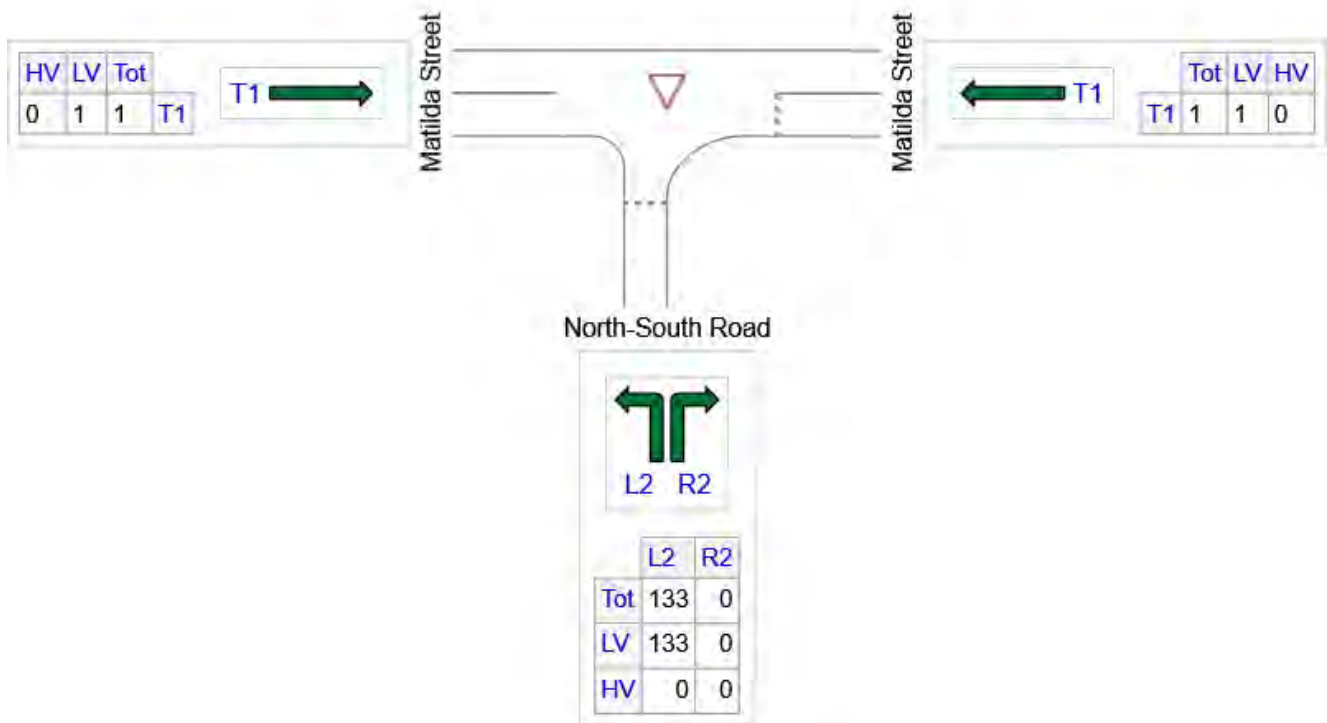
Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	133	133	0
E: Matilda Street	1	1	0
W: Matilda Street	1	1	0
Total	135	135	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
1	L2	133	0.0	0.081	4.7	LOS A	0.3	2.4	0.01	0.56	0.01	35.2
3	R2	0	0.0	0.081	4.9	LOS A	0.3	2.4	0.01	0.56	0.01	29.6
Approach		133	0.0	0.081	4.7	LOS A	0.3	2.4	0.01	0.56	0.01	35.2
East: Matilda Street												
5	T1	1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
Approach		1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
West: Matilda Street												
11	T1	1	0.0	0.001	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		1	0.0	0.001	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		135	0.0	0.081	4.7	NA	0.3	2.4	0.01	0.55	0.01	35.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	133	0.0	1635	0.081	100	4.7	LOS A	0.3	2.4	Full	70	0.0	0.0
Approach	133	0.0		0.081		4.7	LOS A	0.3	2.4				
East: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	1.9	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	1	0.0		0.001		1.9	LOS A	0.0	0.0				
West: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	0.0	LOS A	0.0	0.0	Full	90	0.0	0.0
Approach	1	0.0		0.001		0.0	NA	0.0	0.0				
Intersection	135	0.0		0.081		4.7	NA	0.3	2.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2040 Dev - AM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Isolated Cycle Time = 66 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

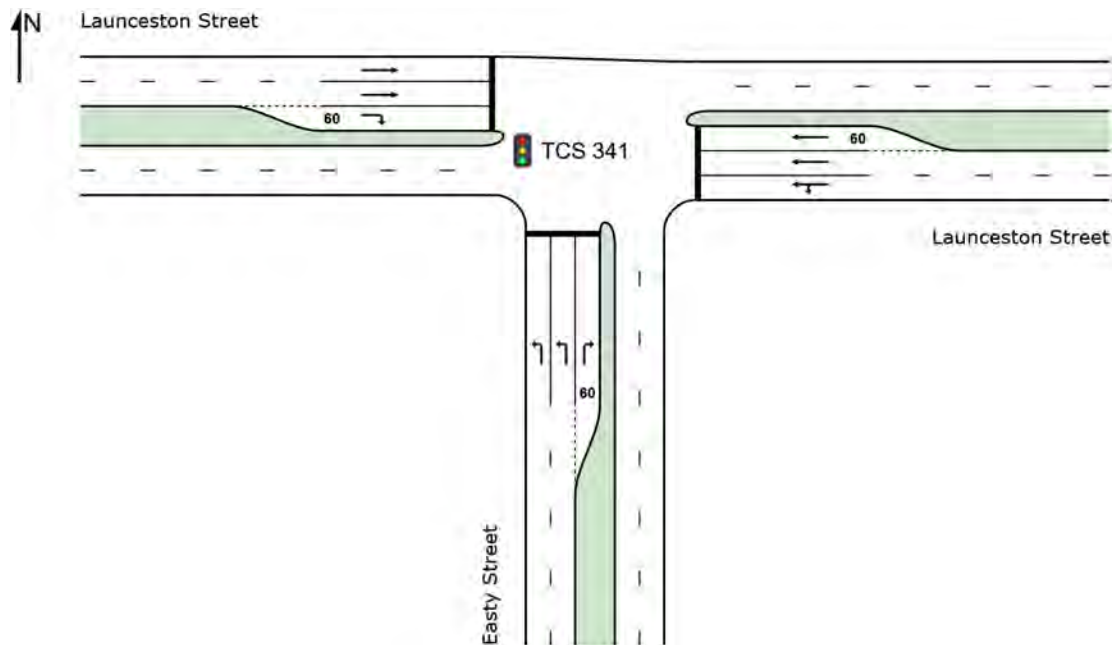
Phase Sequence: SCATS

Reference Phase: Phase A

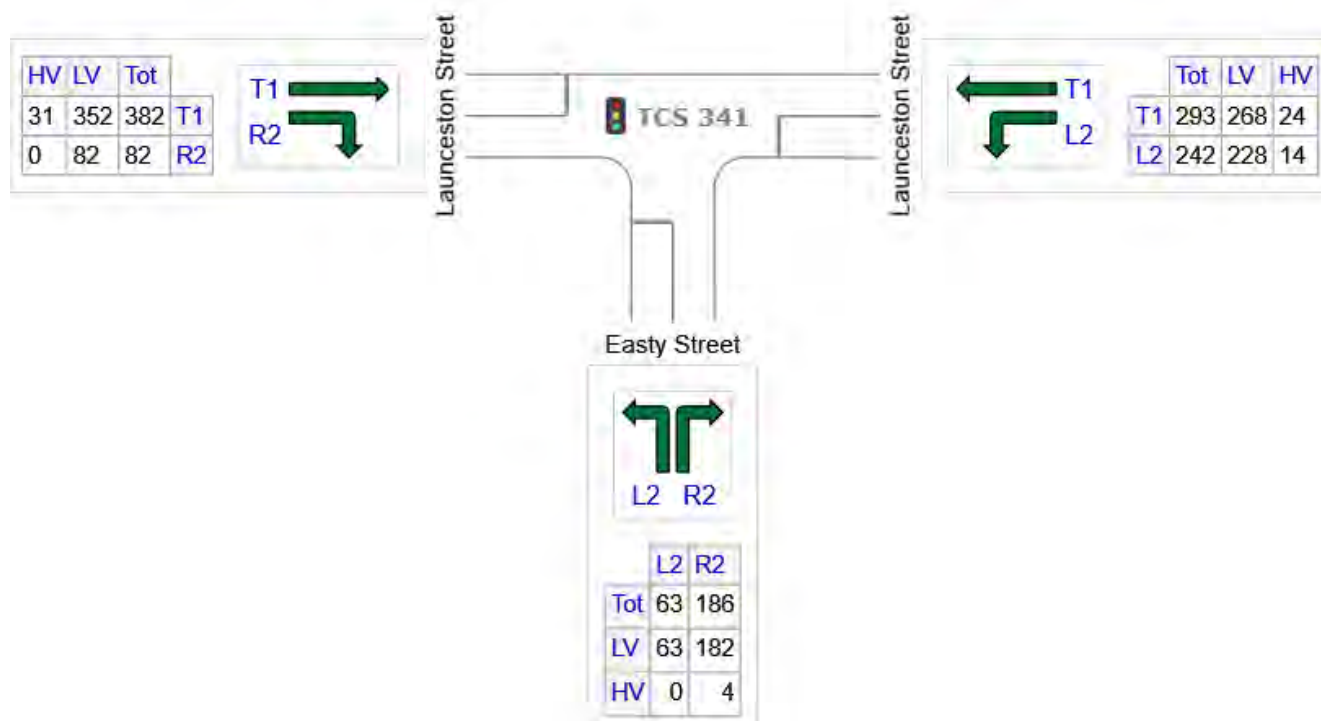
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



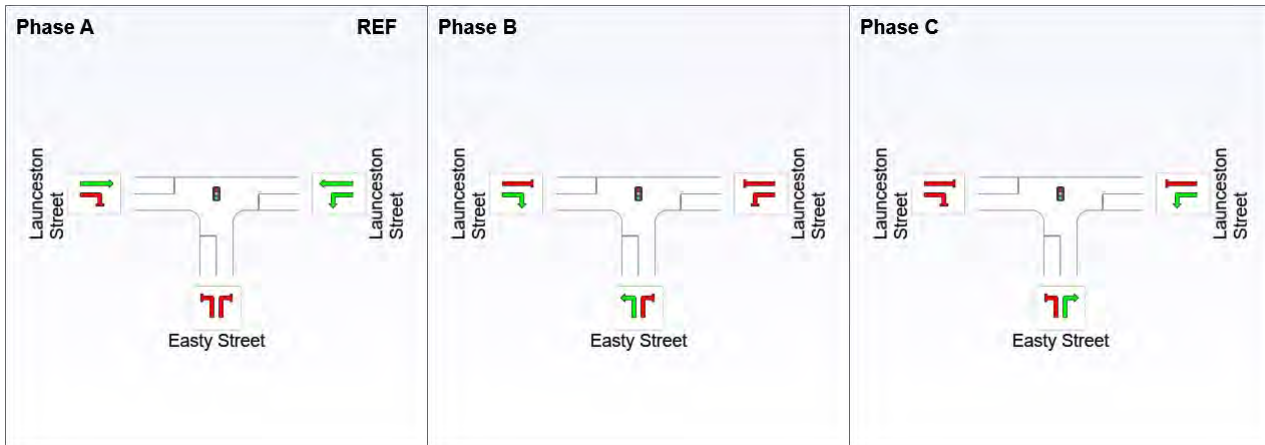
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	249	245	4
E: Launceston Street	535	497	38
W: Launceston Street	464	434	31
Total	1248	1176	73

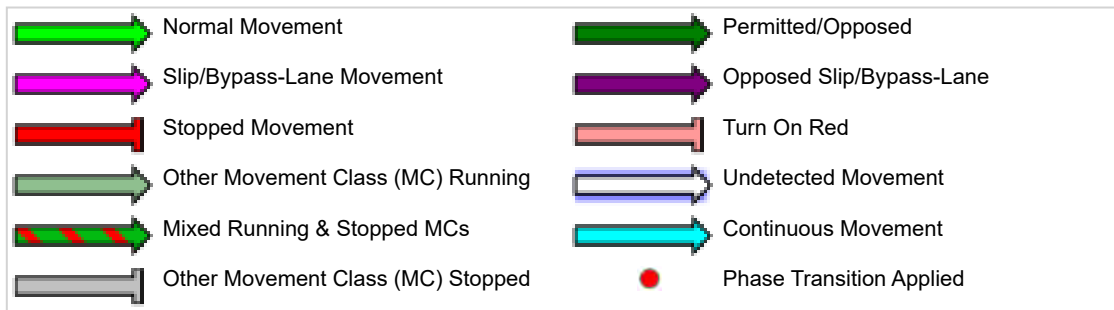
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	41
Green Time (sec)	20	9	19
Phase Time (sec)	26	15	25
Phase Split	39%	23%	38%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	63	0.0	0.125	31.5	LOS C	0.9	6.5	0.91	0.70	0.91	22.6
3	R2	186	2.3	0.354	23.9	LOS B	4.9	34.8	0.84	0.76	0.84	27.7
Approach		249	1.7	0.354	25.8	LOS B	4.9	34.8	0.86	0.74	0.86	26.5
East: Launceston Street												
4	L2	242	5.7	0.199	7.6	LOS A	2.9	20.9	0.39	0.61	0.39	35.1
5	T1	293	8.3	0.261	19.1	LOS B	3.6	27.2	0.80	0.65	0.80	26.4
Approach		535	7.1	0.261	13.9	LOS A	3.6	27.2	0.61	0.63	0.61	30.5
West: Launceston Street												
11	T1	382	8.0	0.340	19.6	LOS B	4.9	36.5	0.82	0.68	0.82	26.1
12	R2	82	0.0	0.324	32.6	LOS C	2.5	17.6	0.94	0.75	0.94	22.5
Approach		464	6.6	0.340	21.9	LOS B	4.9	36.5	0.84	0.69	0.84	25.3
All Vehicles		1248	5.8	0.354	19.3	LOS B	4.9	36.5	0.75	0.67	0.75	27.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	32	0.0	253	0.125	100	31.5	LOS C	0.9	6.5	Full	305	0.0	0.0
Lane 2	32	0.0	253	0.125	100	31.5	LOS C	0.9	6.5	Full	305	0.0	0.0
Lane 3	186	2.3	526	0.354	100	23.9	LOS B	4.9	34.8	Short	60	0.0	NA
Approach	249	1.7		0.354		25.8	LOS B	4.9	34.8				
East: Launceston Street													
Lane 1	242	5.7	1217	0.199	76 ⁵	7.6	LOS A	2.9	20.9	Full	260	0.0	0.0
Lane 2	146	8.3	561	0.261	100	19.1	LOS B	3.6	27.2	Full	260	0.0	0.0
Lane 3	146	8.3	561	0.261	100	19.1	LOS B	3.6	27.2	Short	60	0.0	NA
Approach	535	7.1		0.261		13.9	LOS A	3.6	27.2				
West: Launceston Street													
Lane 1	191	8.0	562	0.340	100	19.6	LOS B	4.9	36.5	Full	130	0.0	0.0
Lane 2	191	8.0	562	0.340	100	19.6	LOS B	4.9	36.5	Full	130	0.0	0.0
Lane 3	82	0.0	253	0.324	100	32.6	LOS C	2.5	17.6	Short	60	0.0	NA
Approach	464	6.6		0.340		21.9	LOS B	4.9	36.5				
Intersection	1248	5.8		0.354		19.3	LOS B	4.9	36.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:35:31 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2040 Dev - AM - LS-YD]

 Network: 7 [2040 Dev - AM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

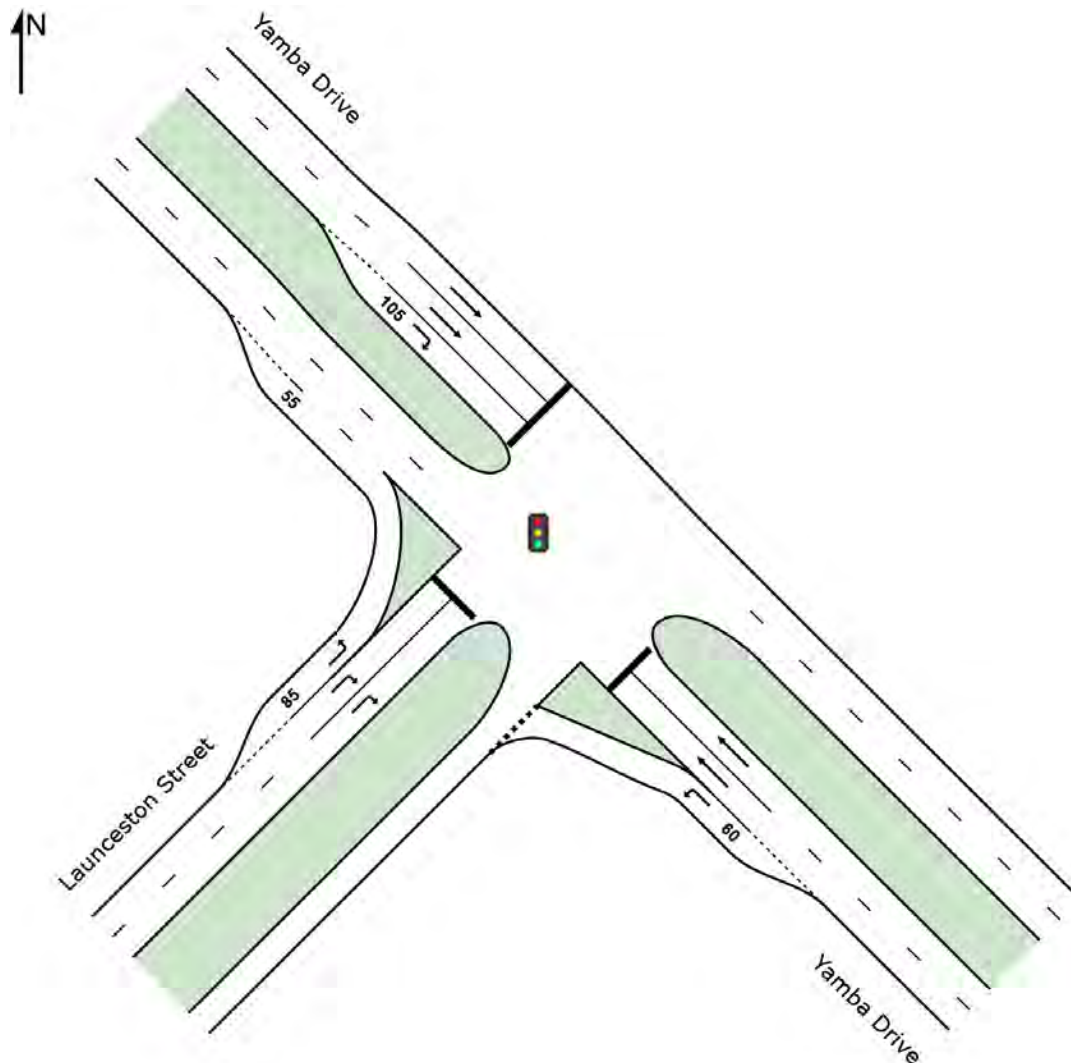
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

