



Anglican Care Gloucester RACF

APP Corporation Pty Ltd

Traffic Impact Assessment

May 2018

SECAsolution 

Newcastle Office:
Ground Floor, 161 Scott Street
Newcastle NSW 2300
Ph: (02) 4032 7979

Central Coast Office:
Ph: 0438 754 171

25 May 2018

P001157 Anglican Care Gloucester RACF TIA Report

APP Corporation Pty Ltd
Level 2, 426 King Street,
Newcastle NSW 2300
Attn: Simeon Townsend

Dear Simeon,

Re: Traffic Impact Statement for the development of Anglican Care Aged Care Facility, Gloucester, NSW

We have now completed our study work for the above project, undertaken site work and collected traffic data. The traffic impact assessment in Table 1 has been completed in accordance with the requirements of the RTA Guide to Traffic Generating Developments and the Austroads Guidelines. With consideration to the relevant planning requirements outlined within the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004.

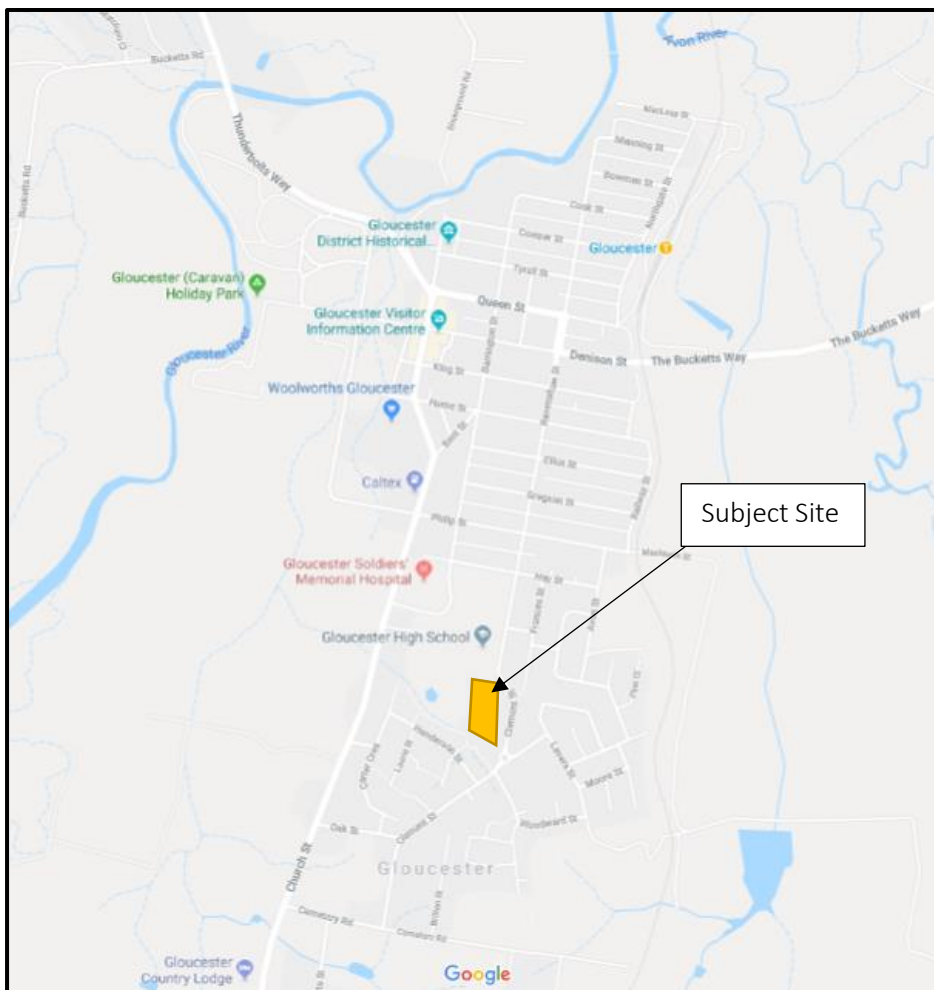


Figure 1 – Site location

Table 1 – Traffic Impact Assessment

Item	Issue	Comment
2. Existing Situation		
2.1.1 Site Location and Access	NO	The proposed Anglican Care Residential Aged Care facility is located in Gloucester, adjacent to Gloucester High School with frontage to Clement Street. The site is currently vacant land.
2.2.1 Road Hierarchy	NO	<p>The main road through the locality is The Bucketts Way which is a regional road providing an important route between the Pacific Highway north of Raymond Terrace to the south-east through to Gloucester and Taree. It provides access to a number of other towns throughout the locality and allows for connections to other centres such as Dungog and the New England Highway at Scone. In Gloucester it becomes Church Street. It generally provides one lanes of travel in each direction with widening at intersections to maintain capacity and safety.</p> <p>Clement Street, which provides access to the subject site, is a residential street with a 9 metre wide sealed pavement. It runs generally north / south with residential development on the eastern side. The subject site is vacant land on the western side of the street. Kerb and guttering is intermittent along Clement Street with street lighting available where development has occurred. There are no footpaths provided. Clement Street has a posted speed limit of 50km/h</p> <p>To its north Clement Street becomes Ravenshaw Street which connects with various local streets to provide access to the town centre. To the south it joins Cemetery Road at a T-intersection with Cemetery Road having priority. Cemetery Road in turn connects with The Bucketts Way. Access to The Bucketts Way is also available along Oak Street.</p> <p>Adjacent to the southern boundary of the site, Clement Street intersects with Rogers Street to form a single lane roundabout. Rogers Street is a short residential street that provides access to and from residential developments to the east of the subject site.</p>
2.2.2 Roadworks	NO	None noted in the vicinity of site. It is understood that there are no road works in the general locality except for Council maintenance work as required.
2.2.3 Traffic Management Works	NO	None noted.
