



STANBURY
TRAFFIC PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANTS

UPDATED CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT PLAN

STAGE 2
APPROVED PRIMARY SCHOOL
211 PACIFIC HIGHWAY
ST LEONARDS

PREPARED FOR INTERNATIONAL CHINESE SCHOOL
OUR REF: 19-050-6



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1. INTRODUCTION

1.1 Scope of Assessment

Stanbury Traffic Planning has been commissioned by International Chinese School to prepare a Construction Traffic & Pedestrian Management Plan (CTPMP) for the construction of Stage 2 Works associated with an approved redevelopment of a commercial building situated within Cemetery Trust land at 211 Pacific Highway, St Leonards, to accommodate a bilingual International Chinese School, providing a capacity of up to 63 students.

The purpose of this Plan is to provide details of the management of traffic and pedestrian movements to, from and adjoining the subject site associated with the Stage 2 Works of the abovementioned development. The Plan is required to be prepared in response to Condition of Consent No. C22 of Development Consent (SSD 10260) issued by the Department of Planning, Industry & Environment on 16 July 2020. To this end, this Plan:

- Is prepared by a suitably qualified and experienced person (see Section 9);
- Has been prepared in consultation with Willoughby Council;
- Is generally consistent with the Preliminary Construction Management Plan contained within Section 7 of Updated Parking & Traffic Impact Assessment dated April 2020 accompanying the State Significant Development Application, prepared by this Practice;
- Details the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists, pedestrians and bus services;
- Details heavy vehicle routes, access and parking arrangements, and any associated traffic control measures needed; and
- Details how access is to be retained from Pacific Highway into the public carpark through to The Avenue at all times during any construction works.

This Plan provides the following scope of assessment:

- Section 2 provides a summary of the site location, details, existing and surrounding land-uses;
- Section 3 describes the existing traffic, parking and transport conditions surrounding and servicing the subject development site including a description of the surrounding road network, traffic demands, operational performance and available public transport infrastructure;
- Section 4 describes the approved development;

- Section 5 describes the planned internal and external management during construction;
- Section 6 describes management measures to be implemented to ensure safe and efficient site access / egress by construction vehicles;
- Section 7 describes the construction staging and traffic generation characteristics; and
- Section 8 describes the ability or otherwise of the surrounding road network to accommodate the additional demand associated with the site construction works.

This Plan should be read in conjunction with approved Stage 2 Construction Plans prepared by Stanton Dahl, copies of which are submitted under separate cover.

It is acknowledged that this Plan will need to be updated prior to the commencement of Stage 3 of the construction works in accordance with Condition of Consent No. C24 of Development Consent (SSD 10260).

2. SITE DETAILS

2.2 Site Location

The subject site is located on the northern side of Pacific Highway, approximately midway between Greenwich Road and Reserve Road, St Leonards. The site location is illustrated overleaf within a local and an aerial context by **Figure 1** and **Figure 2**, respectively.

2.2 Site Description

The site provides a street address of 211 Pacific Highway, St Leonards. The site predominantly forms a triangular shaped parcel of land, providing an approximate frontage of 75m to Pacific Highway. The site extends to the north away from Pacific Highway approximately 58m and 51m along the north-eastern and north-western boundaries, respectively, resulting in a total site area in the order of 1,600m².

2.3 Existing Uses

The subject site currently accommodates a vacant commercial building 700m², which has previously undergone extensive alterations and addition works including a first floor addition to replace an existing mezzanine in accordance with DA-2014/301.

The existing site building is currently serviced by an under-croft parking area, containing 10 car parking spaces.

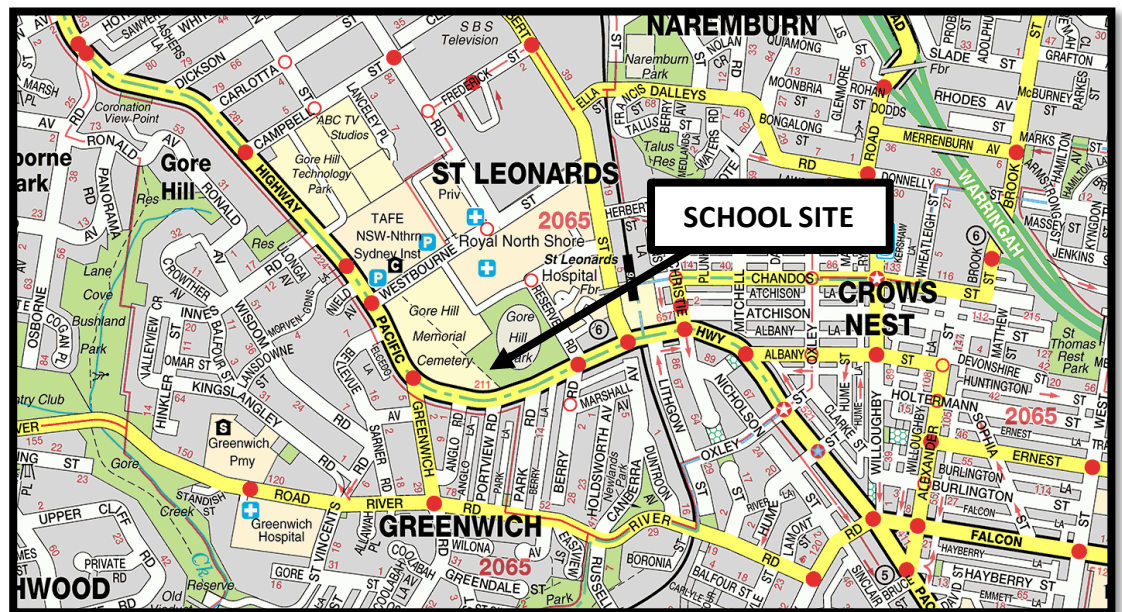
Vehicular connectivity between the on-site basement parking area and a Council owned public off-street car parking area is provided via a single lane access road over a primarily pedestrian access pathway extending between Pacific Highway and Westbourne Street servicing Gore Hill Memorial Cemetery (known as The Avenue). This Council owned car parking area thence provides connectivity to the Pacific Highway eastbound carriageway via a driveway to the south-east of the site.

Pedestrian access to the site is provided via formal pedestrian gates connecting with the northern Pacific Highway footpath, approximately central to the public roadway frontage. Further pedestrian access is provided via The Avenue, connecting to the north-eastern boundary of the site.

Development Consent (SSD 10260) was issued by the Department of Planning, Industry & Environment on 16 July 2020 for the redevelopment of the building to accommodate a bilingual International Chinese School, providing a capacity of up to 63 students.

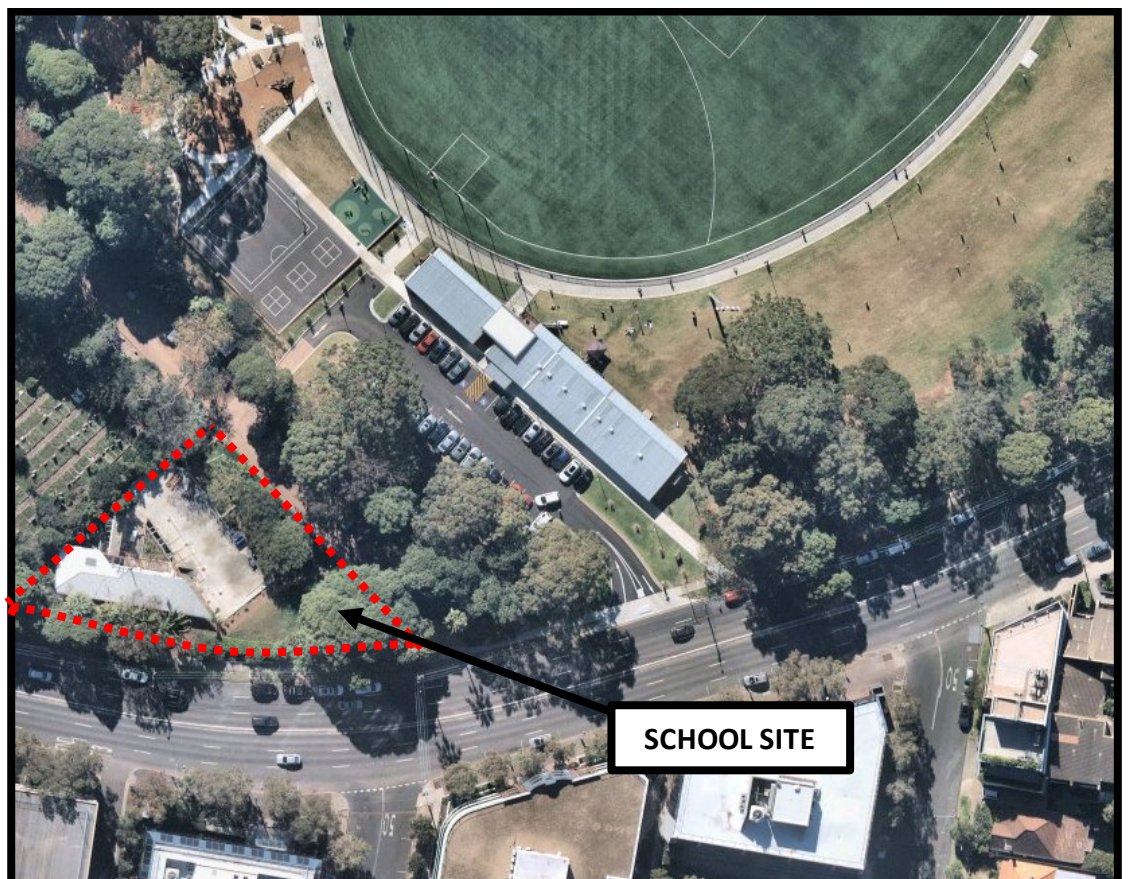
Stage 1 of the approved works was in the process of being completed at the time of writing this report, comprising an internal fit-out of the building to facilitate the accommodation of a limited school student capacity of 63 students and providing the necessary internal infrastructure for the school's operation.

FIGURE 1
SITE LOCATION WITHIN A LOCAL CONTEXT



Source: UBD's Australian City Streets – Version 4

FIGURE 2
SITE LOCATION WITHIN AN AERIAL CONTEXT



Source: Six Maps (accessed 15/05/20)

2.4 Surrounding Uses

The site is surrounded by a mix of land-uses as follows:

- Land immediately adjoining to the north-west is occupied by Gore Hill Memorial Cemetery;
- The Avenue, a primarily pedestrian access path bisecting the abovementioned cemetery abuts the eastern site boundary and links Westbourne Street in the north to Pacific Highway in the south;
- Gore Hill Park is situated to the north-east of the site, comprising the following:
 - A Council owned car park containing 37 spaces (including two disabled spaces) is situated to the east of the site on the opposite side of The Avenue, connecting with Pacific Highway eastbound carriageway via a driveway to the south-east of the site;
 - A half basketball and handball court is situated to the north of the car parking area;
 - A change room building is situated to the east of the car parking area;
 - A children's playground is situated to the north of the half basketball court; and
 - Gore Hill Oval is situated to the north-east of the change room building.
- Royal North Shore Public & Private Hospitals are situated to the north of Gore Hill Park.

3. SURROUNDING ROAD NETWORK

3.1 Road Network Function and Control

The following provides a description of the surrounding road network:

- **Pacific Highway** performs a State Road function under the care and control of Roads & Maritime Services, providing a major inter-regional link between the city of Sydney in New South Wales and the city of Brisbane in Queensland. Within the context of Sydney, Pacific Highway provides a connection between Hornsby in the north and North Sydney in the south.

Pacific Highway, in the vicinity of the subject site, primarily provides three lanes in each direction, separated by a raised concrete central median. Pavement widening is provided on approach to major junctions to facilitate exclusive turning lanes.

Clearway parking restrictions apply along the eastbound kerb-side travel lane during the morning peak period (6:00am – 10:00am) on weekdays to facilitate three unobstructed traffic lanes. Notwithstanding this, the eastbound kerb-side lane forms a T3 transit lane during the morning weekday commuter peak period. Further, the provision of regular bus stops ensure that eastbound kerb-side travel lane vehicle volumes are significantly reduced compared with the adjacent centre and median travel lanes. Kerb-side parking is accommodated within the eastbound kerb-side travel lane outside of weekday morning commuter periods, being governed by a combination of two and four hour ticket restrictions between 10:00am – 6:00pm weekdays and between 8:30am – 12:30pm on Saturdays.

Pacific Highway forms a T-junction with Greenwich Road approximately 150m to the west of the subject, operating under traffic signal control. Unrestricted turning movements are facilitated at this junction, with Greenwich Road access movements being assisted by exclusive left and right turning lanes within the westbound and eastbound Highway carriageways, respectively.

Pacific Highway forms a cross intersection with Reserve Road and Berry Road approximately 200m to the east of the subject site, operating under traffic signal control. Unrestricted turning movements are facilitated at this intersection, with Reserve Road and Berry Road access movements being assisted by the provision of opposing exclusive right turn lanes within both highway carriageways.

The westbound Pacific Highway carriageway also forms T-junctions with a series of low order local access roads within the subject precinct in Anglo Road, Portview Road, Park Road and Berry Lane operating under major / minor priority control with Pacific Highway forming the priority route in these instances.

Traffic flow on Pacific Highway within the vicinity of the site is governed by a sign posted speed limit of 60km/h.

- **Greenwich Road** performs a collector road function under the care and control of Lane Cove Council, facilitating connectivity between the Greenwich residential precinct to the south and Pacific Highway.

Greenwich Road in the vicinity of the site provides a varying pavement width of approximately 13m, generally facilitating one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. Kerb-side parking restrictions, however, apply in Greenwich Road on the approach to Pacific Highway to facilitate two approach and departure travel lanes.

Greenwich Road forms T-junctions with Bellevue Avenue and Anglo Road to the south-west of the site, operating under major / minor priority control with Greenwich Road forming the priority route in both instances.

Further south, Greenwich Road intersects with River Road operating under traffic signal control and allowing for all turning movements, excluding right turn movements from the eastern River Road approach.

Traffic flow within Greenwich Road is governed by a speed limit of 50km/h, consistent with State Government Policy for local residential roads.

- **Reserve Road** performs an access function to the hospital precinct situated to the north of Gore Hill Park, comprising Royal North Shore Private and Public Hospitals. Reserve Road forms a 13m wide pavement, generally providing one through lane of traffic in each direction in conjunction with kerb-side parking along the eastern kerb alignment. Kerb-side parking restrictions apply on approach to Pacific Highway to facilitate two southbound approach lanes to the signalised intersection.

Reserve Road intersects with a series of hospital precinct access roads approximately 200m north of Pacific Highway, under single lane circulating roundabout control, providing a convenient turnaround facility.

- **Berry Road** performs an access function between Pacific Highway and the commercial precinct immediately to the south of the highway and the residential precinct further to the south. Berry Road forms a 13m wide pavement, generally providing one through lane of traffic in each direction in conjunction with kerb-side parking along both alignments. Kerb-side parking restrictions apply on the approach to Pacific Highway to facilitate two northbound approach lanes to the signalised intersection.

3.2 Existing Traffic Demands and Operation

This Practice commissioned the undertaking of morning and afternoon peak period traffic surveys of the following junctions during the original application assessment in order to accurately ascertain existing traffic demands within the immediate precinct:

- The junction of Pacific Highway and Greenwich Road;

- The junction of Pacific Highway and the Council owned car park driveway; and
- The intersection of Pacific Highway, Reserve Road and Berry Road.