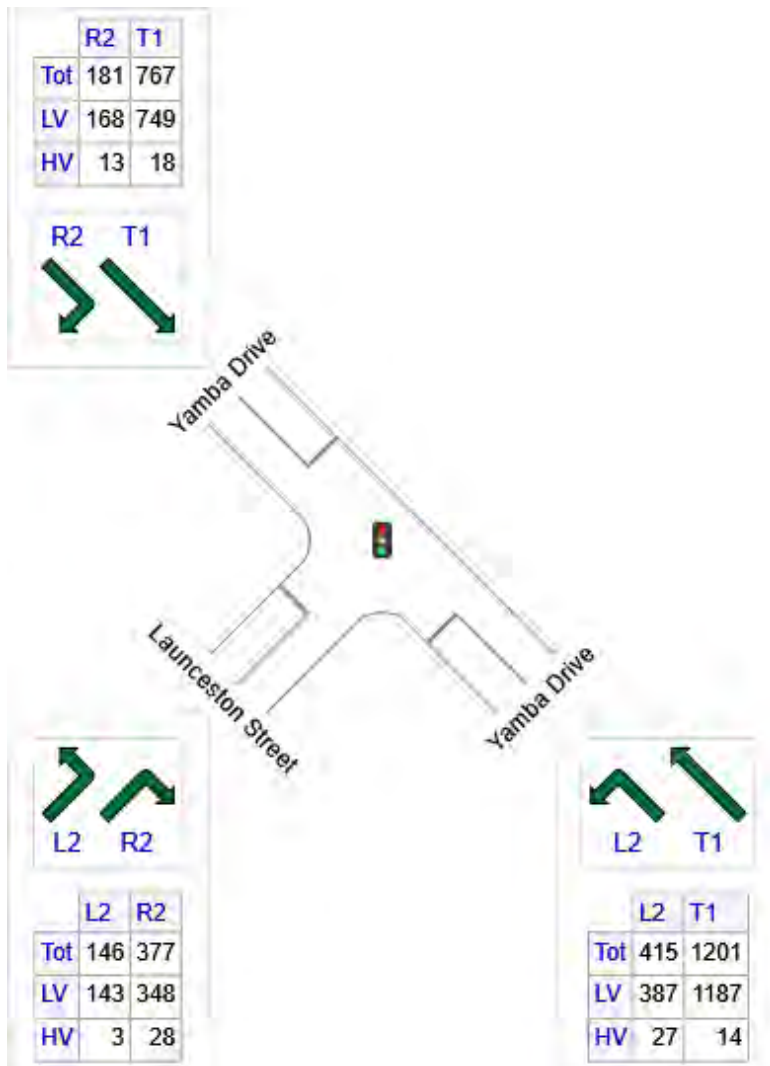
Output Phase Sequence: A, B*, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1616	1575	41
NW: Yamba Drive	948	918	31
SW: Launceston Street	523	492	32
Total	3087	2984	103

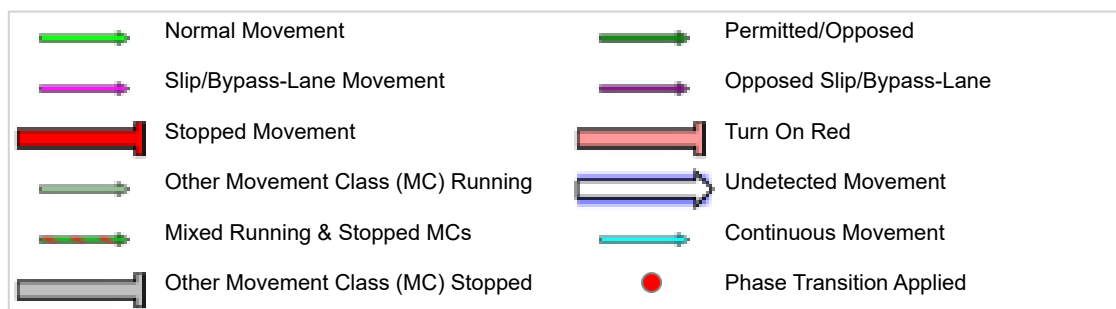
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
 VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	B	D	E
Phase Change Time (sec)	0	58	74	108
Green Time (sec)	52	10	28	14
Phase Time (sec)	58	16	34	20
Phase Split	45%	13%	27%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	415	6.6	415	6.6	0.284	4.9	LOS A	0.5	3.9	0.03	0.59	0.06	40.5
5	T1	1201	1.1	1201	1.1	0.584	8.2	LOS A	15.0	106.1	0.32	0.29	0.32	49.6
Approach		1616	2.5	1616	2.5	0.584	7.3	LOS A	15.0	106.1	0.24	0.37	0.25	46.6
NorthWest: Yamba Drive														
11	T1	767	2.3	767	2.3	0.983	97.6	LOS F	36.6	261.1	1.00	1.21	1.57	7.7
12	R2	181	7.0	181	7.0	0.936	89.0	LOS F	13.7	101.7	1.00	0.99	1.50	14.6
Approach		948	3.2	948	3.2	0.983	96.0	LOS F	36.6	261.1	1.00	1.17	1.55	9.2
SouthWest: Launceston Street														
1	L2	146	2.2	146	2.2	0.080	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	39.5
3	R2	377	7.5	377	7.5	0.977	107.5	LOS F	17.2	128.4	1.00	1.25	1.69	7.5
Approach		523	6.0	523	6.0	0.977	78.2	LOS E	17.2	128.4	0.72	1.00	1.22	11.3
All Vehicles		3087	3.3	3087	3.3	0.983	46.6	LOS D	36.6	261.1	0.56	0.72	0.82	17.0

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
SouthEast: Yamba Drive															
Lane 1	415	6.6	415	6.6	1463	0.284	100	4.9	LOS A	0.5	3.9	Short	60	0.0	NA
Lane 2	601	1.1	601	1.1	1028	0.584	100	3.0	LOS A	5.2	36.9	Full	65	0.0	0.0
Lane 3	601	1.1	601	1.1	1028	0.584	100	13.4	LOS B	15.0 ^{N4}	106.1 ^{N4}	Full	65	0.0	50.0
Approach	1616	2.5	1616	2.5		0.584		7.3	LOS A	15.0	106.1				
NorthWest: Yamba Drive															
Lane 1	384	2.3	384	2.3	390	0.983	100	97.6	LOS F	36.6	261.1	Full	215	-50.0 ^{N3}	22.6
Lane 2	384	2.3	384	2.3	390	0.983	100	97.6	LOS F	36.6	261.1	Full	215	-50.0 ^{N3}	22.6
Lane 3	181	7.0	181	7.0	194	0.936	100	89.0	LOS F	13.7	101.7	Short	105	0.0	NA
Approach	948	3.2	948	3.2		0.983		96.0	LOS F	36.6	261.1				
SouthWest: Launceston Street															
Lane 1	146	2.2	146	2.2	1829	0.080	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	188	7.5	188	7.5	193	0.977	100	107.5	LOS F	17.2	128.4	Full	260	-50.0 ^{N3}	0.0
Lane 3	188	7.5	188	7.5	193	0.977	100	107.5	LOS F	17.2	128.4	Full	260	-50.0 ^{N3}	0.0
Approach	523	6.0	523	6.0		0.977		78.2	LOS E	17.2	128.4				
Intersection	3087	3.3	3087	3.3		0.983		46.6	LOS D	36.6	261.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

^{N4} Average back of queue has been restricted to the available queue storage space.

 **Site: [2040 Dev - AM - WS-YD]**

 **Network: 7 [2040 Dev - AM - LS-WS-YD]**

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2040 Development Scenario - Weekday Morning Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 128 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

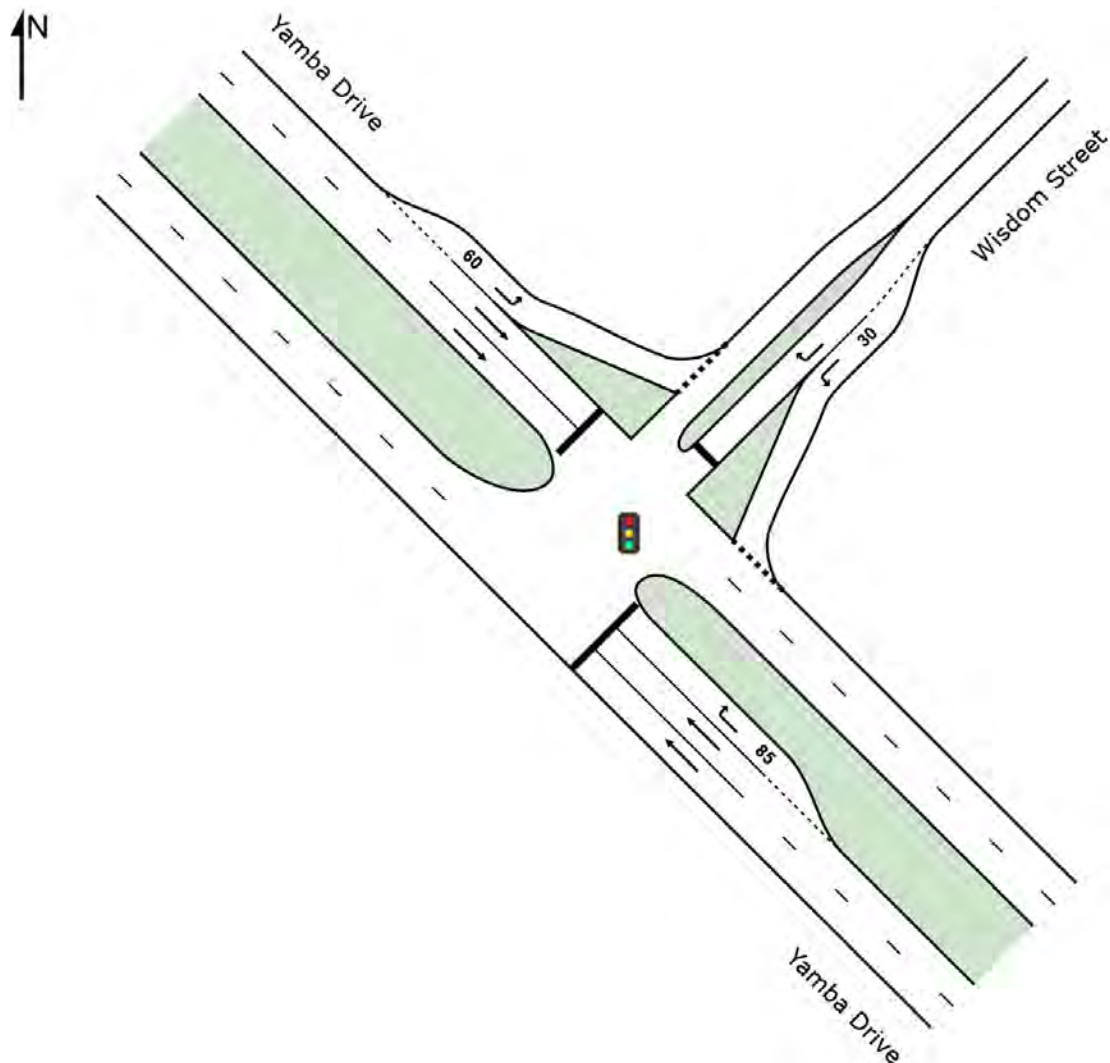
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, B*, D, E

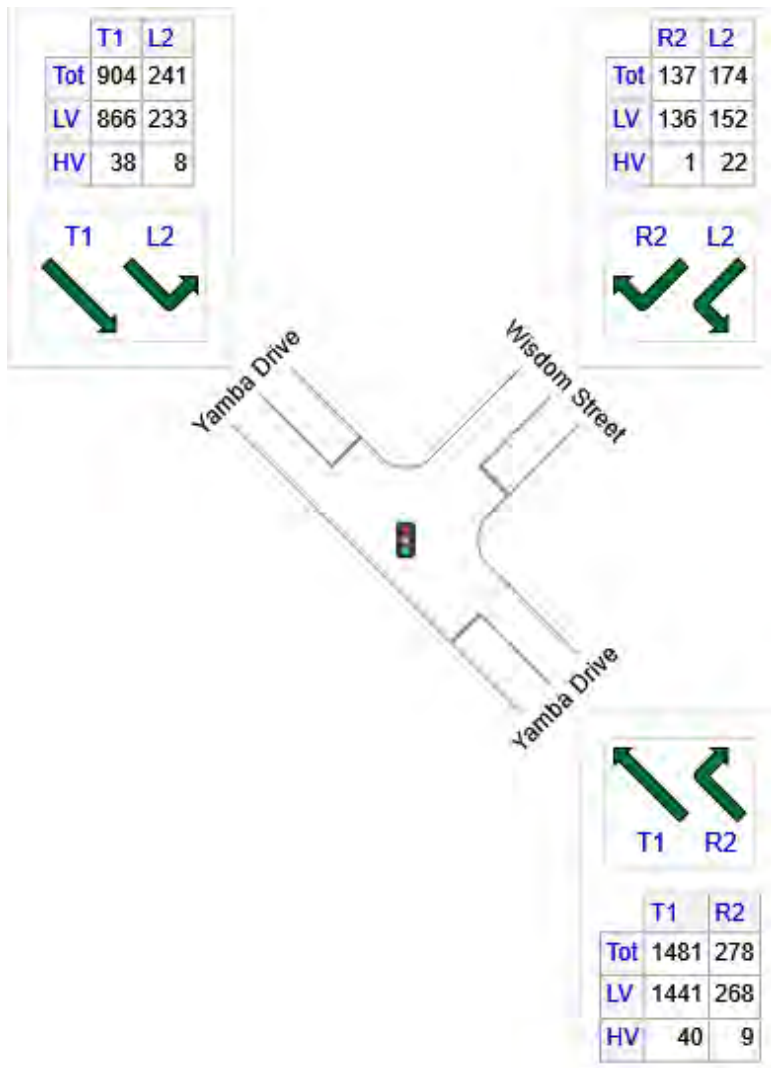
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1759	1709	49
NE: Wisdom Street	311	287	23
NW: Yamba Drive	1145	1099	46
Total	3215	3096	119

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
SouthEast: Yamba Drive														
11	T1	1481	2.7	1481	2.7	0.997	85.7	LOS F	91.6	656.0	1.00	1.24	1.45	22.6
12	R2	278	3.4	278	3.4	0.817	45.5	LOS D	11.8	84.9	1.00	0.90	1.22	36.7
Approach		1759	2.8	1759	2.8	0.997	79.4	LOS E	91.6	656.0	1.00	1.19	1.41	25.1
NorthEast: Wisdom Street														
1	L2	174	12.7	174	12.7	0.173	6.2	LOS A	2.4	19.0	0.29	0.53	0.29	46.9
3	R2	137	0.8	137	0.8	0.769	60.9	LOS E	8.8	62.1	0.97	0.93	1.17	20.3
Approach		311	7.5	311	7.5	0.769	30.3	LOS C	8.8	62.1	0.59	0.71	0.68	34.4
NorthWest: Yamba Drive														
4	L2	241	3.5	241	3.5	0.175	4.9	LOS A	0.3	2.2	0.03	0.59	0.03	40.2
5	T1	904	4.2	904	4.2	0.598	18.7	LOS B	14.6	106.1	0.61	0.54	0.61	53.0
Approach		1145	4.0	1145	4.0	0.598	15.8	LOS B	14.6	106.1	0.49	0.55	0.49	49.8
All Vehicles		3215	3.7	3215	3.7	0.997	52.0	LOS D	91.6	656.0	0.78	0.91	1.01	31.3

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	Total veh/h	HV %						Veh	Dist m				
SouthEast: Yamba Drive															
Lane 1	1015	2.7	1015	2.7	1018	0.997	100	79.8	LOS E	91.6	656.0	Full	735	0.0	0.0
Lane 2	466	2.7	466	2.7	467 ¹	0.997	100	98.7	LOS F	44.9	321.4	Full	735	-50.0 ^{N3}	0.0
Lane 3	278	3.4	278	3.4	340	0.817	100	45.5	LOS D	11.8	84.9	Short	85	0.0	NA
Approach	1759	2.8	1759	2.8		0.997		79.4	LOS E	91.6	656.0				
NorthEast: Wisdom Street															
Lane 1	174	12.7	174	12.7	1004	0.173	100	6.2	LOS A	2.4	19.0	Short	30	0.0	NA
Lane 2	137	0.8	137	0.8	178 ¹	0.769	100	60.9	LOS E	8.8	62.1	Full	680	-50.0 ^{N3}	0.0
Approach	311	7.5	311	7.5		0.769		30.3	LOS C	8.8	62.1				
NorthWest: Yamba Drive															
Lane 1	241	3.5	241	3.5	1379	0.175	100	4.9	LOS A	0.3	2.2	Short	60	0.0	NA
Lane 2	443	4.2	443	4.2	740 ¹	0.598	100	18.5	LOS B	14.6 ^{N4}	106.1 ^{N4}	Full	65	0.0	50.0
Lane 3	462	4.2	462	4.2	771	0.598	100	18.8	LOS B	14.6 ^{N4}	106.1 ^{N4}	Full	65	0.0	50.0
Approach	1145	4.0	1145	4.0		0.598		15.8	LOS B	14.6	106.1				
Intersection	3215	3.7	3215	3.7		0.997		52.0	LOS D	91.6	656.0				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

^{N4} Average back of queue has been restricted to the available queue storage space.

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:23:40 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

Site: TCS 25 [2040 Dev - PM: LS-MD]

Launceston Street / Melrose Drive

Existing Signalised X-Intersection

Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 109 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

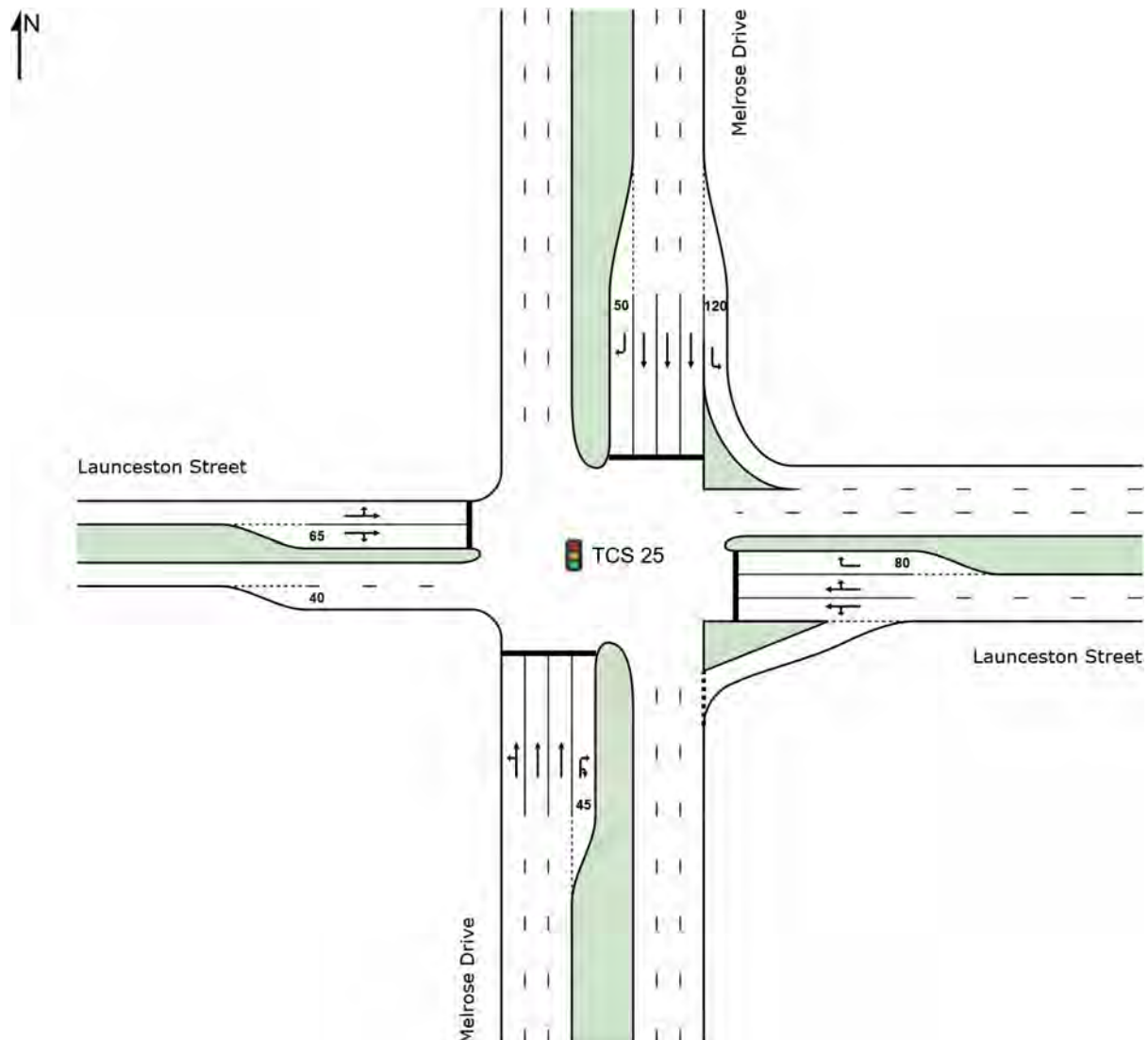
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F

