

4. **The project**

This section describes construction and operation of the project, where relevant to the traffic, transport and access impact assessment. Further information regarding the project is provided in section 1.2 and in the EIS.

4.1 Construction

4.1.1 Program and staging

Construction would commence once all necessary approvals are obtained and take about two years to complete.

The main construction works would broadly be undertaken in six stages, some of which would be undertaken concurrently as shown in the indicative program shown in Figure 4.1 which also shows when enabling works would be undertaken. Testing and commissioning would be undertaken over one weekend possession in November 2022 (or potentially January 2023, if required).

A summary of the proposed staging (including enabling works) is provided in Table 4.1. This would be subject to refinement and would be confirmed following engagement of the construction contractor.

STAGE	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
Enabling works									
Stage 1 - Sussex Street and Sussex Street bridge (southern abutment)									
Stage 2 - Broomfield Street and Sussex Street bridge (northern abutment)									
Stage 3 Cabramatta Creek Bridge									
Stage 4 - Jacquie Osmond Reserve and Peter Warren Automotive works									
Stage 5 - Track works									
Stage 6 - Finishing and rehabilitation									

Figure 4.1 Indicative construction program

Table 4.1 Indicative staging

Stage	Feature constructed during stage	Main activities
Enabling works	Not applicable	<ul style="list-style-type: none"> • Site establishment including: <ul style="list-style-type: none"> – carrying out heritage investigations, protection and archival recordings, if required – installing site environment management and traffic controls (including pedestrian and cyclist management) – establishing construction compounds and work sites – establishing access to work areas where required, including regrading of surfaces where required – establishment of a temporary shared path to be used by pedestrians/cyclists during construction of Cabramatta Creek bridge – supplying power, water and other utilities to construction compounds and other areas within the project site – vegetation clearance and tree removal. • Protection and/or relocation of utilities.
Main construction works		
Stage 1 – Sussex Street and southern abutment of Sussex Street bridge	<ul style="list-style-type: none"> • Road works (changes in Sussex Street and reconfiguration of Broomfield Street) • Sussex Street bridge 	<ul style="list-style-type: none"> • Close the southern side of Sussex Street and direct traffic along the northern side of the road. • Construct southern bridge abutment for the new bridge. • Widen the road to the east of Broomfield Street, using the existing road (southbound lane) as a construction area while maintaining traffic flow on the west of Broomfield Street (northbound lane) – the Broomfield Street realignment would be completed as a rolling closure, from Sussex Street northwards to Bridge Street, in 200 metre sections.
Stage 2 – Broomfield Street and northern abutment of Sussex Street bridge	<ul style="list-style-type: none"> • Road works (reconfiguration of Broomfield Street) • Retaining walls • Noise wall • Sussex Street bridge 	<ul style="list-style-type: none"> • Redirect traffic through the southern side of Sussex Street Bridge and onto the east of Broomfield Street. • Temporarily close the western part of Broomfield Street (northbound lane and parking) to use as a construction area. • Construct northern abutment of the Sussex Street bridge. • Remove existing retaining wall and noise wall and construct new retaining wall. • Construct noise wall. • Reinstate Broomfield Street with new alignment. • Close Sussex Street over a weekend to construct the bridge.

Stage	Feature constructed during stage	Main activities
Stage 3 – Cabramatta Creek bridge	<ul style="list-style-type: none"> Cabramatta Creek bridge 	<ul style="list-style-type: none"> Constructing the bridge. Reinstating shared paths.
Stage 4 – Works at Jacquie Osmond Reserve and Peter Warren Automotive	<ul style="list-style-type: none"> Retaining walls 	<ul style="list-style-type: none"> Clearance and site setup. Install footing for retaining structure. Build up sub-base and cap layer. Construct embankment (Jacquie Osmond Reserve only). Reinstate fence.
Stage 5 – Track works	<ul style="list-style-type: none"> Track works Signalling 	<ul style="list-style-type: none"> Construct track turnout and undertake realignment works at the northern end during the first available possession. Construct track turnout and undertaken realignment at the southern end during the second available possession. New track would be constructed progressively along the corridor in a linear sequence, with multiple teams operating concurrently. Install signals. Commission track during the last available possession.
Stage 6 – Finishing and rehabilitation	n/a	<ul style="list-style-type: none"> Demobilisation, rehabilitation and finishing works.

4.1.2 Broomfield Street construction staging

As one of the key stages to facilitate the new loop, further information is provided on the Broomfield Street realignment works below. This would occur in stages to minimise the impact on traffic, transport and access. In addition, stages will occur concurrently to minimise construction time as follows:

- Stage 1A
- Stage 1B and Stage 2A
- Stage 1C and Stage 2B
- Stage 1D and Stage 2C
- Stage 2D.

Figure 4.2 shows how this staging of works is proposed to occur on Broomfield Street.



Figure 4.2 Construction stages along Broomfield Street

4.1.3 Construction traffic

The construction haulage traffic impact assessed comprises of trucks, delivery vehicles and light vehicles for site compounds and the wider project worksite.

4.1.4 Workforce

During non-possession periods, a peak workforce of about 80 people would be anticipated. During possession periods, it is estimated that a peak workforce of about 220 people would be anticipated, comprising 110 per 12 hour shift (two 12 hours shifts per day). This increase in workforce numbers during possession periods is a result of the need to ensure any works required within the rail corridor can be undertaken during the short possession periods, which are limited to four 48 hour periods throughout each year.

4.1.5 Vehicle movements

At this stage of the construction traffic assessment, a high level vehicle movement estimate was made of peak hour construction traffic (during possession) that would arrive and depart the compound, and travel between worksites and on the surrounding road network (haulage routes shown on Figure 4.3). The number of light and heavy vehicles generated by the construction was based on indicative estimates of the peak workforce attending the site, and indicative estimates of deliveries and haulage of spoil from the site.

It is estimated that up to 60 light vehicles associated with the workforce and six heavy vehicles would use the Hume Highway during peak periods to access the proposed site during possession (peak construction activity period). Heavy vehicles consist of delivery vehicles, haulage trucks and oversized vehicle movements that may occur within the peak hour period. Construction vehicles would then distribute at a number of side roads to enter and leave the compound and work sites, as shown in Table 4.2.

Table 4.2 Peak construction vehicle trips

Street	Track Possession period (24 hours)	
	Heavy vehicle (per hour)	Light vehicle (per hour)
Hume Highway	6	60
Cabramatta Road East	3	20
Junction Street	3	20
Liverpool Street/Sussex Street	3	20
Broomfield Street	3	20
Mannix Parade/Lawrence Hargrave Road/Nicholls Street/ Station Street/Railway Parade	4	60
Sappho Road	3	20
Warwick Street	4	60

4.1.6 Construction haulage access routes

Haulage routes for construction heavy vehicles to and from the site compounds and access gates to the project site have been developed with the following objectives:

- Use local or residential streets only for direct access to compound locations. Local streets would only be used where there is no other suitable alternative to deliver or remove materials for a particular section of the works.
- Minimise potential safety impacts for pedestrians, cyclists and other road users.
- Maximise the use of the State Road network.

It is proposed that the Hume Highway would provide key access to and from the locality from the south and north, with Cabramatta Road East and Mannix Parade comprising the two major connection points from the Hume Highway. It is possible that Liverpool Street and Junction Street would be utilised as 'left in, left out' locations to and from Broomfield Street, while Sappho Road may be utilised in special circumstances to access the Jacqui Osmond Reserve.

The preliminary haulage and access routes are shown on Figure 4.3. These would be reviewed during detailed design and confirmed following appointment of the construction contractor.



Figure 4.3 Haulage routes

4.1.7 Timing/working hours

The majority of works (with the exception of during possession periods as described below) would be undertaken during recommended standard construction working hours as defined by the *Interim Construction Noise Guideline* (DECC, 2009), which are:

- Monday to Friday: 7.00 am to 6.00 pm
- Saturday: 8.00 am to 1.00 pm
- Sundays and public holidays: no work.

During these periods, there may be a need to undertake some limited activities outside recommended standard working hours. These could include:

- electrical connections and installation
- delivery and/or removal of oversized equipment
- works on key roads such as delivering cranes, to minimise impacts to traffic flow and access
- setting up traffic conditions for partial road closures
- works required by utility service providers or where impacts to services cannot be reasonably managed during standard working hours.

Possession periods

Throughout the majority of the construction period the SSFL and Sydney Trains lines would continue to operate in accordance with standard operations.

However, to ensure that works are carried out as efficiently as possible and that worker safety is maintained, some construction works would need to be undertaken during the scheduled rail maintenance possession periods, during which trains do not operate along the SSFL. ARTC currently schedules routine maintenance possessions on four weekends each calendar year. Each of these possession periods start at about 2.00 am on Saturday and end at 2.00 am on Monday.

Subject to detailed construction planning, these scheduled maintenance possessions would be used to complete certain construction works. Works that would need to be undertaken during possession periods include (but are not limited to):

- delivery of tracks by train
- site establishment activities such as erection of barrier fencing within the rail corridor
- installing new track that affects operational line
- realigning the existing track
- moving large components (such as bridge girders) into place above the rail line
- bridge tie-in works
- signalling works
- installing undertrack crossings such as drainage and signal routes
- testing and commissioning of rail systems.

Possession periods are part of standard Sydney Trains and ARTC operations, and Sydney Trains would organise replacement buses during these periods to replace existing train services. Therefore the impacts to Sydney Trains users as a result of the possession periods are considered beyond the scope of this assessment and are not considered further.

4.2 Operation

The project would operate as part of the SSFL and would continue to be managed by ARTC. ARTC is not responsible for the operation of rolling stock and train services are currently, and would continue to be, provided by a variety of operators, who operate in accordance with relevant regulatory requirements.

Following completion of the works, traffic along Broomfield Street would continue to operate as per the existing operations, with one travel lane in each direction, with kerb-side parking on both sides, a shared path (pedestrian/cycle) on the western side of the road and a footpath on the eastern side of the road.

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

5. **Construction impact assessment**

This section outlines the traffic implications of the proposed works and summarises the traffic, transport and access impact analysis during construction.

5.1 Intersection performance during construction

Construction of the project would result in temporary impacts to traffic and access within the study area, and an increase in both heavy and light vehicle movements on the local road network. The extent of impacts will depend on the location of the works, and the origin of material and/or workers. A worst-case assessment of the impacts on intersection performance due to the increase in heavy and light vehicle movements is detailed below.

Construction traffic models were developed using the weekday AM and PM peak hours and the Saturday peak hour at Sappho Road/Hume Highway intersections based on the 2018 traffic survey data. A summary of the results is outlined in Table 5.1 and Table 5.2. Detailed SIDRA results are provided in Appendix B.

Table 5.1 Intersection operations during construction (Weekday)

Intersection	AM Peak				PM Peak			
	Ave Delay (s)	LoS	Control Type	Degree of Saturation	Ave Delay (s)	LoS	Control Type	Degree of Saturation
Site 1: Hume Highway/ Mannix Parade	29	C	Signals	0.910	48	D	Signals	0.965
Site 2: Lawrence Hargrave Road/ Nicholls Street	8	A	Roundabout	0.098	8	A	Roundabout	0.098
Site 3: Lawrence Hargrave Road/ Mannix Parade	7	A	Roundabout	0.133	8	A	Roundabout	0.128
Site 4: Hume Highway/ Junction Street	8	A	Priority	0.373	8	A	Priority	0.501
Site 5: Hume Highway/ Liverpool St	150+	F	Priority	1.0+	150+	F	Priority	1.0+
Site 6: Sappho Road/ Hume Highway	9	A	Signals	0.589	20	B	Signals	0.648
Site 7: Broomfield Street/ Cabramatta Road East	13	A	Signals	0.222	12	A	Signal	0.242
Site 8: Hume Highway/ Cabramatta Road East	26	B	Signals	0.703	27	B	Signal	0.836

Table 5.2 Intersection operations during construction (Saturday)

Intersection	Saturday Peak			
	Aver Delay (s)	LoS	Control Type	Degree of Saturation
Site 6: Sappho Road/ Hume Highway	23	B	Signal	0.875

Notes:

- The average delay for priority-controlled intersections is selected from the movement on the approach with the highest average delay.
- The level of service for priority-controlled intersections is based on the highest average delay per vehicle for the most critical movement.
- The degree of saturation is defined as the ratio of the arrival flow (demand) to the capacity of each approach.
- Average delay is given in seconds per vehicle.

Table 5.2 indicates that each of the signalised intersections and roundabouts analysed during construction operations is likely to operate with an acceptable LoS (ie better than LoS E), with spare capacity in both the weekday morning and evening peak periods, and during the Saturday peak period at Sappho Road/Hume Highway intersection. The right turn movements at the Hume Highway/Liverpool Street intersection are like to continue operating at LoS F both in the morning and evening peak periods, primarily as a result of the delays on the minor roads requiring to give way to traffic flow on the major road (Hume Highway), which is reflective of the existing situation.

Detailed SIDRA results of these intersections are provided in Appendix B.

5.2 Temporary road closures

The following traffic adjustments (see Table 5.3) are proposed during construction.

Table 5.3 Proposed road closures and impacts

Road	Proposed closure	Diversion/traffic management	Traffic Impact
Broomfield Street	Partial road closure during realignment of the road to the east.	Only one lane would be closed at any one time, allowing bi-directional traffic to be directed along the remaining open lane under 'stop and go' traffic control.	<ul style="list-style-type: none"> Minor delay (est. 1-2 minutes) to vehicles on Broomfield Street with traffic control allowing one direction of traffic flow at one period of time. Minor delays (est. 1-2 minutes) for residents that access property driveways.
	Full road closure for short periods for specific activities such as line marking.	Works to occur during night time to minimise disturbance. Potential diversions would include the adjacent local roads, such as National Street.	<ul style="list-style-type: none"> Minor delay (est. 1-2 minutes) to vehicles due to local road diversions from Broomfield Street to adjacent roads (such as National Street). Minor delays (est. 1-2 minutes) for residents accessing property driveways.
Sussex Street	Partial road closure during road alignment works and bridge construction works.	One lane would remain open with traffic management such as 'stop and go' traffic control.	<ul style="list-style-type: none"> Minor delay (est. 1-2 minutes) to vehicles that travel via Sussex Street under the bridge. 'Stop and go' traffic control allowing one direction of traffic flow at one period of time
	Potential full closure during certain bridge construction works (such as girder positioning) for safety reasons (maximum 48 hours during weekend period or mid-week nights (Sunday to Thursday)).	Road closed from Sussex Street bridge to Junction Street. The most likely diversion would comprise of: <ul style="list-style-type: none"> Western side of the railway line - Church Street (to the west) and Cabramatta Road (W) via Railway Parade to the east), Eastern side of the railway line – Junction Cumberland Street with local access maintained. 	<ul style="list-style-type: none"> Moderate delay to vehicles that normally travel via Sussex Street (bridge underpass) can be diverted to Cabramatta Road. This would incur approximately a 5 minute additional travel time to vehicles that cross the rail line at this location (see Appendix D for travel time)

In addition, there may be temporary road closures within local streets around the work sites and compounds due to the delivery of oversized equipment, resulting in minor delays to drivers. However, given the amount of oversized vehicle movements likely to be used for the project, these impacts are considered to be minor.

As discussed in section 4.1.7 the delivery of oversized equipment would be undertaken outside of standard construction hours to minimise impacts on the surrounding road network.

5.3 Temporary pedestrian and bicycle path diversions

5.3.1 Broomfield Street construction

The existing shared path adjacent to the rail corridor would be impacted by the proposed works and a temporary diversion would be required. It is envisaged that for each stage of the Broomfield Street construction, the shared path would end where the construction zone commences, and pedestrians and bicycle riders would be diverted to the opposite side of Broomfield Street where there is no construction occurring. If this is on the side where there is no shared path (only footpath) and a temporary shared path cannot be established due to site constraints then there may be a requirement for bicycle riders to dismount. However, given the construction length of each stage is about 200 metres the impacts to cyclists due to the requirement to dismount is considered minor. Alternatively bicycle riders can utilise the on-street carriageway, where general traffic speeds will be low as a result of the construction zone environment.

During full road closures for specific activities, bicycle riders may need to be diverted around Broomfield Street, to adjacent roads such as National Street. Pedestrian management around the worksite would be maintained, where possible.

5.3.2 Sussex Street Bridge and Cabramatta Creek Bridge construction

The existing shared path between Sussex Street and Cabramatta Creek would be relocated around 3 metres east for most of the construction period. The diversion will start at the corner of Sussex Street and Broomfield Street and meet the existing path north of Cabramatta Creek. This is to allow for a work site to be established adjacent to the bridge structures. Pedestrian and bicycle access along this route would be maintained except for a period of up to two weeks, during works requiring a crane for Sussex Street bridge. Alternate routes would be provided during this period to cross Cabramatta Creek (ie via Hume Highway) which may incur significant additional travel time for pedestrians and bicycle riders.

Clear signage would be in place, communicating the diversion to pedestrians and bicycle riders. Detailed Traffic Control Plans outlining the appropriate traffic management measures (signage) would be developed and implemented on site (refer section 7.1.6 and section 7.1.7).

A summary of the proposed path closures and impacts are shown in Table 5.4.

Table 5.4 Proposed path closures and impacts

Road	Proposed closure	Diversion/traffic management	Impact
Broomfield Street	Partial shared path closure during each stage	<ul style="list-style-type: none"> • Pedestrians to be diverted to opposite side of the road. • Bicycle riders have the option of utilising the opposite footpath (but must dismount). Alternatively utilise the on-road carriageway 	<ul style="list-style-type: none"> • Minor delay (est. 2-3 minutes) for bicycle riders may be required to dismount to use footpath or utilise the on-road carriageway. • Minor delay (est. less than 1 minute) to pedestrians.
	Full road closure for short periods for specific activities such as line marking	<ul style="list-style-type: none"> • Works to occur during night time to minimise disturbance. Potential diversions would include the adjacent local roads, such as National Street. 	<ul style="list-style-type: none"> • Bicycle riders to use adjacent roads which have a minor increase travel times (est. 1-2 minutes) and an on road mixed environment.
Sussex Street and works on Cabramatta Creek bridge	Partial road closure during road alignment works and bridge construction works	<ul style="list-style-type: none"> • Divert bicycle riders and pedestrians to the temporary shared path (shown in Figure 5.1). 	<ul style="list-style-type: none"> • No impact to bicycle riders or pedestrians (access maintained).
	Potential full closure (approximately 12 hours) during certain bridge construction works (such as girder positioning) for safety reasons. (maximum 48 hours during weekend period)	<ul style="list-style-type: none"> • Permanent and shared path likely closed at Sussex Street bridge (including temporary shared path adjacent to Cabramatta Creek) 	<ul style="list-style-type: none"> • Delay to bicycle riders and pedestrians that use the shared path on the eastern side of Sussex Street Bridge. • Bicycle riders and pedestrians will need to be diverted to alternate crossings over Cabramatta Creek (ie via Hume Hwy) which may cause significant travel time delays.

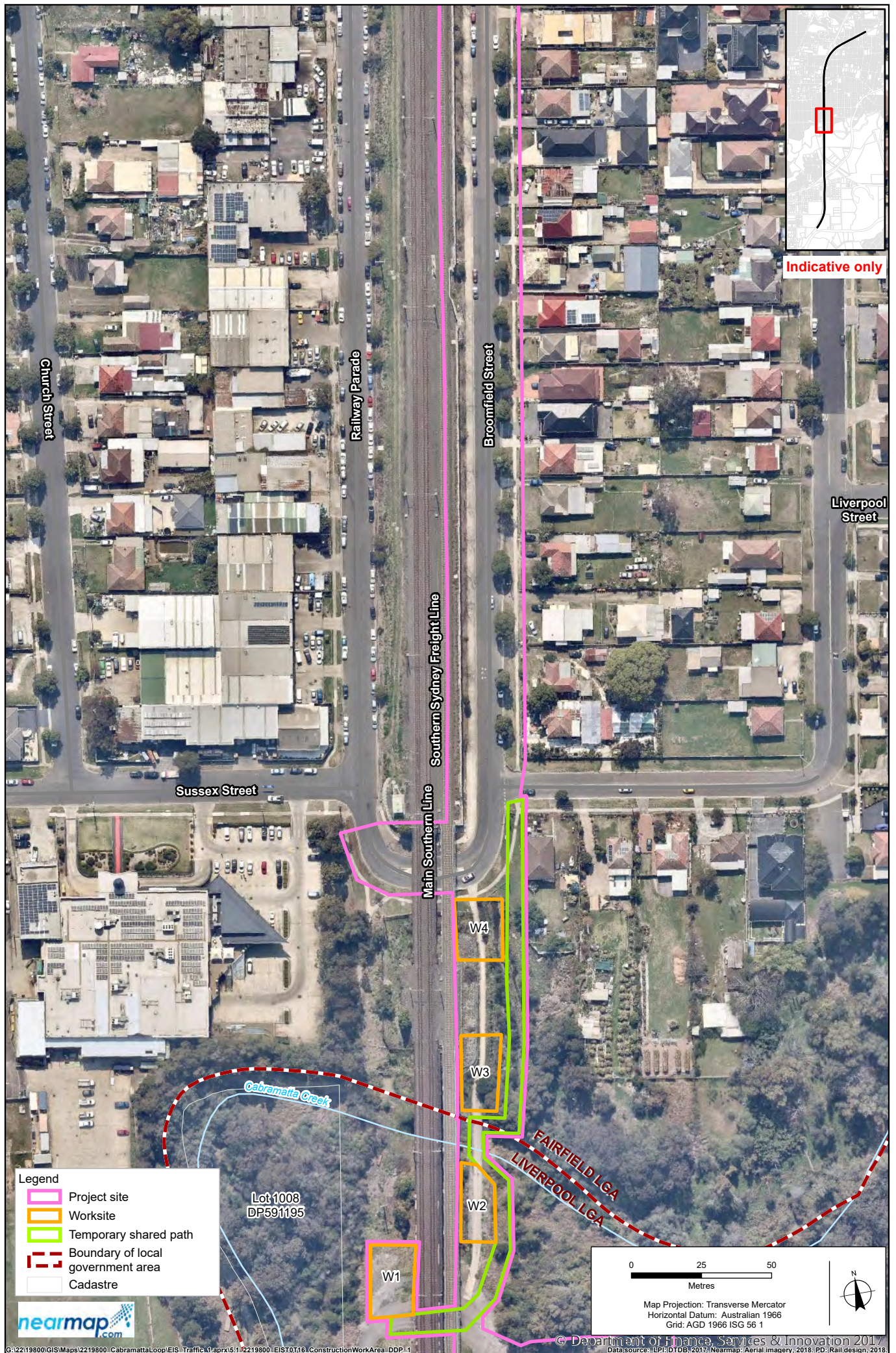


Figure 5.1 Temporary shared path diversion (around bridge construction)

5.4 Car parking impacts

There are likely to be parking impacts during construction as a result of the project. The following section discusses these impacts as they apply to Broomfield Street and surrounding roads.

5.4.1 Car parking impacts during construction stage

Broomfield Street realignment works would occur in stages as discussed previously in section 4.1.2 to minimise the impact on traffic and parking. Figure 5.2 shows the proposed order of delivery of each stage of the works on Broomfield Street, the approximate number of parking spaces likely to be impacted and spare capacity on Broomfield Street during construction. A number of the stages would occur concurrently to reduce the total construction period.

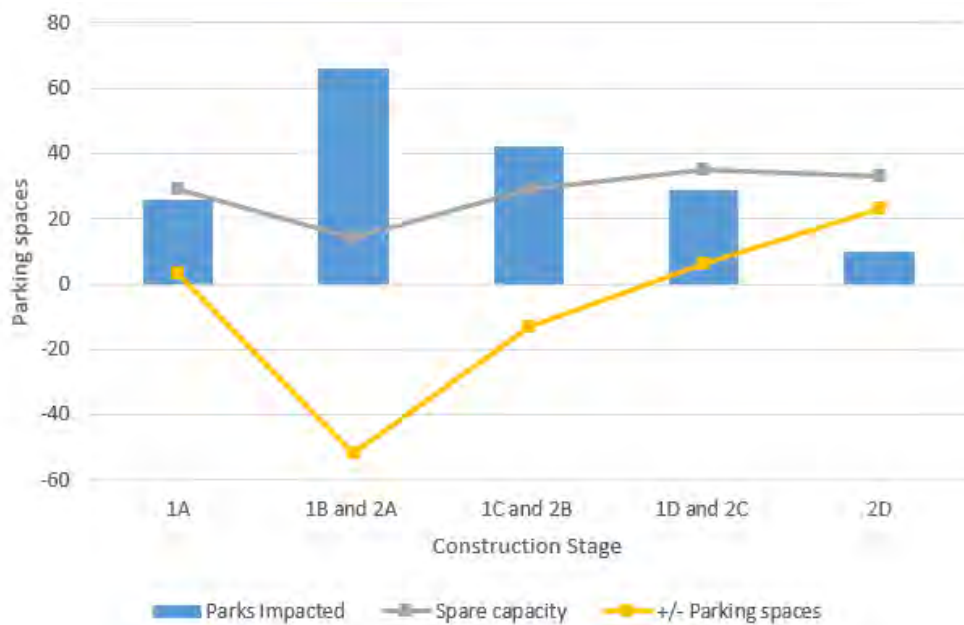


Figure 5.2 Construction parking impacts

Figure 5.2 shows that the peak number of car spaces lost (approximately 66 spaces) occurs during Stages 1B and 2A. As the parking along the length of Broomfield Street is not fully utilised (anticipated 72 percent as discussed in section 3.5) available parking on Broomfield Street would likely absorb some of the car spaces lost (about 14 spaces). However, it is likely that there would still be an impact as a result of the net loss of up to 46 spaces during stages 1B and 2A. In this case, available spare capacity in the local roads could absorb the remaining spaces, however this may translate to a potential impact to local residents and other uses of on-street parking in the adjacent streets. Alternatively, provision of a designated off-street temporary parking area within proximity to the site could minimise this impact (refer section 7.1.1).

5.4.2 Parking for construction workers

It is anticipated that construction worker parking will be kept to designated compounds and areas designated for construction workers only. As such, there should be minimal impact to on-street parking.

5.5 Public transport impacts

5.5.1 Bus services

As described in section 4.1.2 vehicle access along Broomfield Street (south of Cabramatta Station) would be maintained during the realignment works with the exception of some temporary diversions during the construction of Sussex Street bridge.

As described in section 3.7.1, while bus service travel along Broomfield Street north of Cabramatta Station, no bus services travel south of the station. Therefore there are no impacts on existing bus services expected during the proposed works.

5.5.2 Train services

ARTC track works are to occur within the rail corridor which may have an impact on passenger train services. However, ARTC will co-ordinate with Sydney Trains scheduled track possession periods to carry out such works including Sussex Street Bridge, Cabramatta Creek Bridge and track works. Coordinating possessions will ensure no additional impacts are encountered on the rail network and the passenger trains that may have occurred as a result of the project.

5.6 Property and access to key facilities

5.6.1 Residential access

During the enabling works there may be access disruptions for properties directly fronting Broomfield Street due to the relocation and protection of utilities. Vehicular access to properties would be restricted for short periods as there are numerous driveways located along the affected section of Broomfield Street. Additionally, there may be property access impacts if utility relocation works are undertaken in the streets directly adjoining the project site, within the study area.

During the main construction works vehicle access to properties on Broomfield Street is anticipated to be maintained.

There is the potential for minor impacts on vehicle travel times to and from properties due to the imposed one lane directional travel, which may cause minor delays to property access and egress. Consultation with the residents is required by the contractor as outlined in the CTMP (see section 7).

5.6.2 School access

Lawrence Hargrave School is located adjacent to the western side of the railway corridor at the intersection of Lawrence Hargrave Road and Station Street. Given that the school is located on a haulage route, vehicle movements will need to be managed to minimise conflict between construction traffic and vehicles and pedestrians associated with the school. This is to be detailed by the contractor in the CTMP such that construction vehicle movements are minimised within the vicinity of the school as far as practical to maintain safety in the area. It is envisaged that construction traffic would not coincide with the peak period of school start and finish times, to minimise potential conflicts (see section 7.1).

5.6.3 Jacquie Osmond Reserve

There may be potential safety impacts to vehicles, pedestrian and cyclists that use the unnamed access track during construction due to the presence of construction vehicles using this track including where it crosses underneath the rail corridor (between Jacquie Osmond Reserve and Warwick Farm Recreation Reserve). Construction vehicle movements will need to be managed

to minimise conflict between construction traffic, vehicles and shared path users. This is to be detailed by the contractor in the CTMP such that adequate safety measures are used.

Due to the presence of the construction site and compounds there would be no vehicle access to Jacquie Osmond via the unnamed access road on the western side of the rail corridor while some components of the Cabramatta Creek bridge are being constructed. This would impact users of Jacquie Osmond Reserve who access the park for sporting or recreational activities and use the informal parking within Jacquie Osmond Reserve. This impact is considered minor as the works would be short-term (with a likely duration of two weeks) and would likely only impact users on the weekend when sporting events are held. During this time users would still be able to park within the adjacent Hometown Warwick Farm car park and access the park from the southern entry.

