Transport Engineering Report

Proposed Mixed-Use Development - Preliminary Approval

203 Ashmore Road Benowa

Disclaimer:

This report has been prepared by Colliers for the exclusive use of the client for the specific purpose stated within. The findings, conclusions, and recommendations presented in this report are based on the information available, assumptions made, and methodologies applied at the time of analysis.

Colliers shall not be held liable for any losses, damages, or reliance placed on this report beyond the scope of the agreed-upon engagement. Any reproduction or distribution of this report without Colliers' consent is prohibited.

Revision Record

No.	Author	Reviewed/Approved		Description	Date
1.	J. Harrison M. Grierson	M. Grierson RPEQ 31037		Response to RFI Update	15/10/2025
2.	J. Harrison M. Grierson	M. Grierson RPEQ 31037		Response to RFI Update	16/10/2025
3.					
4.					

Contents

Table Index

Figure Index

1. Introduction

1.1. Purpose

Colliers International Engineering and Design (TTMC) Pty Ltd has been engaged by Neylan Architecture to prepare a Transport Engineering Report investigating a proposed Mixed-Use Development located at 203 Ashmore Road Benowa. This traffic report has been updated in response to Items 9 through 13 of City of Gold Coast (CGC) Council's Request for Information (RFI) letter dated 2/7/25 (Application ref: P0052526). These items are outlined below in Section 1.3.

1.2. Scope

The scope of the preliminary transport aspects investigated includes:

- Reviewing the prevailing traffic and transport conditions surrounding the site.
- Identifying at a high level the likely parking supply required to cater for development demands.
- Assessing the access configuration to provide efficient and safe manoeuvring between the site and the public road network for cars, service vehicles, cyclists and pedestrians.
- Identifying the preliminary service vehicle needs for the site.
- Reviewing access to a suitable level of public and active transport provisions.
- Identification of likely traffic volumes and traffic distribution from the development.
- Identification of likely traffic impacts of development on the surrounding road network.

The development plans have been assessed against the following guidelines and planning documents:

- Gold Coast City Council Planning Scheme (City Plan 2014), specifically:
  - *9.4.13 Transport Code (Transport Code)*
- Australian Standards for Parking Facilities, specifically:
  - *Part 1: Off-street car parking (AS2890.1:2004)*
  - *Part 2: Off-street commercial vehicle facilities (AS2890.2:2019)*
  - *Part 3: Bicycle parking (AS2890.3:2015)*
  - *Part 6: Off-street parking for people with disabilities (AS2890.6:2009).*
- Austroads "Guide to Traffic Management" (GTM)

1.3. Information Request

The traffic-related items raised in CGC's RFI are summarised below, with the comments provided.

Advice Notice	Comment
Item 9 – Traffic Impact Assessment To assist in demonstrating compliance with the Strategic framework, Performance outcome PO16 of the Transport code and Performance outcome PO2 of the General development provisions code, an amended Traffic Impact Assessment (TIA) report is to be submitted, which addresses the following:	
a) The TIA is based on a superseded document that was published in 2002. The TIA must be assessed in accordance with the updated Guide to Transport Impact Assessment that commenced in November 2024 (GTIA 2024).	The Traffic Impact Assessment (TIA) has been updated to incorporate the *Guide to Transport Impact Assessment (GTIA 2024)*, where applicable. Where the GTIA does not provide rates considered most relevant or reflective of the proposed land uses, alternative traffic generation rates have been adopted. These assumptions are outlined in detail in Section 7.2.1.
b) Adopted traffic generation rates have been based on the number of parking spaces (which is unknown at this stage). Traffic generation rates shall instead be based on yield, calculated in accordance with the updated GTIA 2024.	Traffic generation rates for non-residential uses have been updated to reflect a vehicle trips per hour per gross floor area (vph/GFA) basis. The residential use has adopted a vph/unit rate. These rates have been detailed in Section 7.2.1.
c) For the Multiple dwelling land use, it must be assumed that the development will have a total of 1358 bedrooms. This is consistent with the proposed Code assessable residential density designation of RD8 (1-bedroom / 13m2). Note: to be read in conjunction with Planning Assessment items requiring clarification on the proposed density.	
d) No evidence has been provided in support of the in and out split assumptions. The TIA shall include some demonstratable evidence about the in and out split assumptions for each peak.	Inbound/outbound split assumptions have been determined in line with typical industry standards for the respective development uses. Further commentary and justification for these assumptions is provided in Section 7.2.1.
e) No analysis has been undertaken for the morning peak hour. The TIA shall be updated to include an AM weekday analysis (8am – 9am).	The TIA has been updated to include assessment of the AM peak hour period, as detailed in Section 9.
f) The development code/concept plans refer to development staging, however the TIA does not consider staging. The TIA must account for staging. Alternatively, all works would need to occur in Stage 1.	The TIA has assumed full development traffic at the time of opening, and therefore any required mitigation works are to be delivered as part of Stage 1. Staging has not been separately assessed.
g) Undertake updated SIDRA analyses for Benowa Road / Carrara Street, Ashmore Road / Carrara Street and Ashmore Road / Benowa Street intersections with and without the proposed development traffic, at commencement of use and at the 10-year design horizon, which consider the above items.	Full development traffic has been assumed at the time of opening. Therefore, no additional SIDRA analysis has been undertaken with respect to staging.
h) Provide fully dimensioned functional road layout drawings of all works, signed by an RPEQ.	

Note: While it is expected to result in on-street parking loss, the applicant shall identify what mitigation works would be required at the Ashmore Road / Carrara Street intersection. Council officers will then consider if the intersection mitigation works, or maximisation of on-street parking will provide more overall benefit.	
10 – Pedestrian network upgrades The roads in the area accommodate high vehicle traffic and the proposed development will introduce increased pedestrian traffic. To accommodate the anticipated higher pedestrian volumes, improve safety, and to demonstrate compliance with Strategic outcome 3.6.1(5) and Specific outcome 3.6.4.1(3), and Performance outcome PO2 of the General development provisions code, the following upgrades to the pedestrian network are considered warranted: **a)** Signalisation of the existing pedestrian crossings in the slip lanes at the Ashmore Road/Benowa Road intersection. **b)** Upgrade to the existing zebra crossing on Carrara Street to a wombat crossing. Fully dimensioned concept drawings of the above works, signed by an RPEQ, must be submitted by the applicant for review by Council officers. The concept drawings must demonstrate compliance with all relevant Austroads design requirements.	The signalisation of the high angle slip lanes at the Ashmore Road / Benowa Road intersection are considered acceptable.. Colliers have prepared a high level concept for a raised zebra (wombat) crossing for the existing Carrara Street zebra crossing. The ultimate configuration is subject to additional survey and design reviews.
11 – Carrara Street site accesses The indicative loading area is located next to the Carrara Street eastern access. Officers do not support service vehicle access to and from Carrara Street. The applicant is requested to: **a)** Include a specific RO, AO and PO within the Benowa Gardens Development code that prohibits the Carrara Street vehicle accesses from being designed and/or used for service vehicles. **b)** Clearly annotate on the concept drawings that the Carrara Street vehicle accesses are not to be designed and/or used for service vehicles.	All service vehicle access is to be via Ashmore Road.
12 – Servicing The TIA refers to a 19m Articulated vehicle (AV). The current Australian standard AS2890.2:2018 for commercial vehicles defines an AV as being 20m. The TIA must be updated to reference a 20m AV.	The site is to allow for a 20m Articulated Vehicle (AV) to access and service the site.

13 – Reporting details The applicant is requested to amend reports and drawings as follows: **a)** Remove all references to car parking supply and bicycle parking supply numbers. **b)** Remove internal parking layouts and reference to boom gates. **c)** Remove vehicle access designs and instead provide indicative vehicle access locations. These detailed aspects of the development do not form part of the current development application/assessment.	Reference to specific parking supply rates and provisions have been removed. Plans have been updated to provide an indicative vehicle access location only

2. Site Context and Travel Environment

2.1. Site Location

The site is located between the intersections of Benowa Road/Carrara Street and Ashmore Road/Benowa Road, Benowa. The property description is Lot 822 on RP 839746 and has a total site area of 17,660m^2. The site is currently occupied by a Shopping Centre, with approximately 17 different businesses and with vehicle access to Carrara Street and Ashmore Road.

The subject site is currently zoned as Neighbourhood Centre under the City Plan. The surrounding area of the site is zoned as Innovation and Community Facilities.

Figure 2.1 shows the subject site and the surroundings. Figure 2.2 is shown an immediate context of the site location.

Figure 2.1: Site location (Surrounding Context) Map Source: Google Maps

Figure 2.2: Site Location (Immediate Context) Map Source: Nearmap

2.2. The Road Network

The hierarchy and characteristics of roads in the immediate vicinity of the site are shown in Table 2.1.

Table 2.1: Local Road Hierarchy

Road	Speed Limit	Road Configuration			Classification under the City Plan
		Reserve Width	Carriageway Width	Lane Configuration	
Carrara St	40km/h	20m	12m	• 2 Traffic lanes. • Undivided. • Parking permitted on both sides. • Shared cycle lane.	Local Access Road
Ashmore Rd	60km/h	33m	24m	• 4 Traffic lanes. • Median divided. • Parking permitted on both sides. • Cycle lane on both sides.	Arterial Road
Benowa Rd	60km/h	20m	10m – 27m	• 2 Traffic lanes. • Median divided/undivided • Parking permitted on both sides/ no parking. • Cycle lane on both sides.	Distributor Road

Ashmore Road / Benowa Road and Ashmore Road / Carrara Street intersections are both signal-controlled.

2.3. Existing Traffic Volumes

Colliers conducted traffic surveys at the Benowa Road / Carrara Street, Ashmore Road / Benowa Road, Ashmore Road / Carrara Street, Shopping Centre Northern Access / Carrara Street and Shopping Centre Southern Access / Ashmore Road intersections. The surveys were conducted on Thursday, June 20th and Saturday, June 15th 2024. From the surveys, peak hour movements were derived. In general, the afternoon week peak hour was found to be between 4:15pm – 5:15 pm. Whilst the Saturday peak hour was to be between 11:15am – 12:15am.

The peak hours volumes for each intersection are shown in the network diagrams in **Appendix B**.

Initial review of the intersection operations notes the following:

- Existing Ashmore Road / Benowa Road has a higher Degree of Saturation (0.80) and Level of Service (LoS E) in the Thu PM Peak.
    - Weekday PM likely to be the critical assessment period for the roads, (depending on the proposed uses)
    - Ashmore Road is generally busy across the weekday afternoon, with a late school/early commuter peak being highest.
- School peak period (2:30pm – 3:30pm) is the main road peak for the northern side of the site along Benowa Road and Carrara Street.
    - This peak would not reflect the typical peak for the traffic generation associated with the subject site.

2.4. Public and Active Transport Facilities

2.4.1. Public Transport

Bus Services

There are several bus stops on the surrounding roads within a 400m walk of the site. An indicative map of the bus stops within the vicinity of the site is shown in Figure 2.3.

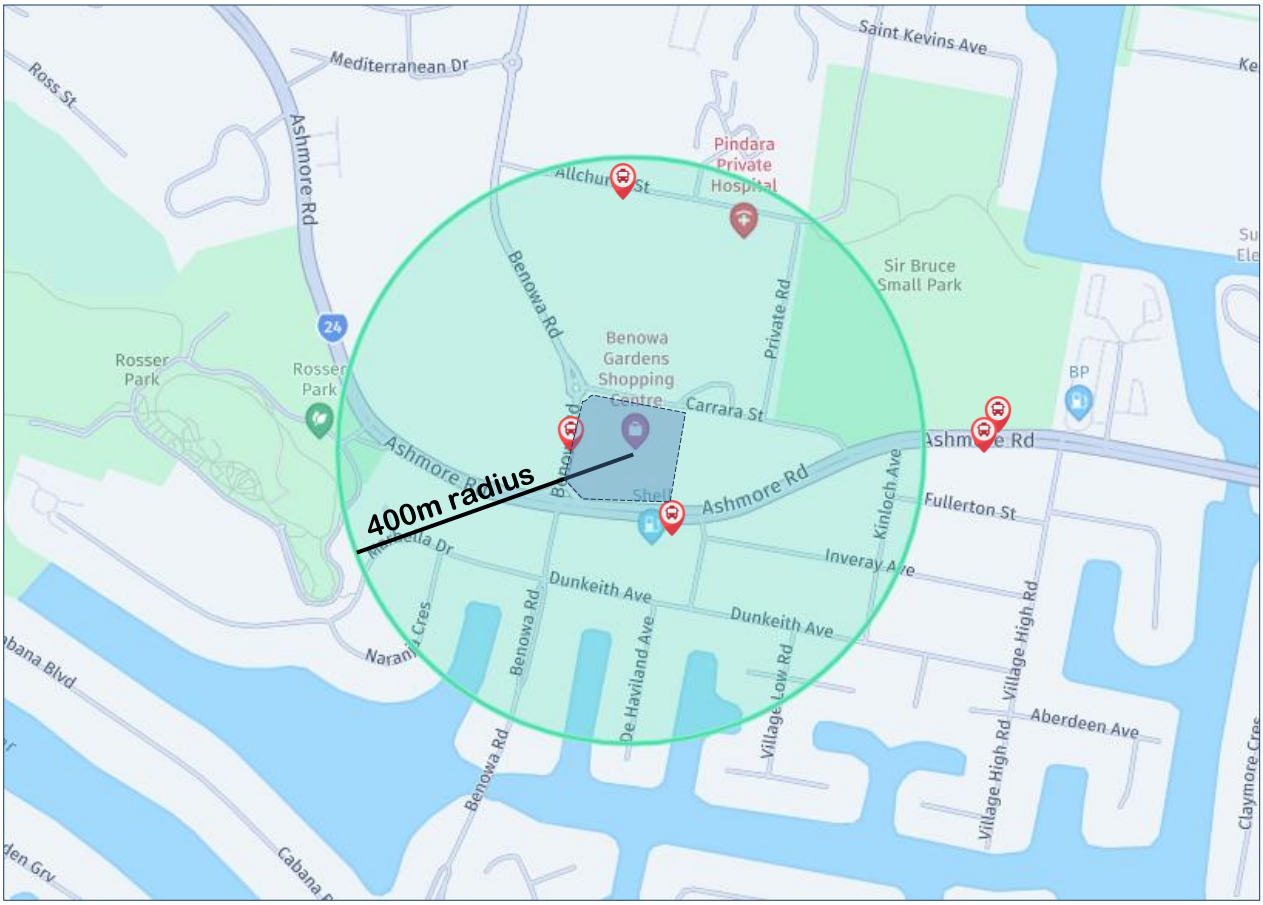


Figure 2.3 Bus Stops at the vicinity of the proposed development Map Source: Nearmap

The following is a summary of the surrounding bus routes and its itinerary:

- **737:** This route connects Ashmore to Southport, with services running seven days a week. On weekdays, weekends and public holidays the service runs from 9.10am to 4.30pm with a frequency of generally 60 minutes.
- **741:** This route connects Broadbeach South station to Southport, with services running seven days a week. On weekdays the service runs from 6.15am to 9.15pm with a frequency of 60 minutes. On weekends and public holidays, the service runs from 7.10am to 5.10 pm with a frequency of 60 minutes.

Train Services

Train services are not available in the nearby area.

2.4.2. Active Transport

Bicycle

The site offers a convenient location for cyclists, with a range of cycling routes available in the surrounding area. These routes are mapped out by the Google Maps Cycling Overlay, an extract of this overlay is shown in Figure 2.4.

In general, the surrounding roads offers a dedicated cycling lane, connecting to a wider cycling network to the East, West and North. Overall, the development offers excellent access to a cycling structure, making it an ideal location for cyclists looking for convenient and safe commuting options.

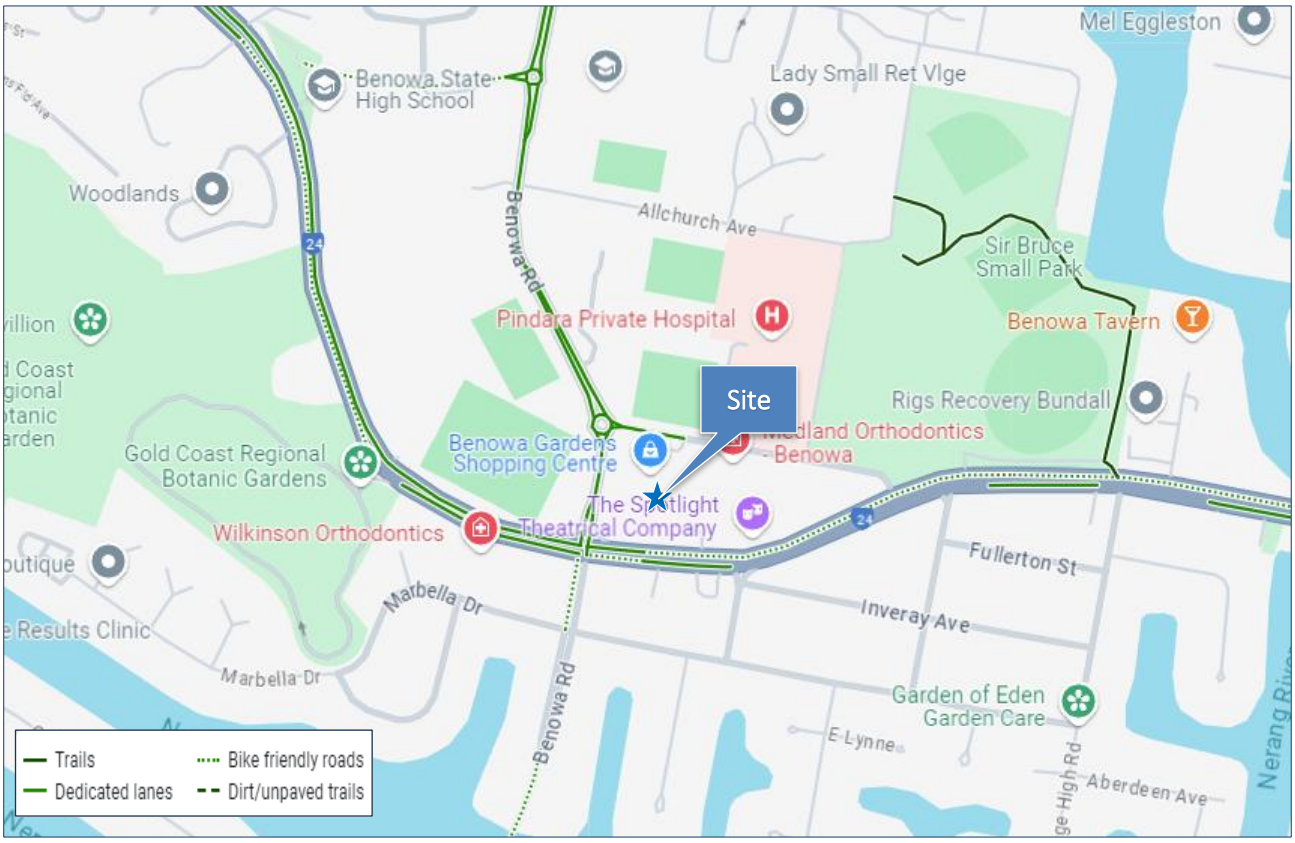


Figure 2.4: Overall bicycle provisions around the proposed development. Source: Google Maps.

Pedestrians

Formal pedestrian footpaths are located on both sides of the roads in the immediate vicinity, with kerb ramps provided at all intersections. Pedestrian crossing facilities are provided at the majority of the surrounding intersections. These are provided in the form of signalised crossings, zebra-crossing or crossing points. Figure 2.5 illustrates the pedestrian crossing facilities within the proximity of the site.

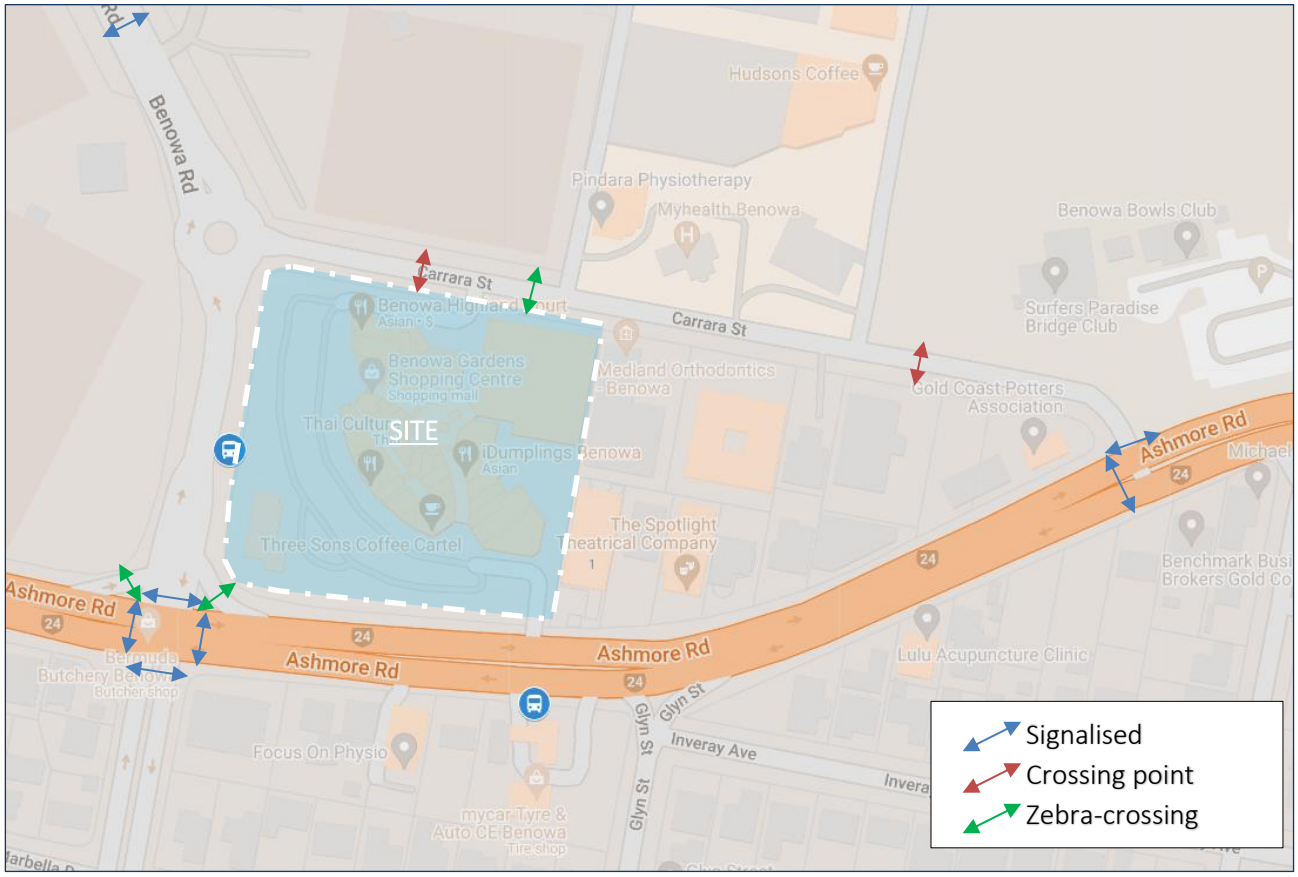


Figure 2.5: Pedestrian provisions around the development. Map Source: Google Maps

2.5. Transport Planning

A review of the City Plan LGIP indicates that the intersection of Ashmore Road/Benowa Road is expected to be upgraded by 2031.

3. The Proposed Development

3.1. Existing Development

The existing development includes:

A mix of retail and service tenancies

- Approximately 370 formalized on site car parking spaces.
- Two vehicle crossovers
  - 16m wide crossover on Carrara Street
    - All turning movements permitted.
  - 16m wide crossover on Ashmore Road
    - Left In / Left Out movements permitted.
    - Deceleration lane for left entry movements.
- Four dedicated pedestrian crossing
  - Ashmore Road, adjacent to the vehicle access.
  - Two on Benowa Road, one near the bus stop and one near the roundabout.
  - Carrara Street, adjacent to the vehicle access.

3.2. Proposed Development Profile

It is noted that the original development application traffic reporting reviewed two (2) development options. For the purposes of this updated reporting, only a single scheme is now proposed and assessed.

A copy of the architectural plans, prepared by Neylan Architecture, is included in Appendix A.

A summary of the option under consideration is outlined in Table 3.1.

Table 3.1: Preliminary Development Yields – Subject to Ongoing Review

Use	Indicative Yield	Notes
Shopping Centre (Shop / Supermarket / Specialities)	10,000m^2 GFA	Mix of Supermarket, Shop and Food and Drink outlets
Commercial Level	2,550m^2 GFA	Mix of Office and Gym uses.
Perimeter Use (Health Care)	7,080m^2 GFA	
Multiple Dwelling (Apartment)	413 Units	76 x 1-bedroom units 216 x 2-bedroom units 121 x 3-bedroom units

A summary of the key traffic design elements is outlined below:

- On-site car parking, including:
  - Retail/commercial parking spaces
  - Residential spaces
  - Provision of a passenger drop-off / set-down bay
  - Final proposed supply subject to further carpark design review.
- Three vehicle crossovers
  - Left in / Left out movements to Ashmore Road, at the eastern property boundary
  - All movements crossover to Carrara Street, at the eastern property boundary
  - All movements crossover to Carrara Street, located centrally at the site's frontage.
- Dedicated pedestrian accesses to be provide to all street frontages
- Current planning for servicing is to accommodate vehicles up to a 20m Articulated Vehicle (AV) (to access the site via Ashmore Road only.

Colliers has undertaken a preliminary review of the proposed development, with the initial findings outlined below. These findings are subject to ongoing review and may be refined as the preliminary designs advance and the overall project understanding develops.

3.3. Parking

Car Parking

Parking is to be provided for both the proposed residential and non-residential components of the development. Parking is currently indicated across various basement levels and podium levels.

The final number of car parking spaces, including the allocation to each use, is still to be confirmed and detailed in subsequent development applications.

Bicycle Parking

Bicycle parking is to be provided for residents staff and visitors. The final number of spaces is still to be confirmed as part of subsequent development applications.

3.4. Access

The preliminary development plan includes the following preliminary access arrangements:

- Ashmore Road - the proposal includes an access on Ashmore Road, which will accommodate passenger and service vehicles, with only Left in – Left Out movements permitted.
- Carrara Street West - the proposal includes an access on Carrara Street, which will accommodate passenger vehicles, with all movements permitted.
- Carrara Street East - The proposal includes an access on Carrara Street, which will accommodate passenger vehicles, with all movements permitted.

Pedestrians will have access to the development from the Ashmore Road, Benowa Road and Carrara Street frontages.

Further details regarding the proposed access arrangements are included in Section 5.

3.5. Servicing

The development plans allow for vehicles up to the size of a 20m Articulated Vehicle (AV) to access the site (via Ashmore Road). The dedicated service bays are to be provided in a centralised loading dock located in the basement level.

- 20m Articulated Vehicle (AV)
- Refuse Collection Vehicle (RCV)

The design of the servicing bays should not conflict with vehicles entering/departing from the loading area.

Further details regarding the proposed servicing arrangements are included in Section 6

4. Parking Arrangements

Carparking on site is to be reviewed and resolved as part of subsequent Development Applications. The carparking supply will evolve as the development progresses through the design and approval process, with more detailed car parking supply and layout review documentation to be provided later.

The site current envisions that parking is to be located across basement, ground and podium levels. Parking is to accommodate a mix of residential, staff and visitor carparking.

5. Access Arrangements

5.1. Vehicular Access

The primary car park, located underneath the main building, will be accessible via Ashmore Road and Carrara Street (via a total of 3 accesses).

Ashmore Road proposes a single access allowing for Left in- Left out movements. Carrara Street will have two (2) accesses along its frontage.

Vehicle movements internally will be signed and managed to direct users to Ashmore Road as the primary access to/from the site. With Carrara Street providing supplemental access and connectivity to the surrounding local road network.

Given the preliminary nature of the application, finer details of the access arrangements are to be resolved as part of subsequent development applications.

5.2. Active Transport Access

Pedestrian accesses are provided to all three road frontages, Ashmore Road, Benowa Road and Carrara Street. Allowing for access to the existing pedestrian network.

Cyclists access the site via the driveway located the sites frontages, or via the pedestrian access locations, before circulating to the respective parking areas for bikes.

6. Service Vehicle Arrangements

6.1. GCCC Servicing Recommendations

Table 9.4.13-9 of the Transport Code recommends the following service vehicles:

- Shop / Supermarket
  - $400m^2$ – $1,500m^2$ – Heavy Rigid Vehicle (HRV)
  - $>1,500m^2$ – 20m Articulated Vehicle (AV)
- Food and Drink Outlet
  - Heavy Rigid Vehicle (HRV)
- Multiple Dwelling
  - Standing area for Medium Rigid Vehicle (MRV)
- Office
  - Van

6.2. Proposed Loading Provisions

The proposed development is expected to accommodate on site servicing and refuse collection within a dedicated loading area. The main shared loading area is to be located in the northeastern corner of the site, adjacent to the internal circulation roadway.

Service vehicles are proposed to access the site via the revised southeastern Left In-Left Out vehicle access on Ashmore Road only.

Vehicles accessing the site are expected to enter and exit the site in a forward gear travelling along the internal roadway to access the dedicated loading area located in the northeastern corner of the site.

The design vehicle is expected to be an 20m Articulated Vehicle (AV), 12.5m Heavy Rigid Vehicle (HRV) and 10.5m Refuse Collection Vehicle (RCV). This is generally consistent with the current on-site servicing operations of the existing Shopping Centre use.

The specific loading requirements will be refined as the specific uses on site are confirmed and the site design progresses.

7. Development Transport Demands

7.1. Existing Site Traffic Demands

To establish the traffic generation of the existing site uses, Colliers conducted AM and PM peak hour traffic surveys for the existing site, which has access to Ashmore Road and Carrara Street. The surveyed existing traffic generation for the subject site is summarised in Table 7.1.

Table 7.1: Existing Site Traffic Generation (Surveyed)

Generation	Weekend AM Peak Hour (11:15am-12:15pm) vph			Thursday PM Peak Hour (4:15pm-5:15pm) vph			Thursday AM Peak Hour (8:30-9:30am) vph		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing Site	291	301	592	277	298	575	260	171	431

Volumes associated with the existing site operations have been removed from the base background development volumes as part of the completed traffic assessment.

7.2. Development Traffic Demands

7.2.1. Traffic Generation

To evaluate the potential impact of the proposed development on the surrounding road network, it is necessary to estimate the volume of vehicle movements likely to be generated by the proposed land uses. This assessment has been informed by the adoption of appropriate traffic generation rates and assumed inbound/outbound directional splits for each land use type.

It is noted that this assessment represents a preliminary analysis based on the current concept design. As the development layout is further refined through the progression to Development Application (DA) stage, Colliers may revisit and update the traffic generation assumptions to reflect the finalised land use mix and spatial configuration.

Shopping Centre / Retail Uses

To estimate the traffic generation potential of the non-residential components of the proposed development, reference has been made to relevant industry datasets and guidelines.

For the weekday AM peak hour, guidance has been drawn from the NSW Government Guide to Transport Impact Assessment (TS 00085 v1.1). Specifically, reference is made to the 'Network AM Peak Hour' rate for shopping centres, which recommends:

- Weekday AM Peak Hour: 2.25 vehicle trips per 100 m² GFA

For the weekday PM and Saturday peak hours, traffic generation rates have been sourced from the Department of Transport and Main Roads (DTMR) Traffic Generation Data (2006–2021) for comparably

sized development sites (<15,000m^2 GFA of shopping centre). This dataset refines the data for shopping centres with a gross floor area (GFA) of less than 15,000m². Based on this, the following rates have been adopted:

- Weekday PM Peak Hour: 8.58 vehicle trips per 100 m² GFA
- Saturday Peak Hour: 5.04 vehicle trips per 100 m² GFA

These rates are considered appropriate for the scale and nature of the proposed non-residential uses and may be subject to further refinement as the development layout and tenancy mix are finalised during the Development Application (DA) stage.

In assessing the inbound/outbound distribution of vehicle movements during peak periods, the following inbound/outbound splits have been adopted:

- Weekday AM Peak Hour: 60% inbound / 40% outbound
- Weekday PM Peak Hour: 50% inbound / 50% outbound
- Saturday Peak Hour: 50% inbound / 50% outbound

These splits are consistent with typical travel patterns observed for retail land uses. During the AM peak hour, a greater proportion of trips are inbound as customers and staff arrive at the site, with fewer outbound movements occurring. In the PM peak hour, retail activity tends to be more balanced, with a relatively even distribution of arrivals and departures as people shop after work or run errands.

For the Saturday peak hour, a 50/50 split is considered appropriate given the discretionary nature of weekend retail trips, where customer arrivals and departures are generally spread evenly throughout the peak period.

Office

To estimate the traffic generation potential of the office component of the proposed development, reference has been made to the TfNSW / *RMS Guide to Traffic Generating Developments – Updated traffic surveys* 2013. In accordance with the guidance provided for office land uses, the following peak hour traffic generation rates have been adopted:

- AM Peak Hour: 1.6 vehicle trips per 100 m² GFA
- PM Peak Hour: 1.2 vehicle trips per 100 m² GFA
- Saturday Peak Hour: 0.1 vehicle trips per 100 m² GFA

These rates are considered appropriate for the scale and nature of the proposed office use and will be subject to further refinement as the development layout and floor area allocations are finalised during the Development Application (DA) stage.

In assessing the inbound/outbound distribution of vehicle movements during peak periods, the following inbound/outbound splits have been adopted:

- Weekday AM Peak Hour: 90% inbound / 10% outbound
- Weekday PM Peak Hour: 10% inbound / 90% outbound
- Saturday Peak Hour: 50% inbound / 50% outbound

These splits are consistent with industry-accepted standards for office land uses and reflect typical commuter patterns. During the AM peak hour, the majority of trips are inbound as employees arrive at work, with only a small proportion of vehicles departing the site. Conversely, the PM peak hour is characterised by a dominant outbound flow, as workers leave the site to return home, with minimal inbound activity.

For the Saturday peak hour, a balanced 50/50 split has been adopted. This reflects the more varied nature of weekend travel, which may include maintenance staff, flexible work arrangements, or other occasional site activity, resulting in a more even distribution of arrivals and departures.

Health Care Uses

To estimate the traffic generation potential of the health care component of the proposed development, reference has been made to the Department of Transport and Main Roads (DTMR) Traffic Generation Data (2006–2021). This dataset provides observed traffic generation rates for a range of land uses, including health care facilities. Based on this data, the following peak hour traffic generation rates have been adopted:

- Weekday AM Peak Hour: 5.7 vehicle trips per 100 m^2 GFA
- Weekday PM Peak Hour: 5.7 vehicle trips per 100 m^2 GFA
- Saturday Peak Hour: 1.5 vehicle trips per 100 m^2 GFA

These rates are considered appropriate for the scale and nature of the proposed health care use and will be subject to further refinement as the development layout and operational characteristics are finalised during the Development Application (DA) stage.

In assessing the inbound/outbound distribution of vehicle movements during peak periods, the following splits have been adopted:

- Weekday AM Peak Hour: 60% inbound / 40% outbound
- Weekday PM Peak Hour: 40% inbound / 60% outbound
- Saturday Peak Hour: 50% inbound / 50% outbound

These splits reflect typical travel patterns associated with health care facilities. During the AM peak hour, a greater proportion of trips are inbound, as patients and staff complete early appointments or shifts and depart the site. In the PM peak hour, the pattern reverses, with more outbound movements as afternoon appointments and shift changes occur.

For the Saturday peak hour, a balanced 50/50 split has been adopted to reflect the more varied nature of weekend health care activity, where arrivals and departures are generally spread evenly across the peak period.

Multi-Unit Dwelling

To estimate the traffic generation potential of the residential component of the proposed development, reference has been made to the Transport for NSW (TfNSW) Guide to Traffic Generating Developments (2024). In accordance with the guidance provided for High Density Residential land uses, the following peak hour traffic generation rates have been adopted:

- AM Peak Hour: 0.19 vehicle trips per dwelling
- PM Peak Hour: 0.15 vehicle trips per dwelling

As the Guide provides limited direction regarding traffic generation during the Saturday peak hour, it is proposed to adopt a comparable rate of 0.19 vehicle trips per dwelling, consistent with the PM peak hour rate.

In assessing the inbound/outbound distribution of vehicle movements during peak periods, the following inbound/outbound splits have been adopted:

- Weekday AM Peak Hour: 25% inbound / 75% outbound
- Weekday PM Peak Hour: 65% inbound / 35% outbound
- Saturday Peak Hour: 50% inbound / 50% outbound

These splits are consistent with commonly accepted industry standards for residential land uses and reflect typical travel behaviour of residents. During the AM peak hour, the majority of trips are outbound as residents depart for work, school, or other morning activities, with a smaller proportion of inbound movements. In the PM peak hour, this pattern reverses, with most trips being inbound as residents return home, and fewer outbound movements occurring.

For the Saturday peak hour, a balanced 50/50 split has been adopted to reflect the discretionary nature of weekend travel, where arrivals and departures are more evenly distributed across the peak period.

Based on the above traffic generation rates for the various land uses, a summary of the potential traffic generation of the proposed development is provided in Table 7.2.

Table 7.2: Development Traffic Generation

Use	Indicative Yield	Adopted Generation Rate	Estimated Traffic Generation
Shopping Centre (Shop / Supermarket / Specialities)	10,000m² GFA	AM – 2.25 trips per 100m² GFA PM – 8.58 trips per 100m² GFA Sat – 5.04 trips per 100m² GFA	225 trips 858 trips 504 trips
Commercial Level (Office)	2,550m² GFA	AM – 1.2 trips per 100m² GFA PM – 1.6 trips per 100m² GFA Sat – 0.1 trips per 100m² GFA	41 trips 37 trips 4 trips
Perimeter Use (Health Care)	7,080m² GFA	AM – 5.7 trips per 100m² GFA PM – 5.7 trips per 100m² GFA Sat – 1.5 trips per 100m² GFA	404 trips 404 trips 107 trips
Multiple Dwelling (Apartment)	413 Units	AM – 0.19 trips per unit PM – 0.15 trips per unit Sat – 0.19 trips per unit	79 trips 62 trips 79 trips
Total			**AM – 749 trips** **PM – 1,355 trips** **Sat - 693 trips**

7.2.2. Traffic Distribution

Based on a review of the surrounding land uses and road network configuration, Colliers has adopted a traffic distribution pattern that reflects the observed travel behaviour associated with the existing site. This approach is supported by traffic counts undertaken by Colliers at key access points and intersections surrounding the site, which provide a reliable basis for understanding current movement patterns.

Given that the proposed development comprises land uses that are broadly consistent with those currently operating on the site, the existing traffic distribution is considered a suitable proxy for forecasting future traffic flows. The collected data has enabled a more accurate representation of directional movements across the network, ensuring that the distribution assumptions align with real-world conditions and local travel demand.

No internal or combined/diverted trips have been considered for this revised assessment (i.e. all new trips no drop in or internalisation reductions). The total peak demand adopted could be considered somewhat conservative. Noting the mixed use nature of the site there is potential for internalised trips to occur. For example, residents on site could access the proposed retail / supermarket on site, reducing the need for external trips. Similarly linked trips could also occur with motorists already in the road network deviating their existing trip to visit the site (linked retail trip).

As the project progresses and further detail becomes available regarding access arrangements and internal circulation, the distribution assumptions may be refined to reflect the revised development layout.

8. Base Traffic Demands

8.1. Assessment Years and Traffic Growth

It is expected that the development will be completed by 2028. On this basis, the following assessment years have been considered for the TIA:

- Opening Year: 2028
- Design Horizon (Opening + 10 years): 2038

To assess future traffic demands in 2028 and 2038, a base traffic growth assumption of 1.5% p.a. has been adopted. This growth rate is consistent with the LGIP planning estimates.

Background traffic has been determined for the 2028 and 2038 design horizon base volumes. Removed the existing site traffic volumes from the 2024 survey volumes. Applied the 1.5%p.a. growth rate to the corrected volumes, to scale to the 2038 10 year design scenario (consistent with LGIP planning).

8.2. Future Year Scenarios

The following future year scenarios have been derived for the purposes of the TIA:

- 2024 Survey Scenario
- 2028/2038 Base Case Scenario
- 2028/2038 Base + Development Case Scenario
  - This is a net difference between the existing on site operations and the proposed new development.

Based on the surveyed traffic demands (Section 2.3), base traffic growth assumption (Section 8.1) and development transport demand estimates (Section 7), future traffic movement demands at the intersections next to the development have been derived. These are presented in **Appendix C.**

9. Traffic Impact Assessment

This TIA has been limited to an assessment of the following intersections:

- Ashmore Road/Benowa Road.
- Benowa Road/Carrara Street.
- Ashmore Road / Carrara Street.
- Ashmore Road / Site Access South.
- Carrara Street / Site Access North.

To evaluate the performance of the surrounding intersections, modelling was conducted using the SIDRA Intersection 9.0 software package. The primary intersection operational outputs used to assess intersection operations were considered to be intersection Degree of Saturation (DOS), overall intersection and worst movement delays, Level of Service (LOS) and queuing. The cycle/phasing timing for assessed intersections was derived from analysis of survey volume video footage.

The assessment assumes full development traffic at the time of opening, and therefore any required mitigation works are considered to be delivered as part of Stage 1.

9.1. Ashmore Road/Benowa Road

The SIDRA Intersection 9.0 software package has been used to assess the future traffic operations of Ashmore Road / Benowa Road signalised intersection. Default SIDRA inputs were used for the analysis.

Figure 9.2 shows the existing configuration of the Ashmore Road/Benowa Road intersection adopted in the SIDRA analysis for all scenarios. Table 9.1 summarises the SIDRA analysis results.

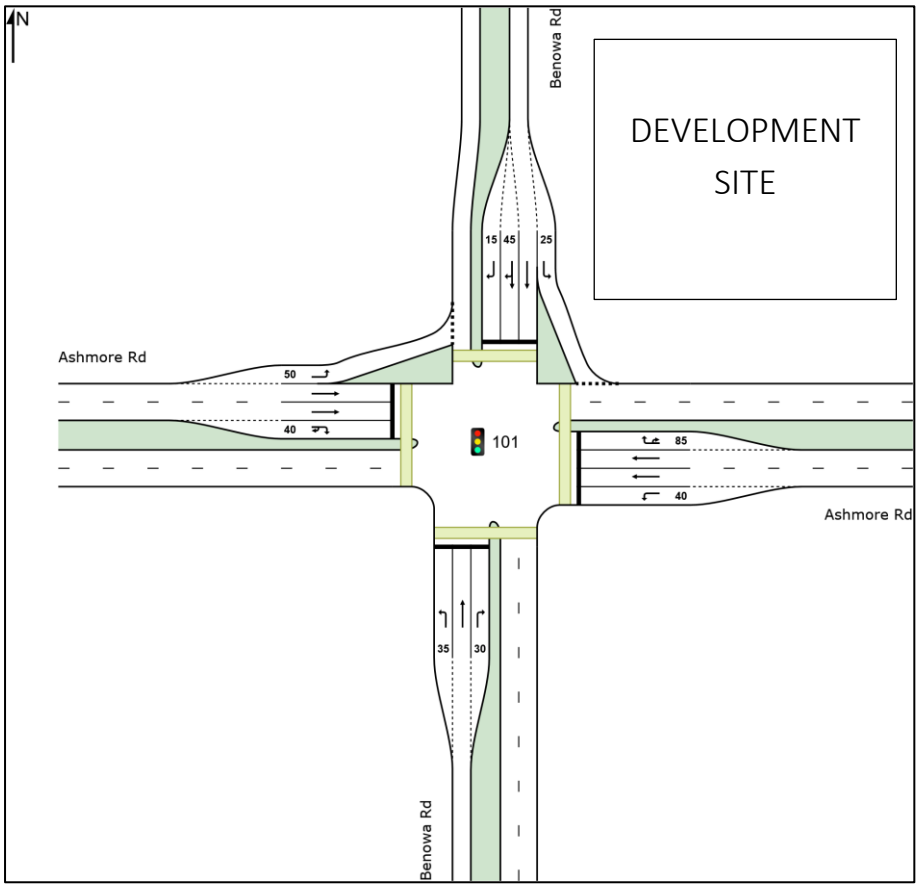


Figure 9.1: Ashmore Road / Benowa Road Intersection (Existing Configuration) – SIDRA Layout

Table 9.1 summarises the analysis outputs. Detailed analysis output summaries are included in **Appendix D**.

Table 9.1: Ashmore Road / Benowa Road Intersection – SIDRA Summary.

Scenario	DOS	Average Delay	LOS	95th Percentile Critical Queue (m)			
		Overall		North	South	East	West
Weekday AM Peak Hour							
2024 Survey	63.0%	33.7sec	C	39.2m	65.9m	96.2m	149.5m
2028 Base	68.1%	34.1sec	C	42.0m	71.6m	103.8m	163.2m
2028 Base + Development	73.6%	33.3sec	C	36.2m	70.5m	102.8m	193.5m
2038 Base	83.7%	38.3sec	D	52.0m	86.7m	125.7m	242.8m
2038 Base + Development	88.5%	38.7sec	D	45.6m	91.8m	124.6m	273.3m
Weekend PM Peak Hour							
2024 Survey	75.1%	40.3sec	D	67.1m	50.8m	180.8m	117.4m
2028 Base	82.5%	42.8sec	D	76.9m	54.4m	209.5m	124.7m
2028 Base + Development	87.5%	46.1sec	D	114.7m	75.9m	228.0m	150.0m
2038 Base	94.1%	52.8sec	D	126.8m	70.8m	303.0m	150.9m
2038 Base + Development	102.8%	74.5sec	E	166.1m	110.5m	406.6m	183.5m
Saturday Peak Hour							
2024 Survey	20.7%	33.5sec	C	41.5m	53.6m	104.9m	127.6m
2028 Base	54.2%	33.8sec	C	45.1m	57.0m	113.7m	137.2m
2028 Base + Development	55.4%	33.1sec	C	43.2m	57.7m	109.8m	141.5m
2038 Base	64.7%	35.0sec	C	51.3m	67.7m	139.1m	166.7m
2038 Base + Development	67.1%	34.5sec	C	50.8m	69.0m	136.5m	171.2m

The analysis indicates that the intersection is expected to operate beyond suitable levels at the 2038 base horizon, with and without development traffic included. With the assessed 2038 base case DOS 94.1%, average intersection delay of 46.1sec and LOS E.

The analysis indicates that the proposed development expansion may have some additional impacts on vehicle queuing and intersection delays. With the assessed 2038 Base + Development case DOS 102.8%, average intersection delay of 74.5sec and LOS E.

There appears to be scope to provide lane extensions on the Ashmore Road approaches that could improve the overall intersection operations. This could also be supplemented with the extension of the dual right turn lanes for the northern approach.

Colliers have tested an initial mitigation option where the Ashmore Road and Benowa Road turn lanes are extended to increase storage capacity and provide additional throughput. The tested upgrades were:

- Increase the western approach right tun lane to 100m (+60m).
- Increase the eastern approach right tun lane to 125m (+40m).
- Increase the northern approach right turn lanes to 40m (+25m) and 60m (+15m) lanes.

This upgraded configuration is shown in Figure 9.2.