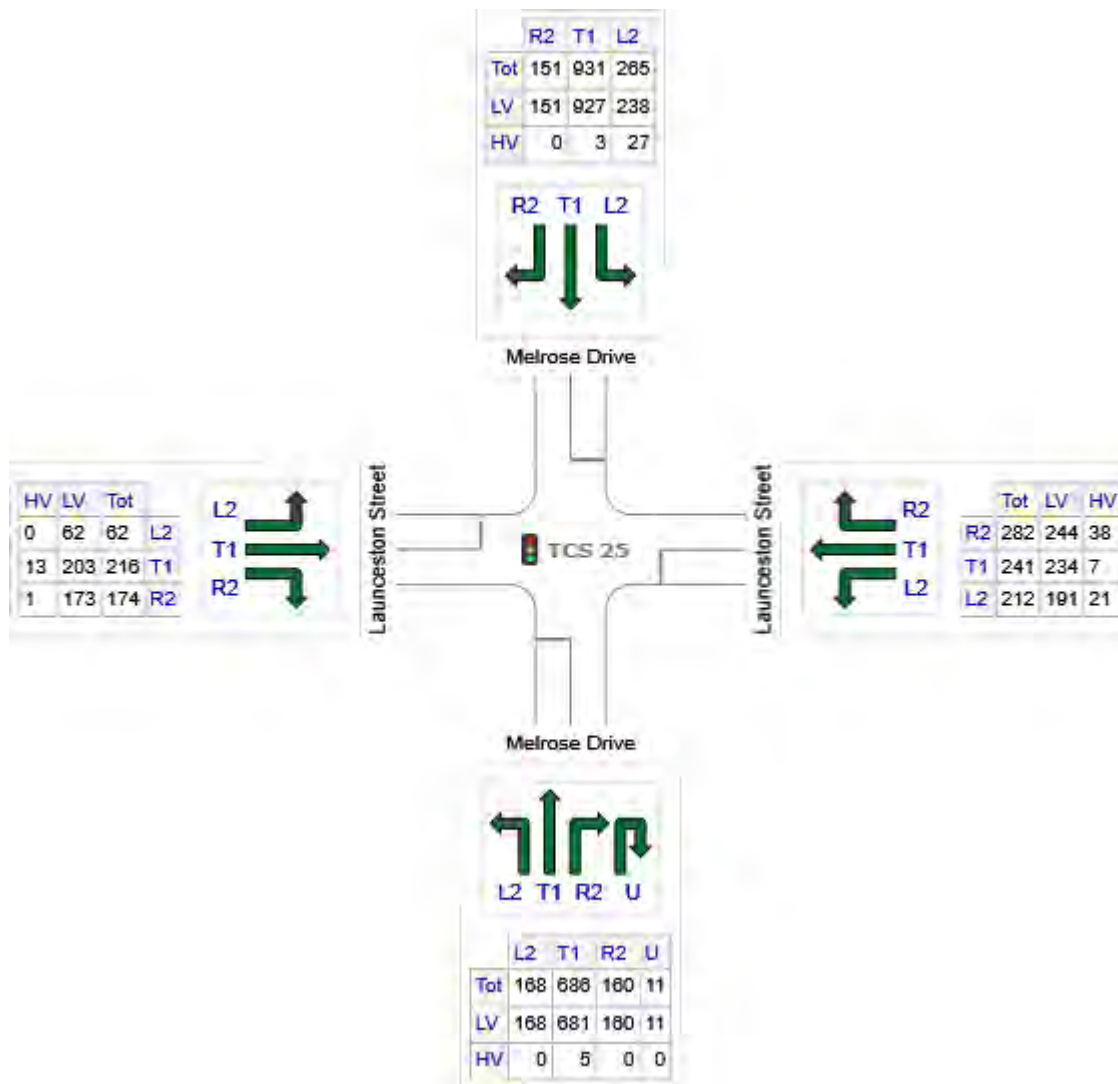
Output Phase Sequence: A, D, E, F

(* Variable Phase)

Site Layout



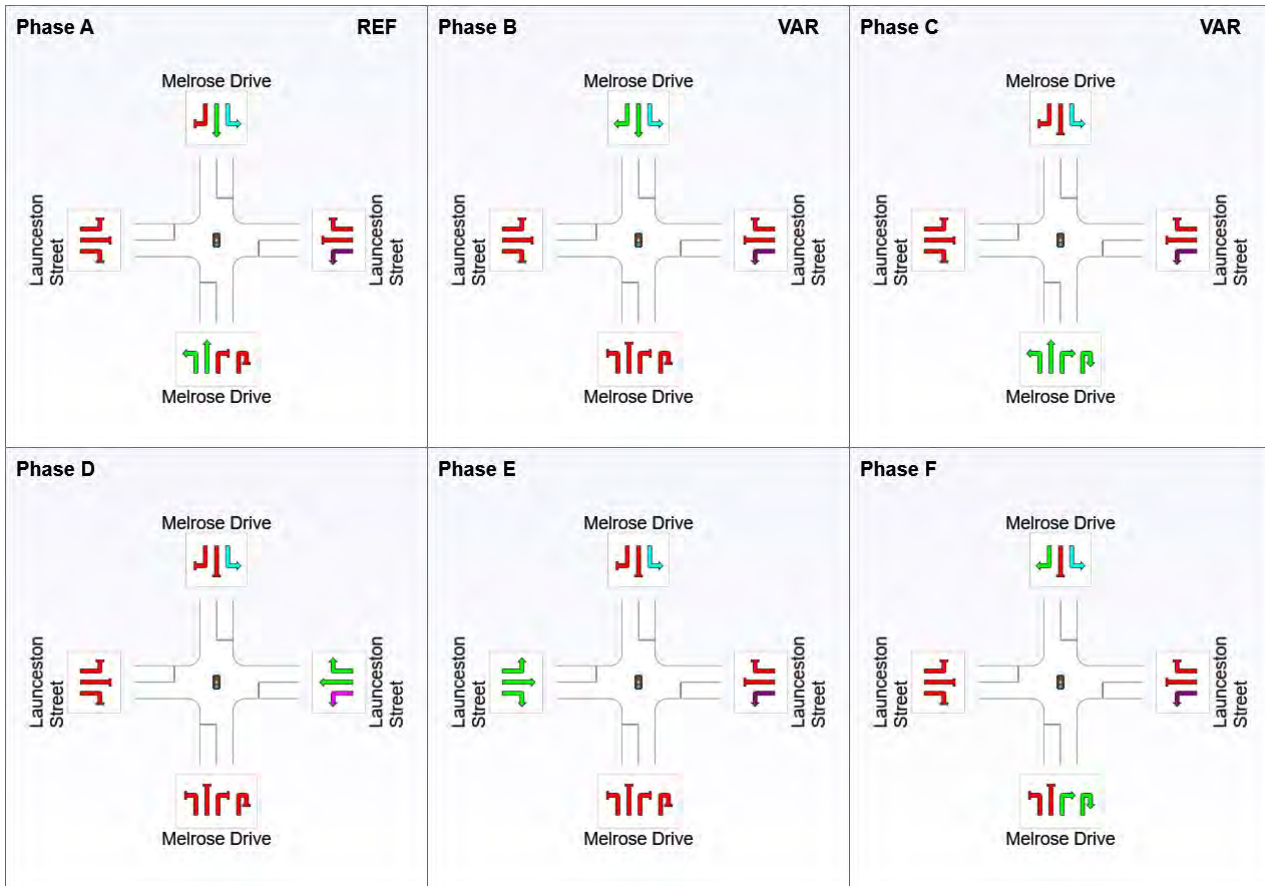
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Melrose Drive	1025	1020	5
E: Launceston Street	735	668	66
N: Melrose Drive	1346	1316	31
W: Launceston Street	452	438	14
Total	3558	3442	116

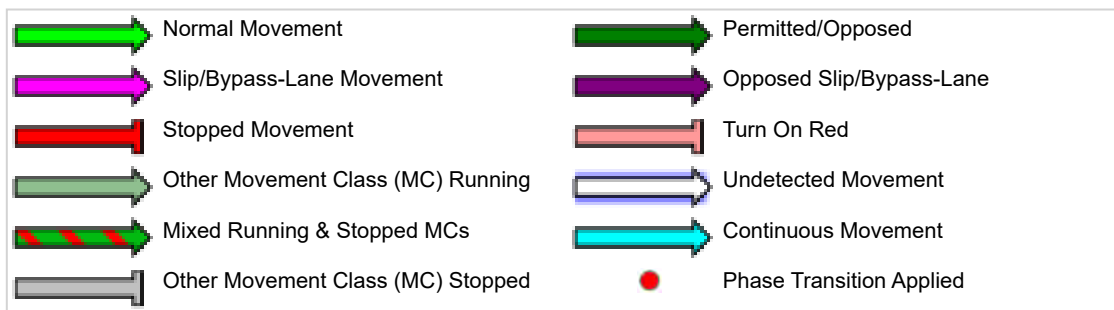
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	32	62	88
Green Time (sec)	26	24	20	15
Phase Time (sec)	32	30	26	21
Phase Split	29%	28%	24%	19%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Melrose Drive												
1	L2	168	0.0	0.643	46.2	LOS D	14.1	98.7	0.96	0.83	0.96	17.7
2	T1	686	0.8	0.643	40.3	LOS C	14.4	101.5	0.95	0.80	0.95	30.3
3	R2	160	0.0	0.681	56.3	LOS D	9.1	63.5	1.00	0.84	1.06	13.6
3u	U	11	0.0	0.681	57.7	LOS E	9.1	63.5	1.00	0.84	1.06	18.5
Approach		1025	0.5	0.681	44.0	LOS D	14.4	101.5	0.96	0.81	0.97	25.8
East: Launceston Street												
4	L2	212	10.0	0.224	11.8	LOS A	4.0	30.6	0.43	0.67	0.43	34.8
5	T1	241	3.1	0.660	43.1	LOS D	13.5	97.8	0.96	0.82	0.96	13.4
6	R2	282	13.4	0.660	48.2	LOS D	13.5	97.8	0.97	0.83	0.97	25.1
Approach		735	9.0	0.660	36.0	LOS C	13.5	97.8	0.81	0.78	0.81	23.0
North: Melrose Drive												
7	L2	265	10.3	0.153	5.7	LOS A	0.0	0.0	0.00	0.52	0.00	49.2
8	T1	931	0.3	0.688	41.2	LOS C	15.7	110.2	0.96	0.82	0.97	30.3
9	R2	151	0.0	0.589	54.6	LOS D	7.8	54.3	0.99	0.80	0.99	23.0
Approach		1346	2.3	0.688	35.7	LOS C	15.7	110.2	0.78	0.76	0.78	31.4
West: Launceston Street												
10	L2	62	0.0	0.660	50.3	LOS D	11.5	83.5	0.98	0.83	1.00	24.8
11	T1	216	5.9	0.660	45.8	LOS D	11.5	83.5	0.98	0.83	1.00	12.6
12	R2	174	0.6	0.660	50.3	LOS D	11.4	81.2	0.98	0.83	1.00	16.3
Approach		452	3.0	0.660	48.1	LOS D	11.5	83.5	0.98	0.83	1.00	16.2
All Vehicles		3558	3.3	0.688	39.7	LOS C	15.7	110.2	0.86	0.79	0.87	26.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Melrose Drive													
Lane 1	290	0.3	451	0.643	100	43.9	LOS D	14.1	98.7	Full	205	0.0	0.0
Lane 2	298	0.8	463	0.643	100	40.6	LOS C	14.4	101.5	Full	205	0.0	0.0
Lane 3	267	0.8	415 ¹	0.643	100	39.8	LOS C	12.7	89.2	Full	205	0.0	0.0
Lane 4	171	0.0	250	0.681	100	56.4	LOS D	9.1	63.5	Short	45	0.0	NA
Approach	1025	0.5		0.681		44.0	LOS D	14.4	101.5				
East: Launceston Street													
Lane 1	215	9.8	960	0.224	34 ⁶	11.7	LOS A	4.0	30.6	Full	90	0.0	0.0
Lane 2	273	4.4	414	0.660	100	44.2	LOS D	13.5	97.8	Full	90	0.0	12.5
Lane 3	246	13.4	373	0.660	100	48.3	LOS D	12.2	95.4	Short	80	0.0	NA
Approach	735	9.0		0.660		36.0	LOS C	13.5	97.8				
North: Melrose Drive													
Lane 1	265	10.3	1730	0.153	100	5.7	LOS A	0.0	0.0	Short	120	0.0	NA
Lane 2	319	0.3	464	0.688	100	41.3	LOS C	15.7	110.2	Full	470	0.0	0.0
Lane 3	319	0.3	464	0.688	100	41.3	LOS C	15.7	110.2	Full	470	0.0	0.0
Lane 4	292	0.3	425 ¹	0.688	100	40.8	LOS C	14.2	99.5	Full	470	0.0	0.0
Lane 5	151	0.0	256	0.589	100	54.6	LOS D	7.8	54.3	Short	50	0.0	NA
Approach	1346	2.3		0.688		35.7	LOS C	15.7	110.2				
West: Launceston Street													
Lane 1	227	4.3	344	0.660	100	47.0	LOS D	11.5	83.5	Full	95	0.0	0.0
Lane 2	225	1.8	341	0.660	100	49.3	LOS D	11.4	81.2	Short	65	0.0	NA
Approach	452	3.0		0.660		48.1	LOS D	11.5	83.5				
Intersection	3558	3.3		0.688		39.7	LOS C	15.7	110.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: TCS 340 [2040 Dev - PM: BS-LS]

Block 20 Section 23 Access / Bowes Street / Launceston Street

Existing Signalised X-Intersection

Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 82 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: SCATS

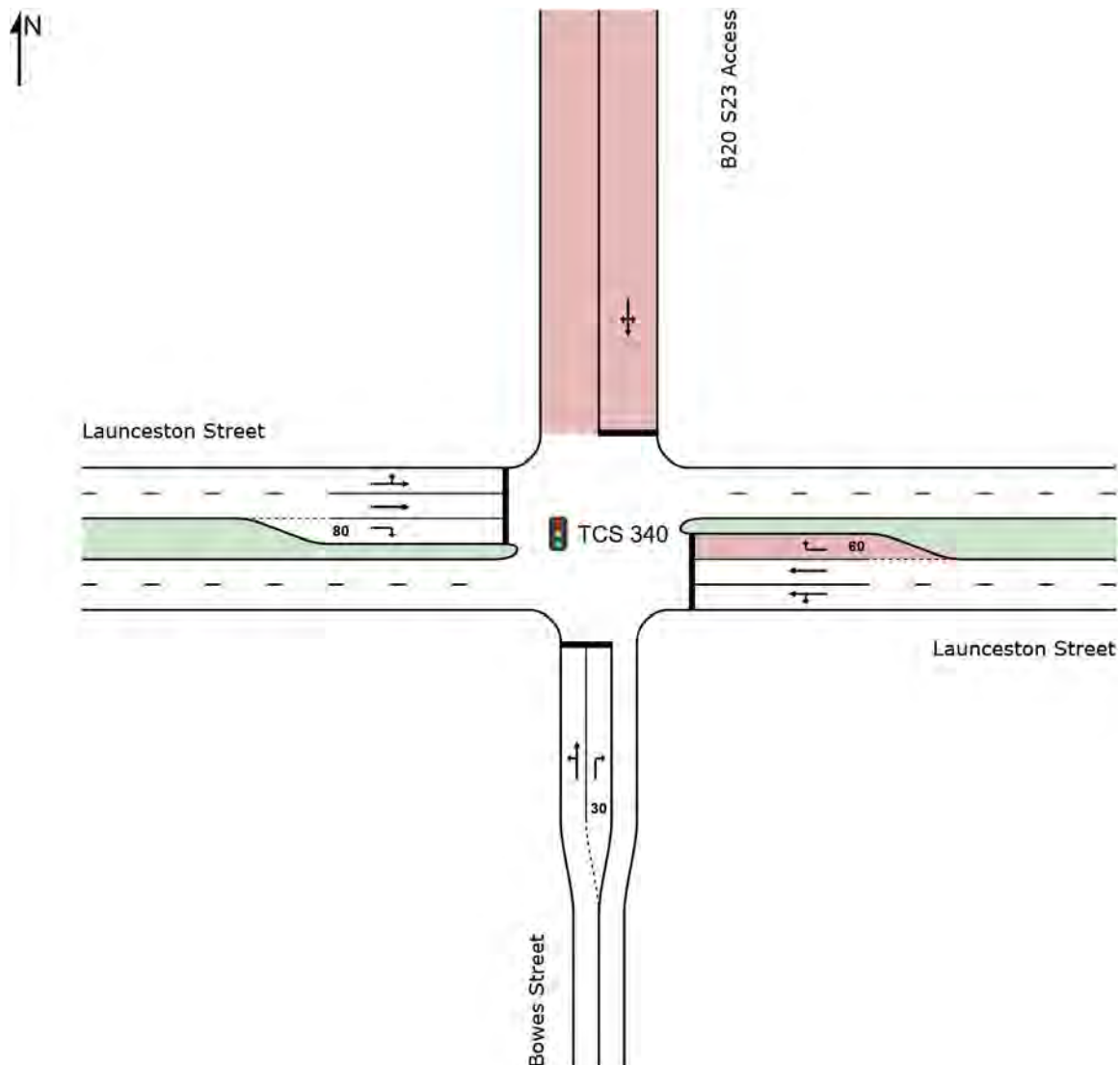
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, G

