



Riverlands Cycleway Construction Traffic and Parking Assessment

Prepared for:

Mirvac

7 November 2023

The Transport Planning Partnership

Riverlands Cycleway

Construction Traffic and Parking Assessment

Client: Mirvac

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- B. TRAFFIC CONTROL PLAN
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1 Introduction

1.1 Overview

The Transport Planning Partnership (TPPP) previously prepared a separate traffic impact assessment on behalf of Mirvac for the proposed Riverlands Golf Course Redevelopment for Development Application (DA) lodgement to City of Bankstown Canterbury. As a separate part of the DA, a 3.5m wide off-road cycleway and bridge crossings along the George River foreshore are being proposed to address the Voluntary Planning Agreements (VPA) requirements.

The proposed cycleway will connect two existing Council reserves, namely Vale of Ah Reserve and Deepwater Reserve. It also connects with a local road in the future subdivision.

As the subject area is mapped as Coastal Management Protection Zone under the *SEPP (Coastal Management) 2018*, an Environmental Impact Statement (EIS) is required to accompany the DA. The Department of Planning 'Secretary's Environmental Assessment Requirements' (SEARs) require an assessment to review the following traffic and transport issues:

- Details of road transport routes and access to the site
- Road traffic predictions for the development during construction.

On this basis, TPPP has prepared this Construction Traffic and Parking Assessment on behalf of Mirvac to assess the traffic implications of the proposed construction activities on the local community, and outline how vehicular, cyclists and pedestrian traffic will be managed during construction of the proposed cycleway.

This report provides a structured approach to manage traffic and road safety issues during construction of the project to provide a safe road environment, minimise the impact on the surrounding road network and maintain access for all road users and the local community.

1.2 Purpose of this Report

The purpose of this report is to:

- manage access to/from adjacent properties during the construction stage
- manage construction vehicle activity and general traffic around the work site
- restrict construction vehicle movements to designated routes to/from the work site
- provide a safe environment for vehicular, pedestrian and cyclist movements at all times during construction

- maintain accessibility for the local community and provide appropriate access to public transport services
- provide regular information to road users and local communities regarding any changed traffic conditions.

This construction traffic and parking assessment report has been checked by engineers who hold the TfNSW *Prepare a Work Zone Traffic Management Plan* certification.

2 Existing and Future Transport Conditions

2.1 Site Description

The subject site/cycleway is located along the eastern bank of Georges River between two existing Council reserves, namely Vale of Ah Reserve and Deepwater Park, and is located within the Local Government Area (LGA) of City of Canterbury Bankstown Council (Council). The site will border the former Riverlands Golf Course site in Milperra in which the abovementioned DA is proposed to be located.

In October 2016, the Department of Planning and Environment (DPE) approved the proposed rezoning of the DA subject site to R2 Low Density Residential. The remaining part of Riverlands Golf Course Site is zoned as RE2 Private Recreation while the eastern foreshore of Georges River is zoned as RE1 Public Recreation based on the Bankstown Local Environmental Plan (LEP) 2015 Land Zoning Map. Zone RE1 permits the land to be used for public open space for recreational purposes.

The area surrounding the start/end of the cycleway site is also characterised as RE1 Public Recreation.

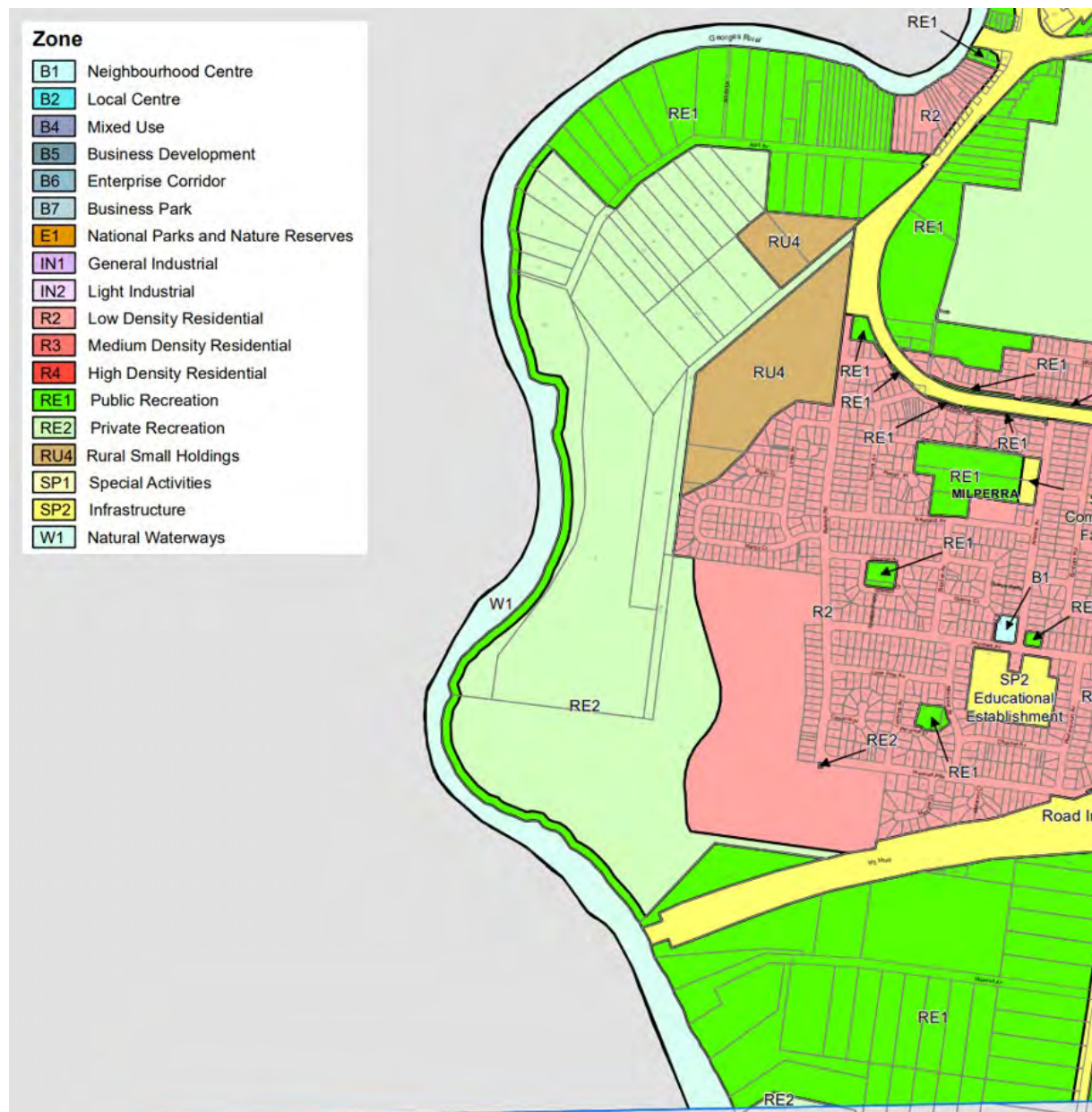
The subject cycleway and its surrounds are shown in Figure 2.1 while the Bankstown LEP 2015 Land Zoning Map is shown in Figure 2.2.