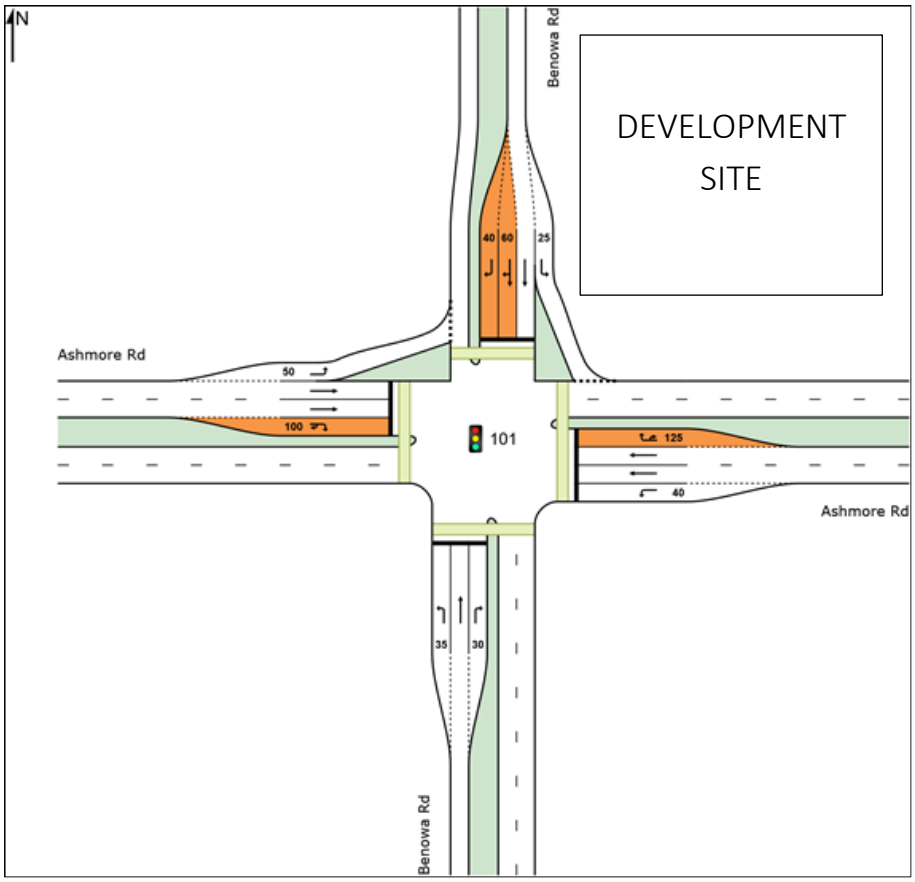


Figure 9.2: Ashmore Road / Benowa Road Intersection (Upgraded Configuration) – SIDRA Layout

Table 9.2 summarises the analysis outputs. Detailed analysis output summaries are included in **Appendix D** and a preliminary concept for the upgrade works are provided in **Appendix B**.

Table 9.2: Ashmore Road / Benowa Road Upgraded Intersection – SIDRA Summary.

Scenario - Upgraded	DOS	Average Delay	LOS	95th Percentile Critical Queue (m)			
		Overall		North	South	East	West
Weekday AM Peak Hour							
2028 Base + Development	71.2%	33.3sec	C	36.0m	70.5m	102.8m	199.0m
2038 Base + Development	86.0%	38.5sec	D	45.4m	87.0m	126.4m	291.3m
Weekday PM Peak Hour							
2028 Base + Development	73.8%	40.9sec	D	86.5m	68.7m	197.5m	197.5m
2038 Base + Development	88.1%	46.6sec	D	107.0m	86.1m	265.0m	171.1m
Saturday Peak Hour							
2028 Base + Development	52.4%	33.6sec	C	38.0m	57.0m	111.5m	146.6m
2038 Base + Development	63.1%	34.4sec	C	44.7m	67.6m	136.5m	177.3m

The analysis confirms that the upgraded intersection should function appropriately at the opening-year and 10 year design horizon of the proposed development. Based on this assessment, the proposed intersection configuration and the proposed upgrade works area considered suitable from a traffic operations perspective.

In addition to the noted mitigation works, Council has requested that the zebra crossings on the high angle slip lanes of the Ashmore Road / Benowa Road intersection are signalised to allow for signal controlled pedestrian crossing movements. The project team are accepting of this recommendation noting the potential safety improvements for pedestrians using the existing pathway networks. The ultimate design and integration of the signalised crossings are to be detailed and reviewed as part of subsequent development applications.

9.2. Benowa Road / Carrara Street

Figure 9.3: shows the existing configuration of the Benowa Street / Carrara Street roundabout intersection adopted in the SIDRA analysis.

Figure 9.3: Benowa Road / Carrara Street Intersection (Existing Configuration) – SIDRA Layout

The results of the SIDRA analysis for the survey and the full development scenarios tested are summarised in Table 9.3.

Table 9.3: Benowa Road / Carrara Street Intersection – SIDRA Summary.

Scenario	DOS	Average Delay	LOS	95th Percentile Critical Queue (m)		
		Worst Movement		North	South	East
Weekday AM Peak Hour						
2024 Survey	51.3%	12.2sec	A	28.0m	20.1m	16.8m
2028 Base	55.2%	12.4sec	A	31.6m	22.4m	18.6m
2028 Base + Development	56.9%	12.9sec	A	33.3m	24.4m	27.2m
2038 Base	66.4%	13.5sec	A	46.8m	30.7m	26.2m
2038 Base + Development	68.4%	15.2sec	B	51.2m	36.8m	42.6m
Weekday PM Peak Hour						
2024 Survey	53.8%	11.8sec	A	14.4m	7.9m	28.7m
2028 Base	57.8%	12.0sec	A	15.7m	8.7m	32.4m
2028 Base + Development	74.0%	14.0sec	A	21.9m	11.5m	64.4m
2038 Base	69.6%	14.1sec	A	53.7m	11.1m	53.7m
2038 Base + Development	86.6%	19.3sec	B	27.5m	14.7m	120.2m
Saturday Peak Hour						
2024 Survey	31.0%	11.0sec	A	12.7m	8.3m	12.7m
2028 Base	33.3%	11.1sec	A	13.9m	9.0m	11.1m
2028 Base + Development	31.6%	11.1sec	A	14.0m	8.4m	12.5m
2038 Base	39.8%	11.5sec	A	17.4m	11.4m	17.7m
2038 Base + Development	37.1%	11.5sec	A	17.5m	10.6m	16.1m

The analysis indicates that the intersection is expected to operate at suitable levels up to the 2038 design horizon, with an overall LOS B in the assessed peak hours.

The above results are within the generally acceptable limits for roundabout intersections, that being a DOS of <85% and LOS D limit.

While the DOS exceeds the 85% threshold for roundabouts for on the assessed PM peak hour, however the impact on delays are noted to be limited and well below the 55sec recommended threshold.

Based on this assessment, the proposed development is considered to have limited adverse impact on the operations of this intersection. Based on this assessment, the proposed intersection configuration is considered suitable from a traffic operations perspective.

9.3. Ashmore Road / Carrara Street

Figure 9.4 shows the existing configuration of the Ashmore Road / Carrara Street T-intersection adopted in the SIDRA analysis.

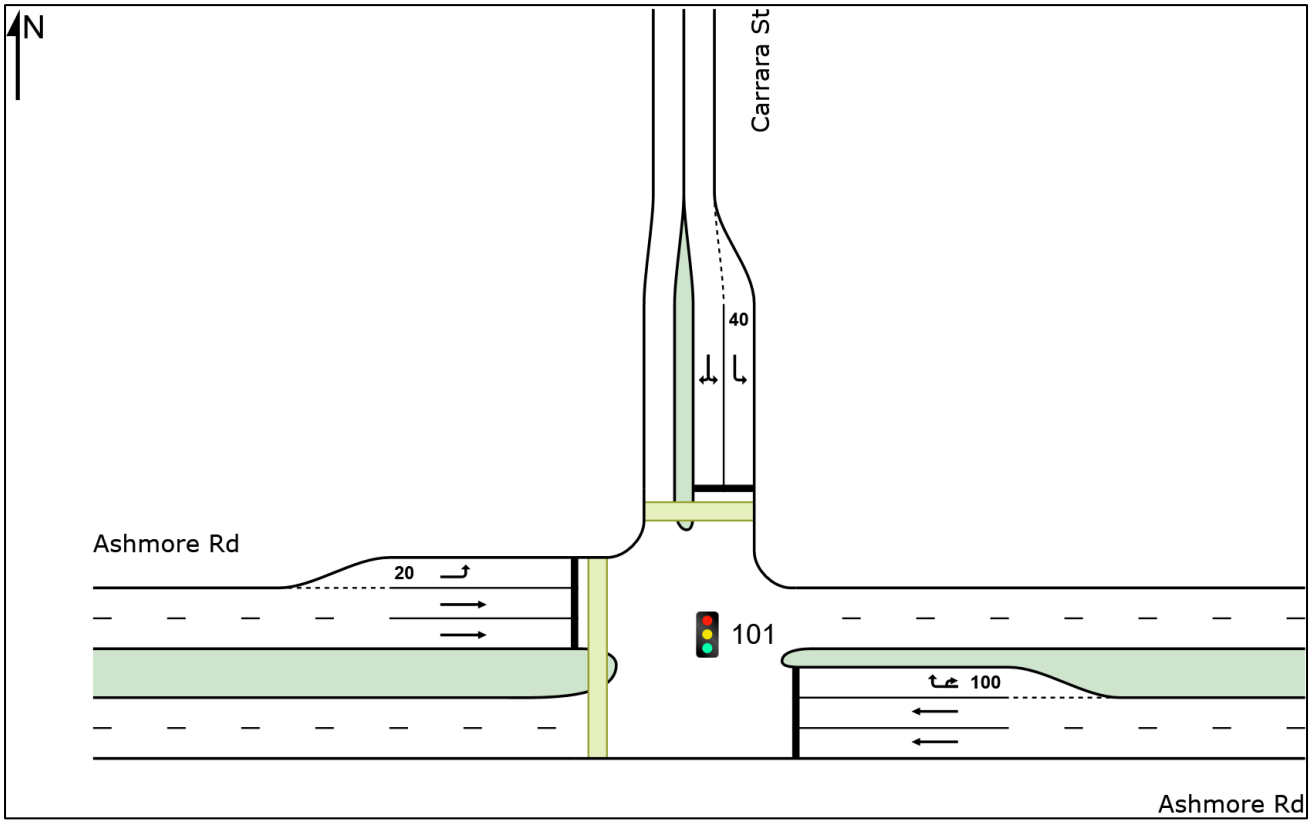


Figure 9.4: SIDRA intersection layout of Ashmore Road/ Carrara Street.

The results of the SIDRA analysis for the existing scenario and full development scenarios tested are summarised in Table 9.4.

Table 9.4: Ashmore Road / Carrara Street Intersection – SIDRA Summary.

Scenario	DOS	Average Delay	LOS	95th Percentile Critical Queue (m)		
		Overall		East	North	West
Weekday AM Peak Hour						
2024 Survey	79.2%	22.5sec	C	81.1m	31.1m	23.3m
2028 Base	84.1%	24.4sec	C	89.8m	33.2m	27.1m
2028 Base + Development	94.0%	33.5sec	C	108.8m	37.9m	282.0m
2038 Base	97.7%	40.0se	D	133.6m	38.9m	336.4m
2038 Base + Development	107.5%	74.1sec	E	194.5m	43.6m	520.0m
Weekday PM Peak Hour						
2024 Survey	70.1%	18.0sec	B	52.1m	41.7m	131.1m
2028 Base	74.4%	18.6sec	B	55.7m	44.6m	145.7m
2028 Base + Development	88.0%	24.6sec	C	77.6m	57.8m	220.7m
2038 Base	86.5%	22.0sec	C	65.8m	53.5m	209.3m
2038 Base + Development	100.0%	40.7sec	D	94.5m	68.9m	375.9m
Saturday Peak Hour						
2024 Survey	72.2%	17.6sec	B	44.5m	20.5m	137.6m
2028 Base	76.7%	18.4sec	B	47.7m	21.7m	155.3m
2028 Base + Development	82.3%	20.1sec	C	47.5m	21.2m	182.7m
2038 Base	89.0%	23.4sec	C	56.3m	25.5m	229.2m
2038 Base + Development	94.6%	29.4sec	C	55.8m	24.9m	288.0m

The analysis indicates that the intersection may exceed recommended design thresholds in the assessed 2038 base and base development peak hour periods. The assessed scenario indicates that the 2038 with development might reach a DOS of 107.5%. Exceeding the typically adopted threshold of 90% for signalised intersections. With the DOS exceeding 90% for the assessed 2038 base as well.

The results are above the generally acceptable limits for signalised intersections, that being a DOS of <90% and LOS D limit.

Colliers had investigated some turn lane treatments to improve storage capacity of the possible queues indicated by the analysis. SIDRA modelling for an updated layout, which includes a 60m long short left turn lane for the Carrara Street approach may assist in containing the queues, although it does not improve the operational SIDRA capacity of the intersection. Figure 9.5 shows the SDIRA layout of the tested option.

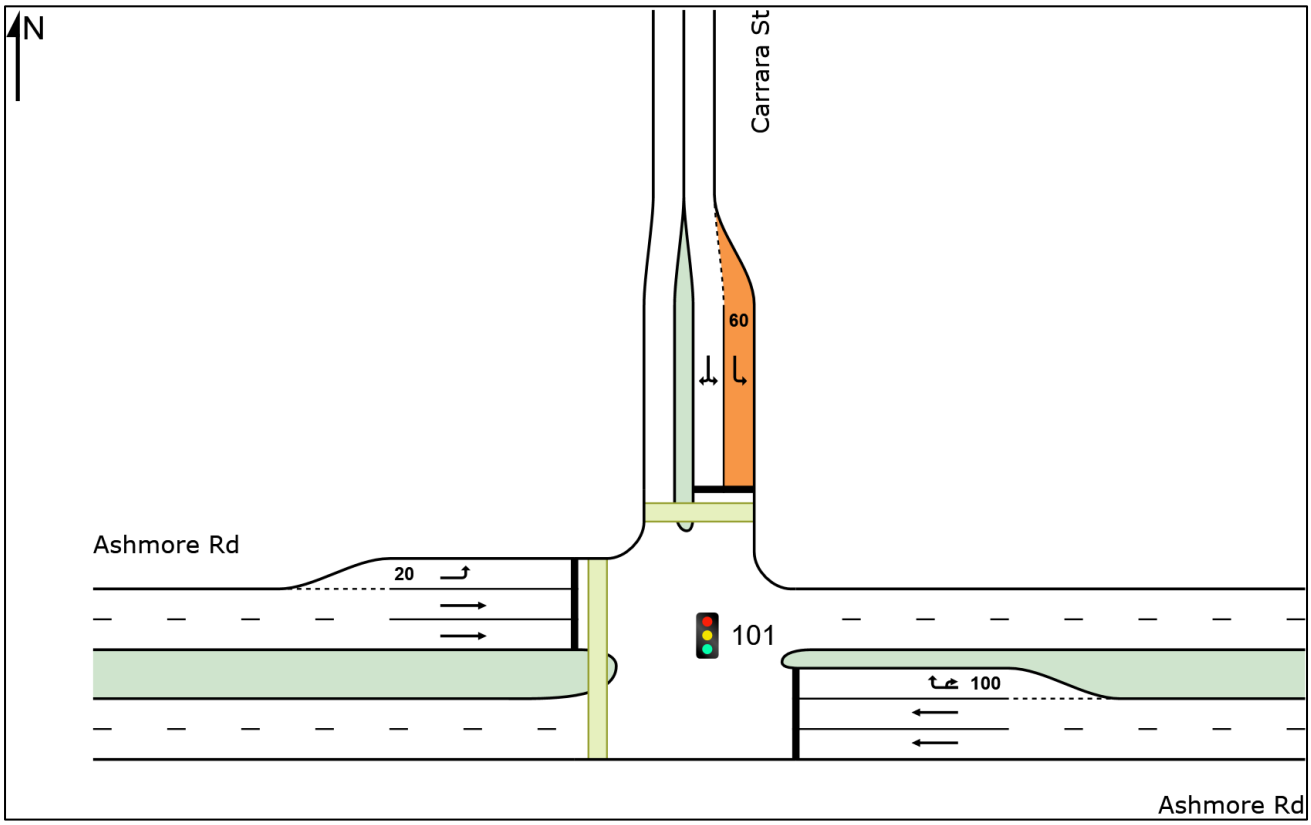


Figure 9.5: SIDRA intersection layout of Ashmore Road / Carrara Street

This extended lane could result in the removal of 3-4 on street parking spaces to accommodate the additional lane length, as shown in Figure 9.6.

Figure 9.6: Carrara Street – Left Turn Lane Extension – Additional 20m Extension

An alternative phasing arrangement for the intersection has also been tested for the intersection. This has tested the existing intersection layout. It would be reasonable to assume that the signal phasing for the intersection may be adjusted in the future to improve operations and better manage delays and queues for the various approaches.

Colliers have therefore undertaken an assessment of the intersection allowing SIDRA to optimize the phasing (without any changes to the existing turn lane treatments). Adopting a 150 second phasing cycle results in reduced improved operation and reduced delays as shown in Table 9.5.

Table 9.5: Ashmore Road / Carrara Street Intersection – Revised Phasing – SIDRA Summary.

Scenario	DOS	Average Delay	LOS	95th Percentile Critical Queue (m)		
		Overall		East	North	West
Weekday AM Peak Hour						
2038 Base + Development	94.8%	45.9sec	D	240.1m	80.3m	449.1m
Weekday PM Peak Hour						
2038 Base + Development	91.4%	40.7sec	D	183.4m	111.4m	389.7m
Saturday Peak Hour						

2038 Base + Development	69.9%	22.0sec	C	108.4m	42.8m	211.6m

Based on the above assessment the intersection operation could be improved to reduce average delay below the 55 second performance threshold recommended by Councils LGIP. Some of the impacts of background growth and the proposed development could be somewhat managed through the revision of the adopted peak hour signal phasing.

9.4. Site Accesses

Colliers has undertaken preliminary assessments of the proposed Ashmore Road Left in/Left out (LILO) site access. The results of the SIDRA analysis for the development scenarios tested are summarised in Table 9.6.

Table 9.6: Ashmore Road / Site Access – SIDRA Summary.

Scenario	DOS	Average Delay		LOS	95th Percentile Critical Queue (m)	
		Overall	Worst Movement		North	West
Weekend AM Peak Hour						
2028 Base + Development	31.5%	1.3sec	7.7sec	A	4.8m	0m
2038 Base + Development	36.5%	1.3sec	8.6sec	A	5.7m	0m
Weekday PM Peak Hour						
2028 Base + Development	23.3%	0.8sec	6.5sec	A	1.7m	0m
2038 Base + Development	30.7%	2.2sec	7.9sec	A	10.5m	0m
Saturday Peak Hour						
2028 Base + Development	27.0%	1.3sec	7.0sec	A	3.8m	0m
2038 Base + Development	31.3%	1.3sec	7.6sec	A	4.4m	0m

The Ashmore Road site access is expected to operate well within typical operational thresholds. Based on this assessment, the proposed site access configuration is considered suitable from a traffic operations perspective.

Colliers has undertaken preliminary assessments of the proposed Carrara Street site access. This assessment is a preliminary assessment of a combined demand focused on a single crossover on the Carrara Street frontage. The analysis may therefore be showing impacts which will be diffused across the two crossovers. The finer details and demand splits of which are expected to be reviewed and resolved as part of subsequent development applications. The results of the SIDRA analysis for the development scenarios tested are summarised in Table 9.7

Table 9.7: Carrara Street / Site Access – SIDRA Summary.

Scenario	DOS	Average Delay		LOS	95th Percentile Critical Queue (m)		
		Overall	Worst Movement		South	East	West
Weekend AM Peak Hour							
2028 Base + Development	30.5%	3.4sec	8.9sec	A	5.2m	0m	10.6m
2038 Base + Development	36.2%	3.7sec	10.3sec	B	5.9m	0m	15.4m
Weekday PM Peak Hour							
2028 Base + Development	54.5%	5.5sec	13.2sec	B	28.2m	0m	14.9m
2038 Base + Development	64.7%	6.4sec	16.8sec	C	38.8m	0m	20.2m
Saturday Peak Hour							
2028 Base + Development	19.5%	3.7sec	5.9sec	A	5.9m	0m	6.1m
2038 Base + Development	23.9%	3.9sec	7.2sec	A	7.5m	0m	7.5m

The Carrara Street site access is expected to operate well within typical operational thresholds. Based on this assessment, the proposed site access configuration is considered suitable from a traffic operations perspective.

Based on this assessment, the assessed vehicle demands for a single combined demands Carrara Street frontage should operate appropriately noting the future two (2) accesses should split demands distributing queues across two accesses, therefore be suitable from a traffic operations perspective.

10. Summary and Conclusions

10.1. Parking Arrangements

The final parking supply is to be reviewed and determined as part of subsequent applications as the development progresses. Parking supply is expected to be provided in suitable quantities to support the proposed land uses. The car park layout will be designed in accordance with the AS2890 series to ensure compliance with relevant standards and best practice.

10.2. Access Arrangements

The preliminary access arrangements for the development are considered acceptable to support the development. Overall, Colliers considers the access arrangements for the development to be acceptable.

10.3. Service Vehicle Arrangements

Service vehicles are proposed to access the site via the southeastern vehicle access on Ashmore Road. Vehicles accessing the site are expected to enter and exit the site in a forward gear accessing the dedicated loading area located in the northeastern corner of the site.

The specific loading requirements will be refined as the specific uses on site are confirmed and the site design progresses.

10.4. Traffic Impact Assessment

Based on the traffic analysis, the recommended traffic impact mitigation relates to the Ashmore Road/Benowa Road intersection. At this intersection, it is recommended that the east/west turn lanes are extended to increase storage and operational capacity.

The analysis also indicates that the development traffic should not create significant adverse impacts on the Benowa Road /Carrara Street or Ashmore Road/Carrara Street intersections.

10.5. Conclusion

Based on the assessment contained within this report, Colliers sees no traffic engineering reason why the relevant preliminary approvals should not be granted.

Appendix A Development Plans

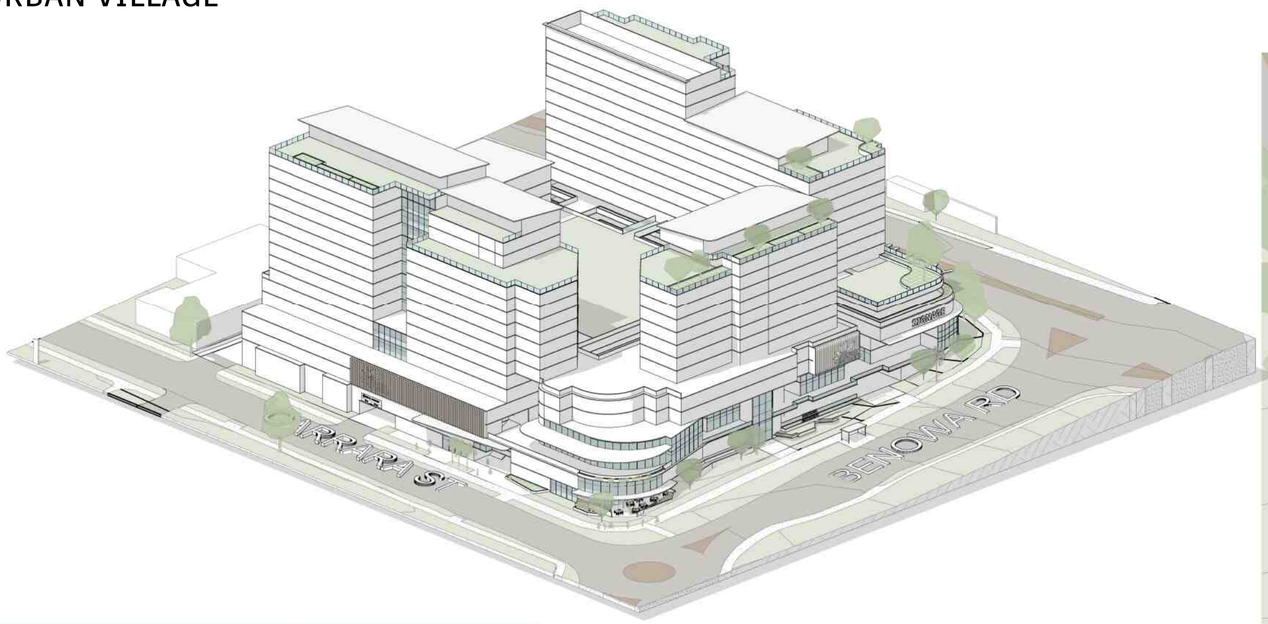
BENOWA GARDENS URBAN VILLAGE

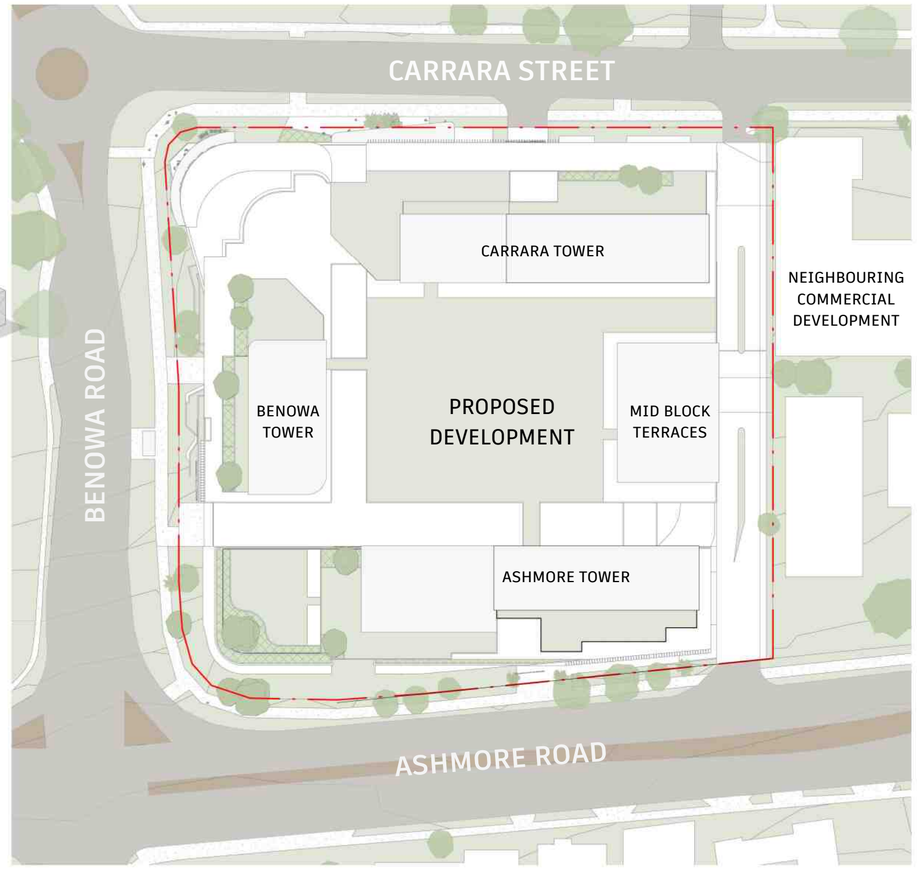
SITE INFORMATION

ADDRESS 203 ASHMORE ROAD
BENOWA QLD 4217

RPD LOT/DP: RP839746

SITE AREA 17,658m^2





SITE PLAN
1 : 1000

APARTMENT TYPES

	LEVELS	1 x BED	2 x BED	3 x BED	PER STOREY	TOTAL
CARRARA TOWER	LEVEL 4	1	11	4	16	16
	LEVELS 5 - 10 (6 x STOREYS)	3	10	4	17	102
	LEVELS 11	4	5	4	13	13
	LEVELS 12	2	5	1	8	8
	2-STOREY PENTHOUSE LEVELS 12 / 13	-	-	3	3	3
	LEVEL 13	2	1	1	4	4
	2-STOREY PENTHOUSE LEVELS 13 / 14	-	-	6	6	6
	TOTAL PER TOWER	27	82	43	-	152
BENOWA TOWER	LEVEL 4	3	3	3	9	9
	LEVELS 5 - 10 (6 x STOREYS)	5	4	1	10	60
	LEVEL 11	-	1	1	2	2
	2-STOREY PENTHOUSE LEVELS 11 / 12	-	-	5	5	5
	TOTAL PER TOWER	33	28	15	-	76
ASHMORE TOWER	LEVELS 4 - 10 (7 x STOREYS)	2	11	4	17	119
	LEVEL 11	2	7	5	14	14
	2-STOREY PENTHOUSE LEVELS 11 / 12	-	-	4	4	4
	LEVEL 12 - 13 (2 x STOREYS)	-	6	2	8	16
	LEVEL 14	-	2	1	3	3
	2-STOREY PENTHOUSE LEVELS 14 / 15	-	-	5	5	5
	TOTAL PER TOWER	16	98	47	-	161
MID-BLOCK TERRACES	LEVELS 4 - 7 (4 x STOREYS)	-	2	4	6	24
	TOTAL PER TOWER	-	8	16	-	24
TOTAL APARTMENTS		**76**	**216**	**121**	**-**	**413**
TOTAL BEDROOMS		**76**	**432**	**363**	**-**	**871**

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m^2**
SPECIALTY SHOPS:	**6,000m^2**
RETAIL BASEMENT 2 LEVEL:	**500m^2**
RETAIL BASEMENT 1 LEVEL:	**460 m^2**
SHOPPING CENTRE LEVEL:	**5,040m^2**
TOTAL RETAIL	**10,000m^2**

COMMERCIAL AREA

LEVEL 1:	**1,500m^2**
LEVEL 2:	**1,050m^2**
TOTAL COMMERCIAL	**2,550m^2**

PERIMETER AREA (HEALTH)

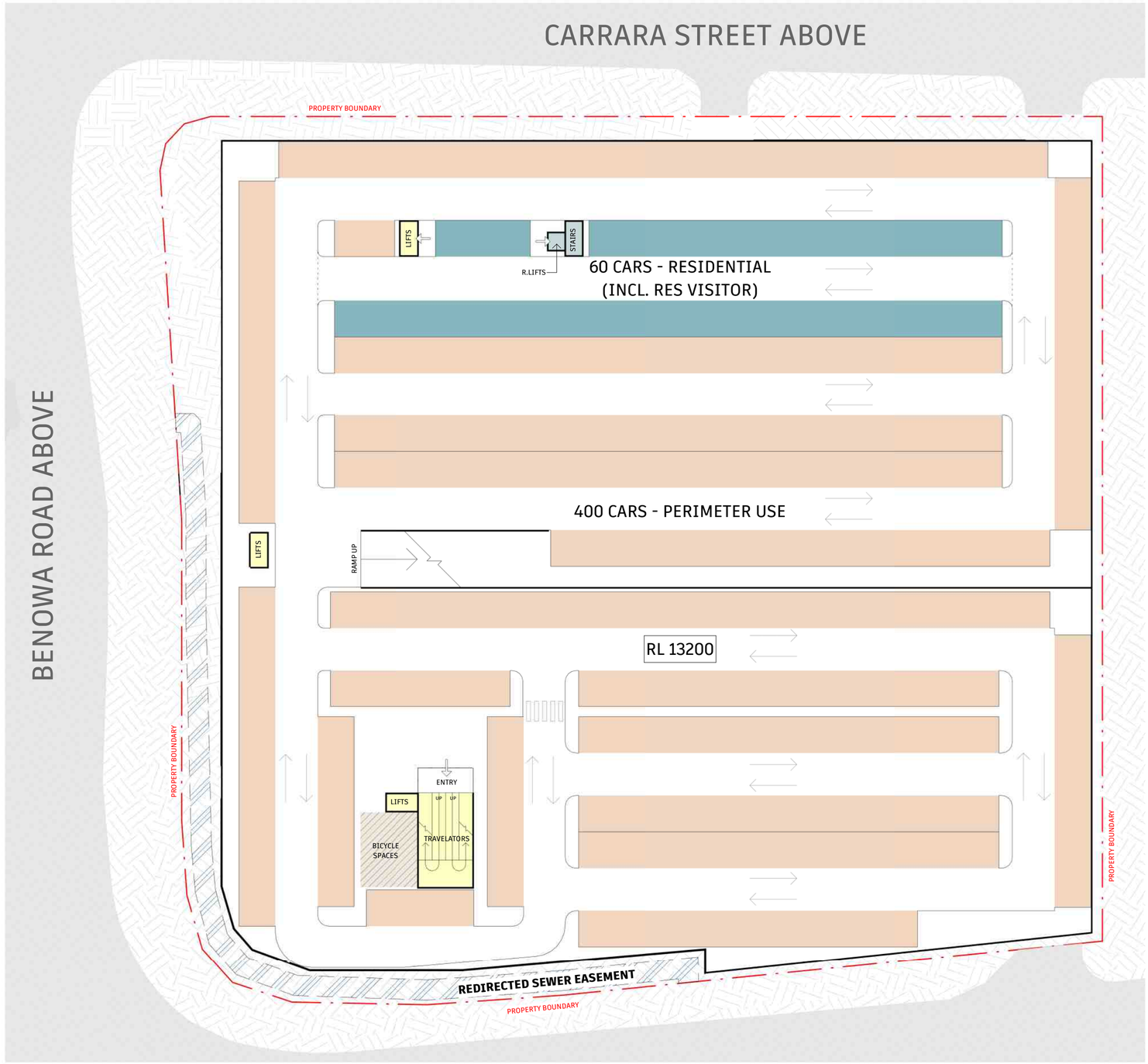
BASEMENT 1:	**1,400m^2**
GROUND (SHOPPING CENTRE):	**600m^2**
CARRARA LEVEL 1:	**2,500m^2**
CARRARA LEVEL 2:	**1,290m^2**
CARRARA LEVEL 3:	**1,290m^2**
TOTAL PERIMETER USE	**7,080m^2**

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

FLOOR PLAN-BASEMENT 3 (PERIMETER)

SITE COVER: 89.3%



BASEMENT 3 CARPARK - PERIMETER USE

1 : 500

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

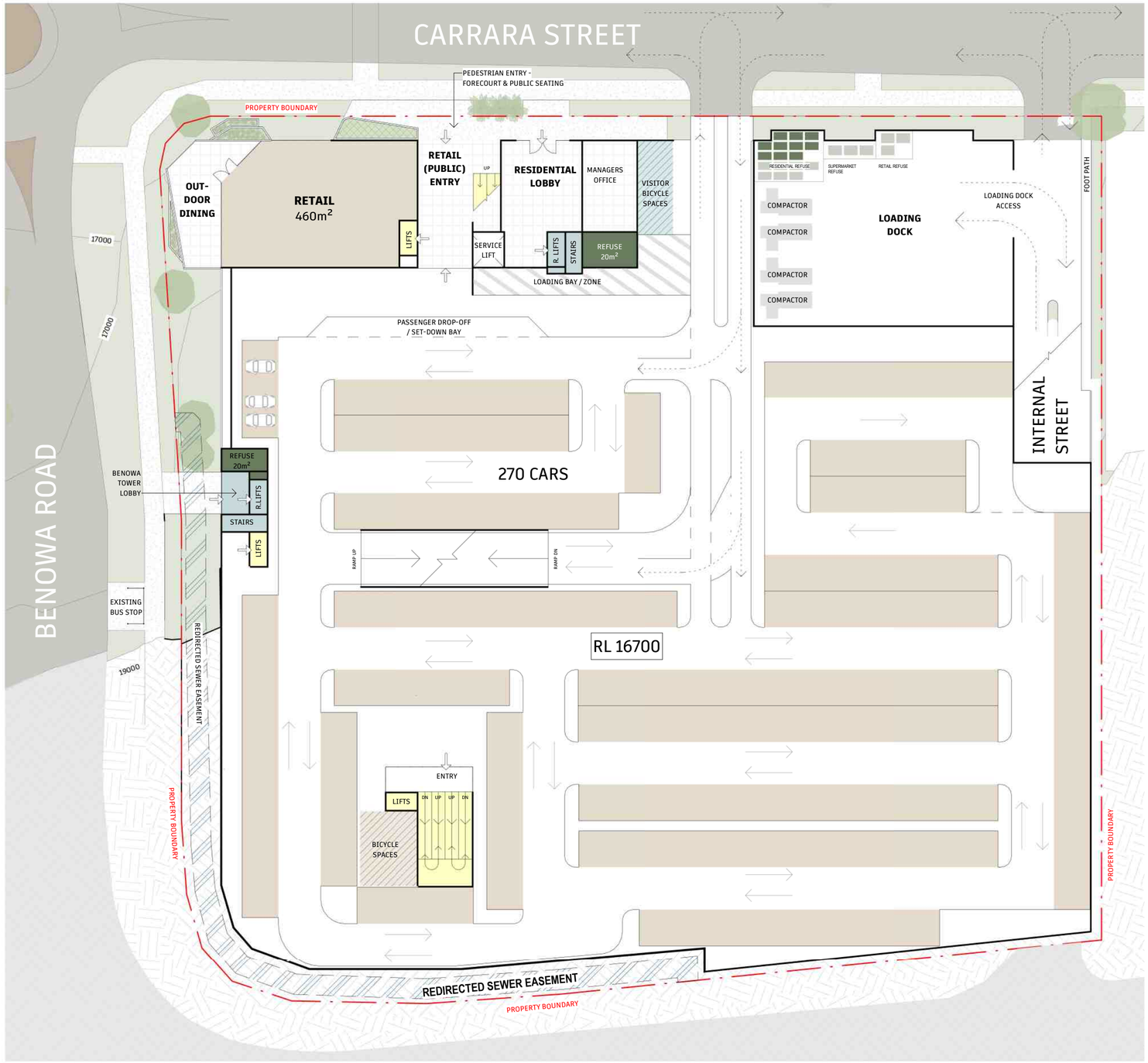
PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

0 5 10 25 45m

FLOOR PLAN-BASEMENT 2 (RETAIL)

SITE COVER: 87.1%



BASEMENT 2 CARPARK - RETAIL

1 : 500

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

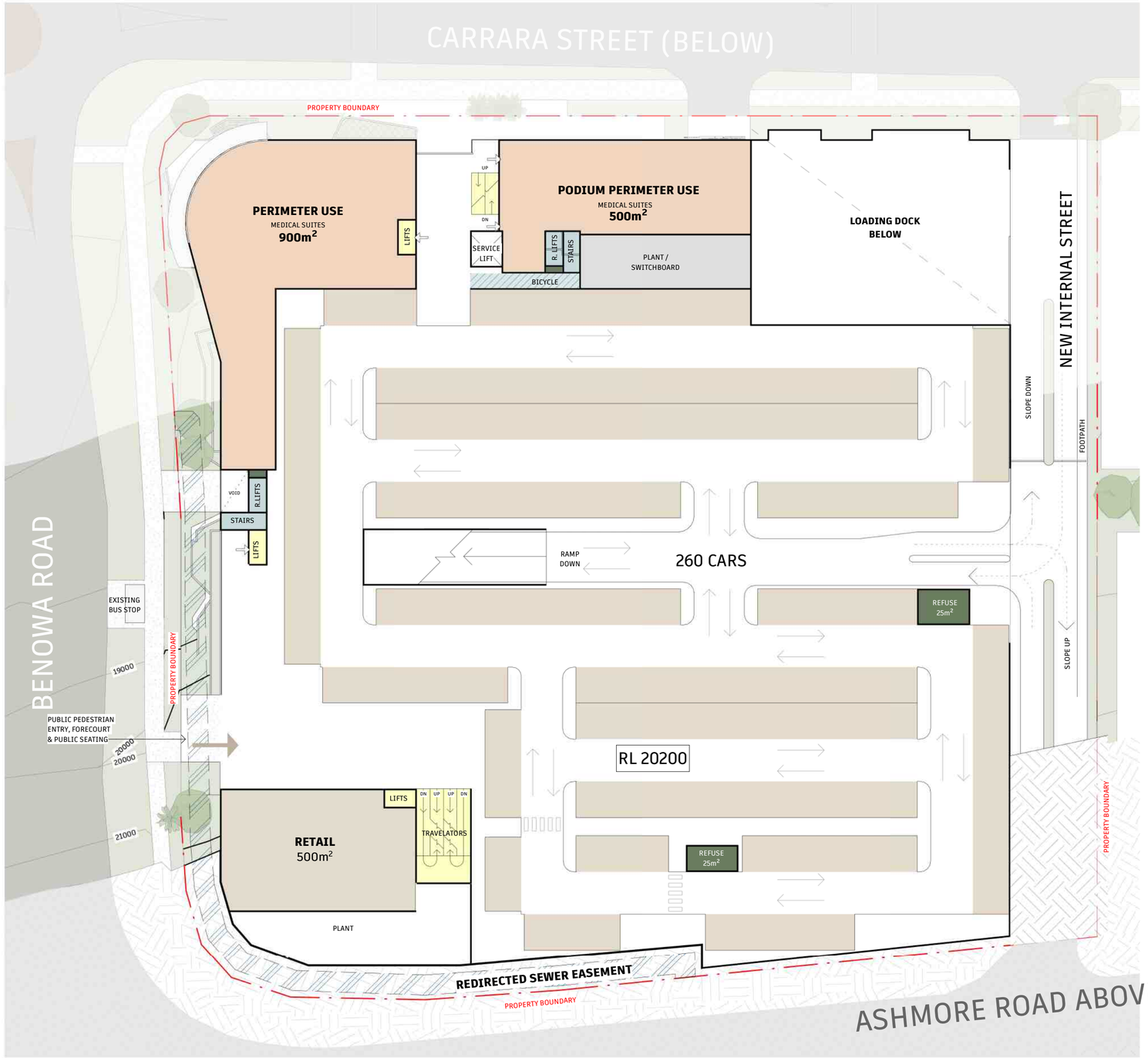
PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

0 5 10 25 45m

FLOOR PLAN-BASEMENT 1 (RETAIL)

SITE COVER: 82.6%



BASEMENT 1 CARPARK - RETAIL

1 : 500

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

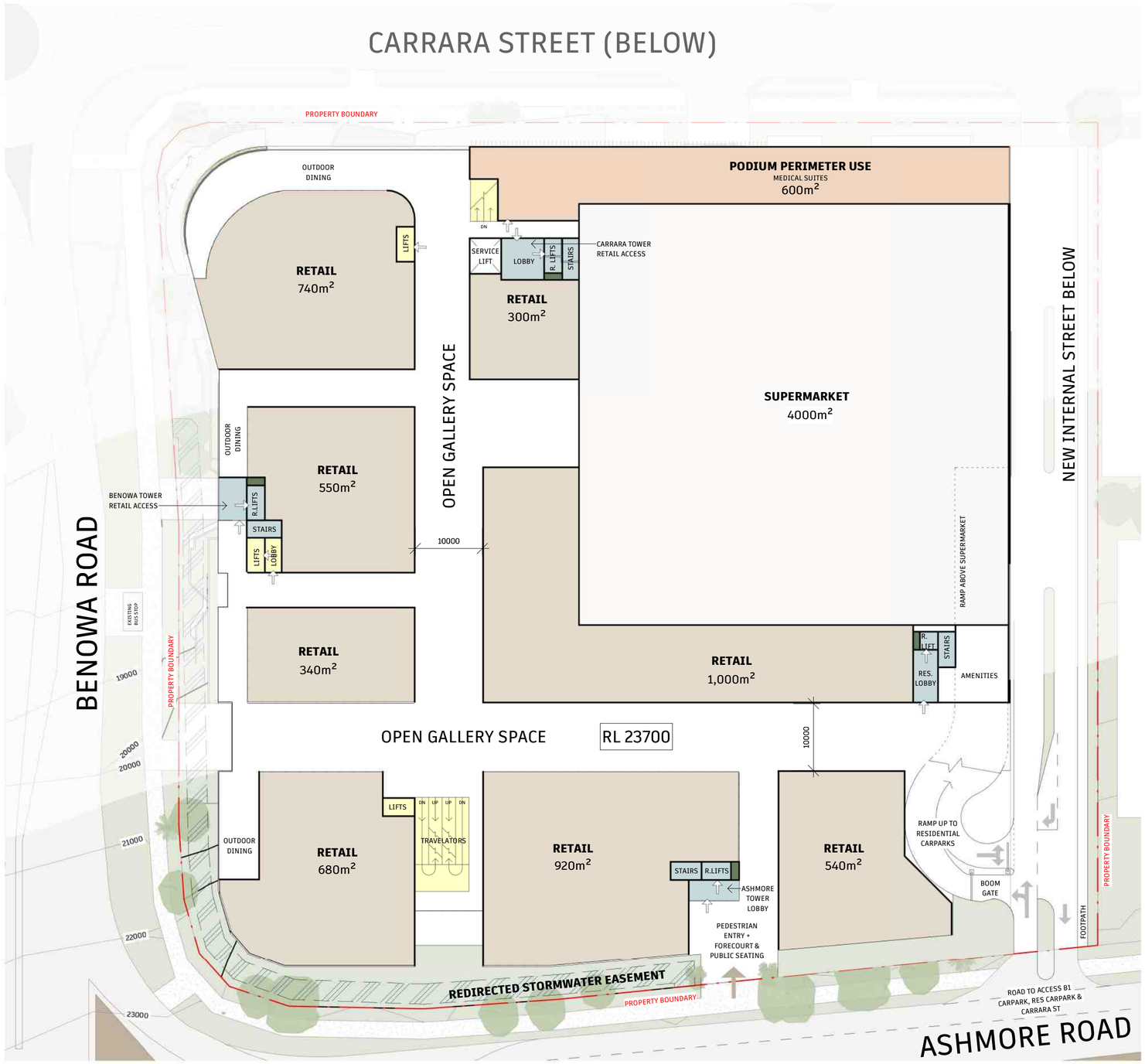
PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

0 5 10 25 45m

FLOOR PLAN-SHOPPING CENTRE

SITE COVER: 80.4%



SHOPPING CENTRE (ASHMORE ROAD)

1 : 500

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

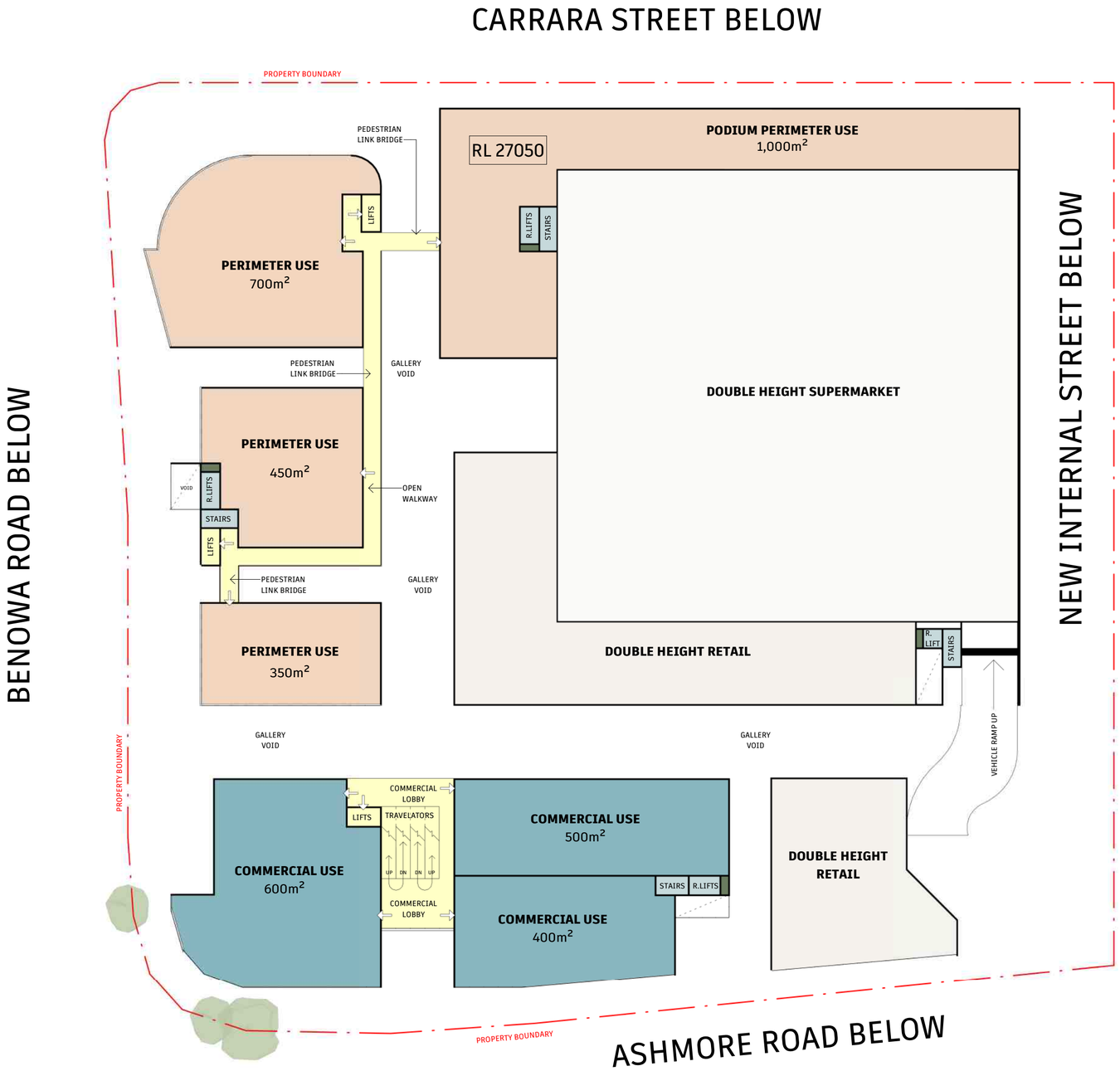
PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

