Transport Planning

26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd, St Leonards Proposed Residential Development

Construction Traffic Management Plan

26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd, St Leonards Proposed Residential Development

Construction Traffic Management Plan

Report Version: Final

Report Date: 30 November 2022

Report Reference: 22013r03D-221130

Client: Berry Road Development Pty Ltd

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1 Introduction

MLA Transport Planning (MLA) has been engaged by Berry Road Development Pty Ltd to prepare this construction traffic management plan (CTMP) to assess the traffic and parking effects arising from the proposed construction activities relating to a proposed residential development at Nos. 27-47 Berry Road, Nos. 26-50 Park Street and Nos. 48-54 River Road, St Leonards. It accompanies a development application submission to Lane Cove Municipal Council.

The proposed development involves the construction of four new residential buildings up to 11 storeys accommodating 314 apartments and a 4-level basement car park. In addition to the residential buildings, works will also be undertaken for the construction of a new public road traversing across the middle of the site between Park Road and Berry Road.

It is noted that this CTMP does not include demolition works as this will be undertaken under a separate approval pathway.

The objectives of this CTMP are:

- provide a detailed description of the project and construction activities
- examine the transport, traffic and parking impacts on the surrounding road network, and
- provide mitigating measures to address any identified impacts.

This CTMP has been prepared by engineers who hold the accreditation *Prepare a Work Zone Traffic Management Plan* (PWZ) issued by SafeWork NSW.

2 Existing Conditions

2.1 Site Description

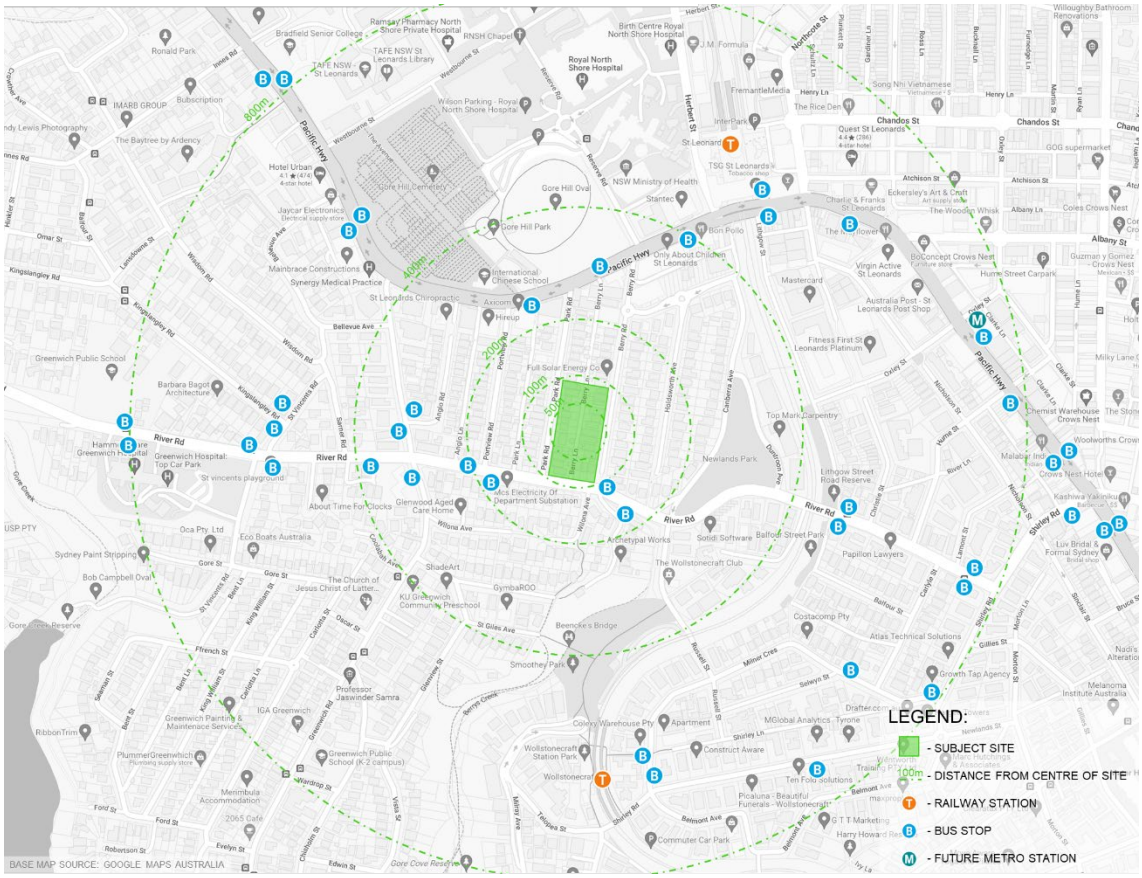
The subject site is located at Nos. 27-47 Berry Road, Nos. 26-50 Park Road, and Nos. 48-54 River Road, St Leonards. The legal descriptions of these properties are as follows:

- 27 Berry Rd, St Leonards – Lot 19 DP82696
- 29 Berry Rd, St Leonards – Lot 1 DP533847
- 31 Berry Rd, St Leonards – Lot 2 DP533847
- 33 Berry Rd, St Leonards – Lot 21 DP3044
- 35 Berry Rd, St Leonards – Lot 22 DP111237
- 37 Berry Rd, St Leonards – Lot 23 DP79978
- 39 Berry Rd, St Leonards – Lot 24 DP3044
- 41 Berry Rd, St Leonards – Lot 25 DP3044
- 43A Berry Rd, St Leonards – Lot 1 DP734702
- 43B Berry Rd, St Leonards – Lot 2 DP734702
- 45 Berry Rd, St Leonards – Lot 27 DP3044
- 47 Berry Rd, St Leonards – Lot 28 DP3044
- 26 Park Rd, St Leonards – Lot 44 DP3044
- 28 Park Rd, St Leonards – Lot 43 DP3044
- 30 Park Rd, St Leonards – Lot 5 DP305449
- 32 Park Rd, St Leonards – Lot 4 DP305449
- 34 Park Rd, St Leonards – Lot 3 DP305449
- 36 Park Rd, St Leonards – Lot 2 DP305449
- 38 Park Rd, St Leonards – Lot 1 DP305449
- 40A Park Rd, St Leonards – Lot 2 DP225445
- 40B Park Rd, St Leonards – Lot 3 DP225445
- 42A Park Rd, St Leonards – Lot 4 DP225445
- 42 Park Rd, St Leonards – Lot 37 DP666528
- 44 Park Rd, St Leonards – Lot 36 DP3044
- 46 Park Rd, St Leonards – Lot 351 DP848236
- 48 Park Rd, St Leonards – Lot 352 DP848236
- 50 Park Rd, St Leonards – Lot 1 DP225445
- 48 River Rd, St Leonards – Lot 29 DP72918

- 50 River Rd, St Leonards – Lot 1 DP1223070
- 52 River Rd, St Leonards – Lot 31 DP3044, and
- 54 River Rd, St Leonards – Null SP16063.

The location of the subject site and its surrounding environs are shown in Figure 2.1.

Figure 2.1: Site Locality Plan



The subject site is located within the local government area of Lane Cove Municipal Council. The site is currently occupied by 31 low density dwelling houses.

The subject site is also located within the St Leonards South precinct for which a planning proposal to provide additional high density housing has been given approval with the local environmental plan and development control plan finalised.

The subject site is surrounded by low density detached dwellings on all sides. The entire area including the subject site is undergoing through an urban renewal process consistent with the St Leonards South planning proposal as noted previously. This development application is part of the renewal process relating to the subject site.

2.2 Road Network

The road network in the vicinity of the subject site includes Pacific Highway, River Road, Berry Road, Park Road, Holdsworth Avenue and Canberra Avenue. Below is a description of the local road network.

2.2.1 Pacific Highway

Pacific Highway is a declared State Road under the jurisdiction of Transport for New South Wales (TfNSW). It forms part of the arterial major road network linking the North Shore area and beyond to Sydney CBD via Sydney Harbour Bridge and Sydney Harbour Tunnel.

In the vicinity of the site, Pacific Highway is aligned in an east-west direction and is generally configured as a six-lane, divided two-way road except at Albany Road and Westbourne Road where a westbound lane has been dropped to provide an auxiliary right turn lane.

One hour parking is permitted within the kerbside lane on both sides of Pacific Highway outside of the peak periods (except at bus zones and "NO STOPPING" zones). In addition, T3 lane is implemented on the eastbound carriageway during the morning peak period (6:00am to 10:00am) and on the westbound carriageway during the evening peak period (3:00pm to 7:00pm).

Pacific Highway has a sign posted speed limit of 60km/hr.

2.2.2 River Road

River Road is a regional road maintained by Lane Cove Council with funding from TfNSW. It is generally aligned in an east-west direction. It connects to Pacific Highway to the east (via Shirley Road) and to Burns Bay Road to the west (via Northwood Road and River Road West). It is generally configured with one traffic lane and one parking lane in each direction, however at its intersection with Canberra Avenue the carriageway is reduced to one traffic lane in each direction separated by a raised median strip. Traffic movements to and from Canberra Avenue is restricted to left in and left out traffic movements. River Road has a sign posted speed limit of 50km/hr.

2.2.3 Canberra Avenue

Canberra Avenue is a local street under the jurisdiction of Lane Cove Council. It provides access to properties fronting on to it. It is configured as a 2-lane undivided road with a generally north-south alignment. It terminates at the northern end to form a cul-de-sac near Pacific Highway. Time restricted kerbside parking (2P) is available on both sides of the road north of Duntroon Avenue, while south of Duntroon Avenue unrestricted kerbside parking is available on the western side of Canberra Avenue and

"NO PARKING" parking restriction is enforced on the eastern side. Canberra Avenue is located within a 50km/hr speed limit area.