5.7 Emergency vehicles

In the event of an emergency within the study area, there may be some impacts to Emergency Vehicles that require access. Impacts may include minor to moderate delays and longer travel times to emergency vehicles caused by road diversions and 'stop and go' traffic control on Broomfield Street (see section 5.2 for proposed road closures). Additional construction traffic may also cause minor delays to Emergency Vehicles, particularly on local road haulage routes

5.8 Cumulative impacts

The following developments within 500 metres of the project site have the potential to occur at the same time as construction of the project, and therefore have the potential to contribute to cumulative traffic impacts within the study area:

- A multi-storey residential centre at the corner of Broomfield Street and Cabramatta Road adjacent to Cabramatta Station would be developed by Moon Investments. The site is zoned B4 Mixed Use and consists of 22 privately owned lots and a section of public laneway owned by Fairfield City Council and has a total area of approximately 12,487 square metres. The site is currently being rezoned to mixed use high density for up to 600 residential/commercial units.
- A new car park proposed in the Cabramatta town centre, on the corner of Hughes Street and Dutton Lane. Work on the new car park is expected to start in mid-2019 and take around nine months to complete. The 220 space car park connects to the existing multi-deck car park with access to a new lift and pedestrian connection to the existing Dutton Plaza lifts.
- Upgrade of Governor Macquarie Drive from Hume Highway to Newbridge Road.

Cumulative impacts of construction activities of nearby development may exacerbate the traffic impacts identified within this study. These include:

- an increased potential for poor intersection performance due to additional construction vehicles on the road leading to travel delays
- additional diversions due to the presence of construction works, compounds and work sites, leading to additional delays for vehicles, pedestrians, cyclists and public transport users
- an increased reduction in parking around compound sites leading to commuters and people accessing commercial and residential properties having to find parking further away.

The potential for cumulative impacts would be mitigated through implementation of the mitigation measures proposed in this report (section 7). However, to further minimise the

potential for cumulative impacts coordination would be undertaken with other stakeholders associated with those projects prior to construction to ensure construction activities are appropriately scheduled and undertaken to minimise impacts.

5.9 Key findings of construction impacts

The following summarises the key findings of the construction impact assessment:

- The intersection analysis outlines there would be a minor increase in average delay at signalised intersections such as at Hume Highway/Mannix Parade, with LoS B increasing to LoS C in AM peak and LoS C to LoS D in the PM peak. Sappho Road/Hume Highway increases from LoS A to LoS B in the PM peak. However, LoS D remains within acceptable limits of level of service.
- There would be some temporary impacts on parking and traffic flow on Broomfield Street, which are likely to be managed effectively by the CTMP, including:
 - parking lost during construction, which is likely to be absorbed by some free capacity on Broomfield Street, or on the surrounding road network. ARTC is to investigate alternative temporary parking lots close to Cabramatta Station which would support the reduction of parking spaces during construction
 - minor impacts to traffic flow on Broomfield Street with the closure of one lane of traffic, and one lane of traffic kept open (either northbound or southbound) under direction of traffic controllers.
- Temporary diversion of the shared path on Broomfield Street at each stage of construction:
 - pedestrians and cyclists to leave shared path at the point of construction zone and directed to cross to the adjacent footpath on Broomfield Street
 - cyclists may be required to dismount.
- During bridge construction of Cabramatta Creek Bridge (up to two weeks), bicycle riders and pedestrians that desire access to the creek crossing would need to be diverted to Cabramatta Road to cross to the western side causing longer travel times.

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

6. Operational impact assessment

This section outlines the traffic implications after the completion of the proposed works and summarises the traffic, transport and access impacts during operation. It is envisaged that there will be minor impacts to parking at the operation stage as outlined in the following sections.

6.1.1 Traffic and transport impacts

There are no changes expected to occur as a result of the project to the existing road network. The project is also not expected to generate any additional traffic movements. Therefore, the existing intersections reviewed within the study area are anticipated to remain at their current level of operation following the completion of the works.

6.1.2 Public transport and active transport impacts

The project would not change the current access arrangements or movement of public transport.

With regards to active transport, the existing footpath would be reinstated as would the shared path which would continue to form part of the Parramatta to Liverpool Rail Trail Cycleway. The project would result in the shifting of the shared path about five metres to the east however the connection to the shared path either side of the alignment would not change. Therefore, there would be no ongoing impacts to pedestrian and cycling networks within the project site.

The project site is located at a distance from links to other active transport networks within the study area (as described in section 3.8.2). The project would not introduce any obstructions or result in disconnection of the pedestrian and cycle network, therefore the project would reinstate like for like within the project site only. The development of an urban design landscape concept identified an opportunity to integrate cycling and pedestrian elements with surrounding networks through the provision of wayfinding signage. This would result in improved awareness of the Parramatta to Liverpool Cycle Trail and an improved user experience. Provision of signage would also consider other features within proximity of the project that may be useful to reference for users of the cycle trail. The provision of wayfinding signage would be explored as part of development of the urban design and landscape plan during detailed design. This is described further in Technical Report 10 – Landscape and visual impact assessment.

6.1.3 Access impacts

There would be no changes to access arrangements for properties located along Broomfield Street.

6.1.4 Parking impacts

The realignment of Broomfield Street is required to accommodate the widened rail corridor and new track which will run as the Cabramatta Loop. As a result of space constraints, this realignment would see angled parking along the western side of Broomfield Street converted to parallel parking. This could result in a permanent loss of up to 11 spaces. The permanent loss in parking would be considered a minor impact as parking surveys (see Appendix C) indicated Broomfield Street has capacity to absorb the potential loss. Capacity of up to 76 spaces south of Cabramatta Station was observed (see section 3.5) particularly between Sussex Street and Junction Street. As Broomfield Street between Sussex Street and Junction Street is within walking distance (up to 800 metres) the spare capacity is considered appropriate to offset parking lost as a result of the project.

6.1.5 Maintenance vehicle impacts

Maintenance vehicles will need to access the rail corridor to undertake routine maintenance activities on the passing loop as per existing maintenance arrangements. Maintenance works would be undertaken during possessions and would be managed in accordance with ARTC's existing EPL and standard operating procedures. As a result there are no additional impacts anticipated.

7. Mitigation and management measures

7.1 Construction traffic management

A Construction Traffic Management Plan (CTMP) should be developed and implemented prior to works to minimise the construction impacts identified as part of this assessment. The CTMP should be prepared in accordance with the Australian Standard 1742.3-2002: Traffic Control for Works on Roads and the NSW Roads and Maritime Services QA Specification G10 “Traffic Control at Worksites”.

The CTMP is to be developed in consultation with governing authorities including but not limited to Fairfield City Council, Liverpool City Council, Transport for NSW, Roads and Maritime Services, and transport/emergency services.

All site workers should be inducted into the relevant requirements of the CTMP as part of the site induction.

The primary objectives of the CTMP are to:

- minimise the impact of construction vehicle traffic on the overall operation of the road network
- provide continuous, safe and efficient movement of traffic for both the general public and construction workers
- define the use of appropriate advance warning signs to inform users of the changed traffic condition
- outline a description of the construction vehicles and the volume of these construction vehicles accessing/egressing the construction site
- provide measures to mitigate traffic, transport and access impacts
- provide information regarding changed access arrangements and also a description of the proposed external routes for vehicles including the construction vehicles accessing the site
- establish a safe pedestrian and bicycle riding environment in the vicinity of the site.

Mitigation measures that should be included in the CTMP at a minimum to mitigate the impacts identified within this assessment are provided below. The headings of the below sections denote the impacts that these mitigation measures are addressing.

7.1.1 On-street parking

Mitigation measures for the loss of on-street parking due to construction impacts is discussed in this section.

Parking during the construction period

Loss of parking could potentially be absorbed by available parking within surrounding streets. On street parking available in streets adjacent to Broomfield Street (ie National and Cumberland Streets) are outside the study area, but have the potential to assist in absorbing the temporary loss of parking in Broomfield Street during construction. The walking distance to the station from these roads is comparable to Broomfield Street.

Where practicable, alternative off-street parking would be provided. In addition, some works may be required to adjust the property to ensure its suitability as a temporary car park, such as constructing a hard stand, installing temporary lighting, providing temporary fencing, and ensuring appropriate driveway access and suitable visibility is provided upon access and egress

to the car park. The following sites have been identified as potential alternative parking locations, and would be subject to agreement with landholders and consultation with Fairfield Council:

Option 1 – Broomfield Street in proximity of Cabramatta Station: This location is a vacant block of land situated in proximity of Cabramatta Station. The vacant block is bordered by commercial use, an educational institution and a multi-storey car park. The lot, which was vacant at the time of writing could potentially accommodate approximately 40 temporary parking spaces.

Option 2 – Bridge Street: This location is around 200 metres from Cabramatta Station and is predominantly surrounded by high density residential lots. The lot would allow dual entry/exit points via Bridge Street and Boundary Lane and could accommodate approximately 40 temporary parking spaces.

Option 3 – Broomfield Street: at around 500 metres from Cabramatta Station, this lot is surrounded predominantly by low density residential dwellings. The lot would be ideal for temporary parking. However, while Fairfield City Council suggested a walking limit of 500 metres to Cabramatta Station would be appropriate, the NSW Planning Guidelines for Walking and Cycling (2004) has identified that commuter parking could be considered acceptable up to 800 metres from the station. This lot could potentially accommodate up to 40 spaces; however, entering and exiting the lot could be constrained during the reconfiguration of Broomfield Street. This is not considered a preferred option if other options are available as it would provide temporary additional parking where there is already parking capacity in the network.

Option 4 – Railway Parade: This location is on the western side of the rail corridor and within 150 metres of Cabramatta Station. The site is currently hardstand and would therefore require minimum works to utilise it as a temporary parking area. The lot would likely accommodate around 100 temporary parking spaces.

Construction Worker Parking

Construction workers are to be encouraged not to use on street parking where practically possible, as there are designated compounds to be allocated for construction workers (see section 7.1.4). Sustainable transport options should be encouraged to reduce traffic and parking demands including car pooling and the use of public transport within proximity of the site.

7.1.2 Reduced road network performance

Where possible, heavy vehicle traffic movements should be minimised during the road network peak periods. This includes during the weekday AM and PM peak periods and during the middle of the day on weekends when higher traffic volumes occur.

Heavy vehicle activity should be avoided, where possible, during school pick-up and drop-off periods (8:00 am to 9:30 am and 2:30 pm to 4:00 pm school days) in the vicinity of schools, when pedestrian and vehicle activity is generally greater.

Proposed construction vehicle access routes are shown in section 4.1.6.

Public access around the site is expected to be maintained on the surrounding road network (with the exception of short term road closures). Vehicles will be permitted to travel past the work site, controlled by traffic signage as prescribed by a Traffic Control Plan (TCP) to be developed in accordance with Roads and Maritime's *Traffic Control at Works Sites* and AS1742.3 – Traffic Control for Works on Roads. This will advise motorists of changes in road network or vehicle movements to/from the site, including any 'truck turning' activities.

Road closures

Partial or full road closures are anticipated during the works on Broomfield Street as outlined in section 5.2. The extent and duration of temporary road closures are to be minimised, with diversions in place to the adjoining road network.

Roadworks speed zones

Work areas are to provide safe clearances from through traffic lanes in line with Roads and Maritime's *Traffic Control at Works Sites Manual*.

Should road works speed zones be required, the contractor will develop necessary plans and obtain approvals by the governing authority (Roads and Maritime) in consultation with the local council.

7.1.3 Delays due to oversize vehicle movements

It is assumed that there are to be cranes and semi-trailers that will assist in transportation and construction of the proposed bridges. Delays to road users due to the delivery of oversized vehicles would be mitigated through implementation of the CTMP.

Oversized vehicles would use designated heavy vehicle routes or routes approved by Roads and Maritime. Additionally, oversized traffic movements should be carried out, where possible, outside peak road network periods, minimising the impacts on the road network.

Major road networks such as Cabramatta Road East and the Hume Highway are proposed to be used for access to the site. Should oversized vehicles be required, the contractor would be responsible to obtain necessary permits/approvals and provide site specific Traffic Control Plans for the major road networks from the governing authority such as Roads and Maritime Services and the local Council.

7.1.4 Parking for construction workers

It is proposed that the following parking areas for workers would also be established along the project site. These sites are listed below:

- part of Jacquie Osmond Reserve adjacent to the rail corridor
- behind Hyundai on Sappho Road (within Hometown, Warwick Farm)
- within Stroud Park, west of the rail corridor
- within the vacant grassed verge of the rail corridor just south of Warwick Farm Station
- parking within the rail corridor (where permitted).

It is anticipated that access to the site by site personnel from the surrounding road network may occur outside the AM and PM peak hour periods. Construction contractors should be encouraged not to park within the road network or commuter parking facilities, but in designated construction parking areas. A car parking area is to be allocated to accommodate the peak site construction personnel. It is anticipated that approximately 60 to 80 worker's vehicles could be accommodated within the site compounds.

Because there is limited parking within the immediate vicinity of the site, alternative transport options should be considered to support construction workers on the project.

Encouraging carpooling between workers will reduce traffic activity and parking demand. The site is located near Cabramatta and Warwick Farm Stations. Promoting the use of such public transport options will greatly assist in reducing traffic movements associated with staff arrival and departure and parking demands to be accommodated within the worksite.

7.1.5 Site establishment plan

A detailed site establishment plan is to be developed in future detail design stages. The plan should incorporate sufficient area to allow vehicle queuing within the site to minimise impacts on the surrounding road network, and suitable turning areas within the site to allow vehicles to enter and exit in a forward direction. Swept path analysis would be required to confirm that manoeuvrability throughout the site plan is satisfactory for designated design construction vehicles.

Vehicles are not to park or queue within the surrounding round network.

7.1.6 Bicycle rider management

Bicycle riders will be managed by temporary diversions around construction and work zones as described in section 5.3.

Appropriate traffic management is to be in place to direct bicycle riders past the work site(s). This may include creating a mixed vehicle/bicycle environment on local low volume, low speed roads and providing advanced warning of changed conditions for bicycle riders. Worksite traffic control plans in accordance with Roads and Maritime's *Traffic Control at Works Sites Manual* and AS1742.3 – Traffic Control for Works on Roads must include guidance for managing bicycle riding routes.

7.1.7 Pedestrian management

Pedestrians will be managed by temporary diversions around construction and work zones as described in section 5.3.

Construction site access is to be restricted to authorised personnel only. Pedestrian access around the site areas will be maintained at all times. This will be particularly important during the AM and PM peak periods, as a result of pedestrian demands associated with the local shopping precinct and workers travelling to and from key employment areas such as Sydney CBD and Parramatta CBD.

A designated safe path of travel for pedestrians should be maintained near all worksites. Appropriate signage will be in place should pedestrian diversions be required.

Within the site, safe walking paths for site personnel should be maintained to key access areas, and should be outlined in the detailed CTMP.

A TCP will be required to be developed to be in accordance with Roads and Maritime's *Traffic Control at Works Sites* manual and AS1742.3 – Traffic Control for Works on Roads and it is to consider the pedestrian activity adjacent to the construction site.

7.1.8 Access to properties

Driveway and pedestrian access to properties adjoining the works is to be maintained as far as practicable throughout the works. Any temporary closures, if required, are to be of short duration (up to one day) with the agreement of the property owner.

As these works would be undertaken progressively, this would minimise the duration of time that driveways would be impacted. Potential impacts would be managed through the development of a CTMP. Potentially affected property owners and residents will be contacted before the commencement of works. Residents will be notified via door knocks, newsletters or letter box drops providing information on the proposed works, working hours and a contact name and number should any complaints wish to be registered.

Open trenches will be filled or covered using road plates at the end of each day to minimise impacts on vehicular access to properties.

Jacquie Osmond Reserve

Traffic will need to be managed in and around Jacquie Osmond Reserve through consultation between the contractor and local council and sporting associations that utilise the reserve. This will minimise conflict between construction traffic, vehicles and pedestrians at the reserve particularly during weekend periods when sporting activities are likely to occur.

The contractor will consult with Liverpool City Council and the relevant sporting associations with regards to scheduling and access arrangements when works are being undertaken on Cabramatta Creek bridge, to minimise the potential impacts associated with the loss of access to informal parking in Jacquie Osmond Reserve.

7.1.9 Road hazards

The proposed works within the road network and rail corridor may present hazards for workers, the public and surrounding facilities. Such relevant issues have been raised and addressed within the assessment. The CTMP should identify specific mitigation measures for identified road hazards associated with the works with consideration to the Traffic, Transport and Access Impact Assessment including:

- Environmental:
 - fog
 - wet weather
 - frost.
- Transport infrastructure:
 - bus infrastructure
 - railway line and train services
 - bicycle facilities
 - general traffic
 - pedestrian activity.
- Public facilities:
 - shops fronting Broomfield Street (opposite Cabramatta Station)
 - Cabramatta Sports Ground off Sussex Street.
- Education facilities:
 - Lawrence Hargrave School – 3 Station Street, Warwick Farm
 - Cabramatta Public School – Cabramatta Road East/Cumberland Street.
 - Jacquie Osmond softball reserve
 - the above road hazard can be mitigated with communication to workers via tool box talks and inductions, while members of the public can be advised by advanced on road and advance notification of works as outlined below.

7.1.10 Method of communicating traffic changes

Advance notification of upcoming works is paramount to safety and the efficient delivery of the project. The following outlines communication measures to be considered in the detailed CTMP.

On road communication

TCPs are to be developed in accordance with Australian Standards (AS 1742.3 – Traffic Control Devices for Works on Roads) and Roads and Maritime's *Traffic Control at Worksites Manual* to

identify appropriate signage (and location) to advise motorists of upcoming changes in the road network.

Sign size should be a minimum size 'A' on roads with traffic speeds up to 90 km/h (sign location up to eight metres offset from the traffic lane) or 110 km/h (sign location up to 4.5 metres offset from the traffic lane). In other locations where the above offsets are exceeded, signs are to be a minimum size 'B'.

The use of variable message signs (VMS) provides benefit to the local community and visitors to convey messages of upcoming impacts on the road network as the result of construction activity. VMS (if required) should be installed in locations and used in accordance with relevant guidelines with the necessary approvals from governing authorities.

Advance notification of works

Access to properties adjoining the works is to be maintained throughout the works. Any temporary closures, if required, are to be of short duration (up to one day) with the agreement of the property owner.

Prior to commencement of works on site, the contractor is to inform neighbouring properties of proposed works, impacts and site contact information. Notification can be provided by various means including:

- letterbox distribution
- local paper
- Transport for NSW and local council websites.

7.1.11 Emergency services

While hospitals are not directly impacted by the proposed works, ambulance services and other emergency services (i.e. fire and police) should be considered in developing the CTMP. The road network within the site area should facilitate the access of emergency service vehicles by providing minimum lanes width of 3.5 metres (where possible). Emergency services are required to be notified by the contractor of ongoing works and changes to the road network.

7.2 Operational mitigation measure

7.2.1 Permanent parking

Eleven car spaces are likely to be lost at the operational stage. Broomfield Street has additional parking capacity, particularly between Sussex Street and Junction Street (up to 74 spaces) and Broomfield Street south of Junction Street where existing utilisation is less than 50 percent. As Broomfield Street between Sussex Street and Junction Street is within walking distance (up to 800 metres) and has spare capacity, it is considered appropriate that there is available efficiencies within the area to offset parking lost as a result of the project.

No further mitigation is proposed for operation with other road network operations being reverted to exiting conditions upon completion of the project.

8. Conclusions and recommendations

This report details the traffic, parking and transport impacts during the construction and operation of the proposed Cabramatta Loop. In addition, a preliminary CTMP is provided for future contractors when developing a detailed CTMP prior to construction.

8.1 Construction impacts

A review of the expected construction impacts identified the following:

- Based upon the adopted assumptions, the intersection analysis outlines there would be a minor increase in average delay at signalised intersections such as at Hume Highway/Mannix Parade, with LoS B increasing to LoS C in AM peak and LoS C to LoS D in the PM peak. Sappho Road/Hume Highway increases from LoS A to LoS B in the PM peak. However, LoS D remains within acceptable limits of level of service.
- There would be some temporary impacts on parking and traffic flow on Broomfield Street, which are likely to be managed effectively by the CTMP, including:
 - Parking lost during construction. This is likely to be absorbed by some free capacity on Broomfield Street, or on the surrounding road network. ARTC is investigating options for temporary parking lots close to Cabramatta Station which would support the reduction of parking spaces during construction.
 - One lane of traffic would be closed. The other would be kept open (either northbound or southbound) under direction of traffic controllers. These traffic impacts are expected to be minor.
- Temporary diversion of the shared path on Broomfield Street at each stage of construction:
 - Bicycle riders to leave the shared path at point of construction zone and directed on road to mixed traffic conditions.
 - Pedestrians to leave shared path at the point of construction zone and directed to cross Broomfield Street from the west to the east side.
- A temporary shared path would be built to divert around the proposed bridge works at Cabramatta Creek during Cabramatta Creek Bridge abutment works.
- During bridge construction of Cabramatta Creek Bridge (up to two weeks), bicycle riders and pedestrians that desire access to the creek crossing would need to be diverted to Cabramatta Road to cross to the western side causing longer travel times.

8.2 Operation impacts

There are no changes expected to occur to the existing road network, access arrangements to public transport or the road network as a result of the project. The project is also not expected to generate any additional traffic movements or impacts to public and active transport. Therefore the existing intersections reviewed within the study area are anticipated to remain at their current level of operation following the completion of the works. In addition, permanent locations for parking are being explored by ARTC and local council to provide additional parking spaces.

8.3 Construction traffic and pedestrian management

A detailed CTMP is required to be prepared before the start of works, with site induction for construction personnel being undertaken to outline the requirements of the CTMP. The aim of the CTMP is to maintain the safety of all workers and road users within the vicinity of the site and outline mitigation measures for construction traffic impacts.

The plan is to include such items as:

- vehicle approach routes
- traffic management and TCP
- workers transportation and on-site parking provisions
- pedestrian and bicycle rider management
- oversize vehicle permit requirements
- road hazards (including environmental, transportation infrastructure, emergency services and public facilities etc)
- methods of communicating traffic changes to the local community and visitors to the area.

A number of mitigation measures have been provided in this report to mitigate the traffic, transport and access impacts identified in this assessment. These mitigation measures would need to be incorporated into the CTMP which would be developed in consultation with Liverpool City Council, Fairfield Council, Transport for NSW and Roads and Maritime Services.

8.4 Conclusion

Construction

Based on the assumptions and investigations undertaken by GHD and the conclusions drawn in this report, it is considered that the proposed Cabramatta Loop works provide satisfactory amenity and that the road and transport network operations would be retained at an acceptable LoS during construction. This would be subject to the implementation of a detailed CTMP by the contractor (addressing the impacts identified in this Traffic, Transport and Access Impact Assessment), before construction.

Operation

There are no changes expected to occur to the existing road network, access arrangements to public transport or the road network as a result of the project. The project is also not expected to generate any additional traffic movements or impacts to public and active transport. Therefore the existing intersections reviewed within the study area are anticipated to remain at their current level of operation following the completion of the works.

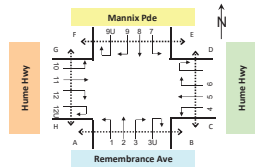
While there is a minor loss in parking in Broomfield Street following completion of the works, there is spare capacity within the parking provision within the study area. The available spaces are within 800 m of the station, which is considered suitable walking distance to key nodes of transport for the use of commuters, visitors and residents in the area.

Appendices

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

Appendix A – Traffic count surveys

Job No. : N541
Client : GHD
Suburb : Cabramatta
Location : 1. Hume Hwy / Mannix Pde
Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
15 mins Data



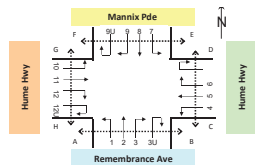
Classifications	Class 1	Class 2	Class 3	Class 4
	Lights	Heavies	Buses	Cyclists

Approach	Remembrance Ave															Hume Hwy																								
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3 (Right Turn)					Direction 3U (U Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6 (Right Turn)					Direction 6U (U Turn)				
Time Period	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total					
6:30 to 6:45	8	0	0	0	8	1	0	0	0	1	23	1	0	0	24	0	0	0	0	0	26	1	0	0	0	27	301	19	0	0	320	1	0	0	0	1				
6:45 to 7:00	6	0	0	0	6	0	0	0	0	0	18	1	0	0	19	0	0	0	0	0	34	245	23	2	0	270	3	0	0	0	3	0	0	0	0					
7:00 to 7:15	9	0	0	0	9	1	0	0	0	1	21	0	0	0	22	0	0	0	0	0	23	250	25	2	0	277	1	0	0	0	1	0	0	0	0					
7:15 to 7:30	15	1	0	0	16	1	0	0	0	1	10	0	0	0	10	0	0	0	0	0	27	1	0	0	0	28	252	26	2	0	280	11	0	0	0	0				
7:30 to 7:45	21	0	0	0	21	3	0	0	0	3	20	0	0	0	20	0	0	0	0	0	28	0	0	0	0	28	311	32	1	0	344	4	1	0	0	0				
7:45 to 8:00	16	2	0	0	18	3	0	0	0	3	15	0	0	0	15	0	0	0	0	0	32	1	0	0	0	33	259	12	3	0	274	11	2	0	0	13				
8:00 to 8:15	18	1	0	0	19	5	0	0	0	5	21	0	0	0	21	0	0	0	0	0	37	0	0	0	0	37	317	32	3	0	352	18	1	0	0	19				
8:15 to 8:30	15	0	0	0	15	10	0	0	0	10	19	0	0	0	19	0	0	0	0	0	34	0	0	0	0	34	313	42	1	0	356	13	0	0	0	13				
8:30 to 8:45	18	0	0	0	18	14	0	0	0	14	16	5	2	0	17	0	0	0	0	0	20	1	0	0	0	21	288	61	0	0	349	3	0	0	0	0				
8:45 to 9:00	10	1	0	0	11	13	1	0	0	14	13	0	0	0	13	0	0	0	0	0	26	1	0	0	0	27	336	45	0	0	402	11	0	0	0	11				
9:00 to 9:15	11	0	0	0	11	1	0	0	0	1	17	0	0	0	17	0	0	0	0	0	14	0	0	0	0	14	335	43	2	0	360	11	0	0	0	11				
9:15 to 9:30	8	0	0	0	8	2	0	0	0	2	18	0	0	0	18	0	0	0	0	0	12	0	0	0	0	12	278	47	0	0	325	0	0	0	0	0				
AM Totals	155	5	0	0	160	54	1	0	0	55	230	4	0	1	235	0	0	0	0	0	313	5	0	0	0	318	3,505	487	16	0	3,928	87	4	0	0	91				
15:30 to 15:45	28	0	0	0	28	0	0	0	0	0	36	0	0	0	36	0	0	0	0	0	22	0	0	0	0	22	481	31	1	0	513	13	0	0	0	13				
15:45 to 16:00	33	0	0	0	33	4	0	0	0	4	39	1	0	0	40	0	0	0	0	0	16	0	0	0	0	16	404	28	2	0	494	13	1	0	0	14				
16:00 to 16:15	25	0	0	0	25	7	0	0	0	7	32	0	0	0	32	0	0	0	0	0	12	0	0	0	0	12	455	20	2	0	477	17	0	0	0	17				
16:15 to 16:30	33	0	0	0	33	3	0	0	0	3	44	1	0	0	45	0	0	0	0	0	15	0	0	0	0	15	482	25	0	0	507	10	0	0	0	10				
16:30 to 16:45	38	0	0	0	38	6	0	0	0	6	33	0	0	0	33	0	0	0	0	0	13	0	0	0	0	13	543	28	1	0	572	14	0	0	0	14				
16:45 to 17:00	37	0	0	0	37	10	0	0	0	10	36	0	0	0	36	0	0	0	0	0	21	1	0	0	0	22	458	19	1	0	478	13	1	1	0	15				
17:00 to 17:15	46	1	0	0	47	6	0	0	0	6	54	0	0	0	54	0	0	0	0	0	14	0	0	0	0	14	423	13	0	0	436	21	0	0	0	21				
17:15 to 17:30	39	0	0	0	39	5	0	0	0	5	43	0	0	0	43	0	0	0	0	0	9	0	0	0	0	9	459	21	0	0	480	11	0	0	0	11				
17:30 to 17:45	33	0	0	0	33	3	0	0	0	3	41	0	0	0	41	0	0	0	0	0	22	0	0	0	0	22	455	18	1	0	474	11	0	0	0	11				
17:45 to 18:00	32	0	0	0	32	6	0	0	0	6	28	0	0	0	28	0	0	0	0	0	9	0	0	0	0	9	465	13	0	0	478	7	0	0	0	7				
18:00 to 18:15	38	0	0	0	38	3	0	0	0	3	37	0	0	0	37	0	0	0	0	0	12	0	0	0	0	12	361	14	0	0	375	12	0	0	0	12				
18:15 to 18:30	57	0	0	0	57	7	0	0	0	7	23	0	0	0	23	0	0	0	0	0	20	0	0	0	0	20	355	13	0	0	368	9	0	0	0	9				
PM Totals	489	1	0	0	490	60	0	0	0	60	446	2	0	0	448	0	0	0	0	0	185	1	0	0	0	186	5,481	243	8	0	5,652	151	2	1	0	154				