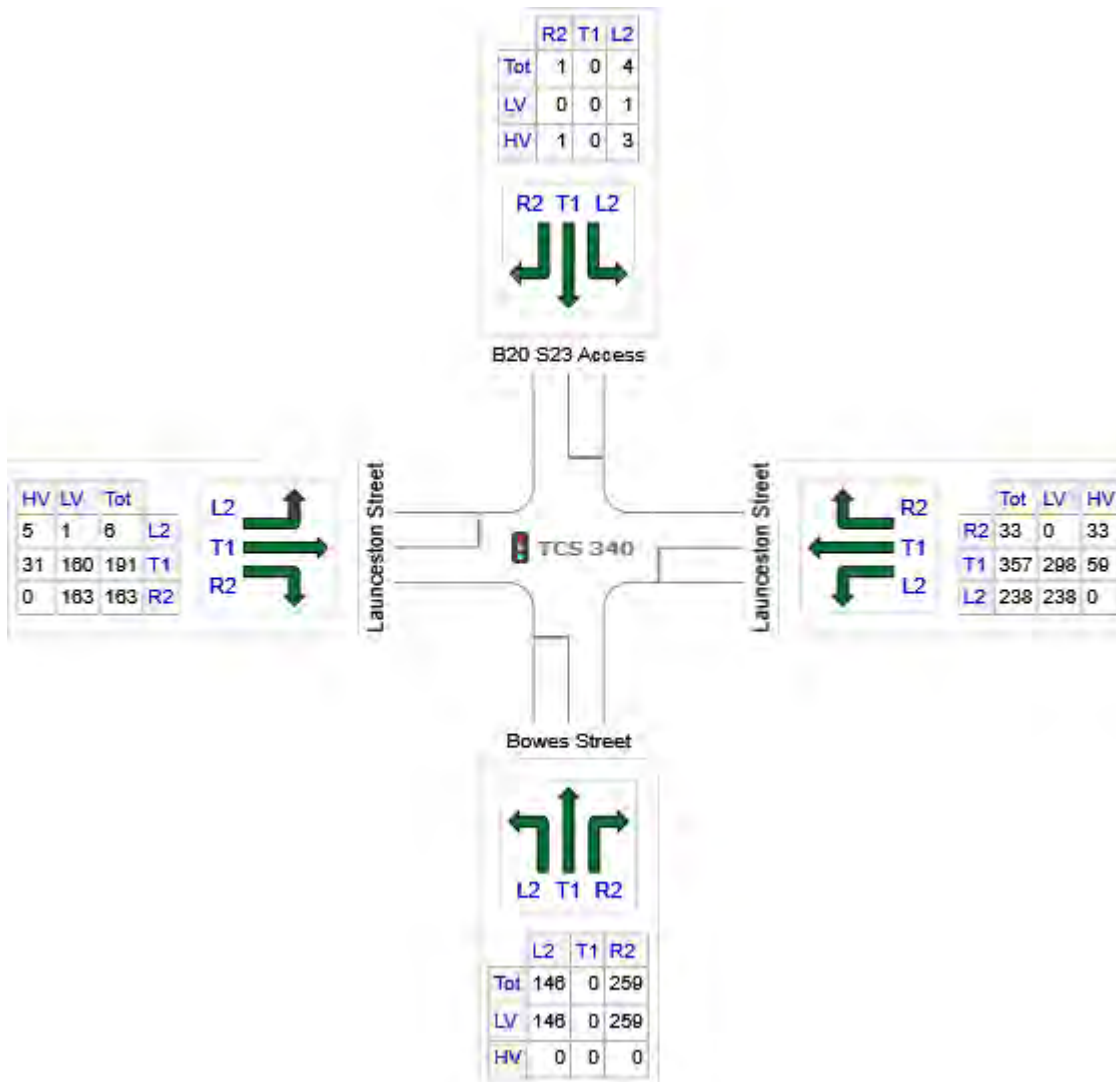
Output Phase Sequence: A, B*, D, E, G

(* Variable Phase)

Site Layout



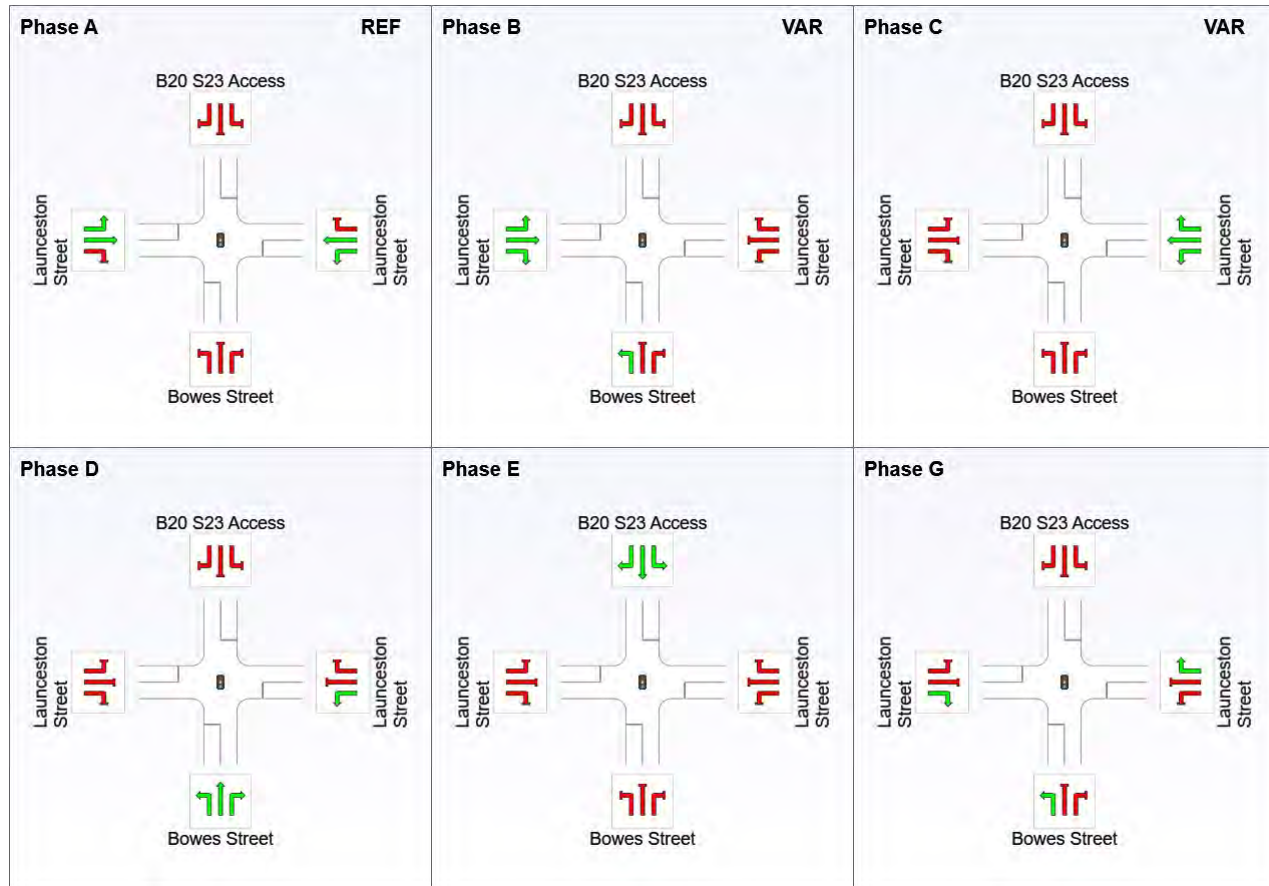
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	405	405	0
E: Launceston Street	627	536	92
N: B20 S23 Access	5	1	4
W: Launceston Street	360	324	36
Total	1398	1266	132

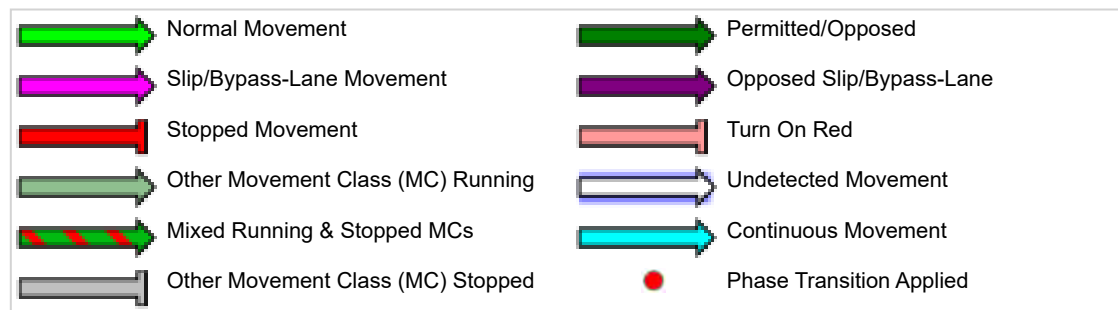
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	D	E	G
Phase Change Time (sec)	0	23	35	58	70
Green Time (sec)	17	6	17	6	6
Phase Time (sec)	23	12	23	12	12
Phase Split	28%	15%	28%	15%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation

and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	146	0.0	0.180	11.3	LOS A	2.2	15.3	0.64	0.70	0.64	24.4
2	T1	0	0.0	0.180	11.8	LOS A	2.2	15.3	0.64	0.70	0.64	14.3
3	R2	259	0.0	0.773	39.7	LOS C	10.5	73.6	0.98	0.91	1.15	10.2
Approach		405	0.0	0.773	29.5	LOS C	10.5	73.6	0.85	0.83	0.96	13.0
East: Launceston Street												
4	L2	238	0.0	0.704	24.2	LOS B	9.1	66.2	0.96	0.85	1.00	15.7
5	T1	357	16.5	0.704	30.3	LOS C	10.2	81.2	0.98	0.86	1.04	17.6
6	R2	33	100.0	0.411	50.1	LOS D	1.4	18.2	0.99	0.74	0.99	8.4
Approach		627	14.6	0.704	29.0	LOS C	10.2	81.2	0.97	0.85	1.03	16.3
North: B20 S23 Access												
7	L2	4	75.0	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	8.6
8	T1	0	100.0	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	5.6
9	R2	1	100.0	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	9.2
Approach		5	80.4	0.057	41.0	LOS C	0.2	2.5	0.95	0.63	0.95	8.6
West: Launceston Street												
10	L2	6	83.3	0.114	25.0	LOS B	2.6	21.2	0.71	0.57	0.71	17.3
11	T1	191	16.0	0.114	19.0	LOS B	2.7	21.2	0.71	0.56	0.71	24.5
12	R2	163	0.0	0.427	24.3	LOS B	3.7	25.9	0.95	0.78	0.95	15.7
Approach		360	9.9	0.427	21.5	LOS B	3.7	25.9	0.82	0.66	0.82	20.1
All Vehicles		1398	9.4	0.773	27.3	LOS B	10.5	81.2	0.90	0.79	0.95	16.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	146	0.0	814	0.180	100	11.3	LOS A	2.2	15.3	Full	35	0.0	74.2 ⁸
Lane 2	259	0.0	335 ¹	0.773	100	39.7	LOS C	10.5	73.6	Short	30	0.0	NA
Approach	405	0.0		0.773		29.5	LOS C	10.5	73.6				
East: Launceston Street													
Lane 1	338	4.9	480	0.704	100	22.6	LOS B	9.1	66.2	Full	95	0.0	0.0
Lane 2	257	16.5	365	0.704	100	34.8	LOS C	10.2	81.2	Full	95	0.0	0.0
Lane 3	33	100.0	79	0.411	100	50.1	LOS D	1.4	18.2	Short	60	0.0	NA
Approach	627	14.6		0.704		29.0	LOS C	10.2	81.2				
North: B20 S23 Access													
Lane 1	5	80.4	94	0.057	100	41.0	LOS C	0.2	2.5	Full	30	0.0	0.0
Approach	5	80.4		0.057		41.0	LOS C	0.2	2.5				
West: Launceston Street													
Lane 1	97	20.4	849	0.114	100	19.4	LOS B	2.6	21.2	Full	105	0.0	0.0
Lane 2	100	16.0	878	0.114	100	19.0	LOS B	2.7	21.2	Full	105	0.0	0.0
Lane 3	163	0.0	382	0.427	100	24.3	LOS B	3.7	25.9	Short	80	0.0	NA
Approach	360	9.9		0.427		21.5	LOS B	3.7	25.9				
Intersection	1398	9.4		0.773		27.3	LOS B	10.5	81.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

▽ Site: [2040 Dev - PM: BS-WS]

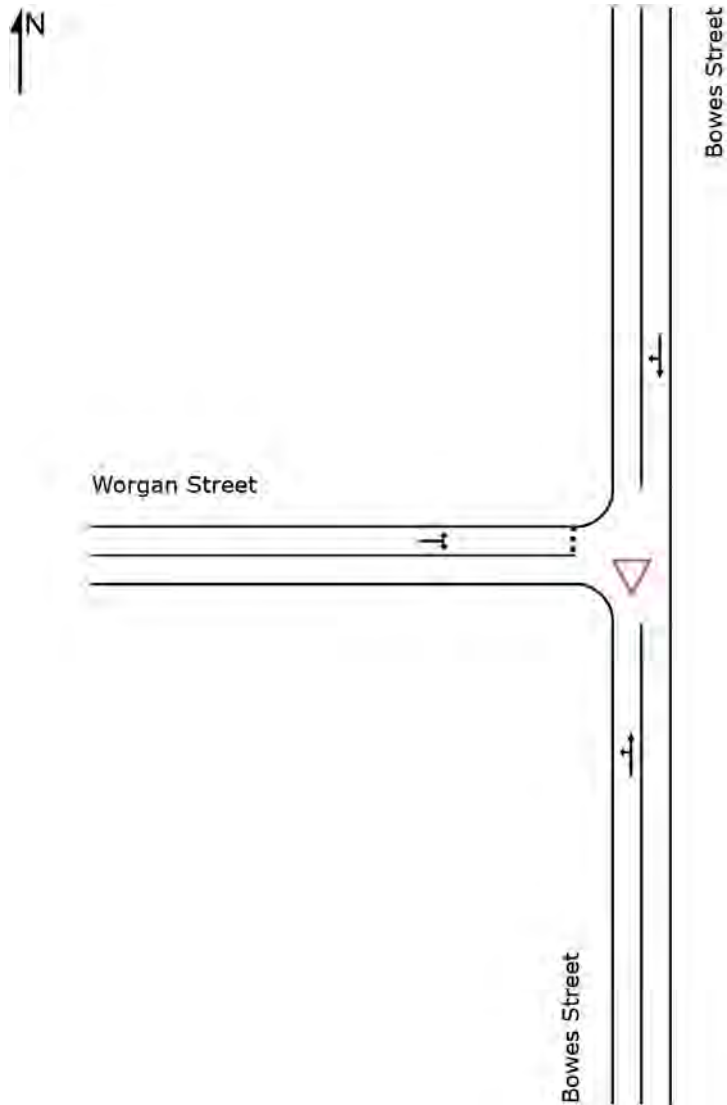
Bowes Street / Worgan Street

Existing Priority-Controlled (Give-Way) T-Intersection

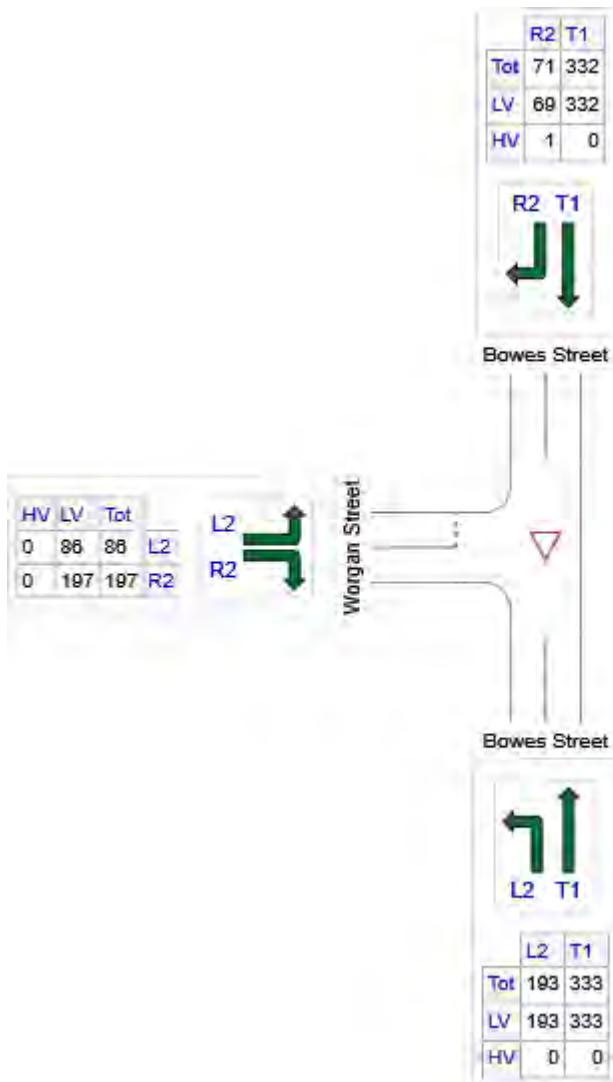
Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	525	525	0
N: Bowes Street	402	401	1
W: Worgan Street	283	283	0
Total	1211	1209	1

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	193	0.0	0.274	4.6	LOS A	0.0	0.0	0.00	0.20	0.00	32.6
2	T1	333	0.0	0.274	0.0	LOS A	0.0	0.0	0.00	0.20	0.00	43.3
Approach		525	0.0	0.274	1.7	NA	0.0	0.0	0.00	0.20	0.00	38.7
North: Bowes Street												
8	T1	332	0.0	0.240	0.9	LOS A	0.7	5.0	0.23	0.11	0.23	43.1
9	R2	71	1.5	0.240	5.9	LOS A	0.7	5.0	0.23	0.11	0.23	16.9
Approach		402	0.3	0.240	1.7	NA	0.7	5.0	0.23	0.11	0.23	37.2
West: Worgan Street												
10	L2	86	0.0	0.401	5.5	LOS A	2.0	13.9	0.57	0.83	0.77	16.5
12	R2	197	0.0	0.401	9.2	LOS A	2.0	13.9	0.57	0.83	0.77	26.8
Approach		283	0.0	0.401	8.0	LOS A	2.0	13.9	0.57	0.83	0.77	23.9
All Vehicles		1211	0.1	0.401	3.2	NA	2.0	13.9	0.21	0.32	0.26	33.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	525	0.0	1915	0.274	100	1.7	LOS A	0.0	0.0	Full	105	0.0	0.0
Approach	525	0.0		0.274		1.7	NA	0.0	0.0				
North: Bowes Street													
Lane 1	402	0.3	1675	0.240	100	1.7	LOS A	0.7	5.0	Full	35	0.0	0.0
Approach	402	0.3		0.240		1.7	NA	0.7	5.0				
West: Worgan Street													
Lane 1	283	0.0	705	0.401	100	8.0	LOS A	2.0	13.9	Full	35	0.0	0.0
Approach	283	0.0		0.401		8.0	LOS A	2.0	13.9				
Intersection	1211	0.1		0.401		3.2	NA	2.0	13.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2040 Dev - PM: AS-BS-MS]

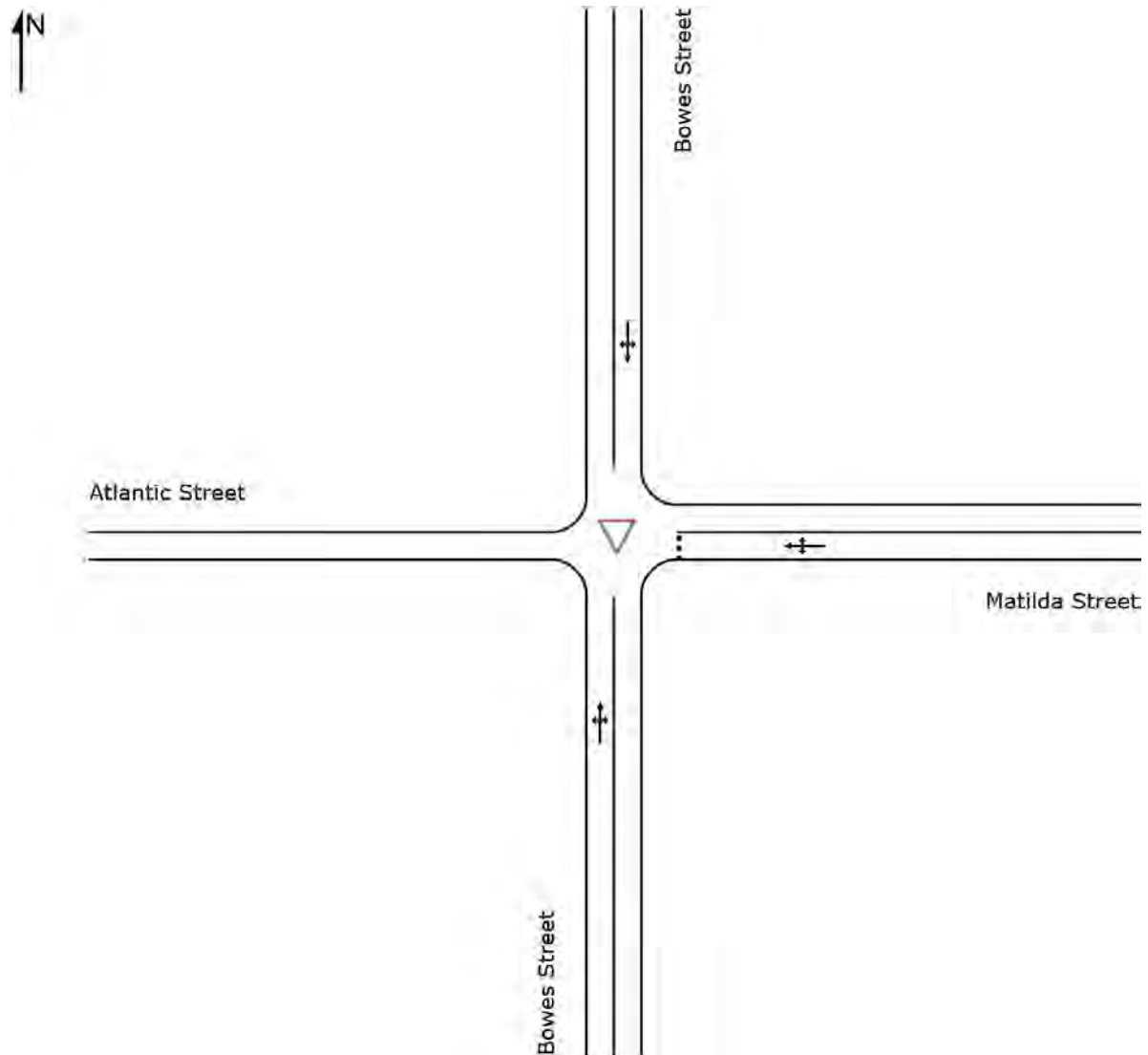
Atlantic Street / Bowes Street / Matilda Street