2.2.4 Berry Road

Berry Road is a local road under the administration of Lane Cove Council providing access to abutting properties. It is aligned in a north-south direction. It connects to Pacific Highway to the north via a signalised intersection. Berry Road terminates at its southern end to provide a cul-de-sac with pedestrian access permitted to River Road.

It is generally configured as a 2-lane undivided road with kerbside parking on both sides of the road. Kerbside parking is restricted to 1P and 2P parking in the vicinity of its intersection with Holdsworth Avenue. It is located within a 50km/hr speed limit area.

2.2.5 Park Road

Park Road is a local road providing access to abutting properties and is administrated by Lane Cove Council. The road is generally aligned in a north-south direction. It is configured as a 2-lane undivided road with kerbside restricted parking (2P) permitted. It is located within a 50km/hr speed limit area.

2.2.6 Other Local Roads

In addition to the above roads, the site is located in vicinity of a number of local roads include Park Lane and Berry Lane. Park Lane and Berry Lane are configured as single lane, two-way accessway providing vehicular access to the abutting properties. "NO PARKING" restriction is enforced on both sides of Park Lane and Berry Lane.

2.3 Public Transport

The subject site is located within 650m to St Leonards Railway Station and 600m to Wollstonecraft Railway Station. In addition, the subject site can be accessed by bus services on Pacific Highway and River Road with the nearest bus stop located within 130m of the site.

The site can be accessed using train services operated by Sydney Trains and NSW TrainLink as well as regular scheduled bus services operated by Transit Systems, Hillsbus Keolis Downer Northern Beaches and Busways North West. As such, the subject site is well located in terms of accessibility to public transport services.

The available public transport services in the vicinity of the site are summarised in Table 2.1 for train services and Table 2.2 for bus services.

Table 2.1: Available Train Services at St Leonards Railway Station

Line	Line Description	Weekday Peak Period Frequency
T1 Western Line	Emu Plains/Richmond to City	3-10 minutes
T1 North Shore Line	Berowra to City via Gordon	3-5 minutes
T9 Northern Line	Hornsby to North Shore via City	15 minutes
Central Coast & Newcastle Line	Newcastle to Central via Strathfield or Gordon	15 minutes

Table 2.2: Available Bus Services

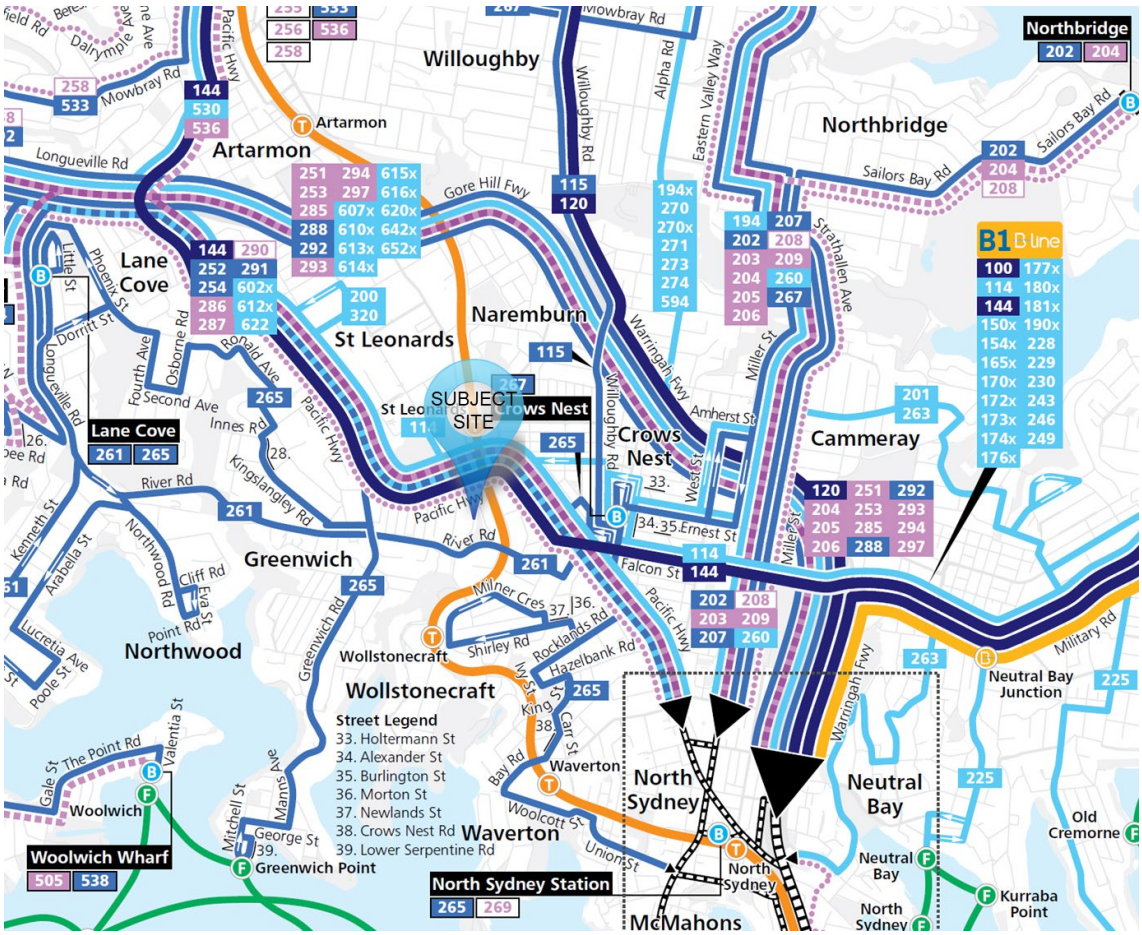
Route No.	Route Description	Weekday Peak Period Frequency
114	Balmoral to Royal North Shore Hospital	20-25 minutes
144	Manly to Chatswood via St Leonards	10 minutes
200	Bondi Junction to Gore Hill	15-20 minutes
252	Gladesville to City King Street Wharf via North Sydney	20-45 minutes
254	McMahons Point to Riverview	15-20 minutes
261	Lane Cove to City King Street Wharf via Longueville	30 minutes
265	North Sydney to Lane Cove via Greenwich	30 minutes
286	Denistone East to Milsons Point via St Leonards & North Sydney	30 minutes
287	Milsons Point to Ryde via North Sydney & St Leonards	30 minutes
291	McMahons Pt to Epping	20 minutes
320	Mascot to Gore Hill	10-15 minutes
602X	Bella Vista Station to North Sydney (Express Service)	10-15 minutes
612X	Castle Hill to North Sydney (Express Service)	10 minutes
622	Dural to Milsons Point via Cherrybrook	30 minutes

Figure 2.2 shows a network map of the rail and metro services, while Figure 2.3 shows a map of the existing available bus services in the vicinity of the subject site.

Figure 2.2: Rail/Metro Network

Source: TfNSW

Figure 2.3: Bus Network



Source: TfNSW

3 Proposed Construction Activities

3.1 Construction Stage

The proposed works will be undertaken over three phases with construction activities in each phase as follow:

- Phase 1 Shoring Works and Bulk Excavation – shoring works and bulk excavation of the basement car park
- Phase 2 Basement Construction – construction of the basement car park, and
- Phase 3 Structure and Finishing Works – construction of structure from ground to roof for the entire project as well as external and internal fitout including painting tiling, fitting fixtures, external façade finish, external screening fixture and façade.

As noted previously, demolition of existing buildings is not included in this CTMP. Demolition works will be carried out under a separate approval pathway.

Phase 3 work will also include the construction of the new public road.

3.2 Construction Duration

The estimated duration of each construction phase is presented in Table 3.1.

Table 3.1: Duration of Construction Stage

Construction Phase	Approximate Duration (Weeks)
Phase 1 Shoring Works and Bulk Excavation	10
Phase 2 Basement Construction	38
Phase 3 Structure and Finishing Works	38

It is anticipated construction will commence in Q1 2023, subject to Council's approval and will continue for 94 weeks or approximately 22 months.

3.3 Work Hours

Construction works will be carried out during the following proposed work hours:

- Monday 7:00am – 5:30pm
- Saturday 8:00am – 3:00pm, and

- Sunday and public holiday No work.

Any works outside these times will be subject to a separate application to Lane Cove Council prior to the commencement of any works. The Principal Contractor will be responsible for liaising with Council to obtain all relevant permits and/or approvals.

3.4 Construction Workers

The number of construction workers is expected to vary throughout the construction period. A summary of the expected maximum number of workers on-site at any given time in each phase is presented in Table 3.2.