2.2.4 Pedestrian and Cycling Facilities	NO	<p>A pedestrian path is provided through the Council reserve along the southern boundary of the site.</p> <p>There are no dedicated facilities for cyclists who can cycle on road on the local streets given the low traffic flows.</p>
2.2.5 Public Transport	NO	Newcombe Coach Lines provides school bus services in Gloucester and surrounding areas including Wards River, Stroud, Barrington, Waukivory, Copeland, Bunyah, Upper Bowman, Bundook, Gloucester River and Curricabark.

Newcastle Office:
Ground Floor, 161 Scott Street
Newcastle NSW 2300
Ph: (02) 4032 7979

Central Coast Office:
Ph: 0438 754 171

Item	Issue	Comment
		Gloucester Railway station is located 2.5km to the north of the subject site. The station provides access to three train services per day in each direction between Sydney and Brisbane.
2.3 Traffic Flows		
2.3.1 Daily Traffic Flows	NO	A traffic survey conducted at the Clement Street / Rogers Street intersection on the afternoon of Thursday 15 March 2018 indicates that Clement Street carries around 150 vehicles per hour during the afternoon peak period (4.15pm to 5.15pm), which equates to approximately 1,500 vehicles per day. According to the RMS <i>Guide to Traffic Generating Developments</i> a residential street would generally have a maximum environmental capacity of 300 vehicles per hour. The results of the traffic survey therefore indicate that Clement Street is operating well below its environmental capacity.
2.3.2 Daily Traffic Flow Distribution	NO	The afternoon peak period survey indicates that traffic movements are reasonably balanced in both directions along Clement Street.
2.3.3 Vehicle Speeds	NO	No speed surveys were completed as part of the study work. However, observations on site indicate that vehicles generally travel within the 50km/h speed limit due to the residential environment.
2.3.4 Existing Site Flows	NO	The site does not generate any traffic movements as it is currently vacant.
2.3.5 Heavy Vehicle Flows	NO	During the afternoon traffic survey heavy vehicles (trucks and buses) accounted for only 2.5% of total traffic.
2.3.6 Current Road Network Operation	NO	Observations on site during the afternoon peak period show that the intersection of Clement Street and Rogers Street operates well within capacity with minimal delays.
2.4 Traffic Safety and Accident History	NO	Crash data received from RMS shows that there have been no recorded crashes in Clement Street over the last 5 years, which indicates that that the subject site is located in a safe road environment.
2.5 Parking Supply and Demand		
2.5.1 On-street Parking Provision	NO	Parking is permitted along both sides of Clement Street in the general vicinity of the subject site, with the usual restrictions at driveways and intersections.
2.5.3 Parking Demand and Utilisation	NO	During the site work, it was noted that no vehicles were parked along Clement Street in the vicinity of the site. The residential properties along Clement Street opposite the subject site have sufficient off-street parking for existing demands and the proposed development will provide sufficient off-street parking to meet statutory requirements.
2.5.4 Set down or pick up areas	NO	There are no designated set down areas in the immediate locality of the subject site.
2.6 Public Transport		
2.6.1 Rail Station Locations	NO	The nearest railway station is Gloucester Station approximately 2.5 km from the subject site.