Figure 2.1: Site Locality



Basemap source: Google Maps Australia

Figure 2.2: Bankstown LEP 2015 Land Zoning Map



Source: Bankstown LEP 2015 Land Zoning Map

2.2 Abutting Road Network

Access to the work site of the proposed cycleway is via local roads adjoining off Henry Lawson Drive. A brief description of these roads is provided below.

Henry Lawson Drive

Henry Lawson Drive is a classified State Road that runs from Hume Highway at Lansdowne to Forest Road at Peakhurst. Within the site vicinity, it generally runs in a north-south alignment

with a posted speed limit of 60km/h. It is configured as a two-way road and generally has one travel lane in each direction.

Transport for NSW (TfNSW) has commenced planning a 7.5 kilometre upgrade of Henry Lawson Drive between M5 Motorway, Milperra and Hume Highway, Lansdowne. The two lane road will be widened to four lanes. The upgrade is to be carried out in stages, with the first stage involving the following key features:

- Widening of Henry Lawson Drive, for approximately 2.5 kilometres between the M5 and Tower Road (just north of Milperra Road), to the north and east of the Riverlands Golf Course site.
- Widening of the minor bridge north of Keys Parade to accommodate the additional lanes, to the north of the Riverlands Golf Course site.
- Upgrade the intersection of Henry Lawson Drive, Newbridge Road and Milperra Road.

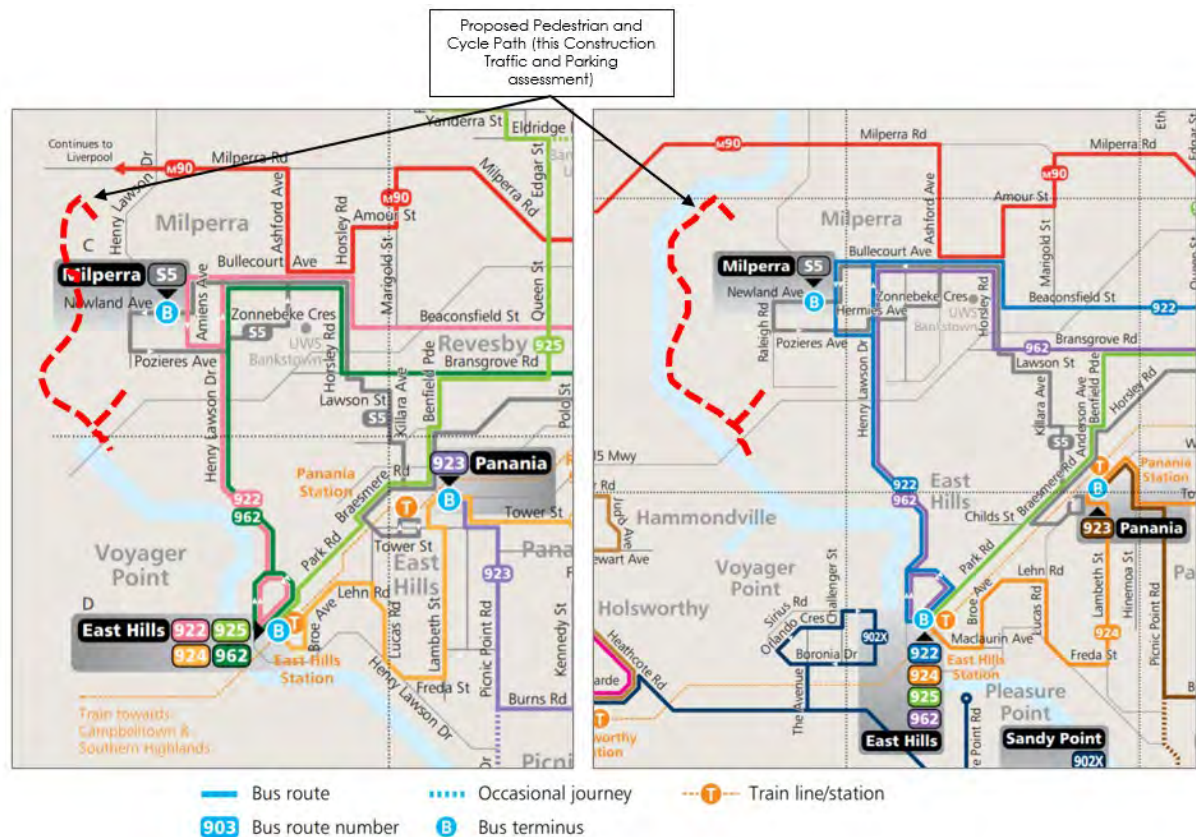
Auld Avenue

Auld Avenue is a local cul-de-sac road aligned in an east-west direction and intersects with Henry Lawson Drive. Auld Avenue provides access to Vale of Ah Reserve and surrounding public recreation areas. Kerbside parking is permitted on Auld Avenue and has a posted speed limit of 50km/h. There is a gated entrance on Auld Avenue to access Vale of Ah Reserve. Vehicle access to the proposed construction site is via an unsealed section of Auld Avenue.

2.3 Public Transport Services

No public transport services are in the immediate vicinity of the proposed start/end of the cycleway. However, a number of public bus service stops are located along Henry Lawson Drive. The bus network maps for the Transdev Bankstown, Hurstville and Miranda region and the Transdev Parramatta, Bankstown and Liverpool region are shown in Figure 2.3.

Figure 2.3: Existing Local Bus Network Maps



Source Left: Transdev Bankstown, Hurstville and Miranda Network

Source Right: Transdev Parramatta, Bankstown and Liverpool Network

In addition to the above, East Hills railway station is located some 1.6km south-east of Deepwater Park Reserve (i.e. the southern end of the proposed cycleway).