Table 3.2: Number of On-Site Workers

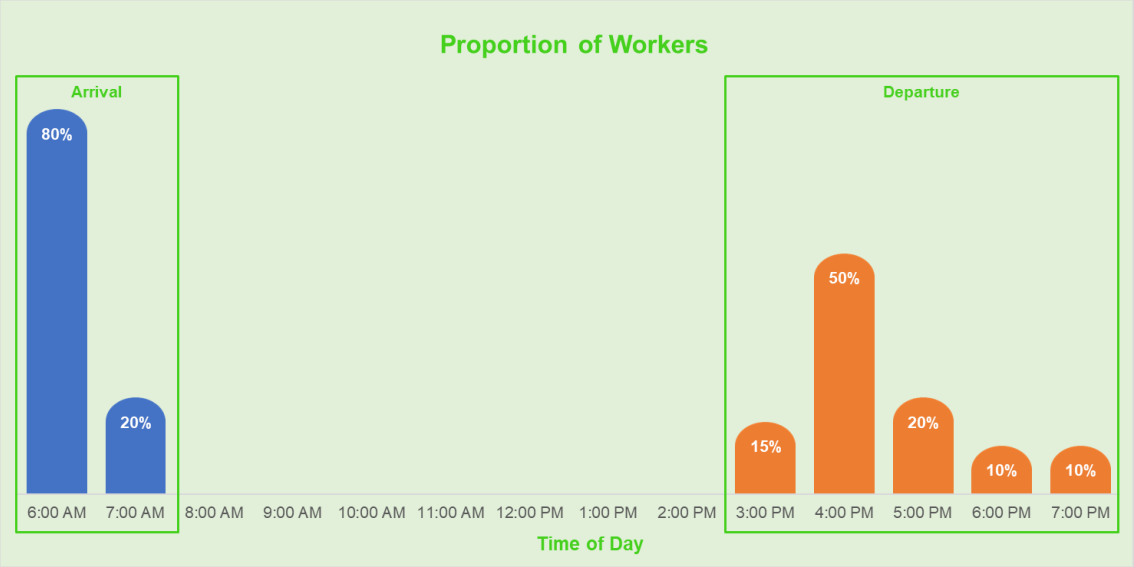
Construction Phase	Maximum On-Site Workers
Phase 1 Shoring Works and Bulk Excavation	20
Phase 2 Basement Construction	35
Phase 3 Structure and Finishing Works	70

As can be seen from Table 3.2, the number of construction workers is expected to peak during Phase 3 when the building is being fitted out. The expected maximum number of construction workers on-site at any given time would be approximately 70 workers.

It is expected that a vast majority of the workers would arrive on site just before the start of the morning commuter peak period (approximately 7:00am). Similarly, some workers would depart the site before the start of the evening commuter peak period (approximately 4:00pm) while the remaining workers would depart the site throughout the evening commuter peak period.

A typical arrival and departure profile for construction workers is shown in Figure 3.1.

Figure 3.1: Typical Construction Workers Arrival and Departure Profiles



3.5 Construction Vehicle Types

Construction vehicles likely to be generated by the construction activities include:

- Phase 1 Bulk Excavation: 19.6m truck and dog with some smaller rigid vehicles for removal of spoil
- Phase 2 Structure Works: 19m articulated trucks and smaller rigid vehicles for delivery of material and concrete, and
- Phase 3 Fitout and Finishes: 19m articulated trucks and smaller rigid vehicles for material delivery.

3.6 Construction Vehicles and Movements

The estimated construction vehicle movements associated with each stage of construction are summarised in Table 3.3.

Table 3.3: Construction Traffic Generation

Construction Phase	Maximum Daily Traffic Generation for Heavy Vehicles (Two-way Movements per Day)	Average Hourly Traffic Generation for Heavy Vehicles (Two-way Movements per Hour)
Phase 1 Shoring Works and Bulk Excavation	360	20
Phase 2 Basement Construction	120	8
Phase 3 Structure and Finishing Works	100	8

As shown in Table 3.3, construction activities will generate up to 360 two-way vehicle movements per day or 20 movements per hour on average.

3.7 Site Access

Throughout the construction period, access for construction vehicles will be gained from Berry Road and Park Road in the same general location where the future public road will be located. The Berry Road access will permit entry movements into the site only, while the Park Road access will permit exit movements from the site only. An additional access is also proposed on Berry Road near the site's northern boundary. This additional access will permit both entry and exit movements.

In addition, works zones are proposed on Berry Road as well as Park Road.

Access along all public roads will be maintained at all times. Construction vehicles will not be permitted to queue on public roads on approach to the construction site. In addition, construction vehicles will not be permitted to block property accesses along Berry Road, Park Road and other roads.

In all cases, construction vehicles will enter and exit the site in a forward direction.

The proposed site accesses will be controlled by SafeWork NSW accredited traffic controllers.

3.8 Construction Vehicle Route

Considering the location of the site, construction vehicles associated with the construction activities will have origins and destinations from various locations throughout Sydney. The proposed construction vehicle routes aim to take the shortest distances to/from the arterial road network and are shown in Figure 3.2.

The truck routes to/from the site are summarised as follows:

- Approach route: travel in a westerly direction along Pacific Highway and then left turn into either Berry Road or Park Road (or travel in an easterly direction along Pacific Highway to turn right into Berry Road) to continue in a southerly direction to either enter the site or access the works zone on Berry Road or Park Road
- Departure route: leave site/works zones on Berry Road (via site access) or Park Road then travel in a southerly direction along Park Road to access River Road or northerly direction along Park Road to continue in a westerly direction along Pacific Highway.

Figure 3.2: Construction Haulage Route

3.9 Works Zone

To adequately service the site, a total of three works zones are proposed. These are located on Berry Road and Park Road as shown in the staging plan provided in Appendix A.

The proposed works zones will cater for loading and unloading of construction vehicles up to an Australian Standard 19m long articulated vehicle.

3.10 Tower Crane

A tower crane is proposed to be erected within the site to facilitate loading and unloading activities associated with the construction of the proposed development.

The tower crane is proposed to be installed at the approximate centre of the overall site – see staging plan in Appendix A.

The tower crane will be used to lift construction materials including skip bins between the proposed internal loading areas and the proposed works zones on Berry Road and Park Road throughout the construction period. The proposed tower crane has a maximum reach of approximately 60m.

In addition, a mobile crane is proposed within the site to assist the tower crane where required.

The details of the crane erection and dismantling will be dealt with in separate application by the crane installer/operator. However, it is expected that the crane will be delivered in segments and mobile cranes will be used to erect and dismantle the tower crane.

Approval from the relevant consent authorities and consultation with affected neighbours in relation to the swinging of the crane jib and mobile crane over part of the public road or footpath will be required.

The Principal Contractor will be responsible for obtaining all relevant approvals as well as consulting the neighbours.

3.11 Proposed Temporary Fence

Temporary fence will be provided along the perimeter of the site during all construction stages as shown in the staging plan contained in Appendix A. In addition, Class B hoarding will be provided over the footpath adjacent to the proposed works zones on Berry Road and Park Road. Bunding will also be provided along the perimeter during the excavation stage.

3.12 Materials and Handling Area

Materials stockpiling areas and skip bin locations will be provided throughout the different construction phases. The material stockpiling areas and skip bin locations are proposed to be located near the approximate centre of the southern half of the site – see staging plan in Appendix A.

All materials handling equipment, including waste storage, are to be wholly stored on-site within the works site. Storage of materials/waste within public area or road will not be permitted.

3.13 Site Shed

Site office amenities will be located internally adjacent to the northern boundary of the site as shown in the staging plan provided in Appendix A.

3.14 On-Site Parking for Workers

On-site car parking for workers is not proposed. Workers will be encouraged to access the site using public transport and/or carpool. The availability of public transport services in the vicinity of the subject site is discussed in Section 2.3. Measures will be put in place to assist with encouraging workers to use public transport to access the site – see Section 4.6.

3.15 Proposed Road Closures

The proposed construction activities do not require any of the nearby roads to be closed.

In the event that a road is required to be closed, the Principal Contractor will be responsible to obtain the necessary approvals and permits from Council and consult the local community as required.

3.16 Proposed Footpath Closures

It is not proposed to close any of the footpaths adjacent to the site. Pedestrians will be continued to access the areas around the site noting that Class B hoarding will be providing above the footpath on Berry Road and Park Road adjacent to the proposed works zones.

In the event that a footpath is required to be closed, the Principal Contractor will be responsible to obtain the necessary approvals and permits from Council and consult the local community as required.

3.17 Contact Details

The Principal Contractor's representatives will be on-site during all works throughout the construction period. The roles and contact details of key the Principal Contractor's personnel are detailed in Table 3.4.

Table 3.4: Contact Details

Organisation	Project Role	Contact Name	Contact Number	Email Address
Southpac Constructions	Senior Project Manager	Song Chuan	0468 300 062	song.chuan@jqz.com.au
TBA	TBA	TBA	TBA	TBA
TBA	TBA	TBA	TBA	TBA

A sign with contact details is also to be provided on the hoarding so that members of the local community can make enquiries and lodge complaints if required.

4 Construction Traffic Assessment and Implications

4.1 Construction Traffic Generation

The proposed construction activities will generate on average 20 vehicle movements per hour.

This volume of traffic is considered to be low and is not expected to create any adverse traffic impact.

4.2 Works Zone and Mobile Crane Permits

Approval must be sought prior to the establishment of any works zones. Similarly, the operation of mobile cranes will require the necessary permits to be obtained from the relevant authorities.

The Principal Contractor will be responsible for obtaining such permits and approvals.

4.3 Hoardings/Fencing/Scaffolding

All hoarding/fencing/scaffolding will be contained within the construction site. In the event that such treatment is necessary in the public domain, the Principal Contractor will be responsible to obtain the appropriate permits from the relevant authorities.

If relevant, the Principal Contractor is to ensure that Class B hoarding is to be provided above pedestrian footpaths where materials will be lifted above the pedestrian areas.

4.4 Pedestrian and Cyclist Management

It is noted that the proposed works will not adversely affect pedestrian and cyclist movements in the vicinity of the site. Class A hoardings will be installed around perimeter of the site in particular along the site frontages to Berry Road, River Road, Park Road and along the northern boundary of the site as required to provide protection to pedestrians. Class B hoardings will be provided on Berry Road and Park Road adjacent to the proposed works zones.

Furthermore, the Principal Contractor to ensure that there is sufficient inter-visibility between vehicles and pedestrians at pedestrian paths. The Principal Contractor must inform drivers of all construction vehicles to be aware of pedestrians and cyclists in the general vicinity of the site.

4.5 Swept Path Analysis

Swept path analysis has been undertaken to determine the largest vehicle that can use the site and the proposed works zone. The swept path diagrams are contained in Appendix B.