Surveys were undertaken between 7:00am – 9:30am and 2:30pm – 6:00pm on the 7th of May 2019 in order to capture the peak operational periods of the school.

Table 1 below provides a summary of the surveyed peak hour (8:00am -9:00am and 2:30pm – 3:30pm) traffic demands throughout the surrounding public road network. Whilst it is acknowledged that the abovementioned afternoon peak hour period does not align with the commuter peak, it has been assessed as it aligns with the school finish period.

TABLE 1 EXISTING MORNING AND AFTERNOON PEAK HOUR TRAFFIC VOLUMES						
Road	AM Peak Hour			PM Peak Hour		
	North / East	South / West	Total	North / East	South / West	Total
Pacific Highway						
West of Greenwich Road	1507	1266	2773	1015	1307	2322
East of Greenwich Road	1799	1305	3104	1083	1414	2497
West of Council Car Park Access	1830	1489	3319	1034	1371	2405
East of Council Car Park Access	1829	1489	3318	1027	1371	2398
West of Reserve Road	1778	1440	3218	1094	1273	2367
East of Reserve Road	1809	1579	3388	1204	1312	2516
Greenwich Road						
South of Pacific Highway	669	416	1085	357	396	753
Car Park Access						
North of Pacific Highway	4	3	7	12	5	17
Reserve Road						
North of Pacific Highway	266	157	423	156	223	379
Berry Road						
South of Pacific Highway	147	146	293	141	137	278

Table 1 indicates the following approximate peak hour traffic demands:

- Pacific Highway accommodates:
 - Two directional demands of between 2,700 – 3,400 vehicles during the morning peak hour; and
 - Two directional demands of between 2,300 – 2,500 vehicles during the afternoon peak hour.
- Greenwich Road accommodates:
 - Two directional demands of approximately 1,100 vehicles during the morning and peak hour; and
 - Two directional demands of approximately 750 vehicles during the afternoon and peak hour.

- Reserve Road accommodates:
 - Two directional demands of up between 380 – 420 vehicles during both the morning and afternoon peak hours.
- Berry Road accommodates:
 - Two directional demands of between 275 - 300 vehicles during both the morning and afternoon peak hours.
- The Council car park access road accommodates less than 20 vehicles per hour during the morning and afternoon peak hours.

5.3 Existing Road Network Operation

The surveyed public road junctions have been analysed utilising the SIDRA computer intersection analysis program in order to objectively assess the operation of the nearby public road network.

SIDRA is a computerised traffic arrangement program which, when volume and geometrical configurations of an intersection are imputed, provides an objective assessment of the operation efficiency under varying types of control (i.e. signs, signal and roundabouts). Key indicators of SIDRA include level of service where results are placed on a continuum from A to F, with A providing the greatest intersection efficiency and therefore being the most desirable by the Roads and Maritime Services.

SIDRA uses detailed analytical traffic models coupled with an iterative approximation method to provide estimates of the abovementioned key indicators of capacity and performance statistics. Other key indicators provided by SIDRA are average vehicle delay, the number of stops per hour and the degree of saturation. Degree of saturation is the ratio of the arrival rate of vehicles to the capacity of the approach. Degree of saturation is a useful and professionally accepted measure of intersection performance.

SIDRA provides analysis of the operating conditions that can be compared to the performance criteria set out in **Table 2** overleaf (being the TfNSW method of calculation of Level of Service).

TABLE 2		
LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS		
Level of Service	Average Delay per Vehicle (secs/veh)	Expected Delay
SIGNALISED INTERSECTIONS AND ROUNDABOUTS		
A	Less than 14	Little or no delay
B	15 to 28	Minimal delay and spare capacity
C	29 to 42	Satisfactory delays with spare capacity
D	43 to 56	Satisfactory but near capacity
E	57 to 70	At capacity, incidents will cause excessive delays
F	> 70	Extreme delay, unsatisfactory
PRIORITY CONTROLLED INTERSECTIONS		
A	Less than 14	Good
B	15 to 28	Acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Near capacity
E	57 to 70	At capacity and requires other control mode
F	> 70	Unsatisfactory and requires other control mode

The existing conditions have been modelled utilising the peak hour traffic volumes presented within **Table 1**.

Table 3 below provides a summary of the SIDRA output data.

TABLE 3		
SIDRA OUTPUT		
EXISTING WEEKDAY PEAK HOUR PERFORMANCE		
	AM	PM
Pacific Highway & Greenwich Road		
Delay	25.3	18.9
Degree of Saturation	0.65	0.56
Level of Service	B	B
Pacific Highway & Council Car Park Access Road		
Delay	8.2	5.8
Degree of Saturation	0.32	0.25
Level of Service	A	A
Pacific Highway, Reserve Road & Berry Road		
Delay	25.1	26.5
Degree of Saturation	0.77	0.47
Level of Service	B	B

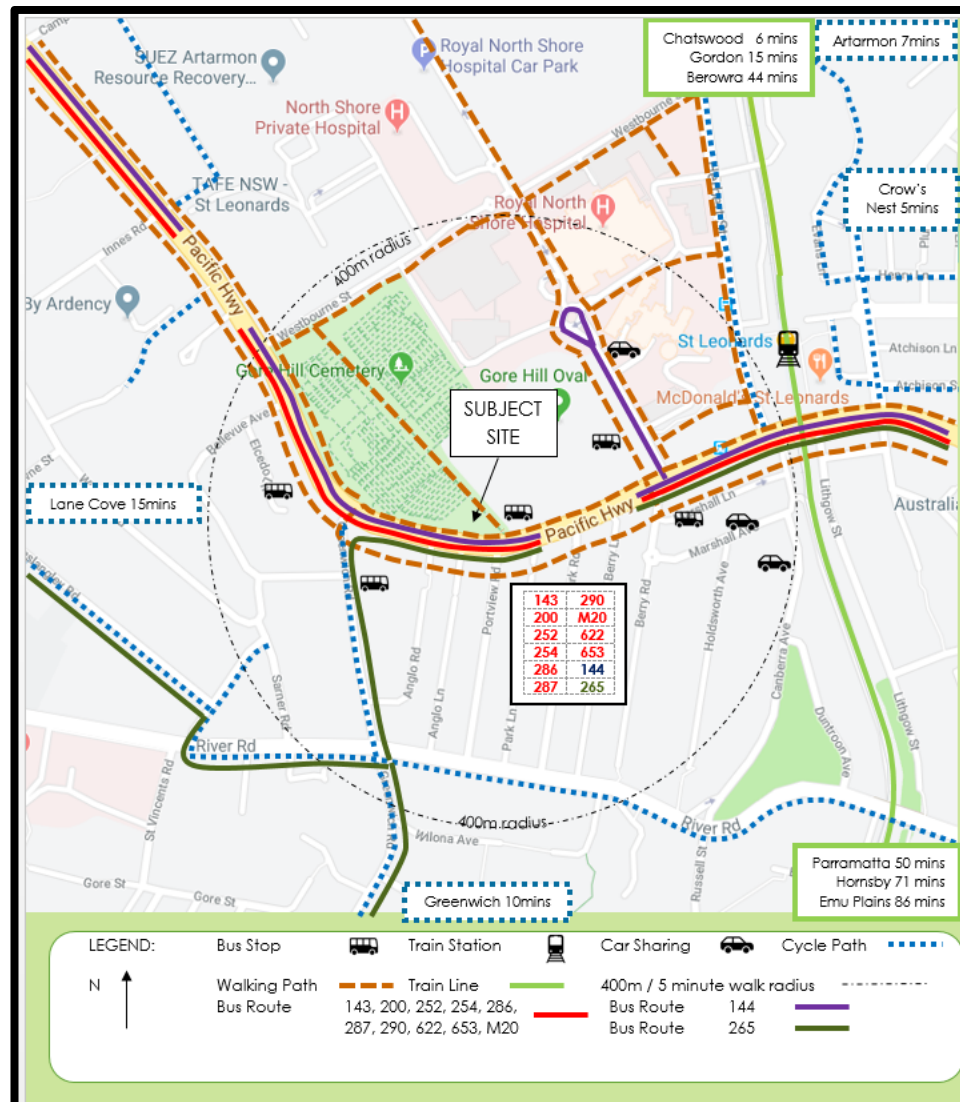
Table 3 indicates that the immediately surrounding public road intersections provide a level of service of A or B during peak commuter periods, representing good operation with spare capacity.

3.4 Existing Transport Provision

The subject site is well serviced by a series of sustainable (or active) transport options available for future school staff, parents and students. **Figure 3** overleaf illustrates the sustainable transport options within easy walking distance of the subject site.

Subsequent sub-sections of this report provide a detailed description of each of the surrounding sustainable transport options.

FIGURE 3
TRANSPORT OPTIONS IN THE VICINITY OF THE SUBJECT SITE



3.4.1 Heavy Rail

The site is located approximately 400m to the south-west of St Leonards Station. St Leonards Station provides access to train services which operate along the T1 (North Shore, Northern & Western) Line.

Services provide a peak weekday commuter period frequency of less than 10 minutes, extending to 15 minutes during other periods. Travel time to Central is approximately 20 minutes whilst travel time to Berowra is approximately 45 minutes.

Services along the T1 Line provide efficient connectivity to the remainder of the Sydney metropolitan rail network via interchanges at the Hornsby, City, Redfern, Strathfield, Lidcombe, Clyde, Granville and Blacktown.

3.4.2 Bus

The following bus stops are located within a five-minute walk (400m) from the centre of the site:

- A stop is located on the northern side of Pacific Highway approximately 150m walking distance to the east of the site;
- A stop is located on the western side of Reserve Road approximately 300m walking distance to north-east of the site;
- A stop is located on the southern side of Pacific Highway approximately 350m to the east of the site;
- A stop is located on the eastern side of Pacific Highway approximately 250m walking distance to the north-west of the site;
- A stop is located on the western side of Pacific Highway approximately 270m walking distance to the north-west of the site.

All stops within Pacific Highway service the following routes:

- Route 143 – Manly to Chatswood via Balgowlah & St Leonards;
- Route 144 – Chatswood to Manly via Royal North Shore Hospital;
- Route 252 – Gladesville to City King Street Wharf via North Sydney;
- Route 254 – McMahons Point to Riverview;
- Route 286 – Milsons Point to Denistone East via North Sydney & St Leonards;
- Route 287 – Ryde to Milsons Point via St Leonards & North Sydney;
- Route 290 – Epping to City Erskine St via Macquarie University & North Sydney;
- Route M20 – Botany to Gore Hill;

The stop within Reserve Road also services Route 144.

The stops within Greenwich Road Pacific Highway to the east of the site also service Route 265 between North Sydney and Lane Cove, via Greenwich.

The stop on the southern side of Pacific Highway to the east of the site also service the following routes:

- Route 200 – Bondi Junction to Chatswood;
- Route 622 – Dural to Milsons Point;
- Route 653 – West Pennant Hills to Milsons Point.

Table 4 below provides a summary of the frequencies of the above bus routes.

TABLE 4 BUS SERVICE FREQUENCIES				
Route No.	Origin / Destination	Frequency		
		Weekday Peak	Weekday Business	Weekend
143	Manly / Chatswood	15-30 mins	-	-
144	Manly / Chatswood	5-15 mins	15 mins	15 mins
200	Bondi Junction / Chatswood	20 mins	-	-
252	Gladesville / City	20 mins	30 mins	30 mins
254	McMahons Pt / Riverview	20 mins	60 mins	60 mins
286	Denistone East / Milsons Pt	30 mins	-	-
287	Ryde / Milson Pt	30 mins	-	-
290	Epping / City	60 mins	-	-
622	Dural / Milsons Pt	30 mins	-	-
653	West Pennant Hills / Milsons Pt	30 mins	-	-
M20	Botany / Gore Hill	10 mins	15 mins	20 mins

Figure 1 illustrates the range of services and stop locations within a five minute walk from the site.

3.4.3 Pedestrians

The following pedestrian access and mobility infrastructure surrounds the subject site:

- Footpaths are provided on both sides of Pacific Highway adjacent to the site;
- Signalised pedestrian crossings are provided over the northern, southern and western approaches of the intersection of Pacific Highway, Berry Road and Reserve Road to the north-east of the site;
- Signalised pedestrian crossings are provided over the southern and western approaches of the intersection of Pacific Highway and Greenwich Road to the west of the site; and
- A path is provided along The Avenue between Pacific Highway and Westbourne Street.

Figure 3 illustrates the pedestrian infrastructure within the immediate vicinity of the site.

3.4.4 Cycle Routes

Figure 3 provides a graphical representation of on and off-road cycleways within the immediate vicinity of the subject site, as follows:

- Herbert Street, Broadcast Way, Greenwich Road, River Road (east of Greenwich Road), Herbert Street, Christie Street and Atchison Street provide on-road cycle routes; and
- Off-road cycle paths are provided on River Road (to the west of Greenwich Road), Morven Gardens and a short section of Pacific Highway to the north of Broadcast Way.

3.4.5 Car Share

Car Share is a concept by which members join a car ownership club, select a rate plan and pay an annual fee. The fees cover fuel, insurances, maintenance and cleaning. The vehicles range from small hatchbacks to vans. Each vehicle has a home location, referred to as a 'pod', either in a public street, private road or off-street parking area. The number of pods within a particular area vary depending on the density of the population. Members reserve a vehicle by internet or telephone and use a key card to access and operate the vehicle.

Studies into car share use have reported that car share spaces replace a significant number (up to 12) of car parking spaces, depending on the location and surrounding community density. Car share spaces should therefore reduce the parking demand within and adjoining the site but also the traffic generated.

The GoGet car club has three pods located within five minutes walking distance of the site, and significantly more within a 10-minute walk. **Figure 3** provides a graphical illustration of the car share pods within the vicinity of the site.

4. APPROVED DEVELOPMENT

Development Consent (SSD 10260) was granted by Department of Planning, Industry & Environment on 16 July 2020 for the use of an existing building within 211 Pacific Highway, St Leonards for a bilingual International Chinese School.

Stage 1 of the approved works has been completed at the time of writing this report, comprising an internal fit-out of the building to facilitate the accommodation of a limited school student capacity of 63 students and providing the necessary internal infrastructure for the school's operation.

Stage 2 of the approved works, comprises the following:

- The establishment of a new formal one-way northbound roadway within The Avenue adjacent to the north-eastern boundary accommodating:
 - A student set-down / pick-up area, capable of accommodating up to five passenger vehicles in a queued arrangement at any one time; and
 - An adjacent northbound travel lane facilitating connectivity to the basement car parking area.
- Construction of a new 25m long one-way roadway facilitating ingress movements between the Council car park and The Avenue (containing the abovementioned school access roadway).
- Minor modifications / widening of the existing roadway connecting The Avenue to the northern extent of the existing Council car park (which is to provide an egress only function from the abovementioned school access roadway).
- Minor modifications to the existing Council car parking area in order to facilitate the reinstatement of parking spaces lost associated with provision of vehicular access to / from The Avenue.

At the time of writing of this report it is understood that Stage 1 of the approved works have been completed whereby the school is currently operational. This Plan will accordingly dictate Stage 2 construction works around the ongoing operation of the school.