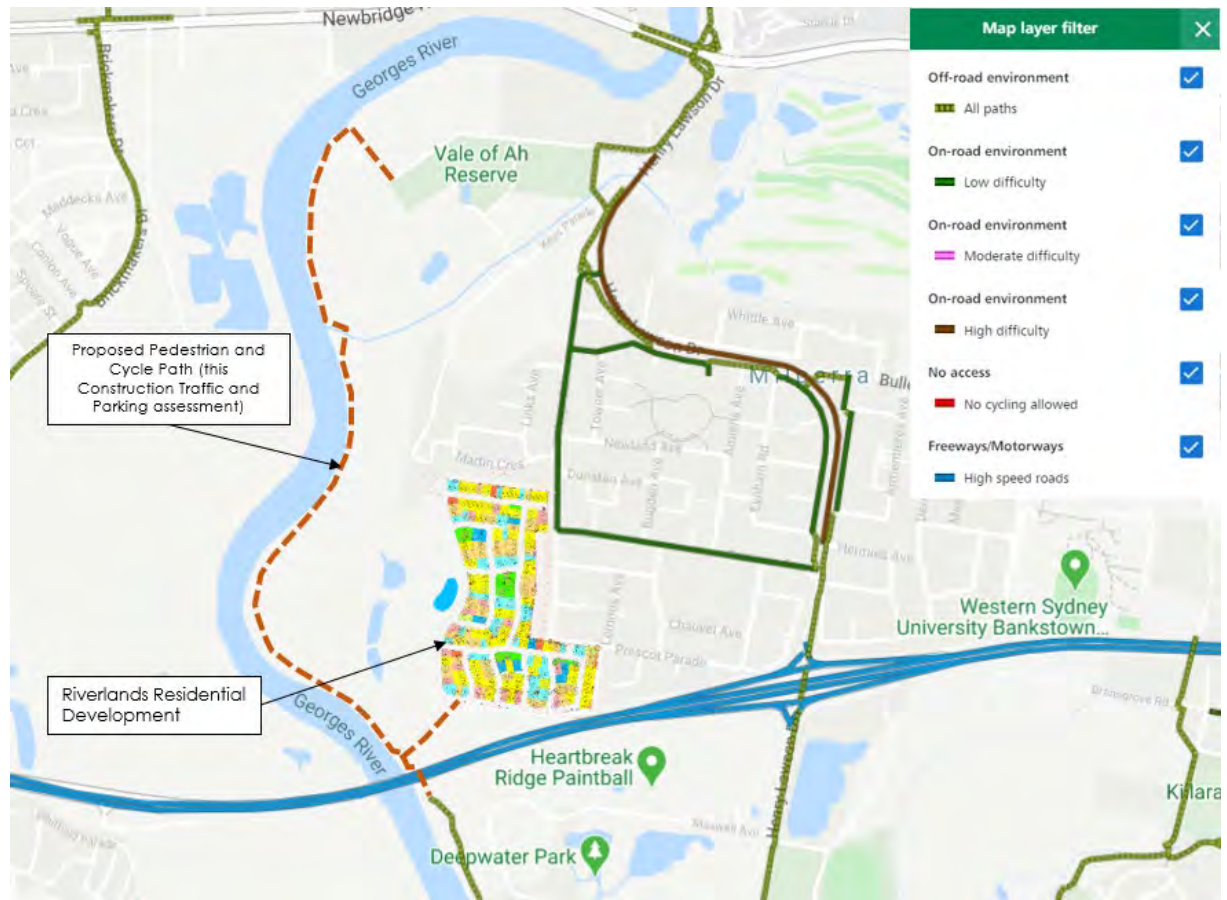
2.4 Pedestrian and Cycle Infrastructure

No pedestrian facilities are provided in the immediate vicinity of the proposed cycleway path.

A network of on-road/ off-road cycle paths currently exist in the vicinity of the subject site. It is noted that the proposed cycleway would connect to the existing cycle path located near Deepwater Park.

A map showing the existing cycling facilities within the site vicinity is shown in Figure 2.4.

Figure 2.4: Existing Cycling Map



Basemap source: TfNSW Cycleway Finder

3 Proposed Construction Activities

This section of the report outlines the proposed construction methodology and details associated with the proposed construction activities.

3.1 Construction Activities and Duration

Construction of the proposed cycleway comprises the following activities concurrently:

- Stripping of topsoil.
- Construction of the footpath and bridges/elevated paths.

These activities will occur concurrently and are anticipated to take approximately 10 weeks to complete, weather permitting. Works are anticipated to commence subject to DA approval for the proposed Riverlands Golf Course Redevelopment.

3.2 Construction Hours

Construction works shall be carried out during the following standard work hours:

- Monday to Friday 7:00am-6:00pm
- Saturday 8:00am-1:00pm
- no work to be undertaken on Sundays or public holidays.

In addition, any works outside the above work hours (as amended by the relevant consent conditions) will be subject to a separate application to the Council.

3.3 Construction Vehicles and Movements

Construction activities are likely to utilise in the order of 17 construction vehicles per day as follows:

- Two to three work utes
- One 6 tonne truck for material delivery
- One semi-trailer or rigid vehicle for delivery
- One 13 tonne excavator
- 10 concrete truck per day (assuming an average of 100m³ of concrete to be delivered a day).

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

- One off delivery of earth moving machinery including excavator and crane
- Concrete agitators for delivery of concrete

- Semi-trailer or 12.5 m heavy rigid trucks for delivery of construction material
- Small to medium rigid vehicles, vans and utility type vehicles for smaller deliveries.

It is anticipated that there would be on average 5 to 7 workers on site on any given day. Given the isolated location of the construction site, it is expected that all construction workers will travel by car.

Based on the above, it is estimated that in the order of 24 construction vehicles per day (i.e. 24 inbound movements and 24 outbound movements) will enter and exit the site throughout the working hours. These equate to the following peak hour traffic generation:

- 4 two-way vehicle movements for material deliveries during the AM peak hour, noting workers arrival trips will occur before the AM peak hour
- 11 two-way vehicle movements (including 4 heavy vehicle two-way movements, 7 workers' light vehicles leaving work) during the PM peak hour which could be reduced if workers stagger departure time after work.

3.4 Construction Site Access Arrangement

Site access to the proposed construction site is located at the western end of Auld Avenue as shown in Figure 3.1. There is a gated entrance on Auld Avenue to the sports fields in Vale of Ah Reserve. Construction vehicle access via the gate during the construction working hours will be discussed with Council for approval.

The fence on Auld Avenue west of the Vale of Ah Reserve car park will be removed for construction vehicle access. This will be reinstated following construction, if required by Council.

The unsealed section of Auld Avenue along the southern side of Vale of Ah Reserve is approximately 6m to 8m wide and is sufficient to accommodate construction vehicles passing each other. Where necessary, construction vehicle exiting the site will give way to other vehicles accessing the site to ensure safety.