The analysis found that a 19.6m truck and dog can satisfactorily negotiate the relevant intersections along the approach and departure routes to and from the site. Similarly, an AS2890.2 19m articulated vehicle can access most of the intersections except when performing a left turn movement from Park Road into Pacific Highway and River Road – see relevant swept path diagrams provided in Appendix B.

4.6 Parking for Construction Workers

There will be no on-site car parking provided within the works site. The site is well serviced by high frequency public transport services as noted in Section 2.3. All workers will be encouraged and expected to use public transport to travel to/from the site. This will be incorporated in the workers induction program to ensure minimal parking impact on the surrounding streets.

The following measures are to be implemented to encourage workers to use public transport:

- provide an on-site tool drop-off and storage facility to allow tradespeople to drop off and store their specific machinery for the project
- inform staff during the induction and regular management meetings that no on-site car parking will be available and there is limited on-street car parking surrounding the site
- instruct staff to use public transport to access the site during the induction and regular management meetings, and
- display public transport timetable information at key locations within the work site and ensure that it is easily accessible by staff.

As such, it is not expected that there would be significant volume of staff generated traffic during the construction of the proposed development.

4.7 Public Transport

The proposed construction activities will not have an adverse effect on the public transport operations in the vicinity of the site. Public transport services can continue to operate as they presently do.

4.8 Emergency Vehicles and Heavy Vehicles

No special provisions for emergency service vehicles or heavy vehicles are required as part of the proposed construction works. Emergency vehicles will continue to be able to access the road network in the vicinity of the subject site.

4.9 Waste Collection Vehicle Access on Berry Lane

During the construction period, Berry Lane could turn into a cul-de-sac if Council is not able to acquire land to provide a temporary road connection linking Berry Lane to Park Road for access by waste collection vehicles.

In such an event, a turning area is proposed within the subject site to facilitate a large waste collection vehicle to conduct a three-point within the site. The relevant swept path diagram prepared by the project civil engineering consultant (AT&L) is provided in Appendix C.

5 Construction Traffic Management Measures

The following construction traffic management mitigation measures will be applied during the construction of the development.

5.1 Traffic Control Plans

Before the commencement of any construction activity, Traffic Control Plans must be prepared to manage and ensure the safe and efficient movement of pedestrians, cyclists, and other vehicular traffic.

Advisory road signage must be installed along frontage streets where an access is proposed in accordance with the example Traffic Control Plan (formerly TCP195) shown in TfNSW' *Traffic Control at Work Sites* and *AS1742.3 Manual of Uniform Traffic Control Devices - Traffic Control Devices for Works on Roads*. This example TCP is contained in Appendix D.

In addition, a site specific TCP has been prepared showing traffic controllers deployed in front of the subject site on Berry Road and Park Road. The site-specific TCP is also contained in Appendix D.

All advisory road signage is to be installed in accordance with *AS1742.3 Manual of Uniform Traffic Control Devices - Traffic Control Devices for Works on Roads* and the TfNSW' *Traffic Control at Work Sites*. Signs are be installed and maintained throughout the construction period.

5.2 Vehicle Access

All vehicles are to enter and exit the site in a forward direction. Vehicles must not be permitted to reverse into the site from the external roads, unless prior approval is obtained from the relevant consent authorities. Reversing of vehicles to and from the site is to be only undertaken with supervision and assistance from accredited traffic controllers.

Construction vehicles shall radio/call the site office on approach to the site to ensure access to the site is available. All loading and unloading shall be undertaken within the site during the approved work hours. As noted previously, the queuing or marshalling of

construction vehicles are not permitted on public roads to ensure that construction vehicles must not block accesses along public roads.

If there are any materials spilt onto the road, site personnel and equipment are to rectify the issue accordingly, subject to appropriate OH&S provision.

5.3 Truck Routes

Protocols must be in place to ensure:

- site induction will include procedures for accessing the site
- drivers will adhere to the nominated truck routes as shown in Figure 3.2
- all construction vehicles will be contained wholly within the site
- drivers will be aware of pedestrians and cyclists in the vicinity of the site, and
- drivers will be aware of existing signposted speed limits.

5.4 Site Inspections and Record Keeping

The construction operation will be monitored to ensure that it proceeds as set out in the Contractor's Construction Management Plan provided by the Head Contractor. A daily inspection before the start of the construction activity should take place to ensure that conditions accord with those stipulated in the plan and there are no potential hazards. Any possible adverse impacts will be recorded and dealt with if they arise.

5.5 Site Induction

All staff employed on the site by the Principal Contractor (including sub-contractors) will be required to undergo a site induction.

The induction will include permitted access routes to and from the construction site for site staff and delivery vehicles as well as parking conditions around the site and other standard environmental, OH&S, driver protocols and emergency procedures.

6 Summary and Conclusion

This CTMP has been prepared to document the proposed construction activities and associated construction traffic management measures necessary to facilitate the construction of the proposed development at Nos. 27-47 Berry Road, Nos. 26-50 Park Street and Nos. 48-54 River Road, St Leonards.

The salient findings contained in this CTMP are as follows:

- The proposed construction works is expected to take approximately 22 months.
- The largest construction vehicle that will access the site is a 19.6m truck and dog.
- The construction of the proposed development is expected to generate up to 20 vehicle movement per hour on average.
- The traffic generation is considered to be low and as such can be satisfactorily accommodated in the surrounding road network.
- It is proposed for loading/unloading of construction vehicles to occur within the site and/or use the proposed works zones on Berry Road and Park Road.
- A number of driver protocols will be established as part of the site induction procedure for drivers to ensure the safety of motorists, pedestrians and cyclists.
- Truck drivers will be instructed to use the designated truck routes to/from the site.

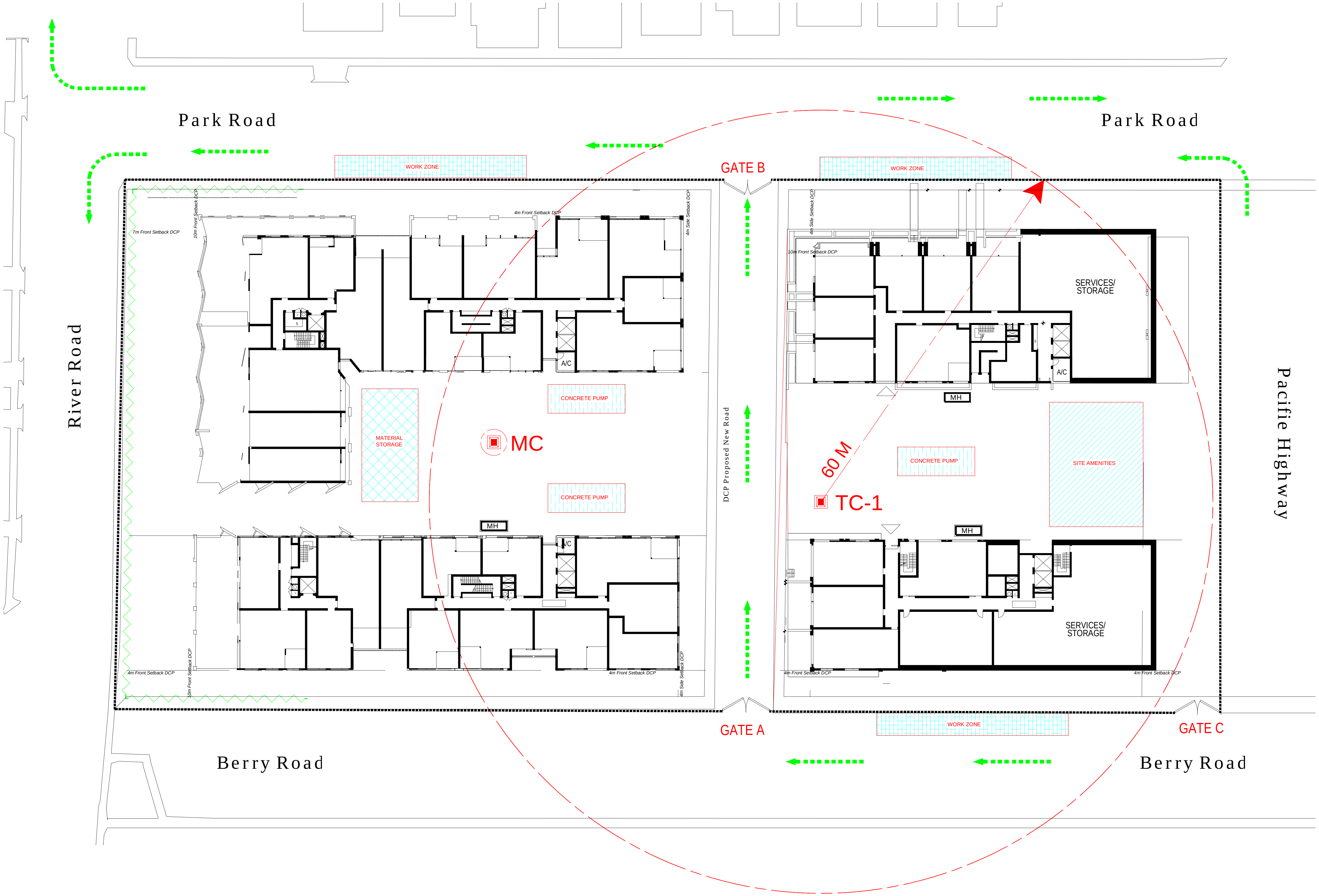
In summary, it is concluded that the proposed traffic control measures will adequately address potential implications associated with proposed construction activities.