It is acknowledged that following the Stage 2 works, Stage 3 comprising the construction of a deceleration lane and associated works within Pacific Highway will be undertaken. This Plan however solely addresses the Stage 2 construction works. It is acknowledged that this Plan will need to be updated prior to the commencement of Stage 3 of the construction works in accordance with Condition of Consent No. C24 of Development Consent (SSD 10260).

5. SITE MANAGEMENT

The following sub-sections of this Plan provide a summary of the proposed works area and associated traffic and pedestrian management during the various construction stages.

5.1 Council Car Park Works

No external construction works are proposed to occur within the surrounding public road reserve. Notwithstanding this, the temporary occupation of portions of Council's car parking area is required to facilitate ingress / egress movements of construction vehicles to and from the works area within The Avenue. These works comprise the following:

- Construction of a new 25m long one-way roadway facilitating ingress movements between the Council car park and The Avenue.
- Minor modifications / widening of the existing roadway connecting The Avenue to the northern extent of the existing Council car park (which is to provide an egress only function from the abovementioned school access roadway).
- Minor modifications to the existing Council car parking area in order to facilitate the reinstatement of parking spaces lost associated with provision of vehicular access to / from The Avenue.

During the abovementioned works within the Council car parking area, heavy vehicles associated with the construction works are to be accommodated within The Avenue. Notwithstanding the above, the current operation of the school is such that a portion of The Avenue is to remain accessible during weekday construction works servicing staff and student travel to and from the school. It is understood that all students enrolled at the school are to travel to and from the site solely by bus whilst school staff members are to utilise the on-site car parking area.

In consideration of the above, the existing roadway connecting The Avenue to the northern extent of the Council Car park is to remain accessible. Construction fencing is accordingly proposed to define the remainder of The Avenue proposed to accommodate construction works, thereby separating the construction area from road users travelling to site and / or the Council car parking area. Construction gates are to be provided within the fencing to facilitate the movement of construction vehicles between the construction area and the Council car parking area.

Further to the above, pedestrian movements within The Avenue are to be maintained via the provision of a minimum 1.5m footway between the works area and the school curtilage, being protected from construction works via the provision of the abovementioned construction fencing.

During the works within the Council car parking area, vehicles up to and including 8.8m long Medium Rigid Vehicles (MRVs) will initially access the subject precinct via a forward left turn movement from the eastbound Pacific Highway carriageway, utilising an existing access driveway situated to the east of the works area to connect with the Council owned car parking area. Upon accessing the council car parking area, construction vehicles will thence access the works area within The Avenue (to be defined by construction fencing) via a further forward left turn movement from the car parking area prior to undertaking a reverse movement and occupying a position within The Avenue to undertake loading / unloading activities.

Upon completion of loading / unloading activities within The Avenue, the construction vehicles will thence exit the works area via forward right turn movement, connecting back to the south-eastern end of Council car parking area.

All construction vehicle ingress / egress movements between the Council car parking area and the Avenue are to strictly occur under the supervision of appropriately qualified traffic controllers.

The abovementioned construction access / egress movements will impact the ultimate parking yield within the Council car parking area.

A series of swept path plans have been prepared to demonstrate the abovementioned construction vehicle manoeuvring to, within and from the works area, copies of which are attached within **Appendix 1** for reference.

A Traffic Control Plan for the abovementioned supervised works area access and egress movements, including long term signage has been provided advising motorists of the potential for turning trucks has been prepared, a copy of which is attached as **Appendix 2**. The signage is to be covered when the construction works area is not operational.

5.2 The Avenue Works

Following the construction works within the Council car park, the construction works within the Avenue will occur, whereby the current operation of the school is such that the works will be required to be partially staged, as discussed in the following subsections of this report.

5.2.1 Phase 1

Similar to that described within the Council car park works, the existing roadway connecting The Avenue to the northern extent of the Council Car park is to continue to remain accessible for staff to access the on-site parking area and for buses to drop off students. The remainder of The Avenue, defined by construction fencing, is to be upgraded during Phase 1 works.

During these works, vehicles up to and including 8.8m long Medium Rigid Vehicles (MRVs) will continue to access the subject precinct via a forward left turn movement from the eastbound Pacific Highway carriageway, utilising the existing access driveway situated to the east of the works area to connect with

the Council owned car parking area. Upon accessing the council car parking area, construction vehicles will thence access the works area within The Avenue via a further forward left turn movement from the car parking area prior to undertaking a reverse movement and occupying a position within The Avenue to undertake loading / unloading activities.

Upon completion of loading / unloading activities within The Avenue, the construction vehicles will thence exit the works area via forward right turn movement, connecting back to the eastern end of Council car parking area.

All construction vehicle ingress / egress movements between the Council car parking area and the Avenue are to strictly occur under the supervision of appropriately qualified traffic controllers.

The abovementioned construction access / egress movements will impact the ultimate parking yield within the Council car parking area.

A series of swept path plans have been prepared to demonstrate the abovementioned construction vehicle manoeuvring to, within and from the works area, copies of which are attached within **Appendix 3** for reference.

A Traffic Control Plan for the abovementioned supervised works area access and egress movements, including long term signage has been provided advising motorists of the potential for turning trucks has been prepared, a copy of which is attached as **Appendix 4**. The signage is to be covered when the construction works area is not operational.

Once again, pedestrians movements within The Avenue are to be maintained via the provision of a minimum 1.5m footway between the works area and the school curtilage, being protected from construction works via the provision of construction fencing. The abovementioned construction fencing is proposed to define all boundaries of the works area, also separating construction works and road users within the Council car parking area to the east. Construction gates are to be provided within the fencing to facilitate the movement of construction vehicles between the construction area and the Council car parking area.

5.2.2 Phase 2

Stage 2 of The Avenue works primarily involves minor modifications / widening of the existing roadway connecting the Avenue to the northern extent of the existing Council car park. The abovementioned works are proposed to be strictly undertaken during weekend periods only, outside of the school weekday operation hours.

During Phase 2 works, MRVs are to continue to access the subject precinct via a forward left turn movement from the eastbound Pacific Highway carriageway, utilising the existing access driveway situated to the east of the works area to connect with the Council owned car parking area. Upon accessing the council car parking area, construction vehicles will thence access The Avenue via a further forward left turn movement from the car parking area under the supervision of appropriately qualified traffic controllers.

Upon completion of any loading / unloading activities within The Avenue, the construction vehicles will thence continue in a forward direction, following the internal crescent shaped roadway to exit The Avenue and connect back to the north-western end of the Council car parking area. All construction vehicle egress movements from the works area are to continue to occur under the supervision of appropriately qualified traffic controllers.

The abovementioned construction access / egress movements will impact the ultimate parking yield within the Council car parking area.

A series of swept path plans have been prepared to demonstrate the abovementioned construction vehicle manoeuvring to, within and from the works area, copies of which are attached within **Appendix 5** for reference.

A Traffic Control Plan for the abovementioned supervised works area access and egress movements, including long term signage has been provided advising motorists of the potential for turning trucks has been prepared, a copy of which is attached as **Appendix 6**. The signage is to be covered when the construction works area is not operational.

Again, pedestrian movements within The Avenue are to be maintained via the provision of a minimum 1.5m footway between the works area and the school curtilage, being protected from construction works via the provision of construction fencing. The abovementioned construction fencing is proposed to define all boundaries of the works area, also separating construction works and road users within the Council car parking area to the east. Construction gates are to be provided within the fencing to facilitate the movement of construction vehicles between the construction area and the Council car parking area.

5.3 Parking Control

This Practice prepared a Construction Worker Transportation Strategy dated August 2020 aimed to provide details for the management of the parking and travel of construction works associated with the construction activities of Stage 1 of the development. The key strategies discussed within the abovementioned report are proposed to continue to be employed, slightly varying with respect to Stage 2 of the works, as follows:

- The low number of construction personnel associated with Stage 2 of the construction works is such that all construction personnel passenger vehicles are to be wholly within the works area defined within The Avenue;
- Construction workers / tradespersons are encouraged to utilise the available public transport options outlined within Section 4.2 of this document to access and depart the works area;
- Construction workers / tradespersons are to be provided with the Transport Access Guide contained within **Appendix 7** illustrating surrounding connectivity to walking and cycling routes as well as bus, train and car share pods;

- Construction workers / tradespersons are encouraged to carpool with others when possible and implement carpooling groups / incentives to increase the likelihood of carpooling; and
- Storage for construction / tradespersons equipment and materials is be allocated at a secure location within the works area (or within the school building) in order to allow and encourage the use of carpooling and public transportation as a viable way to travel to works area.

The above transport options will form part of the conditions of commissioning when engaging the relevant constructions workers and as such form part of any induction process.

Construction employee / tradesperson passenger vehicle parking is therefore not envisaged to result in any unreasonable impacts on surrounding public parking amenity.

5.4 Hours of Operation

Construction works are to occur as follows in accordance with Condition of Consent No. D4 of SSD 10260:

- Between 7:00am – 6:00pm Monday to Friday inclusive; and
- Between 8:00am – 1:00pm Saturdays.

No work may be carried out on Sundays or public holidays.

5.5 On-Site Contact

The following provides details of the on-site contact in who has authority without reference to other persons to comply with instructions issued by Council's Traffic Engineer, TfNSW or the Police:

Name: Peter Calf
Company: PMDL
Title: Architect
Ph: 0404 095 153
Email: pcalf@pmdl.com.au

6. SAFE INGRESS / EGRESS OF CONSTRUCTION TRAFFIC

6.1 Construction Vehicle Classification

Vehicles up to and including 8.8m long Medium Rigid Vehicles will service the works area throughout the Stage 2 construction works.

6.2 Construction Vehicle Access / Egress Management

Construction vehicles will initially access the subject precinct via a forward left turn movement from the eastbound Pacific Highway carriageway connecting with the adjacent Council car parking area via an existing driveway situated to the east of the works area. Upon accessing the council car parking area, construction vehicles will thence access the works area via a further forward left turn movement from the car parking area under the supervision of appropriately qualified traffic controllers.

During the Council car park works and Phase 1 of The Avenue works, construction vehicles upon accessing the works area will undertake a reverse movement and occupy a position wholly within The Avenue to undertake loading / unloading activities.

Upon completion of loading / unloading activities within The Avenue, the construction vehicles will thence exit the works area via forward right turn movement, connecting back to the eastern end of Council car parking area.

During Phase 2 of The Avenue works, construction vehicles will access The Avenue via a forward left turn movement from the car parking area. Upon completion of any loading / unloading activities, construction vehicles will thence continue in a forward direction, following the internal crescent shaped roadway to exit The Avenue and connect back to the north-western end of the Council car parking area.

A series of swept path plans have been prepared to demonstrate the abovementioned construction vehicle manoeuvring to, within and from the staged construction areas, copies of which are attached within **Appendices 1, 3 and 5** for reference.

Traffic Control Plans for the abovementioned staged supervised access and egress movements, including long term signage to be provided advising approaching motorists of the potential for turning trucks has been prepared, a copy of which is attached as **Appendices 2,4 and 6**. This signage is to be covered when the construction area is not operational.

Further to the above large construction vehicles, construction employee / tradesperson passenger vehicles are to be accommodated within the works area during all stages of the construction works. Access / egress associated with this passenger vehicle parking function is also to occur via the connection to the Council owned car parking area, with all access / egress movements occurring in a forward direction.

6.4 Construction Vehicle Transport Routes

Construction vehicles are anticipated to utilise the Pacific Highway to access and depart the subject works area. The subject works area is in close proximity to the Pacific Highway and connecting arterial roads, which have been designed to and is capable of accommodating heavy construction vehicles required to service the works area.

The following provides a summary of the construction vehicle transit route to be utilised during development construction works:

Inbound Route

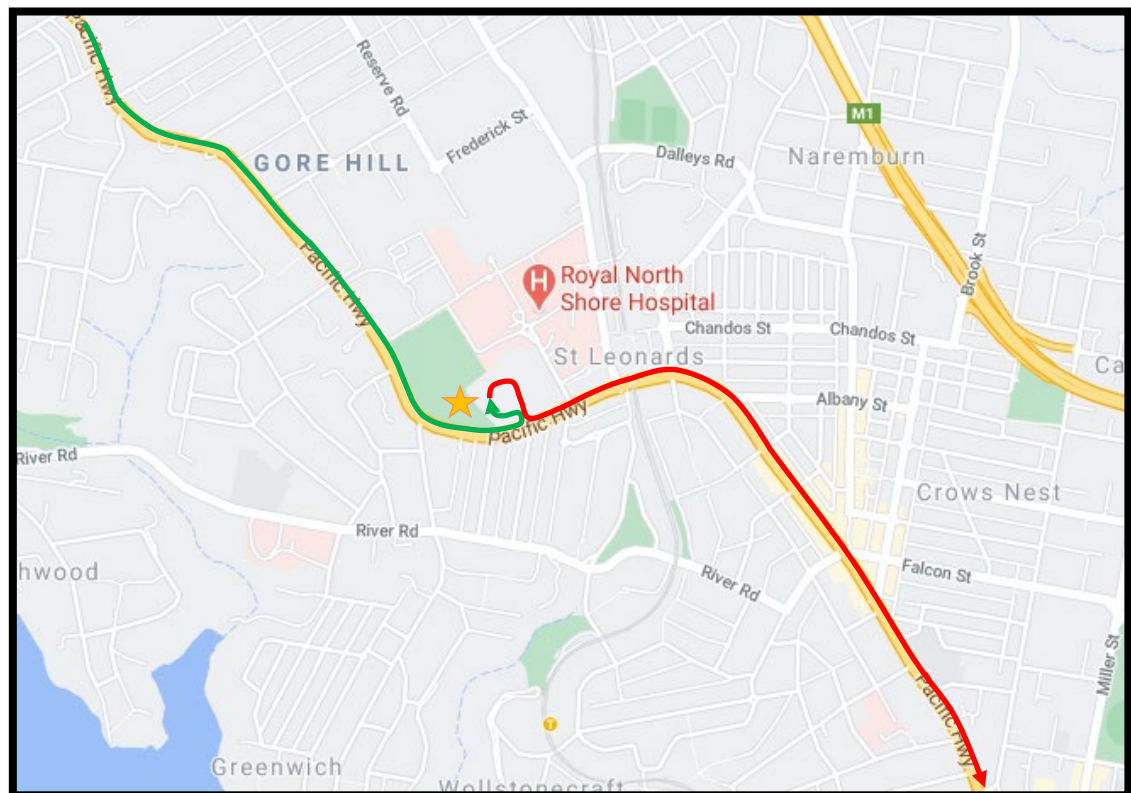
- Pacific Highway, left turn to the Council car parking area and thence a forward left turn into The Avenue.

Outbound Route

- Forward right turn movement from The Avenue to the Council car parking area and thence a forward left turn movement back to the eastbound Pacific Highway carriageway.

A map illustrating the abovementioned transit routes is provided overleaf as **Figure 4**, a copy of which is to be supplied to all construction personnel and drivers.

FIGURE 4
CONSTRUCTION VEHICLE TRANSIT ROUTE MAP



6.5 Discussion on Transit Routes

The proximity of the works area to the adjoining State Road network is such that construction vehicles are able to access and depart the precinct creating little to no disturbance to surrounding local road traffic flow or abutting residential amenity. The pavement width of the transit routes are such that heavy vehicle manoeuvring is able to occur without any unreasonable encroachment on opposing travel lanes, kerbs and / or parking lanes.