Approach	Mannix Pde																				Hume Hwy																				Crossing Pedestrians													
Direction	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)																		
Time Period	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	A	B	C	D	E	F	G	H	Total										
6:30 to 6:45	7	0	0	0	7	2	0	0	0	2	11	1	0	0	12	0	0	0	0	0	0	0	0	0	0	0	502	41	3	0	545	66	0	0	0	66	0	0	0	0	0	0	0	0	1	1	0	3						
6:45 to 7:00	11	0	0	0	11	3	0	0	0	3	12	0	1	0	13	0	0	0	0	0	3	0	0	0	0	0	3	472	40	1	0	513	97	0	0	0	97	0	0	0	0	0	0	0	0	0	3	5						
7:00 to 7:15	9	0	0	0	9	1	0	0	0	1	11	0	0	0	11	0	0	0	0	0	7	0	0	0	0	0	7	472	40	2	0	514	67	0	0	0	67	0	0	0	0	0	0	0	0	0	3	0						
7:15 to 7:30	12	0	0	0	12	4	0	0	0	4	6	0	1	0	7	0	0	0	0	0	13	0	0	0	0	0	13	510	32	0	0	542	58	1	0	0	59	0	0	0	0	0	0	2	1	0	0	9						
7:30 to 7:45	6	0	0	0	6	4	0	0	0	4	16	0	0	0	16	0	0	0	0	0	10	0	0	0	0	0	10	504	34	2	0	540	47	2	1	0	50	0	0	0	0	0	0	1	2	1	6	12						
7:45 to 8:00	18	1	0	0	19	3	0	0	0	3	14	0	1	0	15	0	0	0	0	0	11	0	0	0	0	0	11	458	28	0	0	486	32	0	0	0	32	0	0	0	0	0	0	1	3	0	0	1	8	14				
8:00 to 8:15	18	2	0	0	20	5	0	0	0	5	9	0	0	0	9	0	0	0	0	0	7	1	0	0	0	0	8	447	37	3	0	487	33	0	0	0	33	0	0	0	0	0	0	1	0	1	10	13						
8:15 to 8:30	18	0	0	0	18	5	0	0	0	5	18	0	1	0	19	0	0	0	0	0	5	0	0	0	0	0	5	467	32	3	0	502	46	0	0	0	46	0	0	0	0	0	0	0	5	19	25							
8:30 to 8:45	14	1	0	0	15	13	0	0	0	13	25	0	0	0	25	0	0	0	0	0	10	1	0	0	0	0	11	378	29	0	0	407	47	0	0	0	47	0	0	0	0	0	2	1	0	1	27	6	38					
8:45 to 9:00	16	0	0	0	16	4	0	0	0	4	15	0	0	0	15	0	0	0	0	0	9	0	0	0	0	0	9	442	17	5	0	464	30	0	0	0	30	0	0	0	0	0	0	1	0	0	1	2	14	11	29			
9:00 to 9:15	26	0	0	0	26	6	0	0	0	6	20	1	0	0	21	0	0	0	0	0	6	0	0	0	0	0	6	364	33	0	0	397	11	0	0	0	11	0	0	0	0	0	0	2	1	0	0	1	0	3	4	11		
9:15 to 9:30	9	0	0	0	9	5	0	0	0	5	10	1	0	0	11	0	0	0	0	0	12	0	0	0	0	0	12	357	36	1	0	394	11	0	0	0	11	0	0	0	0	0	0	2	7	0	0	10						
AM Totals	164	4	0	0	168	55	0	0	0	55	367	3	4	0	374	0	0	0	0	0	93	2	0	0	0	95	5,373	399	20	0	5,792	545	3	1	0	549	0	0	0	0	0	0	16	6	0	0	8	11	60	71	172			
15:30 to 15:45	15	0	0	0	15	2	0	0	0	2	14	0	1	0	15	0	0	0	0	0	7	0	0	0	0	0	7	396	29	0	0	425	17	0	0	0	17	0	0	0	0	0	0	1	4	0	0	0	8	7	21			
15:45 to 16:00	11	0	0	0	11	0	0	0	0	0	14	0	1	0	15	0	0	0	0	0	13	0	0	0	0	0	13	368	17	2	0	387	7	0	1	0	8	0	0	0	0	0	2	2	7	0	0	0	12					
16:00 to 16:15	15	0	0	0	15	5	0	0	0	5	14	0	0	0	14	0	0	0	0	0	12	0	1	0	0	0	13	383	20	2	0	405	13	0	0	0	13	0	0	0	0	0	0	1	0	0	0	1	2	1	5			
16:15 to 16:30	7	0	0	0	7	1	0	0	0	1	10	0	1	0	11	0	0	0	0	0	6	0	0	0	0	0	6	368	17	1	0	386	11	0	0	0	11	0	0	0	0	0	0	3	0	2	0	5	1	8	6	25		
16:30 to 16:45	13	0	0	0	13	3	0	0	0	3	19	0	0	0	19	0	0	0	0	0	10	0	0	0	0	0	10	326	21	1	0	348	12	0	0	0	12	0	0	0	0	0	0	0	1	0	0	3	0	15	1	20		
16:45 to 17:00	15	2	1	0	18	8	1	0	0	9	20	0	1	0	21	0	0	0	0	0	8	3	0	0	0	0	11	371	22	1	0	394	11	0	0	0	11	0	0	0	0	0	0	1	2	50	3	18						
17:00 to 17:15	12	0	0	1	13	3	0	0	0	3	21	0	0	0	21	0	0	0	0	0	10	0	0	0	0	0	10	340	18	1	0	359	10	0	0	0	10	0	0	0	0	0	0	4	0	50	2	16						
17:15 to 17:30	23	0	0	0	23	2	0	0	0	2	19	0	0	0	19	0	0	0	0	0	10	0	0	0	0	0	10	356	24	1	0	381	14	0	0	0	14	0	0	0	1	2	2	3	1	3	11							
17:30 to 17:45	12	0	0	0	12	3	0	0	0	3	12	0	1	0	13	0	0	0	0	0	12	0	0	0	0	0	12	329	16	0	0	345	13	0	0	0	13	0	0	0	0	0	0	1	2	3	2	13						
17:45 to 18:00	16	0	0	0	16	1	0	0	0	1	15	0	1	0	16	0	0	0	0	0	5	0	0	0	0	0	5	334	16	1	0	351	15	1	0	0	16	0	0	0	0	0	0	5	0	8	2	15						
18:00 to 18:15	10	0	0	0	10	4	0	0	0	4	20	0	0	0	20	0	0	0	0	0	3	0	0	0	0	0	3	309	33	0	0	342	10	0	0	0	10	0	0	0	0	0	0	1	0	0	1	3	4	13				
18:15 to 18:30	9	1	1	0	11	6	0	0	0	6	21	0	0	0	21	0	0	0	0	0	16	1	0	0	0	0	17	296	18	0	0	314	13	1	0	0	14	0	0	0	0	0	0	3	0	0	0	1	2	2	8			
PM Totals	158	3	2	1	164	38	1	0	0	39	399	0	6	0	205	0	0	0	0	0	112	4	1	0	0	117	4,376	251	10	0	4,637	146	2	1	0	149	0	0	0	0	0	0	0	0	0	13	9	2	1	25	14	80	33	177

Job No. : N4541
Client : GHD
Suburb : Cabramatta
Location : 1. Hume Hwy / Mannix Pde

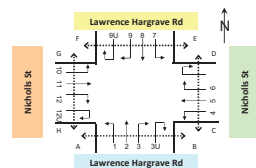
Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
Hourly Summary



Approach	Remembrance Ave																				Hume Hwy																			
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3 (Right Turn)					Direction 3U (U Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6 (Right Turn)					Direction 6U (U Turn)				
Time Period	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total					
6:30 to 7:30	38	1	0	0	39	3	0	0	0	3	72	2	0	1	75	0	0	0	0	0	110	2	0	0	112	1,048	93	6	0	1,147	16	0	0	0	16	0	0	0	0	
6:45 to 7:45	51	1	0	0	52	5	0	0	0	5	69	1	0	1	71	0	0	0	0	0	112	1	0	0	113	1,058	106	7	0	1,171	19	1	0	0	20	0	0	0	0	
7:00 to 8:00	61	3	0	0	64	8	0	0	0	8	66	0	0	1	67	0	0	0	0	0	110	2	0	0	112	1,072	95	8	0	1,175	27	3	0	0	30	0	0	0	0	
7:15 to 8:15	70	4	0	0	74	12	0	0	0	12	66	0	0	0	66	0	0	0	0	0	124	2	0	0	126	1,139	102	9	0	1,250	44	4	0	0	48	0	0	0	0	
7:30 to 8:30	70	3	0	0	73	21	0	0	0	21	75	0	0	0	75	0	0	0	0	0	131	1	0	0	132	1,200	118	8	0	1,326	46	4	0	0	50	0	0	0	0	
7:45 to 8:45	67	3	0	0	70	32	0	0	0	32	80	2	0	0	82	0	0	0	0	0	123	2	0	0	125	1,177	147	7	0	1,331	45	3	0	0	48	0	0	0	0	
8:00 to 9:00	61	2	0	0	63	42	1	0	0	43	88	2	0	0	90	0	0	0	0	0	117	2	0	0	119	1,274	180	4	0	1,458	45	1	0	0	46	0	0	0	0	
8:15 to 9:15	54	1	0	0	55	38	1	0	0	39	84	2	0	0	86	0	0	0	0	0	94	2	0	0	96	1,292	151	3	0	1,446	38	0	0	0	38	0	0	0	0	
8:30 to 9:30	47	1	0	0	48	30	1	0	0	31	83	2	0	0	85	0	0	0	0	0	72	2	0	0	74	1,257	156	2	0	1,455	25	0	0	0	25	0	0	0	0	
AM Totals	555	5	0	0	560	54	1	0	0	55	230	4	0	1	235	0	0	0	0	0	313	5	0	0	318	3,585	407	16	0	3,928	87	4	0	0	91	0	0	0	0	
15:30 to 16:30	119	0	0	0	119	14	0	0	0	14	151	2	0	0	153	0	0	0	0	0	65	0	0	0	65	1,882	104	5	0	1,991	53	1	0	0	54	0	0	0	0	
15:45 to 16:45	129	0	0	0	129	20	0	0	0	20	148	2	0	0	150	0	0	0	0	0	56	0	0	0	56	1,944	101	5	0	2,050	54	1	0	0	55	0	0	0	0	
16:00 to 17:00	133	0	0	0	133	26	0	0	0	26	145	1	0	0	146	0	0	0	0	0	61	1	0	0	62	1,938	92	4	0	2,034	54	1	1	0	56	0	0	0	0	
16:15 to 17:15	154	1	0	0	155	25	0	0	0	25	167	1	0	0	168	0	0	0	0	0	63	1	0	0	64	1,906	85	2	0	1,993	58	1	1	0	60	0	0	0	0	
16:30 to 17:30	160	1	0	0	161	27	0	0	0	27	166	0	0	0	166	0	0	0	0	0	57	1	0	0	58	1,883	81	2	0	1,966	59	1	1	0	61	0	0	0	0	
16:45 to 17:45	155	1	0	0	156	24	0	0	0	24	174	0	0	0	174	0	0	0	0	0	66	1	0	0	67	1,795	71	2	0	1,868	56	1	1	0	58	0	0	0	0	
17:00 to 18:00	150	1	0	0	151	20	0	0	0	20	166	0	0	0	166	0	0	0	0	0	54	0	0	0	54	1,802	65	1	0	1,868	50	0	0	0	50	0	0	0	0	
17:15 to 18:15	142	0	0	0	142	17	0	0	0	17	149	0	0	0	149	0	0	0	0	0	52	0	0	0	52	1,740	66	1	0	1,807	41	0	0	0	41	0	0	0	0	
17:30 to 18:30	160	0	0	0	160	19	0	0	0	19	129	0	0	0	129	0	0	0	0	0	63	0	0	0	63	1,636	58	1	0	1,695	39	0	0	0	39	0	0	0	0	
PM Totals	439	1	0	0	440	60	0	0	0	60	446	2	0	0	448	0	0	0	0	0	185	1	0	0	186	5,401	243	8	0	5,652	151	2	1	0	154	0	0	0	0	

Approach	Mannix Pde																				Hume Hwy																				Crossing Pedestrians									
Direction	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)														
Time Period	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	A	B	C	D	E	F	G	H	Total						
6:30 to 7:30	39	0	0	0	39	10	0	0	0	10	40	1	2	0	43	0	0	0	0	0	23	0	0	0	23	1,956	153	6	0	2,115	288	1	0	0	289	0	0	0	0	0	5	1	0	0	2	4	1	7	20	
6:45 to 7:45	38	0	0	0	38	12	0	0	0	12	45	0	2	0	47	0	0	0	0	0	33	0	0	0	33	1,958	146	5	0	2,109	269	3	1	0	273	0	0	0	0	0	6	1	0	0	3	6	1	12	29	
7:00 to 8:00	45	1	0	0	46	12	0	0	0	12	47	0	2	0	49	0	0	0	0	0	41	0	0	0	41	1,944	134	4	0	2,082	204	3	1	0	208	0	0	0	0	0	5	4	0	0	4	6	2	17	38	
7:15 to 8:15	54	3	0	0	57	16	0	0	0	16	45	0	2	0	47	0	0	0	0	0	41	1	0	0	42	1,919	131	5	0	2,055	170	3	1	0	174	0	0	0	0	0	6	4	0	0	5	3	3	27	46	
7:30 to 8:30	60	3	0	0	63	17	0	0	0	17	57	0	2	0	59	0	0	0	0	0	33	1	0	0	34	1,876	131	8	0	2,015	158	2	1	0	161	0	0	0	0	0	5	3	0	0	3	2	8	43	64	
7:45 to 8:45	68	4	0	0	72	26	0	0	0	26	66	0	2	0	68	0	0	0	0	0	33	2	0	0	35	1,700	126	6	0	1,882	158	0	0	0	158	0	0	0	0	0	5	4	0	0	3	1	34	43	90	
8:00 to 9:00	66	3	0	0	69	27	0	0	0	27	67	0	1	0	68	0	0	0	0	0	31	2	0	0	33	1,734	115	11	0	1,860	156	0	0	0	156	0	0	0	0	0	5	1	0	0	3	3	47	46	105	
8:15 to 9:15	74	1	0	0	75	28	0	0	0	28	78	1	1	0	80	0	0	0	0	0	30	1	0	0	31	1,651	111	8	0	1,779	134	0	0	0	134	0	0	0	0	0	6	2	0	0	3	3	49	40	103	
8:30 to 9:30	65	1	0	0	66	28	0	0	0	28	70	2	0	0	72	0	0	0	0	0	37	1	0	0	38	1,541	115	6	0	1,660	99	0	0	0	99	0	0	0	0	0	6	2	0	0	3	5	51	21	88	
AM Totals	164	4	0	0	168	55	0	0	0	55	167	3	4	0	174	0	0	0	0	0	99	2	0	0	95	5,373	399	20	0	5,792	545	3	1	0	549	0	0	0	0	0	16	6	0	0	8	11	60	71	172	
15:30 to 16:30	48	0	0	0	48	8	0	0	0	8	52	0	3	0	55	0	0	0	0	0	38	0	1	0	39	1,515	83	5	0	1,603	48	0	1	0	49	0	0	0	0	0	6	4	2	0	8	4	25	14	63	
15:45 to 16:45	46	0	0	0	46	9	0	0	0	9	57	0	2	0	59	0	0	0	0	0	41	0	1	0	42	1,445	75	6	0	1,526	43	0	1	0	44	0	0	0	0	0	5	1	2	0	10	4	32	8	62	
16:00 to 17:00	50	2	1	0	53	17	1	0	0	18	63	0	2	0	65	0	0	0	0	0	36	3	1	0	38	1,448	80	5	0	1,533	47	0	0	42	0	0	4	3	2	0	9	4	3	5	35	11	48	4	36	
16:15 to 17:15	47	2	1	1	51	15	1	0	0	16	70	0	2	0	72	0	0	0	0	0	34	3	0	0	37	1,405	78	4	0	1,467	44	0	0	46	0	0	0	0	0	3	3	2	0	13	5	43	12	79		
16:30 to 17:30	63	2	1	1	67	16	1	1	0	17	79	0	1	0	80	0	0	0	0	0	38	3	0	0	41	1,393	85	4	0	1,482	47	0	0	42	0	0	0	0	0	0	3	0	1	10	4	36	9	65		
16:45 to 17:45	62	2	1	1	66	16	1	0	0	17	72	0	2	0	74	0	0	0	0	0	40	3	0	0	43	1,396	80	3	0	1,479	48	0	0	48	0	0	0	0	0	3	4	0	1	8	6	26	10	58		
17:00 to 18:00	63	0	0	0	63	9	0	0	0	9	67	0	2	0	69	0	0	0	0	0	37	0	0	0	37	1,359	74	3	0	1,436	52	1	0	53	0	0	0	0	0	3	2	0	1	12	4	24	9	55		
17:15 to 18:15	61	0	0	0	61	10	0	0	0	10	66	0	2	0	68	0	0	0	0	0	30	1	0	0	30	1,328	89	2	0	1,419	52	1	0	55	0	0	0	0	0	4	2	0	1	9	7	18	11	52		
17:30 to 18:30	47	1	1	0	49	14	0	0	0	14	68	0	2	0	70	0	0	0	0	0	36	1	0	0	37	1,268	83	1	0	1,352	51	2	0	53	0	0	0	0	0	7	2	0	0	6	17	10	49			
PM Totals	158	3	2	1	164	38	1	0	0	39	199	0	6	0	205	0	0	0	0	0	112	4	1	0	117	4,176	251	10	0	4,437	146	2	1	0	149	0	0	0	0	0	13	9	2	1	25	14	80	33	179	

Job No.	: N4541
Client	: GHD
Suburb	: Cabramatta
Location	: 2. Lawrence Hargrave Rd / Nicholls St
Day/Date	: Tue, 23rd October 2018
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Data



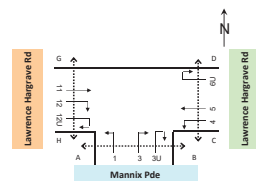
	Class 1	Class 2	Class 3	Class 4
Classifications	Lights	Heavies	Buses	Cyclists

Approach	Lawrence Hargrave Rd															Nicholls St																								
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3 (Right Turn)					Direction 3U (U Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6 (Right Turn)					Direction 6U (U Turn)				
	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total					
Time Period	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total	lights	Heavy	Buses	Cyclists	Total					
6:30 to 6:45	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	2	0	0	0	2	0				
6:45 to 7:00	1	0	0	0	1	0	0	0	0	0	8	0	0	0	8	1	0	0	0	1	5	0	1	0	6	1	0	0	0	1	0	0	0	0	0					
7:00 to 7:15	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0					
7:15 to 7:30	0	0	0	0	0	2	0	0	0	2	7	0	0	0	7	0	0	0	0	0	3	0	1	0	4	0	0	0	0	0	1	0	0	0	1	0				
7:30 to 7:45	0	0	0	0	0	2	1	0	0	3	19	0	0	0	19	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0				
7:45 to 8:00	0	0	0	0	0	3	0	0	0	3	18	0	0	0	18	1	0	0	0	1	9	0	1	0	10	0	0	0	0	0	0	0	0	0	0	0				
8:00 to 8:15	1	0	0	0	1	1	0	0	0	1	16	0	0	0	16	0	0	0	0	0	5	0	0	0	5	1	0	0	0	1	0	0	0	0	1	0				
8:15 to 8:30	0	1	0	0	1	3	0	0	0	3	17	0	0	0	17	0	0	0	0	0	10	0	1	0	11	0	0	0	0	0	0	0	0	0	0	0				
8:30 to 8:45	0	0	0	0	0	4	1	0	0	5	15	0	0	0	15	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0				
8:45 to 9:00	0	0	0	0	0	6	0	0	1	7	9	0	0	0	9	0	0	0	0	0	5	0	0	0	5	1	2	0	0	3	0	0	0	0	0					
9:00 to 9:15	0	0	0	0	0	6	0	0	0	6	2	0	0	0	2	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0				
9:15 to 9:30	1	0	0	0	1	3	0	0	1	4	5	0	0	0	5	0	0	1	0	1	5	0	1	0	6	1	0	0	0	1	0	0	0	0	0	0				
AM Totals	3	1	0	0	4	31	2	0	2	35	127	0	0	0	127	2	0	1	0	3	84	1	5	0	90	4	2	0	0	6	3	0	0	0	3	1	0	0	1	
15:30 to 15:45	0	0	0	0	0	7	1	0	0	8	6	0	0	0	6	0	0	0	0	0	4	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0			
15:45 to 16:00	0	0	0	0	0	5	0	0	0	5	11	0	0	1	12	1	0	0	0	1	8	1	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0			
16:00 to 16:15	0	0	0	0	0	7	0	0	0	7	8	0	0	0	8	0	0	0	0	0	8	0	0	0	8	1	0	0	0	1	0	0	0	0	0	0	0			
16:15 to 16:30	0	0	0	0	0	4	0	0	1	5	7	1	0	0	8	0	0	0	0	0	6	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0			
16:30 to 16:45	1	0	0	0	1	5	0	0	0	5	3	0	0	0	3	0	0	0	0	0	7	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0			
16:45 to 17:00	0	1	0	0	1	10	0	1	0	11	11	0	0	0	11	0	0	0	0	0	5	0	2	1	8	0	0	0	0	0	0	0	0	0	0	0	0			
17:00 to 17:15	1	0	0	0	1	8	0	0	0	8	7	0	0	0	7	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0			
17:15 to 17:30	1	0	0	0	1	5	0	0	0	5	8	0	0	0	8	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0			
17:30 to 17:45	2	0	0	0	2	5	0	0	0	5	12	0	0	0	12	0	0	0	0	0	13	0	1	0	14	0	0	0	0	0	0	0	0	0	0	0	0			
17:45 to 18:00	0	0	0	0	0	4	0	0	1	5	8	0	0	0	8	1	0	0	1	2	10	0	1	0	11	2	0	0	0	2	0	0	0	0	0	0				
18:00 to 18:15	0	0	0	0	0	4	0	0	0	4	17	0	0	0	17	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0			
18:15 to 18:30	1	0	0	0	1	13	0	0	1	14	10	0	0	0	10	0	0	0	0	0	18	1	1	0	20	0	0	0	0	0	0	0	0	0	0	0	0			
PM Totals	6	1	0	0	7	77	1	1	3	82	108	1	0	1	110	2	0	1	3	101	3	8	1	113	3	0	0	0	3	0	0	0	0	0	0	0	0			

Approach	Lawrence Hargrave Rd																				Nicholls St																				Crossing Pedestrians								
Direction	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)													
Time Period	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	A	B	C	D	E	F	G	H	Total					
6:30 to 6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2					
6:45 to 7:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2				
7:00 to 7:15	1	0	0	1	2	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2			
7:15 to 7:30	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2			
7:30 to 7:45	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	1	0	1	0	1	4	4					
7:45 to 8:00	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	1	0	1	0	2	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	0	2	0	2				
8:00 to 8:15	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 to 8:30	1	0	0	0	1	6	1	0	0	7	0	0	0	0	0	0	1	0	1	0	2	1	0	0	1	2	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	2	4	0				
8:30 to 8:45	0	0	0	0	0	2	1	0	0	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0	3	6	0	0					
8:45 to 9:00	0	1	0	0	1	8	0	0	0	8	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:00 to 9:15	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	3	0	0				
9:15 to 9:30	1	0	0	0	1	3	0	0	0	3	3	0	0	0	0	0	0	0	1	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0		
AM Totals	3	1	0	1	5	50	2	0	1	53	1	0	0	0	1	0	0	0	0	0	2	2	5	1	10	6	0	0	0	6	9	0	0	0	9	0	1	0	0	1	0	3	3	1	2	1	7	17	34
15:30 to 15:45	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
15:45 to 16:00	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
16:00 to 16:15	0	0	0	0	0	0	3	0	0	3	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
16:15 to 16:30	0	0	0	0	0	2	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
16:30 to 16:45	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:45 to 17:00	0	0	0	0	0	11	1	0	0	12	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17:00 to 17:15	0	0	0	0	0	2	2	0	0	2	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
17:15 to 17:30	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
17:30 to 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45 to 18:00	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
18:00 to 18:15	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
18:15 to 18:30	0	0	0	0	0	5	5	0	0	1	6	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Totals	0	0	0	0	0	47	1	0	1	49	3	0	0	2	5	1	0	0	0	1	2	0	7	0	9	13	0	0	0	13	4	0	0	0	4	0	0	0	0	5	1	1	1	2	7	8	6	33	

Job No. : N4541
Client : GHD
Suburb : Cabramatta
Location : 3. Lawrence Hargrave Rd / Mannix Pde

Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
: 15 mins Data

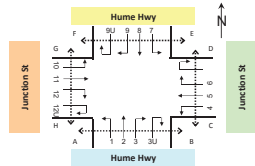


	Class 1	Class 2	Class 3	Class 4
Classifications	Lights	Heavies	Busies	Cyclists

Approach	Mannix Pde										Lawrence Hargrave Rd																				
Direction	Direction 1 (Left Turn)					Direction 3 (Right Turn)					Direction 3U (U Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6U (U Turn)					
Time Period	Lights	Heavies	Bus	Cyclists	Total	Lights	Heavies	Bus	Cyclists	Total	Lights	Heavies	Bus	Cyclists	Total	Lights	Heavies	Bus	Cyclists	Total	Lights	Heavies	Bus	Cyclists	Total	Lights	Heavies	Bus	Cyclists	Total	
6:30 to 6:45	1	0	0	0	1	6	0	0	0	6	0	0	0	0	0	5	1	0	0	6	6	1	0	0	0	1					0
6:45 to 7:00	2	0	0	0	2	6	0	0	0	6	0	0	0	0	0	8	0	1	0	9	2	0	0	0	0	2					0
7:00 to 7:15	4	0	0	0	4	5	0	0	0	5	0	0	0	0	0	11	0	0	0	11	4	0	0	0	0	4					0
7:15 to 7:30	7	0	0	0	7	12	0	0	0	12	0	0	0	0	0	11	0	1	0	12	1	0	0	0	0	1					0
7:30 to 7:45	6	0	0	0	6	12	0	0	0	12	0	0	0	0	0	8	0	0	0	8	1	0	0	0	0	1					0
7:45 to 8:00	7	1	0	0	8	15	1	0	0	16	0	1	0	0	1	18	0	1	0	19	3	0	0	0	0	3					0
8:00 to 8:15	13	0	0	0	13	20	0	0	0	20	0	0	0	0	0	10	1	0	0	11	4	0	0	0	0	4					0
8:15 to 8:30	9	0	0	0	9	11	0	0	0	11	1	0	0	0	1	18	1	1	0	20	5	0	0	1	6					0	
8:30 to 8:45	12	0	0	0	12	17	1	0	0	18	3	0	0	0	3	11	1	0	1	13	6	0	0	0	0	6					0
8:45 to 9:00	23	0	0	0	23	11	0	0	0	11	0	0	0	0	0	11	0	0	0	11	5	0	0	0	0	5					0
9:00 to 9:15	13	0	0	0	13	8	0	0	0	8	0	0	0	0	0	14	0	0	0	14	6	0	0	0	0	6					0
9:15 to 9:30	5	0	0	0	5	7	0	0	0	7	0	0	0	0	0	7	0	0	0	7	3	0	1	0	0	4					0
AM Totals	102	1	0	0	103	130	2	0	0	132	4	1	0	0	5	132	4	4	1	141	41	0	1	1	1	43					0
15:30 to 15:45	8	0	0	0	8	11	0	0	0	11	2	0	0	0	2	8	0	1	0	9	1	0	0	0	0	1					0
15:45 to 16:00	7	0	0	0	7	15	0	0	1	16	0	1	0	0	1	10	0	1	0	11	3	1	0	0	0	4					0
16:00 to 16:15	10	0	0	1	11	14	0	0	1	15	1	0	0	0	1	10	0	0	0	10	3	0	0	0	0	3					0
16:15 to 16:30	8	0	0	0	8	13	1	0	0	14	0	0	0	0	0	4	0	1	0	5	5	0	0	0	0	5					0
16:30 to 16:45	7	0	0	0	7	9	0	0	0	9	1	0	0	0	1	9	0	0	0	9	1	1	0	0	0	2					0
16:45 to 17:00	19	0	0	0	19	10	1	1	0	12	0	0	0	0	0	13	0	2	1	16	5	1	0	0	0	6					0
17:00 to 17:15	10	0	0	0	10	18	0	0	0	18	1	0	0	0	1	9	0	0	0	9	4	0	0	0	0	4					0
17:15 to 17:30	6	0	0	0	6	15	0	0	0	15	1	0	0	0	1	13	0	0	0	13	2	0	0	0	0	2					0
17:30 to 17:45	11	0	0	0	11	17	0	0	0	17	0	0	0	0	0	9	0	1	0	10	5	0	0	0	0	5					0
17:45 to 18:00	11	0	0	0	11	6	0	0	0	6	0	0	0	0	0	10	0	1	0	11	6	0	0	1	7					0	
18:00 to 18:15	7	0	0	0	7	15	0	0	0	15	3	0	0	0	3	14	0	0	0	14	1	0	0	0	0	1					0
18:15 to 18:30	7	0	0	0	7	22	0	0	0	22	0	0	0	0	0	13	1	1	0	15	5	0	0	1	6					0	
PM Totals	111	0	1	0	112	165	2	1	2	170	9	1	0	0	10	122	1	8	1	132	41	3	0	2	46					0	