Existing Priority-Controlled (Give-Way) T-Intersection

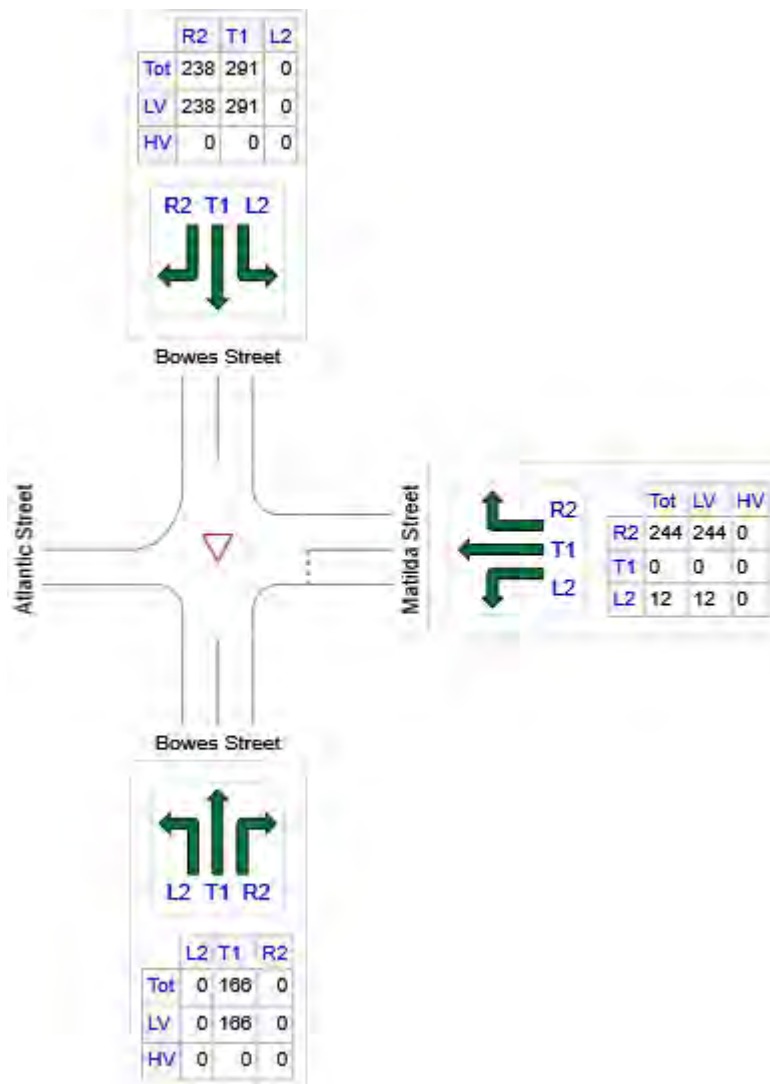
Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	167	167	0
E: Matilda Street	256	256	0
N: Bowes Street	529	529	0
Total	951	951	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
1	L2	0	0.0	0.085	4.2	LOS A	0.0	0.0	0.00	0.00	0.00	24.3
2	T1	166	0.0	0.085	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.085	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	43.5
Approach		167	0.0	0.085	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
East: Matilda Street												
4	L2	12	0.0	0.516	7.8	LOS A	2.7	18.7	0.71	1.00	1.11	19.7
5	T1	0	0.0	0.516	11.3	LOS A	2.7	18.7	0.71	1.00	1.11	18.4
6	R2	244	0.0	0.516	13.5	LOS A	2.7	18.7	0.71	1.00	1.11	24.8
Approach		256	0.0	0.516	13.2	LOS A	2.7	18.7	0.71	1.00	1.11	24.6
North: Bowes Street												
7	L2	0	0.0	0.306	5.3	LOS A	1.6	11.3	0.28	0.27	0.28	39.2
8	T1	291	0.0	0.306	0.5	LOS A	1.6	11.3	0.28	0.27	0.28	39.3
9	R2	238	0.0	0.306	5.5	LOS A	1.6	11.3	0.28	0.27	0.28	26.8
Approach		529	0.0	0.306	2.8	NA	1.6	11.3	0.28	0.27	0.28	31.2
All Vehicles		951	0.0	0.516	5.1	NA	2.7	18.7	0.35	0.42	0.46	30.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	167	0.0	1949	0.085	100	0.0	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	167	0.0		0.085		0.0	NA	0.0	0.0				
East: Matilda Street													
Lane 1	256	0.0	496	0.516	100	13.2	LOS A	2.7	18.7	Full	80	0.0	0.0
Approach	256	0.0		0.516		13.2	LOS A	2.7	18.7				
North: Bowes Street													
Lane 1	529	0.0	1730	0.306	100	2.8	LOS A	1.6	11.3	Full	110	0.0	0.0
Approach	529	0.0		0.306		2.8	NA	1.6	11.3				
Intersection	951	0.0		0.516		5.1	NA	2.7	18.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - PM: BS-EWL]

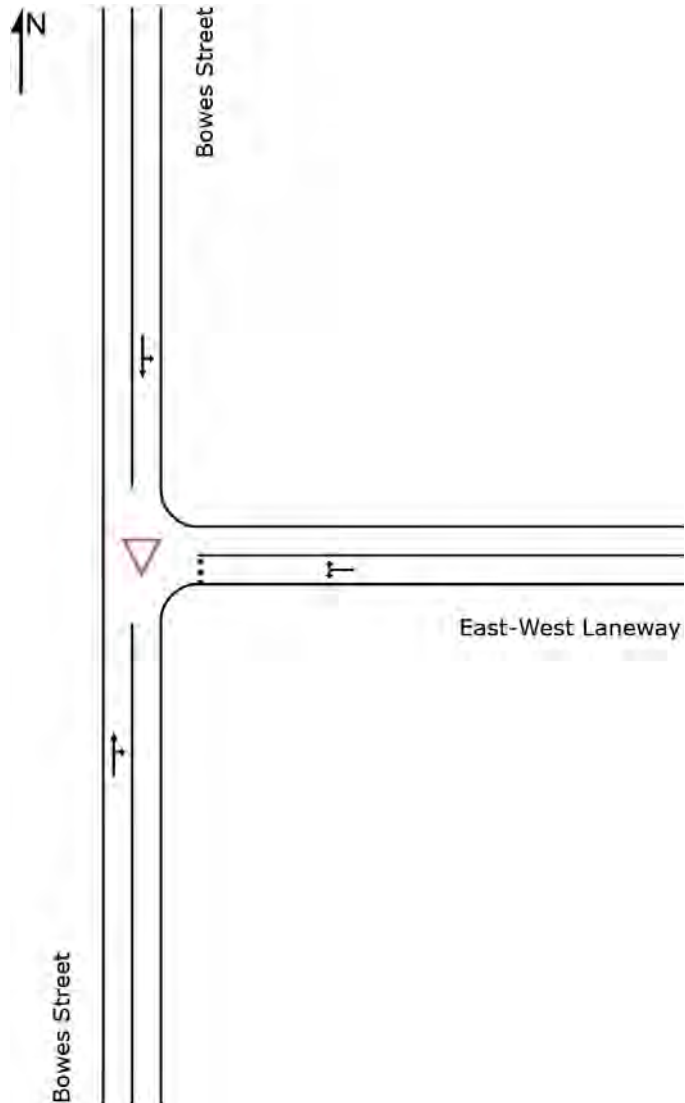
Bowes Street / East-West Laneway

Proposed Priority-Controlled (Give-Way) T-Intersection

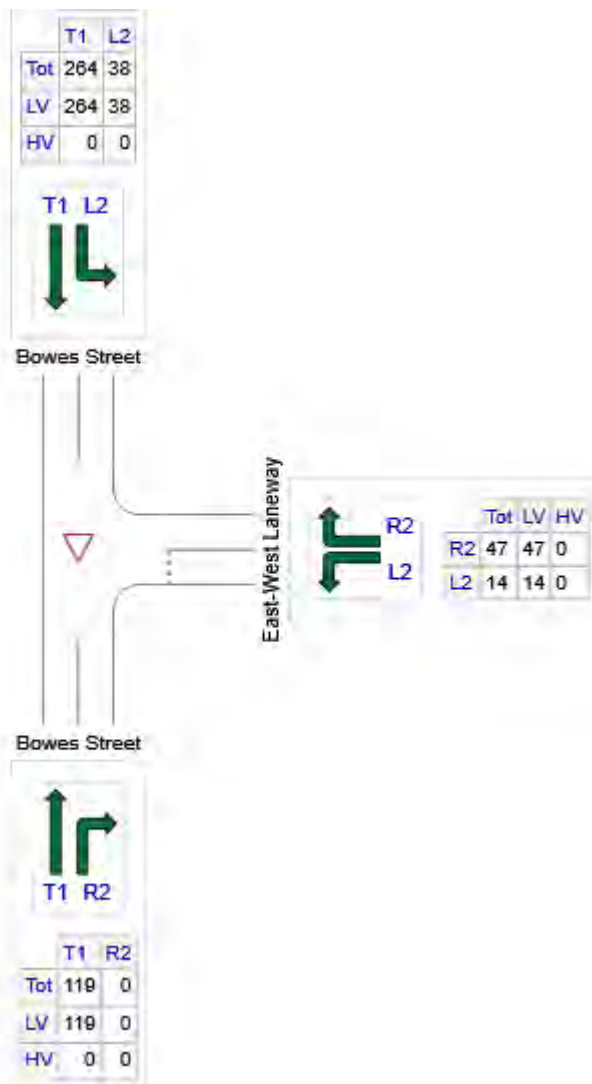
Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Bowes Street	119	119	0
E: East-West Laneway	61	61	0
N: Bowes Street	302	302	0
Total	482	482	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Bowes Street												
2	T1	119	0.0	0.061	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	0	0.0	0.061	5.4	LOS A	0.0	0.0	0.00	0.00	0.00	41.7
Approach		119	0.0	0.061	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
East: East-West Laneway												
4	L2	14	0.0	0.064	0.9	LOS A	0.2	1.5	0.37	0.34	0.37	23.4
6	R2	47	0.0	0.064	2.3	LOS A	0.2	1.5	0.37	0.34	0.37	22.9
Approach		61	0.0	0.064	1.9	LOS A	0.2	1.5	0.37	0.34	0.37	23.0
North: Bowes Street												
7	L2	38	0.0	0.156	4.3	LOS A	0.0	0.0	0.00	0.07	0.00	26.5
8	T1	264	0.0	0.156	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	47.3
Approach		302	0.0	0.156	0.5	NA	0.0	0.0	0.00	0.07	0.00	43.8
All Vehicles		482	0.0	0.156	0.6	NA	0.2	1.5	0.05	0.09	0.05	41.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Bowes Street													
Lane 1	119	0.0	1949	0.061	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	119	0.0		0.061		0.0	NA	0.0	0.0				
East: East-West Laneway													
Lane 1	61	0.0	956	0.064	100	1.9	LOS A	0.2	1.5	Full	30	0.0	0.0
Approach	61	0.0		0.064		1.9	LOS A	0.2	1.5				
North: Bowes Street													
Lane 1	302	0.0	1938	0.156	100	0.5	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	302	0.0		0.156		0.5	NA	0.0	0.0				
Intersection	482	0.0		0.156		0.6	NA	0.2	1.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

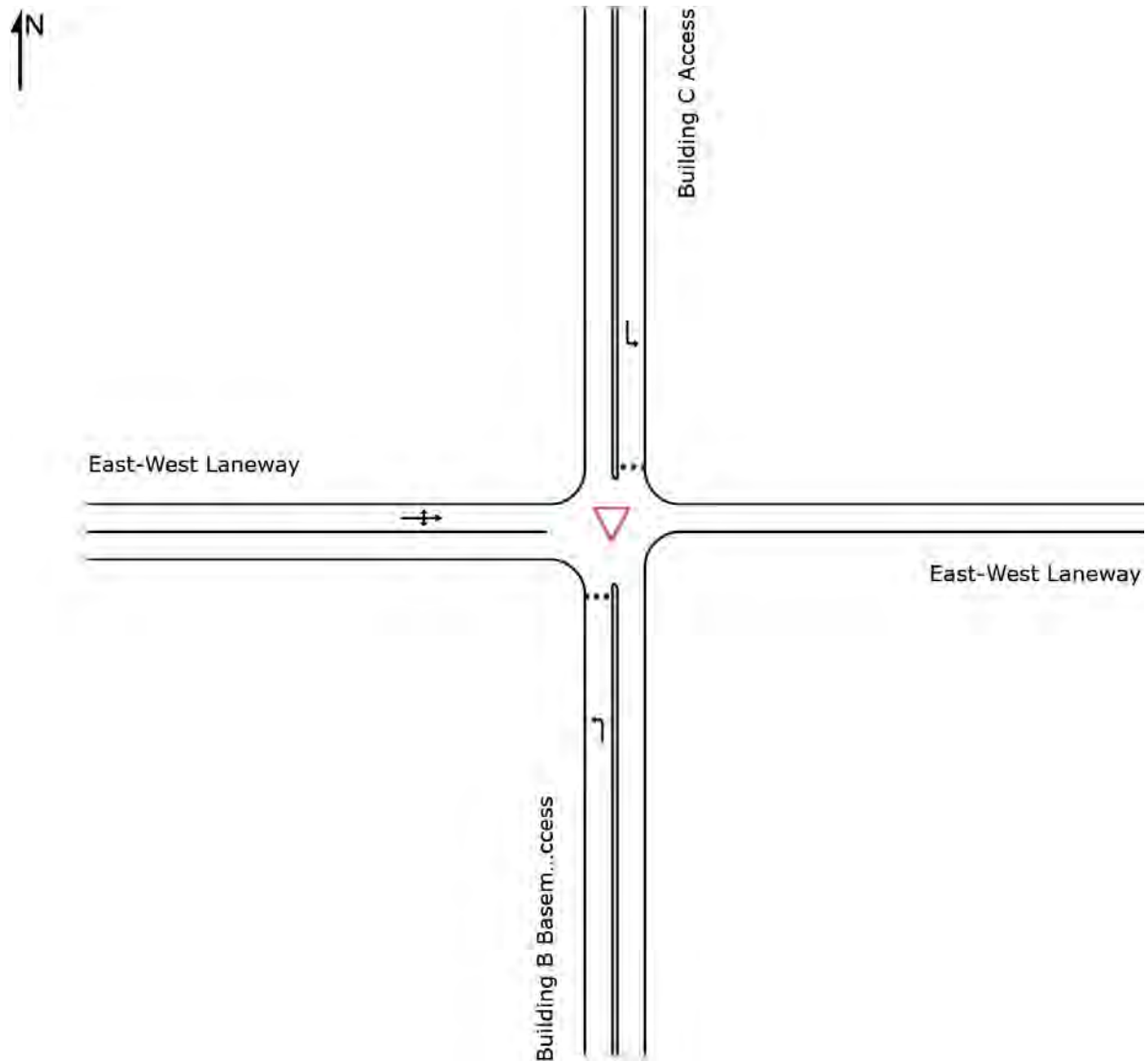
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

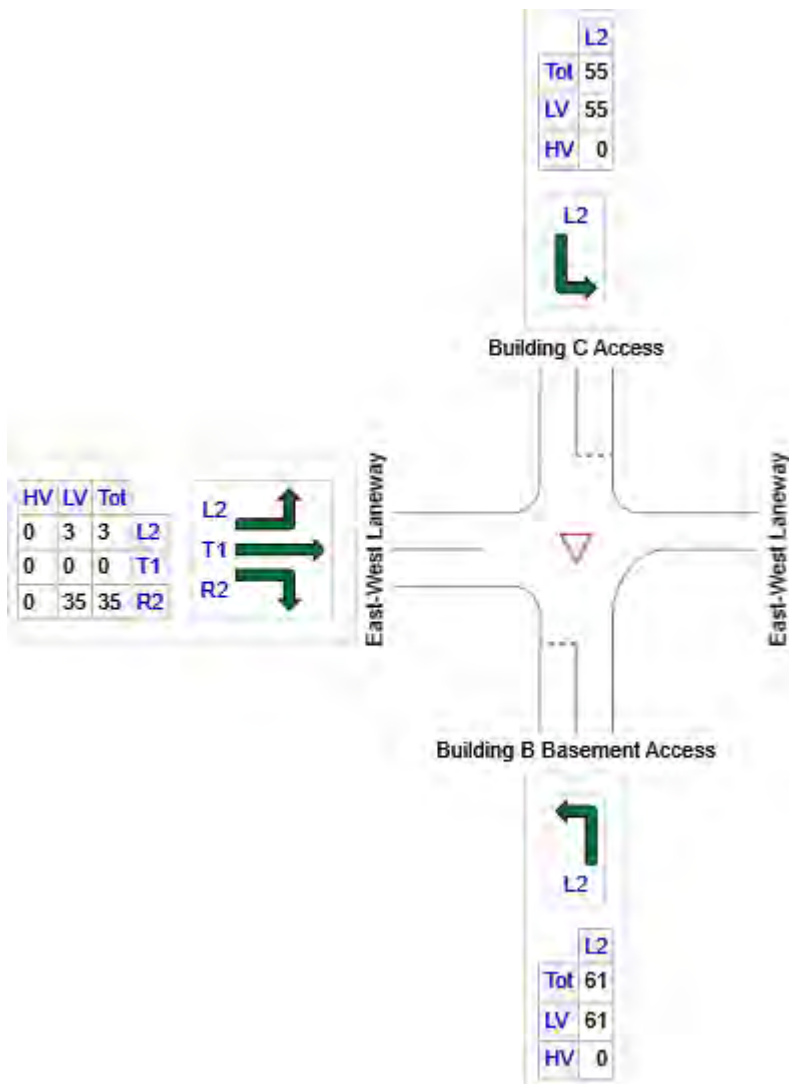
▼ Site: [2040 Dev - PM: BldgBB-BldgC-EWL]