0 5 10 25 45m

FLOOR PLAN LEVEL 1 - PERIMETER USE MEZZANINE

SITE COVER: 80.4%



LEVEL 1 - COMMERICAL

1 : 500

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

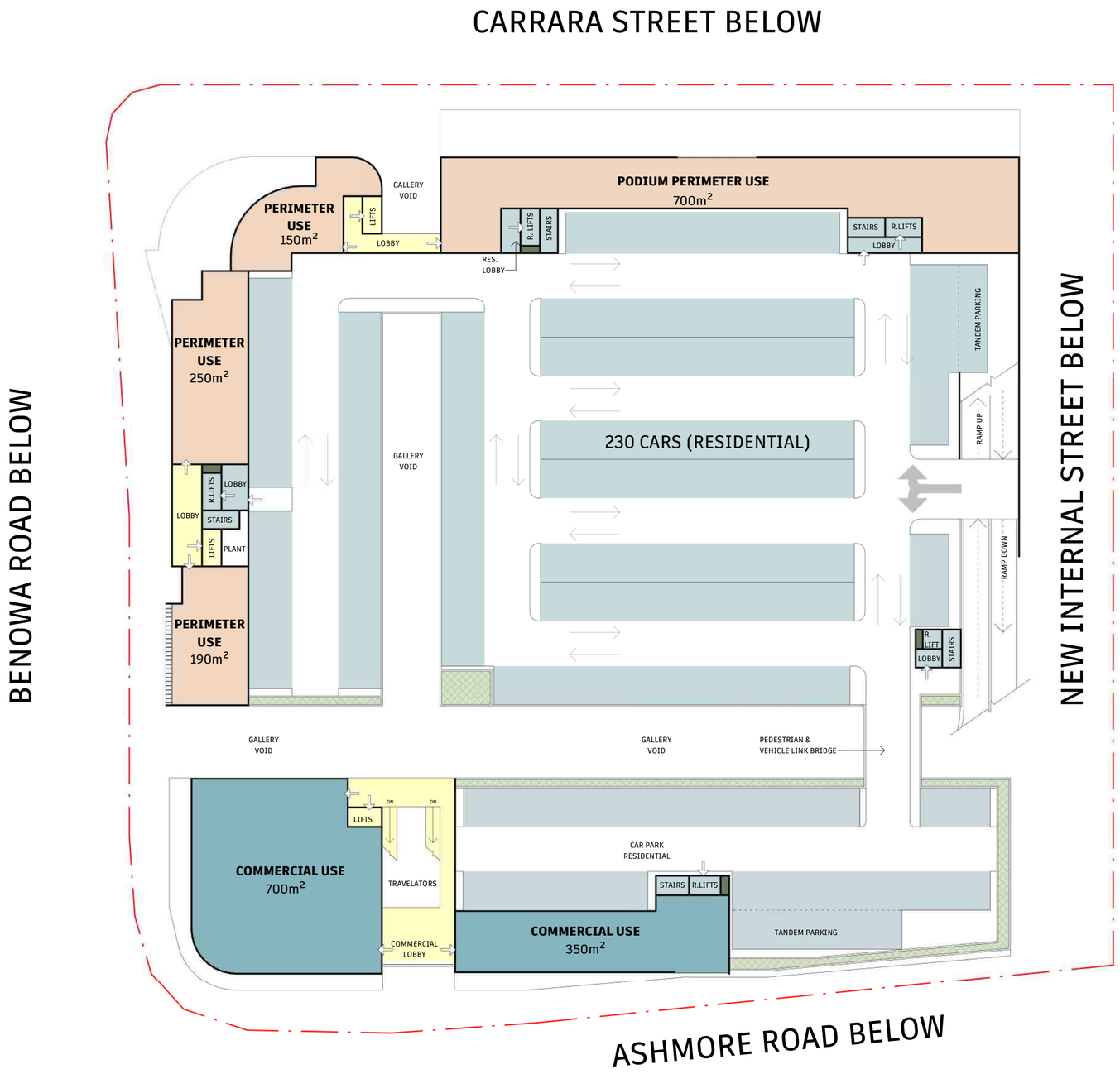
PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

0 5 10 25 45m

FLOOR PLAN-LEVEL 2 (RESIDENTIAL CARPARK)

SITE COVER: 70.0%



LEVEL 2 - COMMERICAL & RESIDENTIAL CARPARKS

1:500

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

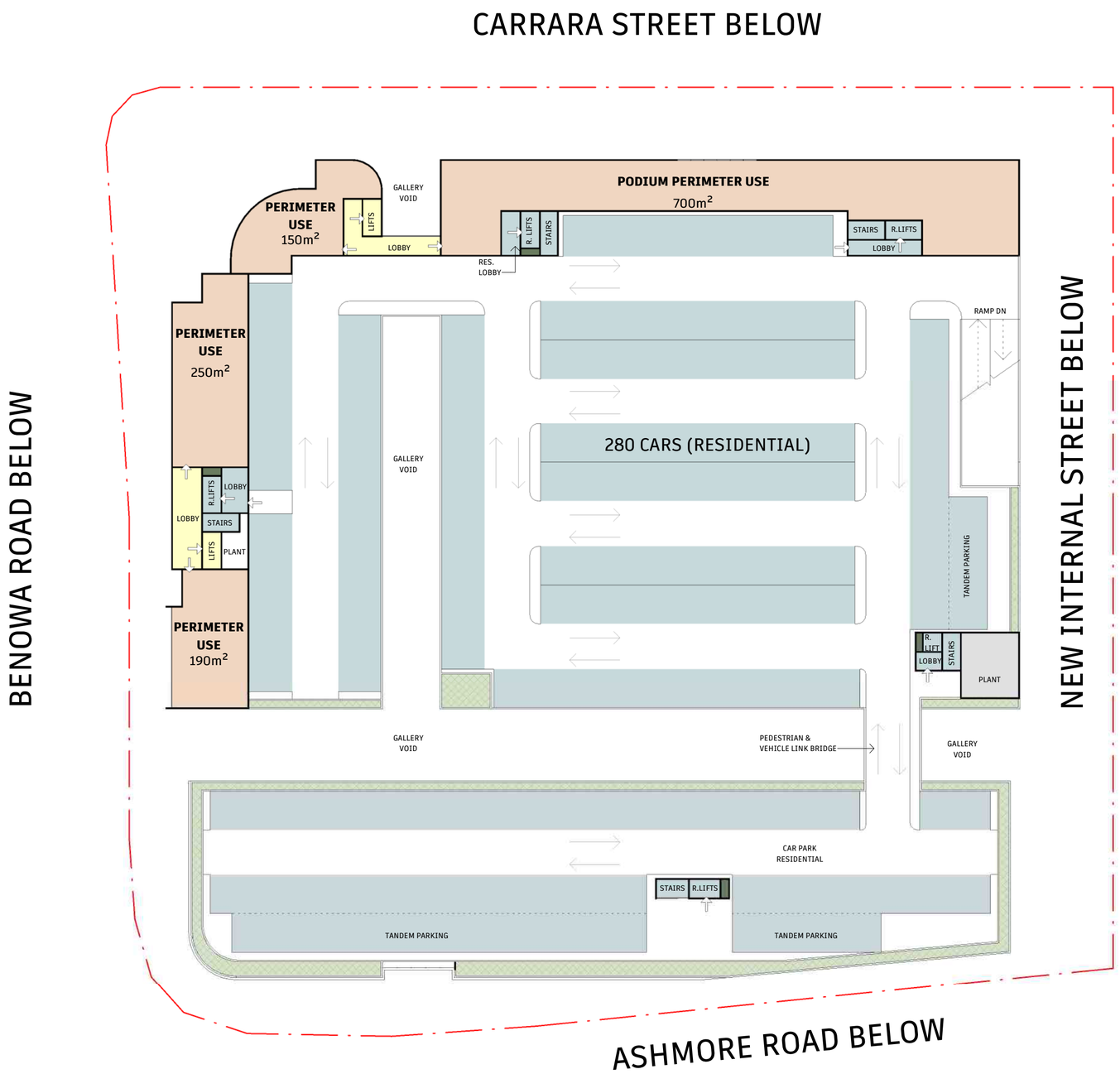
PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

0 5 10 25 45m

FLOOR PLAN-LEVEL 3 (RESIDENTIAL CARPARK)

SITE COVER: 64.5%



LEVEL 3 - PERIMETER USE & RESIDENTIAL CARPARK

1 : 500

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

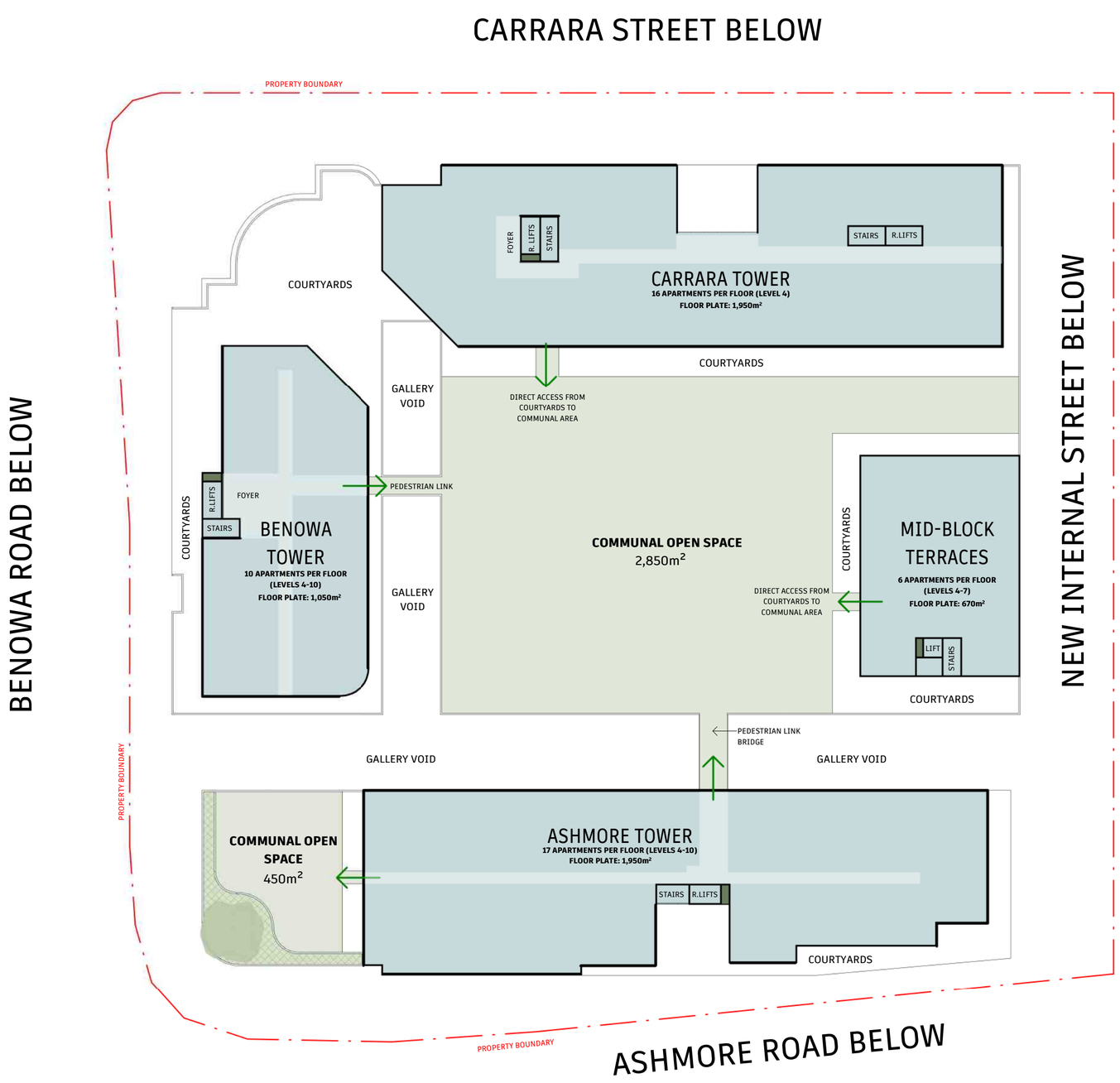
0 5 10 25 45m

FLOOR PLAN-LEVEL 4 - TOWERS+COMMUNAL SPACE

SITE COVER: 63.6%

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVEL 4 - TOP OF PODIUM & RESIDENTIAL

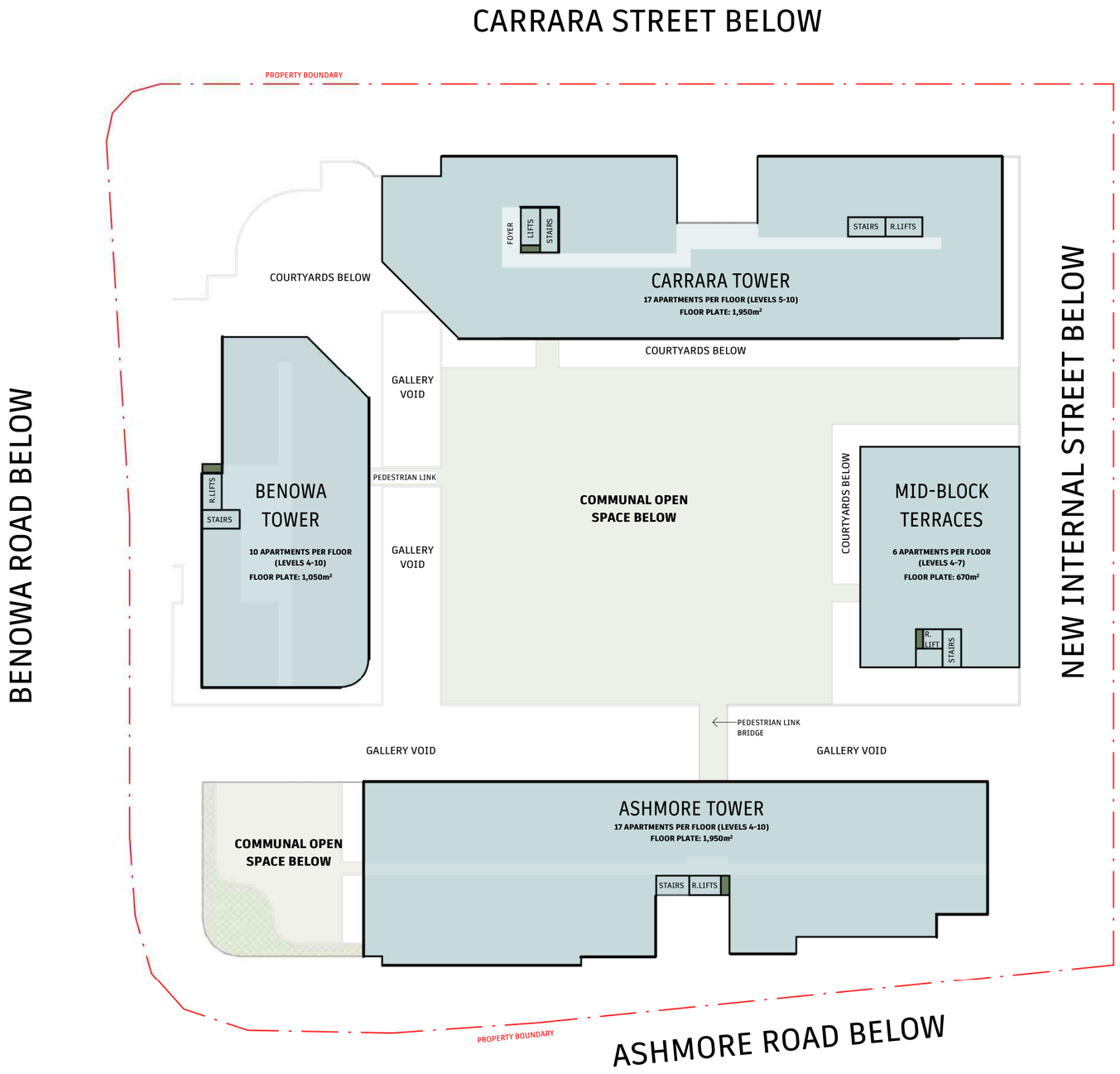
1 : 500

0 5 10 25 45m

FLOOR PLAN-LEVELS 5-7

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVELS 5 - 7 - TOWERS

1:500

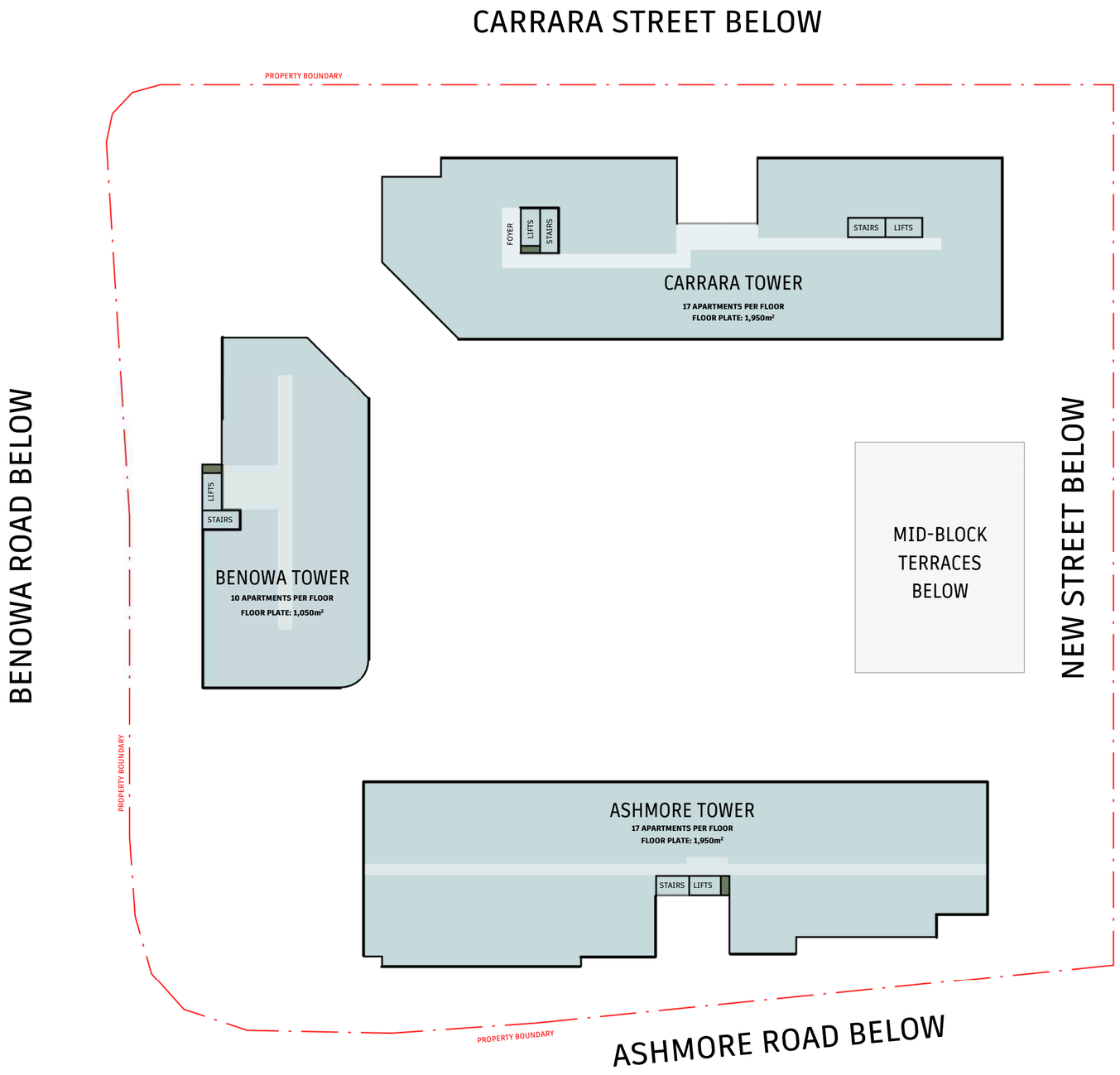
0 5 10 25 45m

FLOOR PLAN- LEVELS 8-9

SITE COVER: 28.4%

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVELS 8 & 9 - RESIDENTIAL TOWERS

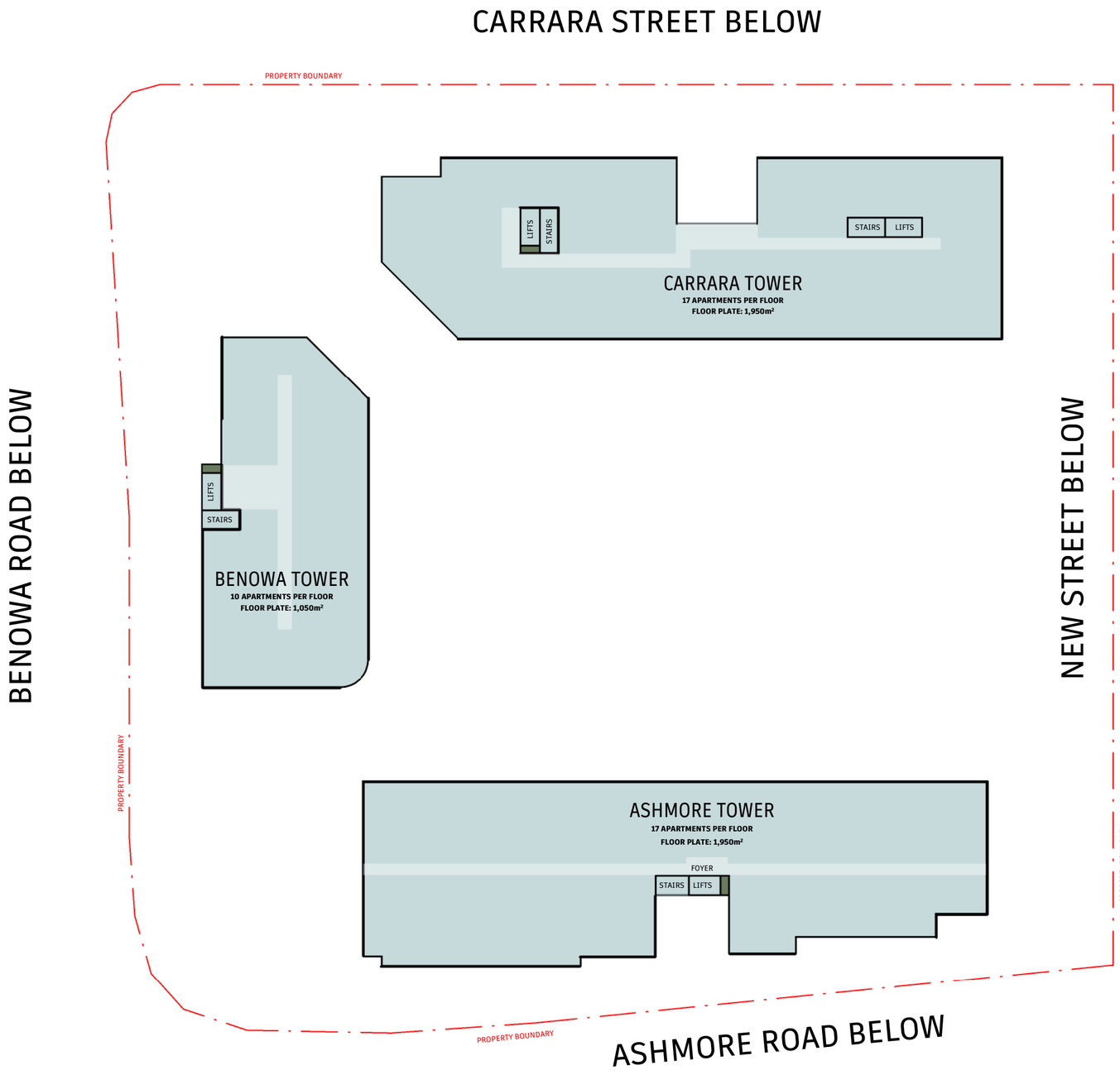
1 : 500

0 5 10 25 45m

FLOOR PLAN - LEVEL 10

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVEL 10 - RESIDENTIAL TOWERS

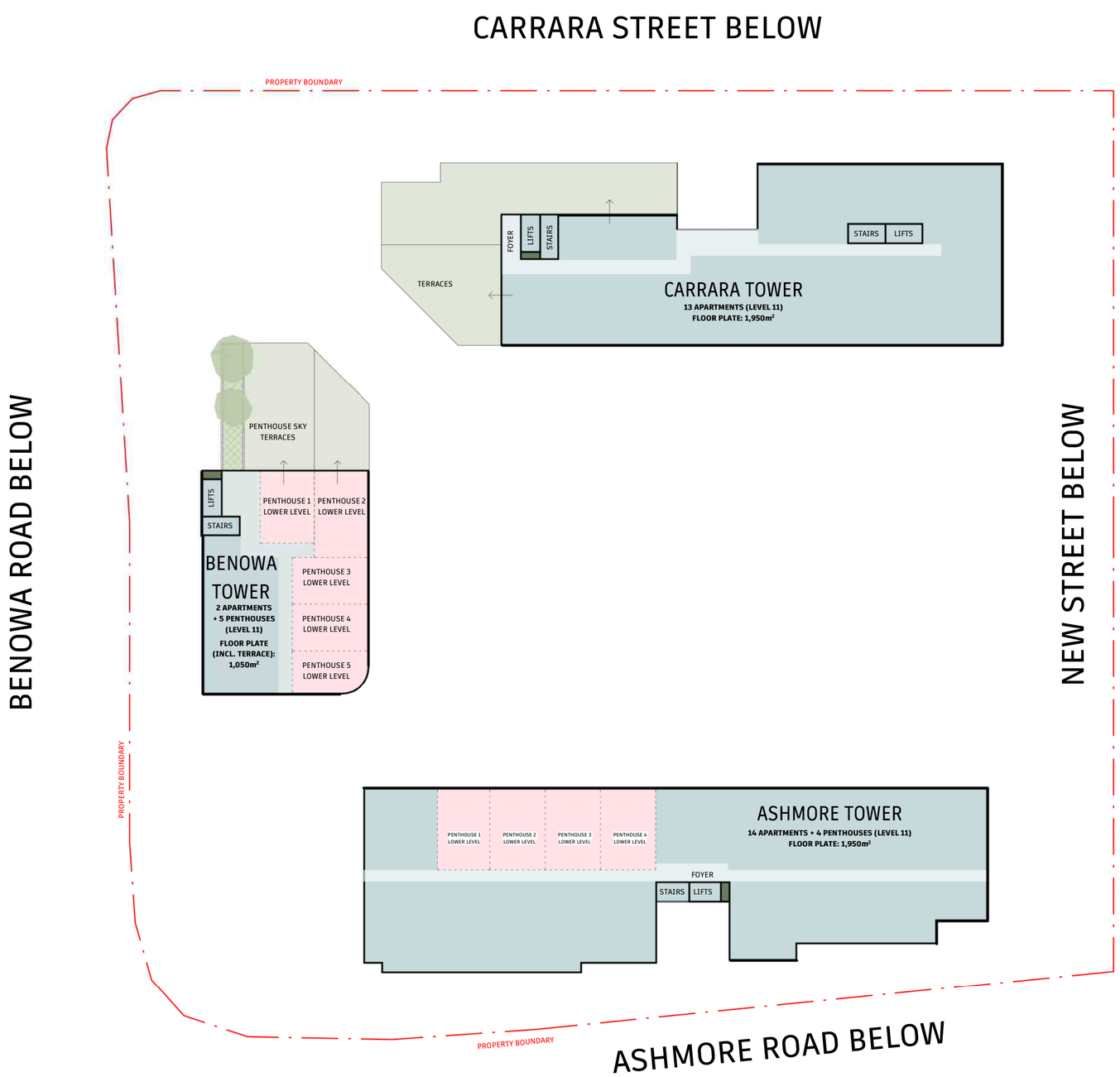
1 : 500

0 5 10 25 45m

FLOOR PLAN-LEVEL 11

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVEL 11 - RESIDENTIAL TOWERS

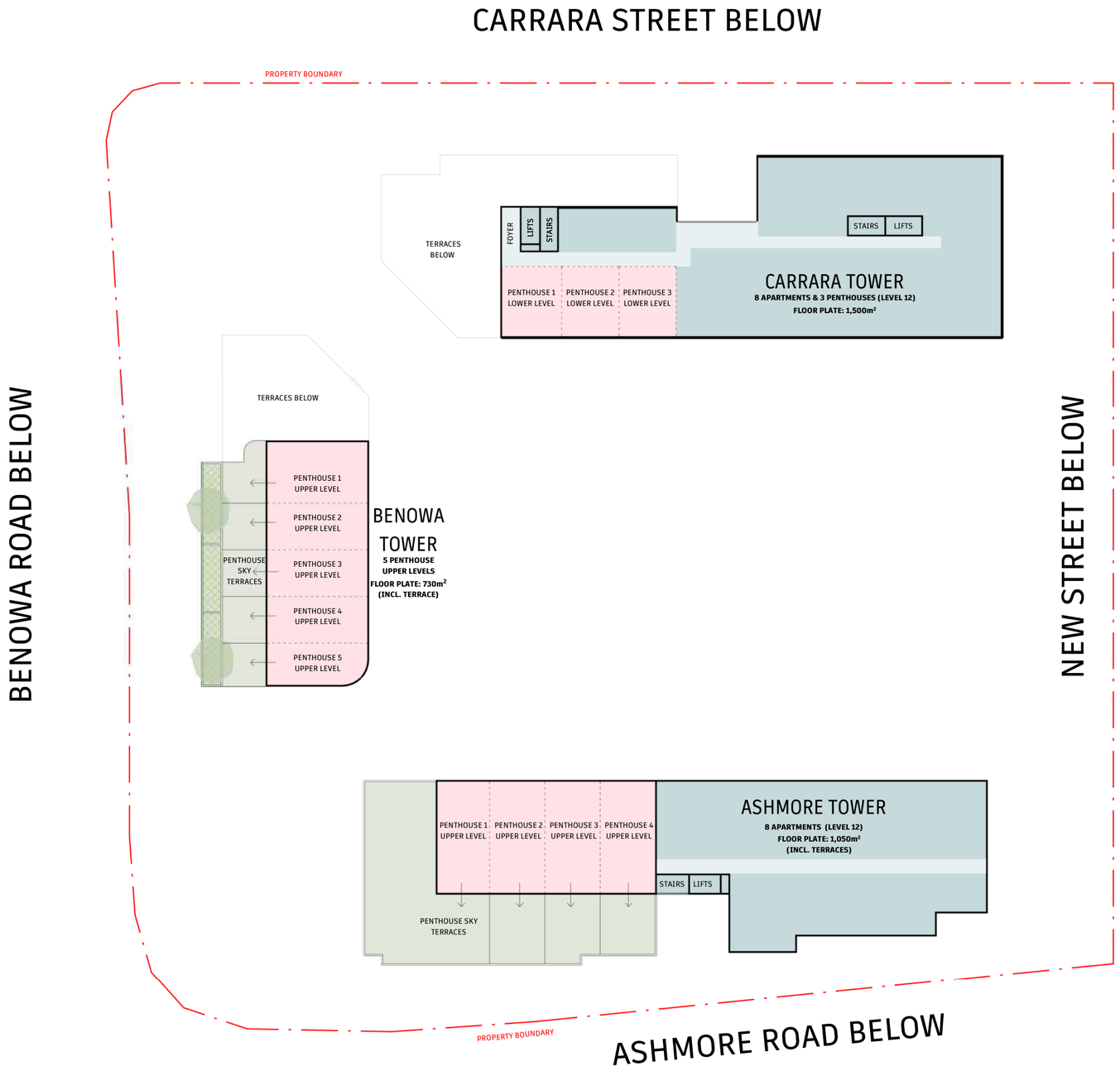
1 : 500

0 5 10 25 45m

FLOOR PLAN-LEVEL 12

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVEL 12 - RESIDENTIAL TOWERS

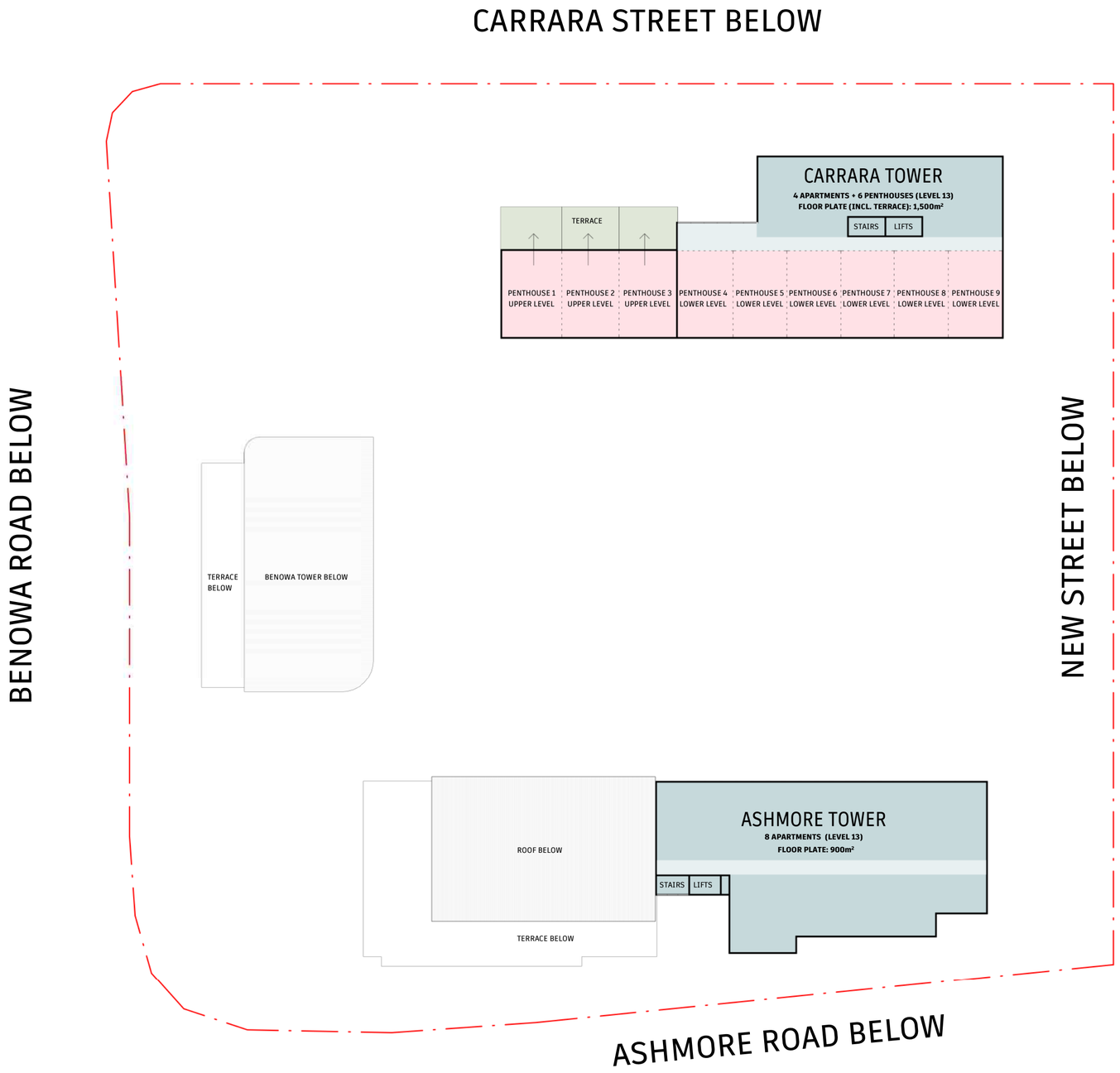
1 : 500

0 5 10 25 45m

FLOOR PLAN-LEVEL 13

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVEL 13 - RESIDENTIAL TOWERS

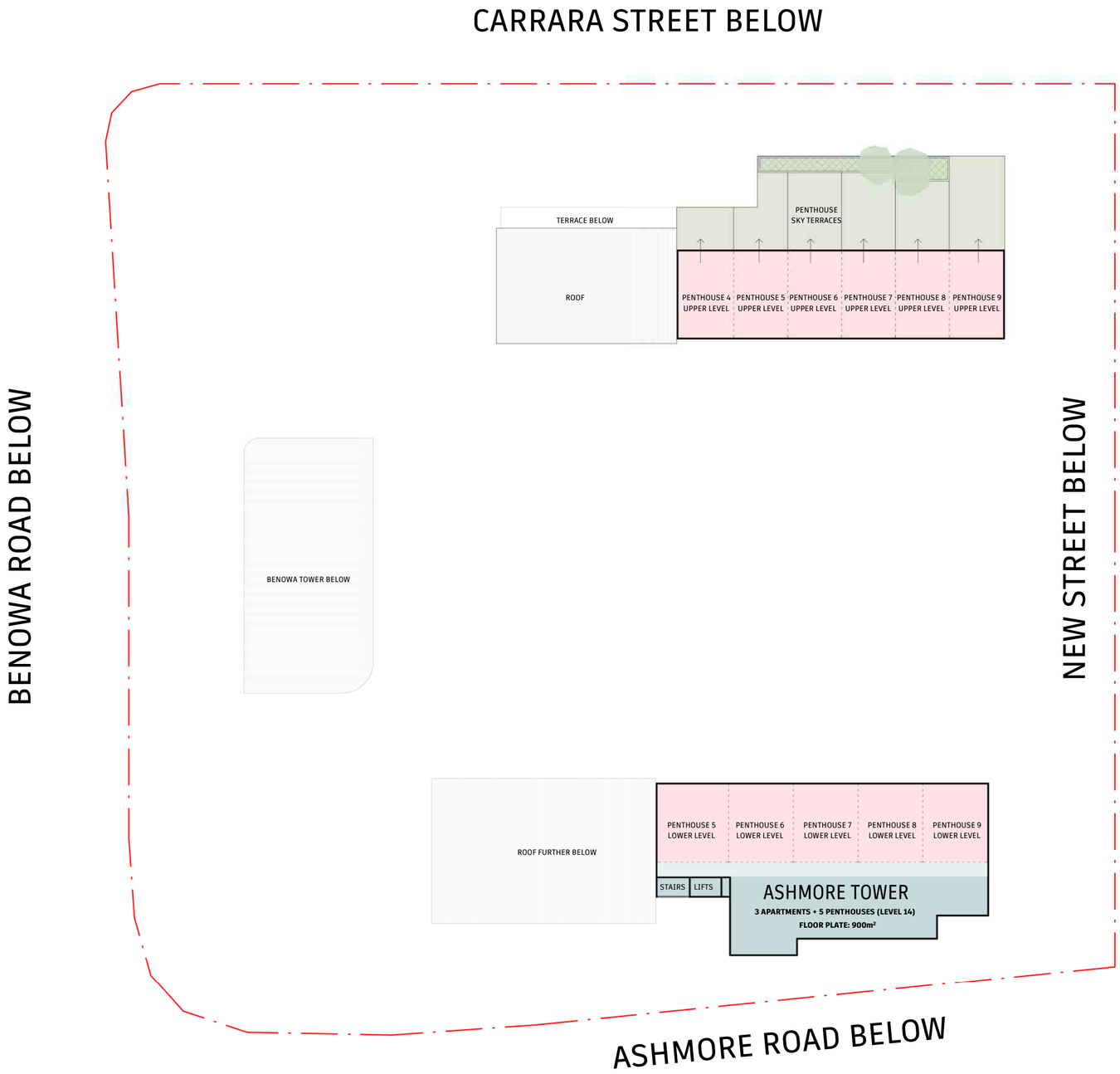
1 : 500

0 5 10 25 45m

FLOOR PLAN-LEVEL 14

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVEL 14 - RESIDENTIAL TOWERS

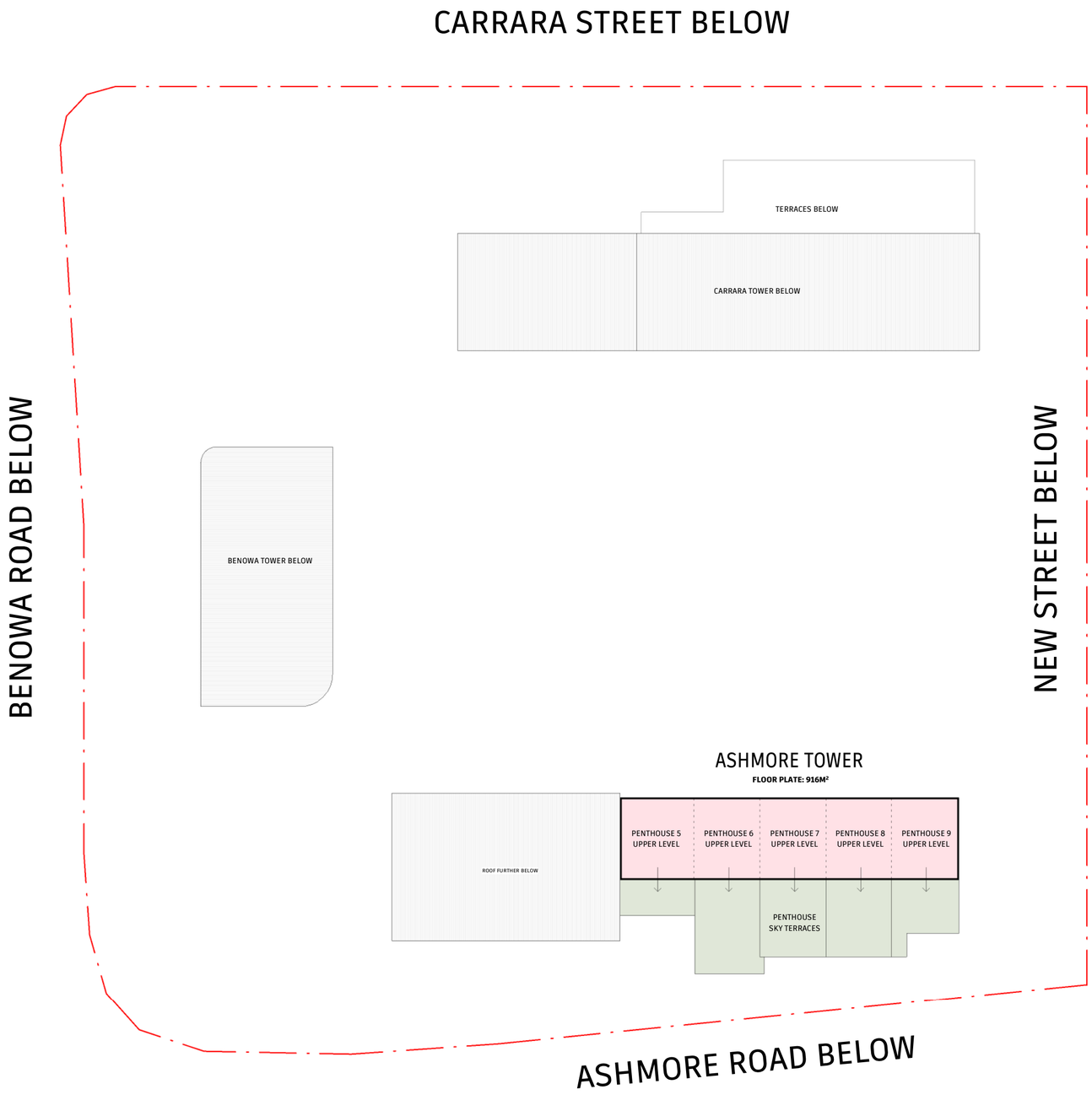
1 : 500

0 5 10 25 45m

FLOOR PLAN-LEVEL 15

LEGEND

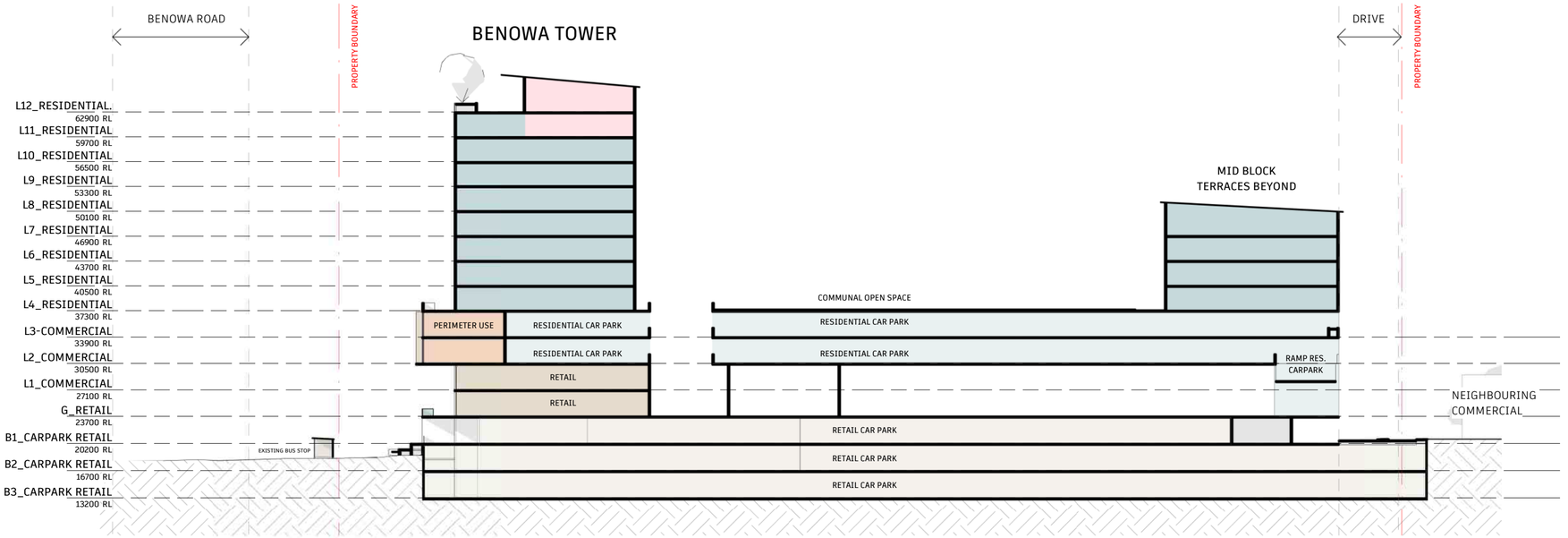
- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR



LEVEL 15 - RESIDENTIAL

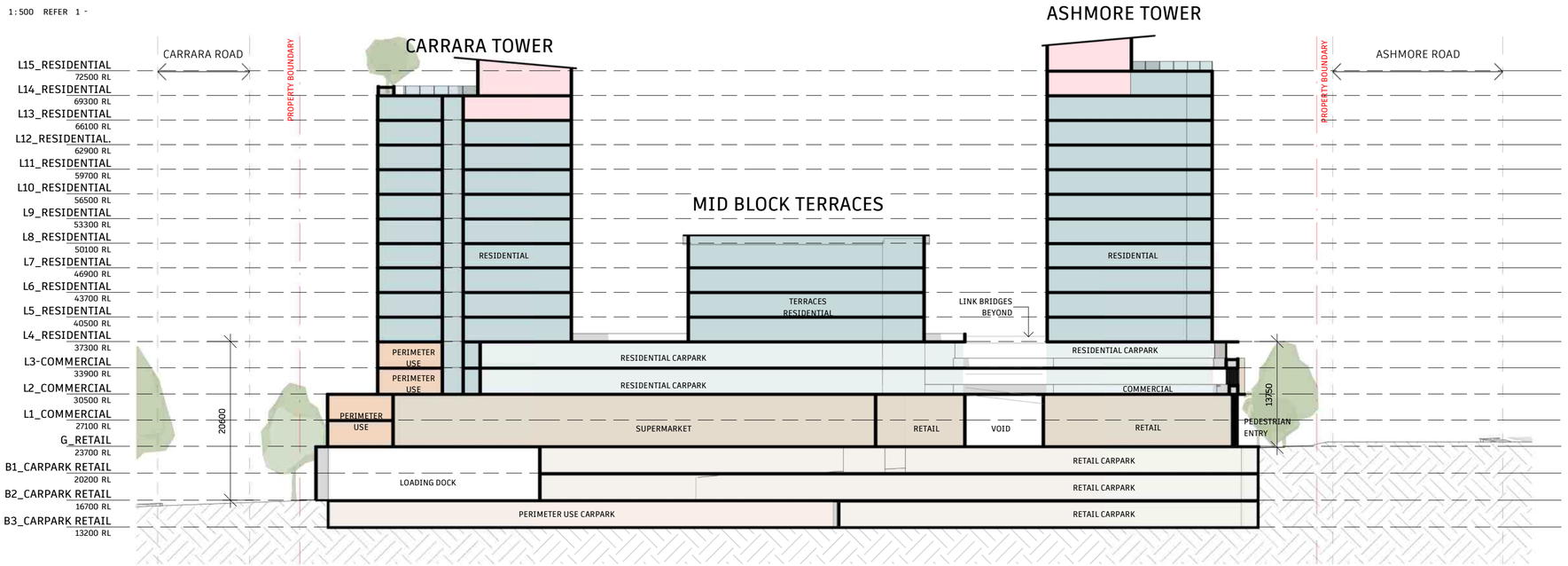
1 : 500

SECTION



EAST - WEST SECTION

1:500 REFER 1 -



NORTH - SOUTH SECTION

1:500 REFER 2 -

LEGEND

- RETAIL
- STAFF BICYCLE PARKING
- COMMERCIAL
- RESIDENTIAL
- VISITOR BICYCLE PARKING
- COMMUNITY OUTDOOR
- REFUSE
- PERIMETER USE
- PENTHOUSE
- PUBLIC LIFT / TRAVELATOR

CARPARKING

RETAIL / COMMERCIAL

BASEMENT 2	**270 CARS**
BASEMENT 1	**260 CARS**
TOTAL RETAIL CARPARKS	**530 CARS**

RESIDENTIAL (INCL. VISITOR)

BASEMENT 3	**60 CARS**
LEVEL 2	**230 CARS**
LEVEL 3	**280 CARS**
TOTAL RESIDENTIAL CARPARKS	**570 CARS**

PERIMETER USE

BASEMENT 3	**400 CARS**
TOTAL PERIMETER USE CARPARKS	**400 CARS**

TOTAL CARPARKS	1,500

BICYCLE PARKING

STAFF

BASEMENT 2	**100 SPACES**
TOTAL STAFF SPACES	**100 SPACES**

VISITOR

BASEMENT 2	**86 SPACES**
BASEMENT 1	**114 SPACES**
TOTAL STAFF SPACES	**200 SPACES**

TOTAL BICYCLE SPACES	300

AREA CALCULATIONS

RETAIL AREA

SUPERMARKET	**4,000m²**
SPECIALTY SHOPS:	**6,000m²**
RETAIL BASEMENT 2 LEVEL:	**500m²**
RETAIL BASEMENT 1 LEVEL:	**460 m²**
SHOPPING CENTRE LEVEL:	**5,040m²**
TOTAL RETAIL	**10,000m²**

COMMERCIAL AREA

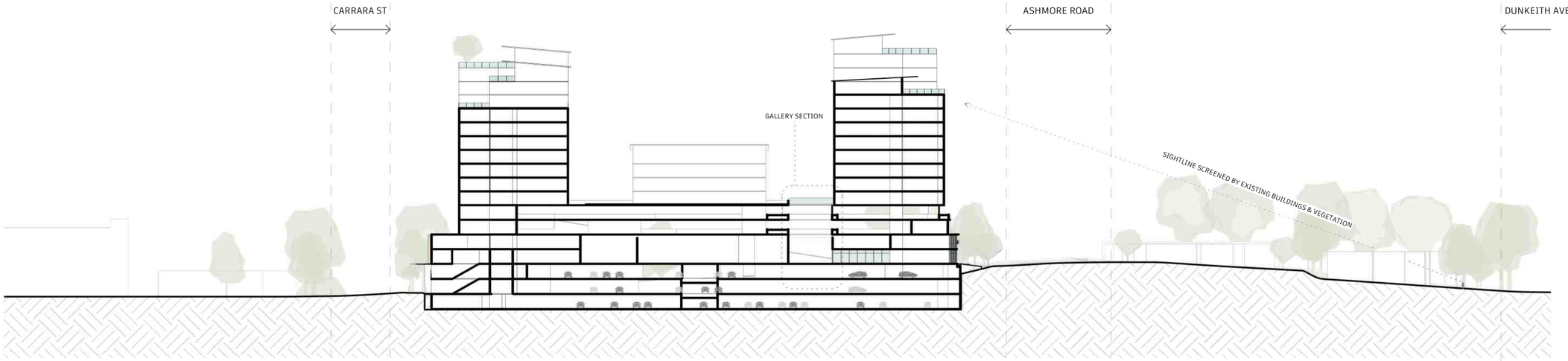
LEVEL 1:	**1,500m²**
LEVEL 2:	**1,050m²**
TOTAL COMMERCIAL	**2,550m²**

PERIMETER AREA (HEALTH)

BASEMENT 1:	**1,400m²**
GROUND (SHOPPING CENTRE):	**600m²**
CARRARA LEVEL 1:	**2,500m²**
CARRARA LEVEL 2:	**1,290m²**
CARRARA LEVEL 3:	**1,290m²**
TOTAL PERIMETER USE	**7,080m²**

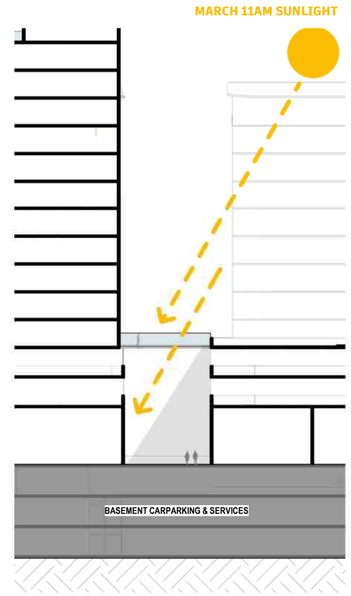
0 5 10 25 45m

URBAN SECTIONS



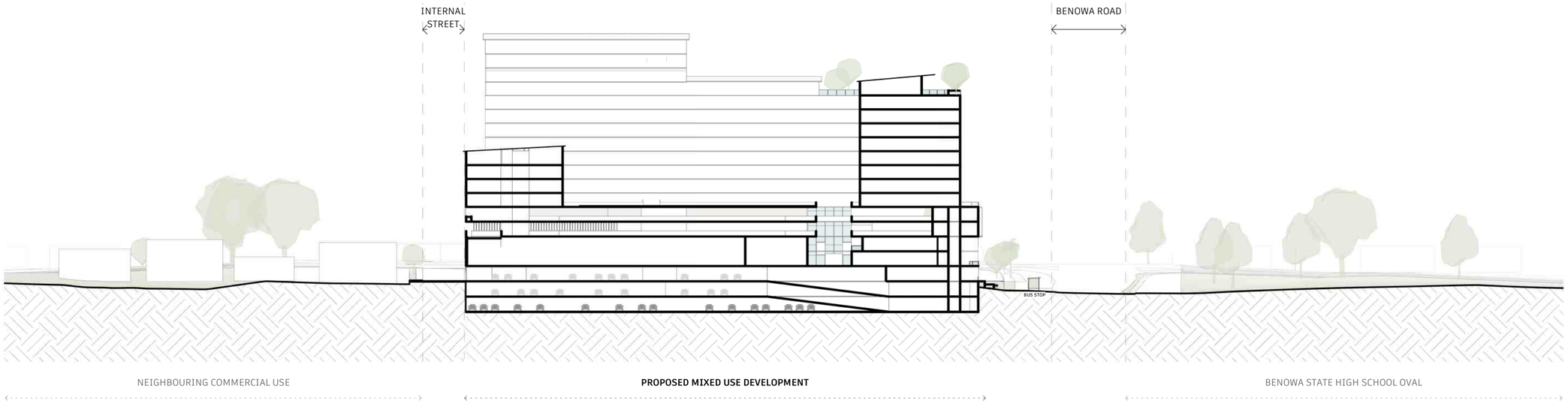
URBAN SECTION 01 - NORTH TO SOUTH

1 : 750



GALLERY SECTION - NORTH TO SOUTH

1 : 500



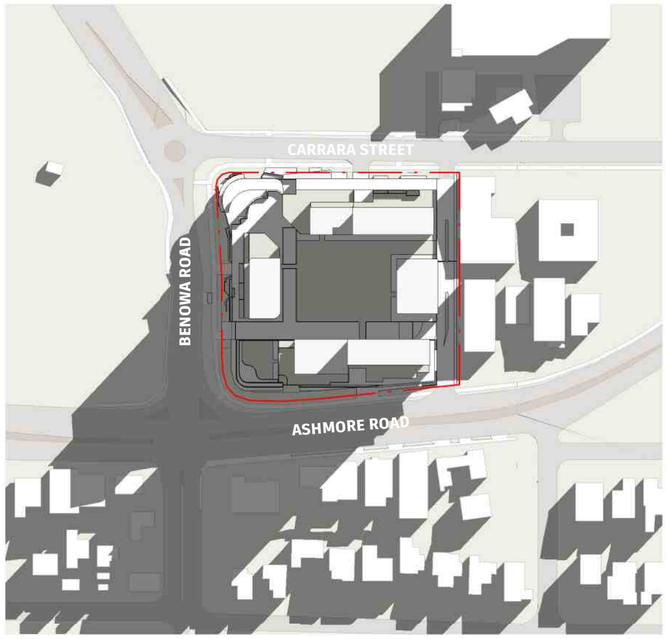
URBAN SECTION 02 - EAST TO WEST

1 : 750

0 5 10 25 45m

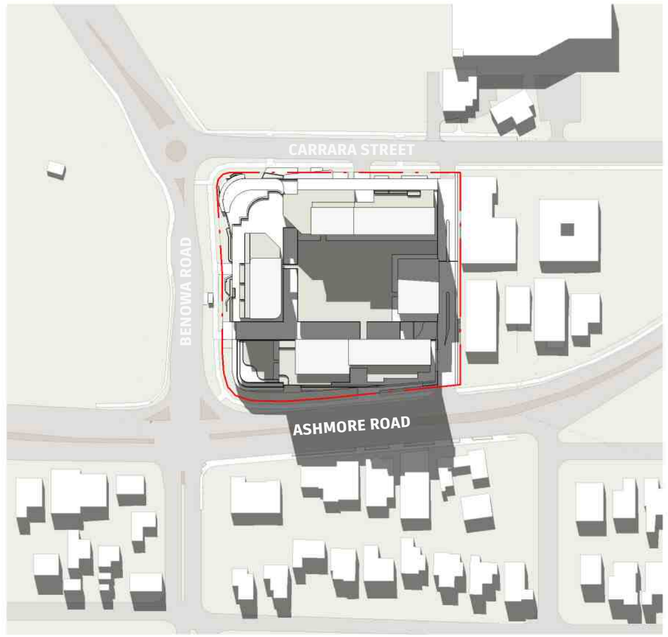
1:750

SOLAR STUDIES & SHADOWING



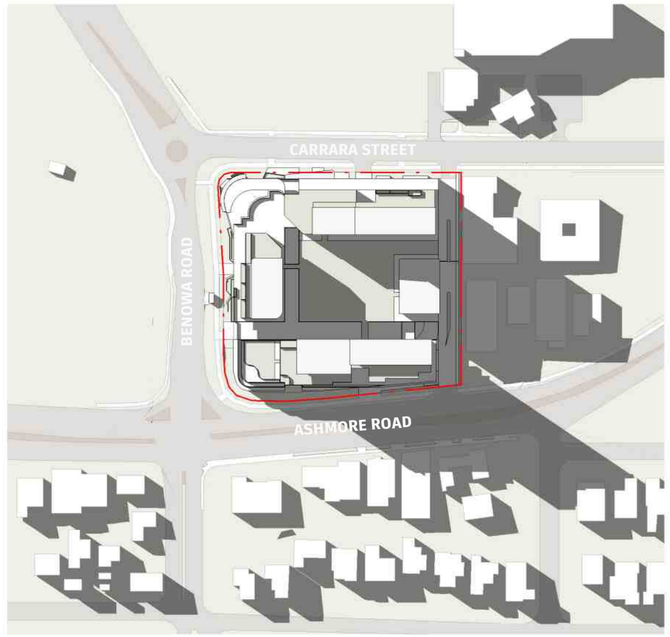
SOLAR STUDY_WINTER 8AM

1 : 2500



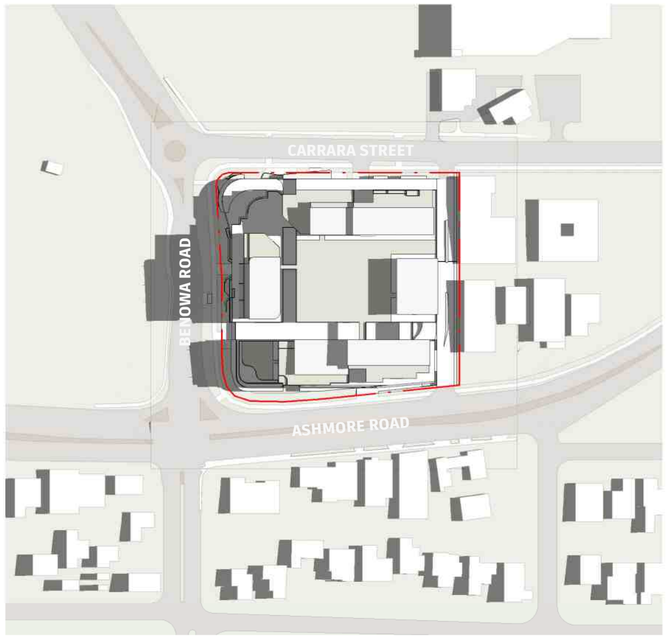
SOLAR STUDY_WINTER 12PM

1 : 2500



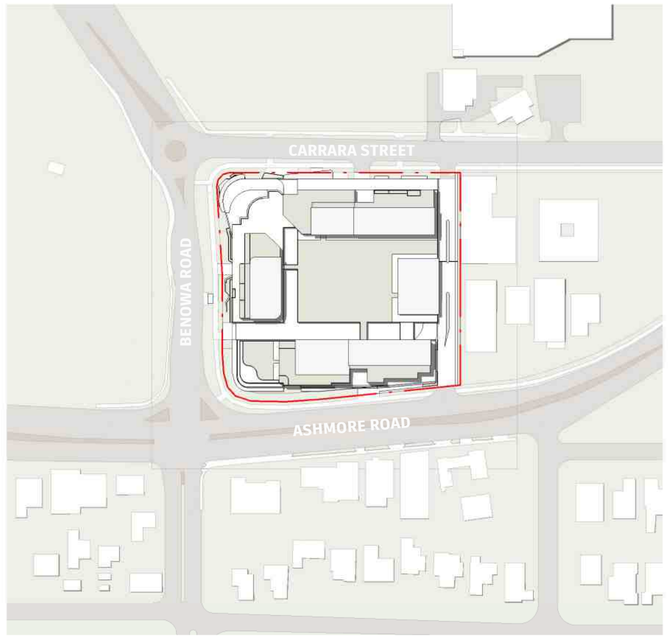
SOLAR STUDY_WINTER 3PM

1 : 2500



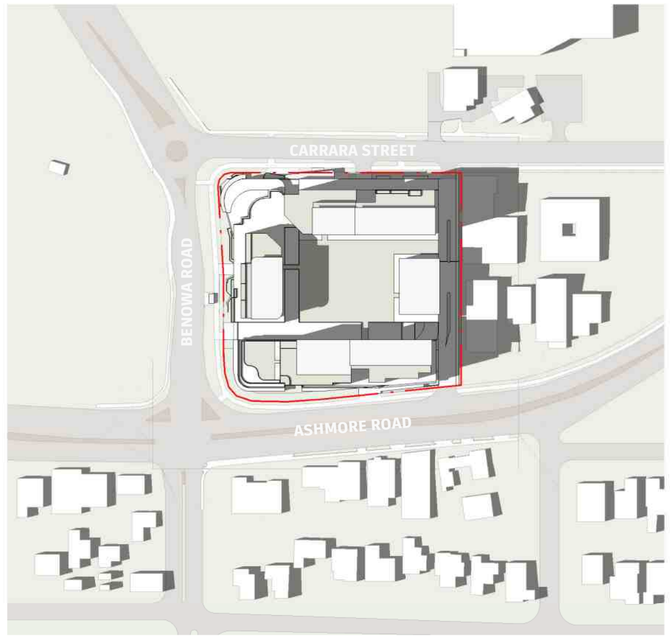
SOLAR STUDY_SUMMER 8AM

1 : 2500



SOLAR STUDY_SUMMER 12PM

1 : 2500



SOLAR STUDY_SUMMER 3PM

1 : 2500

BUILT FORM CHARACTER

INTERNAL STREET & CARPARK ENTRY RAMP

VIEW FROM ASHMORE ROAD

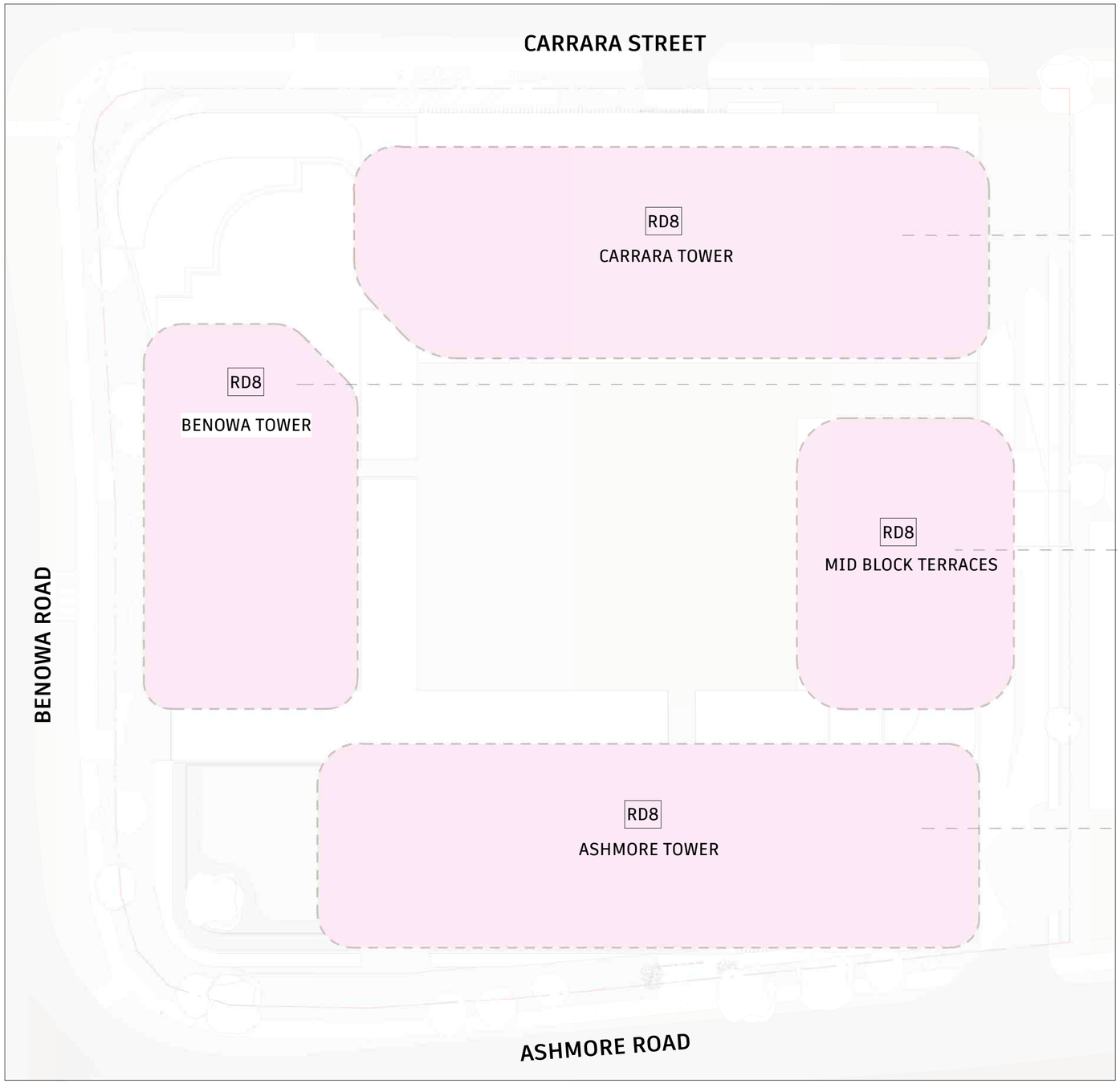
SHOPPING GALLERY

VIEW FROM EASTERN END

CORNER OF ASHMORE ROAD & BENOWA ROAD

VIEW FROM INTERSECTION

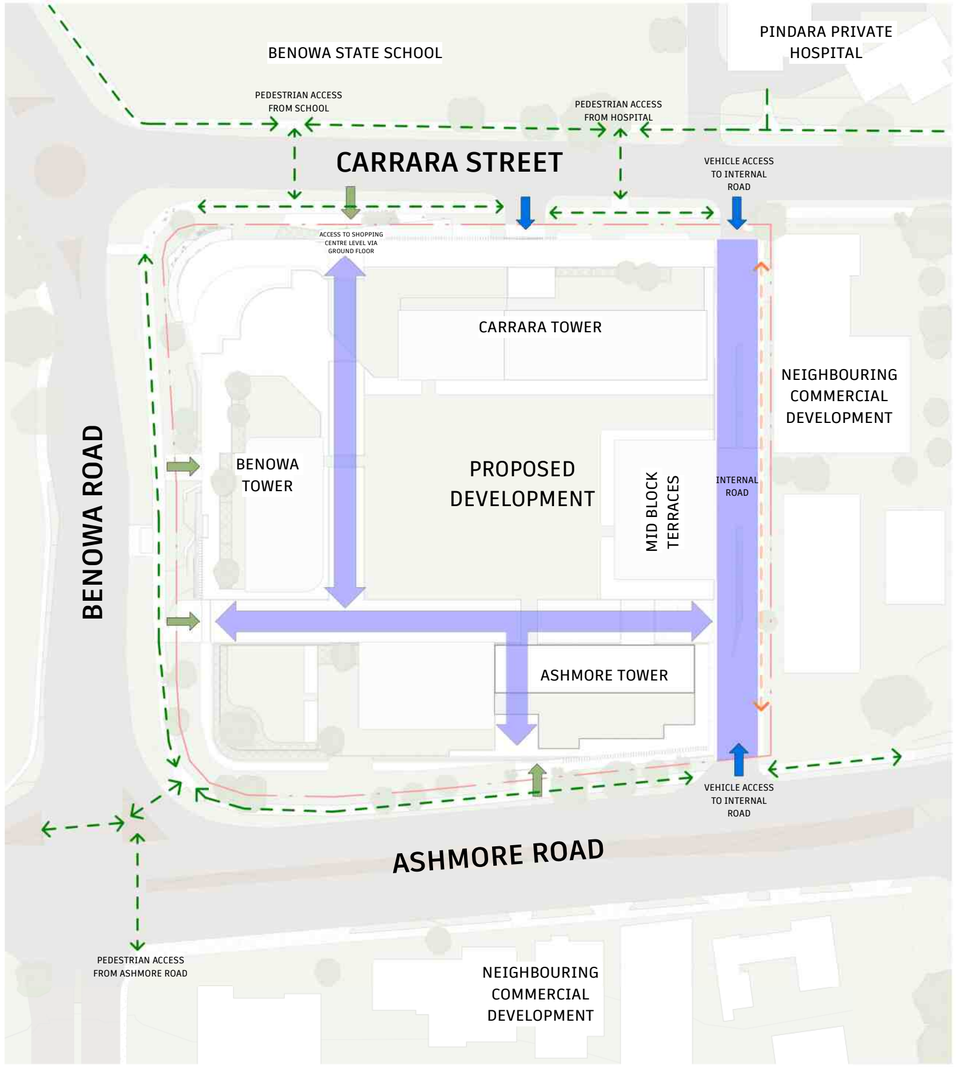
RESIDENTIAL DENSITY PLAN



RESIDENTIAL DENSITY PLAN

1 : 500

USER JOURNEY & ACCESS ROUTES

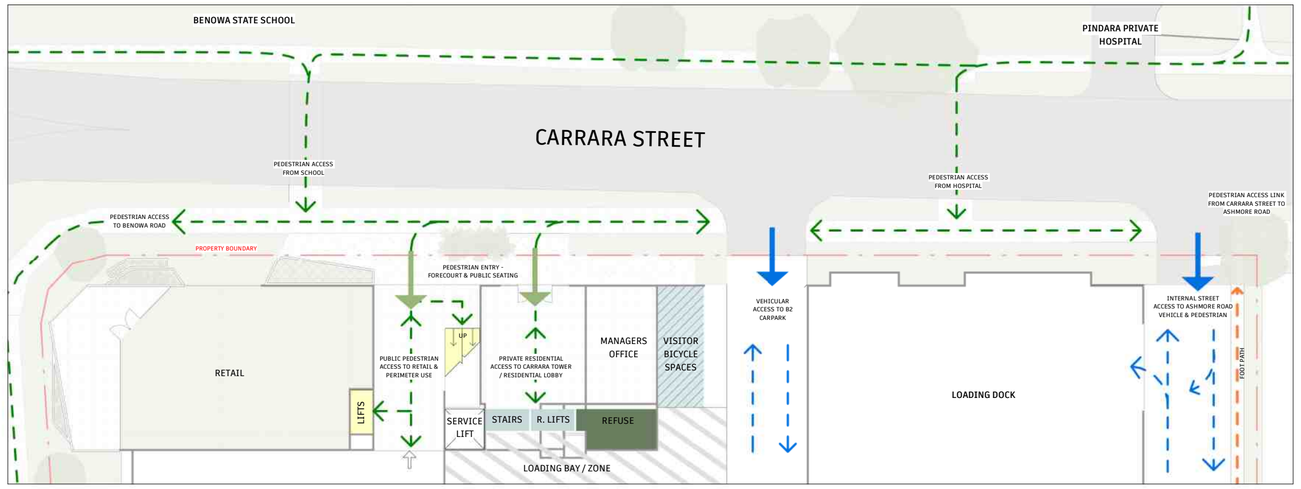


SITE PLAN - WIDER CONTEXT

1 : 1000

ACCESS ROUTES LEGEND

- CROSS BLOCK LINK
- INTERNAL ROAD
- PEDESTRIAN ENTRY POINTS
- VEHICULAR AND SERVICE ACCESS POINTS
- CROSS BLOCK LINK
- PEDESTRIAN ROUTES

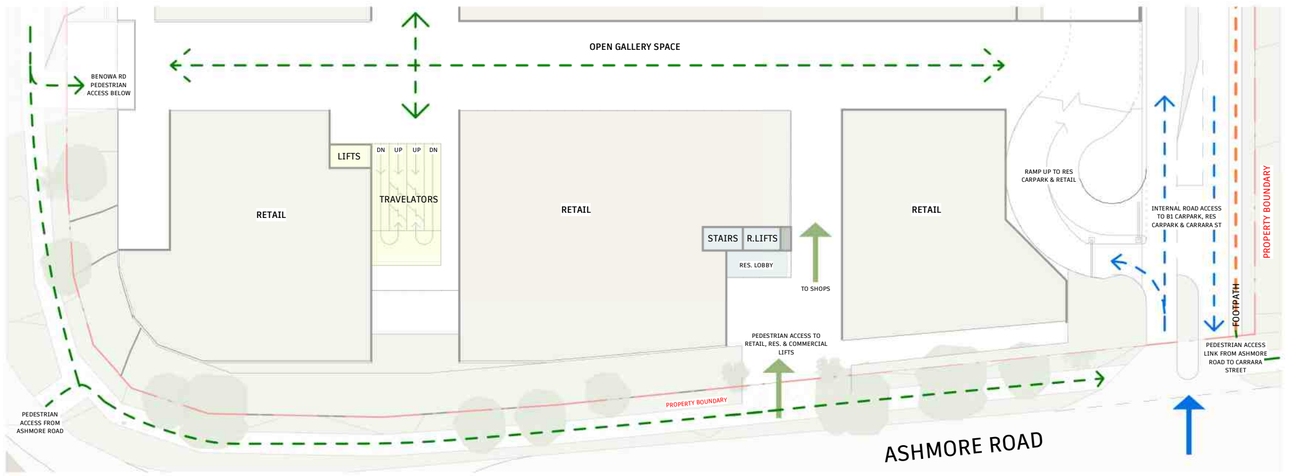


GF ACCESS - CARRARA STREET

1 : 500

GF ACCESS - BENOWA ROAD

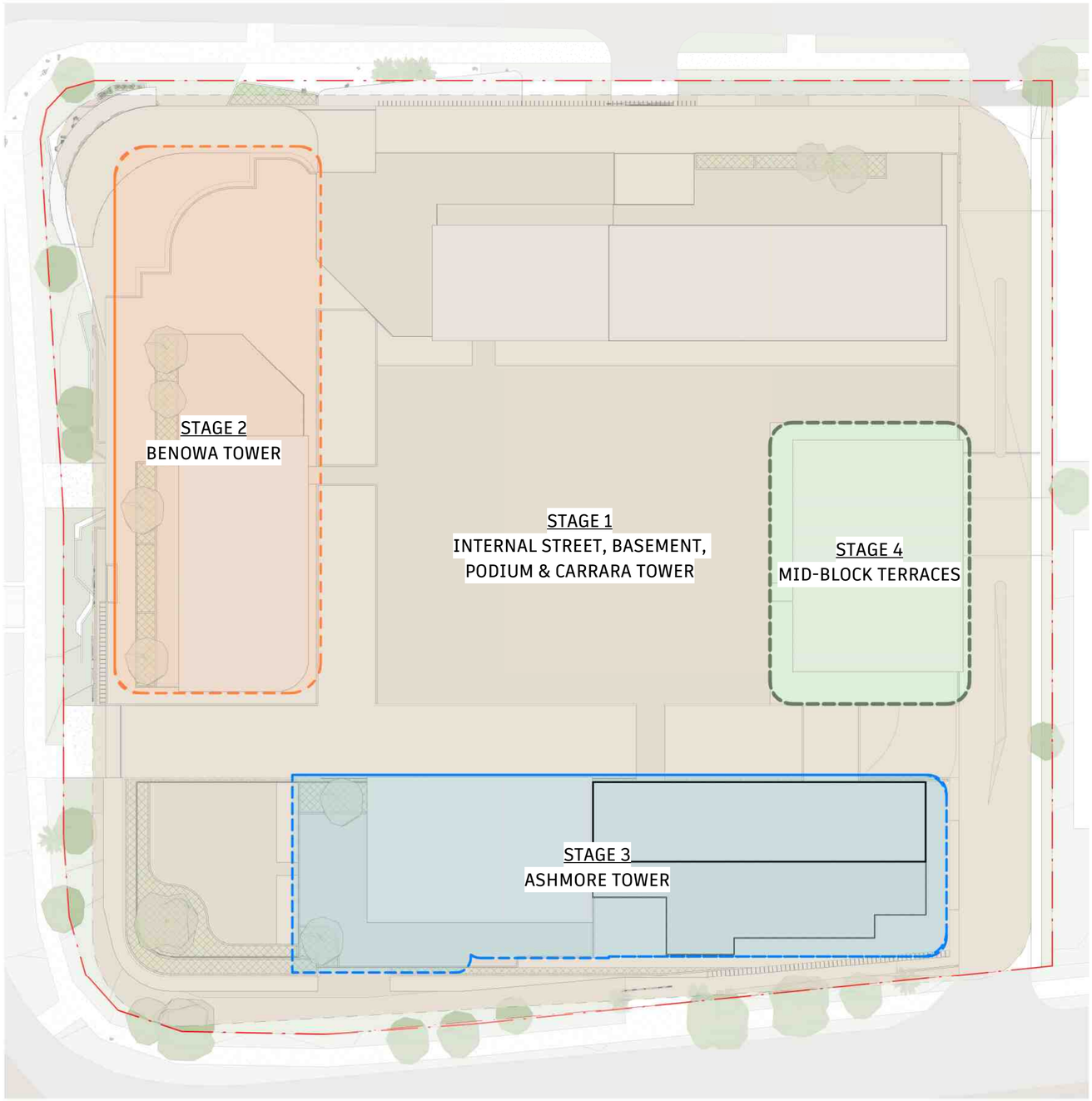
1 : 500



GF ACCESS - ASHMORE ROAD

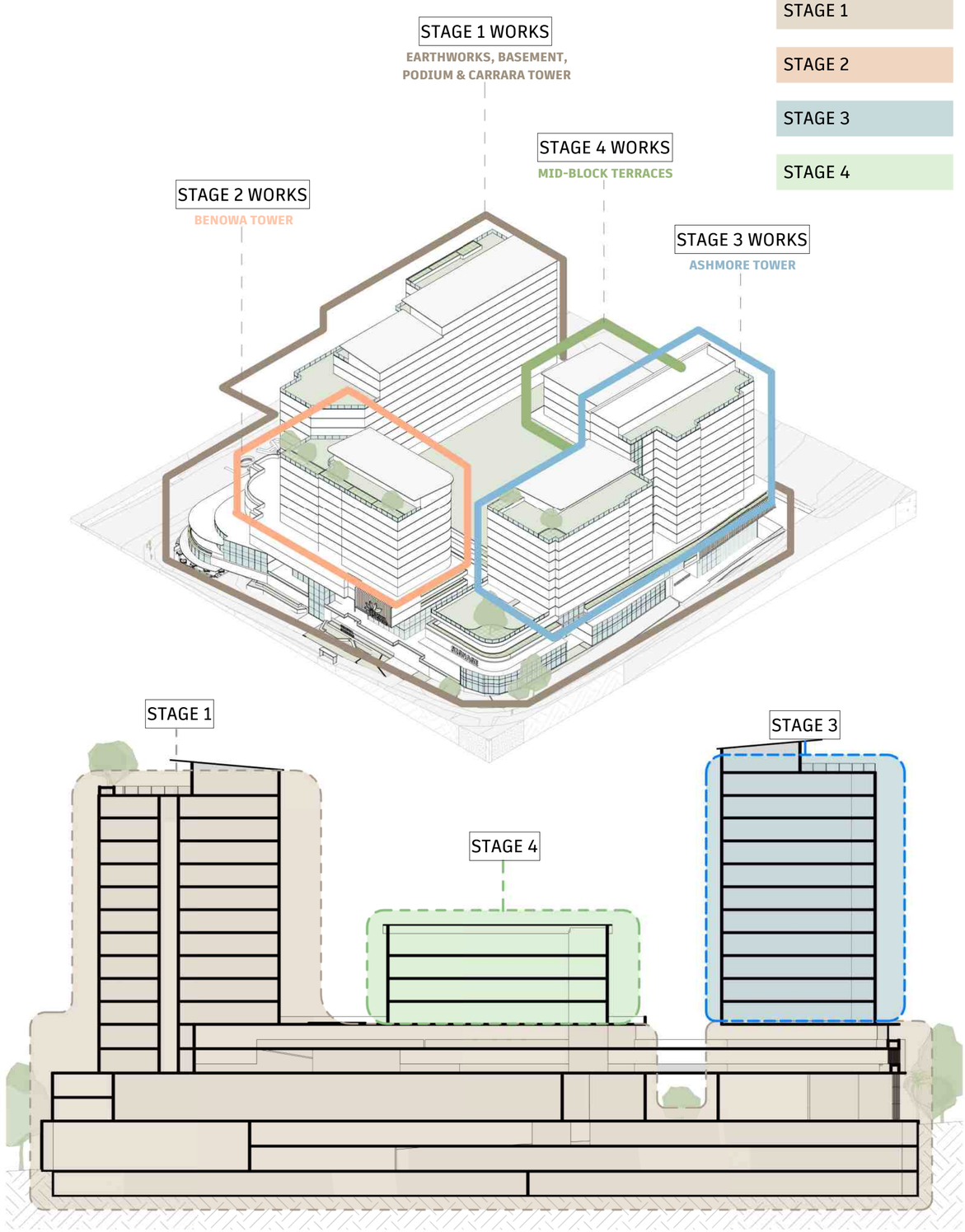
1 : 500

STAGING OF WORKS



STAGING PLAN

1 : 500

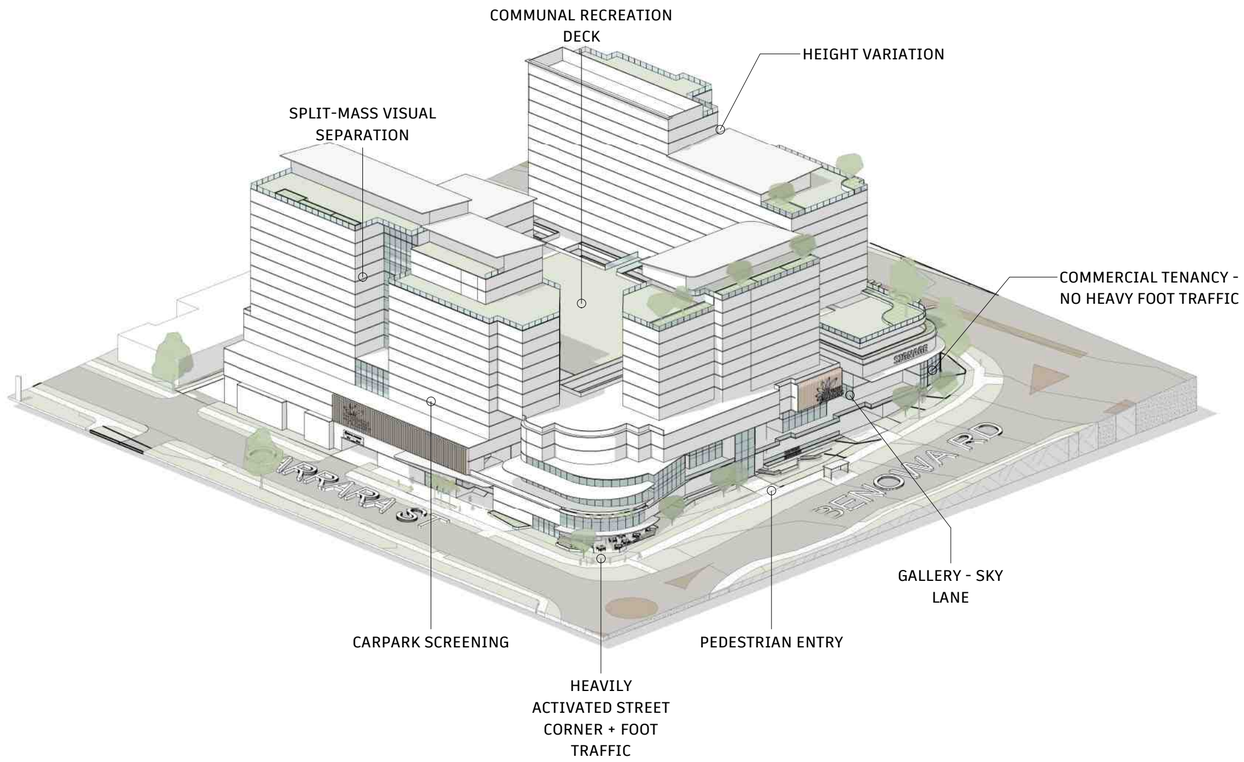


STAGING SECTION

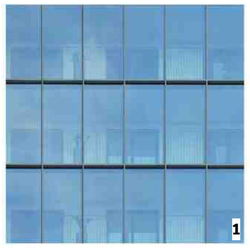
1 : 500

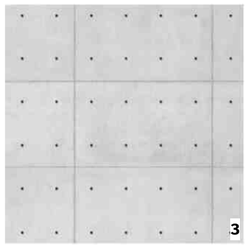
FACADE TREATMENT & ARCHITECTURAL INTENT

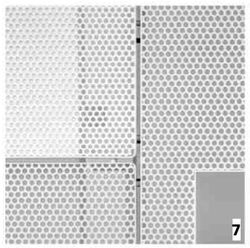
ILLUSTRATING THE ARCHITECTURAL INTENT & MATERIALITY OF KEY DESIGN PRINCIPLES



MATERIAL PALETTE

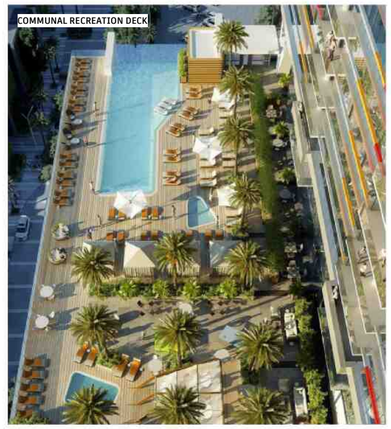






1. FACADE GLAZING
2. TIMBER-LOOK SCREENING
3. PRECAST CONCRETE
4. EXPOSED STRUCTURE
5. STONE FEATURE WALL
6. ALUMINIUM FINS
7. PERFORATED SHEET METAL
8. CONCRETE BALCONIES
9. FACADE PLANTING

DESIGN PRINCIPLES



Appendix B Colliers Swept Path Drawings

PRELIMINARY ADVICE ONLY
15 October 2025

NOTES:
1. MAPPING UNDERLAY PROVIDED BY NEARMAP. MAY BE SUBJECT TO DETAILED DESIGN & SITE SURVEY.
2. ALL UNITS SHOWN ARE IN METERS (m) UNLESS OTHERWISE NOTED

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
B	15-10-25	PRELIMINARY INTERSECTION CONCEPT - UPDATE	MGr	MGr	
A	05-02-25	PRELIMINARY INTERSECTION CONCEPT	MGr	MGr	

SCALE: SCALE 1:800 @ A3

NORTH

CLIENT: NEYLAN ARCHITECTURE

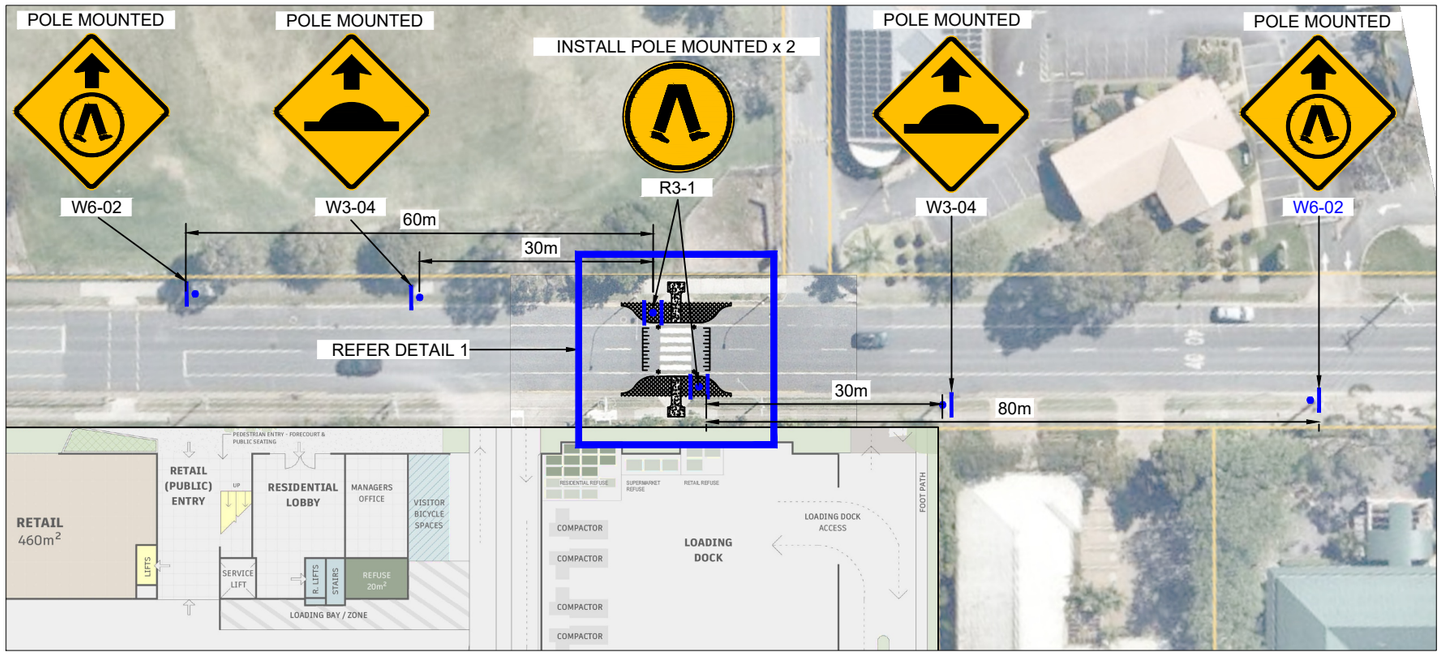
Colliers International Engineering & Design
ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE QLD 4000
P.O. BOX 12015, BRISBANE QLD 4003
T: (07) 3327 9500 F: (07) 3327 9501
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT: **BENOWA GARDENS - PRELIMINARY APPROVAL**