Item	Issue	Comment
2.6.2 Bus Stops and Associated Facilities	NO	There were no bus stops noted in the vicinity of the site except for the school bus facility at Gloucester High School adjacent to the northern boundary of the site.
2.6.3 Pedestrians	NO	A pedestrian path is provided through the Council reserve along the southern boundary of the site.
2.7 Other Proposed Developments	NO	No other significant developments noted.
3. Proposed Development		
3.1 The Development		Anglican Care is proposing to develop a Residential Aged Care Facility (RACF) in Gloucester, NSW consisting of 44 rooms and 28 x 2-bedroom Independent Living Units (ILU's). The proposed development is located on a greenfield site in Clement Street, Gloucester between Gloucester High School and Rogers Street.
3.1.1 Nature of Development		Residential Aged Care Facility (RACF) and Independent Living Units (ILU's).
3.1.2 Access and Circulation Requirements	NO	Access to the site is required in accordance with AS2890 primarily for light vehicles with heavy vehicle access associated with some servicing of the RACF. The driveways, internal roads and manoeuvring areas are to be designed to cater for delivery vehicles as well as staff and visitor parking. The largest vehicles that will access the site which are expected to be a 12.5 metre single unit truck, a 10.8 metre waste collection vehicle and a bariatric ambulance. All of these vehicles are required to enter and exit the site in a forward direction.
3.2 Access	NO	It is proposed to provide one access as a fourth leg of the roundabout at the Clement Street / Rogers Street intersection and a second access mid-way along Clement Street between Rogers Street and the western boundary of the site. Both accesses shall allow for two-way traffic.
3.2.1 Driveway Location	NO	As above.
3.2.2 Sight Distances	NO	For the posted speed limit in Clement Street of 50km/h, AS2890 requires a sight line distance of 69 metres minimum at the access. This sight distance is available at both proposed site accesses. As off-street parking will be provided by the development and there is not expected to be any demand for parking in Clement Street sight lines will not be impacted in due to parked cars. It is therefore considered sight lines will be available for drivers exiting the site to allow them to do so in a safe manner.
3.2.3 Service Vehicle Access	NO	A loading dock area will be provided on the northern side of the RACF building. Delivery vehicles will enter the site via the access at the Clement Street / Rogers Street roundabout, reverse into the loading dock area and exit in a forward direction via the mid-block access in Clement Street. This has been assessed using AutoTURN to confirm that this manoeuvring can be undertaken. This will have no impact upon the very low through traffic movements expected along the internal access road and

Newcastle Office:
Ground Floor, 161 Scott Street
Newcastle NSW 2300
Ph: (02) 4032 7979

Central Coast Office:
Ph: 0438 754 171

Item	Issue	Comment
		<p>ensures all service vehicles will enter and exit the site in a forward direction.</p> <p>Servicing for the ILUs shall also be minimal with the internal roadway providing sufficient width to allow for waste collection, deliveries etc.</p>
3.2.4 Queuing at entrance to site	NO	No vehicle queues are expected at site entry / exit points due to the existing low traffic volumes and the low overall traffic demands associated with the future development. The only delays may be for vehicles exiting the site which would be queued on site and would not impact upon the operation of the local road network. These queues would be minimal.
3.2.5 Comparison with existing site access	NO	As the site is vacant land there is no existing site access.
3.2.6 Access to Public Transport	NO	A 1:20 pedestrian path is proposed from the RACF to the path on the Council reserve south of the site. Pedestrians will be able to access Church Street via Henderson Street from the proposed 1:20 path. Church Street is the main road into Gloucester and provides access to bus and taxi services. Current public transport in Gloucester includes coaches and train services into and out of Gloucester.
3.3 Circulation		
3.3.1 Pattern of circulation	NO	The accesses and internal roads are designed for two-way traffic. The intention is that delivery vehicles will enter from the Clement Street / Rogers Street roundabout and exit onto Clement Street. Residents, staff and visitors will be able to enter / exit at either access.
3.3.2 Road width	NO	The access driveways should be a minimum of 6 metres wide at the road edge and a minimum of 5.5 metres wide at the site boundary to allow for two-way vehicle movements. The driveways, internal roads and manoeuvring areas shall be designed to cater for the largest vehicles that will access the site which are expected to be a 12.5 metre single unit truck, a 10.8 metre waste collection vehicle and a bariatric ambulance. All these vehicles should be able to enter and exit the site in a forward direction.
3.3.3 Internal Bus Movements	NO	See section 4.5.1 regarding the provision of transport services.
3.3.4 Service Area Layout	NO	The loading dock provided to the western side of the site allows a truck to enter the site and reverse into the loading area and then exit in a forward direction. Servicing demands for the site shall be minimal and this can be undertaken in a safe manner.
3.4 Parking		
3.4.1 Proposed Supply	NO	<p>The RACF component of the development will provide 12 parking spaces (visitors and staff) plus one ambulance bay – a total of 13 spaces.</p> <p>The 28 ILU's proposed for the site will each have on-site parking for at least one vehicle.</p>