Figure 3.1: Proposed Site Entry Location



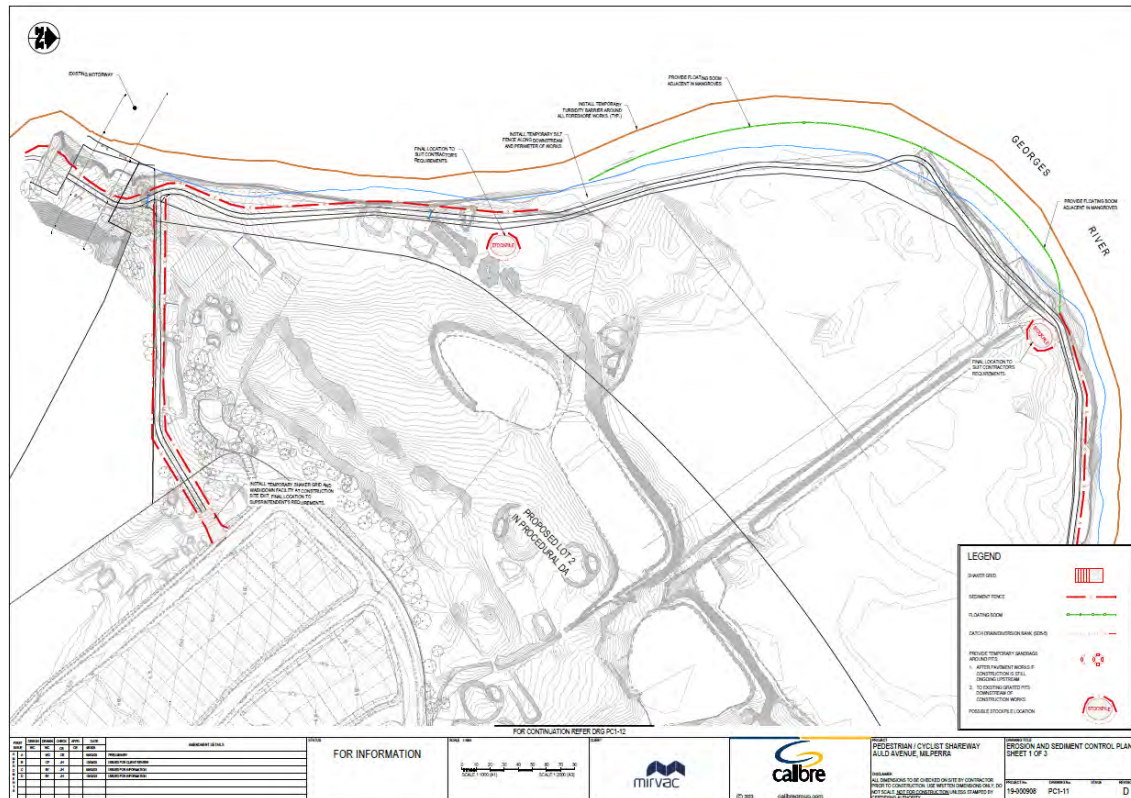
Basemap source: Nearmap

Inset source: Calibre Group site context plan

3.5 Site Layout

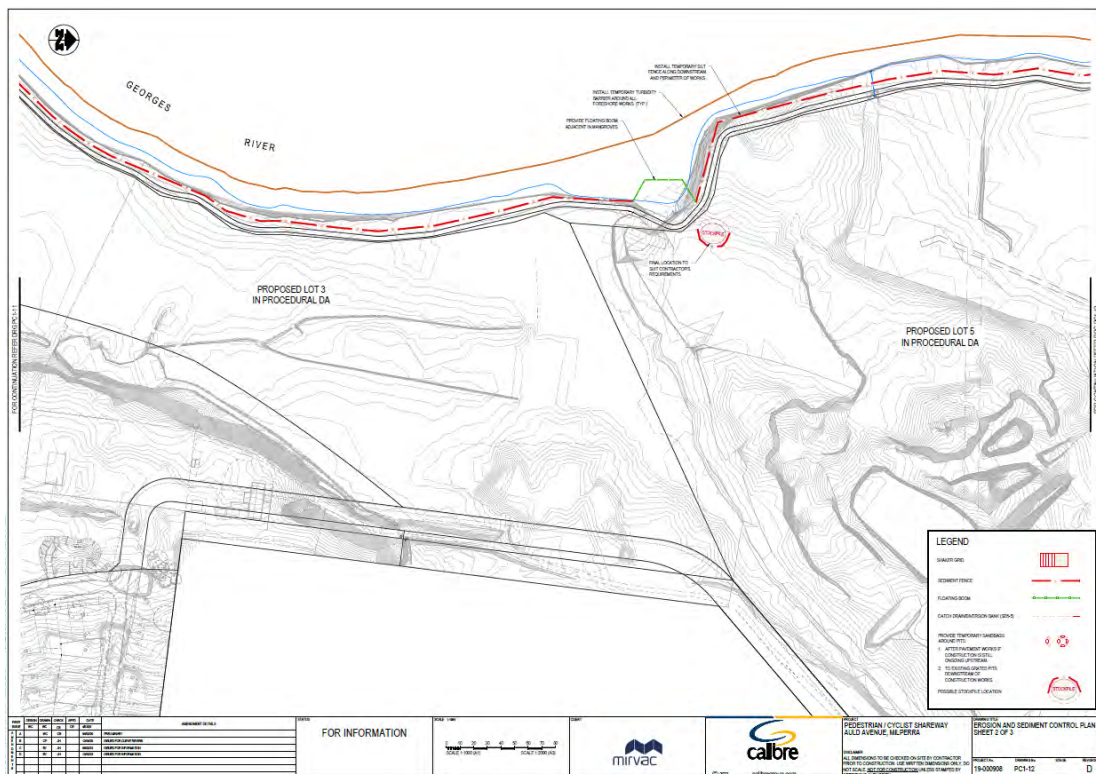
The proposed construction site context plan is provided as an enlargement in Appendix A. A brief site layout description is provided herein and also in Figure 3.2, Figure 3.3 and Figure 3.4.

Figure 3.2: Site Context Plan (Part 1)



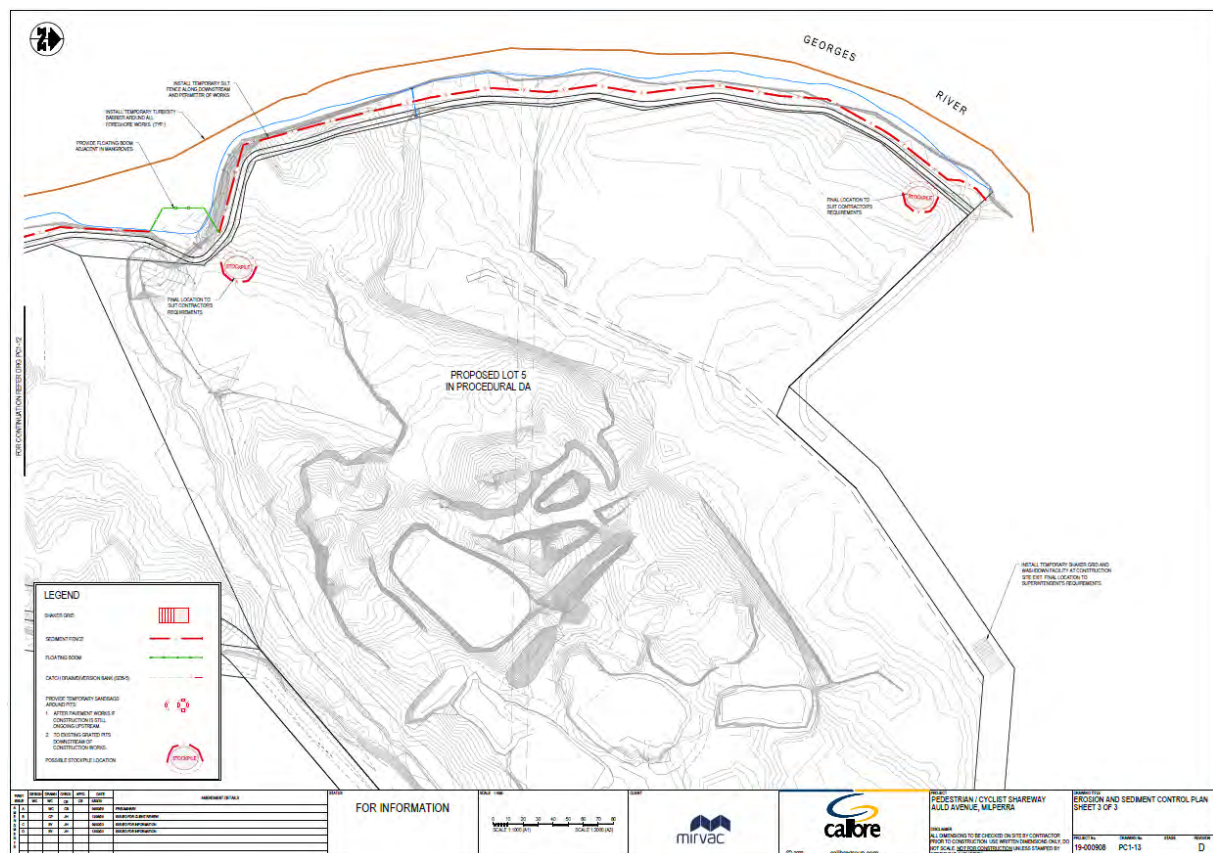
Source: Calbre Group site context plan

Figure 3.3: Site Context Plan (Part 2)