Building B Basement Access / Building C Access / East-West Laneway
Proposed Priority-Controlled (Give-Way) T-Intersection
Site Category: 2040 Development Scenario - Weekday Evening Peak Hour
Giveway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Building B Basement Access	61	61	0
N: Building C Access	55	55	0
W: East-West Laneway	38	38	0
Total	154	154	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Building B Basement Access												
1	L2	61	0.0	0.033	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
Approach		61	0.0	0.033	2.3	LOS A	0.0	0.0	0.00	0.50	0.00	26.8
North: Building C Access												
4	L2	55	0.0	0.033	0.0	LOS A	0.1	0.9	0.00	0.00	0.00	26.3
Approach		55	0.0	0.033	0.0	LOS A	0.1	0.9	0.00	0.00	0.00	26.3
West: East-West Laneway												
7	L2	3	0.0	0.020	3.1	LOS A	0.0	0.0	0.00	0.54	0.00	26.5
8	T1	0	0.0	0.020	0.4	LOS A	0.0	0.0	0.00	0.54	0.00	40.2
12	R2	35	0.0	0.020	2.9	LOS A	0.0	0.0	0.00	0.54	0.00	25.9
Approach		38	0.0	0.020	2.9	NA	0.0	0.0	0.00	0.54	0.00	26.0
All Vehicles		154	0.0	0.033	1.6	NA	0.1	0.9	0.00	0.33	0.00	26.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Building B Basement Access													
Lane 1	61	0.0	1857	0.033	100	2.3	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	61	0.0		0.033		2.3	LOS A	0.0	0.0				
North: Building C Access													
Lane 1	55	0.0	1636	0.033	100	0.0	LOS A	0.1	0.9	Full	10	0.0	0.0
Approach	55	0.0		0.033		0.0	LOS A	0.1	0.9				
West: East-West Laneway													
Lane 1	38	0.0	1857	0.020	100	2.9	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	38	0.0		0.020		2.9	NA	0.0	0.0				
Intersection	154	0.0		0.033		1.6	NA	0.1	0.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▼ Site: [2040 Dev - PM: BldgBP-BS]

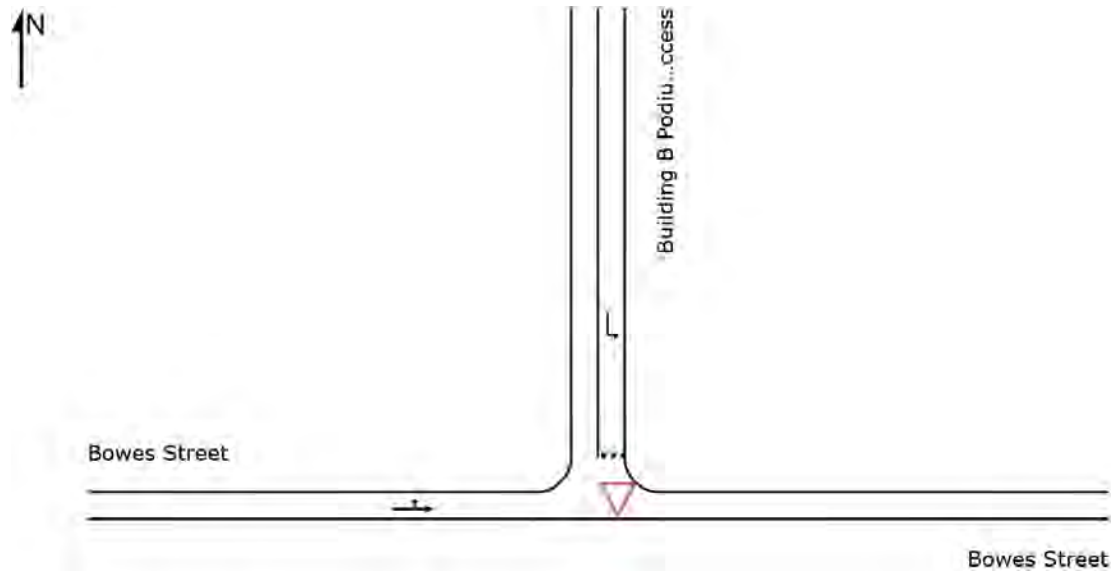
Building B Podium Access / Bowes Street

Proposed Priority-Controlled (Give-Way) T-Intersection

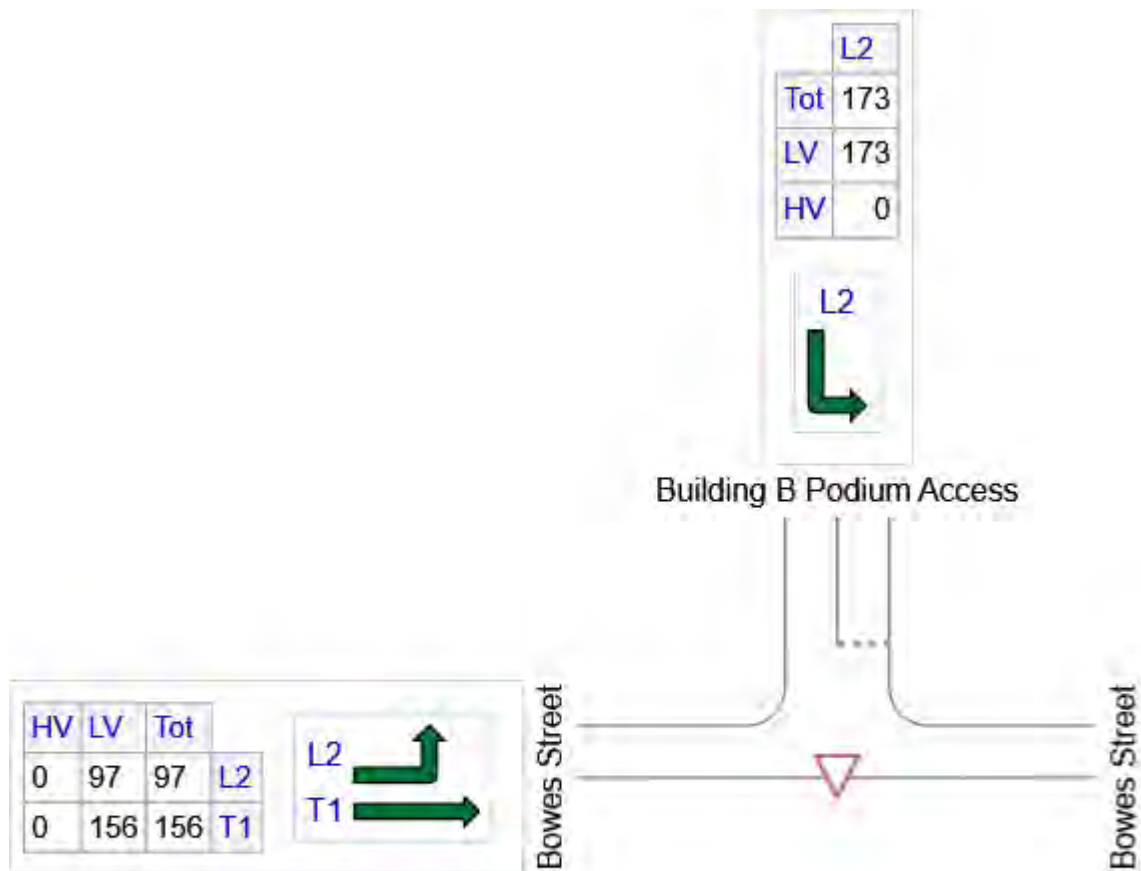
Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
N: Building B Podium Access	173	173	0
W: Bowes Street	253	253	0
Total	425	425	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
North: Building B Podium Access												
4	L2	173	0.0	0.121	0.5	LOS A	0.5	3.6	0.26	0.13	0.26	21.2
Approach		173	0.0	0.121	0.5	LOS A	0.5	3.6	0.26	0.13	0.26	21.2
West: Bowes Street												
7	L2	97	0.0	0.132	3.5	LOS A	0.0	0.0	0.00	0.20	0.00	25.8
8	T1	156	0.0	0.132	0.0	LOS A	0.0	0.0	0.00	0.20	0.00	40.8
Approach		253	0.0	0.132	1.3	NA	0.0	0.0	0.00	0.20	0.00	34.1
All Vehicles		425	0.0	0.132	1.0	NA	0.5	3.6	0.11	0.17	0.11	28.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
North: Building B Podium Access													
Lane 1	173	0.0	1432	0.121	100	0.5	LOS A	0.5	3.6	Full	15	0.0	0.0
Approach	173	0.0		0.121		0.5	LOS A	0.5	3.6				
West: Bowes Street													
Lane 1	253	0.0	1913	0.132	100	1.3	LOS A	0.0	0.0	Full	40	0.0	0.0
Approach	253	0.0		0.132		1.3	NA	0.0	0.0				
Intersection	425	0.0		0.132		1.0	NA	0.5	3.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - PM: BldgA-NSR]

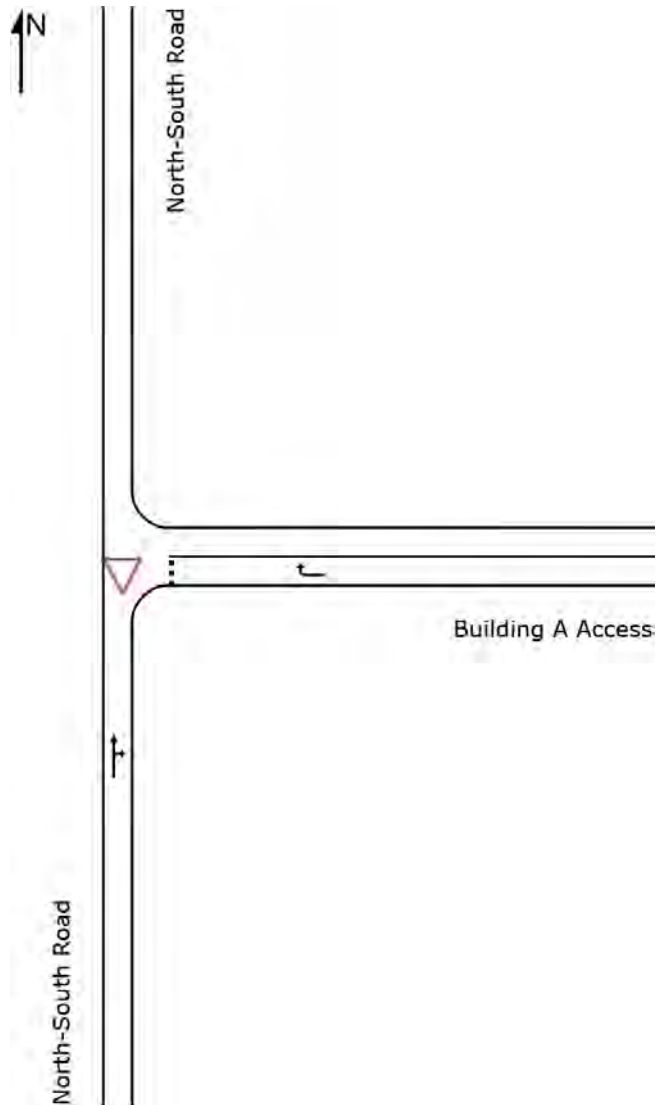
Building A Access / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

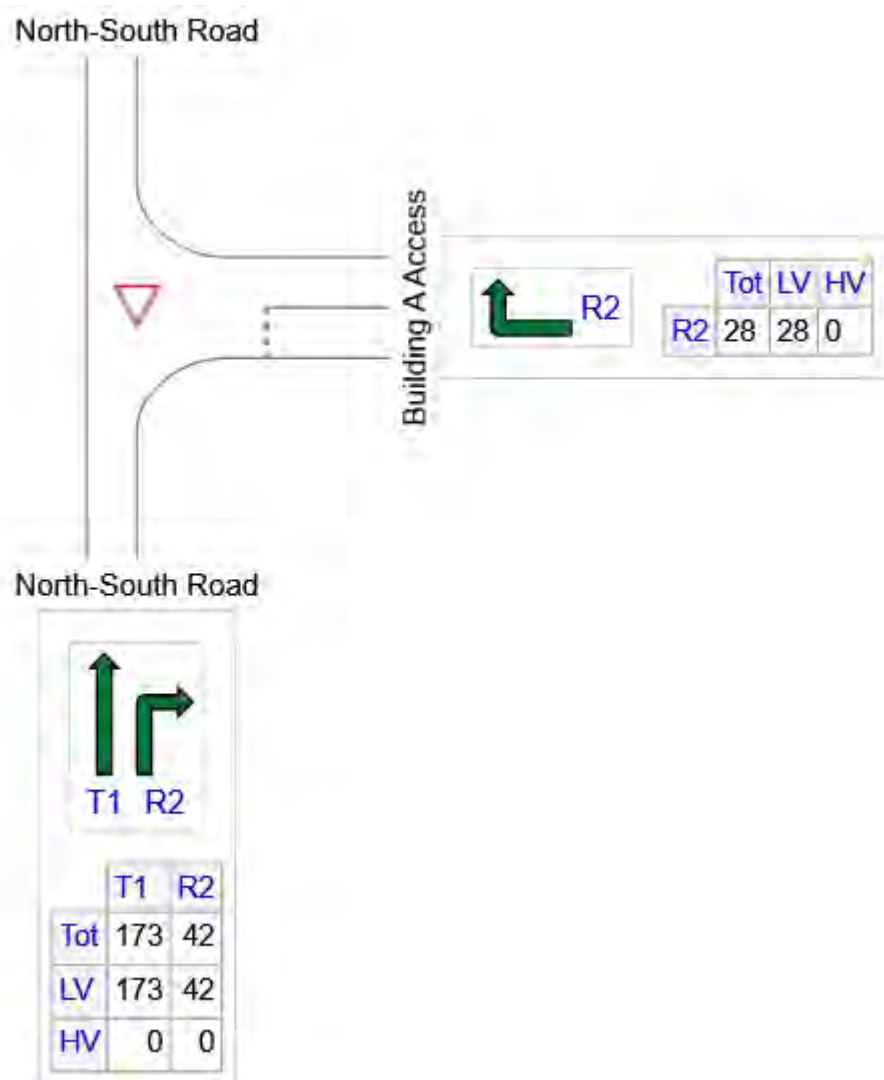
Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	215	215	0
E: Building A Access	28	28	0
Total	243	243	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	173	0.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	44.8
3	R2	42	0.0	0.111	2.1	LOS A	0.0	0.0	0.00	0.11	0.00	29.0
Approach		215	0.0	0.111	0.4	NA	0.0	0.0	0.00	0.11	0.00	41.5
East: Building A Access												
6	R2	28	0.0	0.023	1.5	LOS A	0.1	0.5	0.25	0.30	0.25	19.0
Approach		28	0.0	0.023	1.5	LOS A	0.1	0.5	0.25	0.30	0.25	19.0
All Vehicles		243	0.0	0.111	0.5	NA	0.1	0.5	0.03	0.13	0.03	35.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	215	0.0	1931	0.111	100	0.4	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	215	0.0		0.111		0.4	NA	0.0	0.0				
East: Building A Access													
Lane 1	28	0.0	1220	0.023	100	1.5	LOS A	0.1	0.5	Full	15	0.0	0.0
Approach	28	0.0		0.023		1.5	LOS A	0.1	0.5				
Intersection	243	0.0		0.111		0.5	NA	0.1	0.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - PM: EWL-NSR]

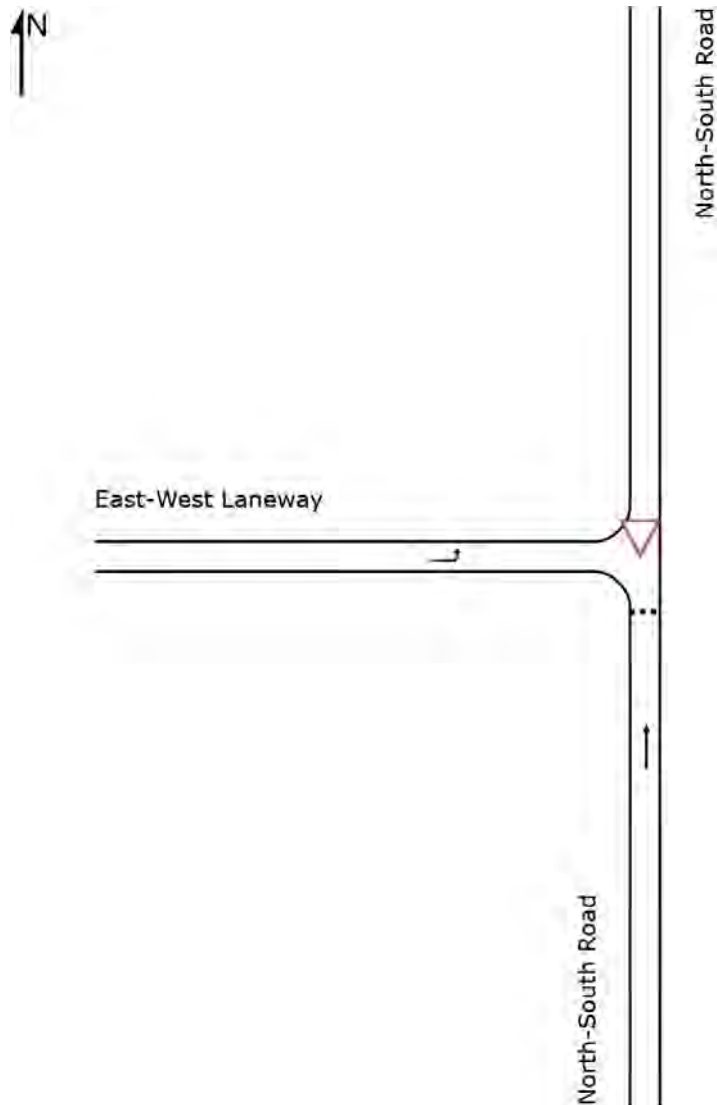
East-West Laneway / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	201	201	0
W: East-West Laneway	55	55	0
Total	256	256	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
2	T1	201	0.0	0.140	2.1	LOS A	0.6	3.9	0.14	0.46	0.14	36.5
Approach		201	0.0	0.140	2.1	LOS A	0.6	3.9	0.14	0.46	0.14	36.5
West: East-West Laneway												
7	L2	55	0.0	0.029	3.7	LOS A	0.0	0.0	0.00	0.52	0.00	31.5
Approach		55	0.0	0.029	3.7	NA	0.0	0.0	0.00	0.52	0.00	31.5
All Vehicles		256	0.0	0.140	2.4	NA	0.6	3.9	0.11	0.47	0.11	35.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	201	0.0	1436	0.140	100	2.1	LOS A	0.6	3.9	Full	30	0.0	0.0
Approach	201	0.0		0.140		2.1	LOS A	0.6	3.9				
West: East-West Laneway													
Lane 1	55	0.0	1857	0.029	100	3.7	LOS A	0.0	0.0	Full	45	0.0	0.0
Approach	55	0.0		0.029		3.7	NA	0.0	0.0				
Intersection	256	0.0		0.140		2.4	NA	0.6	3.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

▽ Site: [2040 Dev - PM: MS-NSR]