7. PROJECT STAGING - TRAFFIC GENERATION

7.1 Construction Staging

Consultation with the developer in conjunction has indicated that the Stage 2 works are anticipated to be predominantly completed over a six-week time frame, as follows

- Phase 1 – Council Car Park Works – 2 weeks; and
- Phase 2 – The Avenue Works - 4 weeks.

7.2 Construction Traffic Generation

The following provides a summary of the likely construction vehicle traffic generation of the proposed works during these phases:

- **Phase 1 – Council Car Park Works**
Time period – 2 weeks
Total traffic generation – 20 truck loads
Average weekly traffic generation – 10 truck loads
Maximum hourly traffic generation – 1 truck load
- **Phase 2 – The Avenue Works**
Time period – 4 weeks
Total traffic generation – 40 truck loads
Average weekly traffic generation – 10 truck loads
Maximum hourly traffic generation – 1 truck load

It is acknowledged that during the various stages of construction, varying types of vehicles will access the works area ranging from MRVs to employee passenger vehicles. Further, it is anticipated that there will occasionally be an overlap of one or more of the above phases with a combination of the above phase traffic generation travelling to and from the works area during any one particular day or period. The above stage traffic generation summary indicates that the construction works are projected to generate an average of up to one heavy vehicle per hour; that is one ingress movement and one egress movement.

During periods of more heavy construction vehicle generation when it could be expected that the construction work could generate up to two trucks in any given hour, drivers will be instructed by radio when to arrive at the works area to ensure that there is no vehicle queuing or parking within either the Council car park or the surrounding local road network. This is to be strictly adhered.

8. IMPACTS ASSESSMENT

8.1 Traffic Impact

Recent observations have indicated that traffic demands within the surrounding state road network and connecting collector roads are considerable during peak periods. Traffic demands outside of weekday commuter peak periods are however significantly reduced providing notable additional capacity to accommodate additional demands. In this regard, in order to minimise the potential impact of construction vehicle movements to and from the works area on adjoining public road traffic flows, it is proposed that construction vehicle movements be minimised during commuter peaks (7:00am – 9:00am and 4:00pm – 6:00pm) as much as is practicable.

Pacific Highway eastbound carriageway immediately adjacent to the works area provides three lanes, being separated from the westbound carriageway by a raised concrete central median. Clearway parking restrictions apply along the eastbound kerb-side travel lane during the morning peak period (6:00am – 10:00am) on weekdays to facilitate three unobstructed traffic lanes. Notwithstanding this, the eastbound kerb-side lane forms a T3 transit lane during the morning weekday commuter peak period. Further, the provision of regular bus stops to the east and west of the works area ensure that eastbound kerb-side travel lane vehicle volumes are significantly reduced compared with the adjacent centre and median travel lanes. Kerb-side parking is accommodated within the eastbound kerb-side travel lane outside of weekday morning commuter periods, being governed by a combination of two and four hour ticket restrictions between 10:00am – 6:00pm weekdays and between 8:30am – 12:30pm on Saturdays. A break in the abovementioned kerb-side parking and indeed, the provision of bus stops to the east and west of the works area therefore facilitate a pseudo deceleration lane on approach to the existing Council car park access road.

The significantly reduced demands within the kerb-side travel lane, in conjunction with the low projected traffic generating ability of the construction works are such that the impacts on trailing public road traffic flow is anticipated to be negligible.

Egress movements from the Council car park to Pacific Highway are expected to be significantly assisted by the punctuation of eastbound Highway traffic demands associated with the operation of traffic signals to the west at Greenwich Road. These signals provide for regular and extended gaps in eastbound Highway traffic flow allowing motorists to exit the Council car park access driveway with a reasonable level of efficiency.

The previously presented traffic generation summary indicates that the construction works are projected to generally generate up to two heavy vehicles per hour. Such an additional traffic load, equating to one heavy vehicle every 30 minutes during peak times, is not anticipated to have an unreasonable impact on the safety and efficiency of the adjoining road network.

8.2 Impacts on Pedestrians

Pedestrian demands adjacent to the works area within The Avenue have been observed to be low. Notwithstanding the above, pedestrian movements adjacent to the works area are expected to continue in an unimpeded fashion during all periods of the development construction works, being facilitated via the provision of a minimum 1.5m footway within The Avenue. Further to the above, pedestrian movements within the Council owned car parking area are to be assisted by appropriately qualified traffic controllers. Further, pedestrian movements along Pacific Highway are not proposed to be impacted.

Boundary fencing will protect pedestrians from dust and debris.

No unreasonable impacts on the safety or mobility of pedestrians are therefore anticipated during the construction works associated with the subject development.

9. SUMMARY AND CERTIFICATION STATEMENT

This Construction Traffic & Pedestrian Management Plan provides a description of the traffic and pedestrian management measures to be incorporated during Stage 2 construction works of an approved primary school at 211 Pacific Highway, St Leonards. Having regard to this Plan, the following summary is provided:

- Development Consent (SSD 10260) was granted by Department of Planning, Industry & Environment on 16 July 2020 for the use of an existing building within 211 Pacific Highway, St Leonards for a bilingual International Chinese School;
- Stage 1 of the approved works has been completed at the time of writing this report, comprising an internal fit-out of the building to facilitate the accommodation of a limited school student capacity of 63 students and providing the necessary internal infrastructure for the school's operation.
- Stage 2 of the approved works involves the establishment of a new formal one-way northbound roadway within The Avenue to facilitate student set-down / pick-up, connecting to / from the adjacent Council car parking area;
- This Plan accordingly dictates the required staging of Stage 2 construction works around the ongoing operation of the school, as follows:

Council Car Parking Area Works

- Minor modifications to the existing Council car parking area in order to facilitate the reinstatement of parking spaces lost associated with provision of vehicular access to / from The Avenue.

The Avenue Upgrade Works

Phase 1

- Construction of a new 25m long one-way roadway facilitating ingress movements between the Council car park access road situated to the east of The Avenue and the abovementioned school access roadway.

Phase 2

- Minor modifications / widening of the existing roadway connecting The Avenue to the northern extent of the existing Council car park (which is to provide an egress only function from the abovementioned school access roadway).
- Construction vehicles, up to and including MRVs, are to be wholly accommodated within the established off-street construction area within The Avenue throughout all Stage 2 construction works;
- Construction vehicles will initially access the Council owned car parking area via a forward left turn movement from the eastbound Pacific Highway carriageway and thence access the works area via a further forward left turn movement under the supervision of appropriately qualified traffic controllers;

- During the works within the Council car parking area and phase 1 of The Avenue upgrade works, construction vehicles upon accessing the works area are to perform a reverse movement and occupy a position to undertake loading / unloading activities;
- Upon completion of loading / unloading activities within The Avenue, the construction vehicles will thence exit the works area via forward right turn movement, connecting back to the south-eastern end of Council car parking area;
- During phase 2 of The Avenue works, upon completion of any loading / unloading activities within The Avenue, the construction vehicles will instead continue in a forward direction, following the internal crescent shaped roadway to exit The Avenue and connect back to the north-western end of the Council car parking area;
- Swept path plans demonstrating the abovementioned construction vehicle movements between Pacific Highway and the construction area (via the Council car park) are contained within **Appendices 1, 3 and 5**;
- Traffic Control Plans for the abovementioned supervised works area access and egress movements, including long term signage to be provided advising motorists for the potential of trucks turning has been provided, a copy is attached as **Appendices 2,4 and 6**;
- Passenger vehicle parking associated with the construction works is to be accommodated within The Avenue works area at all times during the construction periods;
- The key strategies discussed within The Construction Worker Transportation Strategy prepared by this Practice in August 2020 in support of Stage 1 of the construction works are proposed to continue to be employed, adjusted accordingly with respect to Stage 2 of the works;
- Construction workers / tradespersons are to be provided with the Transport Access Guide contained within **Appendix 7** illustrating surrounding connectivity to walking and cycling routes as well as bus, train and car share pods;
- Construction transit routes are to be in accordance with that contained within Section 6.3 of this Plan, whereby routes are limited to State Roads;
- The construction works are to occur over approximately 6 weeks;
- The peak traffic generation of the construction works associated with the development is projected to be two heavy vehicles per hour; and
- The surrounding road network is considered to be suitably capable of accommodating the construction traffic generation, incorporating the traffic management measures proposed.

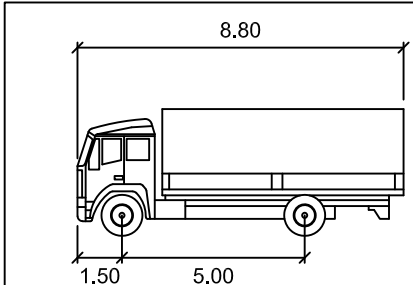
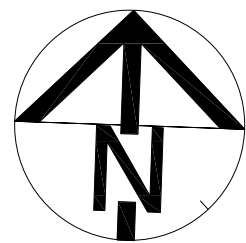
I certify that this traffic and pedestrian management measures proposed to be implemented by this Construction Traffic and Pedestrian Management Plan are appropriate to satisfy the local traffic and pedestrian demands associated with the Stage 2 construction works associated with the subject development.



Erick Garcia
Transport Planner & Road Safety Auditor
PWZTMP Card No. TCT0101445

1 March 2021

APPENDIX 1

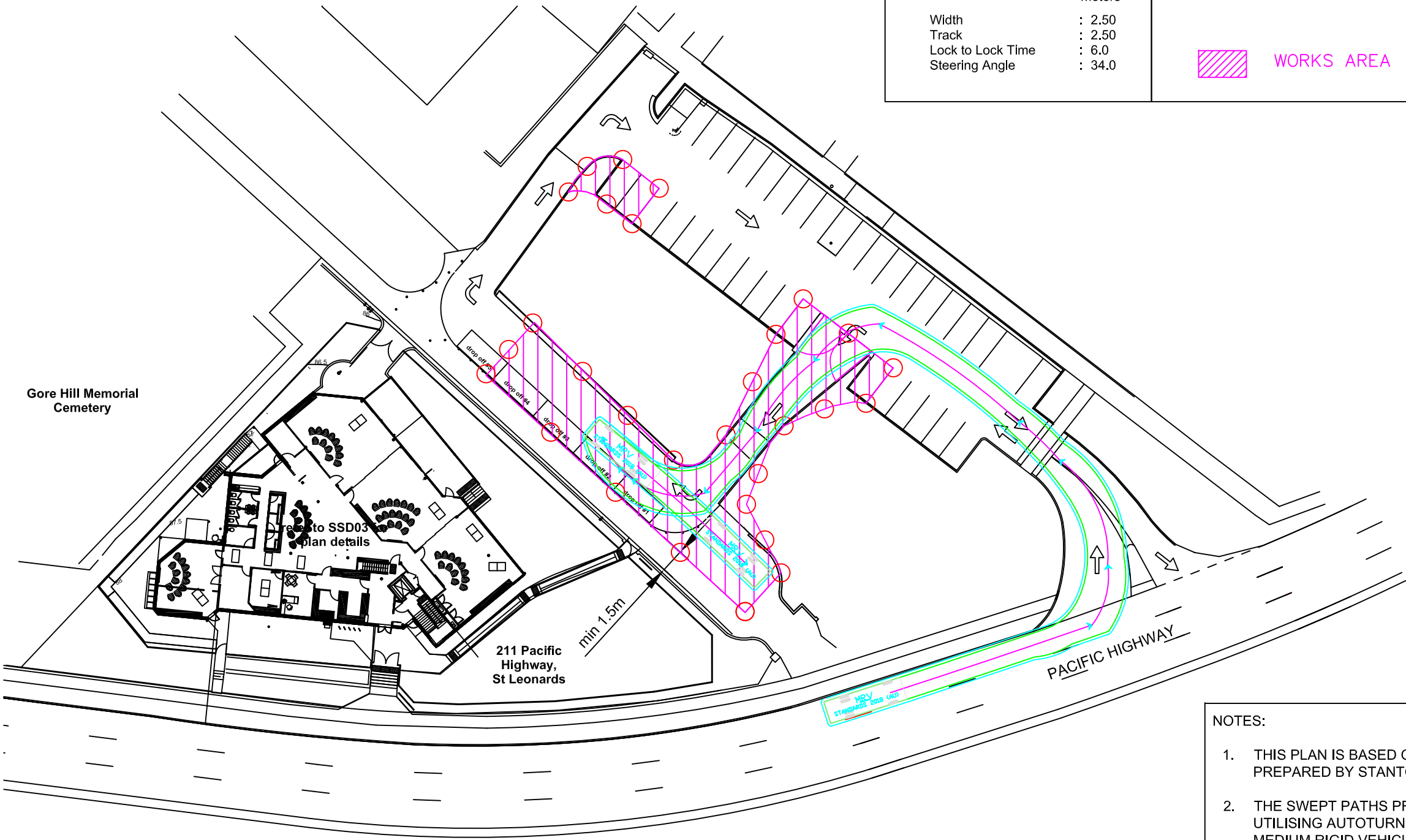


MRV

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Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

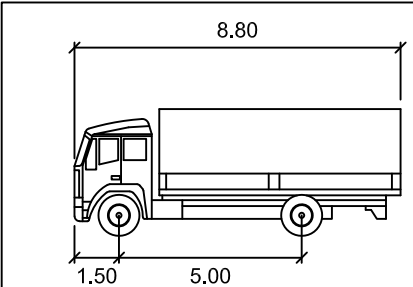
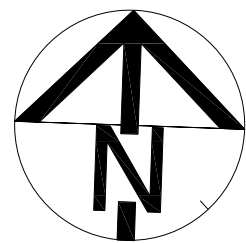
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- VEHICLE BODY PATH (INCLUDING OVERHANG)
- MANOEUVRING CLEARANCE (300mm)
- CONSTRUCTION FENCING
- WORKS AREA