Appendix A

Staging Plan

SITE ESTABLISHMENT PLAN

26-34 Park Road St Leonards NSW



LEGEND

- Site Amenities
- Material Storage
- Direction of traffic
- TC Tower Cranes Location
- MC Mobile Crane Location
- MH Man & Material Host
- Construction & Loading Zor
- GATE
- TEMPERARY HOARDING
- SITE FENCE
- WORK ZONE

REV	DESCRIPTION	DATE
A	FOR APPROVAL	12/10/22

JQZ-DESIGN

Retails 24&25, 1 Nipper Street
Homebush NSW 2140
T 02-9745 2688 F 02-9745 2666

PROJECT

26-34 PARK ROAD
ST LEONARDS NSW

CLIENT

XXXX DEVELOPMENT P/L
RETAIL 24&25, 1 NIPPER STREET HOMEBU

DRAWING TITLE

CONSTRUCTION MANAGEMENT PLAN

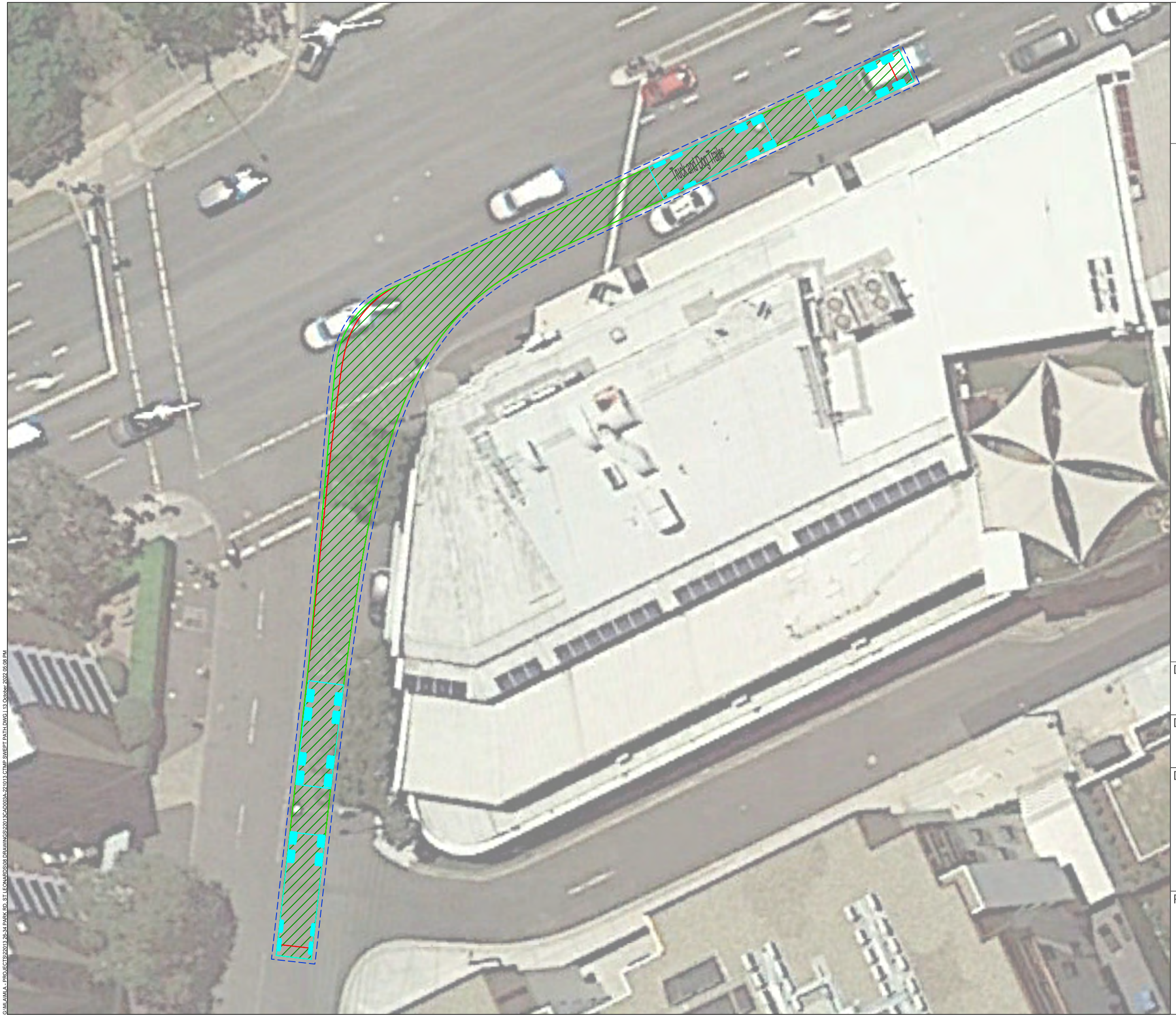
DESIGN	SCALE	CHECKED
L.L	NFS	S.C.
JOB NO.	DRAWING No.	ISSUE
JQZ-SL-2	SL-2-CM-01	A

CID: 11-10-2022 10:48

A1 PAPER SCALE 1:100 A3 PAPER SCALE 1:200

Appendix B

Swept Path Diagrams

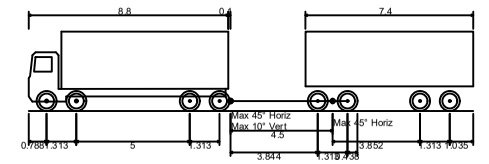


Transport Planning
Level 13 | 465 Victoria Ave
Chatswood | NSW | 2067

NOTE: REVERSING OF VEHICLES TO AND FROM SITE WILL REQUIRE APPROVAL FROM COUNCIL. EVEN IF COUNCIL APPROVES, IT WILL NEED TO BE CONDUCTED UNDER THE SUPERVISION OF QUALIFIED TRAFFIC CONTROLLERS.

KEY:

	Forward	Reverse
Wheel Path		
Body Envelope		
Clearance (300mm)		



Truck and Dog Trailer	
Overall Length	19.600m
Overall Width	2.500m
Overall Body Height	3.500m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12.500m

DATE:	SCALE:
13 OCTOBER 2022	1:250@A3
DRAWING NO.:	REV:
22013CAD003A-001	A

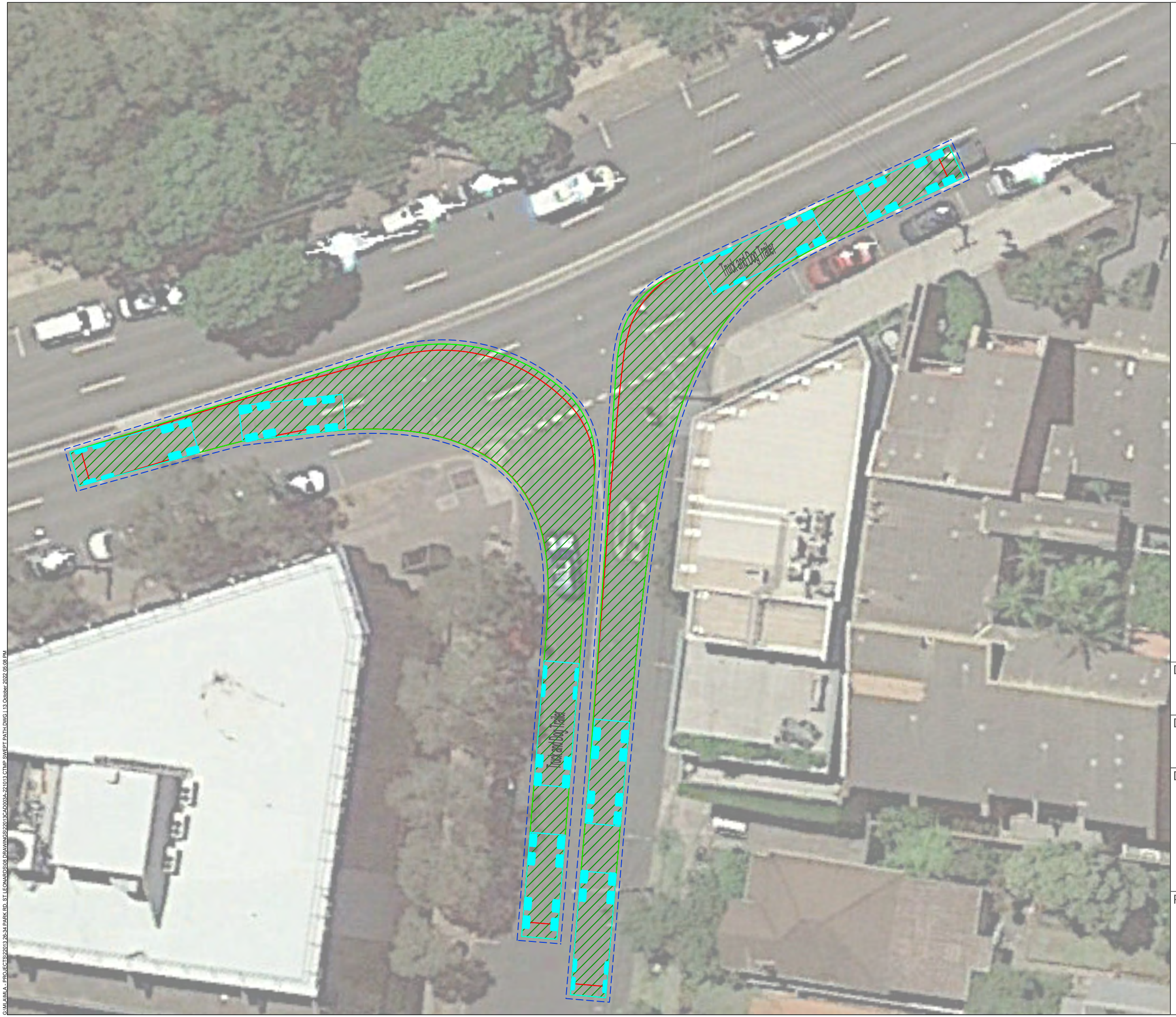
DRAWING TITLE:

SWEPT PATH ANALYSIS - 19.6M TRUCK AND DOG TURNING FROM PACIFIC HWY INTO BERRY RD

PROJECT:

26-34 PARK RD, ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT

G:\MLA\MLA - PROJECTS\22013 26-34 PARK RD, ST LEONARDS\08.DRAWINGS\22013CAD003A-221013.CTMP SWEPT PATH.DWG,1:13 October 2022 05:08 PM

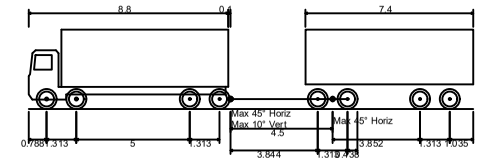


Transport Planning
Level 13 | 465 Victoria Ave
Chatswood | NSW | 2067

NOTE: REVERSING OF VEHICLES TO AND FROM SITE WILL REQUIRE APPROVAL FROM COUNCIL. EVEN IF COUNCIL APPROVES, IT WILL NEED TO BE CONDUCTED UNDER THE SUPERVISION OF QUALIFIED TRAFFIC CONTROLLERS.