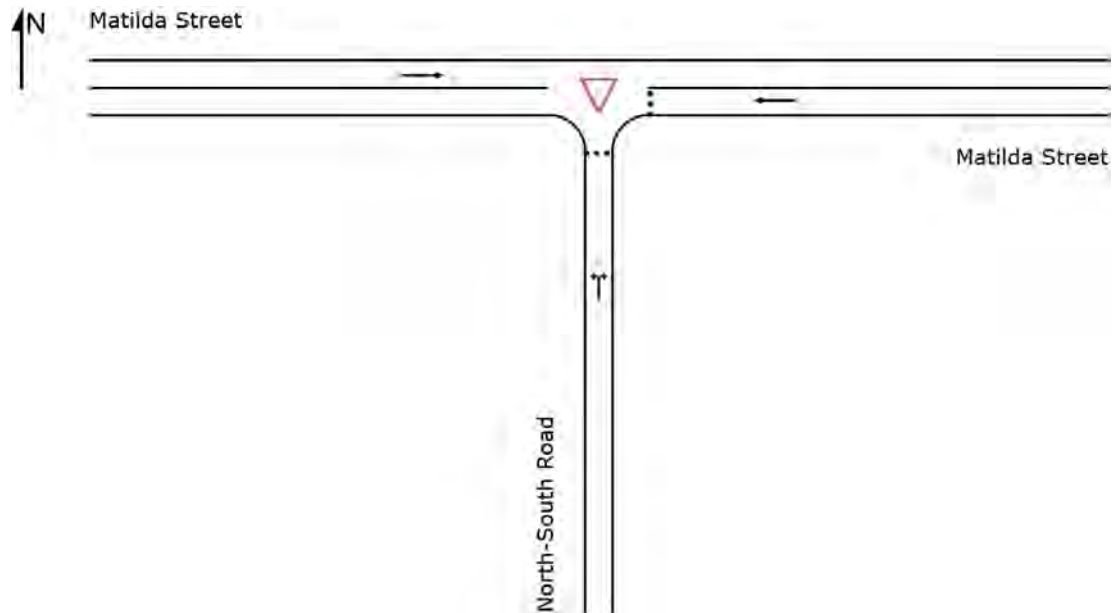
Matilda Street / North-South Road

Proposed Priority-Controlled (Give-Way) T-Intersection

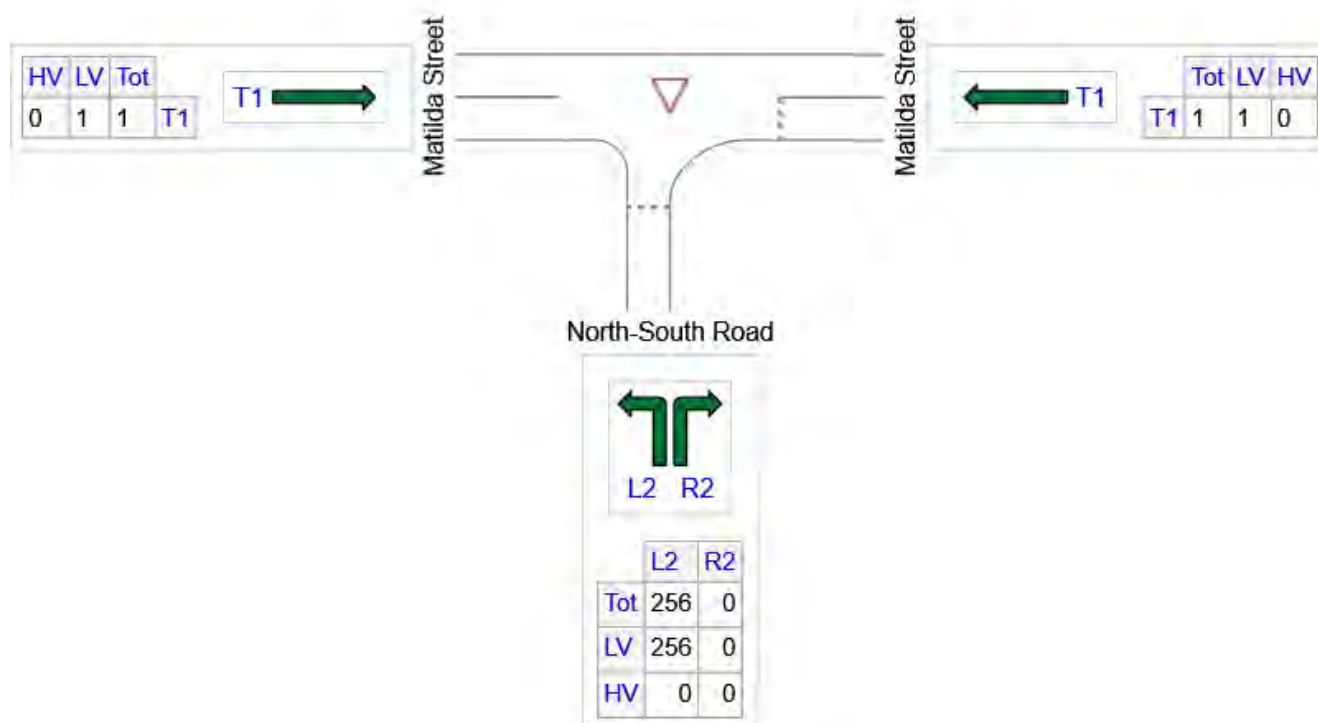
Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Giveaway / Yield (Two-Way)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: North-South Road	256	256	0
E: Matilda Street	1	1	0
W: Matilda Street	1	1	0
Total	258	258	0

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: North-South Road												
1	L2	256	0.0	0.157	4.7	LOS A	0.7	5.0	0.01	0.56	0.01	35.2
3	R2	0	0.0	0.157	4.9	LOS A	0.7	5.0	0.01	0.56	0.01	29.6
Approach		256	0.0	0.157	4.7	LOS A	0.7	5.0	0.01	0.56	0.01	35.2
East: Matilda Street												
5	T1	1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
Approach		1	0.0	0.001	1.9	LOS A	0.0	0.0	0.00	0.48	0.00	39.7
West: Matilda Street												
11	T1	1	0.0	0.001	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		1	0.0	0.001	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles		258	0.0	0.157	4.7	NA	0.7	5.0	0.01	0.56	0.01	35.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: North-South Road													
Lane 1	256	0.0	1635	0.157	100	4.7	LOS A	0.7	5.0	Full	70	0.0	0.0
Approach	256	0.0		0.157		4.7	LOS A	0.7	5.0				
East: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	1.9	LOS A	0.0	0.0	Full	30	0.0	0.0
Approach	1	0.0		0.001		1.9	LOS A	0.0	0.0				
West: Matilda Street													
Lane 1	1	0.0	1950	0.001	100	0.0	LOS A	0.0	0.0	Full	90	0.0	0.0
Approach	1	0.0		0.001		0.0	NA	0.0	0.0				
Intersection	258	0.0		0.157		4.7	NA	0.7	5.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

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 lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: TCS 341 [2040 Dev - PM: ES-LS]

Easty Street / Launceston Street

Existing Signalised T-Intersection

Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

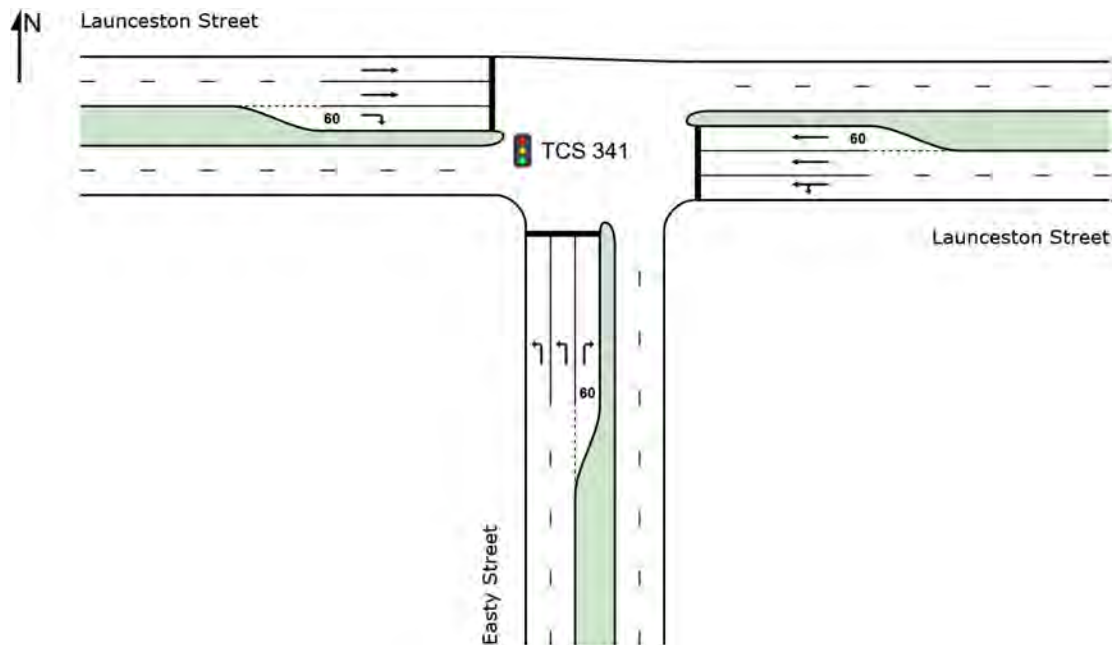
Phase Sequence: SCATS

Reference Phase: Phase A

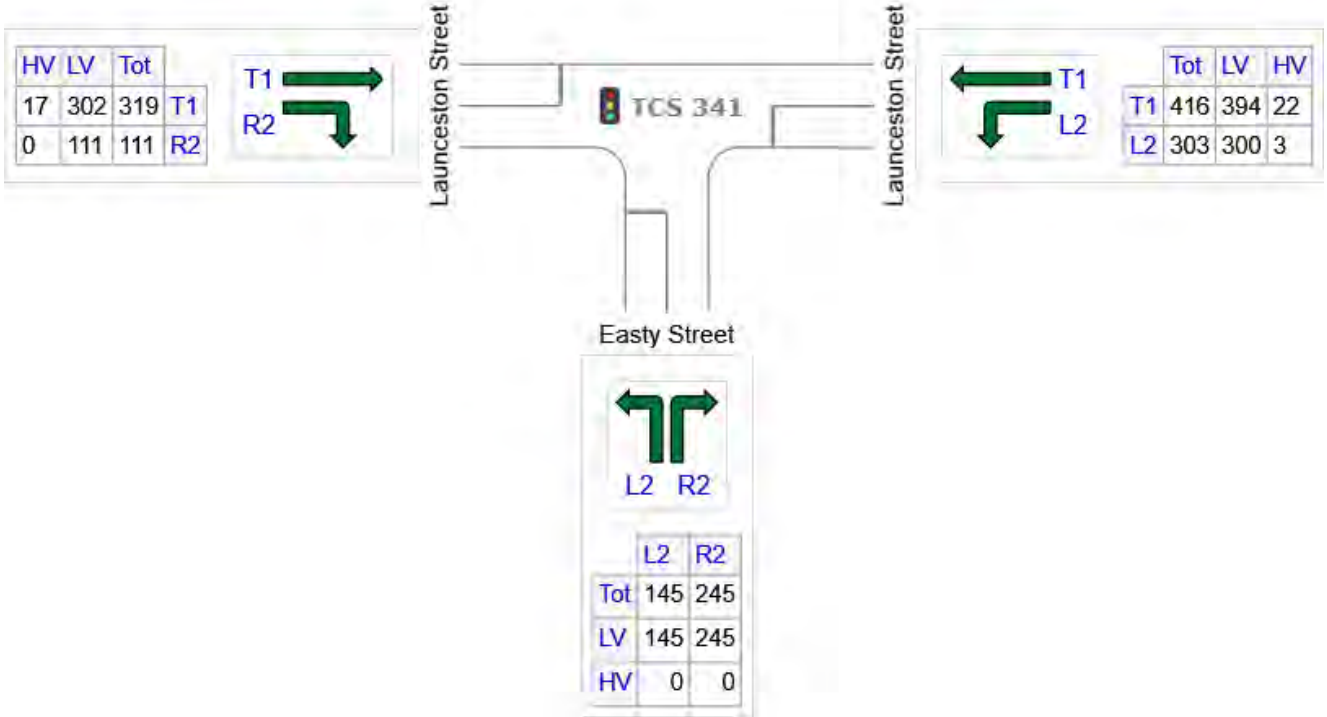
Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Site Layout



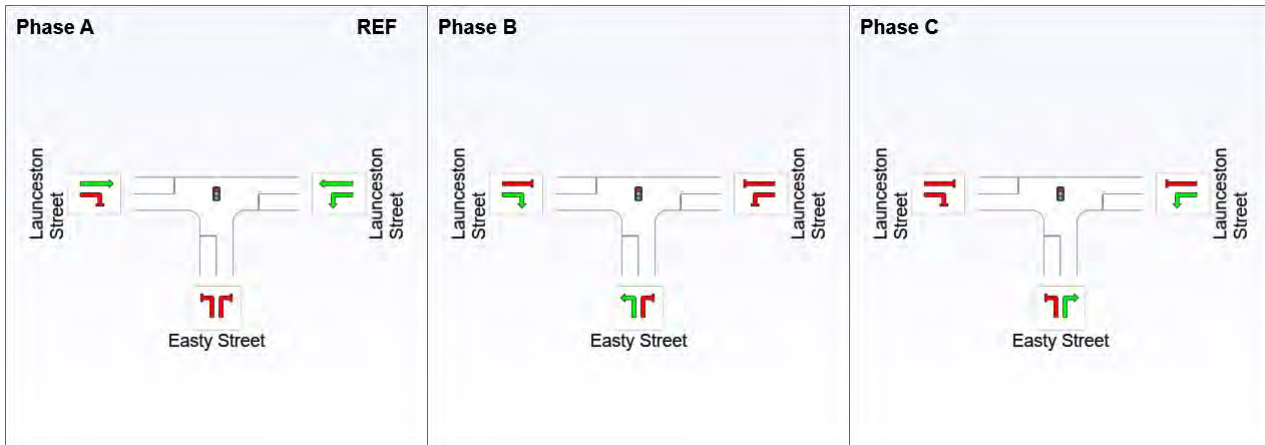
OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Easty Street	391	391	0
E: Launceston Street	719	694	25
W: Launceston Street	429	413	17
Total	1539	1497	42

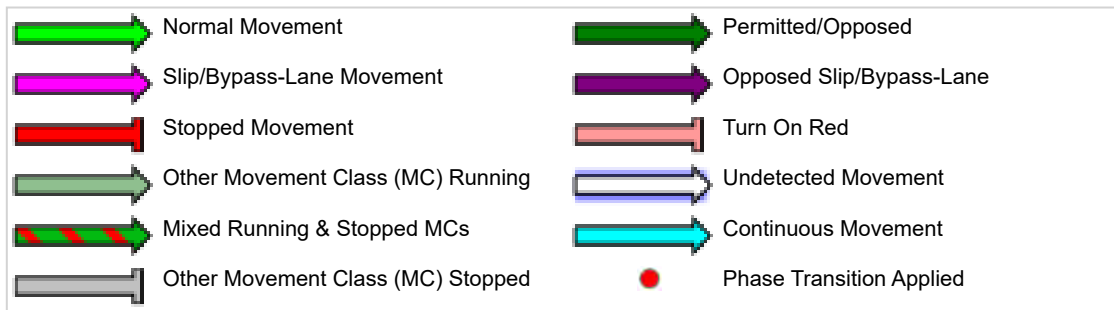
Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase

VAR: Variable Phase



Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	43
Green Time (sec)	20	11	23
Phase Time (sec)	26	17	29
Phase Split	36%	24%	40%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Easty Street												
1	L2	145	0.0	0.256	33.6	LOS C	2.3	16.4	0.92	0.74	0.92	22.0
3	R2	245	0.0	0.413	24.4	LOS B	6.9	48.1	0.83	0.77	0.83	27.6
Approach		391	0.0	0.413	27.8	LOS B	6.9	48.1	0.86	0.76	0.86	25.5
East: Launceston Street												
4	L2	303	1.0	0.242	8.1	LOS A	4.0	28.5	0.41	0.62	0.41	34.8
5	T1	416	5.3	0.397	23.2	LOS B	6.1	44.3	0.86	0.71	0.86	24.6
Approach		719	3.5	0.397	16.8	LOS B	6.1	44.3	0.67	0.67	0.67	28.9
West: Launceston Street												
11	T1	319	5.3	0.305	22.5	LOS B	4.5	32.9	0.83	0.68	0.83	24.8
12	R2	111	0.0	0.390	34.3	LOS C	3.7	25.6	0.94	0.77	0.94	21.9
Approach		429	3.9	0.390	25.5	LOS B	4.5	32.9	0.86	0.70	0.86	24.0
All Vehicles		1539	2.7	0.413	22.0	LOS B	6.9	48.1	0.77	0.70	0.77	26.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance													
	Demand Total veh/h	Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Easty Street													
Lane 1	73	0.0	284	0.256	100	33.6	LOS C	2.3	16.4	Full	305	0.0	0.0
Lane 2	73	0.0	284	0.256	100	33.6	LOS C	2.3	16.4	Full	305	0.0	0.0
Lane 3	245	0.0	593	0.413	100	24.4	LOS B	6.9	48.1	Short	60	0.0	NA
Approach	391	0.0		0.413		27.8	LOS B	6.9	48.1				
East: Launceston Street													
Lane 1	303	1.0	1255	0.242	61 ⁵	8.1	LOS A	4.0	28.5	Full	260	0.0	0.0
Lane 2	208	5.3	524	0.397	100	23.2	LOS B	6.1	44.3	Full	260	0.0	0.0
Lane 3	208	5.3	524	0.397	100	23.2	LOS B	6.1	44.3	Short	60	0.0	NA
Approach	719	3.5		0.397		16.8	LOS B	6.1	44.3				
West: Launceston Street													
Lane 1	159	5.3	524	0.305	100	22.5	LOS B	4.5	32.9	Full	130	0.0	0.0
Lane 2	159	5.3	524	0.305	100	22.5	LOS B	4.5	32.9	Full	130	0.0	0.0
Lane 3	111	0.0	284	0.390	100	34.3	LOS C	3.7	25.6	Short	60	0.0	NA
Approach	429	3.9		0.390		25.5	LOS B	4.5	32.9				
Intersection	1539	2.7		0.413		22.0	LOS B	6.9	48.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program

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Organisation: QUANTUM TRAFFIC PTY LTD | Created: Thursday, 14 August 2025 3:36:48 PM

Project: C:\QuantumTraffic\Projects\2024-0487 - Phillip, S7 (Woden Village)\5-Other Info\SIDRA\24-0487_20250806.sip8

USER REPORT FOR NETWORK SITE

 Project: 24-0487_20250806

Template: Default Site User
Report

 Site: [2040 Dev - PM - LS-YD]

 Network: 8 [2040 Dev - PM - LS-WS-YD]

Northwest part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset X-Intersection

Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

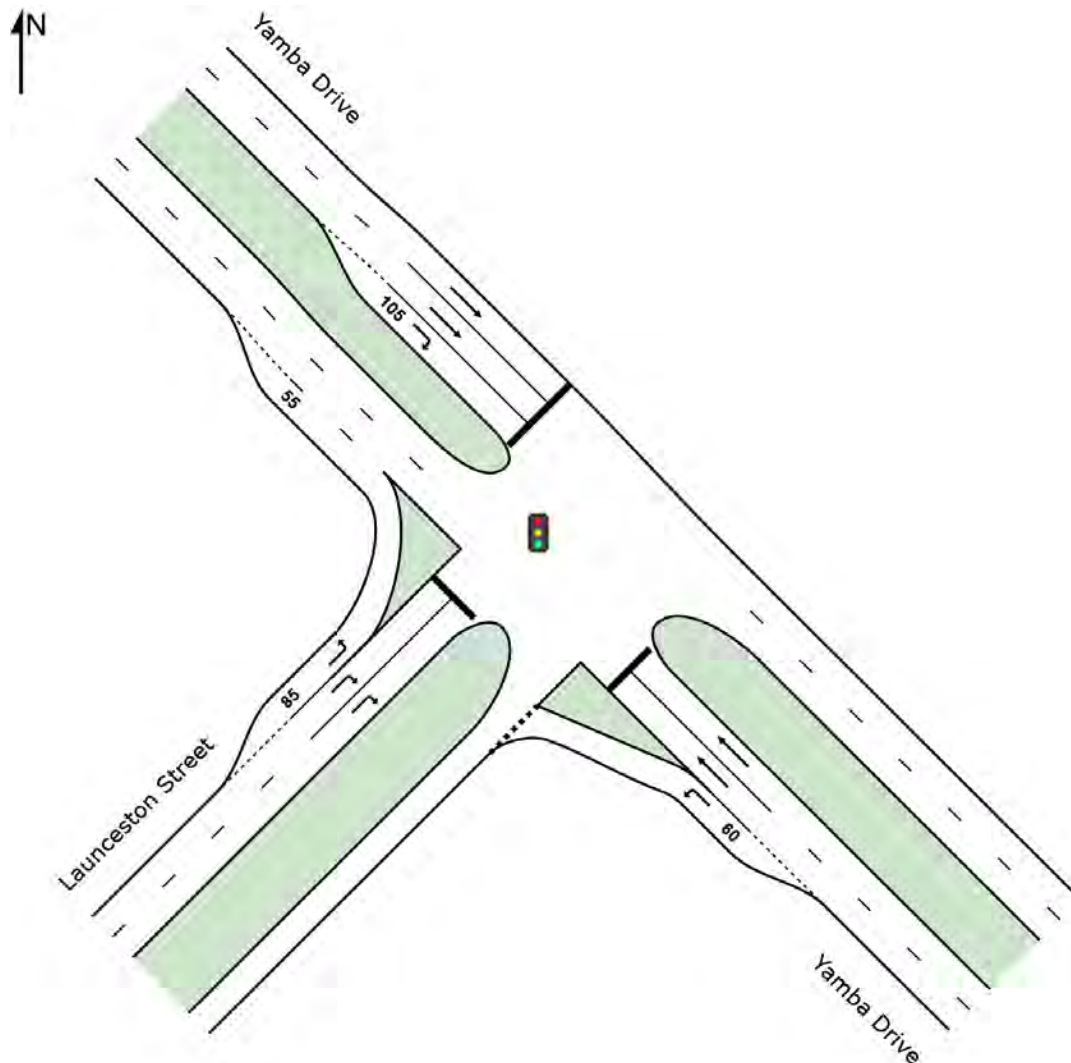
Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E