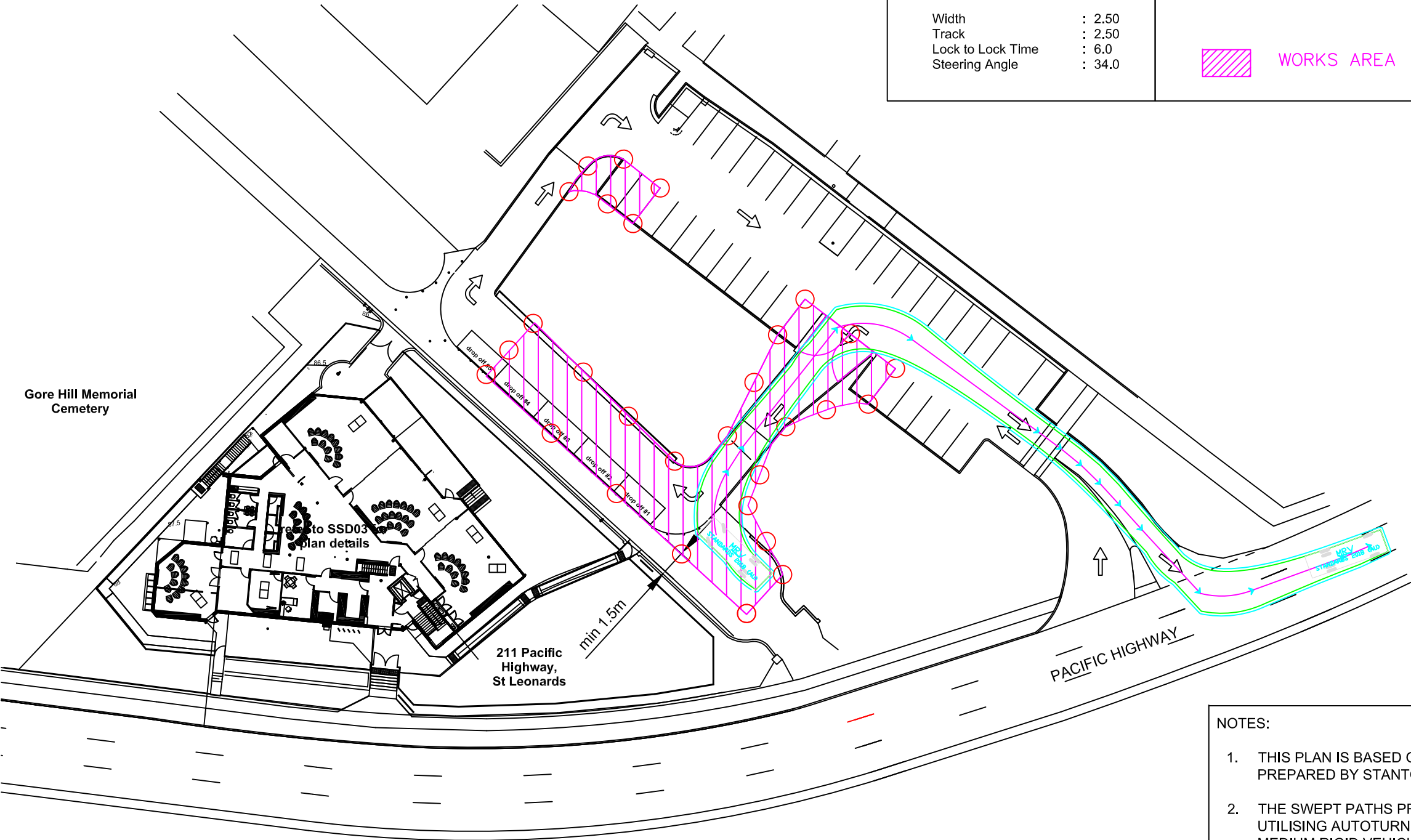
- NOTES:
- THIS PLAN IS BASED ON CONSTRUCTION CERTIFICATE PLANS PREPARED BY STANTON DAHL ARCHITECTS.
 - THE SWEEP PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 11 IN CONJUNCTION WITH MEDIUM RIGID VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD FOR PARKING FACILITIES PART 2: OFF-STREET COMMERCIAL VEHICLE FACILITIES (AS2890.2:2018).





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Lock to Lock Time	:	6.0
Steering Angle	:	34.0

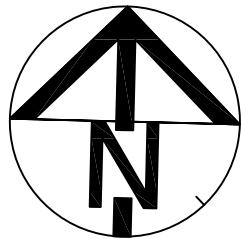
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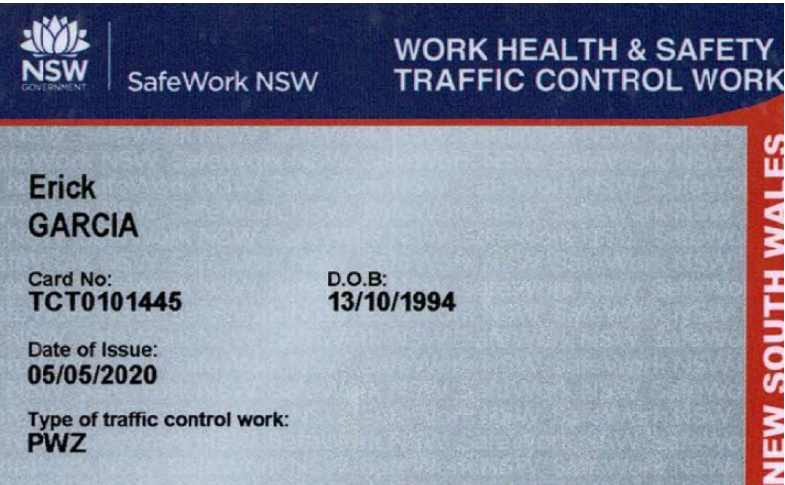
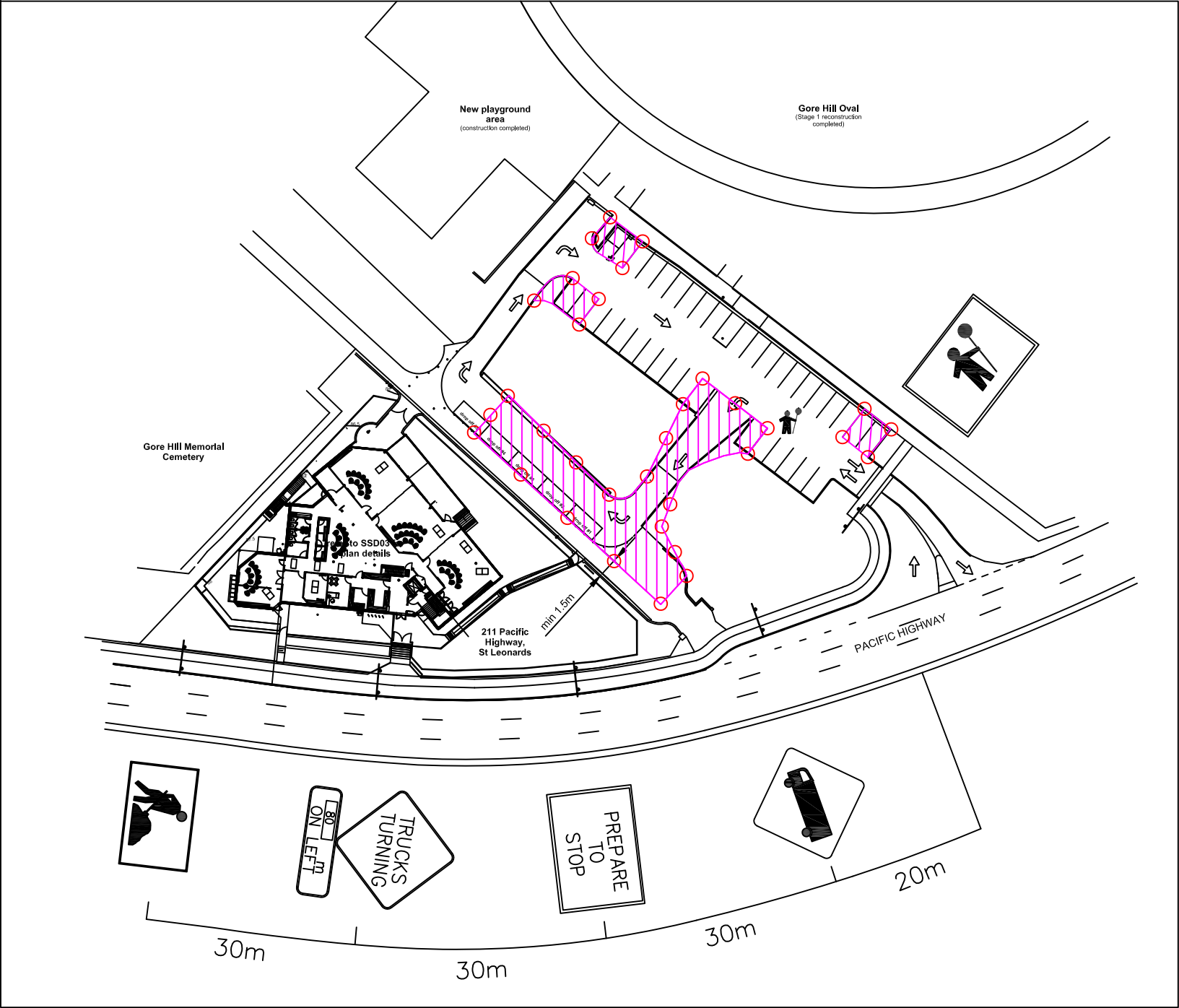
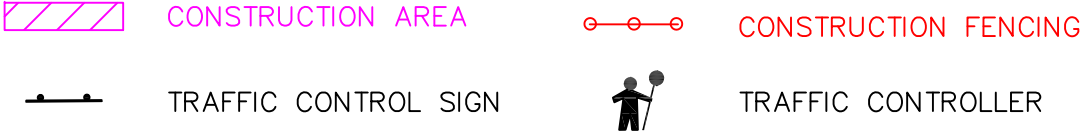


APPENDIX 2

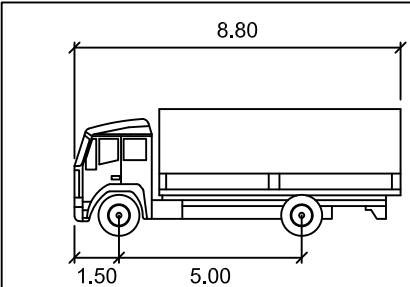
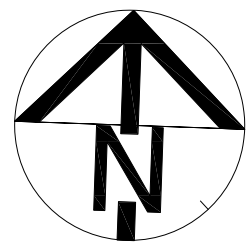


NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH AS1742.3:2009 AND IS BASED ON TNSW'S 'TRAFFIC CONTROL AT WORK SITES' MANUAL.
2. DAYS AND HOURS OF OPERATION ARE TO BE ADVISED.
3. ROAD WORK WARNING SIGNS TO BE DISPLAYED DURING WORK PERIODS ONLY (COVERED AT OTHER TIMES).
4. LOCATION OF TEMPORARY WARNING SIGNS IS APPROXIMATE, SUBJECT TO LOCATIONAL REQUIREMENTS. ACTUAL LOCATION TO BE DETERMINED ON SITE.
5. WORK INVOLVES THE UTILISATION OF TRAFFIC CONTROLLERS TO SUPERVISE THE FORWARD INGRESS / EGRESS MOVEMENTS OF CONSTRUCTION VEHICLES UP TO AND INCLUDING MEDIUM RIGID VEHICLES BETWEEN THE COUNCIL CAR PARKING AREA AND THE CONSTRUCTION SITE FOR STAGE 2 CONSTRUCTION WORKS WITHIN THE COUNCIL CAR PARKING AREA ASSOCIATED WITH AN APPROVED PRIMARY SCHOOL AT 211 PACIFIC HIGHWAY, ST LEONARDS.
6. THE WORKS INVOLVE MINOR MODIFICATIONS TO THE EXISTING COUNCIL CAR PARKING AREA, INCLUDING FACILITATING THE REINSTATEMENT OF PARKING SPACES LOST ASSOCIATED WITH THE PROPOSED PROVISION OF VEHICULAR ACCESS TO / FROM THE AVENUE.
7. ALL CONSTRUCTION VEHICLES ARE TO APPROACH THE SITE FROM THE WEST ALONG THE EASTBOUND PACIFIC HIGHWAY CARRIAGEWAY, CONTINUE WITHIN THE COUNCIL CAR PARKING AREA AND THENCE THE WORKS AREA / THE AVENUE, PRIOR TO UNDERTAKING A REVERSE MOVEMENT AND OCCUPYING A POSITION TO LOAD / UNLOAD.
8. ALL CONSTRUCTION VEHICLES ARE TO DEPART THE SITE VIA FORWARD MOVEMENT UNDER TRAFFIC CONTROL TO THE EAST ALONG PACIFIC HIGHWAY.
9. CONTROLLERS ARE TO DIRECT CONSTRUCTION VEHICLES TO EXIT THE SITE AND ACCESS LANE WITHIN GAPS IN PUBLIC ROAD TRAFFIC FLOW.
10. APPROPRIATE NUMBER OF TRAFFIC CONTROLLERS WILL BE REQUIRED FOR EACH LANE OF PUBLIC ROAD TRAFFIC FLOW TO BE GOVERNED IN CONJUNCTION WITH PEDESTRIAN ACTIVITY PAST THE CONSTRUCTION SITE.
11. NO CONSTRUCTION VEHICLES ARE TO QUEUE WITHIN ADJACENT PUBLIC ROAD NETWORK.
12. ALL VEHICLES ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES ARE TO BE PARKED AND WHOLLY CONTAINED WITHIN THE WORKS AREA
13. TRAFFIC CONTROLLERS ALSO REQUIRED TO GOVERN THE MOVEMENT OF PEDESTRIANS WITHIN AND ADJACENT TO THE COUNCIL CAR PARKING AREA / WORKS AREA DURING SITE ACCESS / EGRESS MOVEMENTS OF CONSTRUCTION VEHICLES.



APPENDIX 3

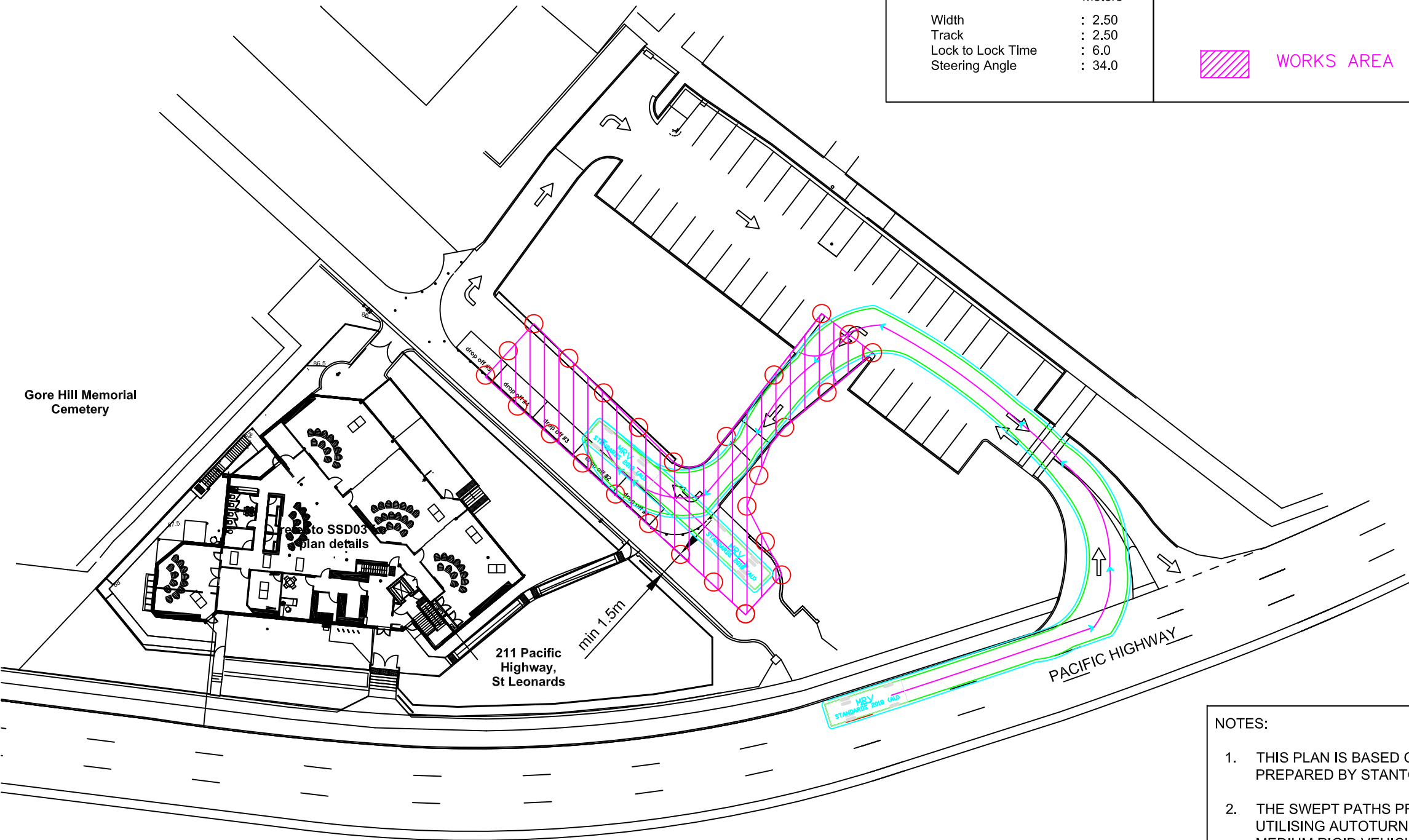


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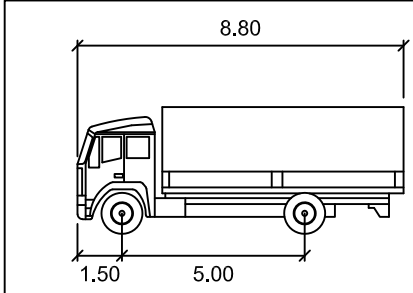
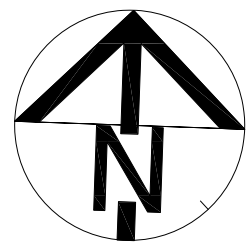
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Steering Angle	: 34.0