KEY:

	Forward	Reverse
Wheel Path		
Body Envelope		
Clearance (300mm)		



Truck and Dog Trailer	
Overall Length	19.600m
Overall Width	2.500m
Overall Body Height	3.500m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12.500m

DATE: 13 OCTOBER 2022

SCALE: 1:250@A3

DRAWING NO.: 22013CAD003A-002

REV: A

DRAWING TITLE: SWEPT PATH ANALYSIS - 19.6M TRUCK AND DOG TURNING TO/FROM PACIFIC HWY AT PARK RD

PROJECT: 26-34 PARK RD, ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT

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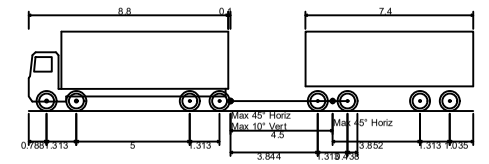
KEY:

	Forward	Reverse
Wheel Path		
Body Envelope		
Clearance (300mm)		



Truck and Dog Trailer	
Overall Length	19.600m
Overall Width	2.500m
Overall Body Height	3.500m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12.500m

DATE:	SCALE:
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DRAWING NO.:	REV:
22013CAD003A-003	A

DRAWING TITLE:

SWEPT PATH ANALYSIS - 19.6M TRUCK AND DOG TURNING FROM PARK RD INTO RIVER RD

PROJECT:

26-34 PARK RD, ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT

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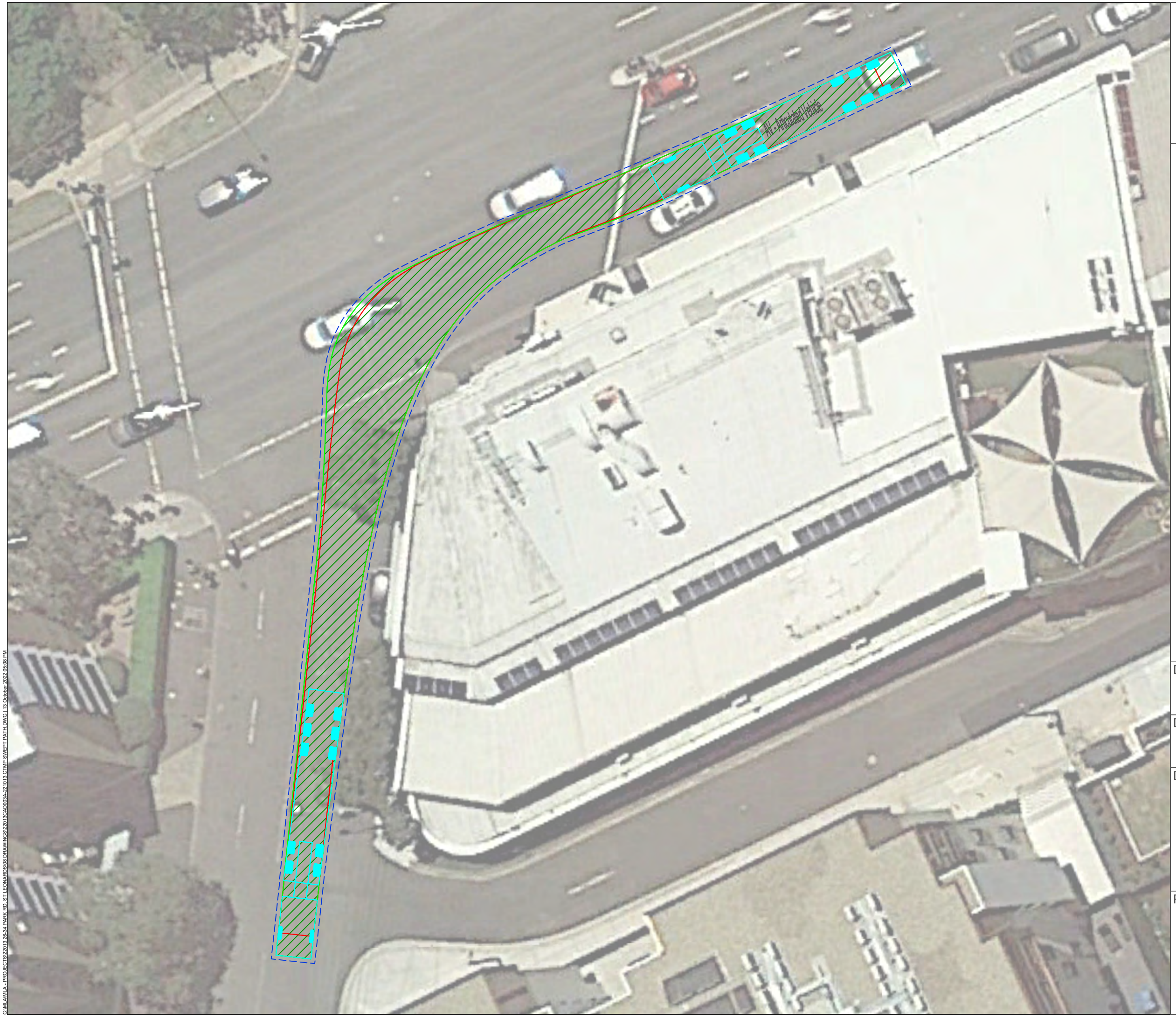

Transport Planning
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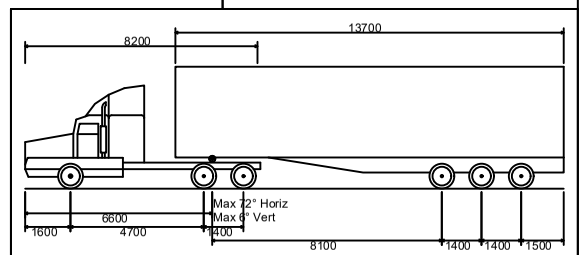
KEY:

	Forward	Reverse
Wheel Path		
Body Envelope		
Clearance (300mm)		



AV - Articulated Vehicle

Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4301mm
Min Body Ground Clearance	418mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

DATE:	SCALE:
13 OCTOBER 2022	1:250@A3
DRAWING NO.:	REV:
22013CAD003A-004	A

DRAWING TITLE:

SWEPT PATH ANALYSIS - AS2890.2 19M ARTICULATED VEHICLE TURNING FROM PACIFIC HWY INTO BERRY RD

PROJECT:

26-34 PARK RD, ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT

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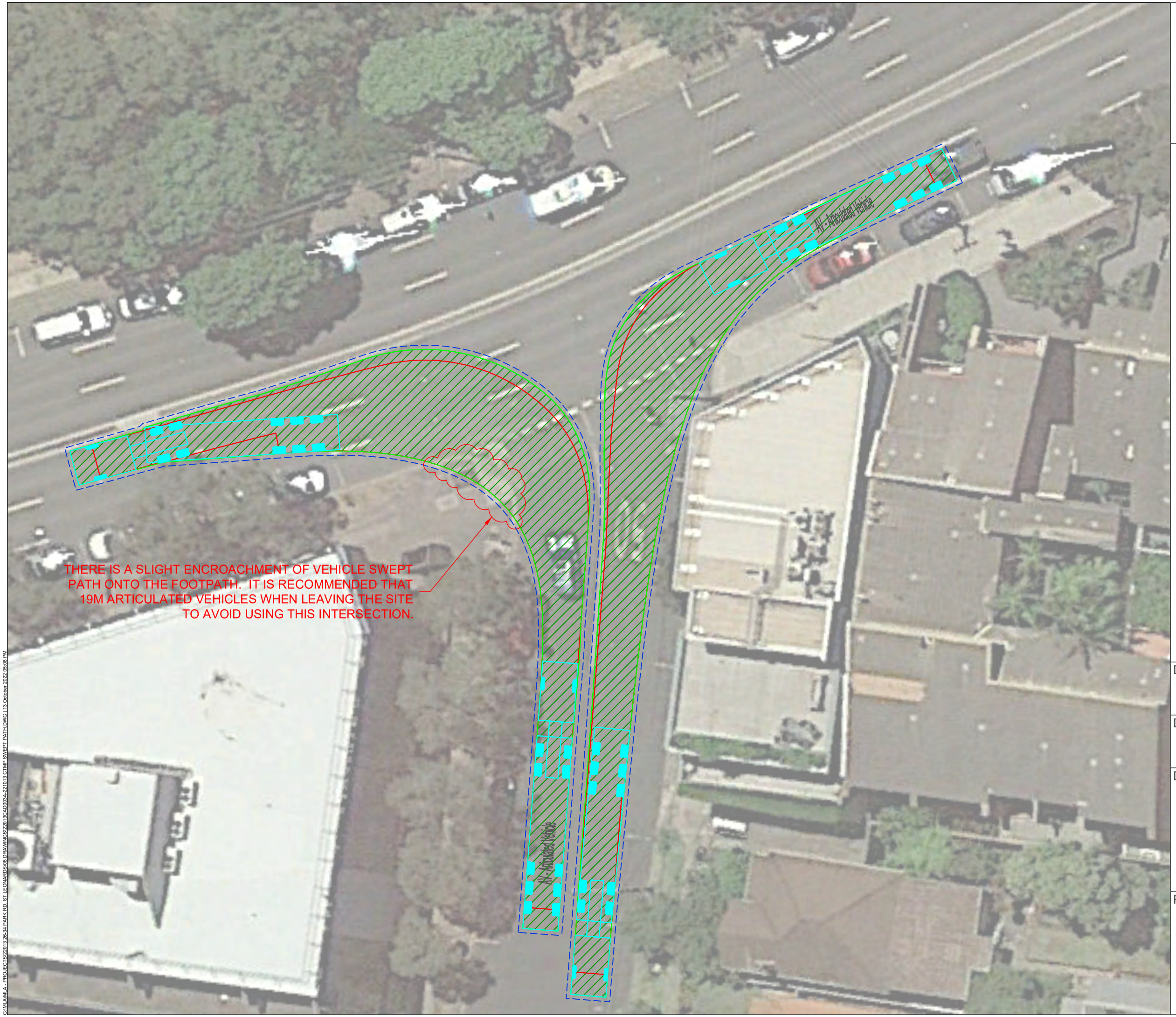