Item	Issue	Comment
		<p>In addition, it is proposed to provide 4 spaces for campervan parking in the south-eastern corner of the site adjacent to the access from the Clement Street / Rogers Street roundabout.</p>
3.4.2 Authority Parking	NO	<p>The State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (SEPP) contains a parking requirement for a RACF of 1 space per 10 beds for visitors plus 1 space per 2 employees plus 1 ambulance parking bay.</p> <p>For the 44 beds proposed in this development, this equates to 5 visitor spaces, 6 staff spaces (12 staff in total) and 1 ambulance bay, a total of 12 spaces.</p> <p>Disabled parking for an aged care facility is also required under the Building Code of Australia (BCA) at the rate 1 space for every 100 car parking spaces or part thereof. Therefore at least one parking space will be suitable for a person with a disability in accordance with AS2890.6.</p> <p>The 28 ILU's proposed for the site will each have on-site parking for at least one vehicle. This should be designed taking into consideration SEPP <i>Schedule 3 Standards concerning accessibility and useability for hostels and self-contained dwellings Part 1 Section 5 Private car accommodation</i>.</p> <p>A further 8 parking spaces (including 1 accessible space) will be provided adjacent to the on-site Community Centre.</p>
3.4.3 Parking Layout	NO	<p>The parking layout shall be designed in accordance with AS/NZS 2890.1:2004 with the following dimensions for User Class 3:</p> <p style="padding-left: 40px;">Parking bays: 2.6 x 5.4 metres Aisle width: 5.8 metres.</p>
3.4.4 Parking Demand	NO	<p>Normal parking demands can be accommodated on site in accordance with SEPP requirements. For the RACF, a total of 13 spaces will be provided on site to satisfy parking demands, in accordance with the SEPP requirement of 12 spaces.</p>
3.4.5 Service Vehicle Parking	NO	<p>Given the size of the development servicing demands shall not be significant. Service vehicles can park on site within the loading dock and a separate parking bay is provided for an ambulance. The largest vehicle to access the site will be 12.5 metre single unit truck whilst other deliveries would be via small vans e.g. Toyota Hiace.</p>
3.4.6 Pedestrian and Bicycle Facilities	NO	<p>Pedestrian access will be provided within site. Staff can park bicycles within the site footprint as required.</p>
4. Impact of Proposed Development		
4.1 Traffic Generation	NO	<p>Standard traffic generation rates provide by the RMS <i>Guide to Traffic Generating Developments</i> have been used as a basis for determining the future traffic flows associated with the development.</p>

Newcastle Office:
Ground Floor, 161 Scott Street
Newcastle NSW 2300
Ph: (02) 4032 7979