DRAWING TITLE: **ASHMORE ROAD / BENOWA ROAD INTERSECTION**
HIGH LEVEL INTERSECTION CONCEPT SKETCH

PROJECT NUMBER	ORIGINAL SIZE
24BRT0224	A3
DRAWING NUMBER	REVISION
24BRT0224-01	B
DATE	SHEET
15 Oct 2025	1 OF 1

INSTALL ON EXISTING SIGN

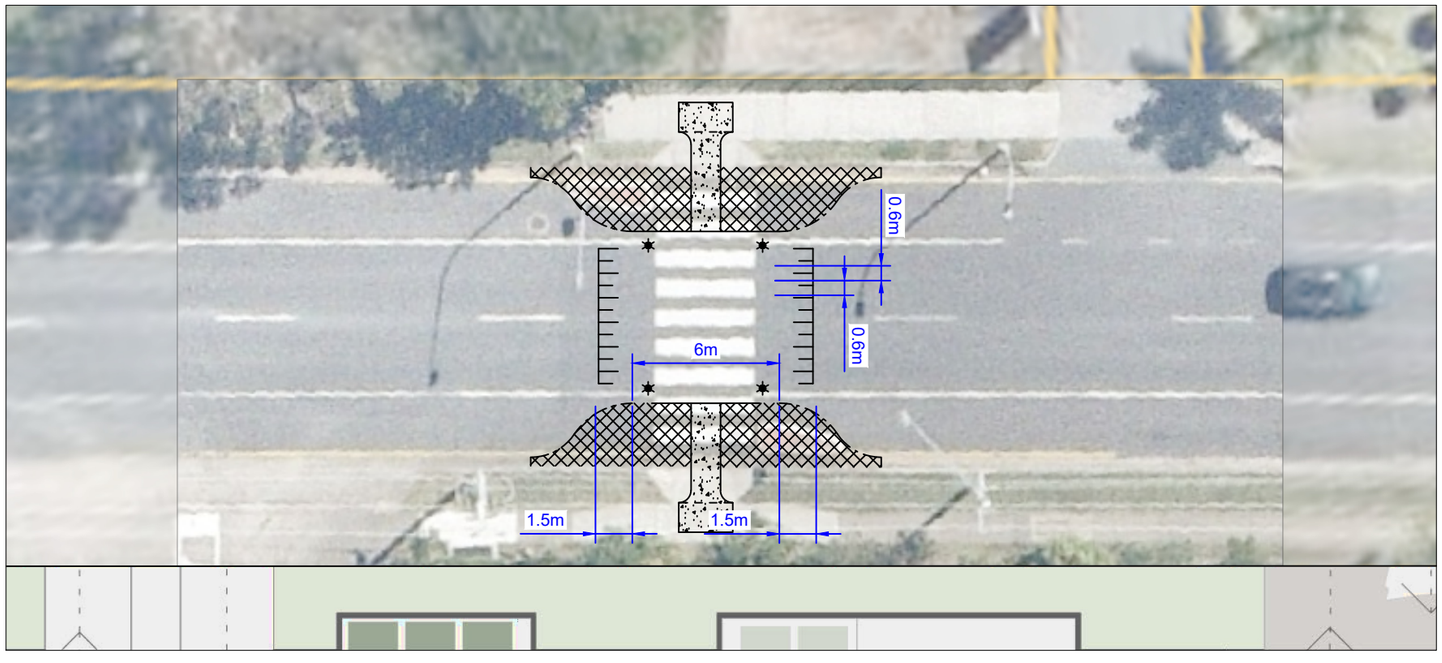


0 8 16 24 32 40m

SCALE 1:800 AT ORIGINAL SIZE

PROPOSED LAYOUT

SCALE 1:800



0 2.5 5 7.5 10 12.5m

SCALE 1:250 AT ORIGINAL SIZE

DETAIL 1

SCALE 1:250

NOTES:

1. SITE FRONTAGE BASED OFF NEARMAP IMAGERY
2. SUBJECT TO DETAILED DESIGN , SITE SURVEY AND CIVIL ENGINEERING DESIGN INPUTS
3. ALL UNITS SHOWN ARE IN METERS (M) UNLESS OTHERWISE NOTED
4. INSTALLATION OF PROPOSED TREATMENTS SUBJECT TO FURTHER ASSESSMENT OF CURRENT EXISTING CONDITIONS
5. FOR SIGN PLACEMENT REFER AS 1742.10-2024, SECTION 5: PEDESTRIAN CROSSING (ZEBRA).
6. FOR CROSSING DETAILS REFER THE FOLLOWING REFERENCES:
   - 6.1. PEDESTRIAN CROSSING
     - 6.1.1. MUTCD PART 10 FIGURE 2 - MARKINGS ON A RAISED PEDESTRIAN CROSSING (ZEBRA)

NOT FOR CONSTRUCTION
15 October 2025

PRELIMINARY ADVICE ONLY
15 October 2025

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	15.10.2025	ORIGINAL ISSUE	JH	MGr	MGr

SCALE 0 2.5 5 7.5 10 12.5m

SCALE 1:250 AT ORIGINAL SIZE

NORTH

CLIENT: NEYLAN ARCHITECTURE

Colliers International Engineering & Design

ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE QLD 4000
P.O. BOX 12015, BRISBANE QLD 4003

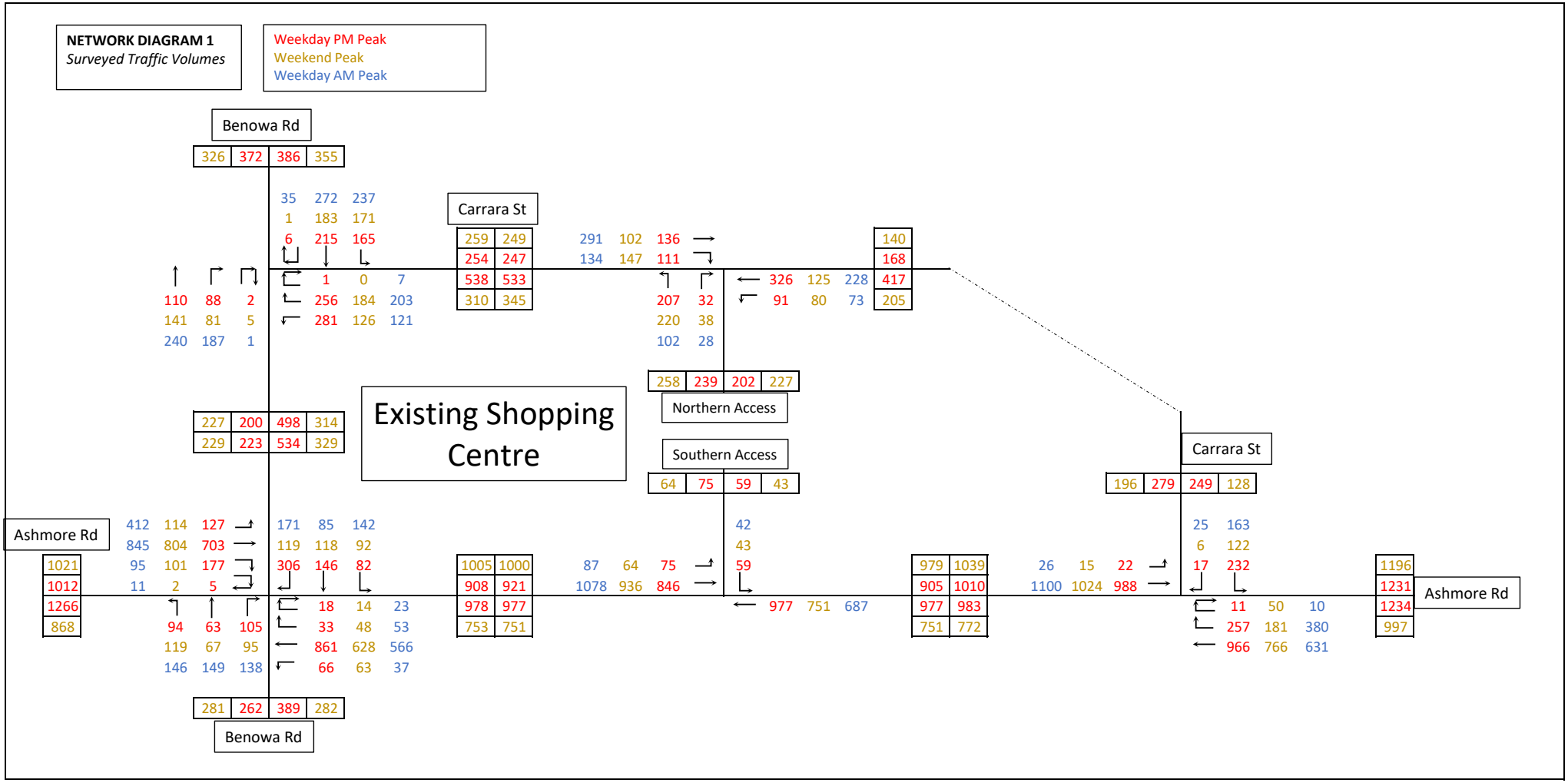
T: (07) 3327 9500 F: (07) 3327 9501
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

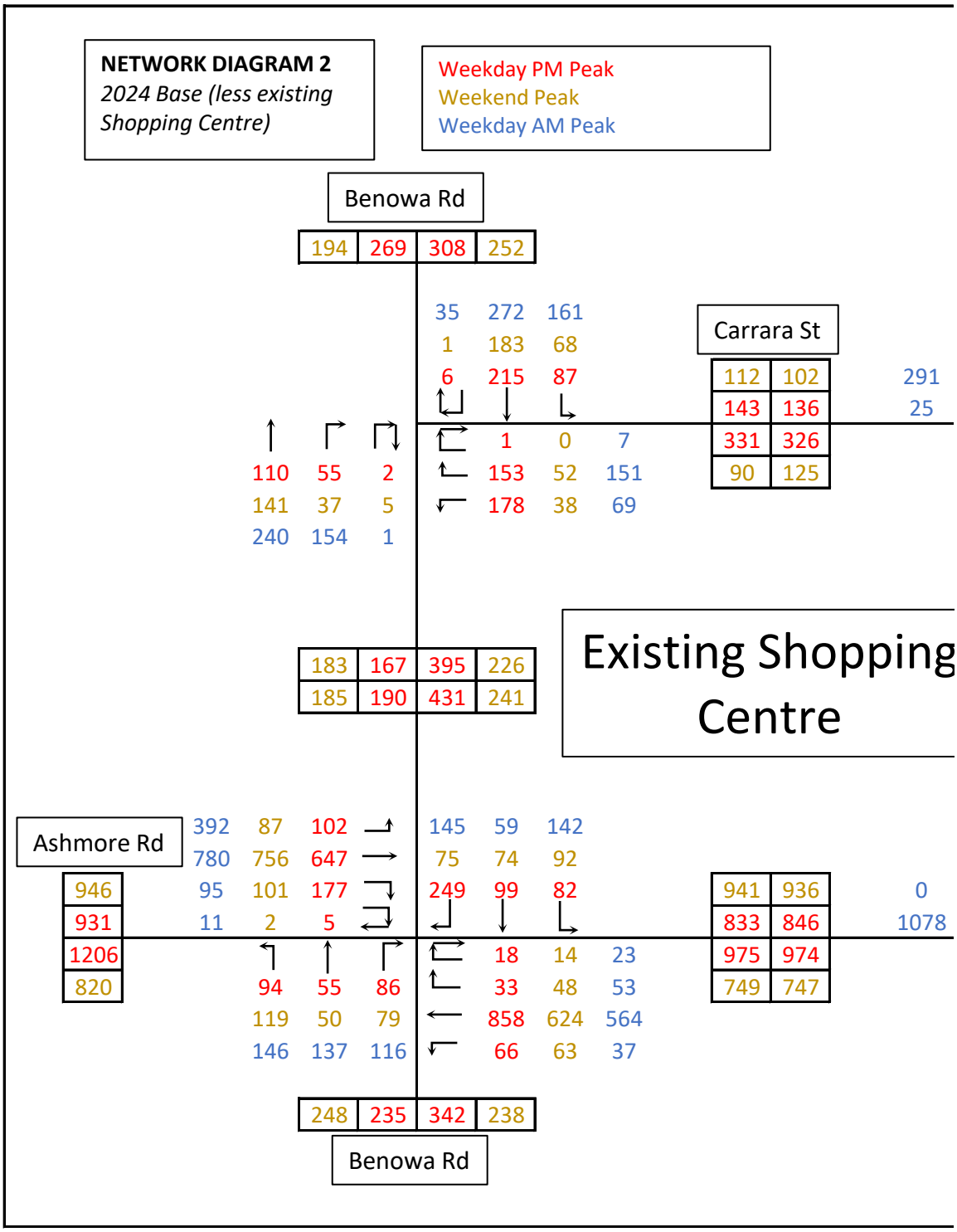
PROJECT: **BENOWA GARDENS - PRELIMINARY APPROVAL**

DRAWING TITLE: **PEDESTRIAN CROSSING TREATMENT - CARRARA STREET**
PROPOSED LAYOUT

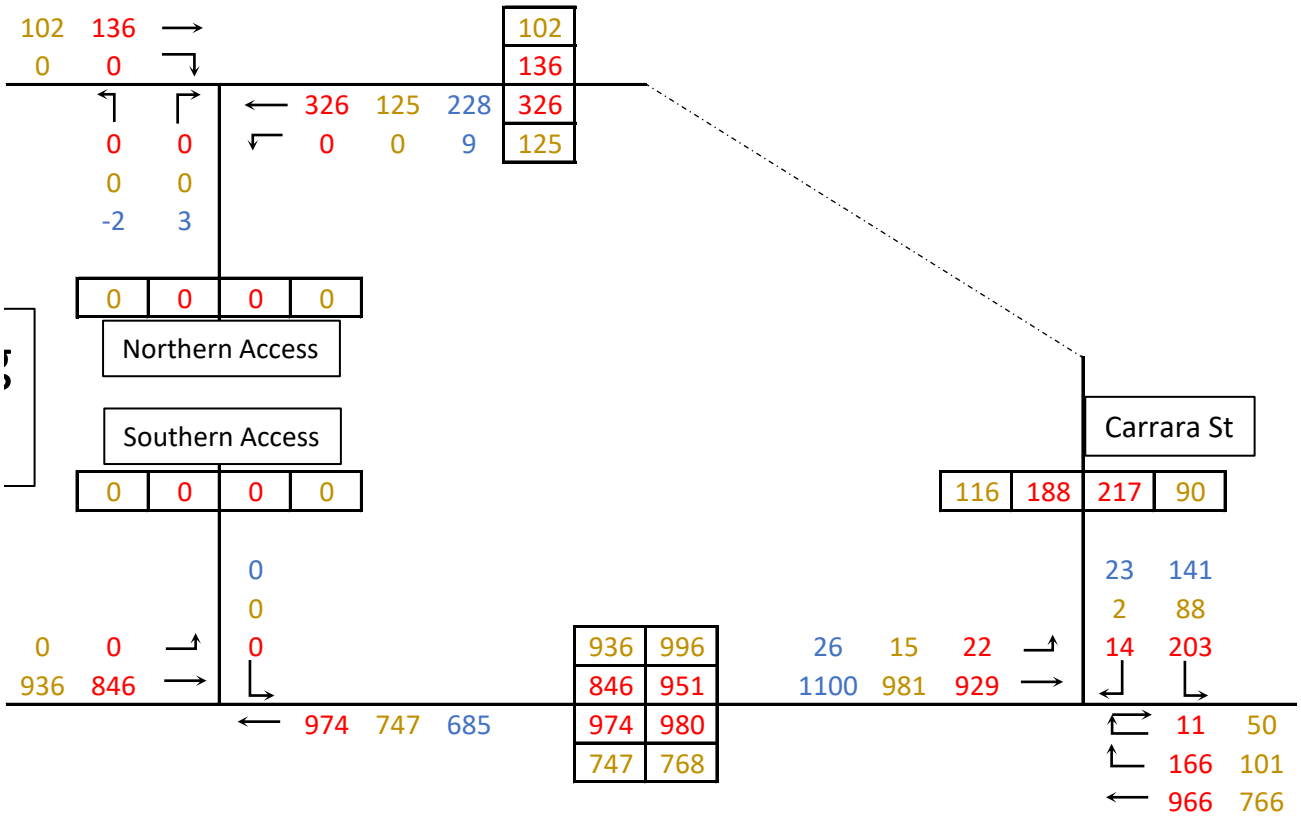
PROJECT NUMBER	ORIGINAL SIZE
24BRT0224	A3
DRAWING NUMBER	REVISION
24BRT0224-05	A
DATE	SHEET
15 Oct 2025	1 OF 1

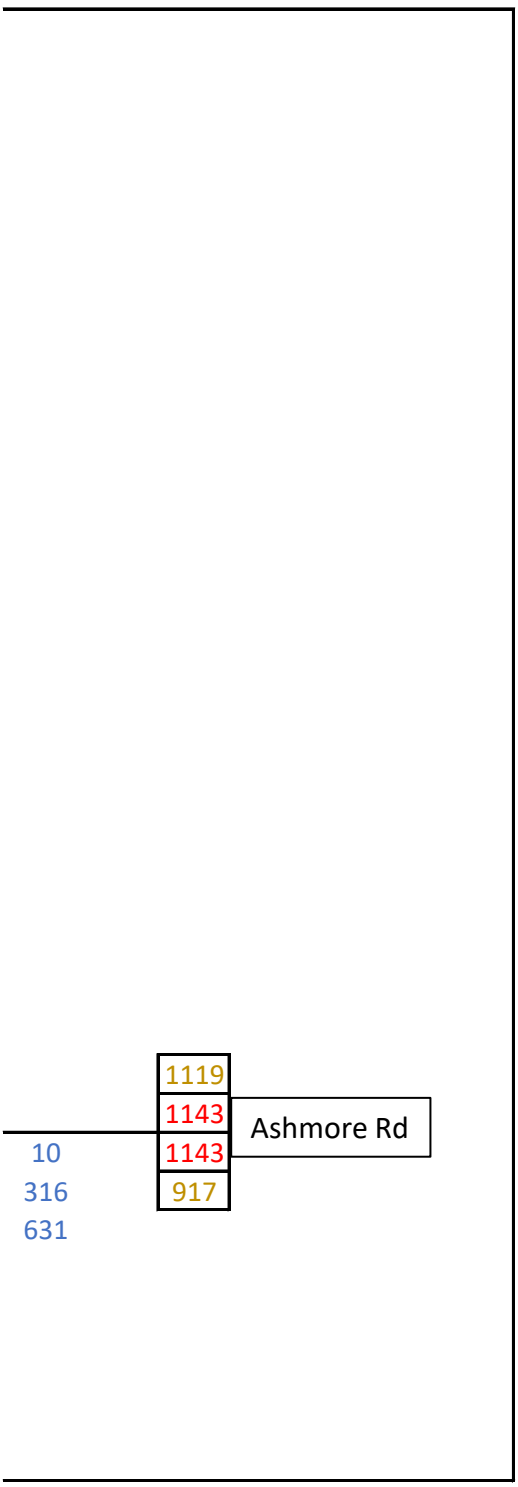
Appendix C Traffic Network Diagrams

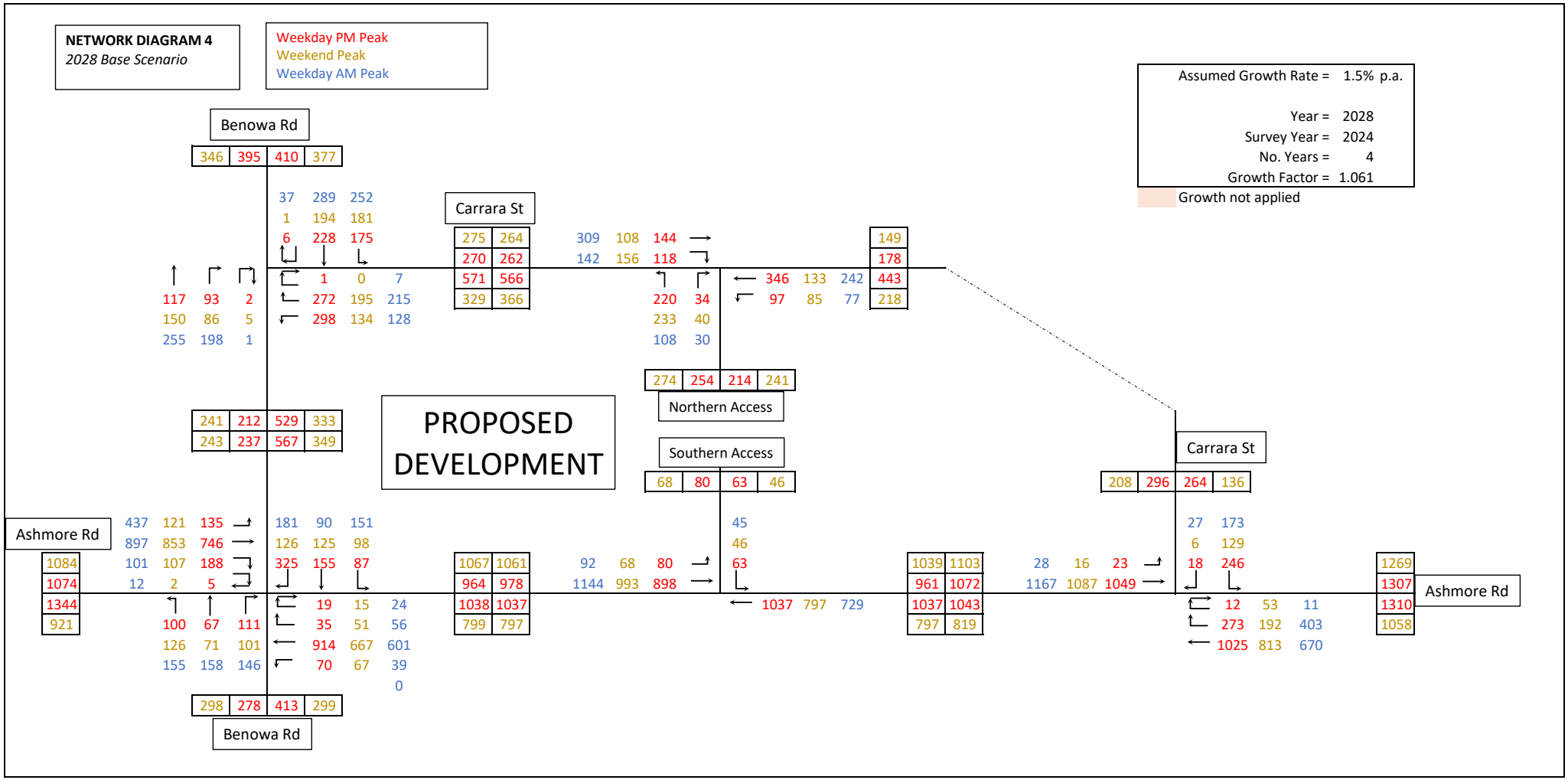

NETWORK DIAGRAM 1
Surveyed Traffic Volumes
Weekday PM Peak
Weekend Peak
Weekday AM Peak
Benowa Rd
326 372 386 355
35 272 237
1 183 171
6 215 165
110 88 2
141 81 5
240 187 1
1 0 7
256 184 203
281 126 121
Carrara St
259 249
254 247
538 533
310 345
291 102 136
134 147 111
207 32
220 38
102 28
140
168
326 125 228 417
91 80 73 205
258 239 202 227
Northern Access
Existing Shopping Centre
227 200 498 314
229 223 534 329
Southern Access
64 75 59 43
Carrara St
196 279 249 128
Ashmore Rd
412 114 127
845 804 703
95 101 177
11 2 5
171 85 142
119 118 92
306 146 82
18 14 23
33 48 53
861 628 566
66 63 37
1021
1012
1266
868
94 63 105
119 67 95
146 149 138
1005 1000
908 921
978 977
753 751
87 64 75
1078 936 846
42
43
59
977 751 687
979 1039
905 1010
977 983
751 772
26 15 22
1100 1024 988
25 163
6 122
17 232
11 50 10
257 181 380
966 766 631
1196
1231
1234
997
Ashmore Rd
281 262 389 282
Benowa Rd

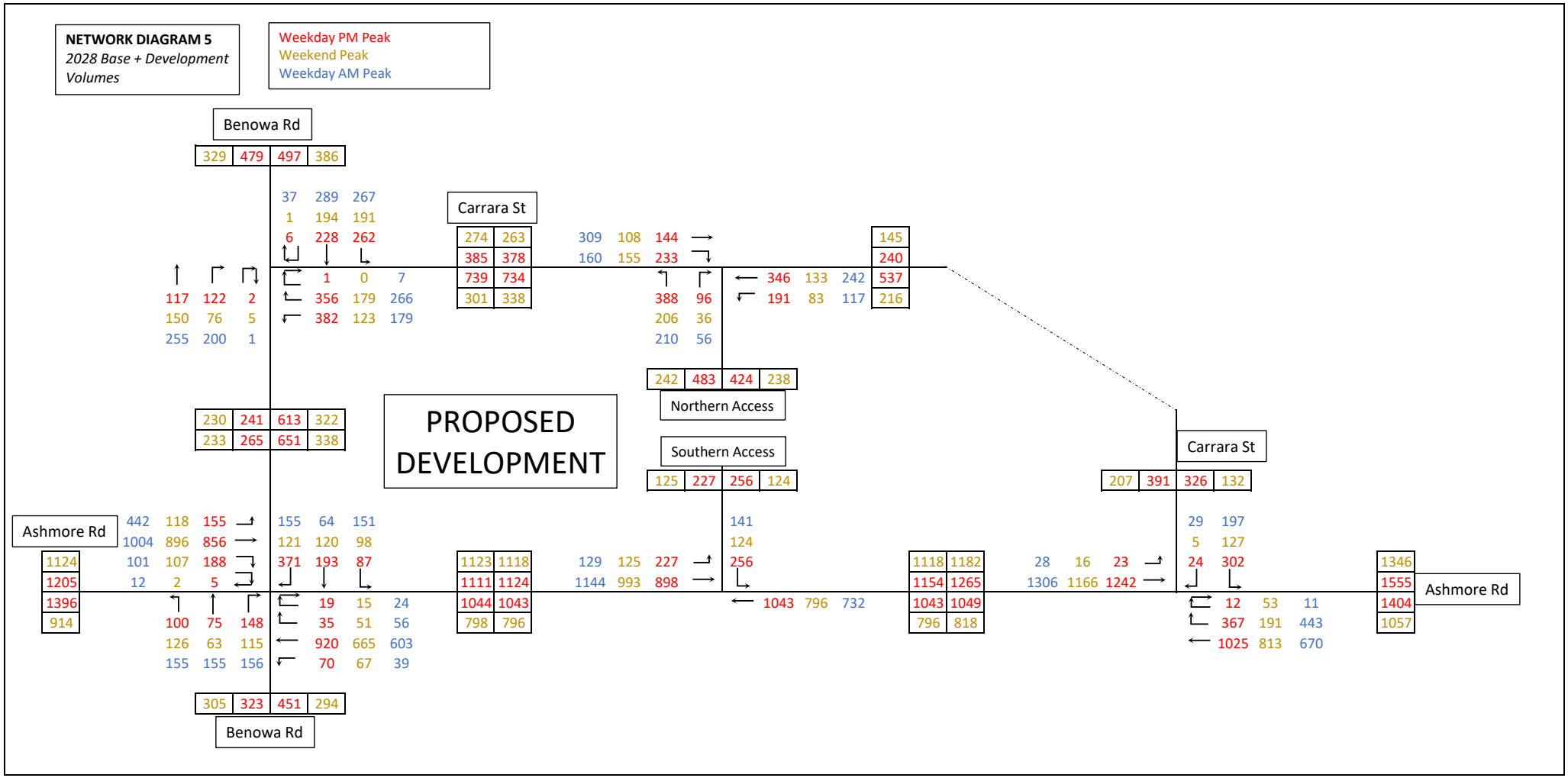

NETWORK DIAGRAM 2
2024 Base (less existing Shopping Centre)
Weekday PM Peak
Weekend Peak
Weekday AM Peak
Benowa Rd
194 269 308 252
35 272 161
1 183 68
6 215 87
Carrara St
112 102
143 136
331 326
90 125
291
25
1 0 7
110 55 2
153 52 151
141 37 5
178 38 69
240 154 1
183 167 395 226
185 190 431 241
Existing Shopping Centre
Ashmore Rd
392 87 102
145 59 142
780 756 647
75 74 92
946
931
1206
820
95 101 177
249 99 82
11 2 5
941 936
833 846
975 974
749 747
0
1078
18 14 23
94 55 86
33 48 53
119 50 79
858 624 564
146 137 116
66 63 37
248 235 342 238
Benowa Rd

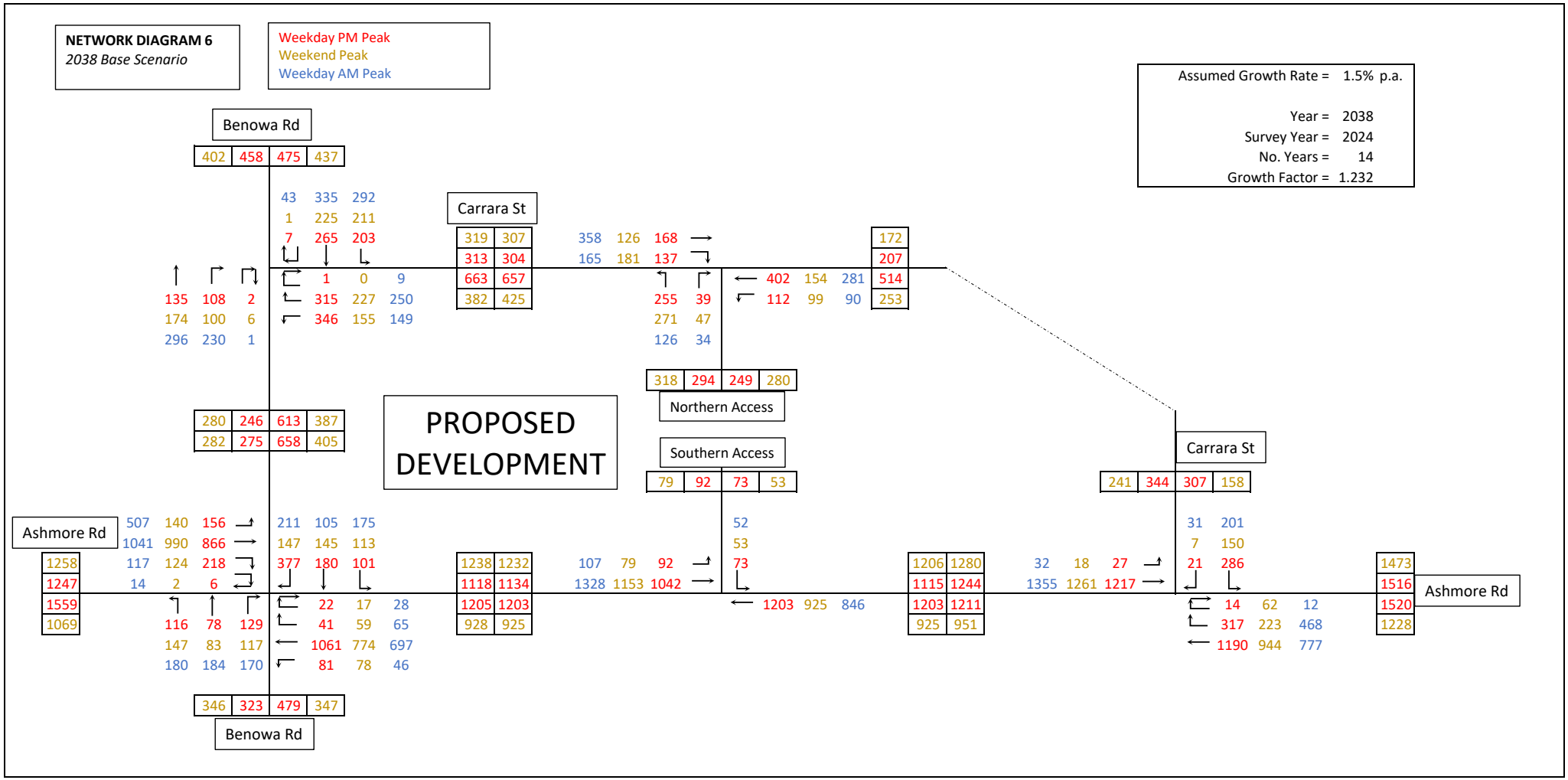
↰ ↑

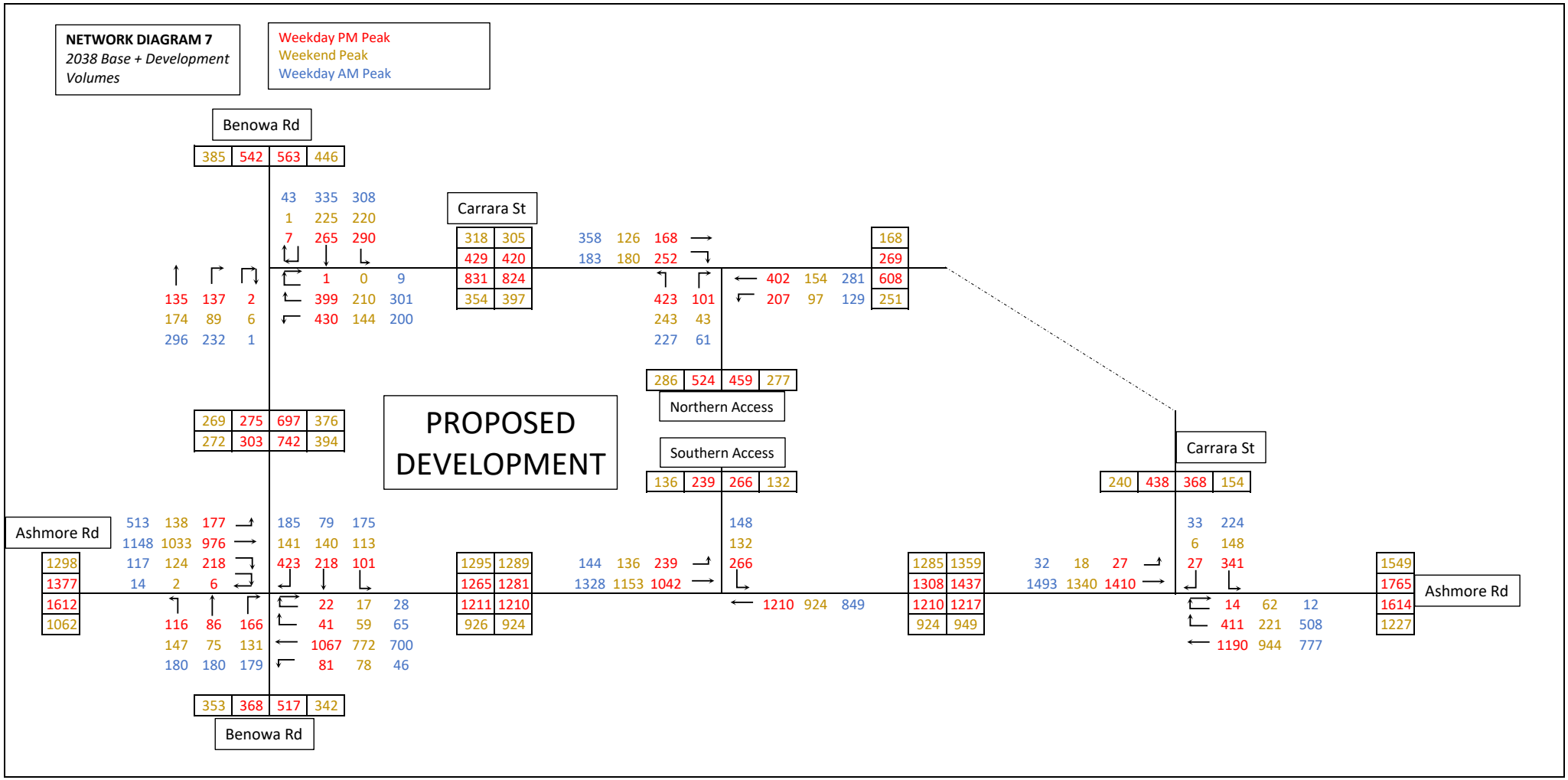

102 136
0 0
102
136
326 125 228
326
0 0
0 0 9
125
0 0
0 0
-2 3
0 0 0 0
Northern Access
Southern Access
0 0 0 0
Carrara St
116 188 217 90
0
0
23 141
2 88
0 0
0
936 996
26 15 22
14 203
936 846
846 951
1100 981 929
974 747 685
974 980
11 50
747 768
166 101
966 766


1119
1143
Ashmore Rd
10
1143
316
917
631


NETWORK DIAGRAM 4
2028 Base Scenario
Weekday PM Peak
Weekend Peak
Weekday AM Peak
Assumed Growth Rate = 1.5% p.a.
Year = 2028
Survey Year = 2024
No. Years = 4
Growth Factor = 1.061
Growth not applied
Benowa Rd
Carrara St
Northern Access
Southern Access
Carrara St
Ashmore Rd
Ashmore Rd
Benowa Rd
PROPOSED DEVELOPMENT


NETWORK DIAGRAM 5
2028 Base + Development Volumes
Weekday PM Peak
Weekend Peak
Weekday AM Peak
Benowa Rd
329 479 497 386
37 289 267
1 194 191
6 228 262
Carrara St
274 263
385 378
739 734
301 338
309 108 144
160 155 233
145
240
537
216
346 133 242
191 83 117
1 0 7
117 122 2
356 179 266
150 76 5
382 123 179
255 200 1
388 96
206 36
210 56
242 483 424 238
Northern Access
230 241 613 322
233 265 651 338
PROPOSED DEVELOPMENT
Southern Access
125 227 256 124
Carrara St
207 391 326 132
Ashmore Rd
442 118 155
1004 896 856
1124
1205
1396
914
101 107 188
12 2 5
155 64 151
121 120 98
371 193 87
1123 1118
1111 1124
1044 1043
798 796
129 125 227
1144 993 898
141
124
256
1043 796 732
1118 1182
1154 1265
1043 1049
796 818
28 16 23
1306 1166 1242
29 197
5 127
24 302
1346
1555
1404
1057
Ashmore Rd
19 15 24
35 51 56
920 665 603
70 67 39
100 75 148
126 63 115
155 155 156
12 53 11
367 191 443
1025 813 670
305 323 451 294
Benowa Rd


NETWORK DIAGRAM 6
2038 Base Scenario
Weekday PM Peak
Weekend Peak
Weekday AM Peak
Assumed Growth Rate = 1.5% p.a.
Year = 2038
Survey Year = 2024
No. Years = 14
Growth Factor = 1.232
Benowa Rd
Carrara St
Northern Access
Southern Access
Carrara St
Ashmore Rd
Ashmore Rd
Benowa Rd
PROPOSED DEVELOPMENT


NETWORK DIAGRAM 7
2038 Base + Development Volumes
Weekday PM Peak
Weekend Peak
Weekday AM Peak
Benowa Rd
385 542 563 446
43 335 308
1 225 220
7 265 290
Carrara St
318 305
429 420
831 824
354 397
358 126 168
183 180 252
168
269
135 137 2
174 89 6
296 232 1
1 0 9
399 210 301
430 144 200
423 101
243 43
227 61
402 154 281 608
207 97 129 251
286 524 459 277
Northern Access
269 275 697 376
272 303 742 394
PROPOSED DEVELOPMENT
Southern Access
136 239 266 132
Carrara St
240 438 368 154
Ashmore Rd
513 138 177
1148 1033 976
1298
1377
1612
1062
117 124 218
14 2 6
116 86 166
147 75 131
180 180 179
185 79 175
141 140 113
423 218 101
22 17 28
41 59 65
1067 772 700
81 78 46
1295 1289
1265 1281
1211 1210
926 924
144 136 239
1328 1153 1042
148
132
266
1210 924 849
1285 1359
1308 1437
1210 1217
924 949
32 18 27
1493 1340 1410
33 224
6 148
27 341
14 62 12
411 221 508
1190 944 777
1549
1765
1614
1227
Ashmore Rd
353 368 517 342
Benowa Rd

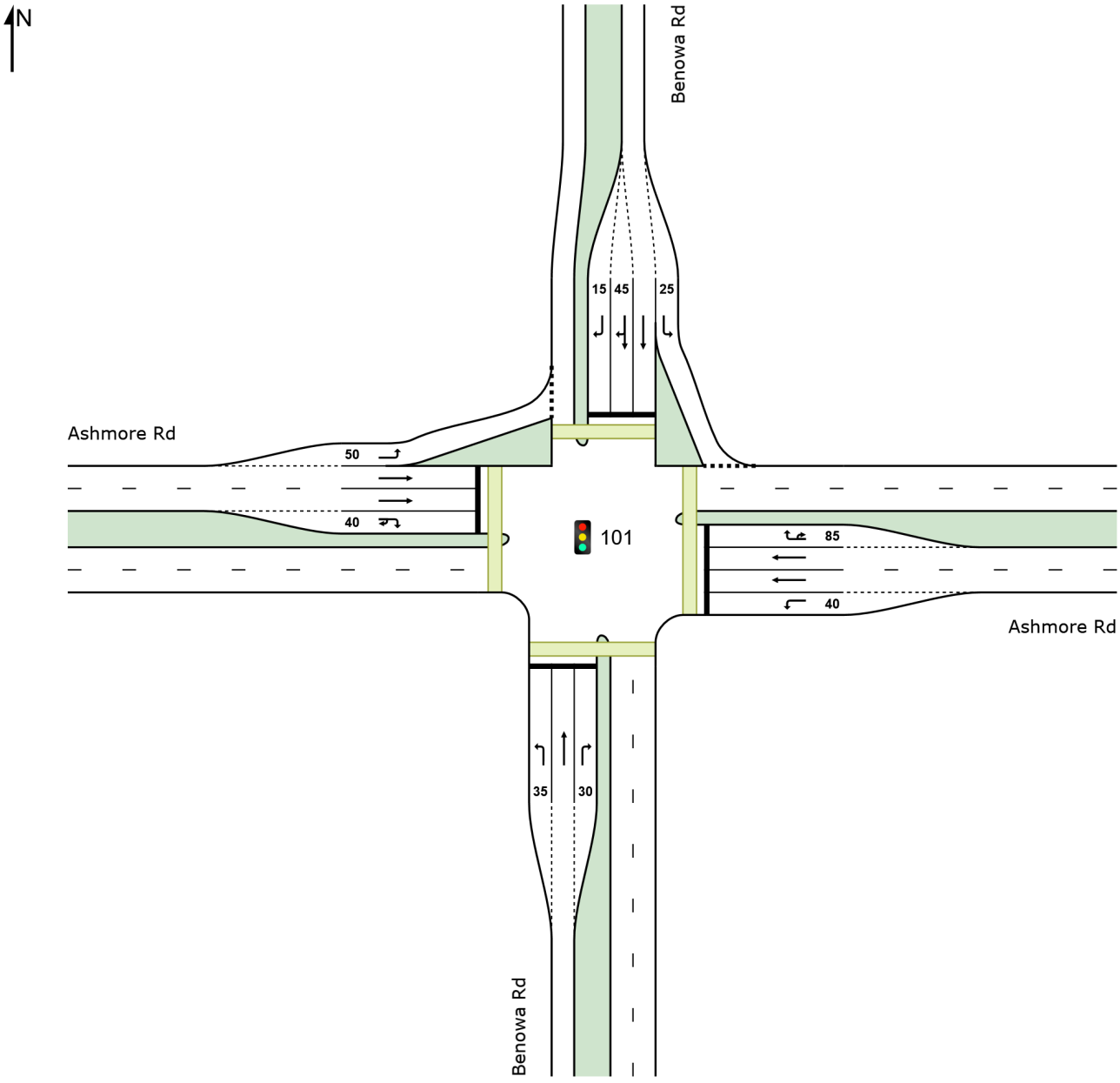
Appendix D SIDRA Output Reports

SITE LAYOUT

Site: 101 [2024_Survey_THU_PM (Site Folder: Ashmore Road - Benowa Road)]

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

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



MOVEMENT SUMMARY

Site: 101 [2024_Survey_THU_PM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	94	2.1	99	2.1	0.639	70.3	LOS E	6.4	45.6	1.00	0.80	1.05	19.8
2	T1	63	0.0	66	0.0	0.402	63.0	LOS E	4.1	29.0	0.99	0.75	0.99	10.7
3	R2	105	0.0	111	0.0	* 0.703	71.5	LOS E	7.3	50.8	1.00	0.84	1.11	17.5
Approach		262	0.8	276	0.8	0.703	69.0	LOS E	7.3	50.8	1.00	0.80	1.06	17.1
East: Ashmore Rd														
4	L2	66	0.0	69	0.0	0.088	17.8	LOS B	1.4	9.5	0.63	0.70	0.63	35.4
5	T1	861	2.0	906	2.0	* 0.751	40.2	LOS D	25.4	180.8	0.93	0.82	0.94	34.7
6	R2	33	6.1	35	6.1	0.478	72.1	LOS E	3.5	25.1	1.00	0.75	1.00	18.5
6u	U	18	0.0	19	0.0	0.478	73.2	LOS E	3.5	25.1	1.00	0.75	1.00	23.8
Approach		978	1.9	1029	1.9	0.751	40.4	LOS D	25.4	180.8	0.91	0.81	0.92	33.8
North: Benowa Rd														
7	L2	82	1.2	86	1.2	0.092	10.3	LOS B	1.4	10.2	0.33	0.64	0.33	44.8
8	T1	146	0.0	154	0.0	0.477	49.9	LOS D	8.6	60.3	0.92	0.75	0.92	12.9
9	R2	306	1.0	322	1.0	* 0.732	58.9	LOS E	9.5	67.1	0.93	0.84	1.04	23.6
Approach		534	0.7	562	0.7	0.732	49.0	LOS D	9.5	67.1	0.84	0.79	0.90	23.1
West: Ashmore Rd														
10	L2	127	0.0	134	0.0	0.084	6.4	LOS A	0.9	6.1	0.16	0.59	0.16	50.5
11	T1	703	1.1	740	1.1	0.485	24.0	LOS C	16.6	117.4	0.70	0.61	0.70	41.8
12	R2	177	1.1	186	1.1	* 0.740	58.8	LOS E	11.4	80.6	0.95	0.85	1.04	22.0
12u	U	5	0.0	5	0.0	0.740	59.9	LOS E	11.4	80.6	0.95	0.85	1.04	30.0
Approach		1012	1.0	1065	1.0	0.740	28.1	LOS C	16.6	117.4	0.68	0.65	0.70	38.1
All Vehicles		2786	1.3	2933	1.3	0.751	40.3	LOS D	25.4	180.8	0.82	0.75	0.85	31.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2024_Survey_THU_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	146	2.1	154	2.1	*0.605	61.9	LOS E	9.3	66.2	0.98	0.81	0.98	21.5
2	T1	149	0.0	157	0.0	0.581	56.5	LOS E	9.4	65.9	0.98	0.79	0.98	11.7
3	R2	137	0.0	144	0.0	0.598	61.4	LOS E	8.6	60.5	0.97	0.80	0.97	19.4
Approach		432	0.7	455	0.7	0.605	59.9	LOS E	9.4	66.2	0.98	0.80	0.98	18.0
East: Ashmore Rd														
4	L2	37	0.0	39	0.0	0.038	12.9	LOS B	0.6	4.4	0.48	0.66	0.48	39.3
5	T1	566	2.0	596	2.0	0.393	29.4	LOS C	13.5	96.2	0.76	0.65	0.76	39.1
6	R2	53	6.1	56	6.1	*0.576	70.6	LOS E	5.1	37.3	1.00	0.78	1.02	18.8
6u	U	23	0.0	24	0.0	0.576	71.6	LOS E	5.1	37.3	1.00	0.78	1.02	24.1
Approach		679	2.1	715	2.1	0.576	33.2	LOS C	13.5	96.2	0.77	0.67	0.77	36.4
North: Benowa Rd														
7	L2	142	1.2	149	1.2	0.184	13.0	LOS B	3.3	23.1	0.42	0.67	0.42	42.2
8	T1	85	0.0	89	0.0	0.426	60.0	LOS E	5.5	38.2	0.98	0.76	0.98	11.1
9	R2	171	1.0	180	1.0	*0.596	66.3	LOS E	5.5	39.2	0.98	0.78	1.01	22.0
Approach		398	0.9	419	0.9	0.596	45.9	LOS D	5.5	39.2	0.78	0.74	0.79	24.1
West: Ashmore Rd														
10	L2	412	0.0	434	0.0	0.294	7.8	LOS A	5.5	38.7	0.27	0.63	0.27	49.0
11	T1	845	1.1	889	1.1	*0.630	24.5	LOS C	21.2	149.5	0.73	0.64	0.73	41.5
12	R2	95	1.1	100	1.1	0.387	58.9	LOS E	6.4	45.4	0.94	0.79	0.94	22.0
12u	U	11	0.0	12	0.0	0.387	60.0	LOS E	6.4	45.4	0.94	0.79	0.94	29.9
Approach		1363	0.8	1435	0.8	0.630	22.2	LOS C	21.2	149.5	0.61	0.65	0.61	41.0
All Vehicles		2872	1.1	3023	1.1	0.630	33.7	LOS C	21.2	149.5	0.73	0.69	0.73	33.7