Source: Calbre Group site context plan

Figure 3.4: Site Context Plan (Part 3)



Source: Calibre Group site context plan

The site layout involves the following key features:

- A 1.2m high barrier mesh will be installed along the length of the proposed cycleway to define the extent of the construction site.
- Temporary fencing will be installed around the elevated bridge (325m long) located in the southern portion of the construction site.
- The Contractor's site compound including site office, amenities and storage will be located at the site entry at the western end of Auld Avenue.
- Two other areas will be designated for material storage, crane setup and line pump within the construction site.
- A 2.5m to 3m clearance between the edge of boardwalk and barrier mesh will be provided for the passage of construction vehicles and plant traffic, with a number of vehicle turning zones to be provided to facilitate turning movements within the construction site.

3.6 Construction Staff Parking

It is anticipated that there would be on average 5 to 7 workers on site on any given day. Staff parking would be provided in a dedicated area and would be contained wholly within the site.

Notwithstanding, there are some 187 existing car parking spaces available surrounding the Vale of Ah Reserve located some 250m (3.5 minute walk) from the site entry. The location of the existing parking area is shown in Figure 3.5.

It is anticipated construction staff parking would not impose adverse parking impacts on Auld Avenue.

Figure 3.5: Existing Car Parking near Vale of Ah Reserve



Basemap source: Google Maps

3.7 Maintenance Work

Following construction of the shared path, ongoing vegetation management would be carried out once every three to six months in the foreshore area.

In response to Condition 27 of the DA condition consent (DA-370/2020), a site access report has been prepared and presented in Appendix C for the swept path assessment of a 6.4m Small Rigid Vehicle (SRV) accessing the foreshore area via the shared path for ongoing vegetation management.

4 Construction Traffic Impact Assessment

4.1 Construction Traffic Generation

As indicated in Section 3.3, the construction activities would generate in the order of 48 two-way movements per day (i.e. 24 inbound movements and 24 outbound movements) throughout the working hours. During the AM and PM peak hours, it is anticipated that construction activities would generate 4 to 11 two-way vehicle movements associated with workers light vehicles and material delivery.

This level of traffic is considered low and not expected to result in any noticeable traffic impacts on the surrounding road network.

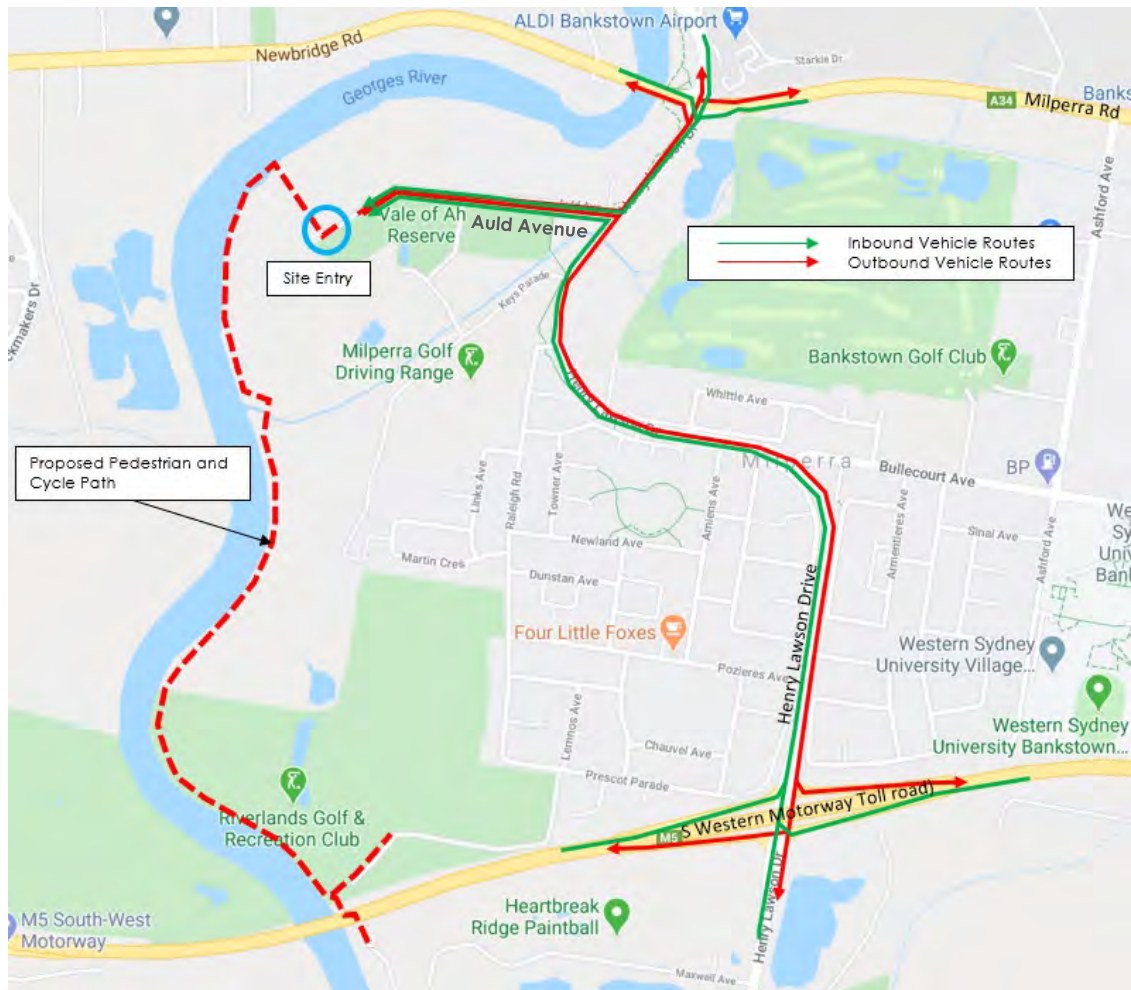
4.2 Construction Vehicle Routes

Construction vehicles generally have origins and destinations throughout Sydney, with an extensive network of roads made available for such trips.

To minimise the impact of construction traffic on local streets, dedicated construction routes have been developed to provide the shortest distances to/from the arterial road network. Truck drivers will be advised of the designated truck routes to/from the site.

The designated construction vehicle routes are presented in Figure 4.1.