Central Coast Office:
Ph: 0438 754 171

Item	Issue	Comment
		<p>For the RACF, the following trip rates for “Housing for aged and disabled persons” have been adopted from the RMS Guide.</p> <ul style="list-style-type: none"> • Daily vehicle trips = 1 - 2 per dwelling • Evening peak hour vehicle trips = 0.1 - 0.2 per dwelling. <p>Adopting the higher of these rates for 44 rooms equates to 88 daily vehicle trips and 9 evening peak hour trips.</p> <p>For the ILU’s the following trip rates from the RMS updated surveys for “Housing for seniors” have been adopted:</p> <ul style="list-style-type: none"> • Daily vehicle trips = 2.1 per dwelling • Evening peak hour vehicle trips = 0.4 per dwelling <p>For 28 ILU’s this equates to 60 daily vehicle trips and 12 evening peak hour trips.</p> <p>On this basis the site will generate 148 trips per day and 21 trips in the evening peak.</p>
4.1.1 Daily and Seasonal Factors	NO	Limited annual variation expected.
4.1.2 Pedestrian Movements	NO	Pedestrian movements are considered to be relatively low, given the size and type of development. A 1:20 pedestrian path is proposed from the RACF to the path on the Council reserve south of the site. Pedestrians will be able to access Church Street via Henderson Street from the proposed 1:20 path.
4.2 Traffic Distribution and Assignments	NO	Traffic will access the site via either the access at the Clement Street / Rogers Street roundabout or the mid-block access in Clement Street. As the internal roads will cater for two-way movements traffic can then disperse along Clement Street in both directions.
4.2.1 Origin / destinations assignment	NO	It is assumed that traffic is split 50:50 in and out of Clement Street with no bias in movements.
4.3 Impact on Road Safety	NO	<p>Low overall traffic flows associated with the development will have a corresponding low impact upon road safety. The major safety factor will be associated with traffic entering and exiting the site. The RMS crash data shows that there have been no recorded crashes in Clement Street over the last 5 years, which indicates that that the subject site is located in a safe road environment.</p> <p>The proposed mid-block access in Clement Street offers good visibility for drivers entering and exiting the site. It is considered that drivers can safely enter and exit at this location, in a similar manner to the other residential driveways opposite the site.</p> <p>The addition of the site access as a 4th leg to the roundabout at the intersection of Clement Street and Rogers Street will not impact on the safe operation of this intersection as traffic</p>

Item	Issue	Comment
		<p>volumes are very low and it is well laid out with good visibility in all directions.</p> <p>It is therefore considered that there will be a minimal impact upon road safety associated with the development of the subject site.</p>
4.4 Impact of Generated Traffic		
4.4.1 Impact on Daily Traffic Flows	NO	<p>The traffic that will be generated by the proposed development will have only a minimal impact on the safety and efficiency of the local road network. The traffic survey conducted on site indicates that Clement Street is currently carrying 150 vehicles per hour during the peak period and operating at half its environmental capacity of 300 vehicles per hour. Consequently, the 21 additional vehicle trips that will be generated by the site will have only a minimal impact as Clement Street will continue to operate at well below its environmental capacity.</p>
4.4.2 Peak Hour Impacts on Intersections	NO	<p>The major impact of the redevelopment of the subject site would be at the intersection of Clement Street and Rogers Street. As a worst-case scenario, if all vehicles entered and exited the site via this intersection during the afternoon peak, an additional 21 vehicle movements could occur through this intersection. The roundabout at the Clement Street / Rogers Street intersection is also operating at a level of service A during the peak period with ample spare capacity for the additional 21 vehicle trips generated by the development.</p> <p>The traffic data collected by Seca Solution indicates some 163 vehicles use this intersection in the afternoon / evening peak hour. The additional 21 vehicles represent an increase of 13% over this value and will have a minimal impact upon the operation of this intersection.</p>
4.4.3 Impact of Construction Traffic	NO	<p>The majority of construction work will be contained within the site so there will be minimal impact upon the external road network. There will be a requirement for construction machinery to access site and traffic associated with workers. A Construction Traffic Management Plan will be required for work on site and access controls. This will be completed as part of the design process by the contractor on site. Traffic controls shall be required when undertaking connections to the Clement Street/Rogers Street roundabout.</p>
4.4.4 Other Developments	NO	No other major developments noted in vicinity of the site.
4.5 Public Transport		
4.5.1 Options for improving services	NO	<p>State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 requires the provision of a transport service for residents to commercial facilities. The proposed development has been designed to integrate into the existing public transport system as far as practicable. It would be unreasonable and not feasible for the proposed development to provide a stand-alone public transport system to comply with this requirement in the SEPP.</p>

Newcastle Office:
Ground Floor, 161 Scott Street
Newcastle NSW 2300
Ph: (02) 4032 7979