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2024_Survey_SAT_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	119	2.1	125	2.1	*0.495	62.0	LOS E	7.5	53.6	0.97	0.79	0.97	21.4
2	T1	67	0.0	71	0.0	0.261	54.7	LOS D	4.1	28.4	0.93	0.72	0.93	12.0
3	R2	95	0.0	100	0.0	0.389	61.0	LOS E	5.9	41.2	0.95	0.78	0.95	19.5
Approach		281	0.9	296	0.9	0.495	59.9	LOS E	7.5	53.6	0.96	0.77	0.96	19.0
East: Ashmore Rd														
4	L2	63	0.0	66	0.0	0.063	12.3	LOS B	1.0	7.1	0.47	0.67	0.47	39.8
5	T1	628	2.0	661	2.0	0.411	27.0	LOS C	14.7	104.9	0.73	0.64	0.73	40.3
6	R2	48	6.1	51	6.1	*0.507	71.0	LOS E	4.2	30.5	1.00	0.76	1.00	18.7
6u	U	14	0.0	15	0.0	0.507	72.1	LOS E	4.2	30.5	1.00	0.76	1.00	24.1
Approach		753	2.0	793	2.0	0.507	29.4	LOS C	14.7	104.9	0.73	0.65	0.73	38.0
North: Benowa Rd														
7	L2	92	1.2	97	1.2	0.113	10.4	LOS B	1.6	11.6	0.34	0.64	0.34	44.7
8	T1	118	0.0	124	0.0	*0.491	61.4	LOS E	5.9	41.5	0.99	0.77	0.99	10.8
9	R2	119	1.0	125	1.0	0.491	66.7	LOS E	4.8	33.5	0.98	0.76	0.98	22.0
Approach		329	0.7	346	0.7	0.491	49.0	LOS D	5.9	41.5	0.80	0.73	0.80	21.7
West: Ashmore Rd														
10	L2	114	0.0	120	0.0	0.077	6.5	LOS A	0.8	5.8	0.17	0.59	0.17	50.4
11	T1	804	1.1	846	1.1	*0.506	22.0	LOS C	18.1	127.6	0.69	0.60	0.69	42.9
12	R2	101	1.1	106	1.1	0.405	60.8	LOS E	6.4	45.0	0.95	0.78	0.95	21.6
12u	U	2	0.0	2	0.0	0.405	62.0	LOS E	6.4	45.0	0.95	0.78	0.95	29.5
Approach		1021	1.0	1075	1.0	0.506	24.2	LOS C	18.1	127.6	0.66	0.62	0.66	40.6
All Vehicles		2384	1.3	2509	1.3	0.507	33.5	LOS C	18.1	127.6	0.74	0.66	0.74	34.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG_THU_PM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	100	2.1	105	2.1	0.680	71.0	LOS E	6.9	49.0	1.00	0.82	1.09	19.6
2	T1	67	0.0	71	0.0	0.427	63.2	LOS E	4.4	30.9	0.99	0.76	0.99	10.7
3	R2	111	0.0	117	0.0	* 0.744	72.5	LOS E	7.8	54.4	1.00	0.86	1.15	17.3
Approach		278	0.8	293	0.8	0.744	69.7	LOS E	7.8	54.4	1.00	0.82	1.09	17.0
East: Ashmore Rd														
4	L2	70	0.0	74	0.0	0.096	18.2	LOS B	1.5	10.3	0.64	0.71	0.64	35.2
5	T1	914	2.0	962	2.0	* 0.818	45.5	LOS D	29.4	209.5	0.96	0.90	1.03	32.9
6	R2	35	6.1	37	6.1	0.506	72.3	LOS E	3.7	26.7	1.00	0.76	1.00	18.5
6u	U	19	0.0	20	0.0	0.506	73.4	LOS E	3.7	26.7	1.00	0.76	1.00	23.8
Approach		1038	1.9	1093	1.9	0.818	45.1	LOS D	29.4	209.5	0.94	0.88	1.00	32.2
North: Benowa Rd														
7	L2	87	1.2	92	1.2	0.101	11.0	LOS B	1.6	11.6	0.35	0.64	0.35	44.2
8	T1	155	0.0	163	0.0	0.542	51.2	LOS D	9.3	65.1	0.94	0.76	0.94	12.6
9	R2	325	1.0	342	1.0	* 0.825	65.6	LOS E	10.9	76.9	0.95	0.91	1.20	22.1
Approach		567	0.7	597	0.7	0.825	53.3	LOS D	10.9	76.9	0.85	0.83	1.00	21.9
West: Ashmore Rd														
10	L2	135	0.0	142	0.0	0.090	6.5	LOS A	1.0	7.0	0.17	0.59	0.17	50.4
11	T1	746	1.1	785	1.1	0.513	23.7	LOS C	17.6	124.7	0.70	0.62	0.70	42.0
12	R2	188	1.1	198	1.1	* 0.786	59.5	LOS E	12.3	86.9	0.93	0.87	1.09	21.9
12u	U	5	0.0	5	0.0	0.786	60.6	LOS E	12.3	86.9	0.93	0.87	1.09	29.8
Approach		1074	1.0	1131	1.0	0.786	28.0	LOS C	17.6	124.7	0.68	0.66	0.71	38.1
All Vehicles		2957	1.3	3113	1.3	0.825	42.8	LOS D	29.4	209.5	0.83	0.78	0.90	30.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG_THU_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	155	2.1	163	2.1	*0.681	63.1	LOS E	10.1	71.6	0.99	0.83	1.04	21.2
2	T1	158	0.0	166	0.0	0.656	57.2	LOS E	10.1	70.7	0.98	0.81	1.01	11.6
3	R2	145	0.0	153	0.0	0.666	62.4	LOS E	9.3	65.1	0.98	0.82	1.02	19.2
Approach		458	0.7	482	0.7	0.681	60.9	LOS E	10.1	71.6	0.98	0.82	1.02	17.8
East: Ashmore Rd														
4	L2	39	0.0	41	0.0	0.040	12.9	LOS B	0.7	4.6	0.48	0.66	0.48	39.3
5	T1	601	2.0	633	2.0	0.419	29.8	LOS C	14.6	103.8	0.77	0.66	0.77	39.0
6	R2	56	6.1	59	6.1	*0.666	73.1	LOS E	5.6	40.4	1.00	0.82	1.10	18.4
6u	U	24	0.0	25	0.0	0.666	74.1	LOS E	5.6	40.4	1.00	0.82	1.10	23.6
Approach		720	2.1	758	2.1	0.666	33.7	LOS C	14.6	103.8	0.78	0.68	0.79	36.2
North: Benowa Rd														
7	L2	151	1.2	159	1.2	0.205	14.3	LOS B	3.8	26.8	0.45	0.68	0.45	41.1
8	T1	90	0.0	95	0.0	0.451	60.2	LOS E	5.8	40.6	0.98	0.77	0.98	11.1
9	R2	181	1.0	191	1.0	*0.651	67.1	LOS E	5.9	42.0	0.99	0.81	1.06	21.8
Approach		422	0.9	444	0.9	0.651	46.7	LOS D	5.9	42.0	0.79	0.75	0.83	23.9
West: Ashmore Rd														
10	L2	437	0.0	460	0.0	0.313	8.1	LOS A	6.3	44.0	0.29	0.64	0.29	48.7
11	T1	897	1.1	944	1.1	*0.668	24.3	LOS C	23.1	163.2	0.74	0.65	0.74	41.6
12	R2	101	1.1	106	1.1	0.413	59.2	LOS E	6.9	48.7	0.94	0.79	0.94	21.9
12u	U	12	0.0	13	0.0	0.413	60.3	LOS E	6.9	48.7	0.94	0.79	0.94	29.9
Approach		1447	0.8	1523	0.8	0.668	22.2	LOS C	23.1	163.2	0.62	0.66	0.62	41.1
All Vehicles		3047	1.1	3207	1.1	0.681	34.1	LOS C	23.1	163.2	0.74	0.70	0.75	33.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG_SAT_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	126	2.1	133	2.1	*0.524	62.3	LOS E	8.0	57.0	0.98	0.80	0.98	21.4
2	T1	71	0.0	75	0.0	0.277	54.8	LOS D	4.3	30.2	0.94	0.73	0.94	12.0
3	R2	101	0.0	106	0.0	0.413	61.2	LOS E	6.3	44.0	0.96	0.78	0.96	19.4
Approach		298	0.9	314	0.9	0.524	60.1	LOS E	8.0	57.0	0.96	0.78	0.96	19.0
East: Ashmore Rd														
4	L2	67	0.0	71	0.0	0.067	12.3	LOS B	1.1	7.6	0.47	0.67	0.47	39.8
5	T1	667	2.0	702	2.0	0.438	27.4	LOS C	16.0	113.7	0.75	0.65	0.75	40.1
6	R2	51	6.1	54	6.1	*0.539	71.2	LOS E	4.5	32.6	1.00	0.77	1.00	18.7
6u	U	15	0.0	16	0.0	0.539	72.3	LOS E	4.5	32.6	1.00	0.77	1.00	24.0
Approach		800	2.0	842	2.0	0.539	29.7	LOS C	16.0	113.7	0.74	0.66	0.74	37.9
North: Benowa Rd														
7	L2	98	1.2	103	1.2	0.124	11.0	LOS B	1.9	13.2	0.36	0.65	0.36	44.1
8	T1	125	0.0	132	0.0	*0.530	61.7	LOS E	6.4	45.1	0.99	0.78	0.99	10.8
9	R2	126	1.0	133	1.0	0.530	66.8	LOS E	5.0	35.1	0.98	0.77	0.98	22.0
Approach		349	0.7	367	0.7	0.530	49.3	LOS D	6.4	45.1	0.81	0.74	0.81	21.7
West: Ashmore Rd														
10	L2	121	0.0	127	0.0	0.083	6.6	LOS A	0.9	6.6	0.18	0.60	0.18	50.3
11	T1	853	1.1	898	1.1	*0.542	22.4	LOS C	19.4	137.2	0.70	0.62	0.70	42.7
12	R2	107	1.1	113	1.1	0.429	61.1	LOS E	6.8	47.8	0.96	0.79	0.96	21.5
12u	U	2	0.0	2	0.0	0.429	62.2	LOS E	6.8	47.8	0.96	0.79	0.96	29.5
Approach		1083	1.0	1140	1.0	0.542	24.5	LOS C	19.4	137.2	0.67	0.63	0.67	40.4
All Vehicles		2530	1.3	2663	1.3	0.542	33.8	LOS C	19.4	137.2	0.75	0.67	0.75	34.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_PM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	100	2.1	105	2.1	0.534	66.0	LOS E	6.5	46.6	0.99	0.79	0.99	20.6
2	T1	75	0.0	79	0.0	0.376	59.6	LOS E	4.8	33.5	0.97	0.75	0.97	11.2
3	R2	148	0.0	156	0.0	* 0.864	76.1	LOS E	10.8	75.9	1.00	0.95	1.33	16.7
Approach		323	0.7	340	0.7	0.864	69.2	LOS E	10.8	75.9	0.99	0.85	1.14	17.0
East: Ashmore Rd														
4	L2	70	0.0	74	0.0	0.094	17.8	LOS B	1.4	10.1	0.63	0.70	0.63	35.5
5	T1	920	2.0	968	2.0	* 0.862	51.9	LOS D	32.0	228.0	0.98	0.97	1.12	30.9
6	R2	35	6.1	37	6.1	0.651	76.5	LOS E	3.9	27.9	1.00	0.80	1.12	17.8
6u	U	19	0.0	20	0.0	0.651	77.5	LOS E	3.9	27.9	1.00	0.80	1.12	23.0
Approach		1044	1.9	1099	1.9	0.862	50.9	LOS D	32.0	228.0	0.96	0.94	1.09	30.4
North: Benowa Rd														
7	L2	87	1.2	92	1.2	0.110	13.0	LOS B	2.0	13.8	0.41	0.66	0.41	42.2
8	T1	193	0.0	203	0.0	0.595	52.5	LOS D	11.9	83.0	0.96	0.80	0.96	12.4
9	R2	371	1.0	391	1.0	* 0.854	68.8	LOS E	16.2	114.7	0.97	0.94	1.25	21.4
Approach		651	0.7	685	0.7	0.854	56.5	LOS E	16.2	114.7	0.89	0.86	1.05	20.9
West: Ashmore Rd														
10	L2	155	0.0	163	0.0	0.104	6.6	LOS A	1.2	8.2	0.17	0.60	0.17	50.4
11	T1	856	1.1	901	1.1	0.617	25.4	LOS C	21.2	150.0	0.74	0.66	0.74	41.1
12	R2	188	1.1	198	1.1	* 0.875	69.7	LOS E	13.6	96.0	0.94	0.95	1.27	19.8
12u	U	5	0.0	5	0.0	0.875	70.9	LOS E	13.6	96.0	0.94	0.95	1.27	27.5
Approach		1204	1.0	1267	1.0	0.875	30.1	LOS C	21.2	150.0	0.70	0.69	0.76	37.3
All Vehicles		3222	1.2	3392	1.2	0.875	46.1	LOS D	32.0	228.0	0.85	0.82	0.96	29.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	155	2.1	163	2.1	0.641	61.3	LOS E	9.8	70.2	0.98	0.81	0.99	21.6
2	T1	155	0.0	163	0.0	0.595	55.6	LOS E	9.7	68.0	0.97	0.79	0.97	11.9
3	R2	156	0.0	164	0.0	* 0.704	62.4	LOS E	10.1	70.5	0.98	0.84	1.05	19.2
Approach		466	0.7	491	0.7	0.704	59.8	LOS E	10.1	70.5	0.98	0.81	1.00	18.1
East: Ashmore Rd														
4	L2	39	0.0	41	0.0	0.039	12.5	LOS B	0.7	4.6	0.47	0.66	0.47	39.6
5	T1	603	2.0	635	2.0	0.412	29.0	LOS C	14.4	102.8	0.76	0.65	0.76	39.3
6	R2	56	6.1	59	6.1	* 0.666	73.1	LOS E	5.6	40.4	1.00	0.82	1.10	18.4
6u	U	24	0.0	25	0.0	0.666	74.1	LOS E	5.6	40.4	1.00	0.82	1.10	23.6
Approach		722	2.1	760	2.1	0.666	33.0	LOS C	14.4	102.8	0.77	0.67	0.78	36.5
North: Benowa Rd														
7	L2	151	1.2	159	1.2	0.223	16.9	LOS B	4.3	30.7	0.51	0.70	0.51	39.0
8	T1	64	0.0	67	0.0	0.374	61.7	LOS E	4.2	29.1	0.98	0.75	0.98	10.9
9	R2	155	1.0	163	1.0	* 0.599	68.6	LOS E	5.1	36.2	0.99	0.78	1.03	21.5
Approach		370	0.9	389	0.9	0.599	46.3	LOS D	5.1	36.2	0.79	0.74	0.81	24.3
West: Ashmore Rd														
10	L2	442	0.0	465	0.0	0.317	8.1	LOS A	6.4	44.5	0.29	0.64	0.29	48.7
11	T1	1004	1.1	1057	1.1	* 0.736	24.6	LOS C	27.4	193.5	0.76	0.68	0.76	41.5
12	R2	101	1.1	106	1.1	0.413	59.2	LOS E	6.9	48.7	0.94	0.79	0.94	21.9
12u	U	12	0.0	13	0.0	0.413	60.3	LOS E	6.9	48.7	0.94	0.79	0.94	29.9
Approach		1559	0.8	1641	0.8	0.736	22.5	LOS C	27.4	193.5	0.64	0.67	0.64	41.0
All Vehicles		3117	1.1	3281	1.1	0.736	33.3	LOS C	27.4	193.5	0.74	0.70	0.75	34.1

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_SAT_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	126	2.1	133	2.1	*0.554	63.4	LOS E	8.1	57.7	0.99	0.80	0.99	21.1
2	T1	63	0.0	66	0.0	0.260	55.6	LOS E	3.8	26.9	0.94	0.72	0.94	11.8
3	R2	115	0.0	121	0.0	0.498	62.9	LOS E	7.3	51.2	0.98	0.79	0.98	19.1
Approach		304	0.9	320	0.9	0.554	61.6	LOS E	8.1	57.7	0.97	0.78	0.97	18.9
East: Ashmore Rd														
4	L2	67	0.0	71	0.0	0.066	12.1	LOS B	1.1	7.6	0.46	0.67	0.46	40.0
5	T1	665	2.0	700	2.0	0.421	25.9	LOS C	15.4	109.8	0.72	0.63	0.72	40.9
6	R2	51	6.1	54	6.1	*0.539	71.2	LOS E	4.5	32.6	1.00	0.77	1.00	18.7
6u	U	15	0.0	16	0.0	0.539	72.3	LOS E	4.5	32.6	1.00	0.77	1.00	24.0
Approach		798	2.0	840	2.0	0.539	28.5	LOS C	15.4	109.8	0.73	0.65	0.73	38.5
North: Benowa Rd														
7	L2	98	1.2	103	1.2	0.130	11.7	LOS B	2.0	14.1	0.38	0.65	0.38	43.5
8	T1	120	0.0	126	0.0	*0.546	62.8	LOS E	6.2	43.2	1.00	0.78	1.00	10.6
9	R2	121	1.0	127	1.0	0.546	68.0	LOS E	4.9	34.3	0.99	0.77	0.99	21.8
Approach		339	0.7	357	0.7	0.546	49.9	LOS D	6.2	43.2	0.82	0.74	0.82	21.5
West: Ashmore Rd														
10	L2	118	0.0	124	0.0	0.080	6.5	LOS A	0.9	6.0	0.17	0.59	0.17	50.4
11	T1	896	1.1	943	1.1	*0.549	21.4	LOS C	20.0	141.5	0.69	0.61	0.69	43.3
12	R2	107	1.1	113	1.1	0.429	61.1	LOS E	6.8	47.8	0.96	0.79	0.96	21.5
12u	U	2	0.0	2	0.0	0.429	62.2	LOS E	6.8	47.8	0.96	0.79	0.96	29.5
Approach		1123	1.0	1182	1.0	0.549	23.7	LOS C	20.0	141.5	0.66	0.63	0.66	41.0
All Vehicles		2564	1.3	2699	1.3	0.554	33.1	LOS C	20.0	141.5	0.74	0.67	0.74	34.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG_THU_PM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	116	2.1	122	2.1	0.789	74.1	LOS E	8.3	58.9	1.00	0.88	1.21	19.1
2	T1	78	0.0	82	0.0	0.498	63.6	LOS E	5.2	36.2	1.00	0.77	1.00	10.6
3	R2	129	0.0	136	0.0	* 0.924	85.9	LOS F	10.1	70.8	1.00	1.02	1.51	15.3
Approach		323	0.8	340	0.8	0.924	76.3	LOS E	10.1	70.8	1.00	0.91	1.28	15.9
East: Ashmore Rd														
4	L2	81	0.0	85	0.0	0.109	17.9	LOS B	1.7	12.0	0.63	0.71	0.63	35.3
5	T1	1061	2.0	1117	2.0	* 0.933	65.0	LOS E	42.6	303.0	1.00	1.10	1.27	27.6
6	R2	41	6.1	43	6.1	0.590	73.1	LOS E	4.4	31.5	1.00	0.78	1.05	18.3
6u	U	22	0.0	23	0.0	0.590	74.2	LOS E	4.4	31.5	1.00	0.78	1.05	23.6
Approach		1205	1.9	1268	1.9	0.933	62.3	LOS E	42.6	303.0	0.97	1.06	1.22	27.4
North: Benowa Rd														
7	L2	101	1.2	106	1.2	0.129	13.1	LOS B	2.3	16.3	0.41	0.66	0.41	42.1
8	T1	180	0.0	189	0.0	0.694	54.1	LOS D	11.3	78.9	0.96	0.82	1.01	12.1
9	R2	377	1.0	397	1.0	* 0.910	78.7	LOS E	18.0	126.8	0.98	1.00	1.39	19.7
Approach		658	0.7	693	0.7	0.910	61.9	LOS E	18.0	126.8	0.89	0.90	1.14	19.9
West: Ashmore Rd														
10	L2	156	0.0	164	0.0	0.105	6.7	LOS A	1.3	8.9	0.18	0.60	0.18	50.2
11	T1	866	1.1	912	1.1	0.613	24.0	LOS C	21.3	150.9	0.73	0.64	0.73	41.8
12	R2	218	1.1	229	1.1	* 0.941	84.3	LOS F	17.8	125.4	0.95	1.03	1.44	17.4
12u	U	6	0.0	6	0.0	0.941	85.4	LOS F	17.8	125.4	0.95	1.03	1.44	24.8
Approach		1246	1.0	1312	1.0	0.941	32.7	LOS C	21.3	150.9	0.70	0.70	0.79	36.0
All Vehicles		3432	1.3	3613	1.3	0.941	52.8	LOS D	42.6	303.0	0.86	0.89	1.05	27.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG_THU_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	180	2.1	189	2.1	*0.798	65.6	LOS E	12.2	86.7	0.99	0.89	1.16	20.7
2	T1	184	0.0	194	0.0	0.778	59.1	LOS E	12.2	85.3	0.98	0.89	1.12	11.3
3	R2	170	0.0	179	0.0	0.787	64.8	LOS E	11.3	79.4	0.98	0.89	1.15	18.7
Approach		534	0.7	562	0.7	0.798	63.1	LOS E	12.2	86.7	0.98	0.89	1.14	17.4
East: Ashmore Rd														
4	L2	46	0.0	48	0.0	0.046	12.4	LOS B	0.7	5.2	0.47	0.67	0.47	39.7
5	T1	697	2.0	734	2.0	0.490	30.8	LOS C	17.7	125.7	0.79	0.69	0.79	38.5
6	R2	65	6.1	68	6.1	*0.775	75.8	LOS E	6.7	48.4	1.00	0.88	1.22	17.9
6u	U	28	0.0	29	0.0	0.775	76.9	LOS E	6.7	48.4	1.00	0.88	1.22	23.1
Approach		836	2.1	880	2.1	0.775	34.8	LOS C	17.7	125.7	0.80	0.71	0.82	35.8
North: Benowa Rd														
7	L2	175	1.2	184	1.2	0.263	20.1	LOS C	5.8	40.8	0.58	0.72	0.58	36.7
8	T1	105	0.0	111	0.0	0.582	60.8	LOS E	6.8	47.8	0.99	0.78	0.99	11.0
9	R2	211	1.0	222	1.0	*0.815	72.7	LOS E	7.4	52.0	1.00	0.91	1.29	20.7
Approach		491	0.9	517	0.9	0.815	51.4	LOS D	7.4	52.0	0.85	0.82	0.97	22.6
West: Ashmore Rd														
10	L2	507	0.0	534	0.0	0.372	8.8	LOS A	8.6	60.1	0.33	0.66	0.33	48.0
11	T1	1041	1.1	1096	1.1	*0.837	33.7	LOS C	34.3	242.8	0.81	0.79	0.89	37.2
12	R2	117	1.1	123	1.1	0.503	61.0	LOS E	8.2	57.8	0.97	0.80	0.97	21.5
12u	U	14	0.0	15	0.0	0.503	62.1	LOS E	8.2	57.8	0.97	0.80	0.97	29.4
Approach		1679	0.8	1767	0.8	0.837	28.3	LOS C	34.3	242.8	0.68	0.75	0.73	37.8
All Vehicles		3540	1.1	3726	1.1	0.837	38.3	LOS D	34.3	242.8	0.78	0.77	0.85	31.8

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG_SAT_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	147	2.1	155	2.1	*0.633	63.2	LOS E	9.5	67.7	0.99	0.81	1.00	21.2
2	T1	83	0.0	87	0.0	0.324	55.3	LOS E	5.1	35.6	0.94	0.74	0.94	11.9
3	R2	117	0.0	123	0.0	0.479	61.8	LOS E	7.4	51.6	0.97	0.79	0.97	19.3
Approach		347	0.9	365	0.9	0.633	60.9	LOS E	9.5	67.7	0.97	0.79	0.98	18.8
East: Ashmore Rd														
4	L2	78	0.0	82	0.0	0.078	12.3	LOS B	1.2	8.6	0.47	0.68	0.47	39.8
5	T1	774	2.0	815	2.0	0.514	28.4	LOS C	19.5	139.1	0.77	0.68	0.77	39.6
6	R2	59	6.1	62	6.1	*0.621	72.2	LOS E	5.2	38.1	1.00	0.80	1.06	18.5
6u	U	17	0.0	18	0.0	0.621	73.3	LOS E	5.2	38.1	1.00	0.80	1.06	23.8
Approach		928	2.0	977	2.0	0.621	30.7	LOS C	19.5	139.1	0.77	0.69	0.77	37.4
North: Benowa Rd														
7	L2	113	1.2	119	1.2	0.153	13.2	LOS B	2.6	18.4	0.42	0.67	0.42	42.1
8	T1	145	0.0	153	0.0	*0.638	61.5	LOS E	7.3	51.3	0.99	0.80	1.04	10.8
9	R2	147	1.0	155	1.0	0.638	66.9	LOS E	5.9	41.8	0.98	0.80	1.04	22.0
Approach		405	0.7	426	0.7	0.638	50.0	LOS D	7.3	51.3	0.83	0.77	0.87	21.5
West: Ashmore Rd														
10	L2	140	0.0	147	0.0	0.096	6.8	LOS A	1.2	8.4	0.19	0.60	0.19	50.1
11	T1	990	1.1	1042	1.1	*0.647	24.3	LOS C	23.6	166.7	0.75	0.67	0.75	41.7
12	R2	124	1.1	131	1.1	0.523	62.9	LOS E	8.0	56.5	0.98	0.80	0.98	21.2
12u	U	2	0.0	2	0.0	0.523	64.0	LOS E	8.0	56.5	0.98	0.80	0.98	29.0
Approach		1256	1.0	1322	1.0	0.647	26.2	LOS C	23.6	166.7	0.71	0.67	0.71	39.6
All Vehicles		2936	1.3	3091	1.3	0.647	35.0	LOS C	23.6	166.7	0.78	0.70	0.78	33.7

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_PM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	116	2.1	122	2.1	0.620	67.0	LOS E	7.7	54.8	1.00	0.80	1.02	20.4
2	T1	86	0.0	91	0.0	0.431	60.1	LOS E	5.5	38.7	0.98	0.76	0.98	11.1
3	R2	166	0.0	175	0.0	* 1.009	117.3	LOS F	15.8	110.5	1.00	1.16	1.77	12.0
Approach		368	0.7	387	0.7	1.009	88.0	LOS F	15.8	110.5	1.00	0.95	1.35	14.2
East: Ashmore Rd														
4	L2	81	0.0	85	0.0	0.111	18.2	LOS B	1.7	11.8	0.64	0.71	0.64	35.2
5	T1	1067	2.0	1123	2.0	* 1.028	115.1	LOS F	57.1	406.6	1.00	1.39	1.64	19.3
6	R2	41	6.1	43	6.1	0.759	78.6	LOS E	4.6	33.2	1.00	0.86	1.25	17.5
6u	U	22	0.0	23	0.0	0.759	79.6	LOS E	4.6	33.2	1.00	0.86	1.25	22.6
Approach		1211	1.9	1275	1.9	1.028	106.8	LOS F	57.1	406.6	0.98	1.32	1.55	19.6
North: Benowa Rd														
7	L2	101	1.2	106	1.2	0.141	16.9	LOS B	2.8	20.1	0.50	0.69	0.50	39.0
8	T1	218	0.0	229	0.0	0.749	54.6	LOS D	13.9	97.4	0.97	0.86	1.05	12.0
9	R2	423	1.0	445	1.0	* 0.989	106.2	LOS F	23.5	166.1	0.98	1.12	1.64	16.0
Approach		742	0.7	781	0.7	0.989	78.9	LOS E	23.5	166.1	0.91	0.98	1.31	16.7
West: Ashmore Rd														
10	L2	177	0.0	186	0.0	0.120	6.7	LOS A	1.5	10.2	0.18	0.60	0.18	50.2
11	T1	976	1.1	1027	1.1	0.743	27.3	LOS C	26.0	183.5	0.79	0.70	0.79	40.1
12	R2	218	1.1	229	1.1	* 1.010	122.0	LOS F	22.6	159.7	1.00	1.15	1.75	13.3
12u	U	6	0.0	6	0.0	1.010	123.1	LOS F	22.6	159.7	1.00	1.15	1.75	19.7
Approach		1377	1.0	1449	1.0	1.010	40.1	LOS D	26.0	183.5	0.75	0.76	0.87	33.1
All Vehicles		3698	1.2	3893	1.2	1.028	74.5	LOS E	57.1	406.6	0.88	1.01	1.23	22.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	180	2.1	189	2.1	0.838	69.4	LOS E	12.6	89.9	1.00	0.92	1.24	19.9
2	T1	180	0.0	189	0.0	0.794	60.9	LOS E	12.1	84.8	0.99	0.90	1.16	11.0
3	R2	179	0.0	188	0.0	* 0.885	74.7	LOS E	13.1	91.8	0.99	0.98	1.35	16.9
Approach		539	0.7	567	0.7	0.885	68.3	LOS E	13.1	91.8	0.99	0.93	1.25	16.5
East: Ashmore Rd														
4	L2	46	0.0	48	0.0	0.046	12.5	LOS B	0.8	5.5	0.47	0.67	0.47	39.6
5	T1	700	2.0	737	2.0	0.483	30.0	LOS C	17.5	124.6	0.78	0.68	0.78	38.9
6	R2	65	6.1	68	6.1	* 0.861	81.2	LOS F	7.0	50.7	1.00	0.95	1.40	17.1
6u	U	28	0.0	29	0.0	0.861	82.2	LOS F	7.0	50.7	1.00	0.95	1.40	22.2
Approach		839	2.1	883	2.1	0.861	34.8	LOS C	17.5	124.6	0.79	0.71	0.83	35.8
North: Benowa Rd														
7	L2	175	1.2	184	1.2	0.331	22.6	LOS C	6.3	44.5	0.62	0.74	0.62	35.1
8	T1	79	0.0	83	0.0	0.462	62.3	LOS E	5.2	36.2	0.99	0.77	0.99	10.8
9	R2	185	1.0	195	1.0	* 0.791	73.2	LOS E	6.5	45.6	1.00	0.89	1.26	20.6
Approach		439	0.9	462	0.9	0.791	51.1	LOS D	6.5	45.6	0.85	0.81	0.96	22.9
West: Ashmore Rd														
10	L2	513	0.0	540	0.0	0.374	8.8	LOS A	8.7	60.8	0.33	0.66	0.33	48.0
11	T1	1148	1.1	1208	1.1	* 0.858	33.8	LOS C	38.7	273.3	0.80	0.79	0.90	37.2
12	R2	117	1.1	123	1.1	0.479	59.9	LOS E	8.1	57.2	0.96	0.80	0.96	21.8
12u	U	14	0.0	15	0.0	0.479	61.0	LOS E	8.1	57.2	0.96	0.80	0.96	29.7
Approach		1792	0.8	1886	0.8	0.858	28.6	LOS C	38.7	273.3	0.68	0.76	0.74	37.8
All Vehicles		3609	1.1	3799	1.1	0.885	38.7	LOS D	38.7	273.3	0.77	0.78	0.86	31.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_SAT_AM (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	147	2.1	155	2.1	*0.671	65.0	LOS E	9.7	69.0	1.00	0.83	1.04	20.8
2	T1	75	0.0	79	0.0	0.310	56.1	LOS E	4.6	32.3	0.95	0.74	0.95	11.8
3	R2	131	0.0	138	0.0	0.595	63.6	LOS E	8.4	59.0	0.99	0.80	0.99	18.9
Approach		353	0.9	372	0.9	0.671	62.6	LOS E	9.7	69.0	0.98	0.80	1.00	18.6
East: Ashmore Rd														
4	L2	78	0.0	82	0.0	0.078	12.4	LOS B	1.3	8.9	0.47	0.68	0.47	39.8
5	T1	772	2.0	813	2.0	0.504	27.6	LOS C	19.2	136.5	0.76	0.67	0.76	40.0
6	R2	59	6.1	62	6.1	*0.621	72.2	LOS E	5.2	38.1	1.00	0.80	1.06	18.5
6u	U	17	0.0	18	0.0	0.621	73.3	LOS E	5.2	38.1	1.00	0.80	1.06	23.8
Approach		926	2.0	975	2.0	0.621	30.0	LOS C	19.2	136.5	0.76	0.68	0.76	37.7
North: Benowa Rd														
7	L2	113	1.2	119	1.2	0.162	14.0	LOS B	2.7	19.4	0.44	0.67	0.44	41.4
8	T1	140	0.0	147	0.0	*0.647	62.7	LOS E	7.3	50.8	1.00	0.81	1.05	10.6
9	R2	141	1.0	148	1.0	0.647	68.1	LOS E	5.7	40.3	0.99	0.81	1.06	21.8
Approach		394	0.7	415	0.7	0.647	50.7	LOS D	7.3	50.8	0.83	0.77	0.88	21.3
West: Ashmore Rd														
10	L2	138	0.0	145	0.0	0.095	6.8	LOS A	1.2	8.2	0.19	0.60	0.19	50.1
11	T1	1033	1.1	1087	1.1	*0.652	23.2	LOS C	24.2	171.2	0.74	0.66	0.74	42.2
12	R2	124	1.1	131	1.1	0.495	61.7	LOS E	7.9	55.9	0.97	0.80	0.97	21.4
12u	U	2	0.0	2	0.0	0.495	62.8	LOS E	7.9	55.9	0.97	0.80	0.97	29.3
Approach		1297	1.0	1365	1.0	0.652	25.2	LOS C	24.2	171.2	0.70	0.67	0.70	40.1
All Vehicles		2970	1.3	3126	1.3	0.671	34.5	LOS C	24.2	171.2	0.77	0.70	0.78	34.0

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

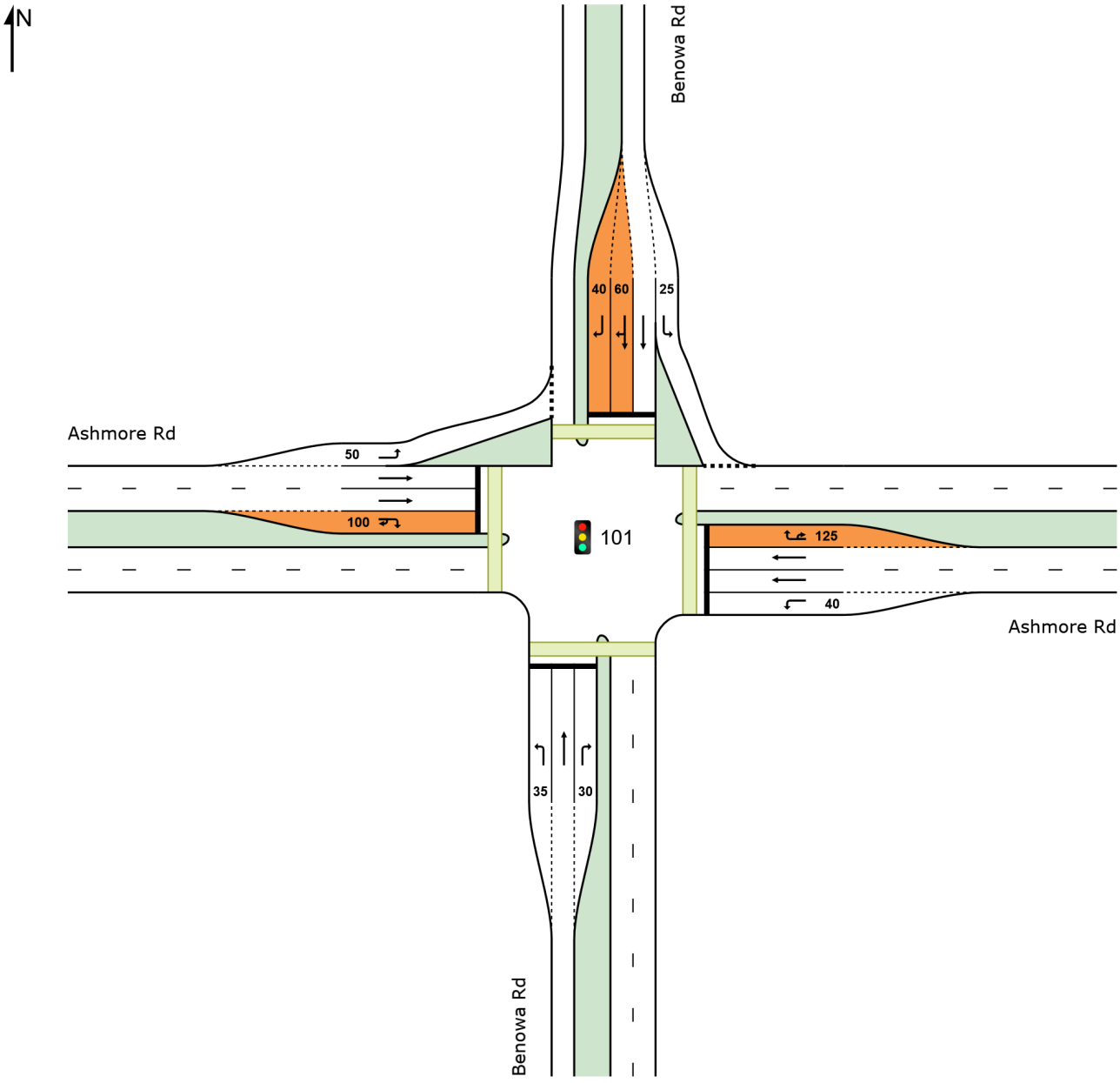
Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SITE LAYOUT

Site: 101 [2028_BG+DEV_THU_PM - Upgrade (Site Folder: Ashmore Road - Benowa Road)]

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

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



MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_PM - Upgrade (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	100	2.1	105	2.1	0.440	62.4	LOS E	6.3	45.0	0.97	0.78	0.97	21.3
2	T1	75	0.0	79	0.0	0.310	56.1	LOS E	4.6	32.3	0.95	0.74	0.95	11.8
3	R2	148	0.0	156	0.0	* 0.705	65.5	LOS E	9.8	68.7	1.00	0.84	1.07	18.5
Approach		323	0.7	340	0.7	0.705	62.4	LOS E	9.8	68.7	0.98	0.80	1.01	18.3
East: Ashmore Rd														
4	L2	70	0.0	74	0.0	0.081	15.0	LOS B	1.3	9.1	0.55	0.69	0.55	37.6
5	T1	920	2.0	968	2.0	* 0.729	37.9	LOS D	27.7	197.5	0.92	0.81	0.92	35.6
6	R2	35	6.1	37	6.1	0.570	74.2	LOS E	3.8	27.2	1.00	0.77	1.04	18.2
6u	U	19	0.0	20	0.0	0.570	75.2	LOS E	3.8	27.2	1.00	0.77	1.04	23.4
Approach		1044	1.9	1099	1.9	0.729	38.3	LOS D	27.7	197.5	0.90	0.80	0.90	34.6
North: Benowa Rd														
7	L2	87	1.2	92	1.2	0.109	13.3	LOS B	2.0	14.0	0.41	0.66	0.41	42.0
8	T1	193	0.0	203	0.0	* 0.738	56.6	LOS E	12.3	86.5	0.98	0.85	1.06	11.7
9	R2	371	1.0	391	1.0	0.738	62.7	LOS E	12.3	86.5	0.98	0.86	1.07	22.7
Approach		651	0.7	685	0.7	0.738	54.3	LOS D	12.3	86.5	0.91	0.83	0.98	21.5
West: Ashmore Rd														
10	L2	155	0.0	163	0.0	0.104	6.5	LOS A	1.2	8.1	0.17	0.60	0.17	50.4
11	T1	856	1.1	901	1.1	0.549	26.9	LOS C	22.0	155.2	0.77	0.68	0.77	40.4
12	R2	188	1.1	198	1.1	* 0.723	64.6	LOS E	12.8	90.4	1.00	0.85	1.06	20.8
12u	U	5	0.0	5	0.0	0.723	65.7	LOS E	12.8	90.4	1.00	0.85	1.06	28.6
Approach		1204	1.0	1267	1.0	0.723	30.3	LOS C	22.0	155.2	0.73	0.69	0.74	37.1
All Vehicles		3222	1.2	3392	1.2	0.738	40.9	LOS D	27.7	197.5	0.84	0.77	0.87	31.1

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_AM - Upgrade (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	155	2.1	163	2.1	0.641	61.3	LOS E	9.8	70.2	0.98	0.81	0.99	21.6
2	T1	155	0.0	163	0.0	0.595	55.6	LOS E	9.7	68.0	0.97	0.79	0.97	11.9
3	R2	156	0.0	164	0.0	* 0.704	62.4	LOS E	10.1	70.5	0.98	0.84	1.05	19.2
Approach		466	0.7	491	0.7	0.704	59.8	LOS E	10.1	70.5	0.98	0.81	1.00	18.1
East: Ashmore Rd														
4	L2	39	0.0	41	0.0	0.039	12.5	LOS B	0.7	4.6	0.47	0.66	0.47	39.6
5	T1	603	2.0	635	2.0	0.412	29.0	LOS C	14.4	102.8	0.76	0.65	0.76	39.3
6	R2	56	6.1	59	6.1	* 0.666	73.1	LOS E	5.6	40.4	1.00	0.82	1.10	18.4
6u	U	24	0.0	25	0.0	0.666	74.1	LOS E	5.6	40.4	1.00	0.82	1.10	23.6
Approach		722	2.1	760	2.1	0.666	33.0	LOS C	14.4	102.8	0.77	0.67	0.78	36.5
North: Benowa Rd														
7	L2	151	1.2	159	1.2	0.224	16.9	LOS B	4.3	30.8	0.51	0.70	0.51	39.0
8	T1	64	0.0	67	0.0	0.374	61.7	LOS E	4.2	29.1	0.98	0.75	0.98	10.9
9	R2	155	1.0	163	1.0	* 0.479	68.2	LOS E	5.1	36.0	0.99	0.77	0.99	21.6
Approach		370	0.9	389	0.9	0.479	46.2	LOS D	5.1	36.0	0.79	0.74	0.79	24.4
West: Ashmore Rd														
10	L2	442	0.0	465	0.0	0.317	8.1	LOS A	6.4	44.5	0.29	0.64	0.29	48.7
11	T1	1004	1.1	1057	1.1	* 0.712	24.7	LOS C	28.2	199.0	0.76	0.68	0.76	41.4
12	R2	101	1.1	106	1.1	0.413	59.2	LOS E	6.9	48.7	0.94	0.79	0.94	21.9
12u	U	12	0.0	13	0.0	0.413	60.3	LOS E	6.9	48.7	0.94	0.79	0.94	29.9
Approach		1559	0.8	1641	0.8	0.712	22.5	LOS C	28.2	199.0	0.64	0.68	0.64	41.0
All Vehicles		3117	1.1	3281	1.1	0.712	33.3	LOS C	28.2	199.0	0.74	0.70	0.75	34.1