Figure 4.1: Construction Truck Routes



Source: Google Maps Australia

4.3 Pedestrian and Cycle Access

As noted in Section 2.4 no pedestrian or cycle facilities are currently provided in the immediate vicinity of the proposed cycleway path. Barrier mesh will be installed along the length of the proposed cycleway to prevent thoroughfare to the construction site.

A car park entrance is located on Auld Avenue some 240m north east of the construction site access. This car park is utilised only when sporting events are held at Vale of Ah Reserve. Refer to Section 5.1 for proposed pedestrian management measures when sporting events are scheduled.

4.4 Public Transport

Construction activities are not expected to result in any impact on existing public transport services.

The number of on-site workers is minimal and is therefore not anticipated to generate significant demand on public transport services.

4.5 Emergency Vehicle

The proposed construction activities are not expected to create any impacts to emergency vehicle access. As such, no special provisions for emergency service vehicles will be required as part of the proposed construction works. Emergency vehicle access is to be maintained at all times.

5 Construction Traffic Management Measures

5.1 Traffic Management Measures

Traffic control plans (TCP) are presented in Appendix B with the following key features:

- Advisory road signs are to be installed on Henry Lawson Drive to warn drivers that trucks are turning into and out of the Henry Lawson Drive and Auld Avenue intersection.
- A Stop sign is to be installed on Auld Avenue, west of the Vale of Reserve car park, as such construction vehicle drivers would have to stop prior to the car park access.
- When sporting events are held at the Vale of Ah Reserve, a traffic controller will be placed at the car park access on Auld Avenue to manage truck movements to minimise conflicts between construction vehicles leaving the site and general vehicles accessing/leaving the car park.
- Construction vehicle drivers are to yield to pedestrians across Auld Avenue between the sports field and vehicles parked in the vicinity of the car park.

Notwithstanding, arrival and departure of construction trucks are to be scheduled outside the start/end periods of sporting events at Vale of Ah Reserve. The Principal Contractor will contact Council to obtain the pre-booked event schedule.

All advisory signs are to be installed in accordance with AS 1742.3 Manual of Uniform Traffic Control Devices – Traffic Control Devices for Works on Roads and the TfNSW Traffic Control at Worksites Manual. Signs are to be installed and maintained throughout the construction period where it applies.

5.2 Vehicle Access

Vehicle access to the Contractor's site compound is via an unsealed section of Auld Avenue along the southern side of Vale of Ah Reserve. This unsealed road is wide enough to accommodate vehicles passing each other. Where necessary, construction vehicle exiting the construction site will give way to other vehicles accessing the site to ensure safety.

All vehicles are to enter and exit the site in a forward direction. All vehicles are to use the dedicated vehicle turning zones located within the site to manoeuvre in and out of the site.

A temporary shaker grid and washdown facility would be installed at the construction site exit.

5.3 Truck Routes

Protocols must be in place to ensure:

- site induction to include procedures for accessing the site
- drivers adhere to the nominated truck routes, as shown in Figure 4.1.
- drivers are aware that pedestrians are in the vicinity of the site especially along Auld Avenue where sports events may be held at the Vale of Ah Reserve, and
- drivers are aware of the sign posted speed limit especially during school zone operational periods.

5.4 Site Inspections and Record Keeping

Daily inspections before the start of construction activity is to take place to ensure that conditions accord with those stipulated in the plan and that there are no potential hazards. Any possible adverse impacts are to be recorded and dealt with as they arise.

5.5 Site Induction

All staff employed on the site by Mirvac and its sub-contractors are required to undergo a site induction.

The induction is to include permitted access routes to and from the construction site as well as standard environmental, OH&S, driver protocols and emergency procedures.

6 Conclusion

This Construction Traffic and Parking Assessment report has been prepared to document the proposed construction activities and associated construction traffic management measures necessary to facilitate the construction works of the proposed cycleway along the Georges River foreshore.

Based on the findings contained in this report, the following conclusions have been made:

- The proposed construction activities including removal of topsoil and the construction of footpath and bridges/elevated paths would occur concurrently and is anticipated to be completed within 10 weeks (weather dependent).
- The construction works are anticipated to generate a maximum of 48 two-way vehicle movements per day or up to 11 vehicle movements per hour during the busiest period. The largest vehicle is to be a semi-trailer for material delivery to the site.
- There would be on average 5 to 7 workers on-site on any given day. Staff parking would be provided in a dedicated area and would be contained wholly within the site. In addition, there are some 187 existing car parking spaces available surrounding the Vale of Ah Reserve located some 250m (3.5 minute walk) from the site entry. Therefore construction workers would not impose an adverse parking impacts around the site.
- Access to the locked gate on Auld Avenue during the construction working hours is subject to Council's approval. The fence on Auld Avenue west of the Vale of Ah Reserve car park will be removed for construction vehicle access. This will be reinstated following construction if required by Council.
- A traffic controller would be present to manage pedestrian and vehicle interactions on Auld Avenue at the car park access. Arrival and departure of construction trucks are to be scheduled outside the start/end periods of sporting events at Vale of Ah Reserve. The Principal Contractor will contact Council to obtain the pre-booked event schedule.
- Vehicle access to the site compound is via an unsealed section of Auld Avenue. This unsealed road is wide enough to accommodate vehicles passing each other. Where necessary, construction vehicles exiting the site will give way to other vehicles accessing the site to ensure safety. All construction vehicles are to enter and exit the site in a forward direction.
- Advisory road signs are to be installed along surrounding roads consistent with the TCPs provided in Appendix B.
- A number of driver protocols will be established as part of the site induction for drivers to ensure the safety of motorists, pedestrians and cyclists.
- Truck drivers are to be instructed to use the designated truck routes to/from the site.

Overall, the construction traffic arrangements are considered acceptable for this project.

Appendix A

Site Plan

CITY OF CANTERBURY BANKSTOWN COUNCIL



LOCALITY MAP

NO.	DRAWING TITLE
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PC0-00	COVERSHEET, LOCALITY PLAN AND SHEET LIST
PC0-01	SITE KEYPLAN
PC0-02	GENERAL NOTES & LEGEND
PC1-11	EROSION AND SEDIMENT CONTROL PLAN SHT 1 OF 3
PC1-12	EROSION AND SEDIMENT CONTROL PLAN SHT 2 OF 3
PC1-13	EROSION AND SEDIMENT CONTROL PLAN SHT 3 OF 3
PC1-15	EROSION AND SEDIMENT CONTROL DETAILS
PC1-91	SITE CONTEXT PLAN
PC2-01	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 1 OF 14
PC2-02	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 2 OF 14
PC2-03	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 3 OF 14
PC2-04	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 4 OF 14
PC2-05	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 5 OF 14
PC2-06	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 6 OF 14
PC2-07	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 7 OF 14
PC2-08	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION- SHT 8 OF 14
PC2-09	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 9 OF 14
PC2-10	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 10 OF 14
PC2-11	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 11 OF 14
PC2-12	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 12 OF 14
PC2-13	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 13 OF 14
PC2-14	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 14 OF 14
PC2-15	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 1 OF 2
PC2-16	GENERAL ARRANGEMENT PLAN AND LONGITUDINAL SECTION - SHT 2 OF 2
PC2-50	TURNING PATH LAYOUT PLAN
PC3-10	SHARED PATH TYPICAL SECTIONS
PC3-80	CIVIL WORK DETAILS