Transport Planning
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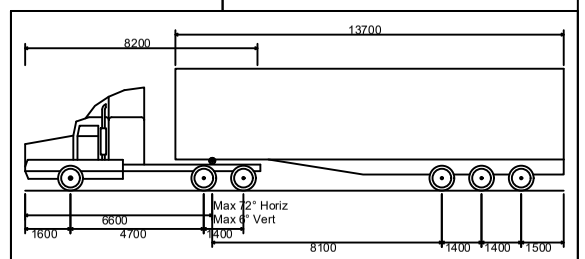
NOTE: REVERSING OF VEHICLES TO AND FROM SITE WILL REQUIRE APPROVAL FROM COUNCIL. EVEN IF COUNCIL APPROVES, IT WILL NEED TO BE CONDUCTED UNDER THE SUPERVISION OF QUALIFIED TRAFFIC CONTROLLERS.

KEY:

	Forward	Reverse
Wheel Path		
Body Envelope		
Clearance (300mm)		



AV - Articulated Vehicle

Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4301mm
Min Body Ground Clearance	418mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

DATE:	SCALE:
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DRAWING NO.:	REV:
22013CAD003A-005	A

DRAWING TITLE:
SWEPT PATH ANALYSIS - AS2890.2 19M ARTICULATED VEHICLE TURNING TO/FROM PACIFIC HWY AT PARK RD

PROJECT:
26-34 PARK RD, ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT

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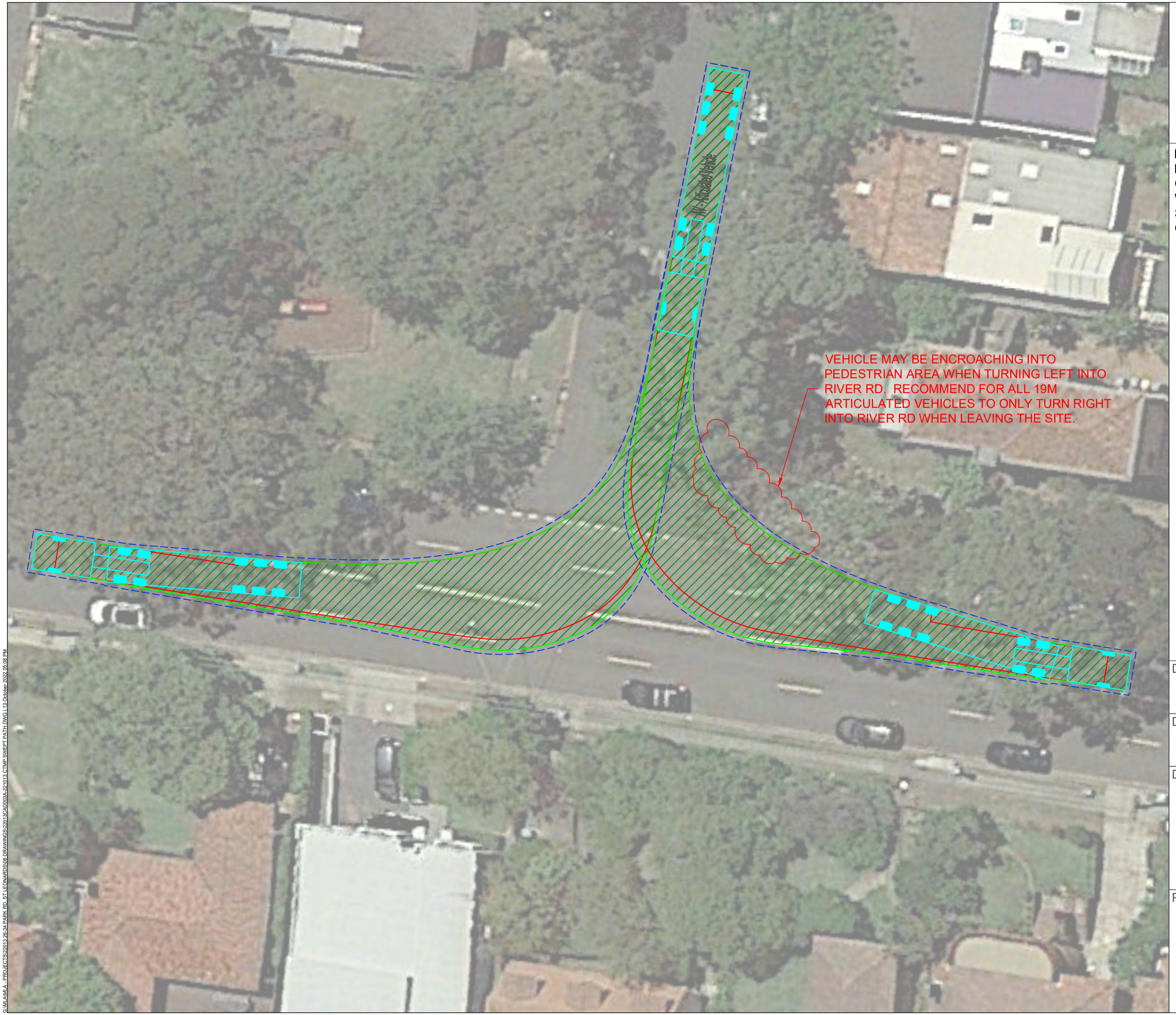

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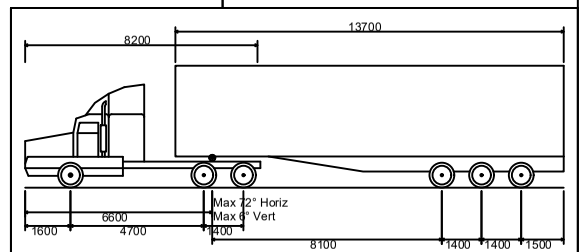
KEY:

	Forward	Reverse
Wheel Path		
Body Envelope		
Clearance (300mm)		



AV - Articulated Vehicle

Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4301mm
Min Body Ground Clearance	418mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

DATE:	SCALE:
13 OCTOBER 2022	1:250@A3
DRAWING NO.:	REV:
22013CAD003A-006	A

DRAWING TITLE:
SWEPT PATH ANALYSIS - AS2890.2 19M ARTICULATED VEHICLE TURNING FROM PARK RD INTO RIVER RD

PROJECT:
26-34 PARK RD, ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT

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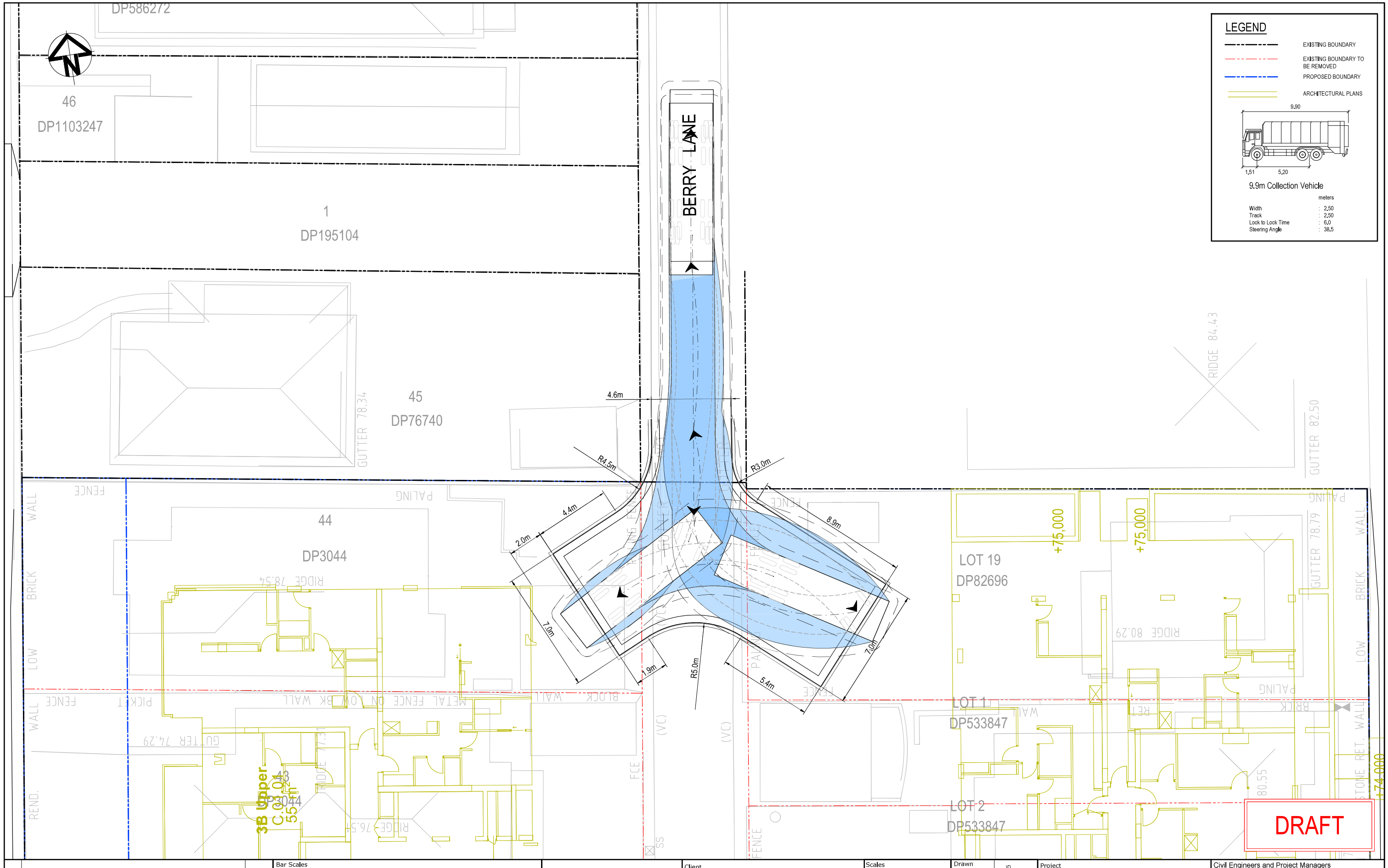
Appendix C