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_SAT_AM - Upgrade (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	126	2.1	133	2.1	*0.524	62.3	LOS E	8.0	57.0	0.98	0.80	0.98	21.4
2	T1	63	0.0	66	0.0	0.246	54.5	LOS D	3.8	26.6	0.93	0.72	0.93	12.0
3	R2	115	0.0	121	0.0	0.471	61.7	LOS E	7.2	50.6	0.97	0.79	0.97	19.3
Approach		304	0.9	320	0.9	0.524	60.5	LOS E	8.0	57.0	0.96	0.78	0.96	19.1
East: Ashmore Rd														
4	L2	67	0.0	71	0.0	0.066	12.1	LOS B	1.1	7.6	0.46	0.67	0.46	40.0
5	T1	665	2.0	700	2.0	0.429	26.6	LOS C	15.7	111.5	0.73	0.64	0.73	40.5
6	R2	51	6.1	54	6.1	*0.490	69.8	LOS E	4.4	32.1	1.00	0.77	1.00	19.0
6u	U	15	0.0	16	0.0	0.490	70.8	LOS E	4.4	32.1	1.00	0.77	1.00	24.3
Approach		798	2.0	840	2.0	0.490	29.0	LOS C	15.7	111.5	0.73	0.65	0.73	38.2
North: Benowa Rd														
7	L2	98	1.2	103	1.2	0.129	12.0	LOS B	2.0	14.4	0.38	0.66	0.38	43.2
8	T1	120	0.0	126	0.0	*0.483	62.5	LOS E	5.4	38.0	0.99	0.77	0.99	10.6
9	R2	121	1.0	127	1.0	0.483	68.2	LOS E	5.3	37.1	0.99	0.77	0.99	21.8
Approach		339	0.7	357	0.7	0.483	50.0	LOS D	5.4	38.0	0.82	0.74	0.82	21.5
West: Ashmore Rd														
10	L2	118	0.0	124	0.0	0.080	6.5	LOS A	0.9	6.0	0.17	0.59	0.17	50.4
11	T1	896	1.1	943	1.1	*0.511	22.8	LOS C	20.7	146.6	0.71	0.63	0.71	42.5
12	R2	107	1.1	113	1.1	0.429	61.1	LOS E	6.8	47.8	0.96	0.79	0.96	21.5
12u	U	2	0.0	2	0.0	0.429	62.2	LOS E	6.8	47.8	0.96	0.79	0.96	29.5
Approach		1123	1.0	1182	1.0	0.511	24.8	LOS C	20.7	146.6	0.68	0.64	0.68	40.4
All Vehicles		2564	1.3	2699	1.3	0.524	33.6	LOS C	20.7	146.6	0.75	0.67	0.75	34.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_PM - Upgrade (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	116	2.1	122	2.1	0.542	64.2	LOS E	7.5	53.4	0.99	0.79	0.99	21.0
2	T1	86	0.0	91	0.0	0.377	57.7	LOS E	5.4	37.8	0.96	0.75	0.96	11.5
3	R2	166	0.0	175	0.0	* 0.881	76.7	LOS E	12.3	86.1	1.00	0.97	1.35	16.6
Approach		368	0.7	387	0.7	0.881	68.3	LOS E	12.3	86.1	0.99	0.86	1.15	17.2
East: Ashmore Rd														
4	L2	81	0.0	85	0.0	0.095	15.4	LOS B	1.6	10.9	0.57	0.70	0.57	37.3
5	T1	1067	2.0	1123	2.0	* 0.866	48.2	LOS D	37.2	265.0	0.97	0.96	1.09	32.0
6	R2	41	6.1	43	6.1	0.664	75.4	LOS E	4.5	32.3	1.00	0.81	1.12	18.0
6u	U	22	0.0	23	0.0	0.664	76.4	LOS E	4.5	32.3	1.00	0.81	1.12	23.2
Approach		1211	1.9	1275	1.9	0.866	47.5	LOS D	37.2	265.0	0.94	0.93	1.06	31.5
North: Benowa Rd														
7	L2	101	1.2	106	1.2	0.135	15.5	LOS B	2.6	18.7	0.47	0.68	0.47	40.1
8	T1	218	0.0	229	0.0	0.846	62.5	LOS E	15.1	105.9	0.99	0.96	1.22	10.8
9	R2	423	1.0	445	1.0	* 0.870	71.4	LOS E	15.2	107.0	0.99	0.95	1.28	21.0
Approach		742	0.7	781	0.7	0.870	61.1	LOS E	15.2	107.0	0.92	0.92	1.15	19.9
West: Ashmore Rd														
10	L2	177	0.0	186	0.0	0.120	6.7	LOS A	1.5	10.2	0.18	0.60	0.18	50.2
11	T1	976	1.1	1027	1.1	0.696	28.0	LOS C	24.2	171.1	0.80	0.71	0.80	39.8
12	R2	218	1.1	229	1.1	* 0.839	70.8	LOS E	16.0	113.0	1.00	0.92	1.21	19.6
12u	U	6	0.0	6	0.0	0.839	71.9	LOS E	16.0	113.0	1.00	0.92	1.21	27.3
Approach		1377	1.0	1449	1.0	0.839	32.2	LOS C	24.2	171.1	0.75	0.73	0.79	36.3
All Vehicles		3698	1.2	3893	1.2	0.881	46.6	LOS D	37.2	265.0	0.87	0.85	0.98	29.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_AM - Upgrade (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	180	2.1	189	2.1	0.794	65.4	LOS E	12.1	86.5	0.99	0.89	1.16	20.7
2	T1	180	0.0	189	0.0	0.752	57.9	LOS E	11.8	82.3	0.98	0.87	1.09	11.5
3	R2	179	0.0	188	0.0	* 0.839	68.6	LOS E	12.4	87.0	0.99	0.93	1.24	18.0
Approach		539	0.7	567	0.7	0.839	64.0	LOS E	12.4	87.0	0.98	0.89	1.16	17.3
East: Ashmore Rd														
4	L2	46	0.0	48	0.0	0.046	12.5	LOS B	0.8	5.5	0.47	0.67	0.47	39.6
5	T1	700	2.0	737	2.0	0.492	30.8	LOS C	17.8	126.4	0.79	0.69	0.79	38.5
6	R2	65	6.1	68	6.1	* 0.775	75.8	LOS E	6.7	48.4	1.00	0.88	1.22	17.9
6u	U	28	0.0	29	0.0	0.775	76.9	LOS E	6.7	48.4	1.00	0.88	1.22	23.1
Approach		839	2.1	883	2.1	0.775	34.8	LOS C	17.8	126.4	0.80	0.71	0.82	35.8
North: Benowa Rd														
7	L2	175	1.2	184	1.2	0.329	23.5	LOS C	6.4	45.4	0.64	0.74	0.64	34.5
8	T1	79	0.0	83	0.0	0.462	62.3	LOS E	5.2	36.2	0.99	0.77	0.99	10.8
9	R2	185	1.0	195	1.0	* 0.572	68.9	LOS E	6.2	43.5	1.00	0.78	1.00	21.4
Approach		439	0.9	462	0.9	0.572	49.7	LOS D	6.4	45.4	0.85	0.76	0.85	23.3
West: Ashmore Rd														
10	L2	513	0.0	540	0.0	0.375	8.8	LOS A	8.7	60.8	0.33	0.66	0.33	48.0
11	T1	1148	1.1	1208	1.1	* 0.860	35.7	LOS D	41.2	291.3	0.83	0.83	0.93	36.4
12	R2	117	1.1	123	1.1	0.479	59.9	LOS E	8.1	57.2	0.96	0.80	0.96	21.8
12u	U	14	0.0	15	0.0	0.479	61.0	LOS E	8.1	57.2	0.96	0.80	0.96	29.7
Approach		1792	0.8	1886	0.8	0.860	29.8	LOS C	41.2	291.3	0.70	0.77	0.76	37.2
All Vehicles		3609	1.1	3799	1.1	0.860	38.5	LOS D	41.2	291.3	0.78	0.78	0.85	31.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_SAT_AM - Upgrade (Site Folder: Ashmore Road - Benowa Road)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1	L2	147	2.1	155	2.1	*0.631	63.2	LOS E	9.5	67.6	0.99	0.81	1.00	21.2
2	T1	75	0.0	79	0.0	0.292	55.0	LOS D	4.6	32.0	0.94	0.73	0.94	12.0
3	R2	131	0.0	138	0.0	0.559	62.4	LOS E	8.3	58.3	0.98	0.80	0.98	19.2
Approach		353	0.9	372	0.9	0.631	61.1	LOS E	9.5	67.6	0.98	0.79	0.98	18.9
East: Ashmore Rd														
4	L2	78	0.0	82	0.0	0.077	12.2	LOS B	1.3	8.9	0.46	0.68	0.46	40.0
5	T1	772	2.0	813	2.0	0.504	27.6	LOS C	19.2	136.5	0.76	0.67	0.76	40.0
6	R2	59	6.1	62	6.1	*0.621	72.2	LOS E	5.2	38.1	1.00	0.80	1.06	18.5
6u	U	17	0.0	18	0.0	0.621	73.3	LOS E	5.2	38.1	1.00	0.80	1.06	23.8
Approach		926	2.0	975	2.0	0.621	30.0	LOS C	19.2	136.5	0.76	0.68	0.76	37.8
North: Benowa Rd														
7	L2	113	1.2	119	1.2	0.162	14.0	LOS B	2.7	19.4	0.44	0.67	0.44	41.4
8	T1	140	0.0	147	0.0	*0.564	63.1	LOS E	6.4	44.7	1.00	0.78	1.00	10.5
9	R2	141	1.0	148	1.0	0.564	68.8	LOS E	6.2	43.7	1.00	0.78	1.00	21.6
Approach		394	0.7	415	0.7	0.564	51.1	LOS D	6.4	44.7	0.84	0.75	0.84	21.2
West: Ashmore Rd														
10	L2	138	0.0	145	0.0	0.095	6.8	LOS A	1.2	8.2	0.19	0.60	0.19	50.1
11	T1	1033	1.1	1087	1.1	*0.595	23.2	LOS C	25.1	177.3	0.74	0.66	0.74	42.2
12	R2	124	1.1	131	1.1	0.495	61.7	LOS E	7.9	55.9	0.97	0.80	0.97	21.4
12u	U	2	0.0	2	0.0	0.495	62.8	LOS E	7.9	55.9	0.97	0.80	0.97	29.3
Approach		1297	1.0	1365	1.0	0.595	25.2	LOS C	25.1	177.3	0.70	0.67	0.70	40.1
All Vehicles		2970	1.3	3126	1.3	0.631	34.4	LOS C	25.1	177.3	0.77	0.70	0.77	34.0

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Benowa Rd												
P1	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
East: Ashmore Rd												

P2	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	231.4	223.8	0.97
North: Benowa Rd												
P3	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	226.3	217.2	0.96
West: Ashmore Rd												
P4	Full	25	26	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96
All Pedestrians		100	105	59.2	LOS E	0.1	0.1	0.95	0.95	228.8	220.5	0.96

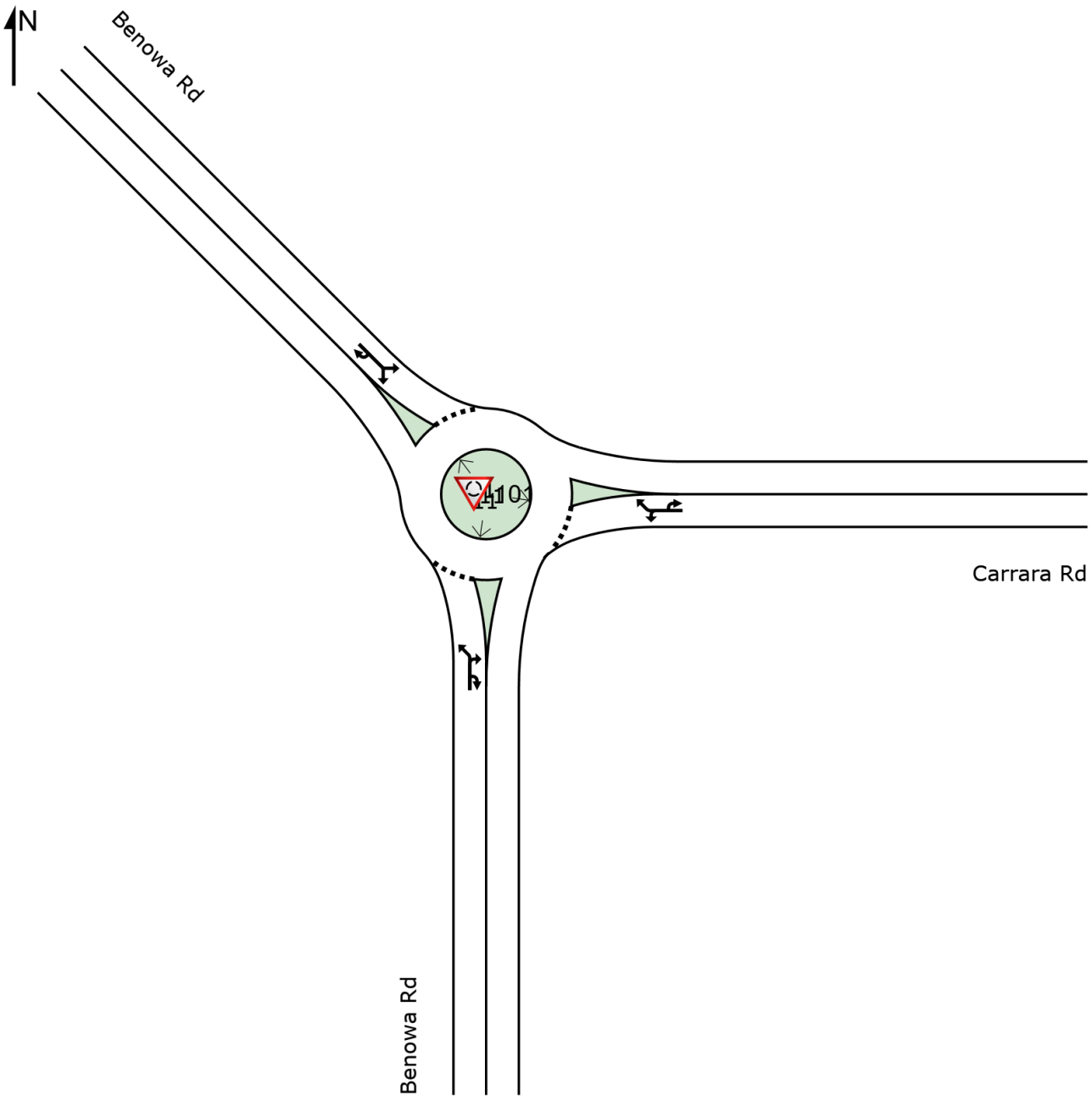
Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SITE LAYOUT

Site: 101 [2024_Survey_THU_PM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

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



MOVEMENT SUMMARY

Site: 101 [2024_Survey_THU_PM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	110	2.3	116	2.3	0.209	5.9	LOS A	1.1	7.9	0.40	0.63	0.40	45.4
3	R2	88	1.9	93	1.9	0.209	9.6	LOS A	1.1	7.9	0.40	0.63	0.40	46.4
3u	U	2	0.0	2	0.0	0.209	11.2	LOS B	1.1	7.9	0.40	0.63	0.40	37.3
Approach		200	2.1	211	2.1	0.209	7.6	LOS A	1.1	7.9	0.40	0.63	0.40	45.8
East: Carrara Rd														
4	L2	281	0.9	296	0.9	0.538	6.8	LOS A	4.1	28.7	0.52	0.66	0.52	45.1
6a	R1	256	0.4	269	0.4	0.538	9.3	LOS A	4.1	28.7	0.52	0.66	0.52	48.4
6u	U	1	0.0	1	0.0	0.538	11.8	LOS B	4.1	28.7	0.52	0.66	0.52	50.2
Approach		538	0.7	566	0.7	0.538	8.0	LOS A	4.1	28.7	0.52	0.66	0.52	46.9
NorthWest: Benowa Rd														
27a	L1	165	0.8	174	0.8	0.321	4.8	LOS A	2.0	14.4	0.28	0.57	0.28	50.1
29a	R1	215	0.8	226	0.8	0.321	7.7	LOS A	2.0	14.4	0.28	0.57	0.28	45.7
29u	U	6	0.0	6	0.0	0.321	10.2	LOS B	2.0	14.4	0.28	0.57	0.28	50.1
Approach		386	0.8	406	0.8	0.321	6.5	LOS A	2.0	14.4	0.28	0.57	0.28	48.0
All Vehicles		1124	1.0	1183	1.0	0.538	7.4	LOS A	4.1	28.7	0.42	0.62	0.42	47.1

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

MOVEMENT SUMMARY

Site: 101 [2024_Survey_THU_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	240	2.3	253	2.3	0.428	6.1	LOS A	2.8	20.1	0.46	0.65	0.46	45.2
3	R2	187	1.9	197	1.9	0.428	9.9	LOS A	2.8	20.1	0.46	0.65	0.46	46.1
3u	U	1	0.0	1	0.0	0.428	11.5	LOS B	2.8	20.1	0.46	0.65	0.46	37.0
Approach		428	2.1	451	2.1	0.428	7.8	LOS A	2.8	20.1	0.46	0.65	0.46	45.6
East: Carrara Rd														
4	L2	121	0.9	127	0.9	0.384	7.2	LOS A	2.4	16.8	0.53	0.70	0.53	44.2
6a	R1	203	0.4	214	0.4	0.384	9.7	LOS A	2.4	16.8	0.53	0.70	0.53	47.7
6u	U	7	0.0	7	0.0	0.384	12.2	LOS B	2.4	16.8	0.53	0.70	0.53	49.4
Approach		331	0.6	348	0.6	0.384	8.8	LOS A	2.4	16.8	0.53	0.70	0.53	46.6
NorthWest: Benowa Rd														
27a	L1	237	0.8	249	0.8	0.513	6.0	LOS A	4.0	28.0	0.49	0.63	0.49	49.1
29a	R1	272	0.8	286	0.8	0.513	8.9	LOS A	4.0	28.0	0.49	0.63	0.49	44.5
29u	U	35	0.0	37	0.0	0.513	11.3	LOS B	4.0	28.0	0.49	0.63	0.49	49.0
Approach		544	0.8	573	0.8	0.513	7.8	LOS A	4.0	28.0	0.49	0.63	0.49	47.1
All Vehicles		1303	1.2	1372	1.2	0.513	8.0	LOS A	4.0	28.0	0.49	0.66	0.49	46.5

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

MOVEMENT SUMMARY

Site: 101 [2024_Survey_SAT_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	141	2.3	148	2.3	0.219	5.4	LOS A	1.2	8.3	0.34	0.59	0.34	46.2
3	R2	81	1.9	85	1.9	0.219	9.1	LOS A	1.2	8.3	0.34	0.59	0.34	47.1
3u	U	5	0.0	5	0.0	0.219	10.7	LOS B	1.2	8.3	0.34	0.59	0.34	38.1
Approach		227	2.1	239	2.1	0.219	6.9	LOS A	1.2	8.3	0.34	0.59	0.34	46.4
East: Carrara Rd														
4	L2	126	0.9	133	0.9	0.310	6.0	LOS A	1.8	12.7	0.39	0.63	0.39	45.6
6a	R1	184	0.4	194	0.4	0.310	8.6	LOS A	1.8	12.7	0.39	0.63	0.39	48.9
6u	U	1	0.0	1	0.0	0.310	11.0	LOS B	1.8	12.7	0.39	0.63	0.39	50.7
Approach		311	0.6	327	0.6	0.310	7.5	LOS A	1.8	12.7	0.39	0.63	0.39	47.8
NorthWest: Benowa Rd														
27a	L1	171	0.8	180	0.8	0.294	4.8	LOS A	1.8	12.7	0.26	0.56	0.26	50.3
29a	R1	183	0.8	193	0.8	0.294	7.7	LOS A	1.8	12.7	0.26	0.56	0.26	46.0
29u	U	1	0.0	1	0.0	0.294	10.1	LOS B	1.8	12.7	0.26	0.56	0.26	50.4
Approach		355	0.8	374	0.8	0.294	6.3	LOS A	1.8	12.7	0.26	0.56	0.26	48.4
All Vehicles		893	1.1	940	1.1	0.310	6.9	LOS A	1.8	12.7	0.32	0.59	0.32	47.7

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

MOVEMENT SUMMARY

Site: 101 [2028_BG_THU_PM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	117	2.3	123	2.3	0.226	6.0	LOS A	1.2	8.7	0.42	0.64	0.42	45.3
3	R2	93	1.9	98	1.9	0.226	9.8	LOS A	1.2	8.7	0.42	0.64	0.42	46.3
3u	U	2	0.0	2	0.0	0.226	11.4	LOS B	1.2	8.7	0.42	0.64	0.42	37.1
Approach		212	2.1	223	2.1	0.226	7.7	LOS A	1.2	8.7	0.42	0.64	0.42	45.7
East: Carrara Rd														
4	L2	298	0.9	314	0.9	0.578	7.0	LOS A	4.6	32.4	0.56	0.67	0.56	44.8
6a	R1	272	0.4	286	0.4	0.578	9.6	LOS A	4.6	32.4	0.56	0.67	0.56	48.2
6u	U	1	0.0	1	0.0	0.578	12.0	LOS B	4.6	32.4	0.56	0.67	0.56	49.9
Approach		571	0.7	601	0.7	0.578	8.2	LOS A	4.6	32.4	0.56	0.67	0.56	46.6
NorthWest: Benowa Rd														
27a	L1	175	0.8	184	0.8	0.342	4.9	LOS A	2.2	15.7	0.29	0.57	0.29	50.0
29a	R1	228	0.8	240	0.8	0.342	7.8	LOS A	2.2	15.7	0.29	0.57	0.29	45.6
29u	U	6	0.0	6	0.0	0.342	10.2	LOS B	2.2	15.7	0.29	0.57	0.29	50.0
Approach		409	0.8	431	0.8	0.342	6.6	LOS A	2.2	15.7	0.29	0.57	0.29	47.9
All Vehicles		1192	1.0	1255	1.0	0.578	7.6	LOS A	4.6	32.4	0.44	0.63	0.44	46.9

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

MOVEMENT SUMMARY

Site: 101 [2028_BG_THU_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	255	2.3	268	2.3	0.460	6.3	LOS A	3.1	22.4	0.49	0.66	0.49	45.0
3	R2	198	1.9	208	1.9	0.460	10.1	LOS B	3.1	22.4	0.49	0.66	0.49	46.0
3u	U	1	0.0	1	0.0	0.460	11.7	LOS B	3.1	22.4	0.49	0.66	0.49	36.8
Approach		454	2.1	478	2.1	0.460	8.0	LOS A	3.1	22.4	0.49	0.66	0.49	45.4
East: Carrara Rd														
4	L2	128	0.9	135	0.9	0.414	7.4	LOS A	2.6	18.6	0.56	0.72	0.56	43.9
6a	R1	215	0.4	226	0.4	0.414	9.9	LOS A	2.6	18.6	0.56	0.72	0.56	47.4
6u	U	7	0.0	7	0.0	0.414	12.4	LOS B	2.6	18.6	0.56	0.72	0.56	49.2
Approach		350	0.6	368	0.6	0.414	9.1	LOS A	2.6	18.6	0.56	0.72	0.56	46.4
NorthWest: Benowa Rd														
27a	L1	252	0.8	265	0.8	0.552	6.1	LOS A	4.5	31.6	0.53	0.64	0.53	48.9
29a	R1	289	0.8	304	0.8	0.552	9.1	LOS A	4.5	31.6	0.53	0.64	0.53	44.3
29u	U	37	0.0	39	0.0	0.552	11.5	LOS B	4.5	31.6	0.53	0.64	0.53	48.9
Approach		578	0.8	608	0.8	0.552	8.0	LOS A	4.5	31.6	0.53	0.64	0.53	46.9
All Vehicles		1382	1.2	1455	1.2	0.552	8.2	LOS A	4.5	31.6	0.52	0.67	0.52	46.3

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

MOVEMENT SUMMARY

Site: 101 [2028_BG_SAT_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	150	2.3	158	2.3	0.235	5.5	LOS A	1.3	9.0	0.35	0.60	0.35	46.1
3	R2	86	1.9	91	1.9	0.235	9.2	LOS A	1.3	9.0	0.35	0.60	0.35	47.0
3u	U	5	0.0	5	0.0	0.235	10.8	LOS B	1.3	9.0	0.35	0.60	0.35	38.0
Approach		241	2.1	254	2.1	0.235	6.9	LOS A	1.3	9.0	0.35	0.60	0.35	46.3
East: Carrara Rd														
4	L2	134	0.9	141	0.9	0.333	6.1	LOS A	2.0	13.9	0.41	0.63	0.41	45.5
6a	R1	195	0.4	205	0.4	0.333	8.7	LOS A	2.0	13.9	0.41	0.63	0.41	48.8
6u	U	1	0.0	1	0.0	0.333	11.1	LOS B	2.0	13.9	0.41	0.63	0.41	50.5
Approach		330	0.6	347	0.6	0.333	7.7	LOS A	2.0	13.9	0.41	0.63	0.41	47.6
NorthWest: Benowa Rd														
27a	L1	181	0.8	191	0.8	0.313	4.8	LOS A	2.0	13.8	0.27	0.56	0.27	50.3
29a	R1	194	0.8	204	0.8	0.313	7.7	LOS A	2.0	13.8	0.27	0.56	0.27	45.9
29u	U	1	0.0	1	0.0	0.313	10.2	LOS B	2.0	13.8	0.27	0.56	0.27	50.3
Approach		376	0.8	396	0.8	0.313	6.3	LOS A	2.0	13.8	0.27	0.56	0.27	48.4
All Vehicles		947	1.1	997	1.1	0.333	7.0	LOS A	2.0	13.9	0.34	0.60	0.34	47.6

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

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_PM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	117	2.3	123	2.3	0.281	6.7	LOS A	1.6	11.5	0.50	0.69	0.50	44.2
3	R2	122	1.9	128	1.9	0.281	10.5	LOS B	1.6	11.5	0.50	0.69	0.50	45.2
3u	U	2	0.0	2	0.0	0.281	12.0	LOS B	1.6	11.5	0.50	0.69	0.50	36.0
Approach		241	2.1	254	2.1	0.281	8.7	LOS A	1.6	11.5	0.50	0.69	0.50	44.7
East: Carrara Rd														
4	L2	382	0.9	402	0.9	0.740	9.0	LOS A	9.1	64.4	0.70	0.73	0.77	42.7
6a	R1	356	0.4	375	0.4	0.740	11.5	LOS B	9.1	64.4	0.70	0.73	0.77	46.4
6u	U	1	0.0	1	0.0	0.740	14.0	LOS B	9.1	64.4	0.70	0.73	0.77	48.1
Approach		739	0.7	778	0.7	0.740	10.2	LOS B	9.1	64.4	0.70	0.73	0.77	44.7
NorthWest: Benowa Rd														
27a	L1	262	0.8	276	0.8	0.430	5.2	LOS A	3.1	21.9	0.37	0.58	0.37	50.0
29a	R1	228	0.8	240	0.8	0.430	8.1	LOS A	3.1	21.9	0.37	0.58	0.37	45.6
29u	U	6	0.0	6	0.0	0.430	10.6	LOS B	3.1	21.9	0.37	0.58	0.37	50.0
Approach		496	0.8	522	0.8	0.430	6.6	LOS A	3.1	21.9	0.37	0.58	0.37	48.3
All Vehicles		1476	0.9	1554	0.9	0.740	8.7	LOS A	9.1	64.4	0.56	0.67	0.60	45.8

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

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	255	2.3	268	2.3	0.492	6.9	LOS A	3.4	24.4	0.54	0.69	0.54	44.3
3	R2	200	1.9	211	1.9	0.492	10.6	LOS B	3.4	24.4	0.54	0.69	0.54	45.3
3u	U	1	0.0	1	0.0	0.492	12.2	LOS B	3.4	24.4	0.54	0.69	0.54	36.1
Approach		456	2.1	480	2.1	0.492	8.5	LOS A	3.4	24.4	0.54	0.69	0.54	44.8
East: Carrara Rd														
4	L2	179	0.9	188	0.9	0.530	7.9	LOS A	3.9	27.2	0.62	0.74	0.63	43.5
6a	R1	266	0.4	280	0.4	0.530	10.4	LOS B	3.9	27.2	0.62	0.74	0.63	47.1
6u	U	7	0.0	7	0.0	0.530	12.9	LOS B	3.9	27.2	0.62	0.74	0.63	48.8
Approach		452	0.6	476	0.6	0.530	9.5	LOS A	3.9	27.2	0.62	0.74	0.63	45.9
NorthWest: Benowa Rd														
27a	L1	267	0.8	281	0.8	0.569	6.2	LOS A	4.7	33.3	0.54	0.65	0.54	48.9
29a	R1	289	0.8	304	0.8	0.569	9.1	LOS A	4.7	33.3	0.54	0.65	0.54	44.2
29u	U	37	0.0	39	0.0	0.569	11.6	LOS B	4.7	33.3	0.54	0.65	0.54	48.8
Approach		593	0.8	624	0.8	0.569	8.0	LOS A	4.7	33.3	0.54	0.65	0.54	47.0
All Vehicles		1501	1.1	1580	1.1	0.569	8.6	LOS A	4.7	33.3	0.57	0.69	0.57	46.0

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

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_SAT_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	150	2.3	158	2.3	0.221	5.4	LOS A	1.2	8.4	0.34	0.59	0.34	46.3
3	R2	76	1.9	80	1.9	0.221	9.1	LOS A	1.2	8.4	0.34	0.59	0.34	47.2
3u	U	5	0.0	5	0.0	0.221	10.7	LOS B	1.2	8.4	0.34	0.59	0.34	38.2
Approach		231	2.1	243	2.1	0.221	6.7	LOS A	1.2	8.4	0.34	0.59	0.34	46.5
East: Carrara Rd														
4	L2	123	0.9	129	0.9	0.307	6.1	LOS A	1.8	12.5	0.40	0.63	0.40	45.5
6a	R1	179	0.4	188	0.4	0.307	8.7	LOS A	1.8	12.5	0.40	0.63	0.40	48.8
6u	U	1	0.0	1	0.0	0.307	11.1	LOS B	1.8	12.5	0.40	0.63	0.40	50.6
Approach		303	0.6	319	0.6	0.307	7.6	LOS A	1.8	12.5	0.40	0.63	0.40	47.7
NorthWest: Benowa Rd														
27a	L1	191	0.8	201	0.8	0.316	4.7	LOS A	2.0	14.0	0.26	0.56	0.26	50.4
29a	R1	194	0.8	204	0.8	0.316	7.7	LOS A	2.0	14.0	0.26	0.56	0.26	46.0
29u	U	1	0.0	1	0.0	0.316	10.1	LOS B	2.0	14.0	0.26	0.56	0.26	50.4
Approach		386	0.8	406	0.8	0.316	6.2	LOS A	2.0	14.0	0.26	0.56	0.26	48.5
All Vehicles		920	1.1	968	1.1	0.316	6.8	LOS A	2.0	14.0	0.32	0.59	0.32	47.8

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

MOVEMENT SUMMARY

Site: 101 [2038_BG_THU_PM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	135	2.3	142	2.3	0.275	6.4	LOS A	1.6	11.1	0.48	0.67	0.48	44.8
3	R2	108	1.9	114	1.9	0.275	10.2	LOS B	1.6	11.1	0.48	0.67	0.48	45.8
3u	U	2	0.0	2	0.0	0.275	11.7	LOS B	1.6	11.1	0.48	0.67	0.48	36.6
Approach		245	2.1	258	2.1	0.275	8.1	LOS A	1.6	11.1	0.48	0.67	0.48	45.2
East: Carrara Rd														
4	L2	346	0.9	364	0.9	0.696	9.1	LOS A	7.6	53.7	0.68	0.75	0.76	42.6
6a	R1	315	0.4	332	0.4	0.696	11.6	LOS B	7.6	53.7	0.68	0.75	0.76	46.3
6u	U	1	0.0	1	0.0	0.696	14.1	LOS B	7.6	53.7	0.68	0.75	0.76	48.0
Approach		662	0.7	697	0.7	0.696	10.3	LOS B	7.6	53.7	0.68	0.75	0.76	44.5
NorthWest: Benowa Rd														
27a	L1	203	0.8	214	0.8	0.404	5.0	LOS A	2.8	20.0	0.34	0.58	0.34	49.8
29a	R1	265	0.8	279	0.8	0.404	8.0	LOS A	2.8	20.0	0.34	0.58	0.34	45.4
29u	U	7	0.0	7	0.0	0.404	10.4	LOS B	2.8	20.0	0.34	0.58	0.34	49.9
Approach		475	0.8	500	0.8	0.404	6.8	LOS A	2.8	20.0	0.34	0.58	0.34	47.7
All Vehicles		1382	1.0	1455	1.0	0.696	8.7	LOS A	7.6	53.7	0.53	0.68	0.57	45.7

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

MOVEMENT SUMMARY

Site: 101 [2038_BG_THU_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	296	2.3	312	2.3	0.559	7.1	LOS A	4.3	30.7	0.57	0.71	0.58	44.0
3	R2	230	1.9	242	1.9	0.559	10.8	LOS B	4.3	30.7	0.57	0.71	0.58	45.1
3u	U	1	0.0	1	0.0	0.559	12.4	LOS B	4.3	30.7	0.57	0.71	0.58	35.8
Approach		527	2.1	555	2.1	0.559	8.7	LOS A	4.3	30.7	0.57	0.71	0.58	44.5
East: Carrara Rd														
4	L2	149	0.9	157	0.9	0.515	8.5	LOS A	3.7	26.2	0.65	0.78	0.68	42.8
6a	R1	250	0.4	263	0.4	0.515	11.0	LOS B	3.7	26.2	0.65	0.78	0.68	46.5
6u	U	9	0.0	9	0.0	0.515	13.5	LOS B	3.7	26.2	0.65	0.78	0.68	48.2
Approach		408	0.6	429	0.6	0.515	10.2	LOS B	3.7	26.2	0.65	0.78	0.68	45.3
NorthWest: Benowa Rd														
27a	L1	292	0.8	307	0.8	0.664	7.3	LOS A	6.6	46.8	0.64	0.70	0.67	48.0
29a	R1	335	0.8	353	0.8	0.664	10.2	LOS B	6.6	46.8	0.64	0.70	0.67	43.1
29u	U	43	0.0	45	0.0	0.664	12.6	LOS B	6.6	46.8	0.64	0.70	0.67	47.8
Approach		670	0.8	705	0.8	0.664	9.1	LOS A	6.6	46.8	0.64	0.70	0.67	45.9
All Vehicles		1605	1.2	1689	1.2	0.664	9.2	LOS A	6.6	46.8	0.62	0.72	0.64	45.3

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

MOVEMENT SUMMARY

Site: 101 [2038_BG_SAT_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	174	2.3	183	2.3	0.282	5.8	LOS A	1.6	11.4	0.40	0.62	0.40	45.8
3	R2	100	1.9	105	1.9	0.282	9.5	LOS A	1.6	11.4	0.40	0.62	0.40	46.7
3u	U	6	0.0	6	0.0	0.282	11.1	LOS B	1.6	11.4	0.40	0.62	0.40	37.7
Approach		280	2.1	295	2.1	0.282	7.2	LOS A	1.6	11.4	0.40	0.62	0.40	46.0
East: Carrara Rd														
4	L2	155	0.9	163	0.9	0.398	6.5	LOS A	2.5	17.7	0.46	0.65	0.46	45.0
6a	R1	227	0.4	239	0.4	0.398	9.1	LOS A	2.5	17.7	0.46	0.65	0.46	48.4
6u	U	1	0.0	1	0.0	0.398	11.5	LOS B	2.5	17.7	0.46	0.65	0.46	50.1
Approach		383	0.6	403	0.6	0.398	8.1	LOS A	2.5	17.7	0.46	0.65	0.46	47.2
NorthWest: Benowa Rd														
27a	L1	211	0.8	222	0.8	0.370	5.0	LOS A	2.5	17.4	0.32	0.57	0.32	50.1
29a	R1	225	0.8	237	0.8	0.370	7.9	LOS A	2.5	17.4	0.32	0.57	0.32	45.7
29u	U	1	0.0	1	0.0	0.370	10.3	LOS B	2.5	17.4	0.32	0.57	0.32	50.1
Approach		437	0.8	460	0.8	0.370	6.5	LOS A	2.5	17.4	0.32	0.57	0.32	48.2
All Vehicles		1100	1.1	1158	1.1	0.398	7.2	LOS A	2.5	17.7	0.39	0.61	0.39	47.3

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

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_PM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	135	2.3	142	2.3	0.343	7.2	LOS A	2.1	14.7	0.56	0.73	0.56	43.7
3	R2	137	1.9	144	1.9	0.343	10.9	LOS B	2.1	14.7	0.56	0.73	0.56	44.7
3u	U	2	0.0	2	0.0	0.343	12.5	LOS B	2.1	14.7	0.56	0.73	0.56	35.4
Approach		274	2.1	288	2.1	0.343	9.1	LOS A	2.1	14.7	0.56	0.73	0.56	44.2
East: Carrara Rd														
4	L2	430	0.9	453	0.9	0.866	14.4	LOS B	17.1	120.2	0.88	0.89	1.19	37.8
6a	R1	399	0.4	420	0.4	0.866	16.9	LOS B	17.1	120.2	0.88	0.89	1.19	42.0
6u	U	1	0.0	1	0.0	0.866	19.3	LOS B	17.1	120.2	0.88	0.89	1.19	43.7
Approach		830	0.7	874	0.7	0.866	15.6	LOS B	17.1	120.2	0.88	0.89	1.19	40.0
NorthWest: Benowa Rd														
27a	L1	290	0.8	305	0.8	0.495	5.4	LOS A	3.9	27.5	0.43	0.59	0.43	49.8
29a	R1	265	0.8	279	0.8	0.495	8.3	LOS A	3.9	27.5	0.43	0.59	0.43	45.3
29u	U	7	0.0	7	0.0	0.495	10.8	LOS B	3.9	27.5	0.43	0.59	0.43	49.7
Approach		562	0.8	592	0.8	0.495	6.9	LOS A	3.9	27.5	0.43	0.59	0.43	48.0
All Vehicles		1666	1.0	1754	1.0	0.866	11.6	LOS B	17.1	120.2	0.67	0.76	0.83	43.0

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

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	296	2.3	312	2.3	0.599	8.3	LOS A	5.2	36.8	0.63	0.77	0.69	42.6
3	R2	232	1.9	244	1.9	0.599	12.0	LOS B	5.2	36.8	0.63	0.77	0.69	43.8
3u	U	1	0.0	1	0.0	0.599	13.6	LOS B	5.2	36.8	0.63	0.77	0.69	34.3
Approach		529	2.1	557	2.1	0.599	9.9	LOS A	5.2	36.8	0.63	0.77	0.69	43.1
East: Carrara Rd														
4	L2	200	0.9	211	0.9	0.639	10.2	LOS B	6.0	42.6	0.72	0.84	0.85	41.2
6a	R1	301	0.4	317	0.4	0.639	12.8	LOS B	6.0	42.6	0.72	0.84	0.85	45.0
6u	U	9	0.0	9	0.0	0.639	15.2	LOS B	6.0	42.6	0.72	0.84	0.85	46.7
Approach		510	0.6	537	0.6	0.639	11.8	LOS B	6.0	42.6	0.72	0.84	0.85	43.7
NorthWest: Benowa Rd														
27a	L1	308	0.8	324	0.8	0.684	7.6	LOS A	7.3	51.2	0.67	0.71	0.71	47.7
29a	R1	335	0.8	353	0.8	0.684	10.5	LOS B	7.3	51.2	0.67	0.71	0.71	42.8
29u	U	43	0.0	45	0.0	0.684	12.9	LOS B	7.3	51.2	0.67	0.71	0.71	47.5
Approach		686	0.8	722	0.8	0.684	9.4	LOS A	7.3	51.2	0.67	0.71	0.71	45.6
All Vehicles		1725	1.1	1816	1.1	0.684	10.3	LOS B	7.3	51.2	0.67	0.77	0.74	44.3

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

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_SAT_AM (Site Folder: Benowa Road - Carrara Street)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Benowa Rd														
1a	L1	174	2.3	183	2.3	0.266	5.6	LOS A	1.5	10.6	0.38	0.61	0.38	46.0
3	R2	89	1.9	94	1.9	0.266	9.4	LOS A	1.5	10.6	0.38	0.61	0.38	47.0
3u	U	6	0.0	6	0.0	0.266	11.0	LOS B	1.5	10.6	0.38	0.61	0.38	37.9
Approach		269	2.1	283	2.1	0.266	7.0	LOS A	1.5	10.6	0.38	0.61	0.38	46.2
East: Carrara Rd														
4	L2	144	0.9	152	0.9	0.371	6.5	LOS A	2.3	16.1	0.45	0.65	0.45	45.1
6a	R1	210	0.4	221	0.4	0.371	9.0	LOS A	2.3	16.1	0.45	0.65	0.45	48.4
6u	U	1	0.0	1	0.0	0.371	11.5	LOS B	2.3	16.1	0.45	0.65	0.45	50.2
Approach		355	0.6	374	0.6	0.371	8.0	LOS A	2.3	16.1	0.45	0.65	0.45	47.3
NorthWest: Benowa Rd														
27a	L1	220	0.8	232	0.8	0.370	4.9	LOS A	2.5	17.5	0.30	0.56	0.30	50.2
29a	R1	225	0.8	237	0.8	0.370	7.8	LOS A	2.5	17.5	0.30	0.56	0.30	45.8
29u	U	1	0.0	1	0.0	0.370	10.3	LOS B	2.5	17.5	0.30	0.56	0.30	50.3
Approach		446	0.8	469	0.8	0.370	6.4	LOS A	2.5	17.5	0.30	0.56	0.30	48.3
All Vehicles		1070	1.1	1126	1.1	0.371	7.1	LOS A	2.5	17.5	0.37	0.60	0.37	47.5

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

MOVEMENT SUMMARY

Site: 101v [2038_BG+DEV_THU_AM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	148	2.0	156	2.0	0.208	8.6	LOS A	0.8	5.7	0.60	0.83	0.60	39.0
Approach		148	2.0	156	2.0	0.208	8.6	LOS A	0.8	5.7	0.60	0.83	0.60	39.0
West: Ashmore Rd														
10	L2	144	1.0	152	1.0	0.082	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	1328	3.0	1398	3.0	0.365	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1472	2.8	1549	2.8	0.365	0.6	NA	0.0	0.0	0.00	0.06	0.00	57.6
All Vehicles		1620	2.7	1705	2.7	0.365	1.3	NA	0.8	5.7	0.06	0.13	0.06	55.4

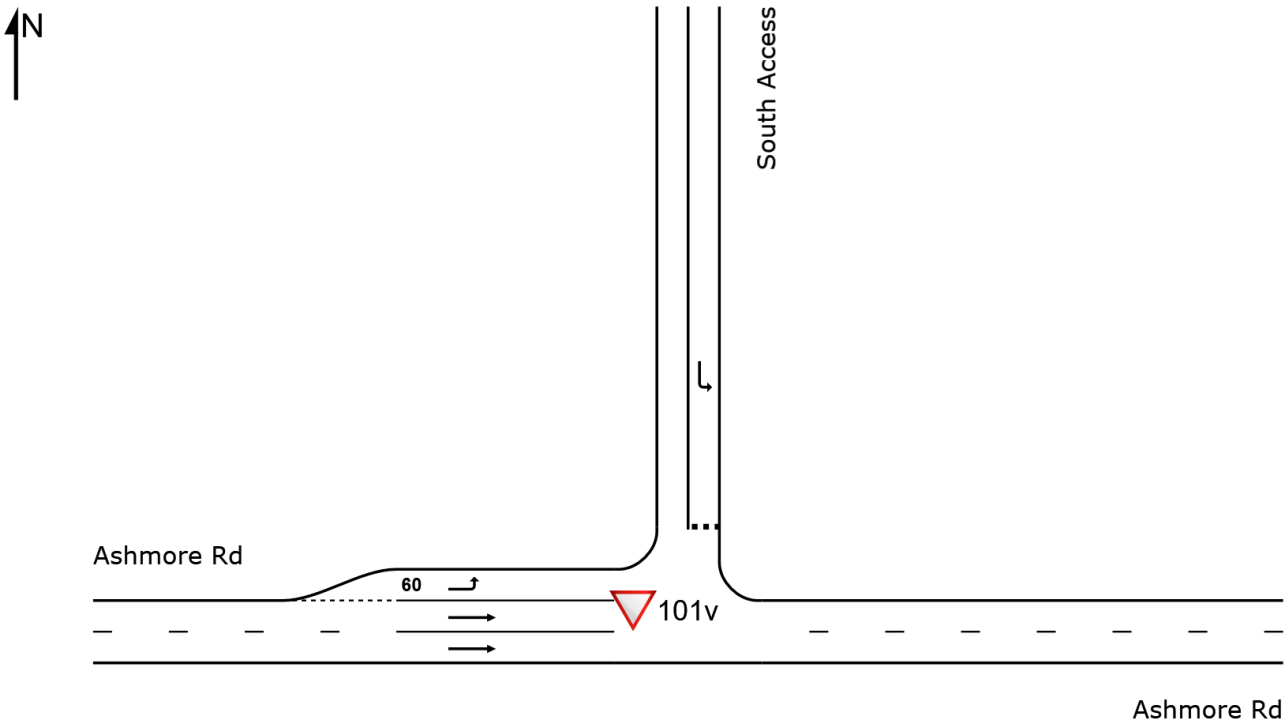
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and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

SITE LAYOUT

Site: 101v [2024_Survey_THU_PM (Site Folder: Ashmore Road - Southern Access)]

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

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



Organisation: TTM CONSULTING PTY LTD | Licence: NETWORK / Enterprise | Created: Thursday, 16 October 2025 11:00:14 AM
Project: C:\Users\Matt.Grierson\OneDrive - Colliers International\2024 Projects - 24BRT0224 Benowa Gardens - 203 Ashmore Road Benowa\6 - Analysis\250919 - RFI\24BRT0224 SA01 I.sip9

MOVEMENT SUMMARY

Site: 101v [2024_Survey_THU_PM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	59	3.4	62	3.4	0.060	6.5	LOS A	0.2	1.7	0.46	0.65	0.46	41.5
Approach		59	3.4	62	3.4	0.060	6.5	LOS A	0.2	1.7	0.46	0.65	0.46	41.5
West: Ashmore Rd														
10	L2	75	2.7	79	2.7	0.043	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	846	3.0	891	3.0	0.233	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		921	3.0	969	3.0	0.233	0.5	NA	0.0	0.0	0.00	0.05	0.00	58.1
All Vehicles		980	3.0	1032	3.0	0.233	0.8	NA	0.2	1.7	0.03	0.08	0.03	56.8

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

MOVEMENT SUMMARY

Site: 101v [2024_Survey_SAT_AM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	43	1.0	45	1.0	0.045	6.6	LOS A	0.2	1.2	0.47	0.66	0.47	41.8
Approach		43	1.0	45	1.0	0.045	6.6	LOS A	0.2	1.2	0.47	0.66	0.47	41.8
West: Ashmore Rd														
10	L2	64	1.0	67	1.0	0.037	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	936	1.0	985	1.0	0.254	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1000	1.0	1053	1.0	0.254	0.4	NA	0.0	0.0	0.00	0.04	0.00	58.5
All Vehicles		1043	1.0	1098	1.0	0.254	0.6	NA	0.2	1.2	0.02	0.06	0.02	57.6

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

MOVEMENT SUMMARY

Site: 101v [2024_Survey_THU_AM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	42	2.0	44	2.0	0.049	7.2	LOS A	0.2	1.3	0.51	0.69	0.51	40.9
Approach		42	2.0	44	2.0	0.049	7.2	LOS A	0.2	1.3	0.51	0.69	0.51	40.9
West: Ashmore Rd														
10	L2	87	1.0	92	1.0	0.050	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	1078	3.0	1135	3.0	0.297	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1165	2.9	1226	2.9	0.297	0.4	NA	0.0	0.0	0.00	0.04	0.00	58.2
All Vehicles		1207	2.8	1271	2.8	0.297	0.7	NA	0.2	1.3	0.02	0.07	0.02	57.4

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

MOVEMENT SUMMARY

Site: 101v [2028_BG+DEV_THU_PM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	256	3.4	269	3.4	0.269	7.0	LOS A	1.2	8.4	0.53	0.74	0.53	40.7
Approach		256	3.4	269	3.4	0.269	7.0	LOS A	1.2	8.4	0.53	0.74	0.53	40.7
West: Ashmore Rd														
10	L2	227	2.7	239	2.7	0.131	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	898	3.0	945	3.0	0.247	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1125	2.9	1184	2.9	0.247	1.1	NA	0.0	0.0	0.00	0.12	0.00	55.4
All Vehicles		1381	3.0	1454	3.0	0.269	2.2	NA	1.2	8.4	0.10	0.23	0.10	52.0

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

MOVEMENT SUMMARY

Site: 101v [2028_BG+DEV_SAT_AM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	124	1.0	131	1.0	0.135	7.0	LOS A	0.5	3.8	0.51	0.72	0.51	41.3
Approach		124	1.0	131	1.0	0.135	7.0	LOS A	0.5	3.8	0.51	0.72	0.51	41.3
West: Ashmore Rd														
10	L2	125	1.0	132	1.0	0.071	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	993	1.0	1045	1.0	0.270	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1118	1.0	1177	1.0	0.270	0.6	NA	0.0	0.0	0.00	0.06	0.00	57.4
All Vehicles		1242	1.0	1307	1.0	0.270	1.3	NA	0.5	3.8	0.05	0.13	0.05	55.4

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

MOVEMENT SUMMARY

Site: 101v [2028_BG+DEV_THU_AM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	141	2.0	148	2.0	0.173	7.7	LOS A	0.7	4.8	0.56	0.78	0.56	40.1
Approach		141	2.0	148	2.0	0.173	7.7	LOS A	0.7	4.8	0.56	0.78	0.56	40.1
West: Ashmore Rd														
10	L2	129	1.0	136	1.0	0.074	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	1144	3.0	1204	3.0	0.315	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1273	2.8	1340	2.8	0.315	0.6	NA	0.0	0.0	0.00	0.06	0.00	57.6
All Vehicles		1414	2.7	1488	2.7	0.315	1.3	NA	0.7	4.8	0.06	0.13	0.06	55.4

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

MOVEMENT SUMMARY

Site: 101v [2038_BG+DEV_THU_PM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	266	3.4	280	3.4	0.307	7.9	LOS A	1.5	10.5	0.58	0.82	0.65	39.6
Approach		266	3.4	280	3.4	0.307	7.9	LOS A	1.5	10.5	0.58	0.82	0.65	39.6
West: Ashmore Rd														
10	L2	239	2.7	252	2.7	0.138	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	1042	3.0	1097	3.0	0.287	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1281	2.9	1348	2.9	0.287	1.1	NA	0.0	0.0	0.00	0.11	0.00	55.7
All Vehicles		1547	3.0	1628	3.0	0.307	2.2	NA	1.5	10.5	0.10	0.23	0.11	52.2

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

MOVEMENT SUMMARY

Site: 101v [2038_BG+DEV_SAT_AM (Site Folder: Ashmore Road - Southern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: South Access														
7	L2	132	1.0	139	1.0	0.160	7.6	LOS A	0.6	4.4	0.55	0.77	0.55	40.4
Approach		132	1.0	139	1.0	0.160	7.6	LOS A	0.6	4.4	0.55	0.77	0.55	40.4
West: Ashmore Rd														
10	L2	136	1.0	143	1.0	0.078	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	36.1
11	T1	1153	1.0	1214	1.0	0.313	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		1289	1.0	1357	1.0	0.313	0.6	NA	0.0	0.0	0.00	0.06	0.00	57.5
All Vehicles		1421	1.0	1496	1.0	0.313	1.3	NA	0.6	4.4	0.05	0.13	0.05	55.5