Central Coast Office:
Ph: 0438 754 171

Item	Issue	Comment
		The proposed development will provide an essential housing choice within Gloucester by a social housing provider that will allow residents to remain within Gloucester and should be considered as an additional housing choice in Gloucester and not be constrained by existing limitations of the public transport system of a rural area.
4.5.2 Pedestrian Access to Bus Stops	NO	A 1:20 pedestrian path is proposed from the RACF to the path on the Council reserve south of the site. Pedestrians will be able to access Church Street via Henderson Street from the proposed 1:20 path. Church Street is the main road into Gloucester and provides access to bus and taxi services. Current public transport in Gloucester includes coaches and train services into and out of Gloucester.
4.6 Recommended Works		
4.6.1 Improvements to Access and Circulation	NO	None required. Ensure driveway crossings and internal driveways are designed and constructed in accordance with Council requirements.
4.6.2 Improvements to External Road Network	NO	None required as the future traffic flows associated with the development will be very low. The peak hour traffic movements associated with the development are 21 additional vehicles per hour and can be accommodated on the local road network with minimal delays for road users.
4.6.3 Improvements to Pedestrian Facilities	NO	A 1:20 pedestrian path is proposed from the RACF to the path on the Council reserve south of the site.
4.6.4 Effect of Recommended Works on Adjacent Developments	-	No impact as no external works recommended. The new driveways will not impact upon adjacent properties.
4.6.5 Effect of Recommended Works on Public Transport Services	-	Nil
4.6.6 Provision of LATM Measures	-	None required
4.6.7 Funding	-	No external road upgrades required. Site access and internal driveways will be funded by the developer.

Overall it is concluded that on traffic and parking grounds the proposed development of the site should be approved. The additional traffic demands associated with the development of the site will have a minimal impact upon the local road network. The parking demands associated with the development can be accommodated on site in accordance with the *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* and as such will not impact upon the existing on-street parking in the locality.

Please feel free to contact me on (02) 40327979 should you have any further queries.