Approach	Lawrence Hargrave Rd															Crossing Pedestrians							
Direction	Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)												
Time Period	Lights	Heavies	Busies	Cyclists	Total	Lights	Heavies	Busies	Cyclists	Total	Lights	Heavies	Busies	Cyclists	Total	A	B	C	D		G	H	Total
6:30 to 6:45	2	0	0	0	2	7	0	0	0	7	0	0	0	0	0	0	1	0	1		0	1	3
6:45 to 7:00	4	0	0	0	4	8	0	0	0	8	0	0	0	0	0	0	0	0	0		1	0	1
7:00 to 7:15	2	0	0	0	2	4	0	0	0	4	0	0	0	0	0	1	1	0	0		2	2	6
7:15 to 7:30	2	0	0	0	2	10	0	0	0	10	0	0	0	0	0	0	1	0	0		2	2	5
7:30 to 7:45	7	0	0	0	7	7	0	0	0	7	0	0	0	0	0	0	1	0	0		0	2	3
7:45 to 8:00	5	0	0	0	5	9	1	0	0	10	0	0	0	0	0	0	2	0	0		0	1	3
8:00 to 8:15	2	0	0	0	2	14	0	0	0	14	0	0	0	0	0	3	1	0	0		0	0	4
8:15 to 8:30	6	1	0	0	7	19	0	0	0	19	0	0	0	0	0	3	3	0	1		0	1	8
8:30 to 8:45	4	0	0	0	4	25	0	0	0	25	0	0	0	0	0	3	1	0	0		2	1	7
8:45 to 9:00	4	0	0	1	5	19	1	0	0	20	0	0	0	0	0	5	2	0	0		0	0	7
9:00 to 9:15	7	0	0	0	7	30	0	0	0	30	0	0	0	0	0	1	2	0	0		1	2	6
9:15 to 9:30	1	0	1	1	3	8	0	1	0	9	0	0	0	0	0	0	0	0	0		1	2	3
AM Totals	46	1	1	2	50	160	2	1	0	163	0	0	0	0	0	16	15	0	2		9	14	56
15:30 to 15:45	6	0	0	0	6	13	0	0	0	13	1	0	0	0	1	0	0	0	0		1	0	1
15:45 to 16:00	3	0	0	0	3	6	0	0	0	6	1	0	0	0	1	2	0	0	0		0	0	2
16:00 to 16:15	4	0	0	0	4	13	0	0	0	13	0	0	0	0	0	0	1	0	0		0	0	1
16:15 to 16:30	4	0	0	0	4	6	0	0	0	6	0	0	0	0	0	4	0	0	0		0	1	5
16:30 to 16:45	6	0	0	0	6	11	0	0	0	11	0	0	0	0	0	0	1	0	0		0	0	1
16:45 to 17:00	10	0	0	0	10	11	1	0	0	12	0	0	0	0	0	0	0	0	0		0	0	0
17:00 to 17:15	5	0	0	0	5	10	0	0	0	10	0	0	0	0	0	0	1	0	0		0	0	1
17:15 to 17:30	1	0	0	0	1	13	0	0	0	13	0	0	0	0	0	0	0	0	0		0	1	1
17:30 to 17:45	7	0	0	0	7	11	0	0	0	11	0	0	0	0	0	0	0	0	0		2	1	3
17:45 to 18:00	4	0	0	0	4	14	0	0	0	14	0	0	0	0	0	0	1	0	0		0	1	3
18:00 to 18:15	8	0	0	0	8	9	0	0	0	9	0	0	0	0	0	1	0	0	0		2	0	3
18:15 to 18:30	6	0	0	1	7	8	0	0	0	8	0	0	0	0	0	0	0	0	0		1	1	2
PM Totals	64	0	0	1	65	125	1	0	0	126	2	0	0	0	2	8	4	0	0		6	5	30

Job No. : N541
Client : GHO
Suburb : Cabramatta
Location : 4. Hume Hwy / Junction St
Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
15 mins Data

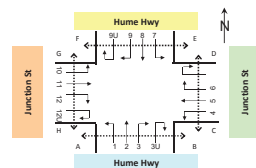


Classifications	Class 1	Class 2	Class 3	Class 4
	Lights	Heavies	Buses	Cyclists

Approach	Hume Hwy															Junction St																								
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3 (Right Turn)					Direction 3U (U Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6 (Right Turn)					Direction 6U (U Turn)				
	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total					
Time Period																																								
6:30 to 6:45	2	0	0	0	2	438	37	4	0	479	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0				
6:45 to 7:00	1	0	0	0	1	406	26	1	0	433	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0				
7:00 to 7:15	0	0	0	0	0	433	25	2	0	460	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0				
7:15 to 7:30	0	0	0	0	0	481	25	1	0	507	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0				
7:30 to 7:45	1	0	0	0	1	467	25	0	0	492	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
7:45 to 8:00	0	0	0	0	0	434	19	2	0	455	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0				
8:00 to 8:15	4	0	0	0	4	416	36	2	0	454	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0				
8:15 to 8:30	1	0	0	0	1	423	25	2	0	450	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0				
8:30 to 8:45	3	0	0	0	3	376	41	2	0	419	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0				
8:45 to 9:00	4	0	0	0	4	380	21	3	0	406	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0				
9:00 to 9:15	2	0	0	0	2	335	29	1	0	365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:15 to 9:30	6	1	0	0	7	344	34	3	0	381	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0				
AM Totals	24	1	0	0	25	4,093	345	23	0	5,301	0	0	0	0	0	0	0	0	0	0	27	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0				
15:30 to 15:45	7	0	0	0	7	363	21	0	0	384	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0				
15:45 to 16:00	3	0	0	0	3	367	17	2	0	386	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0				
16:00 to 16:15	4	0	0	0	4	312	10	1	0	323	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0					
16:15 to 16:30	2	0	0	0	2	378	11	1	0	390	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0					
16:30 to 16:45	2	0	0	0	2	348	16	0	0	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
16:45 to 17:00	6	0	0	0	6	376	25	2	0	403	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0				
17:00 to 17:15	5	0	0	0	5	401	9	0	0	410	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0					
17:15 to 17:30	5	0	0	0	5	353	11	2	0	366	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0					
17:30 to 17:45	4	0	0	0	4	325	8	0	0	333	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
17:45 to 18:00	2	0	0	0	2	332	12	1	0	345	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0				
18:00 to 18:15	3	0	0	0	3	326	13	0	0	339	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0				
18:15 to 18:30	3	0	0	0	3	281	9	1	0	291	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0				
PM Totals	46	0	0	0	46	4,162	162	12	0	4,336	0	0	0	0	0	0	0	0	0	0	14	1	0	0	15	0	0	0	0	0	0	0	0	0	0	0				

Approach	Hume Hwy															Junction St															Crossing Pedestrians																
Direction	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 11 (Through)													Direction 12 (Right Turn)					Direction 12U (U Turn)			
Time Period	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	A	B	C	D	E	F	G	H	Total			
6:30 to 6:45	0	0	0	0	375	15	2	0	0	392	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
6:45 to 7:00	0	0	0	0	329	21	1	0	0	361	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 to 7:15	0	0	0	0	288	25	2	0	0	325	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:15 to 7:30	0	0	0	0	344	19	3	0	0	366	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 to 7:45	0	0	0	0	363	30	3	0	0	396	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 to 8:00	0	0	0	0	378	16	2	0	0	396	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 to 8:15	0	0	0	0	375	23	2	0	0	400	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 to 8:30	0	0	0	0	391	22	2	0	0	415	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
8:30 to 8:45	0	0	0	0	420	20	0	0	0	440	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 to 9:00	0	0	0	0	352	32	2	0	0	386	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 to 9:15	0	0	0	0	351	32	1	0	0	384	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 to 9:30	0	0	0	0	387	40	0	0	0	327	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Totals	0	0	0	0	4,263	305	20	0	0	4,568	0	0	0	0	0	0	0	0	0	0	46	2	1	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	2	6
25:30 to 25:45	0	0	0	0	511	28	1	0	0	540	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25:45 to 26:00	0	0	0	0	481	24	4	0	0	509	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
26:00 to 26:15	0	0	0	0	512	25	1	0	0	538	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26:15 to 26:30	0	0	0	0	530	30	0	0	0	540	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26:30 to 26:45	0	0	0	0	502	23	1	0	0	526	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
26:45 to 27:00	0	0	0	0	490	19	2	0	0	511	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
27:00 to 27:15	0	0	0	0	517	27	0	0	0	544	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
27:15 to 27:30	0	0	0	0	520	23	0	0	0	543	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
27:30 to 27:45	0	0	0	0	489	18	1	0	0	508	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27:45 to 28:00	0	0	0	0	453	20	0	0	0	473	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28:00 to 28:15	0	0	0	0	382	24	0	0	0	406	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
28:15 to 28:30	0	0	0	0	393	12	0	0	0	405	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Totals	0	0	0	0	5,760	273	10	0	0	6,043	0	0	0	0	0	0	0	0	0	0	41	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

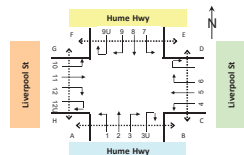
Day/Date : Tue, 23rd October 2018
 Weather : Fine
 Description : Classified Intersection Count
 : Hourly Summary



Approach	Hume Hwy																Junction St																		
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)						
Time Period	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total
6:30 to 7:30	3	0	0	0	3	1,758	113	8	0	1,879	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 to 7:45	2	0	0	0	2	1,787	101	4	0	1,892	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 to 8:00	1	0	0	0	1	1,815	94	5	0	1,914	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 to 8:15	5	0	0	0	5	1,798	105	5	0	1,908	0	0	0	0	0	7	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 to 8:30	6	0	0	0	6	1,740	105	6	0	1,851	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 to 8:45	8	0	0	0	8	1,649	121	8	0	1,779	0	0	0	0	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 to 9:00	12	0	0	0	12	1,690	125	9	0	1,729	0	0	0	0	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 to 9:15	10	0	0	0	10	1,514	118	0	0	1,546	0	0	0	0	0	16	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 to 9:30	15	1	0	0	16	1,415	127	9	0	1,571	0	0	0	0	0	30	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Totals	24	1	0	0	25	5,993	345	23	0	5,201	0	0	0	0	0	27	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 to 10:30	16	0	0	0	16	1,420	59	6	0	1,485	0	0	0	0	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 to 10:45	11	0	0	0	11	1,405	54	6	0	1,465	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 to 17:00	14	0	0	0	14	1,414	62	6	0	1,482	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15 to 17:15	15	0	0	0	15	1,503	61	3	0	1,567	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30 to 17:30	18	0	0	0	18	1,478	61	4	0	1,543	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:45 to 17:45	20	0	0	0	20	1,455	53	4	0	1,512	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:00 to 18:00	16	0	0	0	16	1,411	40	3	0	1,454	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15 to 18:15	14	0	0	0	14	1,316	44	3	0	1,383	0	0	0	0	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30 to 18:30	12	0	0	0	12	1,264	42	2	0	1,308	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Totals	46	0	0	0	46	4,162	162	12	0	4,336	0	0	0	0	0	14	1	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

[illegible]

Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
Hourly Summary

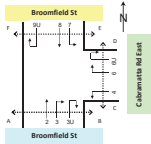


Approach	Hume Hwy												Liverpool St																						
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)						
Time Period	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total
6:30 to 7:30	88	2	0	0	90	1,732	119	0	0	1,851	8	0	0	0	8	5	0	0	0	5	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0
7:30 to 8:30	94	0	0	0	94	1,761	106	0	0	1,867	4	0	0	0	4	2,096	4	0	0	0	4	9	0	0	0	9	0	0	0	0	0	0	0	0	0
8:30 to 9:30	120	2	0	0	122	1,772	111	0	0	1,883	5	1	0	0	6	8	7	0	0	7	8	1	0	0	9	0	0	0	0	0	0	0	0	0	0
9:30 to 10:30	115	1	0	0	116	1,887	102	0	0	1,989	6	1	0	0	7	5	6	0	0	5	6	1	0	0	7	0	0	0	0	0	0	0	0	0	0
10:30 to 11:30	100	2	1	0	103	1,715	99	0	0	1,814	8	1	0	0	9	3	0	0	0	3	10	1	0	0	11	0	0	0	0	0	0	1	0	0	1
11:30 to 12:30	74	0	0	0	74	1,639	118	0	0	1,757	12	1	0	0	13	0	0	0	0	0	11	1	0	0	12	0	0	0	0	0	0	1	0	0	1
12:30 to 1:30	80	0	0	0	80	1,574	126	0	0	1,700	17	0	0	0	17	1	0	0	0	1	14	0	0	0	14	0	0	0	0	0	0	1	0	0	1
1:30 to 2:30	81	4	2	0	87	1,530	119	0	0	1,649	13	0	0	0	13	4	13	0	0	4	13	0	0	0	13	0	0	0	0	0	0	1	0	0	1
2:30 to 3:30	200	0	0	0	200	1,545	105	0	0	1,650	15	0	0	0	15	3	10	0	0	3	13	0	0	0	13	0	0	0	0	0	0	1	0	0	1
3:30 to 4:30	483	7	2	0	492	4,871	351	20	0	5,242	33	1	0	0	34	13	28	1	0	29	6	0	0	0	6	0	0	0	0	0	1	0	0	1	
4:30 to 5:30	296	2	1	0	299	3,884	41	0	0	3,925	12	0	0	0	12	1	11	0	0	1	11	0	0	0	11	0	0	0	2	1	0	0	0	2	
5:30 to 6:30	204	2	1	0	207	3,381	55	0	0	3,436	13	0	0	0	13	2	0	0	0	2	13	0	0	0	13	2	0	0	2	1	0	0	0	2	
6:30 to 7:30	308	2	0	0	308	3,384	64	0	0	3,448	14	0	0	0	14	2	0	0	0	2	11	1	0	0	12	1	0	0	1	1	0	0	0	1	
7:30 to 8:30	328	2	0	0	330	3,499	62	0	0	3,561	14	0	0	0	14	2	0	0	0	2	9	1	0	0	10	1	0	0	1	0	0	0	0	0	
8:30 to 9:30	327	0	0	0	327	3,417	59	3	0	3,519	11	1	0	0	12	3	0	0	0	3	9	1	0	0	10	0	0	0	0	0	0	0	0	0	
9:30 to 10:30	301	0	0	0	301	3,439	57	0	0	3,495	15	1	0	0	16	2	0	0	0	2	10	1	0	0	11	1	0	0	1	0	0	0	0	0	
10:30 to 11:30	284	0	0	0	284	3,410	40	0	0	3,450	17	0	0	0	17	4	11	0	0	4	11	0	0	11	1	0	0	0	0	0	0	0	0	0	
11:30 to 12:30	251	1	0	0	252	3,308	41	0	0	3,349	13	1	0	0	14	5	0	0	0	5	19	0	0	0	19	2	0	0	2	1	0	0	0	2	
12:30 to 1:30	243	1	0	0	244	3,245	44	1	0	3,290	17	0	0	0	17	4	0	0	0	4	23	0	0	0	23	2	0	0	2	1	0	0	0	2	
PM Totals	666	3	1	0	670	4,686	164	10	0	5,260	40	1	0	0	41	8	43	1	0	44	4	0	0	44	4	0	0	4	4	0	0	0	4	0	

[illegible]

Job No. 144541
Client GHD
Suburb Cabramatta
Location S. Broomfield St / Cabramatta Rd East
Day/Date Tue, 23rd October 2018
Weather Fine
Description Classified Intersection Count
15 mins Data

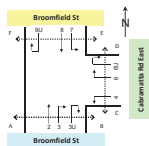
Classifications	Class 1	Class 2	Class 3	Class 4
	Lights	Heavy	Bus	Cycle



Approach	Broomfield St												Cabramatta Rd East																						
	Direction 2 (Through)						Direction 3 (Right Turn)						Direction 3U (U-Turn)						Direction 4 (Left Turn)						Direction 6 (Right Turn)						Direction 6U (U-Turn)				
Time Period	Lght	Heavy	Bus	Cycle	Total		Lght	Heavy	Bus	Cycle	Total		Lght	Heavy	Bus	Cycle	Total		Lght	Heavy	Bus	Cycle	Total		Lght	Heavy	Bus	Cycle	Total						
6:00 - 6:45	15	0	0	0	15	2	0	0	0	0	2	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0					
6:45 - 7:00	17	0	0	0	17	1	0	0	0	0	1	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	0					
7:00 - 7:15	11	0	0	0	11	3	1	0	0	0	4	0	0	0	0	0	16	0	0	0	0	16	0	0	0	0	0	0	0	0					
7:15 - 7:30	9	0	0	0	9	3	0	0	0	0	3	0	0	0	0	0	21	0	0	0	0	21	0	0	0	0	0	0	0	0					
7:30 - 7:45	16	1	0	0	17	3	5	0	0	0	8	0	0	0	0	0	21	0	0	0	0	21	0	0	0	0	0	0	0	0					
7:45 - 8:00	13	1	0	0	14	7	0	0	0	0	7	0	0	0	0	0	30	0	0	0	0	30	0	0	0	0	0	0	0	0					
8:00 - 8:15	22	0	0	0	22	8	0	0	0	0	8	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0					
8:15 - 8:30	28	0	0	0	28	4	0	0	0	0	4	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0					
8:30 - 8:45	25	0	1	0	26	3	0	0	0	0	3	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0					
8:45 - 9:00	24	0	0	0	24	6	0	0	0	0	6	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0					
9:00 - 9:15	17	0	0	0	17	3	5	0	0	0	8	1	0	0	0	1	9	1	0	0	0	10	0	0	0	0	0	0	0	0					
9:15 - 9:30	14	1	0	0	15	3	1	0	0	0	4	0	0	0	0	0	22	0	0	0	0	22	0	0	0	0	0	0	0	0					
AM Totals	322	2	1	0	325	44	2	0	0	0	46	1	0	0	0	1	387	1	0	0	0	389	0	0	0	0	0	0	0	0					
10:30 - 10:45	22	0	0	0	22	7	0	0	0	0	7	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	0					
10:45 - 11:00	20	0	0	0	20	7	0	0	0	0	7	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0					
11:00 - 11:15	18	0	0	1	19	6	0	0	0	0	6	0	0	0	0	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0					
11:15 - 11:30	24	1	0	0	25	6	1	0	0	0	7	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0					
11:30 - 11:45	21	0	0	0	21	3	0	0	0	0	3	1	0	0	0	1	11	0	0	0	0	11	0	0	0	0	0	0	0	0					
11:45 - 12:00	14	0	0	0	14	4	5	0	0	0	9	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0					
12:00 - 12:15	17	0	0	0	17	0	0	0	1	7	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0					
12:15 - 12:30	18	1	0	0	19	4	0	0	0	0	4	0	0	0	0	0	6	1	0	0	0	7	0	0	0	0	0	0	0	0					
12:30 - 12:45	22	0	0	0	22	5	0	0	0	0	5	0	0	0	0	0	12	1	0	0	0	13	0	0	0	0	0	0	0	0					
12:45 - 13:00	17	0	0	0	17	30	0	0	0	0	30	0	0	0	0	0	13	0	0	0	0	13	0	0	0	0	0	0	0	0					
13:00 - 13:15	27	0	0	0	27	30	0	0	0	0	30	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	0					
13:15 - 13:30	35	0	0	0	35	11	0	0	1	12	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0					
PM Totals	302	2	0	1	305	79	1	0	2	3	81	1	0	0	0	1	356	2	0	0	0	358	0	0	0	0	0	0	0	0					

Approach		Broomfield St																								Crossing Pedestrians						
Direction	Time Period	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9U (Up Turn)				Direction 9D (Down Turn)				A	B	C	D	E	F	Total								
		Lght	Heavy	Bus	Total	Lght	Heavy	Bus	Total	Lght	Heavy	Bus	Total	Lght	Heavy	Bus	Total															
Approach 1	6:00 - 6:45	10	0	0	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 - 7:00	12	1	0	13	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 - 7:15	12	2	0	14	14	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 - 7:30	10	1	0	11	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 - 7:45	10	4	0	14	20	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 - 8:00	10	5	0	15	22	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 - 8:15	14	0	0	14	16	1	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 - 8:30	20	0	0	20	21	1	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 - 8:45	10	0	0	10	23	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 - 9:00	15	1	0	16	21	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 - 9:15	14	1	0	15	22	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 - 9:30	7	4	0	11	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 - 9:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 - 10:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:00 - 10:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 - 10:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:30 - 10:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:45 - 11:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:00 - 11:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:15 - 11:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:30 - 11:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 - 12:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 - 12:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 - 12:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 - 12:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 - 13:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:00 - 13:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:15 - 13:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:30 - 13:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:45 - 14:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:00 - 14:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:15 - 14:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:30 - 14:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:45 - 15:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:00 - 15:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:15 - 15:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:30 - 15:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:45 - 16:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:00 - 16:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:15 - 16:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:30 - 16:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:45 - 17:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17:00 - 17:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17:15 - 17:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17:30 - 17:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17:45 - 18:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18:00 - 18:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18:15 - 18:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18:30 - 18:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18:45 - 19:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19:00 - 19:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19:15 - 19:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19:30 - 19:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19:45 - 20:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20:00 - 20:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20:15 - 20:30	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20:30 - 20:45	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20:45 - 21:00	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
21:00 - 21:15	10	0	0	10	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

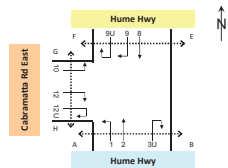
Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



Approach		Brookfield St												Calumatta Rd East											
Direction	Time Period	Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U-Turn)				Direction 4 (Left Turn)				Direction 6 (Right Turn)				Direction 6U (U-Turn)			
		Light	Vehicle	Person	Cycle	Light	Vehicle	Person	Cycle	Light	Vehicle	Person	Cycle	Light	Vehicle	Person	Cycle	Light	Vehicle	Person	Cycle	Light	Vehicle	Person	Cycle
	0:00 to 7:00	30	0	0	0	30	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0:45 to 7:45	12	1	0	0	13	3	1	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 to 8:00	68	2	0	0	70	36	1	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 to 8:30	78	3	0	0	81	40	1	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 to 8:30	98	2	0	0	100	22	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 to 8:45	112	1	1	0	114	22	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 to 8:30	103	0	1	0	104	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 to 9:00	110	0	0	0	110	17	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 to 9:00	84	1	0	0	85	13	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Totals		232	3	1	0	236	84	2	0	0	84	1	0	0	1	187	1	0	1	189					
	10:00 to 10:30	34	1	0	1	36	26	1	0	0	27	0	0	0	0	35	1	0	0	36					
	11:45 to 12:45	83	1	1	0	85	22	1	0	0	23	1	0	0	1	34	1	0	0	35					
	12:30 to 12:45	87	1	0	1	89	19	1	0	0	20	1	0	0	1	32	1	0	0	33					
	12:30 to 12:45	86	1	0	0	87	19	0	0	1	20	0	0	0	1	33	0	0	0	34					
	10:00 to 10:30	80	1	0	0	81	17	0	1	0	18	1	0	0	1	33	1	0	0	34					
	10:00 to 10:30	81	1	0	0	82	19	0	1	0	20	0	0	0	0	34	2	0	0	36					
	17:00 to 18:00	76	1	0	0	77	25	0	1	0	26	0	0	0	0	38	2	0	0	40					
	17:00 to 18:00	84	1	0	0	85	29	0	0	0	29	0	0	0	0	41	0	0	0	41					
	17:30 to 18:00	103	0	0	0	103	36	0	1	0	37	0	0	0	0	48	1	0	0	49					
PM Totals		265	2	0	1	268	79	1	0	2	83	1	0	0	1	116	3	0	0	119					

Broomfield St													Crossing Pedestrians							
Approach		Direction 7 (Left Turn)					Direction 8 (Through)			Direction 9a (Dr Turn)										
Direction		left	through	right	total		left	through	right	total		left							through	right
Time Period		left	through	right	total		left	through	right	total		left	through	right	total					
6:30 to 7:00	44	0	0	0	44	0	1	0	0	1	0	0	0	0	0	23				
7:00 to 7:30	49	0	0	0	49	0	1	0	1	0	0	0	0	0	0	20				
7:30 to 8:00	51	32	0	0	73	40	1	0	1	0	0	0	0	0	0	22				
8:00 to 8:30	70	40	0	0	110	50	1	0	1	0	0	0	0	0	0	26				
8:30 to 9:00	83	0	0	0	83	70	2	0	0	0	0	0	0	0	0	26				
9:00 to 9:30	78	5	0	0	83	63	2	0	0	0	0	0	0	0	0	64				
9:30 to 10:00	60	1	0	0	70	61	2	0	0	0	0	0	0	0	0	67				
10:00 to 10:30	50	2	0	0	52	37	1	0	0	0	0	0	0	0	0	73				
10:30 to 11:00	46	0	0	0	46	32	0	0	0	0	0	0	0	0	0	75				
AM Totals	123	39	0	0	162	380	3	0	1	1	160	0	0	0	0	140				
11:00 to 11:30	60	0	0	1	60	47	1	0	0	0	0	0	0	0	0	58				
11:30 to 12:00	66	0	0	0	66	50	1	0	0	0	0	0	0	0	0	61				
12:00 to 12:30	79	0	0	0	79	50	1	0	1	0	0	0	0	0	0	36				
12:30 to 1:00	80	0	0	0	80	60	1	0	1	0	0	0	0	0	0	66				
1:00 to 1:30	86	0	0	0	86	100	1	0	1	0	0	0	0	0	0	77				
1:30 to 2:00	90	0	0	0	90	103	0	0	0	0	0	0	0	0	0	80				
2:00 to 2:30	92	0	0	0	92	98	0	0	0	0	0	0	0	0	0	86				
2:30 to 3:00	91	0	0	0	91	103	0	0	0	0	0	0	0	0	0	84				
3:00 to 3:30	100	0	0	0	100	111	0	0	0	0	0	0	0	0	0	109				
PM Totals	265	0	0	2	267	268	2	0	0	0	304	0	0	0	0	238				

Job No. : N4541
Client : GHD
Suburb : Cabramatta
Location : 7. Hume Hwy / Cabramatta Rd East
Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
15 mins Data



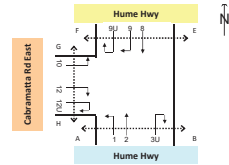
Classifications	Class 1	Class 2	Class 3	Class 4
	Lights	Heavies	Buses	Cyclists

Approach	Hume Hwy																			
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3U (U Turn)									
Time Period	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total					
6:30 to 6:45	13	1	0	0	14	412	32	3	0	447	0	0	0	0	0					
6:45 to 7:00	19	0	0	0	19	434	34	1	0	469	0	0	0	0	0					
7:00 to 7:15	13	1	0	0	14	368	24	2	0	394	0	0	0	0	0					
7:15 to 7:30	15	0	0	0	15	512	25	1	0	538	0	0	0	0	0					
7:30 to 7:45	22	1	0	0	23	445	24	0	0	469	0	0	0	0	0					
7:45 to 8:00	27	2	0	0	29	422	14	2	0	438	0	0	0	0	0					
8:00 to 8:15	31	1	1	0	33	398	35	1	0	434	0	0	0	0	0					
8:15 to 8:30	30	0	0	0	30	390	20	2	0	412	0	0	0	0	0					
8:30 to 8:45	33	2	1	0	36	374	45	1	0	420	0	0	0	0	0					
8:45 to 9:00	18	2	0	0	20	307	30	2	0	329	0	0	0	0	0					
9:00 to 9:15	27	1	0	0	28	372	31	3	0	406	0	0	0	0	0					
9:15 to 9:30	30	0	0	0	30	272	28	3	0	303	0	0	0	0	0					
AM Totals	278	11	2	0	291	4,706	332	21	0	5,059	0	0	0	0	0					
15:30 to 15:45	41	2	0	0	43	311	0	0	0	311	0	0	0	0	0					
15:45 to 16:00	43	2	1	0	46	335	16	1	0	352	0	0	0	0	0					
16:00 to 16:15	35	0	1	0	36	274	13	2	0	289	0	0	0	0	0					
16:15 to 16:30	39	2	0	0	41	340	8	0	0	348	0	0	0	0	0					
16:30 to 16:45	48	0	0	0	48	317	16	1	0	334	0	0	0	0	0					
16:45 to 17:00	62	1	1	0	64	316	24	1	0	341	0	0	0	0	0					
17:00 to 17:15	66	1	0	0	67	356	10	0	0	366	0	0	0	0	0					
17:15 to 17:30	33	0	0	0	33	311	8	2	0	321	0	0	0	0	0					
17:30 to 17:45	41	0	0	0	41	278	13	0	0	291	0	0	0	0	0					
17:45 to 18:00	54	0	0	0	54	315	11	1	0	327	0	0	0	0	0					
18:00 to 18:15	53	2	0	0	55	257	10	0	0	267	0	0	0	0	0					
18:15 to 18:30	35	1	0	0	36	236	7	0	0	243	0	0	0	0	0					
PM Totals	550	11	3	0	564	5,646	136	8	0	5,790	0	0	0	0	0					