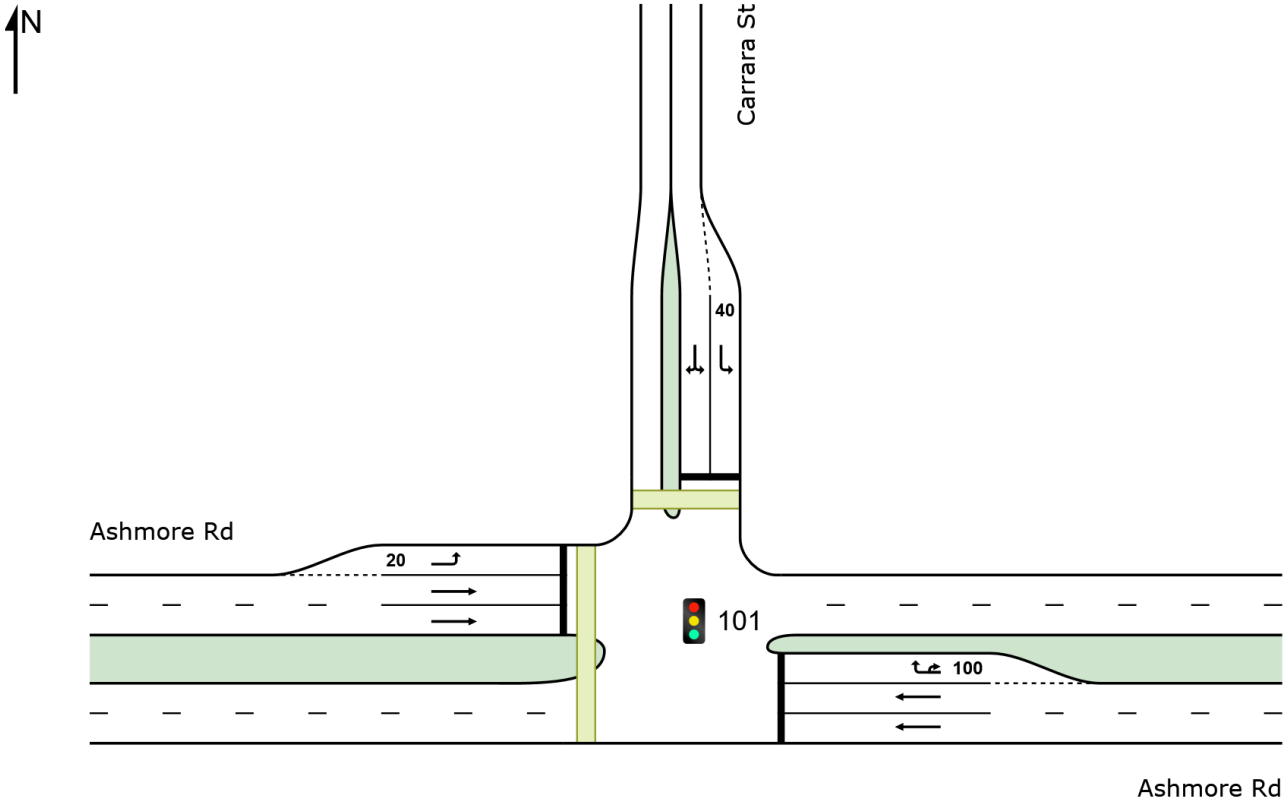
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and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

SITE LAYOUT

Site: 101 [2024_Survey_THU_PM (Site Folder: Ashmore Road - Carrara Street)]

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

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



Organisation: TTM CONSULTING PTY LTD | Licence: NETWORK / Enterprise | Created: Thursday, 16 October 2025 11:04:23 AM
Project: C:\Users\Matt.Grierson\OneDrive - Colliers International\2024 Projects - 24BRT0224 Benowa Gardens - 203 Ashmore Road Benowa\6 - Analysis\250919 - RFI\24BRT0224 SA01 I.sip9

MOVEMENT SUMMARY

Site: 101 [2024_Survey_THU_PM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	966	1.3	1017	1.3	0.390	2.6	LOS A	3.6	25.8	0.17	0.15	0.17	56.3
6	R2	257	0.0	271	0.0	*0.504	24.5	LOS C	7.4	52.1	0.79	0.79	0.79	35.1
6u	U	11	0.0	12	0.0	0.504	25.6	LOS C	7.4	52.1	0.79	0.79	0.79	32.2
Approach		1234	1.1	1299	1.1	0.504	7.4	LOS A	7.4	52.1	0.30	0.29	0.30	50.1
North: Carrara St														
7	L2	232	0.0	244	0.0	0.559	49.4	LOS D	6.0	41.7	0.99	0.79	0.99	25.2
9	R2	17	0.0	18	0.0	*0.559	49.4	LOS D	6.0	41.7	0.99	0.79	0.99	28.4
Approach		249	0.0	262	0.0	0.559	49.4	LOS D	6.0	41.7	0.99	0.79	0.99	25.4
West: Ashmore Rd														
10	L2	22	0.0	23	0.0	0.024	10.5	LOS B	0.2	1.6	0.33	0.63	0.33	47.4
11	T1	988	1.0	1040	1.0	*0.701	23.6	LOS C	18.6	131.1	0.80	0.71	0.80	37.6
Approach		1010	1.0	1063	1.0	0.701	23.4	LOS C	18.6	131.1	0.79	0.71	0.79	37.8
All Vehicles		2493	0.9	2624	0.9	0.701	18.0	LOS B	18.6	131.1	0.57	0.51	0.57	40.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2024_Survey_SAT_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	766	1.3	806	1.3	0.310	2.4	LOS A	2.6	18.4	0.15	0.13	0.15	56.5
6	R2	181	0.0	191	0.0	*0.460	23.4	LOS C	6.4	44.5	0.77	0.77	0.77	35.5
6u	U	50	0.0	53	0.0	0.460	24.6	LOS C	6.4	44.5	0.77	0.77	0.77	32.6
Approach		997	1.0	1049	1.0	0.460	7.4	LOS A	6.4	44.5	0.29	0.28	0.29	50.0
North: Carrara St														
7	L2	122	0.0	128	0.0	0.287	47.5	LOS D	2.9	20.5	0.95	0.75	0.95	25.7
9	R2	6	0.0	6	0.0	*0.287	47.5	LOS D	2.9	20.5	0.95	0.75	0.95	29.0
Approach		128	0.0	135	0.0	0.287	47.5	LOS D	2.9	20.5	0.95	0.75	0.95	25.9
West: Ashmore Rd														
10	L2	15	0.0	16	0.0	0.016	10.5	LOS B	0.2	1.1	0.33	0.62	0.33	47.4
11	T1	1024	1.0	1078	1.0	*0.722	24.0	LOS C	19.5	137.6	0.82	0.73	0.82	37.4
Approach		1039	1.0	1094	1.0	0.722	23.8	LOS C	19.5	137.6	0.81	0.72	0.81	37.6
All Vehicles		2164	1.0	2278	1.0	0.722	17.6	LOS B	19.5	137.6	0.58	0.52	0.58	41.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2024_Survey_THU_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	631	3.0	664	3.0	0.258	2.3	LOS A	2.0	14.4	0.14	0.12	0.14	56.7
6	R2	380	0.0	400	0.0	*0.730	31.4	LOS C	11.6	81.1	0.90	0.92	0.92	31.6
6u	U	10	0.0	11	0.0	0.730	32.6	LOS C	11.6	81.1	0.90	0.92	0.92	28.7
Approach		1021	1.9	1075	1.9	0.730	13.4	LOS B	11.6	81.1	0.43	0.43	0.44	44.0
North: Carrara St														
7	L2	163	1.0	172	1.0	0.424	48.5	LOS D	4.4	31.1	0.97	0.78	0.97	25.4
9	R2	25	0.0	26	0.0	*0.424	48.5	LOS D	4.4	31.1	0.97	0.78	0.97	28.7
Approach		188	0.9	198	0.9	0.424	48.5	LOS D	4.4	31.1	0.97	0.78	0.97	25.9
West: Ashmore Rd														
10	L2	26	0.0	27	0.0	0.029	10.6	LOS B	0.3	1.9	0.33	0.63	0.33	47.4
11	T1	1100	3.0	1158	3.0	*0.792	26.7	LOS C	23.3	167.6	0.87	0.81	0.91	35.9
Approach		1126	2.9	1185	2.9	0.792	26.4	LOS C	23.3	167.6	0.85	0.80	0.90	36.1
All Vehicles		2335	2.3	2458	2.3	0.792	22.5	LOS C	23.3	167.6	0.68	0.64	0.70	37.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG_THU_PM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	1025	1.3	1079	1.3	0.414	2.7	LOS A	4.0	28.3	0.17	0.16	0.17	56.2
6	R2	273	0.0	287	0.0	*0.537	25.5	LOS C	8.0	55.7	0.80	0.81	0.80	34.5
6u	U	12	0.0	13	0.0	0.537	26.7	LOS C	8.0	55.7	0.80	0.81	0.80	31.6
Approach		1310	1.1	1379	1.1	0.537	7.6	LOS A	8.0	55.7	0.31	0.30	0.31	49.8
North: Carrara St														
7	L2	246	0.0	259	0.0	0.592	49.7	LOS D	6.4	44.6	0.99	0.80	1.00	25.1
9	R2	18	0.0	19	0.0	*0.592	49.7	LOS D	6.4	44.6	0.99	0.80	1.00	28.3
Approach		264	0.0	278	0.0	0.592	49.7	LOS D	6.4	44.6	0.99	0.80	1.00	25.3
West: Ashmore Rd														
10	L2	23	0.0	24	0.0	0.025	10.6	LOS B	0.2	1.7	0.33	0.63	0.33	47.4
11	T1	1049	1.0	1104	1.0	*0.744	24.6	LOS C	20.6	145.7	0.83	0.75	0.84	37.1
Approach		1072	1.0	1128	1.0	0.744	24.3	LOS C	20.6	145.7	0.82	0.74	0.83	37.3
All Vehicles		2646	0.9	2785	0.9	0.744	18.6	LOS B	20.6	145.7	0.59	0.53	0.59	40.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG_SAT_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	813	1.3	856	1.3	0.329	2.5	LOS A	2.8	20.0	0.16	0.14	0.16	56.5
6	R2	192	0.0	202	0.0	*0.488	24.0	LOS C	6.8	47.7	0.78	0.78	0.78	35.3
6u	U	53	0.0	56	0.0	0.488	25.1	LOS C	6.8	47.7	0.78	0.78	0.78	32.3
Approach		1058	1.0	1114	1.0	0.488	7.5	LOS A	6.8	47.7	0.30	0.29	0.30	49.8
North: Carrara St														
7	L2	129	0.0	136	0.0	0.303	47.6	LOS D	3.1	21.7	0.95	0.76	0.95	25.7
9	R2	6	0.0	6	0.0	*0.303	47.6	LOS D	3.1	21.7	0.95	0.76	0.95	29.0
Approach		135	0.0	142	0.0	0.303	47.6	LOS D	3.1	21.7	0.95	0.76	0.95	25.9
West: Ashmore Rd														
10	L2	16	0.0	17	0.0	0.018	10.5	LOS B	0.2	1.1	0.33	0.62	0.33	47.4
11	T1	1087	1.0	1144	1.0	*0.767	25.5	LOS C	22.0	155.3	0.85	0.78	0.88	36.5
Approach		1103	1.0	1161	1.0	0.767	25.3	LOS C	22.0	155.3	0.84	0.77	0.87	36.7
All Vehicles		2296	1.0	2417	1.0	0.767	18.4	LOS B	22.0	155.3	0.60	0.55	0.61	40.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG_THU_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	670	3.0	705	3.0	0.274	2.4	LOS A	2.2	15.6	0.14	0.13	0.14	56.6
6	R2	403	0.0	424	0.0	*0.776	33.6	LOS C	12.8	89.8	0.92	0.95	0.98	30.7
6u	U	11	0.0	12	0.0	0.776	34.8	LOS C	12.8	89.8	0.92	0.95	0.98	27.8
Approach		1084	1.9	1141	1.9	0.776	14.3	LOS B	12.8	89.8	0.44	0.44	0.46	43.2
North: Carrara St														
7	L2	173	1.0	182	1.0	0.451	48.7	LOS D	4.7	33.2	0.97	0.78	0.97	25.3
9	R2	27	0.0	28	0.0	*0.451	48.7	LOS D	4.7	33.2	0.97	0.78	0.97	28.7
Approach		200	0.9	211	0.9	0.451	48.7	LOS D	4.7	33.2	0.97	0.78	0.97	25.8
West: Ashmore Rd														
10	L2	28	0.0	29	0.0	0.031	10.6	LOS B	0.3	2.0	0.33	0.63	0.33	47.3
11	T1	1167	3.0	1228	3.0	*0.841	29.9	LOS C	27.1	194.5	0.90	0.88	1.00	34.2
Approach		1195	2.9	1258	2.9	0.841	29.5	LOS C	27.1	194.5	0.89	0.87	0.98	34.5
All Vehicles		2479	2.3	2609	2.3	0.841	24.4	LOS C	27.1	194.5	0.70	0.68	0.75	36.7

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_PM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	1025	1.3	1079	1.3	0.414	2.7	LOS A	4.0	28.3	0.17	0.16	0.17	56.2
6	R2	367	0.0	386	0.0	*0.711	30.6	LOS C	11.1	77.6	0.89	0.91	0.90	32.0
6u	U	12	0.0	13	0.0	0.711	31.8	LOS C	11.1	77.6	0.89	0.91	0.90	29.1
Approach		1404	1.0	1478	1.0	0.711	10.2	LOS B	11.1	77.6	0.37	0.36	0.37	47.1
North: Carrara St														
7	L2	302	0.0	318	0.0	0.731	52.3	LOS D	8.3	57.8	1.00	0.86	1.14	24.4
9	R2	24	0.0	25	0.0	*0.731	52.3	LOS D	8.3	57.8	1.00	0.87	1.14	27.6
Approach		326	0.0	343	0.0	0.731	52.3	LOS D	8.3	57.8	1.00	0.86	1.14	24.6
West: Ashmore Rd														
10	L2	23	0.0	24	0.0	0.025	10.6	LOS B	0.2	1.7	0.33	0.63	0.33	47.4
11	T1	1242	1.0	1307	1.0	*0.880	33.8	LOS C	31.3	220.7	0.94	0.96	1.09	32.4
Approach		1265	1.0	1332	1.0	0.880	33.4	LOS C	31.3	220.7	0.93	0.95	1.07	32.6
All Vehicles		2995	0.9	3153	0.9	0.880	24.6	LOS C	31.3	220.7	0.67	0.66	0.75	36.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_SAT_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	813	1.3	856	1.3	0.329	2.5	LOS A	2.8	20.0	0.16	0.14	0.16	56.5
6	R2	191	0.0	201	0.0	*0.486	23.9	LOS C	6.8	47.5	0.78	0.78	0.78	35.3
6u	U	53	0.0	56	0.0	0.486	25.1	LOS C	6.8	47.5	0.78	0.78	0.78	32.4
Approach		1057	1.0	1113	1.0	0.486	7.5	LOS A	6.8	47.5	0.30	0.29	0.30	49.9
North: Carrara St														
7	L2	127	0.0	134	0.0	0.296	47.6	LOS D	3.0	21.2	0.95	0.76	0.95	25.7
9	R2	5	0.0	5	0.0	*0.296	47.6	LOS D	3.0	21.2	0.95	0.76	0.95	29.0
Approach		132	0.0	139	0.0	0.296	47.6	LOS D	3.0	21.2	0.95	0.76	0.95	25.8
West: Ashmore Rd														
10	L2	16	0.0	17	0.0	0.018	10.5	LOS B	0.2	1.1	0.33	0.62	0.33	47.4
11	T1	1166	1.0	1227	1.0	*0.823	28.5	LOS C	25.9	182.7	0.89	0.85	0.96	34.9
Approach		1182	1.0	1244	1.0	0.823	28.3	LOS C	25.9	182.7	0.89	0.85	0.96	35.1
All Vehicles		2371	1.0	2496	1.0	0.823	20.1	LOS C	25.9	182.7	0.63	0.59	0.66	39.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2028_BG+DEV_THU_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	670	3.0	705	3.0	0.274	2.4	LOS A	2.2	15.6	0.14	0.13	0.14	56.6
6	R2	443	0.0	466	0.0	*0.850	38.8	LOS D	15.5	108.8	0.97	1.01	1.10	28.6
6u	U	11	0.0	12	0.0	0.850	40.0	LOS D	15.5	108.8	0.97	1.01	1.10	25.7
Approach		1124	1.8	1183	1.8	0.850	17.1	LOS B	15.5	108.8	0.48	0.48	0.53	41.1
North: Carrara St														
7	L2	197	1.0	207	1.0	0.510	49.1	LOS D	5.4	37.9	0.98	0.79	0.98	25.2
9	R2	29	0.0	31	0.0	*0.510	49.1	LOS D	5.4	37.9	0.98	0.79	0.98	28.5
Approach		226	0.9	238	0.9	0.510	49.1	LOS D	5.4	37.9	0.98	0.79	0.98	25.7
West: Ashmore Rd														
10	L2	28	0.0	29	0.0	0.031	10.6	LOS B	0.3	2.0	0.33	0.63	0.33	47.3
11	T1	1306	3.0	1375	3.0	*0.940	45.4	LOS D	39.3	282.0	0.99	1.12	1.28	28.0
Approach		1334	2.9	1404	2.9	0.940	44.7	LOS D	39.3	282.0	0.97	1.11	1.26	28.3
All Vehicles		2684	2.3	2825	2.3	0.940	33.5	LOS C	39.3	282.0	0.77	0.82	0.93	32.1

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG_THU_PM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	1190	1.3	1253	1.3	0.481	2.9	LOS A	5.1	36.4	0.19	0.17	0.19	56.0
6	R2	317	0.0	334	0.0	*0.623	28.0	LOS C	9.4	65.8	0.84	0.86	0.84	33.2
6u	U	14	0.0	15	0.0	0.623	29.2	LOS C	9.4	65.8	0.84	0.86	0.84	30.3
Approach		1521	1.1	1601	1.1	0.623	8.3	LOS A	9.4	65.8	0.34	0.32	0.34	49.1
North: Carrara St														
7	L2	286	0.0	301	0.0	0.689	51.3	LOS D	7.6	53.5	1.00	0.84	1.09	24.6
9	R2	21	0.0	22	0.0	*0.689	51.3	LOS D	7.6	53.5	1.00	0.84	1.09	27.9
Approach		307	0.0	323	0.0	0.689	51.3	LOS D	7.6	53.5	1.00	0.84	1.09	24.9
West: Ashmore Rd														
10	L2	27	0.0	28	0.0	0.030	10.6	LOS B	0.3	2.0	0.33	0.63	0.33	47.4
11	T1	1217	1.0	1281	1.0	*0.865	32.1	LOS C	29.6	209.3	0.93	0.92	1.05	33.2
Approach		1244	1.0	1309	1.0	0.865	31.6	LOS C	29.6	209.3	0.91	0.92	1.03	33.5
All Vehicles		3072	0.9	3234	0.9	0.865	22.0	LOS C	29.6	209.3	0.64	0.62	0.69	38.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG_SAT_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	944	1.3	994	1.3	0.382	2.6	LOS A	3.5	24.9	0.17	0.15	0.17	56.3
6	R2	223	0.0	235	0.0	*0.568	26.5	LOS C	8.0	56.3	0.82	0.83	0.82	33.9
6u	U	62	0.0	65	0.0	0.568	27.7	LOS C	8.0	56.3	0.82	0.83	0.82	30.9
Approach		1229	1.0	1294	1.0	0.568	8.2	LOS A	8.0	56.3	0.32	0.31	0.32	49.1
North: Carrara St														
7	L2	150	0.0	158	0.0	0.352	48.0	LOS D	3.6	25.5	0.96	0.77	0.96	25.6
9	R2	7	0.0	7	0.0	*0.352	48.0	LOS D	3.6	25.5	0.96	0.77	0.96	28.9
Approach		157	0.0	165	0.0	0.352	48.0	LOS D	3.6	25.5	0.96	0.77	0.96	25.8
West: Ashmore Rd														
10	L2	18	0.0	19	0.0	0.020	10.5	LOS B	0.2	1.3	0.33	0.62	0.33	47.4
11	T1	1261	1.0	1327	1.0	*0.890	35.2	LOS D	32.5	229.2	0.95	0.98	1.12	31.8
Approach		1279	1.0	1346	1.0	0.890	34.9	LOS C	32.5	229.2	0.94	0.98	1.10	32.0
All Vehicles		2665	1.0	2805	1.0	0.890	23.4	LOS C	32.5	229.2	0.66	0.66	0.73	37.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG_THU_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	777	3.0	818	3.0	0.317	2.4	LOS A	2.7	19.1	0.15	0.13	0.15	56.5
6	R2	468	0.0	493	0.0	*0.899	44.8	LOS D	19.1	133.6	1.00	1.07	1.22	26.5
6u	U	12	0.0	13	0.0	0.899	46.0	LOS D	19.1	133.6	1.00	1.07	1.22	23.8
Approach		1257	1.9	1323	1.9	0.899	18.6	LOS B	19.1	133.6	0.48	0.49	0.56	40.0
North: Carrara St														
7	L2	201	1.0	212	1.0	0.524	49.2	LOS D	5.5	38.9	0.98	0.79	0.98	25.2
9	R2	31	0.0	33	0.0	*0.524	49.1	LOS D	5.5	38.9	0.98	0.79	0.98	28.5
Approach		232	0.9	244	0.9	0.524	49.2	LOS D	5.5	39.0	0.98	0.79	0.98	25.7
West: Ashmore Rd														
10	L2	32	0.0	34	0.0	0.035	10.6	LOS B	0.3	2.3	0.33	0.63	0.33	47.3
11	T1	1355	3.0	1426	3.0	*0.977	59.0	LOS E	46.9	336.4	1.00	1.25	1.44	24.2
Approach		1387	2.9	1460	2.9	0.977	57.9	LOS E	46.9	336.4	0.98	1.23	1.41	24.5
All Vehicles		2876	2.3	3027	2.3	0.977	40.0	LOS D	46.9	336.4	0.76	0.87	1.00	29.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_PM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	1190	1.3	1253	1.3	0.481	2.9	LOS A	5.1	36.4	0.19	0.17	0.19	56.0
6	R2	411	0.0	433	0.0	* 0.798	34.9	LOS C	13.5	94.5	0.93	0.97	1.01	30.1
6u	U	14	0.0	15	0.0	0.798	36.1	LOS D	13.5	94.5	0.93	0.97	1.01	27.2
Approach		1615	1.0	1700	1.0	0.798	11.3	LOS B	13.5	94.5	0.39	0.38	0.41	46.1
North: Carrara St														
7	L2	341	0.0	359	0.0	0.826	56.0	LOS E	9.8	68.9	1.00	0.93	1.28	23.4
9	R2	27	0.0	28	0.0	* 0.826	56.0	LOS E	9.8	68.9	1.00	0.93	1.28	26.6
Approach		368	0.0	387	0.0	0.826	56.0	LOS E	9.8	68.9	1.00	0.93	1.28	23.7
West: Ashmore Rd														
10	L2	27	0.0	28	0.0	0.030	10.6	LOS B	0.3	2.0	0.33	0.63	0.33	47.4
11	T1	1410	1.0	1484	1.0	* 1.000	70.9	LOS E	53.2	375.9	1.00	1.33	1.55	21.6
Approach		1437	1.0	1513	1.0	1.000	69.8	LOS E	53.2	375.9	0.99	1.32	1.52	21.8
All Vehicles		3420	0.9	3600	0.9	1.000	40.7	LOS D	53.2	375.9	0.71	0.84	0.97	29.3

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_SAT_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	944	1.3	994	1.3	0.382	2.6	LOS A	3.5	24.9	0.17	0.15	0.17	56.3
6	R2	221	0.0	233	0.0	*0.564	26.4	LOS C	8.0	55.8	0.81	0.83	0.81	33.9
6u	U	62	0.0	65	0.0	0.564	27.6	LOS C	8.0	55.8	0.81	0.83	0.81	31.0
Approach		1227	1.0	1292	1.0	0.564	8.1	LOS A	8.0	55.8	0.32	0.31	0.32	49.2
North: Carrara St														
7	L2	148	0.0	156	0.0	0.346	47.9	LOS D	3.6	24.9	0.95	0.76	0.95	25.6
9	R2	6	0.0	6	0.0	*0.346	47.9	LOS D	3.6	24.9	0.95	0.76	0.95	28.9
Approach		154	0.0	162	0.0	0.346	47.9	LOS D	3.6	24.9	0.95	0.76	0.95	25.7
West: Ashmore Rd														
10	L2	18	0.0	19	0.0	0.020	10.5	LOS B	0.2	1.3	0.33	0.62	0.33	47.4
11	T1	1340	1.0	1411	1.0	*0.946	47.0	LOS D	40.8	288.0	1.00	1.14	1.30	27.5
Approach		1358	1.0	1429	1.0	0.946	46.5	LOS D	40.8	288.0	0.99	1.13	1.29	27.7
All Vehicles		2739	1.0	2883	1.0	0.946	29.4	LOS C	40.8	288.0	0.69	0.74	0.84	34.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_AM (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 95 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	777	3.0	818	3.0	0.317	2.4	LOS A	2.7	19.1	0.15	0.13	0.15	56.5
6	R2	508	0.0	535	0.0	* 0.973	64.9	LOS E	27.8	194.5	1.00	1.18	1.47	21.4
6u	U	12	0.0	13	0.0	0.973	66.1	LOS E	27.8	194.5	1.00	1.18	1.47	18.9
Approach		1297	1.8	1365	1.8	0.973	27.5	LOS C	27.8	194.5	0.49	0.55	0.68	34.7
North: Carrara St														
7	L2	224	1.0	236	1.0	0.580	49.6	LOS D	6.2	43.6	0.99	0.80	0.99	25.1
9	R2	33	0.0	35	0.0	* 0.580	49.6	LOS D	6.2	43.6	0.99	0.80	0.99	28.4
Approach		257	0.9	271	0.9	0.580	49.6	LOS D	6.2	43.6	0.99	0.80	0.99	25.5
West: Ashmore Rd														
10	L2	32	0.0	34	0.0	0.035	10.6	LOS B	0.3	2.3	0.33	0.63	0.33	47.3
11	T1	1493	3.0	1572	3.0	* 1.075	120.1	LOS F	72.4	520.0	1.00	1.69	1.99	14.7
Approach		1525	2.9	1605	2.9	1.075	117.8	LOS F	72.4	520.0	0.99	1.67	1.96	15.0
All Vehicles		3079	2.3	3241	2.3	1.075	74.1	LOS E	72.4	520.0	0.78	1.13	1.34	20.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	206.2	213.9	1.04
West: Ashmore Rd												
P4	Full	10	11	41.7	LOS E	0.0	0.0	0.94	0.94	213.9	223.8	1.05
All Pedestrians		20	21	41.7	LOS E	0.0	0.0	0.94	0.94	210.1	218.9	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_PM - Phase (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	1190	1.3	1253	1.3	0.572	14.2	LOS B	19.3	136.7	0.47	0.42	0.47	44.2
6	R2	411	0.0	433	0.0	*0.913	52.0	LOS D	26.2	183.4	1.00	0.94	1.18	24.4
6u	U	14	0.0	15	0.0	0.913	53.2	LOS D	26.2	183.4	1.00	0.94	1.18	21.8
Approach		1615	1.0	1700	1.0	0.913	24.2	LOS C	26.2	183.4	0.61	0.56	0.65	36.8
North: Carrara St														
7	L2	341	0.0	359	0.0	0.911	89.5	LOS F	15.9	111.4	1.00	0.97	1.37	17.3
9	R2	27	0.0	28	0.0	*0.911	89.5	LOS F	15.9	111.4	1.00	0.97	1.37	20.1
Approach		368	0.0	387	0.0	0.911	89.5	LOS F	15.9	111.4	1.00	0.97	1.37	17.5
West: Ashmore Rd														
10	L2	27	0.0	28	0.0	0.027	10.4	LOS B	0.3	2.0	0.25	0.62	0.25	47.5
11	T1	1410	1.0	1484	1.0	*0.914	47.4	LOS D	55.2	389.7	0.95	0.95	1.06	27.4
Approach		1437	1.0	1513	1.0	0.914	46.7	LOS D	55.2	389.7	0.94	0.95	1.04	27.6
All Vehicles		3420	0.9	3600	0.9	0.914	40.7	LOS D	55.2	389.7	0.79	0.77	0.89	29.3

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	69.2	LOS F	0.0	0.0	0.96	0.96	233.7	213.9	0.92
West: Ashmore Rd												
P4	Full	10	11	69.2	LOS F	0.0	0.0	0.96	0.96	241.3	223.8	0.93
All Pedestrians		20	21	69.2	LOS F	0.0	0.0	0.96	0.96	237.5	218.9	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_SAT_AM - Phase (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	944	1.3	994	1.3	0.415	8.0	LOS A	9.4	66.3	0.28	0.26	0.28	49.9
6	R2	221	0.0	233	0.0	*0.698	44.2	LOS D	15.5	108.4	0.93	0.83	0.93	26.7
6u	U	62	0.0	65	0.0	0.698	45.3	LOS D	15.5	108.4	0.93	0.83	0.93	23.9
Approach		1227	1.0	1292	1.0	0.698	16.4	LOS B	15.5	108.4	0.43	0.39	0.43	41.8
North: Carrara St														
7	L2	148	0.0	156	0.0	0.655	83.3	LOS F	6.1	42.8	1.00	0.80	1.07	18.2
9	R2	6	0.0	6	0.0	*0.655	83.3	LOS F	6.1	42.8	1.00	0.80	1.07	21.1
Approach		154	0.0	162	0.0	0.655	83.3	LOS F	6.1	42.8	1.00	0.80	1.07	18.3
West: Ashmore Rd														
10	L2	18	0.0	19	0.0	0.017	10.1	LOS B	0.2	1.4	0.22	0.61	0.22	47.7
11	T1	1340	1.0	1411	1.0	*0.699	20.2	LOS C	30.0	211.6	0.63	0.57	0.63	39.8
Approach		1358	1.0	1429	1.0	0.699	20.1	LOS C	30.0	211.6	0.62	0.57	0.62	39.9
All Vehicles		2739	1.0	2883	1.0	0.699	22.0	LOS C	30.0	211.6	0.56	0.50	0.56	38.3

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	69.2	LOS F	0.0	0.0	0.96	0.96	233.7	213.9	0.92
West: Ashmore Rd												
P4	Full	10	11	69.2	LOS F	0.0	0.0	0.96	0.96	241.3	223.8	0.93
All Pedestrians		20	21	69.2	LOS F	0.0	0.0	0.96	0.96	237.5	218.9	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [2038_BG+DEV_THU_AM - Phase (Site Folder: Ashmore Road - Carrara Street)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ashmore Rd														
5	T1	777	3.0	818	3.0	0.303	2.0	LOS A	2.4	16.9	0.09	0.08	0.09	57.2
6	R2	508	0.0	535	0.0	*0.948	73.1	LOS E	34.3	240.1	1.00	1.10	1.23	19.8
6u	U	12	0.0	13	0.0	0.948	74.3	LOS E	34.3	240.1	1.00	1.10	1.23	17.4
Approach		1297	1.8	1365	1.8	0.948	30.5	LOS C	34.3	240.1	0.45	0.49	0.54	33.2
North: Carrara St														
7	L2	224	1.0	236	1.0	0.916	95.8	LOS F	11.4	80.3	1.00	0.97	1.43	16.5
9	R2	33	0.0	35	0.0	*0.916	95.8	LOS F	11.4	80.3	1.00	0.97	1.43	19.2
Approach		257	0.9	271	0.9	0.916	95.8	LOS F	11.4	80.3	1.00	0.97	1.43	16.8
West: Ashmore Rd														
10	L2	32	0.0	34	0.0	0.034	12.6	LOS B	0.5	3.2	0.32	0.63	0.32	45.8
11	T1	1493	3.0	1572	3.0	*0.938	51.3	LOS D	62.5	449.1	0.97	1.00	1.11	26.2
Approach		1525	2.9	1605	2.9	0.938	50.5	LOS D	62.5	449.1	0.96	0.99	1.10	26.5
All Vehicles		3079	2.3	3241	2.3	0.948	45.9	LOS D	62.5	449.1	0.75	0.78	0.89	27.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Carrara St												
P3	Full	10	11	69.2	LOS F	0.0	0.0	0.96	0.96	233.7	213.9	0.92
West: Ashmore Rd												
P4	Full	10	11	69.2	LOS F	0.0	0.0	0.96	0.96	241.3	223.8	0.93
All Pedestrians		20	21	69.2	LOS F	0.0	0.0	0.96	0.96	237.5	218.9	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101v [2038_BG+DEV_THU_AM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	227	1.0	239	1.0	0.192	5.5	LOS A	0.8	5.9	0.40	0.62	0.40	31.7
3	R2	61	0.0	64	0.0	0.138	10.3	LOS B	0.4	3.0	0.67	0.86	0.67	36.6
Approach		288	0.8	303	0.8	0.192	6.5	LOS A	0.8	5.9	0.45	0.67	0.45	33.3
East: Carrara St														
4	L2	129	0.5	136	0.5	0.226	5.6	LOS A	0.0	0.0	0.00	0.19	0.00	49.4
5	T1	281	1.0	296	1.0	0.226	0.0	LOS A	0.0	0.0	0.00	0.19	0.00	55.3
Approach		410	0.8	432	0.8	0.226	1.8	NA	0.0	0.0	0.00	0.19	0.00	53.4
West: Carrara St														
11	T1	358	1.0	377	1.0	0.362	1.5	LOS A	2.2	15.4	0.43	0.25	0.49	51.3
12	R2	183	0.0	193	0.0	0.362	7.7	LOS A	2.2	15.4	0.43	0.25	0.49	35.7
Approach		541	0.7	569	0.7	0.362	3.6	NA	2.2	15.4	0.43	0.25	0.49	47.5
All Vehicles		1239	0.8	1304	0.8	0.362	3.7	NA	2.2	15.4	0.29	0.33	0.32	46.5

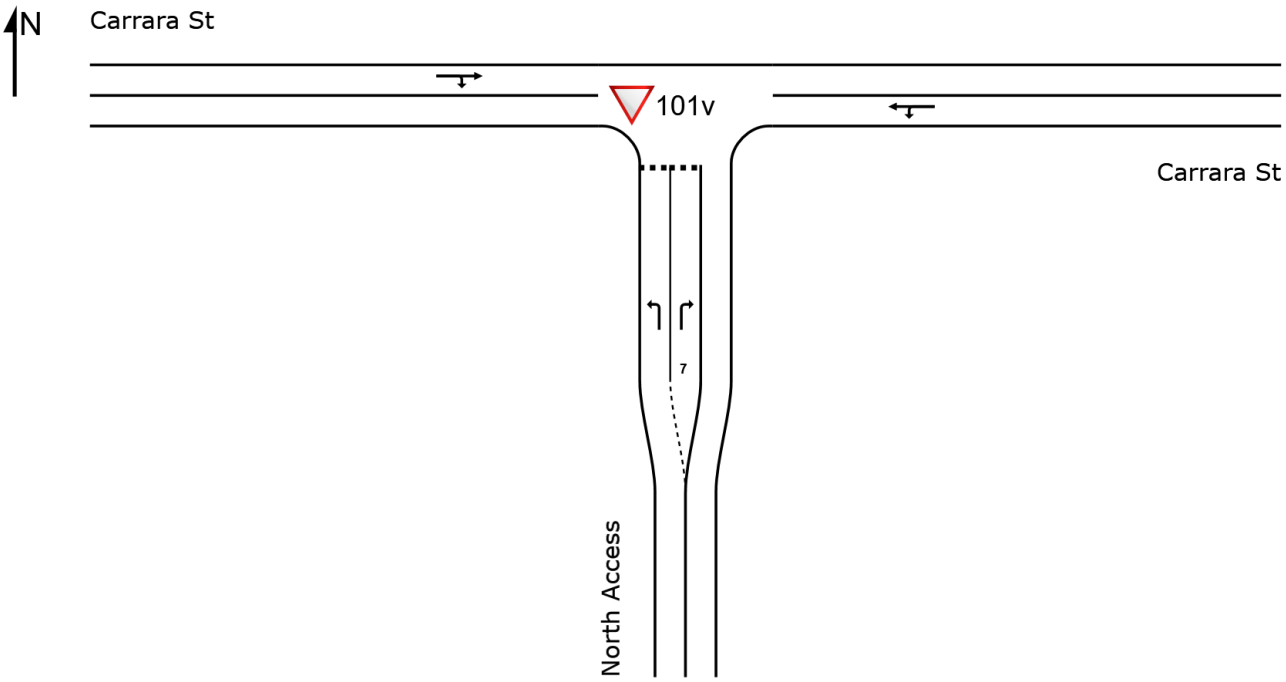
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and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

SITE LAYOUT

Site: 101v [2024_Survey_THU_PM (Site Folder: Carrara Street - Northern Access)]

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

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



MOVEMENT SUMMARY

Site: 101v [2024_Survey_THU_PM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	207	0.5	218	0.5	0.184	5.7	LOS A	0.8	5.5	0.42	0.64	0.42	31.6
3	R2	32	0.0	34	0.0	0.050	7.3	LOS A	0.2	1.1	0.50	0.74	0.50	40.3
Approach		239	0.5	252	0.5	0.184	5.9	LOS A	0.8	5.5	0.43	0.66	0.43	33.3
East: Carrara St														
4	L2	91	1.2	96	1.2	0.228	5.6	LOS A	0.0	0.0	0.00	0.13	0.00	50.5
5	T1	326	0.4	343	0.4	0.228	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	56.7
Approach		417	0.6	439	0.6	0.228	1.2	NA	0.0	0.0	0.00	0.13	0.00	55.3
West: Carrara St														
11	T1	136	0.4	143	0.4	0.176	1.4	LOS A	0.9	6.2	0.44	0.31	0.44	50.4
12	R2	111	0.0	117	0.0	0.176	7.0	LOS A	0.9	6.2	0.44	0.31	0.44	34.7
Approach		247	0.2	260	0.2	0.176	3.9	NA	0.9	6.2	0.44	0.31	0.44	45.0
All Vehicles		903	0.4	951	0.4	0.228	3.2	NA	0.9	6.2	0.23	0.32	0.23	47.3

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

MOVEMENT SUMMARY

Site: 101v [2024_Survey_SAT_AM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	220	0.5	232	0.5	0.159	4.8	LOS A	0.7	4.9	0.25	0.55	0.25	32.7
3	R2	38	0.0	40	0.0	0.046	6.0	LOS A	0.1	1.0	0.40	0.66	0.40	42.2
Approach		258	0.4	272	0.4	0.159	5.0	LOS A	0.7	4.9	0.27	0.56	0.27	34.8
East: Carrara St														
4	L2	80	1.0	84	1.0	0.114	5.6	LOS A	0.0	0.0	0.00	0.23	0.00	48.6
5	T1	125	1.0	132	1.0	0.114	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	54.4
Approach		205	1.0	216	1.0	0.114	2.2	NA	0.0	0.0	0.00	0.23	0.00	52.1
West: Carrara St														
11	T1	102	0.4	107	0.4	0.161	0.7	LOS A	0.8	5.7	0.33	0.35	0.33	49.9
12	R2	147	0.0	155	0.0	0.161	5.9	LOS A	0.8	5.7	0.33	0.35	0.33	34.2
Approach		249	0.2	262	0.2	0.161	3.8	NA	0.8	5.7	0.33	0.35	0.33	42.4
All Vehicles		712	0.5	749	0.5	0.161	3.7	NA	0.8	5.7	0.21	0.39	0.21	43.1

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

MOVEMENT SUMMARY

Site: 101v [2024_Survey_THU_AM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	102	1.0	107	1.0	0.082	5.1	LOS A	0.3	2.3	0.33	0.57	0.33	32.1
3	R2	28	0.0	29	0.0	0.048	7.9	LOS A	0.1	1.0	0.53	0.77	0.53	39.5
Approach		130	0.8	137	0.8	0.082	5.7	LOS A	0.3	2.3	0.37	0.61	0.37	34.5
East: Carrara St														
4	L2	73	0.5	77	0.5	0.165	5.6	LOS A	0.0	0.0	0.00	0.14	0.00	50.3
5	T1	228	1.0	240	1.0	0.165	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	56.3
Approach		301	0.9	317	0.9	0.165	1.4	NA	0.0	0.0	0.00	0.14	0.00	54.8
West: Carrara St														
11	T1	291	1.0	306	1.0	0.266	0.7	LOS A	1.2	8.3	0.31	0.20	0.31	52.8
12	R2	134	0.0	141	0.0	0.266	6.6	LOS A	1.2	8.3	0.31	0.20	0.31	37.5
Approach		425	0.7	447	0.7	0.266	2.6	NA	1.2	8.3	0.31	0.20	0.31	49.4
All Vehicles		856	0.8	901	0.8	0.266	2.6	NA	1.2	8.3	0.21	0.24	0.21	49.3

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

MOVEMENT SUMMARY

Site: 101v [2028_BG+DEV_THU_PM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	388	0.5	408	0.5	0.545	7.6	LOS A	4.0	28.2	0.58	0.87	0.89	18.4
3	R2	96	0.0	101	0.0	0.545	13.2	LOS B	4.0	28.2	0.58	0.87	0.89	38.6
Approach		484	0.4	509	0.4	0.545	8.7	LOS A	4.0	28.2	0.58	0.87	0.89	22.5
East: Carrara St														
4	L2	191	1.2	201	1.2	0.296	5.6	LOS A	0.0	0.0	0.00	0.21	0.00	48.9
5	T1	346	0.4	364	0.4	0.296	0.0	LOS A	0.0	0.0	0.00	0.21	0.00	54.8
Approach		537	0.7	565	0.7	0.296	2.0	NA	0.0	0.0	0.00	0.21	0.00	52.6
West: Carrara St														
11	T1	144	0.4	152	0.4	0.328	3.1	LOS A	2.1	14.9	0.61	0.53	0.70	46.0
12	R2	233	0.0	245	0.0	0.328	8.5	LOS A	2.1	14.9	0.61	0.53	0.70	29.6
Approach		377	0.2	397	0.2	0.328	6.4	NA	2.1	14.9	0.61	0.53	0.70	37.5
All Vehicles		1398	0.5	1472	0.5	0.545	5.5	NA	4.0	28.2	0.37	0.52	0.50	36.7

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

MOVEMENT SUMMARY

Site: 101v [2028_BG+DEV_SAT_AM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	206	0.5	217	0.5	0.195	4.8	LOS A	0.8	5.9	0.26	0.57	0.26	20.9
3	R2	36	0.0	38	0.0	0.195	6.5	LOS A	0.8	5.9	0.26	0.57	0.26	43.6
Approach		242	0.4	255	0.4	0.195	5.1	LOS A	0.8	5.9	0.26	0.57	0.26	24.4
East: Carrara St														
4	L2	83	1.0	87	1.0	0.120	5.6	LOS A	0.0	0.0	0.00	0.23	0.00	48.6
5	T1	133	1.0	140	1.0	0.120	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	54.5
Approach		216	1.0	227	1.0	0.120	2.1	NA	0.0	0.0	0.00	0.23	0.00	52.1
West: Carrara St														
11	T1	108	0.4	114	0.4	0.172	0.7	LOS A	0.9	6.1	0.34	0.36	0.34	49.9
12	R2	155	0.0	163	0.0	0.172	5.9	LOS A	0.9	6.1	0.34	0.36	0.34	33.6
Approach		263	0.2	277	0.2	0.172	3.8	NA	0.9	6.1	0.34	0.36	0.34	42.1
All Vehicles		721	0.5	759	0.5	0.195	3.7	NA	0.9	6.1	0.21	0.39	0.21	38.3

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

MOVEMENT SUMMARY

Site: 101v [2028_BG+DEV_THU_AM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	210	1.0	221	1.0	0.171	5.3	LOS A	0.7	5.2	0.36	0.60	0.36	31.9
3	R2	56	0.0	59	0.0	0.107	8.9	LOS A	0.3	2.4	0.60	0.83	0.60	38.3
Approach		266	0.8	280	0.8	0.171	6.0	LOS A	0.7	5.2	0.41	0.65	0.41	34.0
East: Carrara St														
4	L2	117	0.5	123	0.5	0.198	5.6	LOS A	0.0	0.0	0.00	0.19	0.00	49.3
5	T1	242	1.0	255	1.0	0.198	0.0	LOS A	0.0	0.0	0.00	0.19	0.00	55.2
Approach		359	0.8	378	0.8	0.198	1.8	NA	0.0	0.0	0.00	0.19	0.00	53.2
West: Carrara St														
11	T1	309	1.0	325	1.0	0.305	1.0	LOS A	1.5	10.6	0.38	0.23	0.38	52.0
12	R2	160	0.0	168	0.0	0.305	7.0	LOS A	1.5	10.6	0.38	0.23	0.38	36.5
Approach		469	0.7	494	0.7	0.305	3.1	NA	1.5	10.6	0.38	0.23	0.38	48.2
All Vehicles		1094	0.7	1152	0.7	0.305	3.4	NA	1.5	10.6	0.26	0.32	0.26	46.7

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

MOVEMENT SUMMARY

Site: 101v [2038_BG+DEV_THU_PM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	423	0.5	445	0.5	0.647	9.3	LOS A	5.5	38.8	0.66	1.03	1.22	17.3
3	R2	101	0.0	106	0.0	0.647	16.8	LOS C	5.5	38.8	0.66	1.03	1.22	36.3
Approach		524	0.4	552	0.4	0.647	10.7	LOS B	5.5	38.8	0.66	1.03	1.22	21.0
East: Carrara St														
4	L2	207	1.2	218	1.2	0.336	5.6	LOS A	0.0	0.0	0.00	0.20	0.00	49.0
5	T1	402	0.4	423	0.4	0.336	0.1	LOS A	0.0	0.0	0.00	0.20	0.00	55.0
Approach		609	0.7	641	0.7	0.336	1.9	NA	0.0	0.0	0.00	0.20	0.00	52.9
West: Carrara St														
11	T1	168	0.4	177	0.4	0.391	4.2	LOS A	2.9	20.2	0.66	0.56	0.87	44.3
12	R2	252	0.0	265	0.0	0.391	9.6	LOS A	2.9	20.2	0.66	0.56	0.87	28.0
Approach		420	0.2	442	0.2	0.391	7.5	NA	2.9	20.2	0.66	0.56	0.87	36.1
All Vehicles		1553	0.4	1635	0.4	0.647	6.4	NA	5.5	38.8	0.40	0.58	0.65	35.7

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

MOVEMENT SUMMARY

Site: 101v [2038_BG+DEV_SAT_AM (Site Folder: Carrara Street - Northern Access)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: North Access														
1	L2	243	0.5	256	0.5	0.239	4.9	LOS A	1.1	7.4	0.30	0.58	0.30	20.8
3	R2	43	0.0	45	0.0	0.239	7.2	LOS A	1.1	7.4	0.30	0.58	0.30	43.4
Approach		286	0.4	301	0.4	0.239	5.3	LOS A	1.1	7.4	0.30	0.58	0.30	24.3
East: Carrara St														
4	L2	97	1.0	102	1.0	0.139	5.6	LOS A	0.0	0.0	0.00	0.23	0.00	48.6
5	T1	154	1.0	162	1.0	0.139	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	54.4
Approach		251	1.0	264	1.0	0.139	2.2	NA	0.0	0.0	0.00	0.23	0.00	52.1
West: Carrara St														
11	T1	126	0.4	133	0.4	0.205	0.9	LOS A	1.1	7.5	0.38	0.37	0.38	49.6
12	R2	180	0.0	189	0.0	0.205	6.1	LOS A	1.1	7.5	0.38	0.37	0.38	33.3
Approach		306	0.2	322	0.2	0.205	4.0	NA	1.1	7.5	0.38	0.37	0.38	41.8
All Vehicles		843	0.5	887	0.5	0.239	3.9	NA	1.1	7.5	0.24	0.40	0.24	38.1

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