DESIGN DRAWN CHECK APPD. DATE	WC	WC	CB	CB	15/01/20	AMENDMENT DETAILS	STATUS	SCALE : NTS	CLIENT	 mirvac  calibre © 2023 calibregroup.com	PROJECT PEDESTRIAN / CYCLIST SHAREWAY AULD AVENUE, MILPERRA DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE. NOT FOR CONSTRUCTION UNLESS STAMPED BY CERTIFYING AUTHORITY	DRAWING TITLE COVERSHEET, LOCALITY PLAN AND SHEET LIST PROJECT No. DRAWING No. STAGE REVISION 19-000908 PC0-00 D	
	A	WC	CB		26/02/20								PRELIMINARY
	B	CP	JH		12/06/20								ISSUED FOR CLIENT REVIEW
	C	BY	JH		09/02/23								ISSUED FOR INFORMATION
	D	BY	JH		13/02/23								ISSUED FOR INFORMATION

1. ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND COUNCIL SPECIFICATIONS.
2. ALL WORK WITHIN THE PUBLIC DOMAIN SHALL BE CARRIED OUT IN ACCORDANCE WITH AUSTRROADS' STANDARDS, COUNCIL'S STANDARDS AND SPECIFICATIONS. DETAILS SHOWN ON THE CONSTRUCTION DRAWINGS, AND TO THE REQUIREMENTS OF COUNCIL'S ENGINEER.
3. ALL LEVELS SHALL BE TAKEN FROM ESTABLISHED BENCH MARKS AND IN ACCORDANCE WITH AUSTRROADS STANDARDS AS PER THE REQUIREMENTS OF VPA.
4. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE CONSTRUCTION DRAWINGS.
5. ANY DISCREPANCIES OR OMISSIONS WITH OTHER CONSULTANTS' DRAWINGS SHALL BE REFERRED TO THE SUPERINTENDENT FOR A DECISION BEFORE PROCEEDING WITH THE WORK.
6. VEHICULAR ACCESS AND SERVICES TO ADJOINING PROPERTIES TO BE MAINTAINED AT ALL TIMES.
7. WRITTEN PERMISSION SHALL BE OBTAINED FROM ADJOINING OWNERS PRIOR TO COMMENCEMENT OF ANY RELEVANT CONSTRUCTION AFFECTING ADJOINING LANDS.
8. THE CONTRACTOR SHALL TAKE ALL DUE CARE THAT ONLY THE ABSOLUTE MINIMUM OF AREA FOR CONSTRUCTION IS USED AND THAT NO UNDUE DAMAGE IS DONE TO THE EXISTING VEGETATION.
9. NO WORK TO BE CARRIED OUT IN SUNDAYS.
10. ALL RUBBISH, TEMPORARY OFFICES, SHEDS AND FENCES TO BE REMOVED AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY AND PRIOR TO SITE HANDOVER.
11. FINAL ALIGNMENT OF THE ON-GROUND SHAREPATH TO BE CONFIRMED BY THE SITE SUPERINTENDENT TO AVOID TREES. SHAREPATH TO BE FULLY MAINTAINED WITHIN THE CONFINES OF THE SITE BOUNDARIES AND ENGINEERING CONTROLS.

ORIGIN OF LEVELS: PM 25366, RL16.838
 DATUM OF LEVELS: AHD
 SURVEY SOURCED FROM:
 • CALIBRE SURVEY DATED 05/02/2020
 • DRONE SURVEY PREPARED BY ORION DATED 31/01/2023

1. ANY INACCURACIES IN THE SURVEY INFORMATION PROVIDED TO US FROM ANY CAUSE WHATSOEVER, CONTACT CALIBRE SURVEY.
2. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT CALIBRE. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM THE ORIGINAL SURVEY DOCUMENTS.

NOTE: FOR EXISTING SERVICES TYPES REFER EXISTING SERVICES LEGEND.

1. CALIBRE DOES NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THIS DRAWING SHOWS MORE THAN THE PRESENCE OR ABSENCE OF SERVICES, AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION FROM ANY CAUSE WHATSOEVER.
2. THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM INFORMATION PROVIDED BY SERVICE AUTHORITIES AND THE SURVEYOR. THIS INFORMATION HAS BEEN PREPARED SOLELY FOR THE AUTHORITIES OWN USE AND MAY NOT NECESSARILY BE UPDATED OR ACCURATE.
3. THE POSITION OF SERVICES AS RECORDED BY THE AUTHORITY AT THE TIME OF INSTALLATION MAY NOT REFLECT CHANGES IN THE PHYSICAL ENVIRONMENT SUBSEQUENT TO INSTALLATION.
4. THE CONTRACTOR MUST CONFIRM THE EXACT LOCATION AND EXTENT OF SERVICES PRIOR TO CONSTRUCTION AND NOTIFY ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY TO THE ENGINEER/SUPERINTENDENT.
5. ALL EXISTING SERVICES PITS, ENCLOSURES AND CONDUITS SHALL BE RELOCATED AND/OR ADJUSTED AS NECESSARY TO THE REQUIREMENTS OF THE RELEVANT AUTHORITY.
6. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY THE WORKS WITHIN THE CONTRACT AREA, AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL TO REGULATORY AUTHORITY STANDARDS AND APPROVAL.
7. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
8. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE. CONTRACTOR TO GAIN APPROVAL OF THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
9. THE CONTRACTOR SHALL TAKE ALL REASONABLE CARE TO PROTECT EXISTING SERVICES. DAMAGED SERVICES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

GENERAL

1. CONCRETE WORK SHALL BE IN ACCORDANCE WITH AS3600 AND WITH THE PROJECT SPECIFICATIONS.
2. CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE SHOWN ON DRAWINGS OR SPECIFICALLY APPROVED BY THE ENGINEER.
3. ALL THICKNESSES SHOWN ARE MINIMUM STRUCTURAL REQUIREMENTS, NO REDUCTION IN THICKNESS DUE TO FALLS OR TOPPING IS PERMITTED. REFER CIVIL DRAWINGS FOR ALL SLAB FALLS AND CONFIRMATION OF SLAB STEPS.
4. THE FACE OF ALL CONCRETE AGAINST WHICH NEW CONCRETE IS TO BE CAST IS TO BE MATCHING EXISTING SURFACE.
5. CONDUITS GREATER THAN 25mm DIAMETER CAST INTO CONCRETE MEMBERS SHALL BE SPACED AT A MAXIMUM DISTANCE POSSIBLE AND UNDER NO CIRCUMSTANCES CLOSER THAN A CLEAR SPACING OF TWICE THE LARGER CONDUIT DIAMETER FROM PARALLEL REINFORCEMENT OR ANY OTHER CONDUIT.