Approach	Hume Hwy															Cabramatta Rd East															Crossing Pedestrians									
Direction	Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 12 (Right Turn)					Direction 12U (U Turn)														
Time Period	Lights	Motorists	Buses	Cyclists	Total	Lights	Motorists	Buses	Cyclists	Total	Lights	Motorists	Buses	Cyclists	Total	Lights	Motorists	Buses	Cyclists	Total	Lights	Motorists	Buses	Cyclists	Total	Lights	Motorists	Buses	Cyclists	Total	A	B	E	F	G	H	Total			
6:30 to 6:45	275	13	1	0	289	49	6	0	0	55	0	0	0	0	0	136	9	0	0	0	145	83	2	0	0	85	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 to 7:00	256	26	1	0	283	41	10	1	0	52	0	0	0	0	0	126	9	0	0	0	135	49	2	0	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 to 7:15	247	25	1	0	273	59	7	0	0	66	0	0	0	0	0	147	3	1	0	0	151	57	2	1	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 to 7:30	286	17	1	0	304	51	5	0	0	56	0	0	0	0	0	120	4	0	0	0	124	53	2	0	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 to 7:45	249	25	3	0	277	57	6	0	0	63	0	0	0	0	0	153	4	0	0	0	157	77	4	0	0	81	0	0	0	0	0	0	0	2	0	0	0	2		
7:45 to 8:00	286	14	3	0	303	69	6	0	0	75	0	0	0	0	0	150	3	0	0	0	153	75	1	0	0	76	0	0	0	0	0	0	0	1	0	0	0	0	1	
8:00 to 8:15	304	25	2	0	331	85	12	1	0	98	0	0	0	0	0	125	4	0	0	0	129	66	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 to 8:30	302	18	1	0	321	92	4	0	0	96	0	0	0	0	0	118	4	0	0	0	122	79	3	0	0	82	0	0	0	0	0	0	1	0	0	0	0	1		
8:30 to 8:45	298	19	0	0	317	97	2	0	0	99	0	0	0	0	0	131	2	0	0	0	133	87	4	0	1	92	0	0	0	0	0	0	0	4	0	0	0	1	5	
8:45 to 9:00	289	28	3	0	320	105	2	0	0	107	0	0	0	0	0	155	5	0	0	0	160	72	3	0	0	75	0	0	0	0	0	0	2	0	0	0	0	0		
9:00 to 9:15	274	31	0	0	305	82	8	1	0	91	0	0	0	0	0	89	2	0	0	0	91	67	1	0	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 to 9:30	201	40	0	0	241	89	8	0	0	97	0	0	0	0	0	122	11	1	0	0	134	69	2	0	0	71	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Totals	3,267	281	16	0	3,564	876	76	3	0	955	0	0	0	0	0	1,572	60	2	0	0	1,634	834	26	1	1	862	0	0	0	0	0	3	7	0	0	0	1	11	0	
15:30 to 15:45	396	26	1	0	423	135	3	0	0	138	0	0	0	0	0	98	6	1	0	0	105	93	3	0	0	96	0	0	0	0	0	0	1	2	0	0	0	1	4	
15:45 to 16:00	369	24	1	0	394	152	3	0	0	155	0	0	0	0	0	119	8	0	0	0	127	113	0	1	0	114	0	0	0	0	0	0	0	0	2	0	0	0	1	3
16:00 to 16:15	414	23	1	0	438	152	4	0	0	156	0	0	0	0	0	93	3	0	0	0	96	88	1	0	0	89	0	0	0	0	0	0	0	0	3	0	0	0	0	0
16:15 to 16:30	365	25	0	0	390	174	8	0	0	182	0	0	0	0	0	110	3	0	0	0	113	110	3	0	0	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 to 16:45	427	23	0	0	450	158	6	0	0	164	0	0	0	0	0	95	2	0	0	0	97	82	2	0	0	84	0	0	0	0	0	0	0	0	1	0	0	0	1	
16:45 to 17:00	381	18	0	0	399	168	5	0	0	173	0	0	0	0	0	86	3	0	0	0	89	78	1	1	0	80	0	0	0	0	0	0	0	1	0	0	0	0	1	
17:00 to 17:15	424	29	0	0	453	187	7	0	0	194	0	0	0	0	0	101	5	0	0	0	106	117	2	0	0	119	0	0	0	0	0	0	0	0	1	0	0	1	0	2
17:15 to 17:30	420	16	0	0	436	163	4	0	0	167	0	0	0	0	0	111	1	0	0	0	112	78	4	0	0	82	0	0	0	0	0	0	0	2	0	0	1	0	3	
17:30 to 17:45	386	16	0	0	402	179	5	1	0	185	0	0	0	0	0	104	1	0	0	0	105	81	2	0	0	83	0	0	0	0	0	0	0	1	3	0	0	0	4	
17:45 to 18:00	387	22	0	0	409	158	5	0	0	163	0	0	0	0	0	104	1	0	0	0	105	73	0	0	0	73	0	0	0	0	0	0	0	2	1	0	0	0	3	
18:00 to 18:15	297	21	0	0	318	171	5	0	0	176	1	0	0	0	1	101	1	0	0	0	102	95	2	0	0	97	0	0	0	0	0	0	0	0	3	0	0	0	0	3
18:15 to 18:30	290	13	0	0	303	123	1	0	0	124	0	0	0	0	0	105	1	0	0	0	106	109	1	0	0	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Totals	4,556	256	3	0	4,815	1,020	56	1	0	1,377	1	0	0	0	1	1,227	35	1	0	0	1,263	1,117	21	2	0	1,140	0	0	0	0	0	7	16	0	0	1	1	5	8	0

Job No. : N4541
Client : GHD
Suburb : Cabramatta
Location : 7. Hume Hwy / Cabramatta Rd East

Day/Date : Tue, 23rd October 2018
Weather : Fine
Description : Classified Intersection Count
Hourly Summary

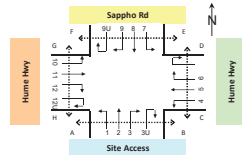


Approach	Hume Hwy														
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3U (U Turn)				
Time Period	Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total
6:30 to 7:30	60	2	0	0	62	1,726	115	7	0	1,848	0	0	0	0	0
6:45 to 7:45	69	2	0	0	71	1,759	107	4	0	1,870	0	0	0	0	0
7:00 to 8:00	77	4	0	0	81	1,747	87	5	0	1,839	0	0	0	0	0
7:15 to 8:15	95	4	1	0	100	1,777	98	4	0	1,879	0	0	0	0	0
7:30 to 8:30	110	4	1	0	115	1,655	93	5	0	1,753	0	0	0	0	0
7:45 to 8:45	121	5	2	0	128	1,584	114	6	0	1,704	0	0	0	0	0
8:00 to 9:00	112	5	2	0	119	1,469	120	6	0	1,595	0	0	0	0	0
8:15 to 9:15	108	5	1	0	114	1,443	116	8	0	1,567	0	0	0	0	0
8:30 to 9:30	108	5	1	0	114	1,325	124	9	0	1,458	0	0	0	0	0
AM Totals	278	11	2	0	291	4,706	932	21	0	5,659	0	0	0	0	0
15:30 to 16:30	158	6	2	0	166	1,260	37	3	0	1,300	0	0	0	0	0
15:45 to 16:45	165	4	2	0	171	1,266	53	4	0	1,323	0	0	0	0	0
16:00 to 17:00	184	3	2	0	189	1,247	61	4	0	1,312	0	0	0	0	0
16:15 to 17:15	215	4	1	0	220	1,329	58	2	0	1,389	0	0	0	0	0
16:30 to 17:30	209	2	1	0	212	1,300	58	4	0	1,362	0	0	0	0	0
16:45 to 17:45	202	2	1	0	205	1,261	55	3	0	1,319	0	0	0	0	0
17:00 to 18:00	194	1	0	0	195	1,260	42	3	0	1,305	0	0	0	0	0
17:15 to 18:15	181	2	0	0	183	1,161	42	3	0	1,206	0	0	0	0	0
17:30 to 18:30	183	3	0	0	186	1,086	41	1	0	1,128	0	0	0	0	0
PM Totals	550	11	3	0	564	3,646	136	8	0	3,790	0	0	0	0	0

Approach	Hume Hwy															Cabramatta Rd East															Crossing Pedestrians				
Direction	Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 12 (Right Turn)					Direction 12U (U Turn)									
Time Period	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	A	B	E	F	G	H	I	J		
6:30 to 7:30	1,064	81	4	0	1,149	200	28	1	0	229	0	0	0	0	0	529	25	1	0	555	242	8	1	0	251	0	0	0	0	0	0	0	0	0	
6:45 to 7:45	1,038	93	6	0	1,137	208	28	1	0	237	0	0	0	0	0	546	20	1	0	567	236	10	1	0	247	0	0	0	0	0	0	0	0	2	
7:00 to 8:00	1,068	81	8	0	1,157	236	24	0	0	260	0	0	0	0	0	570	14	1	0	585	262	9	1	0	272	0	0	0	0	0	0	0	0	3	
7:15 to 8:15	1,125	81	9	0	1,215	262	29	1	0	292	0	0	0	0	0	548	15	0	0	563	271	7	0	0	278	0	0	0	0	0	0	0	0	3	
7:30 to 8:30	1,141	82	9	0	1,232	303	28	1	0	332	0	0	0	0	0	546	15	0	0	561	297	8	0	0	305	0	0	0	0	0	0	1	3	0	
7:45 to 8:45	1,190	76	6	0	1,272	343	24	1	0	368	0	0	0	0	0	524	13	0	0	537	307	8	0	1	316	0	0	0	0	0	0	1	5	0	
8:00 to 9:00	1,193	90	6	0	1,289	379	20	1	0	400	0	0	0	0	0	529	15	0	0	544	304	10	0	1	315	0	0	0	0	0	0	3	4	0	
8:15 to 9:15	1,163	96	4	0	1,263	376	16	1	0	393	0	0	0	0	0	493	13	0	0	506	305	11	0	1	317	0	0	0	0	0	0	3	4	0	
8:30 to 9:30	1,062	118	3	0	1,183	373	20	1	0	394	0	0	0	0	0	497	20	1	0	518	295	10	0	1	306	0	0	0	0	0	0	3	4	0	
AM Totals	3,267	281	16	0	3,564	876	76	3	0	955	0	0	0	0	0	1,572	69	2	0	1,634	834	26	1	1	862	0	0	0	0	0	0	3	7	0	
15:30 to 16:30	1,244	98	3	0	1,345	613	18	0	0	681	0	0	0	0	0	420	20	1	0	441	404	7	1	0	412	0	0	0	0	0	0	1	7	0	
15:45 to 16:45	1,375	95	2	0	1,472	636	21	0	0	697	0	0	0	0	0	417	16	0	0	433	393	6	1	0	400	0	0	0	0	0	0	0	0	0	
16:00 to 17:00	1,587	89	1	0	1,577	652	23	0	0	675	0	0	0	0	0	384	11	0	0	395	358	7	1	0	366	0	0	0	0	0	0	1	4	0	
16:15 to 17:15	1,597	96	0	0	1,693	687	26	0	0	713	0	0	0	0	0	393	13	0	0	405	387	8	1	0	396	0	0	0	0	0	0	1	2	0	
16:30 to 17:30	1,652	86	0	0	1,738	676	22	0	0	698	0	0	0	0	0	393	11	0	0	404	355	9	1	0	365	0	0	0	0	0	0	3	2	0	
16:45 to 17:45	1,611	79	0	0	1,690	687	21	1	0	718	0	0	0	0	0	402	10	0	0	412	354	9	1	0	364	0	0	0	0	0	0	4	4	0	
17:00 to 18:00	1,617	83	0	0	1,700	687	21	1	0	709	0	0	0	0	0	420	8	0	0	428	349	8	0	0	357	0	0	0	0	0	0	5	5	0	
17:15 to 18:15	1,490	75	0	0	1,565	671	19	1	0	681	1	0	0	0	1	420	4	0	0	424	327	8	0	0	335	0	0	0	0	0	0	5	7	0	
17:30 to 18:30	1,360	72	0	0	1,432	631	16	1	0	648	1	0	0	0	1	414	4	0	0	418	358	5	0	0	363	0	0	0	0	0	0	3	7	0	
PM Totals	4,556	256	3	0	4,815	1,920	56	1	0	1,977	1	0	0	0	1	1,227	35	1	0	1,263	1,117	21	2	0	1,140	0	0	0	0	0	0	7	16	0	

Job No. : N4644
Client : GHD
Suburb : Cabramatta Part 2
Location : 1. Sappho Rd / Hume Hwy

Day/Date : Thursday, 22nd November 2018
Weather : Fine
Description : Classified Intersection Count
: 15 mins Data

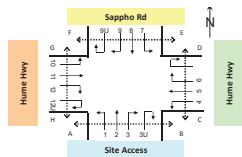


Classifications	Class 1	Class 2	Class 3	Class 4
	Lights	Heavy	Bus	Cyclist

Approach		Site Access																		Hume Hwy																	
Direction		Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)							
Time Period		Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total	Lights	Heavy	Bus	Cyclist	Total	
6:30 to 6:45		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	344	23	1	0	368	2	0	0	0	2	0	0	0	0	0	
6:45 to 7:00		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	237	29	2	0	328	8	2	0	0	10	0	0	0	0	0	
7:00 to 7:15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	270	24	0	0	294	11	0	0	0	11	0	0	0	0	0	
7:15 to 7:30		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	337	23	1	0	361	13	1	0	0	14	0	0	0	0	0	
7:30 to 7:45		0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	24	0	0	402	12	0	0	0	12	0	0	0	0	0	
7:45 to 8:00		2	0	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	380	22	1	0	403	15	1	0	0	16	0	0	0	0	0	
8:00 to 8:15		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332	25	2	0	439	7	0	0	0	7	0	0	0	0	0	
8:15 to 8:30		4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	371	12	2	0	385	7	1	0	0	6	0	0	0	0	0	
8:30 to 8:45		2	0	0	0	2	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0		
8:45 to 9:00		2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	342	32	1	0	401	11	0	0	0	12	0	0	0	0	0	
9:00 to 9:15		3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	330	26	3	0	359	12	0	0	0	12	0	0	0	0	0	
9:15 to 9:30		1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	278	15	0	0	293	15	1	0	0	16	0	0	0	0	0	
AM Totals	15	2	0	0	0	17	0	0	0	0	0	3	1	0	0	3	1	0	0	0	2	4,087	304	23	2	4,416	74	0	0	0	131	0	0	0	0	0	
15:30 to 15:45		0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	348	18	1	0	371	25	0	0	0	25	0	0	0	0	0	
15:45 to 16:00		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	381	17	1	0	399	9	0	0	0	9	2	0	0	0	2		
16:00 to 16:15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	384	18	0	0	405	12	0	0	0	12	0	0	0	0	0		
16:15 to 16:30		0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	408	29	1	0	438	16	0	0	0	16	0	0	0	0	0	
16:30 to 16:45		0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	403	31	1	0	435	19	2	0	0	21	0	0	0	0	0	
16:45 to 17:00		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	460	21	1	0	482	13	0	0	0	13	0	0	0	0	0	
17:00 to 17:15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	471	19	3	0	493	16	0	0	0	16	0	0	0	0	0	
17:15 to 17:30		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	393	21	1	0	415	16	0	0	0	16	0	0	0	0	0	
17:30 to 17:45		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	351	18	0	0	369	10	0	0	0	10	0	0	0	0	0	
17:45 to 18:00		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	424	20	1	0	445	14	0	0	0	14	0	0	0	0	0	
18:00 to 18:15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	460	24	0	0	514	18	1	0	0	19	0	0	0	0	0	
18:15 to 18:30		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	435	22	0	0	437	14	0	0	0	14	0	0	0	0	0	
PM Totals	1	0	0	0	0	1	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	4,369	259	15	0	5,243	182	3	0	0	183	2	0	0	0	0	

Approach	Sappho Rd																				Hume Hwy																				Crossing Pedestrians																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Direction	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	Lights	Heavy	Bus	Cyclists	Total	A	B	C	D	E	F	G	H	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Time Period																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
6:30 to 6:45	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	15	1	0	0	0	16	433	23	4	0	460	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
6:45 to 7:00	2	0	0	0	2	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	0	31	0	0	0	0	31	420	24	0	0	444	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
7:00 to 7:15	5	1	0	0	6	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	31	3	0	0	0	34	468	22	1	0	531	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Job No. : N4644
Client : GHD
Suburb : Cabramatta Part 2
Location : 1. Sappho Rd / Hume Hwy
Day/Date : Thursday, 22nd November 2018
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary

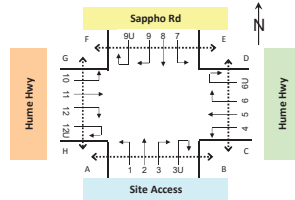


Approach	Site Access															Hume Hwy														
	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3 (Right Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6 (Right Turn)				
Time Period	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total
6:30 to 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 to 7:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 to 8:00	2	1	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 to 8:15	3	1	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 to 8:30	7	1	0	0	8	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 to 8:45	9	0	0	0	9	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 to 9:00	9	0	0	0	9	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 to 9:15	11	0	0	0	11	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 to 9:30	8	1	0	0	9	0	0	0	0	0	0	2	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Totals	15	2	0	0	17	0	0	0	0	0	0	3	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 to 16:30	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 to 16:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00 to 17:00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 to 17:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 to 17:30	1	0	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 to 17:45	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 to 18:00	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 to 18:15	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 to 18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Totals	1	0	0	0	1	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Approach	Sappho Rd															Hume Hwy															Crossing Pedestrians													
Direction	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 10 (Left Turn)					Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)													
Time Period	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	Lights	Heaves	Buses	Cyclists	Total	A	B	C	D	E	F	G	H	Total					
6:30 to 7:30	11	2	0	0	13	0	0	0	0	0	11	2	0	0	13	0	0	0	0	0	112	1,816	91	5	0	1,912	5	1	0	0	6	1	0	0	0	1	2	1	1	0	0	0	5	
6:45 to 7:45	14	4	0	0	18	0	0	0	0	0	14	4	0	0	18	0	0	0	0	0	122	1,836	95	3	0	1,934	5	1	0	0	6	1	0	0	0	1	2	0	1	1	0	0	4	
7:00 to 8:00	13	4	0	0	17	0	0	0	0	0	19	2	0	0	21	0	0	0	0	0	142	1,897	100	4	0	2,001	5	1	0	0	6	0	0	0	0	0	0	0	1	2	0	0	3	
7:15 to 8:15	13	3	0	0	16	0	0	0	0	0	19	3	0	0	22	0	0	0	0	0	150	1,961	107	3	0	2,071	2	1	0	0	3	0	0	0	0	0	0	0	1	2	0	0	4	
7:30 to 8:30	15	3	0	0	17	0	0	0	0	0	24	3	0	0	27	0	0	0	0	0	154	1,974	108	6	0	2,090	3	1	0	0	3	0	0	0	0	0	0	1	2	2	0	6		
7:45 to 8:45	22	1	0	0	23	0	0	0	0	0	22	3	0	0	25	0	0	0	0	0	149	1,874	107	6	0	1,987	3	0	0	0	3	0	0	0	0	0	1	0	2	1	0	0	5	
8:00 to 9:00	24	2	0	0	26	0	0	0	0	0	23	6	0	0	29	0	0	0	0	0	137	1,874	125	8	0	2,007	3	0	0	0	3	0	0	0	0	0	1	1	2	2	0	0	6	
8:15 to 9:15	34	2	0	0	36	0	0	0	0	0	28	6	0	0	34	0	0	0	0	0	111	1,807	135	12	0	1,954	4	0	0	0	4	0	0	0	0	0	3	1	2	2	2	0	10	
8:30 to 9:30	44	2	0	0	46	0	0	0	0	0	38	6	0	0	44	0	0	0	0	0	128	1,698	148	10	0	1,856	1	0	0	0	1	0	0	0	0	0	4	1	2	1	2	0	10	
AM Totals	70	6	0	0	76	0	0	0	0	0	73	11	0	0	84	0	0	0	0	0	389	5,990	347	21	0	5,758	9	1	0	0	10	1	0	0	0	1	6	2	4	4	0	0	20	
15:30 to 16:30	105	1	0	0	106	0	0	0	0	0	140	2	0	0	142	0	0	0	0	0	145	1,643	70	7	0	1,720	1	0	0	0	1	0	0	0	0	0	5	0	4	0	0	1	0	10
15:45 to 16:45	113	1	0	0	114	0	0	0	0	0	146	3	0	0	149	0	0	0	0	0	146	1,644	63	7	0	1,684	2	0	0	0	2	0	0	0	0	0	5	0	4	0	0	0	9	
16:00 to 17:00	127	1	0	0	128	0	0	0	0	0	142	4	0	0	146	0	0	0	0	0	136	1,579	59	7	0	1,645	1	0	0	0	1	0	0	0	0	0	5	0	2	0	0	0	7	
16:15 to 17:15	124	1	0	0	125	0	0	0	0	0	151	4	0	0	157	0	0	0	0	0	119	1,608	54	6	0	1,668	1	0	0	0	1	0	0	0	0	0	5	0	4	0	0	1	0	10
16:30 to 17:30	123	3	0	0	126	0	0	0	0	0	144	5	0	1	150	0	0	0	0	0	127	1,704	52	4	0	1,760	1	1	0	0	2	0	0	0	0	0	4	0	3	0	0	1	0	8
16:45 to 17:45	117	4	0	0	121	0	0	0	0	0	147	2	0	1	150	0	0	0	0	0	116	1,695	52	3	0	1,750	0	1	0	0	1	0	0	0	0	0	4	0	3	0	0	2	0	9
17:00 to 18:00	107	4	0	0	111	0	0	0	0	0	140	1	0	1	142	0	0	0	0	0	119	1,689	44	3	0	1,736	0	1	0	0	1	0	0	0	0	0	2	0	2	0	2	0	8	
17:15 to 18:15	97	3	0	0	100	0	0	0	0	0	113	2	0	1	116	0	0	0	0	0	113	1,649	38	2	0	1,689	0	1	0	0	1	0	0	0	0	0	4	0	0	2	1	0	0	8
17:30 to 18:30	80	2	0	0	82	0	0	0	0	0	124	2	0	0	126	0	0	0	0	0	126	1,477	34	2	0	1,513	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3
PM Totals	308	6	0	0	314	0	0	0	0	0	408	9	0	1	418	0	0	0	0	0	398	5,424	156	13	0	4,993	2	1	0	0	3	0	0	0	0	0	9	0	7	0	2	3	0	21

Job No. : N4644
Client : GHD
Suburb : Cabramatta Part 2
Location : 1. Sappho Rd / Hume Hwy

Day/Date : Saturday, 24th November 2018
Weather : Fine
Description : Classified Intersection Count
: 15 mins Data



	Class 1	Class 2	Class 3	Class 4
Classifications	Lights	Heavies	Buses	Cyclists

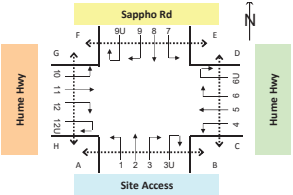
Approach	Site Access															Hume Hwy																										
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3 (Right Turn)					Direction 3U (U Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6 (Right Turn)					Direction 6U (U Turn)						
Time Period	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total		
11:30 to 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	282	6	0	0	288	25	0	0	0	25	0	0	0	0	0	
11:45 to 12:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	319	7	1	0	327	25	1	0	0	26	0	0	0	0	0	
12:00 to 12:15	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332	5	0	0	337	31	0	0	0	31	0	0	0	0	0	
12:15 to 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	308	11	0	0	319	32	0	0	0	32	0	0	0	0	0	
12:30 to 12:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	353	6	0	0	359	36	1	0	0	37	0	0	0	0	0	
12:45 to 13:00	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	375	9	2	0	386	41	0	0	0	41	0	0	0	0	0	
13:00 to 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	358	9	0	0	367	30	0	0	0	30	0	0	0	0	0	
13:15 to 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	375	5	0	0	380	26	0	0	0	26	0	0	0	0	0	
13:30 to 13:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	380	10	0	0	390	28	0	0	0	28	0	0	0	0	0	
13:45 to 14:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	397	9	1	0	407	27	0	0	0	27	0	0	0	0	0	
14:00 to 14:15	0	0	0	0	0	2	0	0	0	2	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	362	10	0	0	372	29	0	0	0	29	1	0	0	0	1
14:15 to 14:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410	8	0	0	418	25	0	0	0	25	0	0	0	0	0	
Total	5	3	0	0	8	2	0	0	0	2	1	3	0	0	4	0	0	0	0	0	5	0	0	0	0	5	4,251	95	4	0	4,350	355	2	0	0	357	1	0	0	0	1	

Approach	Sappho Rd															Hume Hwy															Crossing Pedestrians																			
Direction	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)														
Time Period	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	Lights	Heavy	Buses	Cyclists	Total	A	B	C	D	E	F	G	H	Total						
11:30 to 11:45	33	0	0	0	33	0	0	0	0	0	45	1	0	0	46	0	0	0	0	0	58	0	0	0	0	58	352	5	0	0	357	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3			
11:45 to 12:00	33	0	0	0	33	0	0	0	0	0	57	0	0	0	57	0	0	0	0	0	68	0	0	0	0	68	384	7	1	0	392	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5			
12:00 to 12:15	26	0	0	0	26	0	0	0	0	0	55	1	0	0	56	0	0	0	0	0	68	0	0	0	0	68	392	13	0	0	405	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6			
12:15 to 12:30	44	1	0	0	45	0	0	0	0	0	60	0	0	0	60	0	0	0	0	0	88	0	0	0	0	88	378	6	0	0	384	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
12:30 to 12:45	40	0	0	0	40	0	0	0	0	0	56	1	0	0	57	0	0	0	0	0	117	0	0	0	0	117	402	10	1	0	413	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2				
12:45 to 13:00	44	0	0	0	44	0	0	0	0	0	70	0	0	0	70	0	0	0	0	0	92	1	0	0	0	93	393	13	0	0	406	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
13:00 to 13:15	34	0	0	0	34	0	1	0	0	1	49	0	0	0	49	0	0	0	0	0	72	1	0	0	0	73	377	6	0	0	383	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6			
13:15 to 13:30	36	1	0	0	37	0	0	0	0	0	62	0	0	0	62	0	0	0	0	0	49	0	0	0	0	49	405	10	1	0	416	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18				
13:30 to 13:45	34	1	0	0	35	0	0	0	0	0	48	0	0	0	48	0	0	0	0	0	63	0	0	0	0	63	364	7	1	0	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
13:45 to 14:00	32	0	0	0	32	0	0	0	0	0	55	0	0	0	55	0	0	0	0	0	55	0	0	0	0	55	336	5	0	0	341	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2				
14:00 to 14:15	35	0	0	0	35	0	0	0	0	0	63	0	0	0	63	0	0	0	0	0	66	0	0	0	0	66	384	4	0	0	388	1	1	0	0	2	1	0	0	0	0	0	0	0	0	1				
14:15 to 14:30	48	0	0	0	48	0	0	0	0	0	47	0	0	0	47	0	0	0	0	0	54	0	0	0	0	54	394	12	0	0	406	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0				
Total	439	3	0	0	442	0	1	0	0	1	667	3	0	0	670	0	0	0	0	0	850	2	0	0	0	852	4,561	98	4	0	4,663	2	5	0	0	7	2	0	0	0	2	7	10	10	11	10	4	0	0	52

Job No. : N4644
Client : GHD
Suburb : Cabramatta Part 2
Location : 1. Sappho Rd / Hume Hwy

Day/Date : Saturday, 24th November 2018
Weather : Fine
Description : Classified Intersection Count

Hourly Summary



Approach	Site Access															Hume Hwy																									
Direction	Direction 1 (Left Turn)					Direction 2 (Through)					Direction 3 (Right Turn)					Direction 3U (U Turn)					Direction 4 (Left Turn)					Direction 5 (Through)					Direction 6 (Right Turn)					Direction 6U (U Turn)					
Time Period	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total						
11:30 to 12:30	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	1,241	29	1	0	1,271	113	1	0	0	114	0	0	0	0	0
11:45 to 12:45	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	1,312	29	1	0	2	1,342	124	2	0	0	126	0	0	0	0	0				
12:00 to 13:00	2	2	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	1	1,368	31	2	0	1,401	140	1	0	0	141	0	0	0	0	0
12:15 to 13:15	2	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	0	0	2	1,394	35	2	0	1,431	139	1	0	0	140	0	0	0	0	0
12:30 to 13:30	2	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	0	0	2	1,461	29	2	0	1,492	133	1	0	0	134	0	0	0	0	0
12:45 to 13:45	2	1	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1,488	33	2	0	1,523	125	0	0	0	125	0	0	0	0	0
13:00 to 14:00	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1,510	33	1	0	1,544	111	0	0	0	111	0	0	0	0	0
13:15 to 14:15	1	1	0	0	2	2	0	0	0	2	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1,514	34	1	0	1,549	110	0	0	0	110	1	0	0	0	1
13:30 to 14:30	2	1	0	0	3	2	0	0	0	2	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1,549	37	1	0	1,587	109	0	0	0	109	1	0	0	0	1
Total	5	3	0	0	8	2	0	0	0	2	1	3	0	0	4	0	0	0	0	0	5	0	0	0	0	5	4,251	95	4	0	4,350	355	2	0	0	357	1	0	0	0	1