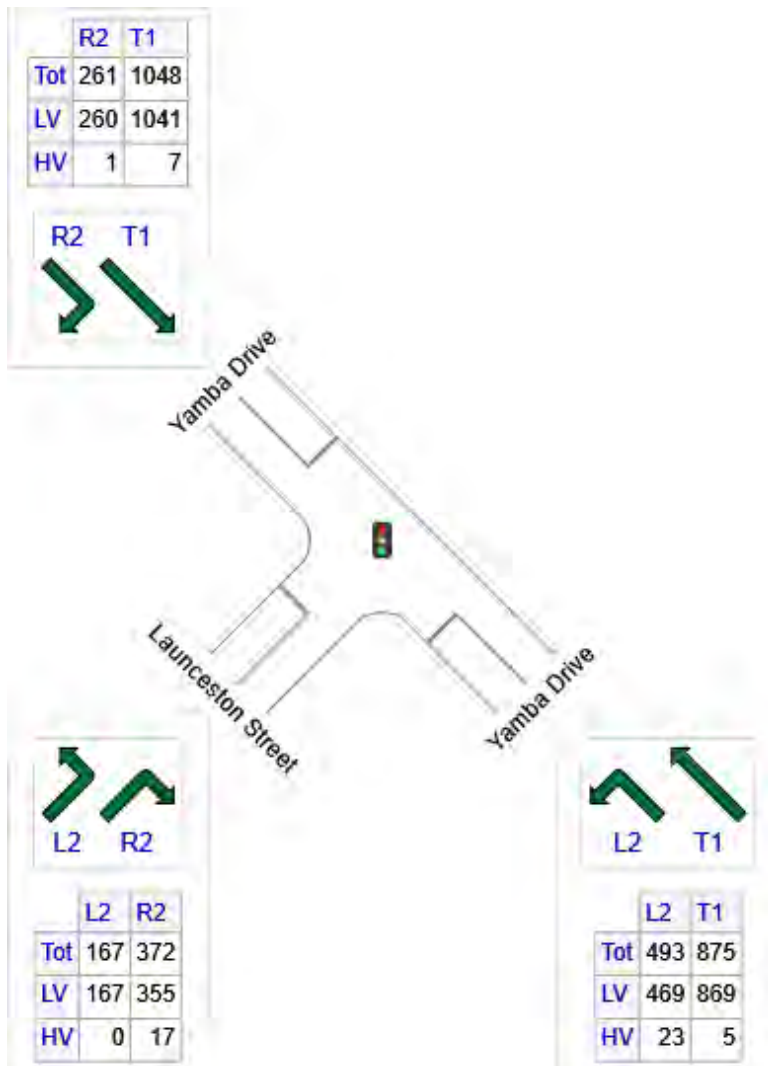
Output Phase Sequence: A, C*, D, E

(* Variable Phase)

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1367	1339	28
NW: Yamba Drive	1309	1301	8
SW: Launceston Street	539	522	17
Total	3216	3162	54

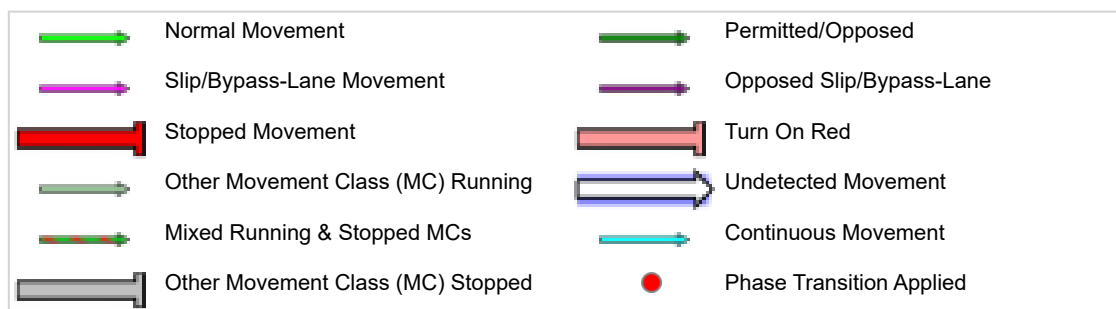
Input Phase Sequence (CCG)

Movement Class: All Movement Classes





REF: Reference Phase
VAR: Variable Phase



Phase Timing Summary (CCG)

Phase	A	C	D	E
Phase Change Time (sec)	0	54	70	101
Green Time (sec)	48	10	25	7
Phase Time (sec)	54	16	31	13
Phase Split	47%	14%	27%	11%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queue	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
4	L2	493	4.7	493	4.7	0.356	5.0	LOS A	0.8	5.9	0.04	0.59	0.04	40.4
5	T1	875	0.6	875	0.6	0.535	8.0	LOS A	10.4	73.0	0.33	0.29	0.33	50.0
Approach		1367	2.1	1367	2.1	0.535	6.9	LOS A	10.4	73.0	0.22	0.40	0.22	45.7
NorthWest: Yamba Drive														
11	T1	1048	0.7	1048	0.7	0.976	80.3	LOS F	46.1	324.8	1.00	1.24	1.53	9.2
12	R2	261	0.4	261	0.4	0.945	57.9	LOS E	12.9	90.6	1.00	1.00	1.51	19.6
Approach		1309	0.6	1309	0.6	0.976	75.9	LOS E	46.1	324.8	1.00	1.19	1.53	11.3
SouthWest: Launceston Street														
1	L2	167	0.0	167	0.0	0.090	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	39.5
3	R2	372	4.5	372	4.5	0.942	85.1	LOS F	14.2	103.3	1.00	1.20	1.62	9.0
Approach		539	3.1	539	3.1	0.942	59.6	LOS E	14.2	103.3	0.69	0.94	1.12	13.9
All Vehicles		3216	1.7	3216	1.7	0.976	43.8	LOS D	46.1	324.8	0.62	0.81	0.90	17.7

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV	Total	HV						Veh	Dist m				
	veh/h	%	veh/h	%											
SouthEast: Yamba Drive															
Lane 1	493	4.7	493	4.7	1383	0.356	100	5.0	LOS A	0.8	5.9	Short	60	0.0	NA
Lane 2	437	0.6	437	0.6	818	0.535	100	4.2	LOS A	4.3	30.3	Full	65	0.0	0.0
Lane 3	437	0.6	437	0.6	818	0.535	100	11.8	LOS B	10.4	73.0	Full	65	0.0	15.5
Approach	1367	2.1	1367	2.1		0.535		6.9	LOS A	10.4	73.0				
NorthWest: Yamba Drive															
Lane 1	532	0.7	532	0.7	545	0.976	100	80.4	LOS F	46.1	324.8	Full	215	-50.0 ^{N3}	42.8
Lane 2	517	0.7	517	0.7	529 ¹	0.976	100	80.2	LOS F	44.0	310.0	Full	215	-50.0 ^{N3}	38.5
Lane 3	261	0.4	261	0.4	276	0.945	100	57.9	LOS E	12.9	90.6	Short	105	0.0	NA
Approach	1309	0.6	1309	0.6		0.976		75.9	LOS E	46.1	324.8				
SouthWest: Launceston Street															
Lane 1	167	0.0	167	0.0	1857	0.090	100	2.9	LOS A	0.0	0.0	Short	85	0.0	NA
Lane 2	186	4.5	186	4.5	197	0.942	100	85.1	LOS F	14.2	103.3	Full	260	-50.0 ^{N3}	0.0
Lane 3	186	4.5	186	4.5	197	0.942	100	85.1	LOS F	14.2	103.3	Full	260	-50.0 ^{N3}	0.0
Approach	539	3.1	539	3.1		0.942		59.6	LOS E	14.2	103.3				
Intersection	3216	1.7	3216	1.7		0.976		43.8	LOS D	46.1	324.8				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

 **Site: [2040 Dev - PM - WS-YD]**

Network: 8 [2040 Dev - PM - LS-WS-YD]

Southeast part of Launceston Street / Wisdom Street / Yamba Drive

Existing Signalised Offset Cross Intersection

Site Category: 2040 Development Scenario - Weekday Evening Peak Hour

Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network User-Given Cycle Time)

Common Control Group: CCG1 [CCG]

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: SCATS

Reference Phase: Phase A

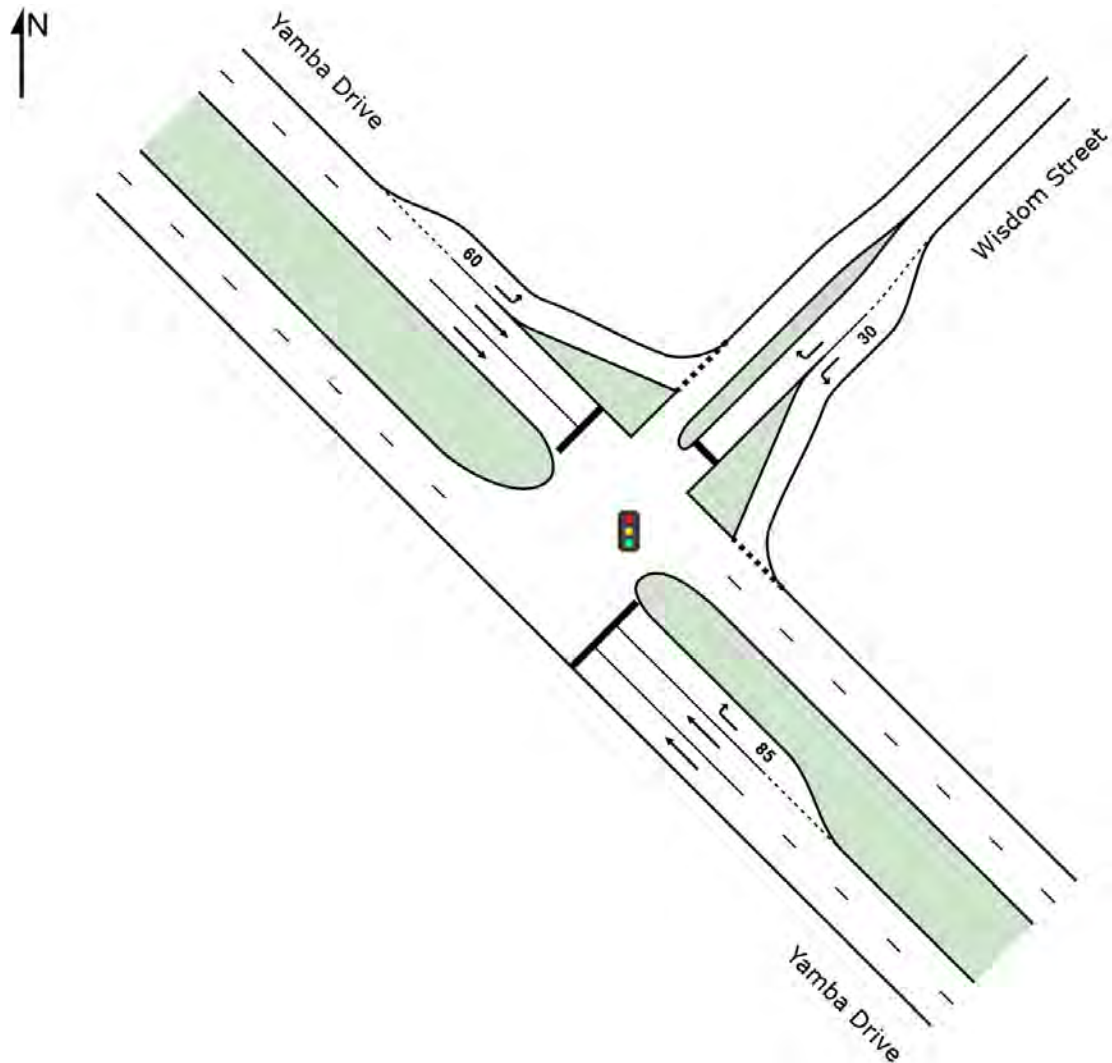
Input Phase Sequence: A, B*, C*, D, E

Output Phase Sequence: A, C*, D, E

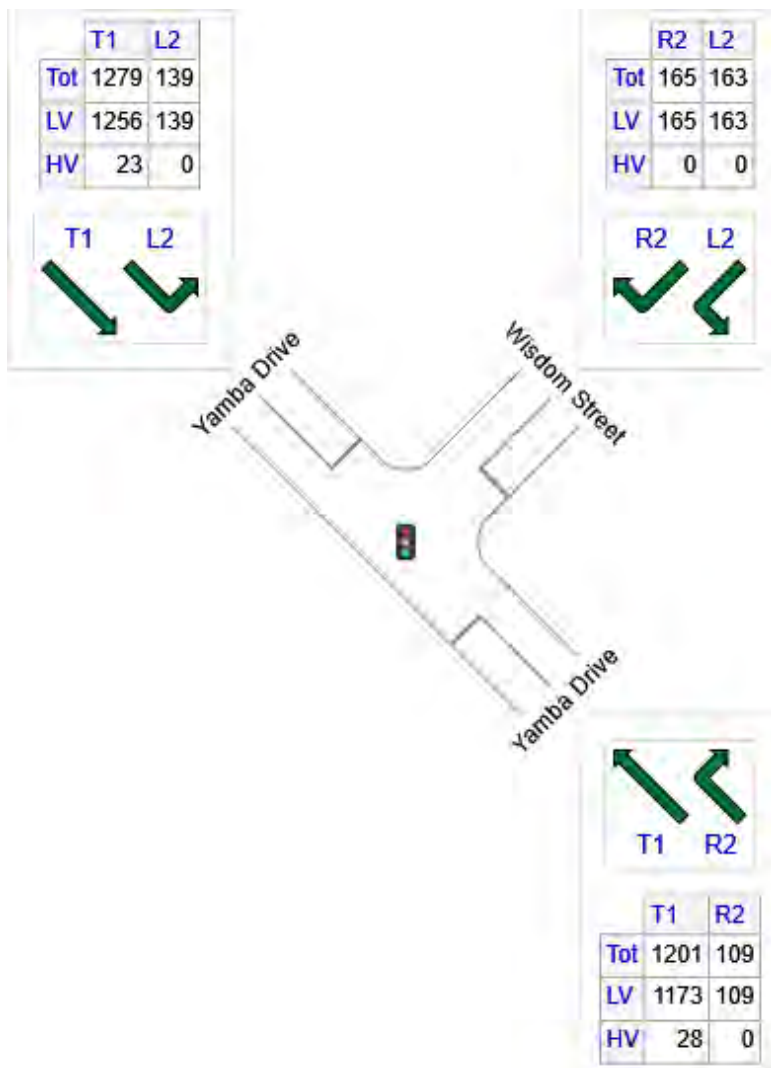
(* Variable Phase)

Some CCG output elements have been omitted as they have already been included under other Sites belonging to the same CCG.

Site Layout



OD Demand Flows



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Yamba Drive	1311	1282	28
NE: Wisdom Street	328	328	0
NW: Yamba Drive	1418	1395	23
Total	3057	3005	52

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	%	veh/h	%	v/c	sec		veh	m			km/h	
SouthEast: Yamba Drive														
11	T1	1201	2.4	1201	2.4	0.856	39.2	LOS D	38.2	272.5	0.96	0.94	1.08	37.0
12	R2	109	0.0	109	0.0	0.960	88.1	LOS F	7.7	53.8	1.00	1.01	1.73	28.2
Approach		1311	2.2	1311	2.2	0.960	43.2	LOS D	38.2	272.5	0.96	0.95	1.13	35.3
NorthEast: Wisdom Street														
1	L2	163	0.0	163	0.0	0.197	7.9	LOS A	3.1	21.4	0.40	0.59	0.40	48.4
3	R2	165	0.0	165	0.0	0.782	52.4	LOS D	9.0	63.2	0.93	0.91	1.14	21.8
Approach		328	0.0	328	0.0	0.782	30.3	LOS C	9.0	63.2	0.67	0.75	0.77	34.5
NorthWest: Yamba Drive														
4	L2	139	0.0	139	0.0	0.085	4.7	LOS A	0.1	0.8	0.02	0.59	0.02	40.4
5	T1	1279	1.8	1279	1.8	0.603	13.5	LOS B	14.9	106.1	0.55	0.49	0.55	58.5
Approach		1418	1.6	1418	1.6	0.603	12.6	LOS B	14.9	106.1	0.49	0.50	0.49	56.1
All Vehicles		3057	1.7	3057	1.7	0.960	27.6	LOS C	38.2	272.5	0.71	0.72	0.80	42.2

Site Level of Service (LOS) Method: Delay (SIDRA). 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.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	Total veh/h	HV %						Veh	Dist m				
SouthEast: Yamba Drive															
Lane 1	692	2.4	692	2.4	809	0.856	100	38.0	LOS D	38.2	272.5	Full	735	0.0	0.0
Lane 2	509	2.4	509	2.4	595 ¹	0.856	100	40.7	LOS D	28.7	205.2	Full	735	-21.7 ^{N3}	0.0
Lane 3	109	0.0	109	0.0	114	0.960	100	88.1	LOS F	7.7	53.8	Short	85	0.0	NA
Approach	1311	2.2	1311	2.2		0.960		43.2	LOS D	38.2	272.5				
NorthEast: Wisdom Street															
Lane 1	163	0.0	163	0.0	827	0.197	100	7.9	LOS A	3.1	21.4	Short	30	0.0	NA
Lane 2	165	0.0	165	0.0	211 ¹	0.782	100	52.4	LOS D	9.0	63.2	Full	680	-21.7 ^{N3}	0.0
Approach	328	0.0	328	0.0		0.782		30.3	LOS C	9.0	63.2				
NorthWest: Yamba Drive															
Lane 1	139	0.0	139	0.0	1627	0.085	100	4.7	LOS A	0.1	0.8	Short	60	0.0	NA
Lane 2	626	1.8	626	1.8	1038 ¹	0.603	100	13.3	LOS B	14.9 ^{N4}	106.1 ^{N4}	Full	65	0.0	50.0
Lane 3	653	1.8	653	1.8	1082	0.603	100	13.6	LOS B	14.9 ^{N4}	106.1 ^{N4}	Full	65	0.0	50.0
Approach	1418	1.6	1418	1.6		0.603		12.6	LOS B	14.9	106.1				
Intersection	3057	1.7	3057	1.7		0.960		27.6	LOS C	38.2	272.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

^{N4} Average back of queue has been restricted to the available queue storage space.

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