LEGEND

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- MANOEUVRING CLEARANCE (300mm)
- CONSTRUCTION FENCING
- WORKS AREA



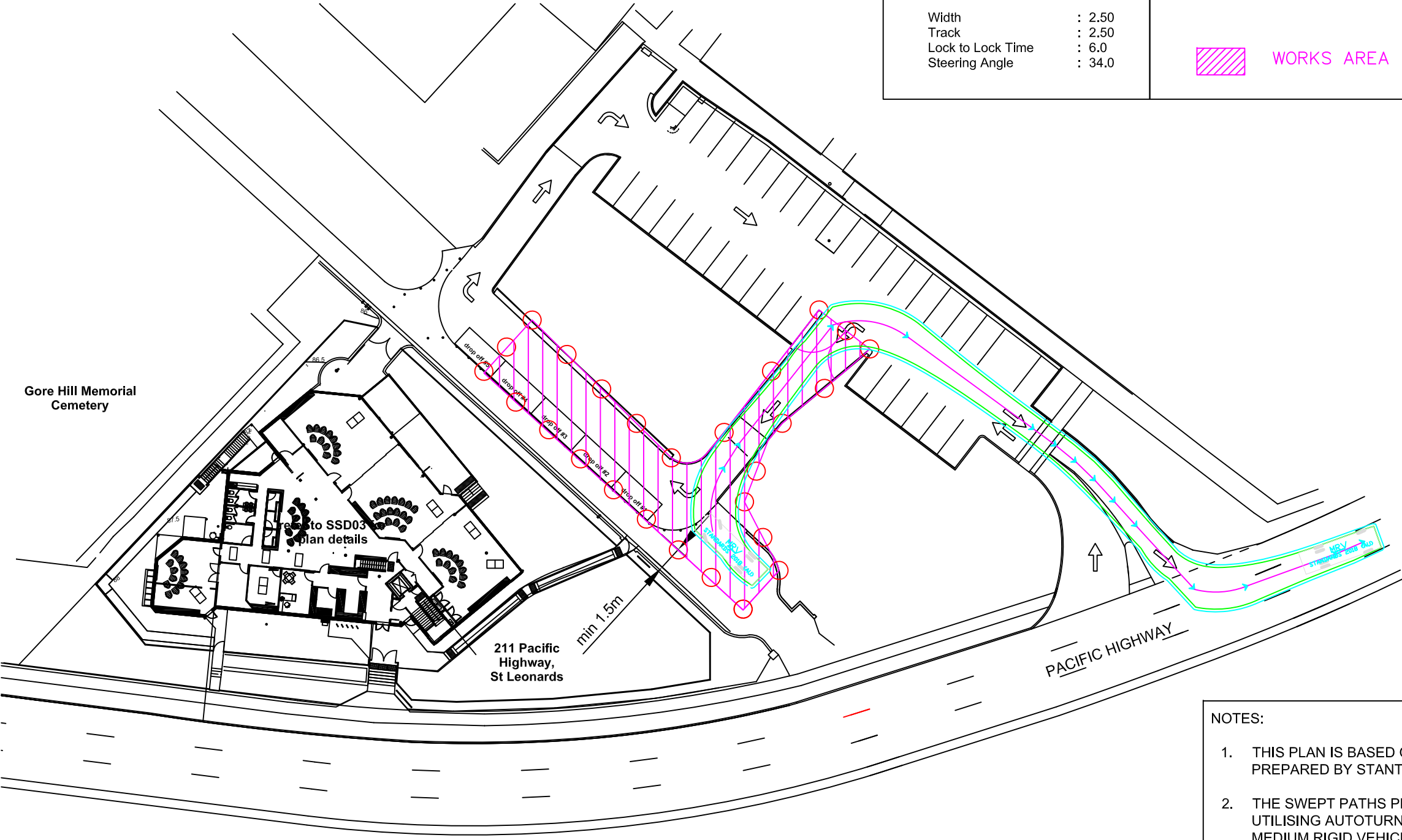
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MRV

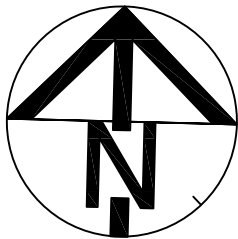
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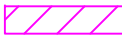
APPENDIX 4



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5. WORK INVOLVES THE UTILISATION OF TRAFFIC CONTROLLERS TO SUPERVISE THE FORWARD INGRESS / EGRESS MOVEMENTS OF CONSTRUCTION VEHICLES UP TO AND INCLUDING MEDIUM RIGID VEHICLES BETWEEN THE COUNCIL CAR PARKING AREA AND THE CONSTRUCTION SITE FOR STAGE 2, PHASE 2 OF THE CONSTRUCTION WORKS WITHIN THE AVENUE FOR APPROVED PRIMARY SCHOOL AT 211 PACIFIC HIGHWAY, ST LEONARDS.
6. THE WORKS INVOLVE MINOR MODIFICATIONS / WIDENING OF THE EXISTING ROADWAY CONNECTING THE AVENUE TO THE NORTHERN EXTENT OF THE COUNCIL CAR PARK.
7. THE ABOVEMENTIONED WORKS ARE PROPOSED TO BE STRICTLY UNDERTAKEN DURING WEEKEND PERIODS ONLY, OUTSIDE OF THE SCHOOL WEEKDAY OPERATION HOURS.
8. ALL CONSTRUCTION VEHICLES ARE TO APPROACH THE SITE FROM THE WEST ALONG THE EASTBOUND PACIFIC HIGHWAY CARRIAGEWAY, CONTINUE WITHIN THE COUNCIL CAR PARKING AREA PRIOR TO PERFORMING A FORWARD ENTRY MOVEMENT INTO THE WORKS AREA UNDER THE SUPERVISION OF TRAFFIC CONTROLLERS.
9. ALL CONSTRUCTION VEHICLES ARE TO DEPART THE SITE VIA FORWARD MOVEMENT UNDER TRAFFIC CONTROL TO THE EAST ALONG PACIFIC HIGHWAY.
10. CONTROLLERS ARE TO DIRECT CONSTRUCTION VEHICLES TO EXIT THE SITE AND ACCESS LANE WITHIN GAPS IN PUBLIC ROAD TRAFFIC FLOW.
11. APPROPRIATE NUMBER OF TRAFFIC CONTROLLERS WILL BE REQUIRED FOR EACH LANE OF PUBLIC ROAD TRAFFIC FLOW TO BE GOVERNED IN CONJUNCTION WITH PEDESTRIAN ACTIVITY PAST THE CONSTRUCTION SITE.
12. NO CONSTRUCTION VEHICLES ARE TO QUEUE WITHIN ADJACENT PUBLIC ROAD NETWORK.
13. ALL VEHICLES ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES ARE TO BE PARKED AND WHOLLY CONTAINED WITHIN THE WORKS AREA
14. TRAFFIC CONTROLLERS ALSO REQUIRED TO GOVERN THE MOVEMENT OF PEDESTRIANS WITHIN AND ADJACENT TO THE COUNCIL CAR PARKING AREA / WORKS AREA DURING SITE ACCESS / EGRESS MOVEMENTS OF CONSTRUCTION VEHICLES.

LEGEND:



CONSTRUCTION AREA



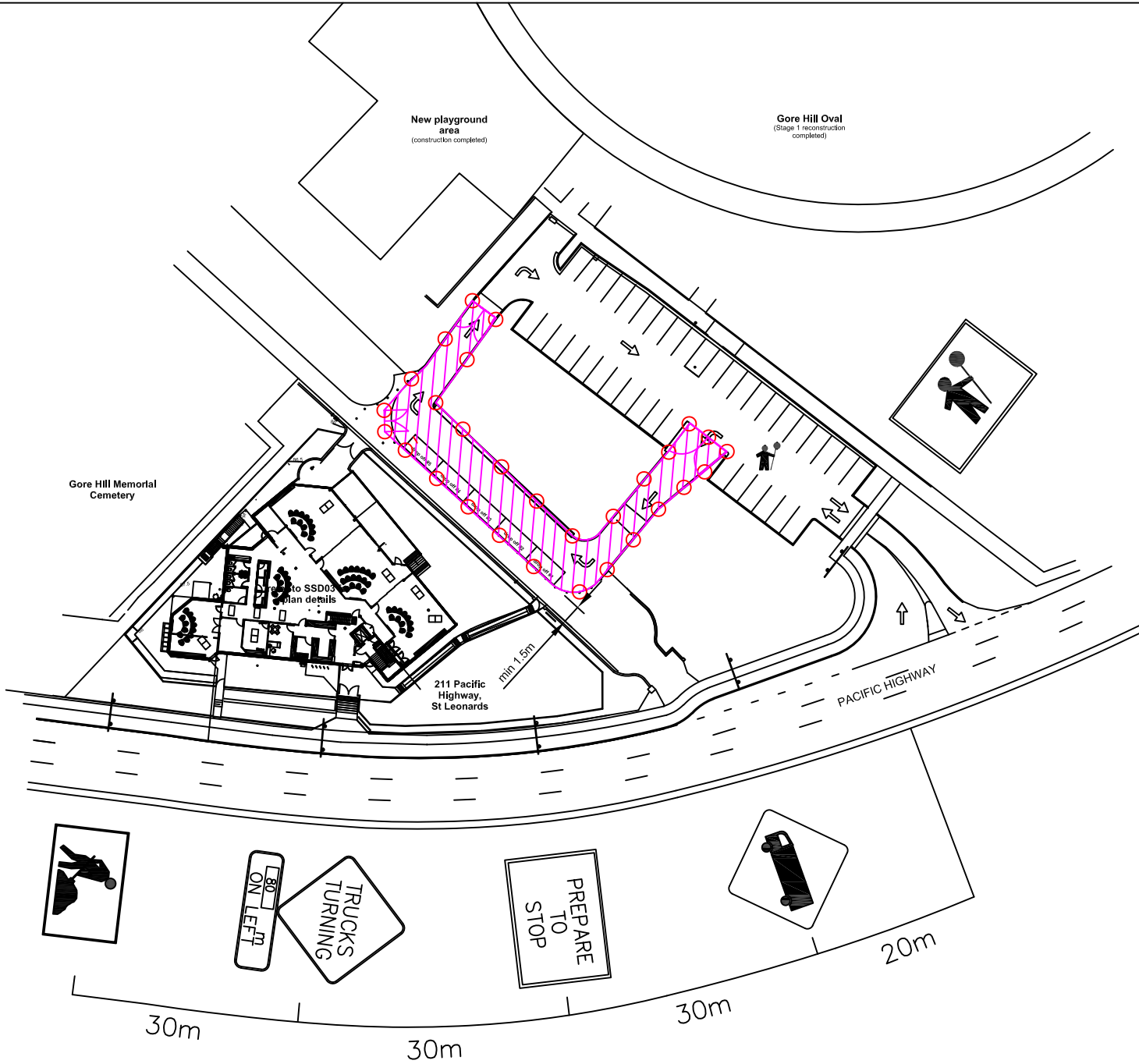
CONSTRUCTION FENCING

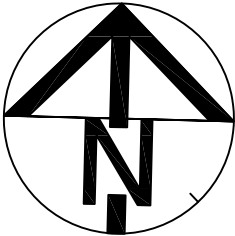


TRAFFIC CONTROL SIGN



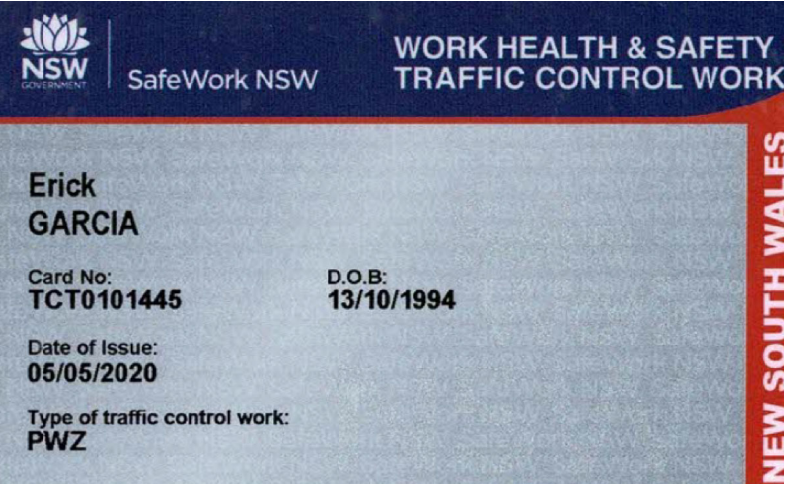
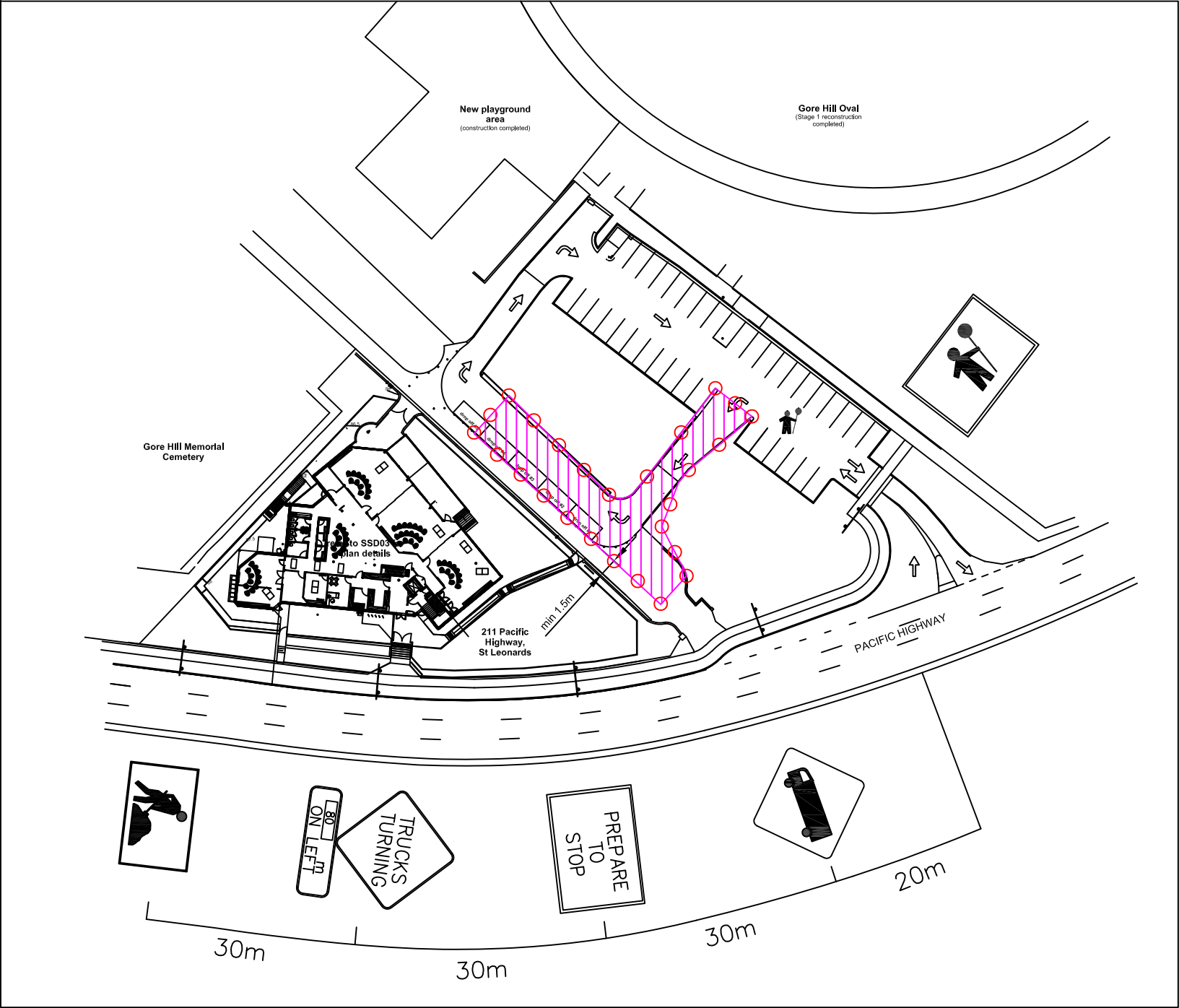
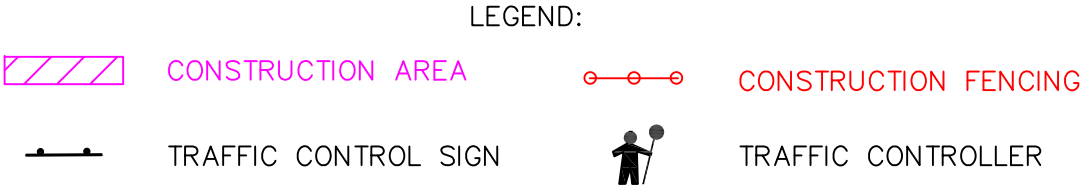
TRAFFIC CONTROLLER



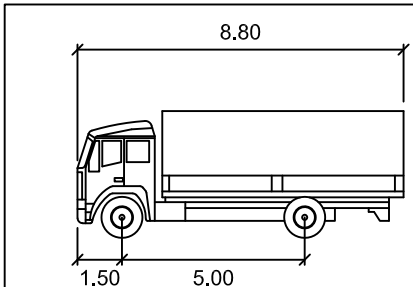
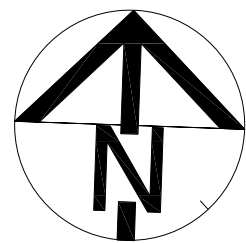


NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH AS1742.3:2009 AND IS BASED ON TNSW'S 'TRAFFIC CONTROL AT WORK SITES' MANUAL.
2. DAYS AND HOURS OF OPERATION ARE TO BE ADVISED.
3. ROAD WORK WARNING SIGNS TO BE DISPLAYED DURING WORK PERIODS ONLY (COVERED AT OTHER TIMES).
4. LOCATION OF TEMPORARY WARNING SIGNS IS APPROXIMATE, SUBJECT TO LOCATIONAL REQUIREMENTS. ACTUAL LOCATION TO BE DETERMINED ON SITE.
5. WORK INVOLVES THE UTILISATION OF TRAFFIC CONTROLLERS TO SUPERVISE THE FORWARD INGRESS / EGRESS MOVEMENTS OF CONSTRUCTION VEHICLES UP TO AND INCLUDING MEDIUM RIGID VEHICLES BETWEEN THE COUNCIL CAR PARKING AREA AND THE CONSTRUCTION SITE FOR STAGE 2, PHASE 1 OF THE CONSTRUCTION WORKS WITHIN THE AVENUE FOR APPROVED PRIMARY SCHOOL AT 211 PACIFIC HIGHWAY, ST LEONARDS.
6. THE WORKS ALSO INVOLVE THE CONSTRUCTION OF A SET-DOWN / PICK-UP AREA WITHIN THE AVENUE.
7. ALL CONSTRUCTION VEHICLES ARE TO APPROACH THE SITE FROM THE WEST ALONG THE EASTBOUND PACIFIC HIGHWAY CARRIAGEWAY, CONTINUE WITHIN THE COUNCIL CAR PARKING AREA AND THENCE THE WORKS AREA / THE AVENUE, PRIOR TO UNDERTAKING A REVERSE MOVEMENT AND OCCUPYING A POSITION TO LOAD / UNLOAD.
8. ALL CONSTRUCTION VEHICLES ARE TO DEPART THE SITE VIA FORWARD MOVEMENT UNDER TRAFFIC CONTROL TO THE EAST ALONG PACIFIC HIGHWAY.
9. CONTROLLERS ARE TO DIRECT CONSTRUCTION VEHICLES TO EXIT THE SITE AND ACCESS LANE WITHIN GAPS IN PUBLIC ROAD TRAFFIC FLOW.
10. APPROPRIATE NUMBER OF TRAFFIC CONTROLLERS WILL BE REQUIRED FOR EACH LANE OF PUBLIC ROAD TRAFFIC FLOW TO BE GOVERNED IN CONJUNCTION WITH PEDESTRIAN ACTIVITY PAST THE CONSTRUCTION SITE.
11. NO CONSTRUCTION VEHICLES ARE TO QUEUE WITHIN ADJACENT PUBLIC ROAD NETWORK.
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APPENDIX 5

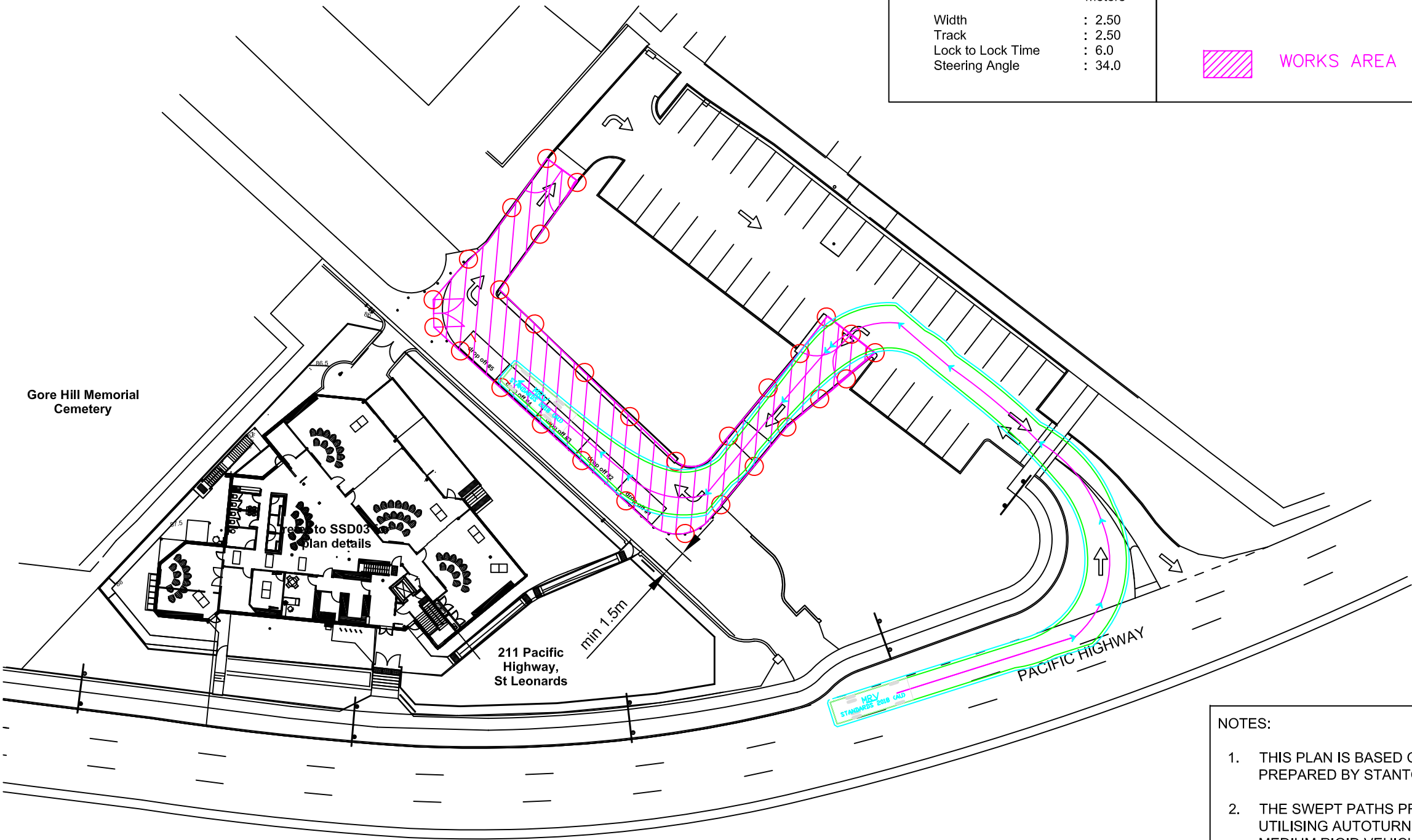


MRV

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

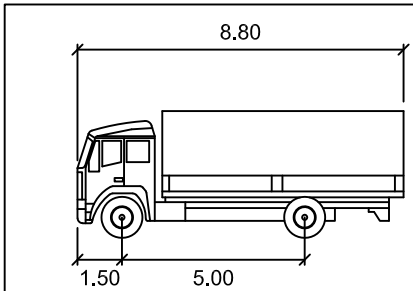
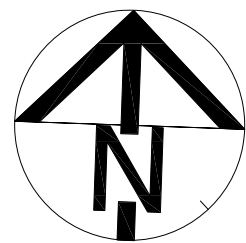
- VEHICLE BODY PATH (INCLUDING OVERHANG)
- MANOEUVRING CLEARANCE (300mm)
- CONSTRUCTION FENCING
- WORKS AREA



- NOTES:
- THIS PLAN IS BASED ON CONSTRUCTION CERTIFICATE PLANS PREPARED BY STANTON DAHL ARCHITECTS.
 - THE SWEEP PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 11 IN CONJUNCTION WITH MEDIUM RIGID VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD FOR PARKING FACILITIES PART 2: OFF-STREET COMMERCIAL VEHICLE FACILITIES (AS2890.2:2018).



DRAWN BY CADD
DO NOT AMEND MANUALLY



MRV

meters

Width : 2.50
Track : 2.50
Lock to Lock Time : 6.0
Steering Angle : 34.0

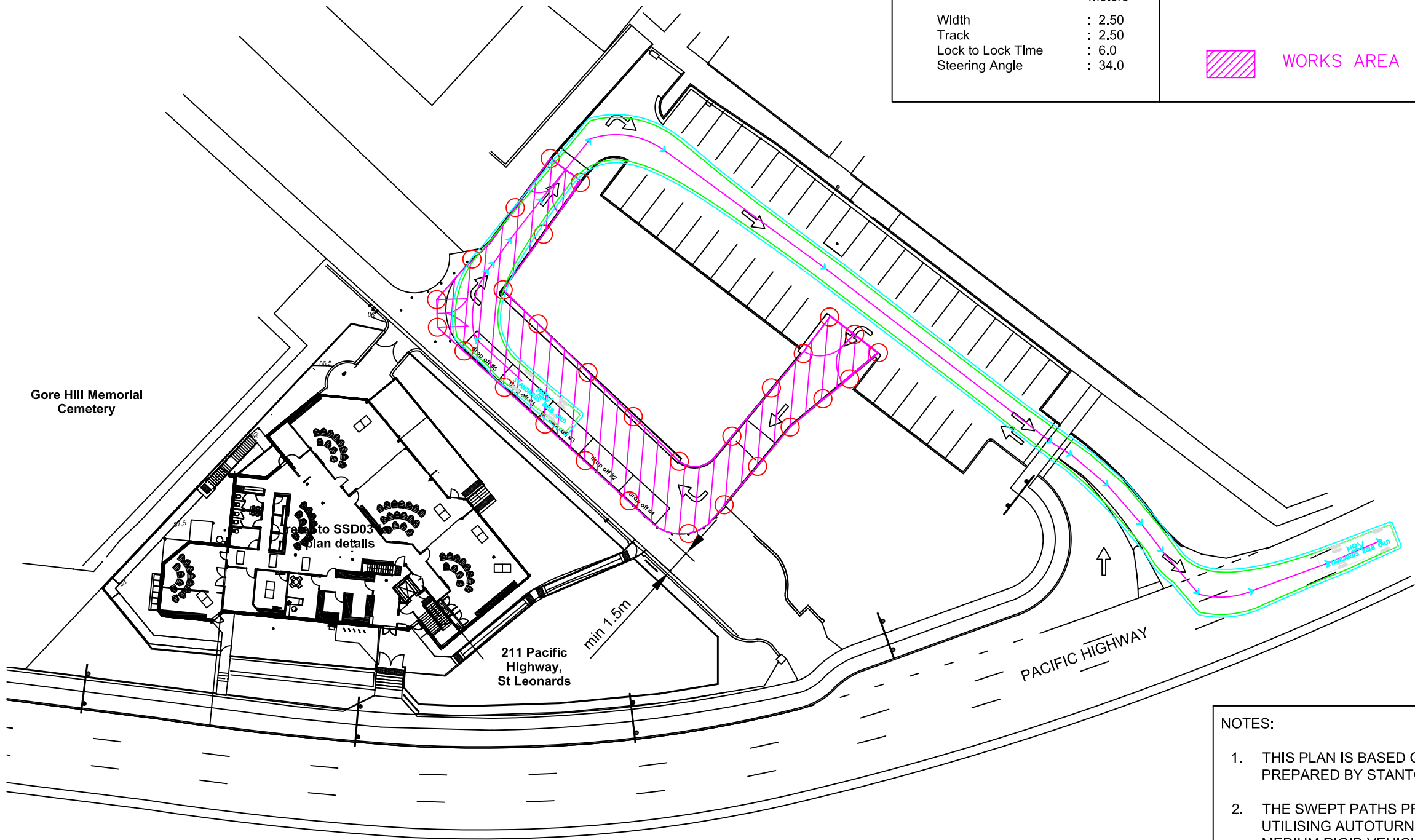
LEGEND

— VEHICLE BODY PATH
(INCLUDING OVERHANG)