Approach	Sappho Rd															Hume Hwy															Crossing Pedestrians																				
Direction	Direction 7 (Left Turn)					Direction 8 (Through)					Direction 9 (Right Turn)					Direction 9U (U Turn)					Direction 10 (Left Turn)					Direction 11 (Through)					Direction 12 (Right Turn)					Direction 12U (U Turn)															
Time Period	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	Lights	Heavies	Buses	Cyclists	Total	A	B	C	D	E	F	G	H	Total							
11:30 to 12:30	136	1	0	0	137	0	0	0	0	0	217	2	0	0	219	0	0	0	0	0	282	0	0	0	0	282	1,506	31	1	0	1,538	1	2	0	0	3	0	0	0	0	0	2	1	3	2	4	2	0	0	14	
11:45 to 12:45	143	1	0	0	144	0	0	0	0	0	228	2	0	0	230	0	0	0	0	0	341	0	0	0	0	341	1,556	36	2	0	1,594	0	3	0	0	3	0	0	0	0	0	2	1	3	2	3	2	0	0	13	
12:00 to 13:00	154	1	0	0	155	0	0	0	0	0	241	2	0	0	243	0	0	0	0	0	365	1	0	0	0	366	1,565	42	1	0	1,608	0	2	0	0	2	0	0	0	0	0	2	1	2	1	5	2	0	0	13	
12:15 to 13:15	162	1	0	0	163	0	1	0	0	1	235	1	0	0	236	0	0	0	0	0	369	2	0	0	0	371	1,550	35	1	0	1,586	0	1	0	0	1	0	0	0	0	0	0	4	0	4	5	0	0	0	0	13
12:30 to 13:30	154	1	0	0	155	0	1	0	0	1	237	1	0	0	238	0	0	0	0	0	330	2	0	0	0	332	1,577	39	2	0	1,618	0	1	0	0	1	0	0	0	0	0	2	9	4	9	6	1	0	0	31	
12:45 to 13:45	148	2	0	0	150	0	1	0	0	1	229	0	0	0	229	0	0	0	0	0	276	2	0	0	0	278	1,539	36	2	0	1,577	0	0	0	0	0	0	0	0	0	0	4	9	6	9	4	1	0	0	33	
13:00 to 14:00	136	2	0	0	138	0	1	0	0	1	214	0	0	0	214	0	0	0	0	0	239	1	0	0	0	240	1,482	28	2	0	1,512	0	1	0	0	1	0	0	0	0	0	5	8	7	8	1	1	0	0	30	
13:15 to 14:15	137	2	0	0	139	0	0	0	0	0	228	0	0	0	228	0	0	0	0	0	233	0	0	0	0	233	1,489	26	2	0	1,517	1	2	0	0	3	1	0	0	0	1	5	5	7	5	1	2	0	0	25	
13:30 to 14:30	149	1	0	0	150	0	0	0	0	0	213	0	0	0	213	0	0	0	0	0	238	0	0	0	0	238	1,478	28	1	0	1,507	1	2	0	0	3	2	0	0	0	2	3	0	3	0	0	1	0	0	7	
Total	439	3	0	0	442	0	1	0	0	1	667	3	0	0	670	0	0	0	0	0	850	2	0	0	0	852	4,561	98	4	0	4,663	2	5	0	0	7	2	0	0	0	2	7	10	10	11	10	4	0	0	52	

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

Appendix B – SIDRA intersection results

MOVEMENT SUMMARY



Site: TCS1271 [Site1_2018 AM BASE_Hume Hwy_Mannix Pde]

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Remembrance Ave												
1	L2	66	3.2	0.390	60.6	LOS E	6.1	43.6	0.94	0.86	1.27	18.6
2	T1	45	2.3	0.390	56.0	LOS D	6.1	43.6	0.94	0.86	1.27	18.5
3	R2	95	2.2	0.313	59.6	LOS E	3.0	21.1	0.98	0.73	0.98	27.2
Approach		206	2.6	0.390	59.1	LOS E	6.1	43.6	0.96	0.80	1.14	23.0
East: Hume Hwy E												
4	L2	125	1.7	0.108	10.9	LOS A	2.2	15.7	0.31	0.65	0.31	52.2
5	T1	1535	12.6	0.653	24.1	LOS B	25.1	194.0	0.63	0.57	0.63	46.1
6	R2	48	2.2	0.672	89.8	LOS F	3.8	27.1	1.00	0.79	1.14	22.4
Approach		1708	11.5	0.672	24.9	LOS B	25.1	194.0	0.62	0.58	0.62	45.2
North: Mannix Pde												
7	L2	73	4.3	0.622	62.0	LOS E	6.5	46.8	1.00	0.79	1.02	27.6
8	T1	28	0.0	0.622	57.4	LOS E	6.5	46.8	1.00	0.79	1.02	17.0
9	R2	71	0.0	0.643	83.4	LOS F	5.4	37.5	1.00	0.80	1.07	16.0
Approach		172	1.8	0.643	70.1	LOS E	6.5	46.8	1.00	0.79	1.04	21.1
West: Hume Hwy W												
10	L2	35	6.1	0.882	22.0	LOS B	47.8	355.9	0.71	0.68	0.72	39.0
11	T1	1958	6.8	0.882	15.7	LOS B	48.4	356.7	0.71	0.68	0.72	52.3
12	R2	164	0.0	0.677	45.2	LOS D	7.8	54.4	1.00	0.82	1.03	23.2
Approach		2157	6.2	0.882	18.0	LOS B	48.4	356.7	0.73	0.69	0.75	49.5
All Vehicles		4243	8.0	0.882	24.9	LOS B	48.4	356.7	0.71	0.65	0.73	44.1

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P2B	East Slip/Bypass Lane Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P3	North Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P4	West Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		211	69.3	LOS F			0.96	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: TCS1271 [Site1_2018 AM FUTURE_Hume Hwy_Mannix Pde]

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Remembrance Ave												
1	L2	66	3.2	0.441	70.0	LOS E	7.6	54.7	0.97	0.78	0.97	16.9
2	T1	45	2.3	0.441	65.4	LOS E	7.6	54.7	0.97	0.78	0.97	16.6
3	R2	95	2.2	0.417	81.1	LOS F	3.5	25.0	1.00	0.74	1.00	22.7
Approach		206	2.6	0.441	74.1	LOS F	7.6	54.7	0.98	0.76	0.98	19.9
East: Hume Hwy E												
4	L2	125	1.7	0.095	9.4	LOS A	1.5	10.9	0.28	0.65	0.28	53.6
5	T1	1535	12.6	0.616	20.5	LOS B	22.4	173.5	0.57	0.51	0.57	48.6
6	R2	72	4.4	0.865	94.7	LOS F	5.9	42.6	1.00	0.90	1.41	21.6
Approach		1732	11.5	0.865	22.8	LOS B	22.4	173.5	0.57	0.54	0.58	46.5
North: Mannix Pde												
7	L2	142	6.7	0.556	65.7	LOS E	11.5	84.4	0.96	0.81	0.96	26.6
8	T1	28	0.0	0.556	61.0	LOS E	11.5	84.4	0.96	0.81	0.96	16.2
9	R2	71	0.0	0.643	83.4	LOS F	5.4	37.5	1.00	0.80	1.07	16.0
Approach		241	3.9	0.643	70.3	LOS E	11.5	84.4	0.97	0.81	1.00	22.4
West: Hume Hwy W												
10	L2	77	2.7	0.910	28.5	LOS B	58.5	434.0	0.79	0.79	0.84	34.3
11	T1	1958	6.8	0.910	21.8	LOS B	58.5	434.0	0.79	0.78	0.84	47.5
12	R2	164	0.0	0.616	72.3	LOS F	11.5	80.2	0.99	0.82	0.99	16.9
Approach		2199	6.1	0.910	25.8	LOS B	58.5	434.0	0.81	0.79	0.85	43.9
All Vehicles		4378	8.0	0.910	29.3	LOS C	58.5	434.0	0.73	0.69	0.76	41.3

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P2B	East Slip/Bypass Lane Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P3	North Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P4	West Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		211	69.3	LOS F			0.96	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: TCS1271 [Site1_2018 PM BASE_Hume Hwy_Mannix Pde]**

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Remembrance Ave												
1	L2	142	1.5	0.578	68.1	LOS E	11.6	82.3	0.98	0.81	0.98	17.0
2	T1	27	0.0	0.578	63.6	LOS E	11.6	82.3	0.98	0.81	0.98	16.8
3	R2	154	0.7	0.501	63.1	LOS E	5.0	35.3	1.00	0.76	1.00	26.4
Approach		323	1.0	0.578	65.4	LOS E	11.6	82.3	0.99	0.79	0.99	21.7
East: Hume Hwy E												
4	L2	65	1.6	0.040	7.2	LOS A	0.4	2.6	0.12	0.61	0.12	55.8
5	T1	2139	4.6	0.630	8.4	LOS A	17.9	130.3	0.34	0.31	0.34	59.3
6	R2	58	1.8	0.166	60.6	LOS E	3.5	25.1	0.87	0.75	0.87	28.2
Approach		2262	4.5	0.630	9.7	LOS A	17.9	130.3	0.35	0.33	0.35	57.7
North: Mannix Pde												
7	L2	56	5.7	0.469	61.9	LOS E	4.8	34.5	0.99	0.76	0.99	27.5
8	T1	18	0.0	0.469	57.3	LOS E	4.8	34.5	0.99	0.76	0.99	17.0
9	R2	66	0.0	0.907	97.0	LOS F	5.6	39.0	1.00	0.98	1.52	14.4
Approach		140	2.3	0.907	77.9	LOS F	5.6	39.0	0.99	0.86	1.24	19.6
West: Hume Hwy W												
10	L2	41	7.7	0.929	50.9	LOS D	61.7	453.7	0.96	0.98	1.08	24.5
11	T1	1614	5.5	0.929	44.5	LOS D	61.7	453.7	0.96	0.98	1.08	35.7
12	R2	49	0.0	0.680	90.0	LOS F	3.9	27.2	1.00	0.79	1.15	14.3
Approach		1704	5.4	0.929	45.9	LOS D	61.7	453.7	0.96	0.97	1.08	34.7
All Vehicles		4429	4.5	0.929	29.8	LOS C	61.7	453.7	0.65	0.63	0.71	41.4

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P2B	East Slip/Bypass Lane Crossing	53	31.9	LOS D	0.1	0.1	0.92	0.92	
P3	North Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P4	West Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		211	59.9	LOS E			0.95	0.95	

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: TCS1271 [Site1_2018 PM FUTURE_Hume Hwy_Mannix Pde]

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Remembrance Ave												
1	L2	142	1.5	0.425	40.3	LOS C	8.4	59.4	0.91	0.78	0.92	23.7
2	T1	27	0.0	0.425	35.7	LOS C	8.4	59.4	0.91	0.78	0.92	23.9
3	R2	154	0.7	0.860	91.7	LOS F	6.2	43.9	1.00	0.94	1.38	21.0
Approach		323	1.0	0.860	64.4	LOS E	8.4	59.4	0.95	0.86	1.14	22.0
East: Hume Hwy E												
4	L2	65	1.6	0.075	15.1	LOS B	1.3	8.9	0.48	0.68	0.48	48.5
5	T1	2139	4.6	0.873	35.8	LOS C	48.2	350.4	0.85	0.81	0.90	39.6
6	R2	79	1.3	0.225	61.3	LOS E	4.9	34.5	0.88	0.77	0.88	28.1
Approach		2283	4.4	0.873	36.0	LOS C	48.2	350.4	0.84	0.81	0.89	39.2
North: Mannix Pde												
7	L2	125	7.6	0.384	59.2	LOS E	9.0	66.6	0.90	0.78	0.90	28.0
8	T1	18	0.0	0.384	54.6	LOS D	9.0	66.6	0.90	0.78	0.90	17.4
9	R2	66	0.0	0.777	88.6	LOS F	5.3	36.8	1.00	0.87	1.25	15.4
Approach		209	4.5	0.777	68.1	LOS E	9.0	66.6	0.93	0.81	1.01	22.9
West: Hume Hwy W												
10	L2	83	3.8	0.965	66.0	LOS E	73.1	536.9	1.00	1.08	1.21	20.4
11	T1	1614	5.5	0.965	59.1	LOS E	73.1	536.9	1.00	1.08	1.20	30.7
12	R2	49	0.0	0.163	38.8	LOS C	2.0	14.2	0.89	0.73	0.89	25.4
Approach		1746	5.3	0.965	58.9	LOS E	73.1	536.9	1.00	1.07	1.20	30.2
All Vehicles		4562	4.5	0.965	48.3	LOS D	73.1	536.9	0.91	0.91	1.03	33.1

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P2B	East Slip/Bypass Lane Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P3	North Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P4	West Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		211	69.3	LOS F			0.96	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 [Site2_2018 AM BASE_Lawrence Hargrave Rd_Nicholls St]**

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	2	50.0	0.056	4.8	LOS A	0.3	2.1	0.03	0.63	0.03	35.6
2	T1	13	8.3	0.056	3.9	LOS A	0.3	2.1	0.03	0.63	0.03	32.1
3	R2	69	0.0	0.056	6.7	LOS A	0.3	2.1	0.03	0.63	0.03	41.0
Approach		84	2.5	0.056	6.2	LOS A	0.3	2.1	0.03	0.63	0.03	39.5
East: Nicholls St												
4	L2	38	0.0	0.033	4.4	LOS A	0.2	1.2	0.15	0.49	0.15	41.6
5	T1	1	0.0	0.033	3.9	LOS A	0.2	1.2	0.15	0.49	0.15	40.9
6	R2	1	0.0	0.033	6.7	LOS A	0.2	1.2	0.15	0.49	0.15	26.6
Approach		40	0.0	0.033	4.4	LOS A	0.2	1.2	0.15	0.49	0.15	41.1
North: Lawrence Hargrave Rd												
7	L2	1	0.0	0.026	5.5	LOS A	0.1	1.0	0.24	0.50	0.24	40.9
8	T1	26	8.0	0.026	5.2	LOS A	0.1	1.0	0.24	0.50	0.24	42.6
9	R2	1	0.0	0.026	8.0	LOS A	0.1	1.0	0.24	0.50	0.24	39.7
Approach		28	7.4	0.026	5.3	LOS A	0.1	1.0	0.24	0.50	0.24	42.4
West: Nicholls St												
10	L2	3	33.3	0.011	5.4	LOS A	0.1	0.4	0.25	0.53	0.25	26.7
11	T1	4	0.0	0.011	4.4	LOS A	0.1	0.4	0.25	0.53	0.25	40.0
12	R2	4	0.0	0.011	7.3	LOS A	0.1	0.4	0.25	0.53	0.25	40.7
Approach		12	9.1	0.011	5.8	LOS A	0.1	0.4	0.25	0.53	0.25	36.5
All Vehicles		164	3.2	0.056	5.6	LOS A	0.3	2.1	0.11	0.56	0.11	40.1

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

MOVEMENT SUMMARY

 **Site: 101 [Site2_2018 AM FUTURE_Lawrence Hargrave Rd_Nicholls St]**

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	2	50.0	0.098	4.7	LOS A	0.5	3.9	0.04	0.63	0.04	35.3
2	T1	13	8.3	0.098	3.8	LOS A	0.5	3.9	0.04	0.63	0.04	37.6
3	R2	137	3.1	0.098	6.6	LOS A	0.5	3.9	0.04	0.63	0.04	40.5
Approach		152	4.2	0.098	6.4	LOS A	0.5	3.9	0.04	0.63	0.04	40.2
East: Nicholls St												
4	L2	105	4.0	0.085	4.4	LOS A	0.5	3.5	0.16	0.49	0.16	41.4
5	T1	1	0.0	0.085	3.9	LOS A	0.5	3.5	0.16	0.49	0.16	40.9
6	R2	1	0.0	0.085	6.7	LOS A	0.5	3.5	0.16	0.49	0.16	31.3
Approach		107	3.9	0.085	4.4	LOS A	0.5	3.5	0.16	0.49	0.16	41.3
North: Lawrence Hargrave Rd												
7	L2	1	0.0	0.028	6.0	LOS A	0.1	1.0	0.34	0.52	0.34	40.3
8	T1	26	8.0	0.028	5.6	LOS A	0.1	1.0	0.34	0.52	0.34	42.0
9	R2	1	0.0	0.028	8.4	LOS A	0.1	1.0	0.34	0.52	0.34	39.0
Approach		28	7.4	0.028	5.8	LOS A	0.1	1.0	0.34	0.52	0.34	41.8
West: Nicholls St												
10	L2	3	33.3	0.012	6.0	LOS A	0.1	0.4	0.34	0.54	0.34	26.4
11	T1	4	0.0	0.012	4.9	LOS A	0.1	0.4	0.34	0.54	0.34	39.6
12	R2	4	0.0	0.012	7.7	LOS A	0.1	0.4	0.34	0.54	0.34	40.2
Approach		12	9.1	0.012	6.2	LOS A	0.1	0.4	0.34	0.54	0.34	36.1
All Vehicles		299	4.6	0.098	5.6	LOS A	0.5	3.9	0.12	0.57	0.12	40.6

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

MOVEMENT SUMMARY



Site: 101 [Site2_2018 PM BASE_Lawrence Hargrave Rd_Nicholls St]

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	4	25.0	0.055	4.8	LOS A	0.3	2.0	0.04	0.60	0.04	38.6
2	T1	27	0.0	0.055	4.0	LOS A	0.3	2.0	0.04	0.60	0.04	33.1
3	R2	49	0.0	0.055	6.9	LOS A	0.3	2.0	0.04	0.60	0.04	42.1
Approach		81	1.3	0.055	5.8	LOS A	0.3	2.0	0.04	0.60	0.04	38.8
East: Nicholls St												
4	L2	53	2.0	0.043	4.3	LOS A	0.2	1.6	0.10	0.50	0.10	41.7
5	T1	2	0.0	0.043	3.8	LOS A	0.2	1.6	0.10	0.50	0.10	41.2
6	R2	1	0.0	0.043	6.6	LOS A	0.2	1.6	0.10	0.50	0.10	31.6
Approach		56	1.9	0.043	4.3	LOS A	0.2	1.6	0.10	0.50	0.10	41.5
North: Lawrence Hargrave Rd												
7	L2	1	0.0	0.014	5.4	LOS A	0.1	0.5	0.19	0.50	0.19	41.2
8	T1	15	0.0	0.014	5.0	LOS A	0.1	0.5	0.19	0.50	0.19	44.5
9	R2	1	0.0	0.014	7.8	LOS A	0.1	0.5	0.19	0.50	0.19	40.0
Approach		17	0.0	0.014	5.2	LOS A	0.1	0.5	0.19	0.50	0.19	44.1
West: Nicholls St												
10	L2	1	0.0	0.003	4.9	LOS A	0.0	0.1	0.23	0.52	0.23	27.8
11	T1	1	0.0	0.003	4.5	LOS A	0.0	0.1	0.23	0.52	0.23	40.3
12	R2	1	0.0	0.003	7.3	LOS A	0.0	0.1	0.23	0.52	0.23	40.9
Approach		3	0.0	0.003	5.6	LOS A	0.0	0.1	0.23	0.52	0.23	36.3
All Vehicles		157	1.3	0.055	5.2	LOS A	0.3	2.0	0.08	0.55	0.08	40.2

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

Vehicle movement LOS values are based on average delay per movement.

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

Roundabout Capacity Model: SIDRA Standard.

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

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

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

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 10:49:22 AM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY



Site: 101 [Site2_2018 PM FUTURE_Lawrence Hargrave Rd_Nicholls St]

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	4	25.0	0.098	4.6	LOS A	0.5	3.8	0.04	0.62	0.04	37.8
2	T1	27	0.0	0.098	3.9	LOS A	0.5	3.8	0.04	0.62	0.04	38.6
3	R2	117	3.6	0.098	6.8	LOS A	0.5	3.8	0.04	0.62	0.04	41.1
Approach		148	3.5	0.098	6.2	LOS A	0.5	3.8	0.04	0.62	0.04	40.6
East: Nicholls St												
4	L2	120	4.4	0.091	4.3	LOS A	0.5	3.8	0.11	0.50	0.11	41.6
5	T1	2	0.0	0.091	3.8	LOS A	0.5	3.8	0.11	0.50	0.11	41.2
6	R2	1	0.0	0.091	6.6	LOS A	0.5	3.8	0.11	0.50	0.11	31.5
Approach		123	4.3	0.091	4.3	LOS A	0.5	3.8	0.11	0.50	0.11	41.5
North: Lawrence Hargrave Rd												
7	L2	1	0.0	0.016	5.8	LOS A	0.1	0.5	0.30	0.51	0.30	40.4
8	T1	15	0.0	0.016	5.4	LOS A	0.1	0.5	0.30	0.51	0.30	43.8
9	R2	1	0.0	0.016	8.2	LOS A	0.1	0.5	0.30	0.51	0.30	39.2
Approach		17	0.0	0.016	5.6	LOS A	0.1	0.5	0.30	0.51	0.30	43.3
West: Nicholls St												
10	L2	1	0.0	0.003	5.3	LOS A	0.0	0.1	0.32	0.52	0.32	27.5
11	T1	1	0.0	0.003	4.9	LOS A	0.0	0.1	0.32	0.52	0.32	39.9
12	R2	1	0.0	0.003	7.7	LOS A	0.0	0.1	0.32	0.52	0.32	40.5
Approach		3	0.0	0.003	6.0	LOS A	0.0	0.1	0.32	0.52	0.32	35.9
All Vehicles		292	3.6	0.098	5.3	LOS A	0.5	3.8	0.09	0.56	0.09	41.1

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

MOVEMENT SUMMARY



Site: 101 [Site3_2018 AM BASE_Lawrence Hargrave Rd_Mannix Pde]

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	60	0.0	0.082	4.1	LOS A	0.5	3.3	0.13	0.55	0.13	39.2
3	R2	51	2.1	0.082	6.8	LOS A	0.5	3.3	0.13	0.55	0.13	42.5
Approach		111	1.0	0.082	5.3	LOS A	0.5	3.3	0.13	0.55	0.13	40.9
East: Lawrence Hargrave Rd												
4	L2	59	3.6	0.074	4.7	LOS A	0.4	2.8	0.29	0.49	0.29	42.3
5	T1	23	0.0	0.074	4.4	LOS A	0.4	2.8	0.29	0.49	0.29	40.5
Approach		82	2.6	0.074	4.6	LOS A	0.4	2.8	0.29	0.49	0.29	42.0
West: Lawrence Hargrave Rd												
11	T1	23	4.5	0.098	4.1	LOS A	0.5	3.8	0.20	0.58	0.20	38.4
12	R2	99	1.1	0.098	6.9	LOS A	0.5	3.8	0.20	0.58	0.20	38.6
Approach		122	1.7	0.098	6.4	LOS A	0.5	3.8	0.20	0.58	0.20	38.6
All Vehicles		315	1.7	0.098	5.6	LOS A	0.5	3.8	0.20	0.54	0.20	40.4

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

Vehicle movement LOS values are based on average delay per movement.

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

Roundabout Capacity Model: SIDRA Standard.

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

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

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

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 10:49:19 AM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY

 **Site: 101 [Site3_2018 AM FUTURE_Lawrence Hargrave Rd_Mannix Pde]**

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	60	0.0	0.130	4.1	LOS A	0.8	5.6	0.13	0.57	0.13	38.6
3	R2	118	4.5	0.130	6.8	LOS A	0.8	5.6	0.13	0.57	0.13	41.9
Approach		178	3.0	0.130	5.9	LOS A	0.8	5.6	0.13	0.57	0.13	41.0
East: Lawrence Hargrave Rd												
4	L2	126	5.0	0.133	4.8	LOS A	0.8	5.7	0.31	0.50	0.31	42.2
5	T1	23	0.0	0.133	4.4	LOS A	0.8	5.7	0.31	0.50	0.31	40.3
Approach		149	4.2	0.133	4.7	LOS A	0.8	5.7	0.31	0.50	0.31	42.0
West: Lawrence Hargrave Rd												
11	T1	23	4.5	0.111	4.6	LOS A	0.6	4.3	0.32	0.59	0.32	37.8
12	R2	99	1.1	0.111	7.4	LOS A	0.6	4.3	0.32	0.59	0.32	38.1
Approach		122	1.7	0.111	6.9	LOS A	0.6	4.3	0.32	0.59	0.32	38.1
All Vehicles		449	3.0	0.133	5.8	LOS A	0.8	5.7	0.24	0.55	0.24	40.7

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

Vehicle movement LOS values are based on average delay per movement.

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

Roundabout Capacity Model: SIDRA Standard.

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

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

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

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 10:49:18 AM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY

 Site: 101 [Site3_2018 PM BASE_Lawrence Hargrave Rd_Mannix Pde]

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	48	0.0	0.082	4.1	LOS A	0.5	3.2	0.11	0.57	0.11	38.9
3	R2	64	1.6	0.082	6.7	LOS A	0.5	3.2	0.11	0.57	0.11	42.3
Approach		113	0.9	0.082	5.6	LOS A	0.5	3.2	0.11	0.57	0.11	41.1
East: Lawrence Hargrave Rd												
4	L2	46	0.0	0.054	4.3	LOS A	0.3	2.1	0.19	0.47	0.19	42.8
5	T1	18	5.9	0.054	4.1	LOS A	0.3	2.1	0.19	0.47	0.19	40.8
Approach		64	1.6	0.054	4.3	LOS A	0.3	2.1	0.19	0.47	0.19	42.4
West: Lawrence Hargrave Rd												
11	T1	24	0.0	0.062	4.1	LOS A	0.3	2.3	0.22	0.56	0.22	38.9
12	R2	48	2.2	0.062	7.0	LOS A	0.3	2.3	0.22	0.56	0.22	39.0
Approach		73	1.4	0.062	6.1	LOS A	0.3	2.3	0.22	0.56	0.22	38.9
All Vehicles		249	1.3	0.082	5.4	LOS A	0.5	3.2	0.16	0.54	0.16	40.9

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

Vehicle movement LOS values are based on average delay per movement.

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

Roundabout Capacity Model: SIDRA Standard.

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

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

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

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 10:49:20 AM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY

 **Site: 101 [Site3_2018 PM FUTURE_Lawrence Hargrave Rd_Mannix Pde]**

Lawrence Hargrave Rd
Site Category: Base AM
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Mannix Pde												
1	L2	48	0.0	0.128	4.1	LOS A	0.7	5.3	0.11	0.58	0.11	38.5
3	R2	132	4.0	0.128	6.7	LOS A	0.7	5.3	0.11	0.58	0.11	41.8
Approach		180	2.9	0.128	6.0	LOS A	0.7	5.3	0.11	0.58	0.11	41.1
East: Lawrence Hargrave Rd												
4	L2	114	3.7	0.106	4.4	LOS A	0.6	4.5	0.20	0.48	0.20	42.7
5	T1	18	5.9	0.106	4.1	LOS A	0.6	4.5	0.20	0.48	0.20	40.7
Approach		132	4.0	0.106	4.3	LOS A	0.6	4.5	0.20	0.48	0.20	42.5
West: Lawrence Hargrave Rd												
11	T1	24	0.0	0.067	4.6	LOS A	0.4	2.5	0.33	0.57	0.33	38.4
12	R2	48	2.2	0.067	7.5	LOS A	0.4	2.5	0.33	0.57	0.33	38.5
Approach		73	1.4	0.067	6.5	LOS A	0.4	2.5	0.33	0.57	0.33	38.5
All Vehicles		384	3.0	0.128	5.5	LOS A	0.7	5.3	0.18	0.54	0.18	41.2

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

Vehicle movement LOS values are based on average delay per movement.

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

Roundabout Capacity Model: SIDRA Standard.