Yours sincerely



Rob Day

Senior Traffic Engineer

Attachment A – Site plan

Attachment B – Swept Turning Path

Attachment C – Accident data

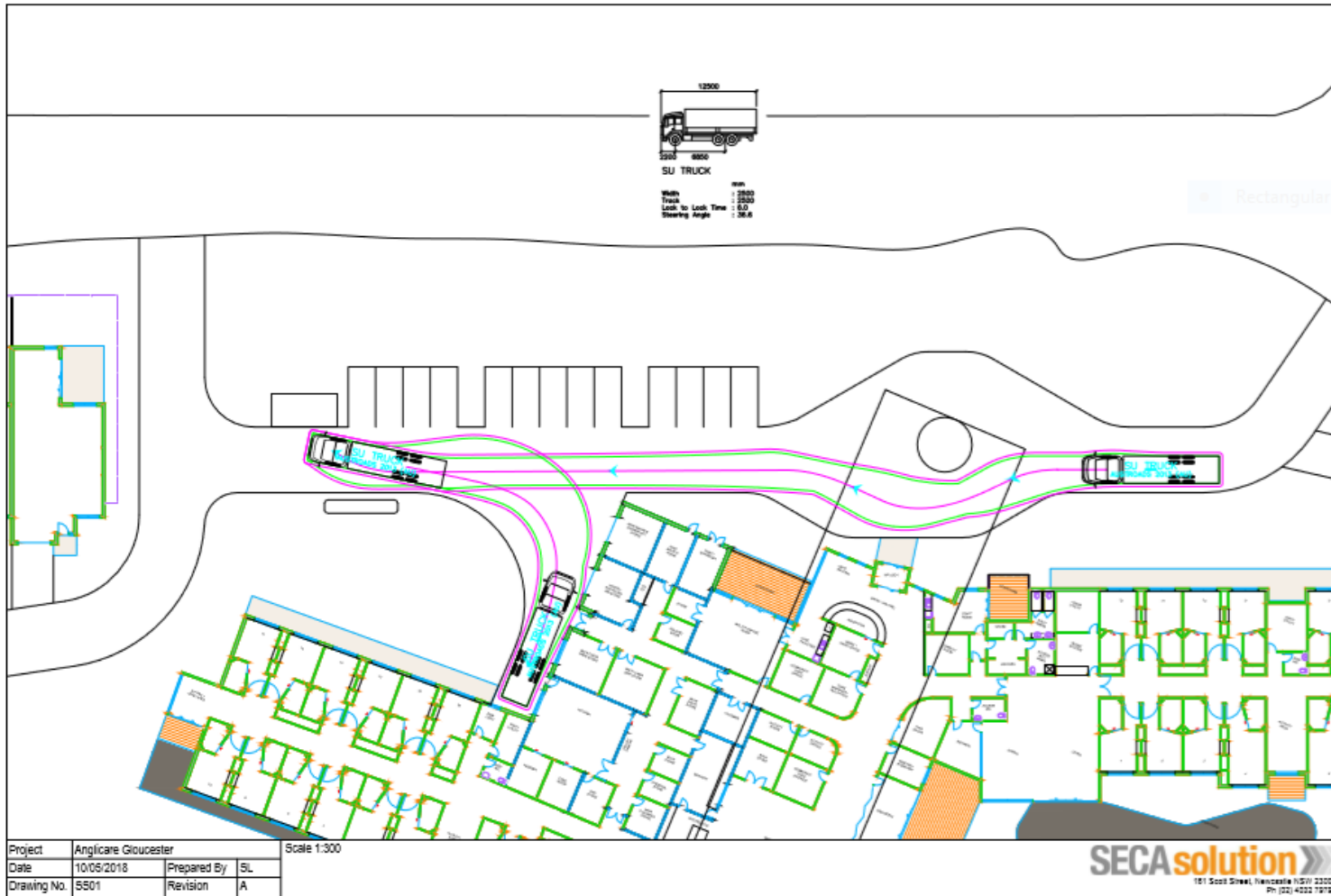
Attachment D – Traffic Count data

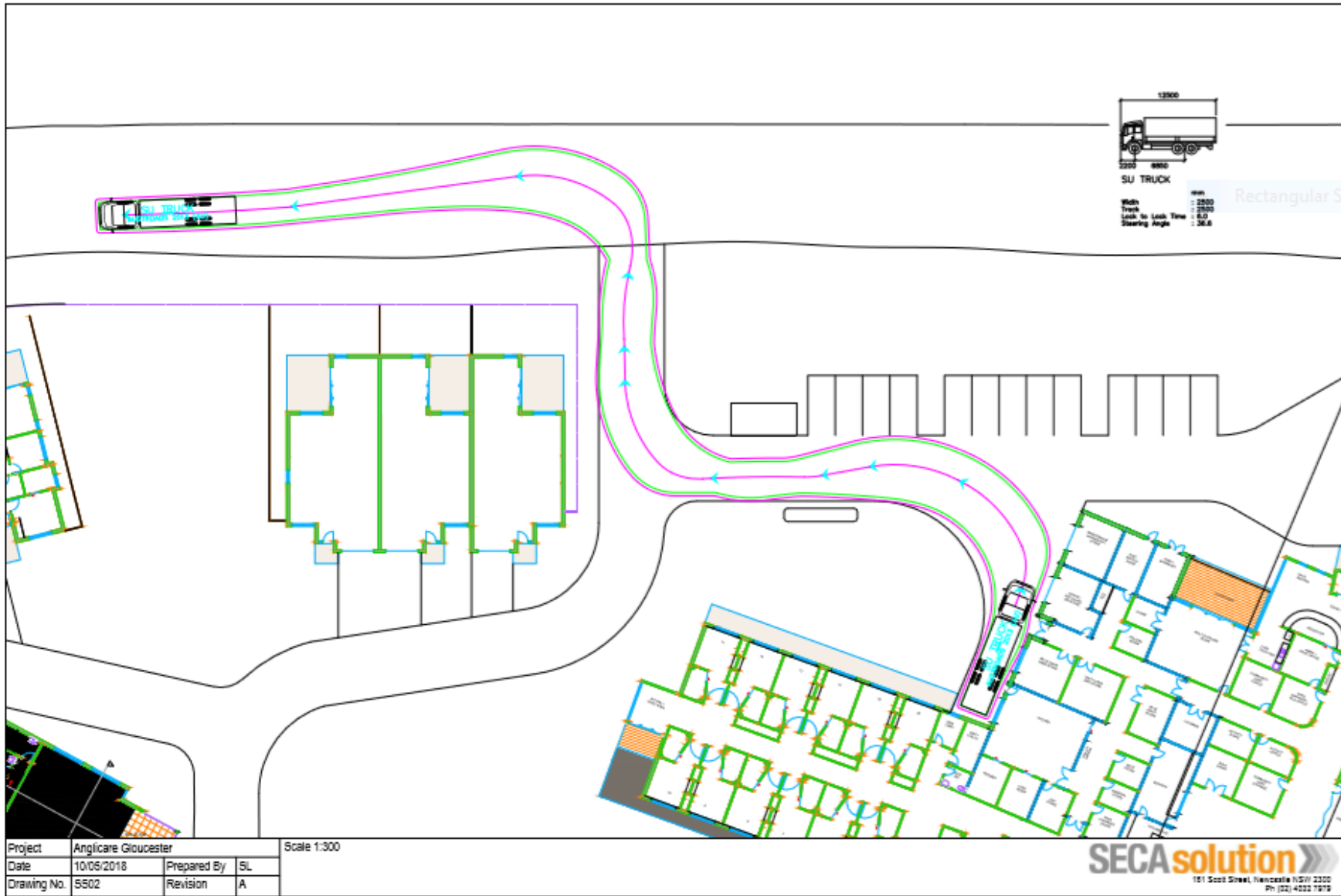
Attachment E – Site Photos

1 Attachment A –Site Plan



2 Attachment B – Swept Turning Path