— MANOEUVRING
CLEARANCE (300mm)

○—○ CONSTRUCTION FENCING

▨ WORKS AREA



NOTES:

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A ORIGINAL ISSUE



STANBURY
TRAFFIC
PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANTS

STANBURY TRAFFIC PLANNING

ADDRESS: 302/166 GLEBE POINT RD, GLEBE

PH: (02) 8971 8314

MOB: 0410 561 848

EMAIL: info@stanburytraffic.com.au

WEBSITE: www.stanburytraffic.com.au

MEDIUM RIGID VEHICLE SWEEP PATH PLAN
SITE EGRESS MOVEMENT - STAGE 2 CONSTRUCTION
WORKS - PHASE 2 OF THE AVENUE UPGRADE WORKS
FOR AN APPROVED PRIMARY SCHOOL
211 PACIFIC HIGHWAY, ST LEONARDS

SCALE: 1:250 @ A3

FILE: 19-050

DATE: FEBRUARY 2021

ISSUE

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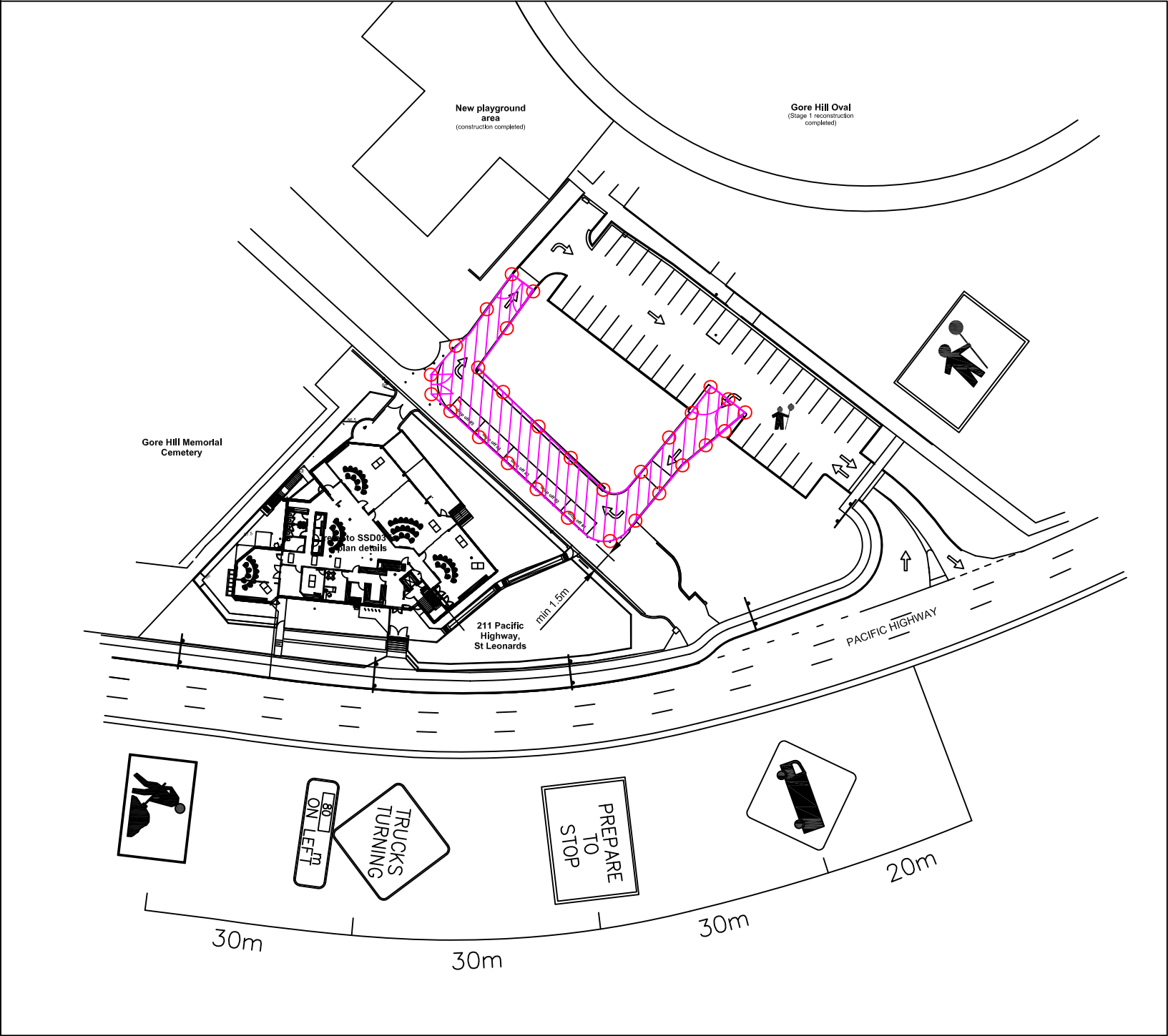
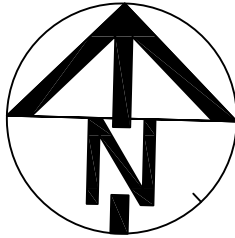
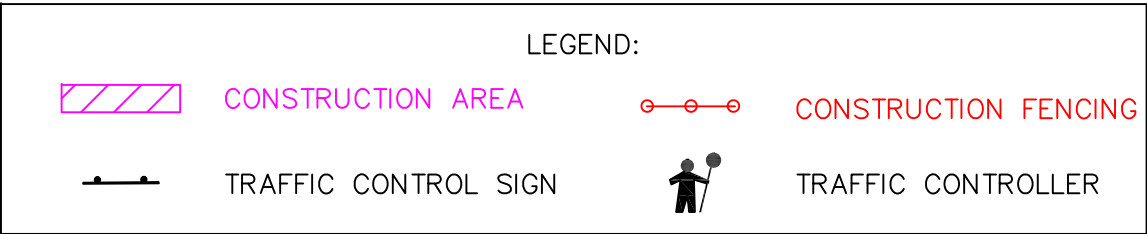
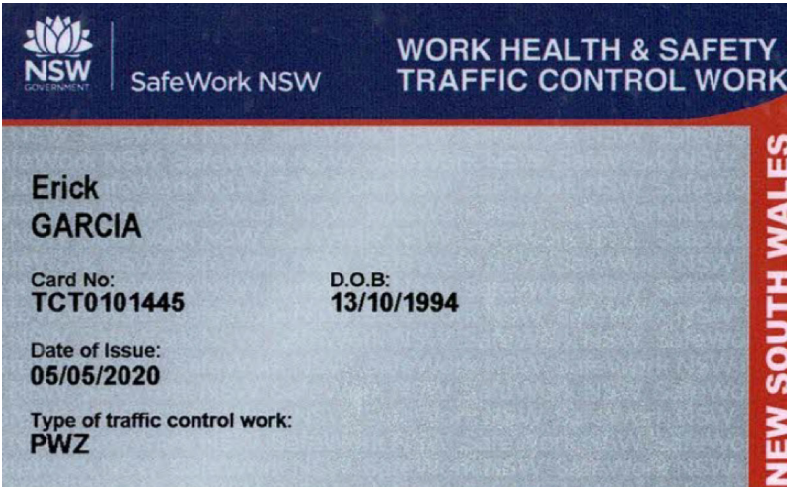
SHEET

2 of 2

APPENDIX 6

NOTES:

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14. TRAFFIC CONTROLLERS ALSO REQUIRED TO GOVERN THE MOVEMENT OF PEDESTRIANS WITHIN AND ADJACENT TO THE COUNCIL CAR PARKING AREA / WORKS AREA DURING SITE ACCESS / EGRESS MOVEMENTS OF CONSTRUCTION VEHICLES.



APPENDIX 7



STANBURY TRAFFIC PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANTS

TRANSPORT ACCESS GUIDE

Your guide for accessing:
International Chinese School
211 Pacific Highway, St Leonards



Getting To and From the Site

Walking

Footpaths are provided along both sides of Pacific Highway in the immediate vicinity of the site.

Signalised pedestrian crossings are provided at the Pacific Highway intersections of Greenwich Road and Berry Road / Reserve Road.

A pedestrian footpath is provided along The Avenue between Pacific Highway and Westbourne Street.



Cycling

On and off-road cycleways are provided within the immediate vicinity of the site at the following locations:

On – Road

- Herbert Street, Broadcast Way, Greenwich Road, River Road (east of Greenwich Road), Herbert Street, Christie Street and Atchison Street

Off – Road

- River Road (to the west of Greenwich Road), Morven Gardens and a short section of Pacific Highway to the north of the Broadcast Way.



Bus Routes

The previously described pedestrian and cyclist infrastructure provide connectivity to the following bus stops, located within a 5 minute walk from the site:

- Multiple stops are located on both sides of Pacific Highway; Stops are also located along Greenwich Road and on the western side of Reserve Road.

All stops within Pacific Highway service the following routes:

- Route 143 – Linking Manly with Chatswood via Balgowlah & St Leonards;
- Route 144 – Linking Chatswood with Manly via Royal North Shore Hospital;
- Route 252 – Linking Gladesville to City King Street Wharf via North Sydney;
- Route 254 – Linking McMahons Point to Riverview;
- Route 286 – Linking Milsons Point to Denistone East via North Sydney & St Leonards;
- Route 287 – Linking Ryde to Milsons Point via St Leonards & North Sydney.
- Route 290 – Linking Epping to City Erskine Street via Macquarie University & North Sydney;
- Route M20 – Linking Botany to Gore Hill.

The stops within Greenwich Road also services Route 265 between North Sydney and Lane Cove.

Further services are provided at the stop on the southern side of Pacific Highway to the east of the site:

- Route 200 – Linking Bondi Junction to Chatswood;
- Route 622 – Linking Dural to Milsons Point;
- Route 653 – Linking West Pennant Hills to Milsons Point.

Reserve Road also services Route 144.



Wheelchair Accessibility

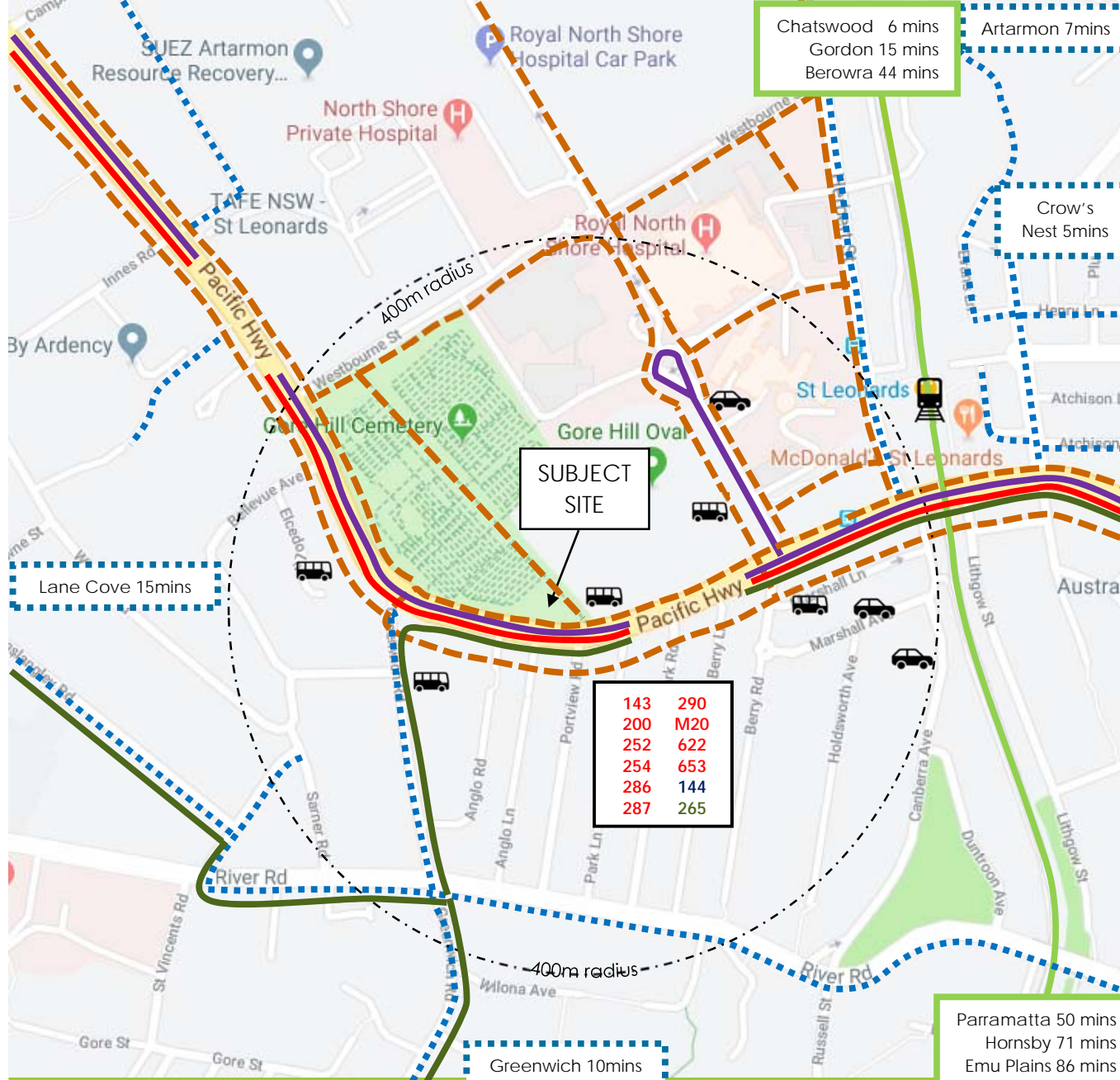
Sydney Buses offer wheelchair accessible services at limited times. Look for the accessibility symbol on the bus operator's timetable to identify these services.



Heavy Rail

St Leonards Station is located within a 5 minute walk from the site.

Services along the T1 (North Shore & Western Line) provides connectivity to the remainder of the Sydney metropolitan rail network via interchanges at locations such as Hornsby, City, Granville and Blacktown.



Planning your Trip

It is recommended that you contact the Transport Information Line to plan your trip and get the latest timetable, fare and wheelchair accessible information.



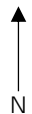
Other useful references:

- www.sydneybuses.info
- <http://www.transdevsydney.com.au>
- www.cityofsydney.nsw.gov.au
- <http://www.innerwest.nsw.gov.au>
- www.sydneycycleways.net

Disclaimer

The information contained in this brochure is current as of June 2019 and is provided as a guide. The brochure has been prepared in reliance on information provided by third parties and accordingly no guarantee, warranty or promise, express or implied, concerning the content or accuracy of information is provided. Readers should refer to the Transport Information Line, local bus companies or the local Council to obtain updated information referred to in this brochure.

LEGEND:



Bus Stop



Train Station



Car Sharing



Cycle Path



Walking Path
Bus Route

Train Line
143, 200, 252, 254, 286,
287, 290, 622, 653, M20

400m / 5 minute walk radius
Bus Route 144
Bus Route 265