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

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

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

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 10:49:20 AM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY

▽ Site: 2 [Site4_2018 AM BASE_Junction St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
Site Category: Base AM
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Junction St												
4a	L1	7	0.0	0.007	4.6	LOS A	0.0	0.2	0.35	0.47	0.35	44.1
Approach		7	0.0	0.007	4.6	LOS A	0.0	0.2	0.35	0.47	0.35	44.1
NorthEast: Hume Hwy												
24b	L3	1	0.0	0.155	7.3	LOS A	0.0	0.0	0.00	0.01	0.00	62.2
5	T1	1640	6.3	0.360	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
Approach		1641	6.3	0.360	0.0	NA	0.0	0.0	0.00	0.00	0.00	69.8
West: Junction St												
10a	L1	19	5.6	0.034	7.9	LOS A	0.1	0.8	0.57	0.71	0.57	47.3
Approach		19	5.6	0.034	7.9	LOS A	0.1	0.8	0.57	0.71	0.57	47.3
SouthWest: Hume Hwy												
30b	L3	5	0.0	0.356	7.4	LOS A	0.0	0.0	0.00	0.01	0.00	27.2
11	T1	2008	5.8	0.356	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
Approach		2014	5.8	0.356	0.0	NA	0.0	0.0	0.00	0.00	0.00	69.7
All Vehicles		3681	6.0	0.360	0.1	NA	0.1	0.8	0.00	0.01	0.00	69.6

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

MOVEMENT SUMMARY

▽ Site: 2 [Site4_2018 AM FUTURE_Junction St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
Site Category: Base AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Junction St												
4a	L1	7	0.0	0.007	4.6	LOS A	0.0	0.2	0.36	0.47	0.36	44.1
Approach		7	0.0	0.007	4.6	LOS A	0.0	0.2	0.36	0.47	0.36	44.1
NorthEast: Hume Hwy												
24b	L3	1	0.0	0.160	7.3	LOS A	0.0	0.0	0.00	0.01	0.00	62.2
5	T1	1703	6.1	0.373	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
Approach		1704	6.1	0.373	0.1	NA	0.0	0.0	0.00	0.00	0.00	69.8
West: Junction St												
10a	L1	43	9.8	0.079	8.3	LOS A	0.3	2.0	0.59	0.76	0.59	45.7
Approach		43	9.8	0.079	8.3	LOS A	0.3	2.0	0.59	0.76	0.59	45.7
SouthWest: Hume Hwy												
30b	L3	29	10.7	0.369	7.5	LOS A	0.0	0.0	0.00	0.03	0.00	26.8
11	T1	2054	5.8	0.369	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	69.7
Approach		2083	5.9	0.369	0.1	NA	0.0	0.0	0.00	0.01	0.00	68.9
All Vehicles		3838	6.0	0.373	0.2	NA	0.3	2.0	0.01	0.02	0.01	68.9

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

Vehicle movement LOS values are based on average delay per movement.

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

MOVEMENT SUMMARY

▽ Site: 2 [Site4_2018 PM BASE_Junction St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
Site Category: Base AM
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Junction St												
4a	L1	3	0.0	0.003	5.1	LOS A	0.0	0.1	0.41	0.48	0.41	43.6
Approach		3	0.0	0.003	5.1	LOS A	0.0	0.1	0.41	0.48	0.41	43.6
NorthEast: Hume Hwy												
24b	L3	1	0.0	0.208	7.4	LOS A	0.0	0.0	0.00	0.00	0.00	62.4
5	T1	2233	4.8	0.485	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
Approach		2234	4.8	0.485	0.1	NA	0.0	0.0	0.00	0.00	0.00	69.8
West: Junction St												
10a	L1	9	0.0	0.013	6.2	LOS A	0.0	0.3	0.49	0.59	0.49	50.9
Approach		9	0.0	0.013	6.2	LOS A	0.0	0.3	0.49	0.59	0.49	50.9
SouthWest: Hume Hwy												
30b	L3	16	0.0	0.291	7.4	LOS A	0.0	0.0	0.00	0.02	0.00	27.1
11	T1	1646	3.9	0.291	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	69.8
Approach		1662	3.9	0.291	0.1	NA	0.0	0.0	0.00	0.01	0.00	69.2
All Vehicles		3908	4.4	0.485	0.1	NA	0.0	0.3	0.00	0.01	0.00	69.5

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

Vehicle movement LOS values are based on average delay per movement.

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

MOVEMENT SUMMARY

▽ Site: 2 [Site4_2018 PM FUTURE_Junction St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
 Site Category: Base AM
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Junction St												
4a	L1	3	0.0	0.004	5.1	LOS A	0.0	0.1	0.42	0.49	0.42	43.6
Approach		3	0.0	0.004	5.1	LOS A	0.0	0.1	0.42	0.49	0.42	43.6
NorthEast: Hume Hwy												
24b	L3	1	0.0	0.215	7.4	LOS A	0.0	0.0	0.00	0.00	0.00	62.4
5	T1	2302	4.9	0.501	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
Approach		2303	4.9	0.501	0.1	NA	0.0	0.0	0.00	0.00	0.00	69.8
West: Junction St												
10a	L1	34	9.4	0.050	6.7	LOS A	0.2	1.3	0.51	0.66	0.51	47.6
Approach		34	9.4	0.050	6.7	LOS A	0.2	1.3	0.51	0.66	0.51	47.6
SouthWest: Hume Hwy												
30b	L3	40	7.9	0.304	7.5	LOS A	0.0	0.0	0.00	0.05	0.00	26.7
11	T1	1692	4.0	0.304	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	69.6
Approach		1732	4.1	0.304	0.2	NA	0.0	0.0	0.00	0.02	0.00	68.3
All Vehicles		4072	4.6	0.501	0.2	NA	0.2	1.3	0.00	0.01	0.00	68.9

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

Vehicle movement LOS values are based on average delay per movement.

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

MOVEMENT SUMMARY

▽ Site: 2 [Site5_2018 AM BASE_Liverpool St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
Site Category: Base AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Liverpool St (stage 1)												
4a	L1	13	8.3	0.467	187.2	LOS F	1.3	9.8	0.99	1.02	1.11	9.8
Approach		13	8.3	0.467	187.2	LOS F	1.3	9.8	0.99	1.02	1.11	9.8
NorthEast: Hume Hwy												
24b	L3	1	0.0	0.869	7.5	LOS A	0.0	0.0	0.00	0.00	0.00	57.0
5	T1	1680	5.6	0.869	7.4	LOS A	6.1	44.4	0.02	0.00	0.02	58.2
26a	R1	82	1.3	6.886	5411.1	LOS F	59.1	418.1	1.00	1.60	4.33	0.4
Approach		1763	5.4	6.886	259.0	NA	59.1	418.1	0.06	0.07	0.22	8.3
West: Liverpool St												
10a	L1	36	0.0	0.043	5.6	LOS A	0.1	1.0	0.45	0.60	0.45	46.4
Approach		36	0.0	0.043	5.6	LOS A	0.1	1.0	0.45	0.60	0.45	46.4
SouthWest: Hume Hwy												
30b	L3	228	1.8	0.387	7.4	LOS A	0.0	0.0	0.00	0.24	0.00	63.4
11	T1	1858	7.1	0.387	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	68.7
32a	R1	14	7.7	2.198	1656.0	LOS F	9.8	73.1	1.00	1.21	2.18	1.1
Approach		2100	6.6	2.198	11.6	NA	9.8	73.1	0.01	0.08	0.01	51.4
All Vehicles		3912	6.0	6.886	123.7	NA	59.1	418.1	0.04	0.09	0.12	15.6

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

Vehicle movement LOS values are based on average delay per movement.

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

MOVEMENT SUMMARY

▽ Site: 2 [Site5_2018 AM FUTURE_Liverpool St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
 Site Category: Base AM
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Liverpool St (stage 1)												
4a	L1	13	8.3	0.718	379.6	LOS F	2.1	15.7	1.00	1.05	1.22	5.3
Approach		13	8.3	0.718	379.6	LOS F	2.1	15.7	1.00	1.05	1.22	5.3
NorthEast: Hume Hwy												
24b	L3	1	0.0	0.906	7.5	LOS A	0.0	0.0	0.00	0.00	0.00	56.7
5	T1	1749	5.8	0.906	7.6	LOS A	6.4	46.7	0.02	0.00	0.02	57.9
26a	R1	82	1.3	7.333	5816.3	LOS F	60.4	427.7	1.00	1.57	4.18	0.4
Approach		1833	5.6	7.333	267.9	NA	60.4	427.7	0.06	0.07	0.21	8.1
West: Liverpool St												
10a	L1	57	0.0	0.067	5.6	LOS A	0.2	1.6	0.45	0.61	0.45	46.5
Approach		57	0.0	0.067	5.6	LOS A	0.2	1.6	0.45	0.61	0.45	46.5
SouthWest: Hume Hwy												
30b	L3	249	1.7	0.392	7.4	LOS A	0.0	0.0	0.00	0.26	0.00	63.2
11	T1	1858	7.1	0.392	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	68.6
32a	R1	14	7.7	2.257	1671.6	LOS F	9.7	72.5	1.00	1.22	2.23	1.1
Approach		2121	6.5	2.257	11.7	NA	9.7	72.5	0.01	0.09	0.01	51.4
All Vehicles		4023	6.0	7.333	129.5	NA	60.4	427.7	0.04	0.09	0.11	15.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 10:49:14 AM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY

▽ Site: 2 [Site5_2018 PM BASE_Liverpool St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
 Site Category: Base AM
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Liverpool St (stage 1)												
4a	L1	11	10.0	1.628	1163.8	LOS F	5.9	45.1	1.00	1.22	2.00	1.6
Approach		11	10.0	1.628	1163.8	LOS F	5.9	45.1	1.00	1.22	2.00	1.6
NorthEast: Hume Hwy												
24b	L3	1	0.0	1.086	18.6	LOS B	0.0	0.0	0.00	0.00	0.00	29.6
5	T1	2174	4.8	1.086	35.4	LOS C	26.0	189.5	0.05	0.00	0.10	35.4
26a	R1	53	0.0	3.018	1957.4	LOS F	29.0	203.1	1.00	1.68	4.74	1.1
Approach		2227	4.7	3.018	80.8	NA	29.0	203.1	0.07	0.04	0.21	21.1
West: Liverpool St												
10a	L1	47	0.0	0.047	4.6	LOS A	0.2	1.2	0.35	0.52	0.35	47.1
Approach		47	0.0	0.047	4.6	LOS A	0.2	1.2	0.35	0.52	0.35	47.1
SouthWest: Hume Hwy												
30b	L3	343	0.6	0.367	7.4	LOS A	0.0	0.0	0.00	0.39	0.00	61.7
11	T1	1646	4.2	0.367	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	68.6
32a	R1	15	0.0	2.453	1743.3	LOS F	10.2	71.7	1.00	1.24	2.43	1.1
Approach		2004	3.5	2.453	14.1	NA	10.2	71.7	0.01	0.13	0.02	49.1
All Vehicles		4289	4.1	3.018	51.4	NA	29.0	203.1	0.05	0.09	0.13	28.4

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

MOVEMENT SUMMARY

▽ Site: 2 [Site5_2018 PM FUTURE_Liverpool St_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy
Site Category: Base AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Liverpool St (stage 1)												
4a	L1	11	10.0	1.644	1174.1	LOS F	6.0	45.4	1.00	1.22	2.01	1.6
Approach		11	10.0	1.644	1174.1	LOS F	6.0	45.4	1.00	1.22	2.01	1.6
NorthEast: Hume Hwy												
24b	L3	1	0.0	1.136	26.1	LOS B	0.0	0.0	0.00	0.00	0.00	22.2
5	T1	2243	4.9	1.136	44.2	LOS D	22.7	165.6	0.03	0.00	0.07	31.4
26a	R1	53	0.0	3.695	2573.6	LOS F	32.4	226.6	1.00	1.61	4.38	0.9
Approach		2297	4.8	3.695	102.1	NA	32.4	226.6	0.06	0.04	0.17	17.8
West: Liverpool St												
10a	L1	72	4.4	0.072	4.7	LOS A	0.3	1.9	0.35	0.53	0.35	46.6
Approach		72	4.4	0.072	4.7	LOS A	0.3	1.9	0.35	0.53	0.35	46.6
SouthWest: Hume Hwy												
30b	L3	367	1.4	0.380	7.4	LOS A	0.0	0.0	0.00	0.40	0.00	61.3
11	T1	1692	4.2	0.380	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	68.6
32a	R1	15	0.0	2.455	1688.1	LOS F	9.8	68.8	1.00	1.25	2.55	1.1
Approach		2074	3.7	2.455	13.4	NA	9.8	68.8	0.01	0.13	0.02	50.0
All Vehicles		4453	4.3	3.695	61.8	NA	32.4	226.6	0.04	0.09	0.11	25.4

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

Vehicle movement LOS values are based on average delay per movement.

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 10:49:15 AM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY



Site: 2v [Site6_2018 AM BASE_Sappho Rd_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Isolated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: RoadName												
21	L2	8	12.5	0.038	62.7	LOS E	0.6	4.9	0.87	0.67	0.87	23.3
22	T1	1	0.0	0.038	57.0	LOS E	0.6	4.9	0.87	0.67	0.87	25.3
23	R2	1	0.0	0.038	62.6	LOS E	0.6	4.9	0.87	0.67	0.87	28.5
Approach		11	10.0	0.038	62.1	LOS E	0.6	4.9	0.87	0.67	0.87	24.0
NorthEast: Hume Hwy												
24	L2	1	0.0	0.398	12.8	LOS A	13.4	98.7	0.37	0.34	0.37	55.7
5	T1	1696	5.3	0.398	6.5	LOS A	14.0	102.7	0.37	0.34	0.37	58.0
26	R2	45	4.7	0.440	24.7	LOS B	2.0	14.2	0.58	0.73	0.58	36.5
Approach		1742	5.3	0.440	7.0	LOS A	14.0	102.7	0.38	0.35	0.38	57.1
NorthWest: Sappho Rd												
27	L2	18	11.8	0.078	65.3	LOS E	1.2	9.2	0.89	0.70	0.89	22.8
28	T1	1	0.0	0.078	59.7	LOS E	1.2	9.2	0.89	0.70	0.89	24.6
29	R2	28	11.1	0.125	64.5	LOS E	1.8	13.8	0.89	0.72	0.89	16.5
Approach		47	11.1	0.125	64.7	LOS E	1.8	13.8	0.89	0.72	0.89	19.3
SouthWest: Hume Hwy												
30	L2	167	3.1	0.534	13.9	LOS A	20.9	152.8	0.44	0.49	0.44	42.8
11	T1	2088	5.4	0.534	7.6	LOS A	22.0	161.0	0.44	0.43	0.44	55.7
32	R2	4	25.0	0.036	15.8	LOS B	0.1	1.0	0.36	0.63	0.36	41.4
Approach		2260	5.3	0.534	8.1	LOS A	22.0	161.0	0.44	0.44	0.44	54.8
All Vehicles		4060	5.4	0.534	8.4	LOS A	22.0	161.0	0.42	0.40	0.42	54.5

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P5	SouthEast Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P2	NorthEast Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P7	NorthWest Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		158	69.3	LOS F			0.96	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: 2v [Site6_2018 AM FUTUREE_Sappho Rd_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: RoadName												
21	L2	8	12.5	0.035	49.9	LOS D	0.5	3.9	0.86	0.67	0.86	26.5
22	T1	1	0.0	0.035	44.2	LOS D	0.5	3.9	0.86	0.67	0.86	28.7
23	R2	1	0.0	0.035	49.8	LOS D	0.5	3.9	0.86	0.67	0.86	31.9
Approach		11	10.0	0.035	49.3	LOS D	0.5	3.9	0.86	0.67	0.86	27.3
NorthEast: Hume Hwy												
24	L2	1	0.0	0.424	13.3	LOS A	12.7	93.1	0.43	0.39	0.43	55.3
5	T1	1720	5.4	0.424	6.9	LOS A	13.2	96.8	0.43	0.39	0.43	57.4
26	R2	59	8.9	0.589	31.4	LOS C	2.8	20.9	0.72	0.82	0.82	32.9
Approach		1780	5.6	0.589	7.7	LOS A	13.2	96.8	0.44	0.40	0.44	55.9
NorthWest: Sappho Rd												
27	L2	32	16.7	0.129	53.2	LOS D	1.7	13.3	0.89	0.72	0.89	25.5
28	T1	1	0.0	0.129	47.4	LOS D	1.7	13.3	0.89	0.72	0.89	27.6
29	R2	42	15.0	0.169	52.0	LOS D	2.1	16.9	0.89	0.74	0.89	19.0
Approach		75	15.5	0.169	52.4	LOS D	2.1	16.9	0.89	0.73	0.89	22.2
SouthWest: Hume Hwy												
30	L2	181	4.7	0.577	14.5	LOS A	20.3	148.7	0.51	0.55	0.51	41.7
11	T1	2144	5.4	0.577	8.3	LOS A	21.4	156.7	0.51	0.50	0.51	54.8
32	R2	4	25.0	0.035	16.5	LOS B	0.1	0.9	0.42	0.63	0.42	40.9
Approach		2329	5.4	0.577	8.8	LOS A	21.4	156.7	0.51	0.50	0.51	53.9
All Vehicles		4195	5.7	0.589	9.2	LOS A	21.4	156.7	0.49	0.46	0.49	53.4

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P5	SouthEast Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95	
P2	NorthEast Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95	
P7	NorthWest Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95	
All Pedestrians		158	54.3	LOS E			0.95	0.95	

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: 2v [Site6_2018 PM BASE_Sappho Rd_Hume Hwy]**

2018 AM BASE_Junction St_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Isolated Cycle Time = 110 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: RoadName												
21	L2	2	50.0	0.020	46.0	LOS D	0.2	1.9	0.84	0.64	0.84	27.0
22	T1	1	0.0	0.020	39.9	LOS C	0.2	1.9	0.84	0.64	0.84	30.4
23	R2	2	0.0	0.020	45.5	LOS D	0.2	1.9	0.84	0.64	0.84	33.6
Approach		5	20.0	0.020	44.6	LOS D	0.2	1.9	0.84	0.64	0.84	30.5
NorthEast: Hume Hwy												
24	L2	1	0.0	0.522	16.0	LOS B	17.0	124.5	0.55	0.50	0.55	53.0
5	T1	1918	5.2	0.522	9.5	LOS A	17.7	129.4	0.54	0.49	0.54	53.8
26	R2	69	3.0	0.499	27.0	LOS B	2.7	19.4	0.71	0.77	0.71	35.4
Approach		1988	5.1	0.522	10.1	LOS A	17.7	129.4	0.54	0.50	0.54	52.7
NorthWest: Sappho Rd												
27	L2	132	1.6	0.376	47.2	LOS D	6.3	44.4	0.91	0.79	0.91	27.4
28	T1	1	0.0	0.376	41.6	LOS C	6.3	44.4	0.91	0.79	0.91	29.3
29	R2	157	3.4	0.522	46.7	LOS D	7.5	53.7	0.92	0.80	0.92	20.6
Approach		289	2.5	0.522	46.9	LOS D	7.5	53.7	0.91	0.79	0.91	24.1
SouthWest: Hume Hwy												
30	L2	138	3.1	0.523	15.9	LOS B	17.0	122.4	0.55	0.56	0.55	40.6
11	T1	1848	3.0	0.523	9.6	LOS A	17.9	128.7	0.55	0.51	0.55	53.1
32	R2	2	50.0	0.025	22.2	LOS B	0.1	0.6	0.52	0.63	0.52	36.7
Approach		1988	3.0	0.523	10.1	LOS A	17.9	128.7	0.55	0.52	0.55	52.3
All Vehicles		4272	4.0	0.523	12.6	LOS A	17.9	129.4	0.57	0.53	0.57	48.9

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P5	SouthEast Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95	
P2	NorthEast Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95	
P7	NorthWest Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95	
All Pedestrians		158	49.3	LOS E			0.95	0.95	

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: 2v [Site6_2018 PM FUTURE_Sappho Rd_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: RoadName												
21	L2	1	0.0	0.012	49.0	LOS D	0.2	1.5	0.79	0.62	0.79	27.3
22	T1	1	0.0	0.012	43.4	LOS D	0.2	1.5	0.79	0.62	0.79	29.3
23	R2	2	0.0	0.012	49.0	LOS D	0.2	1.5	0.79	0.62	0.79	32.5
Approach		4	0.0	0.012	47.6	LOS D	0.2	1.5	0.79	0.62	0.79	30.5
NorthEast: Hume Hwy												
24	L2	1	0.0	0.567	18.7	LOS B	24.3	178.6	0.57	0.52	0.57	50.8
5	T1	1942	5.3	0.567	11.8	LOS A	25.4	185.7	0.54	0.50	0.54	50.9
26	R2	83	6.3	0.379	43.8	LOS D	5.0	37.0	0.90	0.82	0.90	28.4
Approach		2026	5.4	0.567	13.2	LOS A	25.4	185.7	0.56	0.51	0.56	49.1
NorthWest: Sappho Rd												
27	L2	145	3.6	0.291	39.8	LOS C	7.0	50.4	0.75	0.76	0.75	29.8
28	T1	1	0.0	0.291	34.2	LOS C	7.0	50.4	0.75	0.76	0.75	31.9
29	R2	171	4.9	0.647	56.2	LOS D	10.2	74.6	0.92	0.81	0.92	18.2
Approach		317	4.3	0.647	48.6	LOS D	10.2	74.6	0.84	0.79	0.84	23.6
SouthWest: Hume Hwy												
30	L2	152	4.9	0.648	28.4	LOS B	30.5	219.6	0.74	0.72	0.74	30.1
11	T1	1904	3.0	0.648	22.1	LOS B	32.2	231.0	0.74	0.69	0.74	40.8
32	R2	1	0.0	0.012	36.8	LOS C	0.0	0.3	0.65	0.63	0.65	31.0
Approach		2057	3.2	0.648	22.6	LOS B	32.2	231.0	0.74	0.69	0.74	40.1
All Vehicles		4404	4.3	0.648	20.1	LOS B	32.2	231.0	0.66	0.61	0.66	41.8

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P5	SouthEast Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96	
P2	NorthEast Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96	
P7	NorthWest Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		158	64.3	LOS F			0.96	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: 2v [Site6_2018 SAT BASE_Sappho Rd_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: RoadName												
21	L2	3	33.3	0.027	29.9	LOS C	0.2	2.0	0.81	0.64	0.81	33.4
22	T1	1	0.0	0.027	24.0	LOS B	0.2	2.0	0.81	0.64	0.81	37.0
23	R2	3	66.7	0.027	30.3	LOS C	0.2	2.0	0.81	0.64	0.81	37.8
Approach		7	42.9	0.027	29.2	LOS C	0.2	2.0	0.81	0.64	0.81	36.0
NorthEast: Hume Hwy												
24	L2	3	33.3	0.448	14.6	LOS B	9.2	66.2	0.57	0.51	0.57	53.4
5	T1	1572	2.1	0.448	7.7	LOS A	9.7	68.8	0.57	0.51	0.57	56.2
26	R2	141	0.7	0.496	30.3	LOS C	4.4	31.3	0.96	0.80	0.96	33.9
Approach		1716	2.1	0.496	9.6	LOS A	9.7	68.8	0.60	0.53	0.60	53.0
NorthWest: Sappho Rd												
27	L2	163	0.6	0.236	21.3	LOS B	3.8	27.2	0.71	0.75	0.71	38.5
28	T1	2	50.0	0.236	15.8	LOS B	3.8	27.2	0.71	0.75	0.71	40.8
29	R2	251	0.4	0.846	42.2	LOS C	9.7	67.9	0.98	1.00	1.37	22.1
Approach		416	0.8	0.846	33.9	LOS C	9.7	67.9	0.88	0.90	1.11	28.3
SouthWest: Hume Hwy												
30	L2	349	0.6	0.820	29.4	LOS C	22.5	159.4	0.94	0.94	1.08	28.4
11	T1	1701	2.4	0.820	23.3	LOS B	23.7	169.0	0.94	0.93	1.07	39.9
32	R2	2	50.0	0.017	25.9	LOS B	0.1	0.5	0.72	0.64	0.72	34.8
Approach		2053	2.2	0.820	24.3	LOS B	23.7	169.0	0.94	0.93	1.07	38.0
All Vehicles		4192	2.1	0.846	19.2	LOS B	23.7	169.0	0.80	0.76	0.88	41.8

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P5	SouthEast Full Crossing	53	29.3	LOS C	0.1	0.1	0.92	0.92	
P2	NorthEast Full Crossing	53	29.3	LOS C	0.1	0.1	0.92	0.92	
P7	NorthWest Full Crossing	53	29.3	LOS C	0.1	0.1	0.92	0.92	
All Pedestrians		158	29.3	LOS C			0.92	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: 2v [Site6_2018 SAT FUTURE_Sappho Rd_Hume Hwy]

2018 AM BASE_Junction St_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: RoadName												
21	L2	3	33.3	0.025	29.0	LOS C	0.2	1.9	0.80	0.64	0.80	33.8
22	T1	1	0.0	0.025	23.1	LOS B	0.2	1.9	0.80	0.64	0.80	37.5
23	R2	3	66.7	0.025	29.4	LOS C	0.2	1.9	0.80	0.64	0.80	38.2
Approach		7	42.9	0.025	28.3	LOS B	0.2	1.9	0.80	0.64	0.80	36.4
NorthEast: Hume Hwy												
24	L2	3	33.3	0.465	15.2	LOS B	9.8	69.9	0.60	0.53	0.60	52.9
5	T1	1593	2.1	0.465	8.3	LOS A	10.2	72.7	0.60	0.53	0.60	55.3
26	R2	152	0.7	0.545	32.6	LOS C	4.8	34.0	0.97	0.81	1.02	32.9
Approach		1747	2.0	0.545	10.5	LOS A	10.2	72.7	0.63	0.55	0.63	51.9
NorthWest: Sappho Rd												
27	L2	177	2.4	0.248	20.7	LOS B	4.1	29.5	0.70	0.75	0.70	38.8
28	T1	2	50.0	0.248	15.2	LOS B	4.1	29.5	0.70	0.75	0.70	41.1
29	R2	264	1.6	0.872	44.3	LOS D	10.6	75.1	0.98	1.04	1.44	21.4
Approach		443	2.1	0.872	34.8	LOS C	10.6	75.1	0.87	0.92	1.15	28.0
SouthWest: Hume Hwy												
30	L2	363	1.4	0.875	36.1	LOS C	26.6	189.0	0.98	1.04	1.24	25.1
11	T1	1754	2.3	0.875	29.8	LOS C	28.0	200.1	0.98	1.04	1.22	35.7
32	R2	2	50.0	0.018	26.8	LOS B	0.1	0.6	0.74	0.64	0.74	34.4
Approach		2119	2.2	0.875	30.8	LOS C	28.0	200.1	0.98	1.04	1.22	33.9
All Vehicles		4317	2.2	0.875	23.0	LOS B	28.0	200.1	0.83	0.83	0.98	38.9

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P5	SouthEast Full Crossing	53	29.3	LOS C	0.1	0.1	0.92	0.92	
P2	NorthEast Full Crossing	53	29.3	LOS C	0.1	0.1	0.92	0.92	
P7	NorthWest Full Crossing	53	29.3	LOS C	0.1	0.1	0.92	0.92	
All Pedestrians		158	29.3	LOS C			0.92	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: 2944 [Site7_2018 AM BASE Cabramatta Rd_Broomfield St]

Cabramatta Rd_Broomfield St

Site Category: Base AM

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Broomfield St												
2	T1	119	0.9	0.138	10.5	LOS A	2.0	14.5	0.62	0.50	0.62	35.1
3	R2	23	0.0	0.034	14.6	LOS B	0.4	2.8	0.61	0.63	0.61	31.5
Approach		142	0.7	0.138	11.1	LOS A	2.0	14.5	0.62	0.52	0.62	34.6
East: Cabramatta Rd E												
4	L2	67	0.0	0.115	19.3	LOS B	1.4	9.9	0.74	0.69	0.74	29.4
6	R2	142	0.7	0.222	18.5	LOS B	3.0	21.0	0.74	0.72	0.74	26.5
Approach		209	0.5	0.222	18.7	LOS B	3.0	21.0	0.74	0.71	0.74	27.7
North: Broomfield St												
7	L2	87	6.0	0.210	10.2	LOS A	2.4	17.5	0.61	0.59	0.61	32.4
8	T1	89	2.4	0.210	6.8	LOS A	2.4	17.5	0.61	0.59	0.61	35.9
Approach		177	4.2	0.210	8.4	LOS A	2.4	17.5	0.61	0.59	0.61	34.7
All Vehicles		528	1.8	0.222	13.2	LOS A	3.0	21.0	0.66	0.62	0.66	32.2

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
P2	East Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
All Pedestrians		105	24.4	LOS C			0.90	0.90	

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: 2944 [Site7_2018 AM FUTURE Cabramatta Rd_Broomfield St]

Cabramatta Rd_Broomfield St

Site Category: Base AM

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Broomfield St												
2	T1	119	0.9	0.144	11.1	LOS A	2.1	14.9	0.64	0.51	0.64	34.8
3	R2	91	4.7	0.142	15.9	LOS B	1.7	12.5	0.67	0.68	0.67	30.8
Approach		209	2.5	0.144	13.2	LOS A	2.1	14.9	0.65	0.58	0.65	33.3
East: Cabramatta Rd E												
4	L2	135	3.1	0.224	19.2	LOS B	2.9	20.8	0.76	0.72	0.76	29.4
6	R2	142	0.7	0.212	17.7	LOS B	2.9	20.4	0.72	0.71	0.72	26.9
Approach		277	1.9	0.224	18.4	LOS B	2.9	20.8	0.74	0.72	0.74	28.3
North: Broomfield St												
7	L2	87	6.0	0.218	10.7	LOS A	2.5	18.3	0.63	0.60	0.63	32.0
8	T1	89	2.4	0.218	7.3	LOS A	2.5	18.3	0.63	0.60	0.63	35.7
Approach		177	4.2	0.218	9.0	LOS A	2.5	18.3	0.63	0.60	0.63	34.4
All Vehicles		663	2.7	0.224	14.3	LOS A	2.9	20.8	0.68	0.64	0.68	31.7

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
P2	East Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
All Pedestrians		105	24.4	LOS C			0.90	0.90	

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: 2944 [Site7_2018 PM BASE Cabramatta Rd_Broomfield St]

Cabramatta Rd_Broomfield St

Site Category: Base AM

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Broomfield St												
2	T1	106	0.0	0.101	6.9	LOS A	1.5	10.3	0.50	0.40	0.50	36.6
3	R2	38	0.0	0.048	11.1	LOS A	0.5	3.8	0.52	0.61	0.52	33.2
Approach		144	0.0	0.101	8.0	LOS A	1.5	10.3	0.51	0.46	0.51	35.9
East: Cabramatta Rd E												
4	L2	52	2.0	0.131	24.4	LOS B	1.3	8.9	0.84	0.71	0.84	27.5
6	R2	111	1.0	0.242	23.3	LOS B	2.7	18.8	0.84	0.74	0.84	24.3
Approach		162	1.3	0.242	23.7	LOS B	2.7	18.8	0.84	0.73	0.84	25.5
North: Broomfield St												
7	L2	121	4.3	0.230	7.7	LOS A	2.5	18.2	0.52	0.55	0.52	34.4
8	T1	117	0.0	0.230	4.2	LOS A	2.5	18.2	0.52	0.55	0.52	37.0
Approach		238	2.2	0.230	6.0	LOS A	2.5	18.2	0.52	0.55	0.52	36.1
All Vehicles		544	1.4	0.242	11.8	LOS A	2.7	18.8	0.61	0.58	0.61	32.9

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
P2	East Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
All Pedestrians		105	24.4	LOS C			0.90	0.90	

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: 2944 [Site7_2018 PM FUTURE Cabramatta Rd_Broomfield St]

Cabramatta Rd_Broomfield St

Site Category: Base AM

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

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Broomfield St												
2	T1	106	0.0	0.101	6.9	LOS A	1.5	10.3	0.50	0.40	0.50	36.6
3	R2	62	5.1	0.081	11.3	LOS A	0.9	6.7	0.53	0.63	0.53	33.0
Approach		168	1.9	0.101	8.5	LOS A	1.5	10.3	0.51	0.48	0.51	35.5
East: Cabramatta Rd E												
4	L2	76	5.6	0.197	24.9	LOS B	1.9	13.8	0.85	0.73	0.85	27.3
6	R2	111	1.0	0.242	23.3	LOS B	2.7	18.8	0.84	0.74	0.84	24.3
Approach		186	2.8	0.242	24.0	LOS B	2.7	18.8	0.84	0.73	0.84	25.7
North: Broomfield St												
7	L2	121	4.3	0.230	7.7	LOS A	2.5	18.2	0.52	0.55	0.52	34.4
8	T1	117	0.0	0.230	4.2	LOS A	2.5	18.2	0.52	0.55	0.52	37.0
Approach		238	2.2	0.230	6.0	LOS A	2.5	18.2	0.52	0.55	0.52	36.1
All Vehicles		593	2.3	0.242	12.4	LOS A	2.7	18.8	0.62	0.59	0.62	32.6

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
P2	East Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
All Pedestrians		105	24.4	LOS C			0.90	0.90	

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: TCS1146 [Site8_2018 AM BASE_Cabramatta Rd_Hume Hwy]

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Hume Hwy E												
5	T1	1279	7.4	0.514	2.8	LOS A	6.0	44.4	0.14	0.13	0.14	65.8
6	R2	307	10.3	0.684	75.8	LOS F	11.1	84.5	1.00	0.83	1.04	24.8
Approach		1586	8.0	0.684	17.0	LOS B	11.1	84.6	0.31	0.26	0.31	49.8
North: Cabramatta Rd												
7	L2	593	2.7	0.672	48.1	LOS D	28.9	206.9	0.89	0.85	0.89	31.1
9	R2	293	2.5	0.672	62.6	LOS E	13.7	97.7	0.94	0.82	0.95	30.1
Approach		885	2.6	0.672	52.9	LOS D	28.9	206.9	0.91	0.84	0.91	30.7
West: Hume Hwy W												
10	L2	105	5.0	0.688	28.5	LOS C	30.2	221.8	0.66	0.64	0.66	44.9
11	T1	1978	5.4	0.688	20.7	LOS B	30.2	221.8	0.64	0.59	0.64	47.7
Approach		2083	5.4	0.688	21.1	LOS B	30.2	221.8	0.64	0.59	0.64	47.5
All Vehicles		4555	5.8	0.688	25.8	LOS B	30.2	221.8	0.57	0.53	0.58	43.4

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P3	North Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P4	West Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		105	69.3	LOS F			0.96	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.