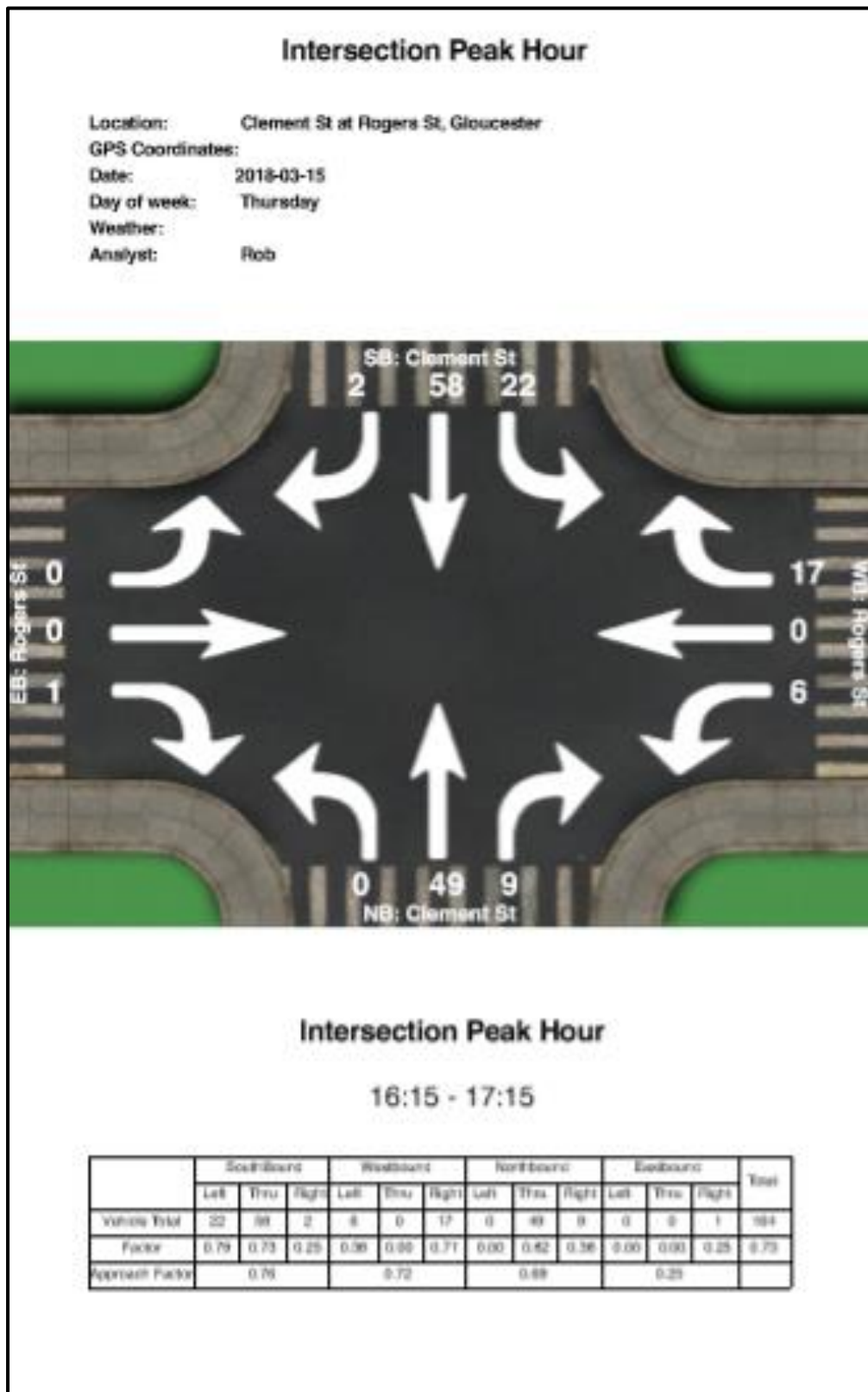




3 Attachment C – Accident Data



4 Attachment D – Traffic Survey data



5 Attachment E – Site Photos



Photo 1 - View of the site from the Clement Street / Rogers Street intersection



Photo 2 - View looking south along Clement Street from Rogers Street



Photo 3 - View to the north along Clement Street. Site of proposed site access.