Swept Path Diagram for Berry Lane Temporary Turning Area



LEGEND

- EXISTING BOUNDARY
- EXISTING BOUNDARY TO BE REMOVED
- PROPOSED BOUNDARY
- ARCHITECTURAL PLANS

9.9m Collection Vehicle

	meters
Width	: 2,50
Track	: 2,50
Lock to Lock Time	: 6,0
Steering Angle	: 38,5

Issue	Description	Date
A	ISSUED FOR DA APPROVAL	16-11-22

100mm on Original

Bar Scales

0 2 4 6 8 10m

1 : 100 @ A1 1 : 200 @ A3

Client

BERRY ROAD DEVELOPMENT PTY LTD.

Scales	1:100	Drawn	JD
		Designed	JD
Grid	MGA 94	Checked	SS
Height Datum	AHD	Approved	

Project

26-50 PARK RD, 27-47 BERRY RD, 48-54 RIVER RD, NSW 2065 (AREA 22 & 23)

Title

PROPOSED BERRY LANE Y-HEAD TURNING OPTION 9.9m VEHICLE

Civil Engineers and Project Managers

at&l

Level 7, 153 Walker Street
North Sydney
NSW 2060
P 02 9439 1777
E info@atl.net.au
www.atl.net.au
ABN 96 130 882 405

Status: FOR INFORMATION (NOT TO BE USED FOR CONSTRUCTION)

A1

Project - Drawing No.: 22-1013-DAC1803

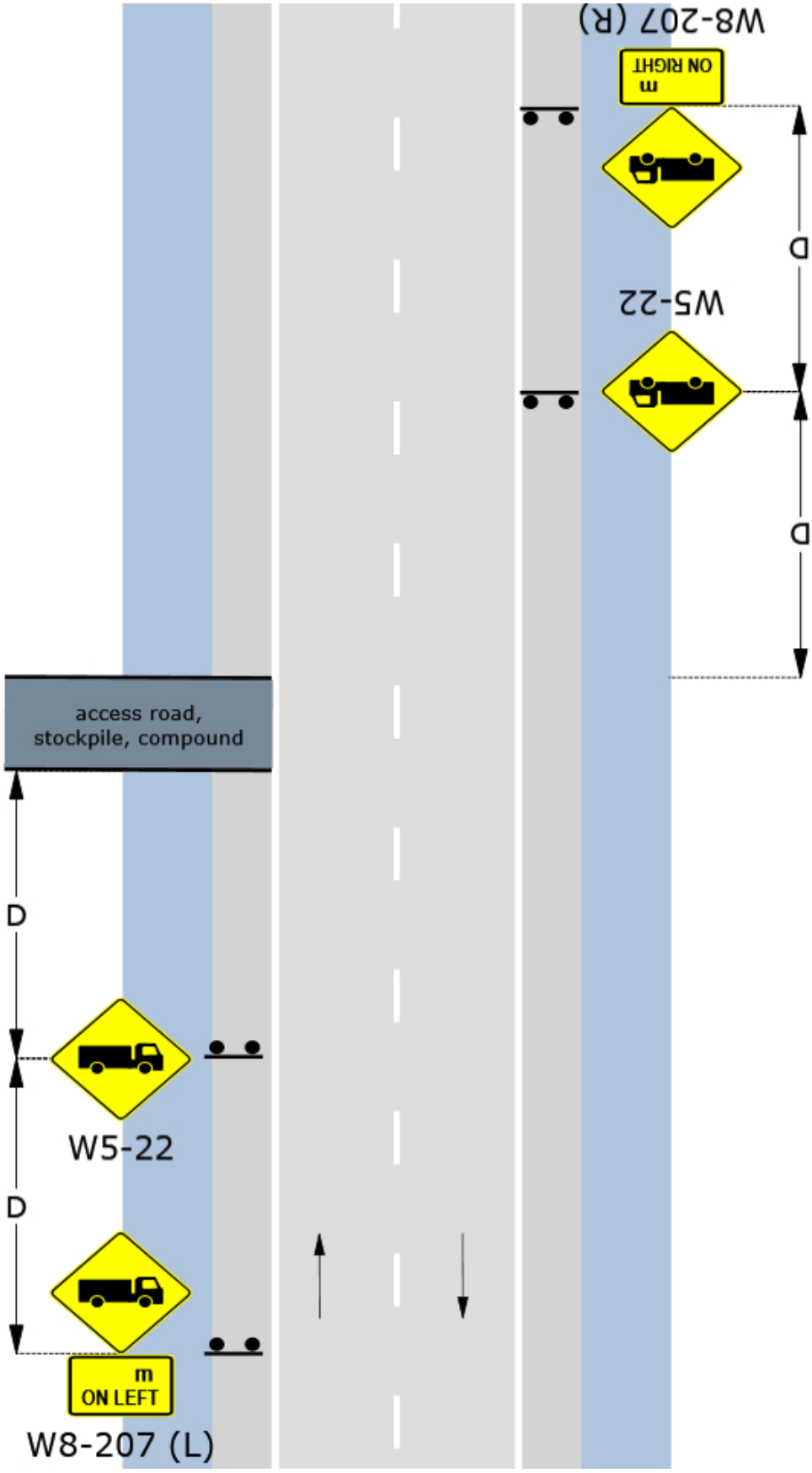
Issue: A

F:\22-1013 Park Road St Leonards\6.0 Drgs\Civil\Final\1000 DA\22-1013-DAC1803.dwg

Appendix D

Traffic Control Plans

D.4.7 Static: Access to depot, stockpile, quarry, gravel pit etc. all roads (formerly TCP 195)



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CERTIFICATION:

THIS PLAN HAS BEEN APPROVED BY MICHAEL LEE - SAFEWORK NSW CERTIFICATION PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN CARD NO. TCT0050549.

GENERAL NOTES:

1. ALL TRAFFIC CONTROLLERS TO BE ROADS AND MARITIME SERVICES ACCREDITED.
2. EACH TRAFFIC CONTROLLER TO CONTROL TRAFFIC IN ONE LANE ONLY.
3. THIS TCP IS TO BE SETUP/INSTALLED BY ROADS AND MARITIME SERVICES ACCREDITED PERSONS.
4. THIS TCP MAY BE MODIFIED ON SITE TO SUIT ON-SITE CONDITIONS BY ROADS AND MARITIME SERVICES ACCREDITED PERSONS.
5. ALL SIGNS TO BE MINIMUM SIZE A.
6. ALL SIGNS TO BE POSITIONED SUCH THAT THEY ARE NOT OBSCURED BY BUILDINGS, PARKED VEHICLES, TREES AND OTHER OBSTRUCTIONS AND THAT THEY DO NOT OBSCURE EXISTING SIGNS.
7. PEDESTRIAN ACCESS AROUND THE WORK SITE ARE TO BE MAINTAINED AT ALL TIMES WHEREVER POSSIBLE.
8. TRAFFIC CONTROLLERS TO ASSIST PEDESTRIAN AROUND THE WORK SITE.
9. WORKERS DEPLOYED FOR CROWD CONTROL ARE TO REMAIN WITHIN THE PEDESTRIAN AREAS AT ALL TIMES.
10. THE TRAFFIC MANAGER IS TO PERIODICALLY REVIEW ON-SITE CONDITIONS AND MODIFY THE TCP AS REQUIRED.
11. THE TRAFFIC MANAGER IS TO ENSURE ALL SIGNS ARE IN GOOD CONDITIONS.
12. ALL RELEVANT SIGNS/DEVICES ARE TO BE COVERED/ REMOVED WHEN WORKERS ARE NOT ON SITE.

DATE:	SCALE:
14 OCTOBER 2022	NTS
DRAWING NO.:	REV:
22013CAD004A-001	A

DRAWING TITLE:

TRAFFIC CONTROL PLAN - ALL STAGES

PROJECT:

26-34 PARK RD, ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT

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MLA Transport Planning

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