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 2:22:10 PM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY



Site: TCS1146 [Site8_2018 AM FUTURE_Cabramatta Rd_Hume Hwy]

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Hume Hwy E												
5	T1	1324	7.4	0.532	2.9	LOS A	6.4	47.5	0.14	0.13	0.14	65.7
6	R2	321	10.8	0.683	74.9	LOS F	11.6	88.2	1.00	0.83	1.04	24.9
Approach		1645	8.1	0.683	16.9	LOS B	11.6	88.3	0.31	0.27	0.32	49.8
North: Cabramatta Rd												
7	L2	593	2.7	0.693	47.6	LOS D	30.5	218.4	0.90	0.85	0.90	31.3
9	R2	317	3.3	0.693	63.5	LOS E	13.8	98.9	0.94	0.83	0.97	29.8
Approach		909	2.9	0.693	53.1	LOS D	30.5	218.4	0.91	0.84	0.93	30.7
West: Hume Hwy W												
10	L2	119	7.1	0.703	30.4	LOS C	31.9	234.8	0.70	0.67	0.70	43.8
11	T1	1978	5.4	0.703	21.9	LOS B	31.9	234.8	0.66	0.61	0.66	46.8
Approach		2097	5.5	0.703	22.4	LOS B	31.9	234.8	0.66	0.62	0.66	46.5
All Vehicles		4652	5.9	0.703	26.5	LOS B	31.9	234.8	0.59	0.54	0.59	43.0

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P3	North Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
P4	West Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		105	69.3	LOS F			0.96	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.

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 2:22:50 PM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY



Site: TCS1146 [Site8_2018 PM BASE_Cabramatta Rd_Hume Hwy]

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 110 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Hume Hwy E												
5	T1	1781	5.6	0.688	2.1	LOS A	7.4	54.3	0.17	0.16	0.17	66.9
6	R2	751	3.6	0.801	50.8	LOS D	20.1	145.1	0.99	0.90	1.10	31.0
Approach		2532	5.0	0.801	16.5	LOS B	20.1	145.1	0.41	0.38	0.44	49.8
North: Cabramatta Rd												
7	L2	426	3.2	0.459	24.0	LOS B	14.5	104.3	0.69	0.79	0.69	40.9
9	R2	416	2.0	0.810	59.7	LOS E	11.8	83.7	1.00	0.92	1.21	30.8
Approach		842	2.6	0.810	41.7	LOS C	14.5	104.3	0.84	0.85	0.95	34.8
West: Hume Hwy W												
10	L2	232	2.3	0.786	41.2	LOS C	25.4	183.5	0.93	0.86	0.96	38.2
11	T1	1462	4.3	0.786	31.5	LOS C	26.5	192.1	0.89	0.82	0.92	40.8
Approach		1694	4.0	0.786	32.8	LOS C	26.5	192.1	0.89	0.82	0.92	40.3
All Vehicles		5067	4.3	0.810	26.2	LOS B	26.5	192.1	0.64	0.61	0.69	43.1

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P3	North Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95	
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95	
All Pedestrians		105	49.3	LOS E			0.95	0.95	

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.

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 2:19:02 PM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

MOVEMENT SUMMARY



Site: TCS1146 [Site8_2018 PM FUTURE_Cabramatta Rd_Hume Hwy]

Cabramatta Rd_Hume Hwy

Site Category: Base AM

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Hume Hwy E												
5	T1	1826	5.6	0.726	3.0	LOS A	10.7	78.2	0.26	0.24	0.26	65.5
6	R2	764	4.0	0.836	51.2	LOS D	19.8	143.7	1.00	0.94	1.18	30.8
Approach		2591	5.2	0.836	17.3	LOS B	19.8	143.7	0.48	0.45	0.53	49.2
North: Cabramatta Rd												
7	L2	426	3.2	0.458	22.3	LOS B	13.2	94.9	0.69	0.78	0.69	41.9
9	R2	440	2.6	0.806	54.9	LOS D	11.4	81.5	1.00	0.92	1.21	32.1
Approach		866	2.9	0.806	38.9	LOS C	13.2	94.9	0.85	0.85	0.95	35.9
West: Hume Hwy W												
10	L2	245	3.4	0.823	43.1	LOS D	24.9	180.9	0.96	0.92	1.06	37.3
11	T1	1462	4.3	0.823	32.6	LOS C	26.6	192.9	0.93	0.87	1.00	40.2
Approach		1707	4.2	0.823	34.1	LOS C	26.6	192.9	0.93	0.88	1.01	39.7
All Vehicles		5164	4.5	0.836	26.5	LOS B	26.6	192.9	0.69	0.66	0.76	42.9

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

Vehicle movement LOS values are based on average delay per movement.

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

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

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

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

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate	
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
All Pedestrians		105	44.3	LOS E			0.94	0.94	

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.

SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

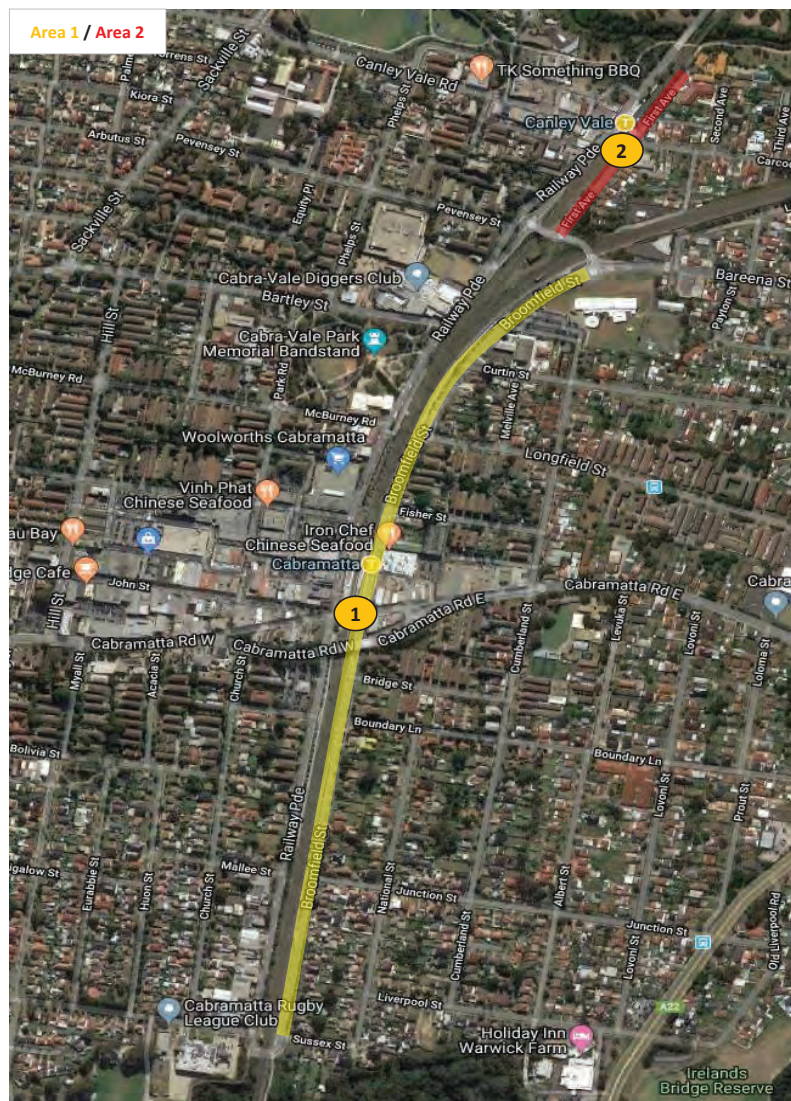
Organisation: GHD SERVICES PTY LTD | Processed: Wednesday, 28 November 2018 2:21:08 PM

Project: \\ghdnet\ghd\AU\Newcastle\Projects\22\19800\Tech\Traffic\SIDRA\2018.sip8

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

Appendix C – Parking surveys

Client GHD
 Date Tuesday, 23rd October 2018 (7:00-19:00, 12hrs)
 Description Cabramatta Parking Survey



Area 1

1. Broomfield St

Area 2

1. First Ave

Area 3

1. Warwick Farm Railway Station

Client GHD
Date Tuesday, 23rd October 2018 (7:00-19:00, 12hrs)
Description Cabramatta Parking Survey



Zone Name	Side of Street	Between	Restrictions	Applicable Hours	Capacity	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00		
Broomfield St	East	Sussex St & #170 Broomfield St	No Restriction		12	2	2	2	5	5	4	3	3	4	4	5	5		
		#170 Broomfield St & Junction St	No Restriction		22	0	0	0	1	2	2	2	2	2	1	0	0	0	
		Junction St & Boundary Ln	No Restriction		31	20	21	27	27	27	26	26	26	26	26	24	18	12	
		Boundary Ln & Bridge St	No Stopping																
			No Stopping																
		Bridge St & Cabramatta Rd	2P	am 8:30 - pm 18:00 (Mon-Fri)	8	5	6	6	7	6	7	7	6	7	6	7	7		
			1/2 P	am 8:30 - pm 18:00	5	4	3	3	5	5	4	5	5	5	5	4	4	3	
			No Stopping																
			No Stopping																
			1/2 P	am 8:30 - pm 18:00	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
			Loading Zone		2	0	0	1	1	1	2	2	2	2	1	2	1	2	
			No Stopping																
			1P	am 8:30 - pm 18:00	7	5	6	6	6	6	6	6	6	6	7	6	7	6	
			No Parking																
			1P	am 8:30 - pm 18:00	6	4	5	4	6	6	6	5	6	5	6	6	6	6	
			No Stopping																
			Fisher St & Longfield St	No Restriction		14	14	13	13	13	14	14	14	14	14	14	10	8	
				No Stopping															
			Longfield St & Curtin St	No Restriction		14	11	14	14	14	14	14	14	14	14	14	12	10	6
				No Restriction		11	6	7	7	8	8	8	7	6	6	6	6	6	6
			Curtin St & Bareena St	Bus Zone		4	1	0	0	0	0	0	0	0	0	0	0	0	0
				am 9:00 - pm 15:00 (Mon-Fri) am 9:00 - pm 18:00 (Sat-Sun)		10	0	0	0	0	0	0	0	0	0	0	0	0	0
		West	Bareena St & #170 Broomfield St		No Stopping														
				No Restriction		5	3	4	4	4	4	3	3	2	2	1	1	1	
				No Restriction	45 Angle Parking Rear to Kerb Under 6m Vehicle	30	28	30	30	28	28	30	30	30	30	21	18	14	
				No Stopping															
				No Restriction	45 Angle Parking Rear to Kerb Under 6m Vehicle	17	15	17	17	17	17	17	17	17	17	15	10	4	
				No Restriction		11	10	10	10	10	10	10	10	10	9	9	6	4	
				No Stopping															
				No Restriction		20	16	18	18	18	18	18	18	18	18	18	18	15	16
				No Stopping															
				No Restriction		3	3	3	3	3	3	3	3	3	3	3	3	3	3
				No Stopping															2
				No Restriction		7	7	7	7	7	7	7	7	7	7	7	7	7	7
				No Parking		2	0	0	0	0	0	0	0	0	0	0	0	0	0
				Taxi Zone		2	0	0	0	0	0	0	0	0	0	0	0	0	0
				Mail Zone		1	0	0	0	0	0	0	0	0	0	0	0	0	0
				No Stopping															
				Bus Zone															
				No Stopping															
				Disabled Parking		3	0	1	2	2	2	1	3	3	3	3	2	2	3
				2P	am 8:30 - pm 18:00	9	9	9	9	9	9	9	9	9	9	9	9	7	7
				No Stopping															
				No Restriction		15	10	15	15	15	15	15	15	15	15	15	12	10	6
				No Restriction	45 Angle Parking Rear to Kerb Under 6m Vehicle	41	35	41	41	41	41	41	41	41	41	41	40	38	21
				No Restriction		53	0	12	22	22	22	22	23	22	21	21	20	18	13
				No Restriction		14	0	0	0	2	2	1	2	2	2	1	1	0	0
	#170 Broomfield St & Sussex St																		
	Total					381	210	246	263	273	274	273	273	270	268	244	211	164	
% Capacity						55%	65%	69%	72%	72%	72%	72%	71%	70%	64%	55%	43%		

Client GHD
Date Tuesday, 23rd October 2018 (7:00-19:00, 12hrs)
Description Cabramatta Parking Survey



Zone Name	Side of Street	Between	Restrictions	Applicable Hours	Capacity	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	
First Ave	East	Bareena St & Carcoola St	No Stopping															
			No Restriction		3	3	3	3	3	3	3	2	2	3	2	2		
			No Parking		1	0	0	0	0	0	1	0	0	0	0	0		
		Carcoola St & Unnamed St	No Stopping															
			No Restriction		3	3	3	3	3	3	3	2	2	2	2	2		
			No Stopping															
	West	Unnamed St & End of Road	No Stopping															
			No Restriction		11	10	10	10	8	8	6	5	5	5	3	2	1	
			No Through Rd & Bareena St	No Restriction	90 Angle	51	40	48	51	51	51	51	51	50	51	46	38	23
				No Stopping		7	7	7	7	7	7	7	7	7	7	5	4	3
No Restriction																		
No Stopping																		
Total					76	63	71	74	72	72	71	69	66	67	59	48	31	
% Capacity						83%	93%	97%	95%	95%	93%	91%	87%	88%	78%	63%	41%	

Client GHD
Date Tuesday, 23rd October 2018 (7:00-19:00, 12hrs)
Description Cabramatta Parking Survey



Street Name	Side of Street	Between	Restrictions	Applicable Hours	Capacity	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	
Area 3.1			Disabled		2	0	0	0	0	0	1	1	2	2	1	1	1	
			No Restriction		108	76	108	107	108	108	107	108	106	108	91	76	45	
			Total		110	76	108	107	108	108	109	108	110	92	77	46		
% Capacity						69%	98%	97%	98%	98%	98%	99%	98%	100%	84%	70%	42%	
Area 3.2			Disabled		8	5	5	7	7	7	7	7	6	7	5	5	5	
			Motorbike Parking		4	0	0	0	0	0	0	0	0	0	0	0	0	
			Taxi Only		1	0	0	0	0	0	0	0	0	0	0	0	0	
			Taxi Zone & Disabled		2	0	0	0	0	0	0	0	0	0	0	0	0	
			No Restriction		190	121	190	190	190	190	190	190	190	190	154	97	69	
Total					205	126	195	197	197	197	197	197	196	161	102	74		
% Capacity						61%	95%	96%	96%	96%	96%	96%	96%	96%	79%	50%	36%	
Area 3.3	Zone A	Ground Level	Motorbike Parking		5	0	0	1	1	1	1	1	1	1	0	0	0	
			Disabled		11	3	4	8	8	9	9	10	10	9	7	7	5	
			No Restriction		95	94	95	95	95	95	95	94	95	94	87	61	47	
		Level 1	Motorbike Parking		9	0	0	0	0	0	0	0	0	0	0	0	0	0
			No Restriction		129	115	128	129	129	128	129	129	129	126	110	75	43	
			Motorbike Parking		9	0	0	0	0	0	0	0	0	0	0	0	0	
		Level 2	No Restriction		129	102	125	128	129	129	129	128	127	125	91	62	43	
			Motorbike Parking		10	0	0	0	0	0	0	0	0	0	0	0	0	
			No Restriction		129	55	120	129	128	129	129	128	129	126	119	88	63	
		Level 3	Motorbike Parking		10	0	0	0	0	0	0	0	0	0	0	0	0	0
			No Restriction		129	55	120	129	128	129	129	128	129	126	119	88	63	
	45 Angle parking rear to kerb vehicles under 6m only			37	28	37	37	37	37	37	37	37	37	32	26	15		
Zone B		No Restriction		10	10	10	10	10	10	10	10	10	10	8	7			
Zone C																		
Total					573	407	519	537	537	538	539	538	539	530	490	356	242	
% Capacity						71%	91%	94%	94%	94%	94%	94%	94%	92%	86%	62%	42%	

Appendix D – Travel time review









5 min (2.0 km)



via Broomfield St and Church St

59 National St

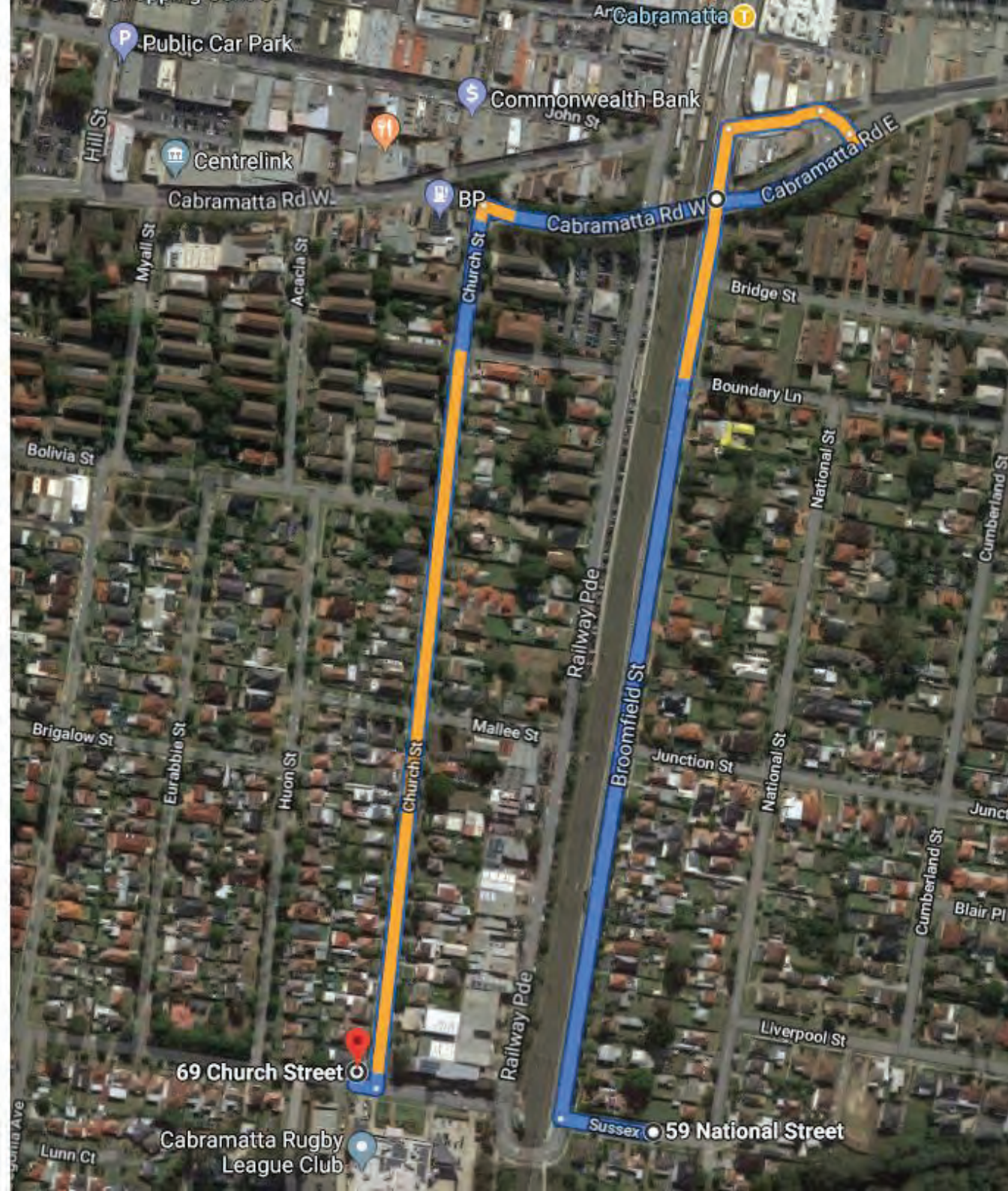
Cabramatta NSW 2166

-  Head west on Sussex St towards Broomfield St
75 m
-  Turn right onto Broomfield St
800 m
-  Turn right onto Cabramatta Rd E
76 m
-  Turn right towards Cabramatta Rd E
30 m
-  Turn right at the 1st cross street onto Cabramatta Rd E
350 m
-  Turn left onto Church St
700 m
-  Turn right onto Sussex St
 Destination will be on the right
17 m

69 Church St

Cabramatta NSW 2166

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.









4 - 6 min (2.3 km)



Via Railway Pde and Broomfield St

69 Church St

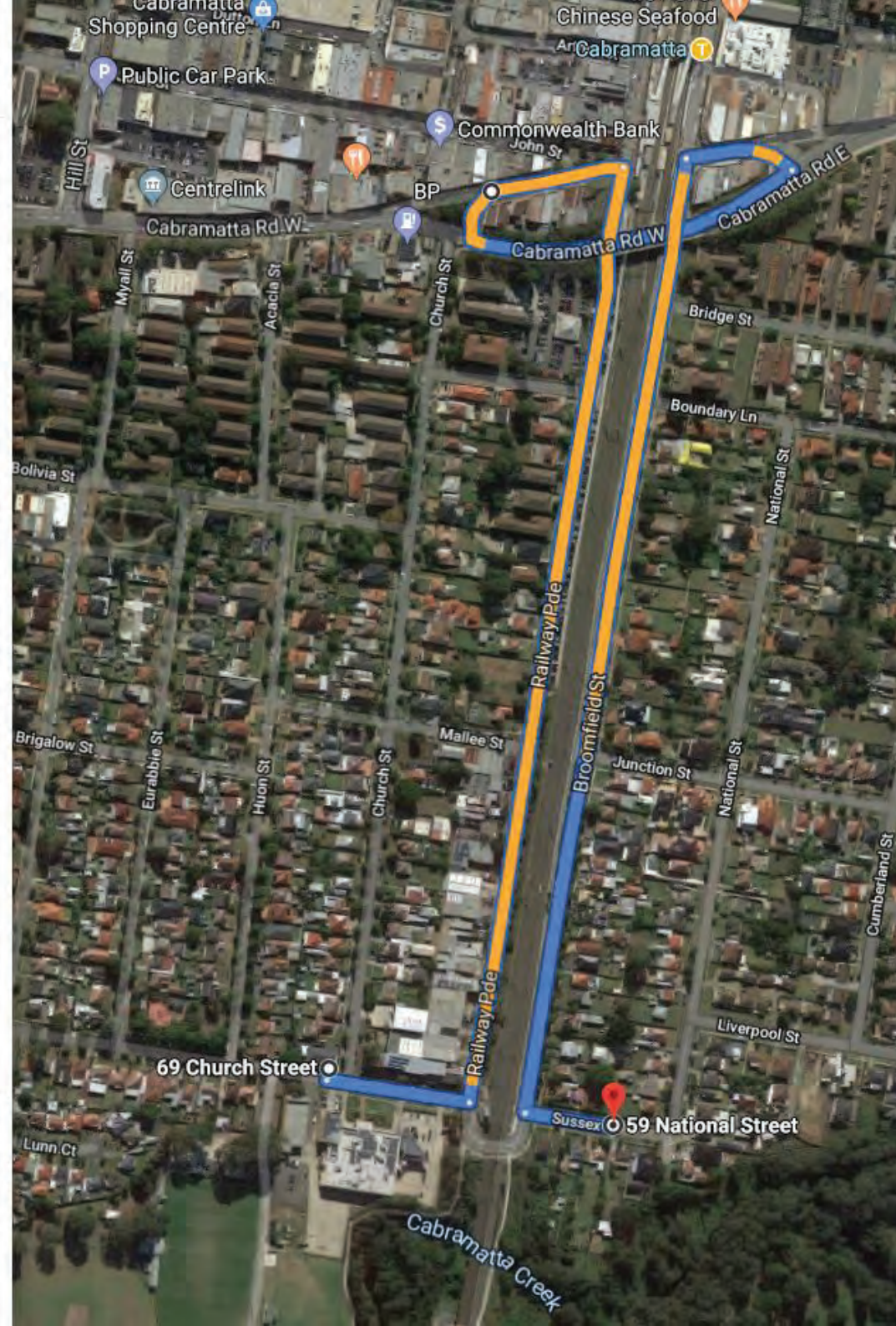
Cabramatta NSW 2166

-  Head east on Sussex St towards Church St
120 m
-  Turn left onto Railway Pde
800 m
-  Turn left onto Cabramatta Rd W
450 m
-  Turn left onto Cabramatta Rd E
93 m
-  Turn left onto Broomfield St
800 m
-  Turn left onto Sussex St
75 m

59 National St

Cabramatta NSW 2166

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

GHD

Level 15

133 Castlereagh Street

T: 61 2 9239 7100 F: 61 2 9239 7199 E: sydmall@ghd.com


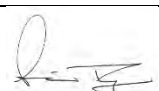
© GHD 2019

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

2219800-

96398/https://projects.ghd.com/oc/Sydney1/cabramattalooppjec/Delivery/Documents/2219800-REP_0 Cabramatta Loop Project_TIA_ARTC.docx

Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
2	S Quinn	S Clarke		S Page		08/08/2019

www.ghd.com