1. THE CHARACTERISTIC COMPRESSIVE STRENGTH (f_c) AT 28 DAYS OF IN PLACE CONCRETE SHALL BE AS NOTED ON THE DRAWINGS.
2. ALL UNFORMED SURFACES SHALL HAVE A STEEL TROWEL FINISH
3. MAXIMUM AGGREGATE SIZE.....20mm
4. CONCRETE SLUMP SHALL BE:
(*) 80mm plus/minus 15mm FOR ALL CONCRETE EXCEPT WHERE OTHERWISE NOTED.
(*) AS ADVISED BY STRUCTURAL ENGINEER

5. ALL CONCRETE SHALL BE VIBRATED.
6. ALL CONCRETE SHALL BE CURED IN ACCORDANCE WITH THE SPECIFICATION.
7. ALL CONCRETE SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH AS1012 AND THE PROJECT SPECIFICATION.
8. ALL FORM WORK SHALL COMPLY WITH AS3610

1. REINFORCEMENT IS TO BE MANUFACTURED IN ACCORDANCE WITH AS4671 AND SHALL BE FIXED AS SHOWN ON DRAWINGS.
2. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND OTHER RELEVANT CODES.
3. THE BAR SIZE IS INDICATED BY A NUMBER AFTER THE SYMBOL, WHICH INDICATES THE BAR DIAMETER IN MILLIMETRES.
4. REINFORCEMENT SPACING NOMINATED ON DRAWINGS IS TO ASSIST SCHEDULER AND STEEL FIXER TO ASSESS TOTAL NUMBER OF BARS REQUIRED, WHERE BARS PLACED IN ACCORDANCE WITH SPACING NOMINATED WILL BE USED TO MEET ALL STATUTORY REQUIREMENTS. PREFERENCE IS TO BE GIVEN TO RELOCATING BARS BY LOCALLY ADJUSTING SPACING TO ENABLE ASSEMBLY OF REINFORCEMENT TO BE COMPLETED. ENGINEER IS TO BE CONTACTED IN THE EVENT THAT REINFORCEMENT IS NEEDED TO BE CUT ON SITE PRIOR TO CONTINUING.

5. LAP LENGTHS TO REINFORCEMENT BARS TO BE AS NOTED ON THE RELEVANT DRAWINGS.
6. WELDING OF REINFORCEMENT BARS IS NOT PERMITTED UNLESS APPROVED BY DESIGN ENGINEER.
7. COVER SHALL BE AS NOTED ON THE RELEVANT DRAWINGS.
8. LAPPED SPICE FOR FABRIC SHALL BE MADE SO THAT THE TWO OUTER MOST TRANSVERSE WIRES OF ONE SHEET OF FABRIC OVERLAP THE TWO OUTER MOST TRANSVERSE WIRES OF THE SHEET BEING LAPPED.
9. CONCRETE COVERS NOTED ARE MEASURED FROM THE FORM WORK OR GROUND FACE TO THE OUTERMOST REINFORCEMENT COMPONENT.
10. COVER TO BE MAINTAINED DURING POURING BY THE USE OF PLASTIC CHAIRS OR PLASTIC TIPPED METAL CHAIRS.
11. WHERE NO REINFORCEMENT IS SHOWN ON THE DRAWING AT RIGHT ANGLES TO THE MAIN REINFORCEMENT DISTRIBUTION REINFORCEMENT IS TO BE PROVIDED.

1. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
 - (a) LOCAL AUTHORITY REQUIREMENTS,
 - (b) EPA - POLLUTION CONTROL MANUAL FOR LANDFILL (STORMWATER
 - (c) LANDCOM'S SOIL AND CONSTRUCTION - MANAGING URBAN STORMWATER MANUAL
 - (d) ACID SULFATE SOIL MANAGEMENT PLAN PREPARED BY SESL AUSTRALIA (REF: J002189 ASSMP MILPERRA 2.0, DATED NOV 2019)
2. EROSION AND SEDIMENT CONTROL DRAWINGS AND NOTES ARE PROVIDED FOR THE WHOLE OF THE WORKS. SHOULD THE CONTRACTOR STAGE THESE WORKS THEN THE DESIGN MAY REQUIRE TO BE MODIFIED. VARIATION TO THESE DETAILS MAY REQUIRE TO BE APPROVED BY THE RELEVANT AUTHORITIES. THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IMPLEMENTED AND ADOPTED TO MEET THE VARYING SITUATIONS AS WORK ON SITE PROGRESSES.
3. MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
4. WHEN STORMWATER PITS ARE CONSTRUCTED PREVENT SITE RUNOFF ENTERING THE PITS UNLESS SEDIMENT TRAPS ARE ERECTED AROUND PITS.

5. MINIMIZE THE AREA OF SITE BEING DISTURBED AT ANY ONE TIME.
6. PROTECT ALL STOCKPILES OF MATERIALS FROM SCOUR AND EROSION. DO NOT STOCKPILE LOOSE MATERIAL IN ROADWAYS, NEAR DRAINAGE PITS OR IN WATERCOURSES.
7. ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORKING DAY, AND MODIFIED TO BEST SUIT SITE CONDITIONS.
8. CONTROL WATER FROM UPSTREAM OF THE SITE SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.
9. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE APPROVED CONSTRUCTION ENTRY/EXIT ROUTE.
10. ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING.
11. MAINTAIN ALL STORMWATER PIPES AND PITS CLEAR OF DEBRIS AND SEDIMENT. INSPECT STORMWATER SYSTEM AND CLEAN OUT AFTER EACH STORM EVENT.
12. CLEAN OUT ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH STORM EVENT.

1. PRIOR TO COMMENCEMENT OF EXCAVATION THE FOLLOWING SOIL MANAGEMENT DEVICES MUST BE INSTALLED.
 - (i) CONSTRUCT SILT CONTROL DEVICES BELOW THE SITE AND ACROSS ALL POTENTIAL RUNOFF SITES.
 - (ii) CO-ORDINATE CONSTRUCTION ENTRY/EXIT ROUTES WITH SITE SUPERINTENDENT. ARRANGE SUITABLE LOCATION FOR THE INSPECTION OF TRUCKS PRIOR TO LEAVING SITE AND DIVERT RUNOFF TO SUITABLE CONTROL SYSTEM.
 - (iii) CONSTRUCT MEASURES TO DIVERT UPSTREAM FLOWS INTO EXISTING STORMWATER SYSTEM.
 - (iv) PROVIDE SANDBAG SEDIMENT TRAPS UPSTREAM OF EXISTING PITS.
 - (v) LOCATE A 1.8 METRE CHAIN WIRE FENCE AROUND THE BOUNDARIES AND ATTACH HESSIAN CLOTH TO IT ON THE WINDWARD SIDE (TIES AT THE TOP CENTER AND BOTTOM AND AT 1 METRE INTERVALS.

2. DISTURBED AREAS ARE REGULARLY WATERED TO REDUCE DUST POLLUTION.
3. CONSTRUCT GEOTEXTILE FILTER PIT SURROUND (SEDIMENT TRAP) AROUND ALL PROPOSED PITS AS THEY ARE CONSTRUCTED.
4. ON COMPLETION OF PAVEMENT PROVIDE SAND BAG SEDIMENT TRAPS AROUND PITS.
5. PROVIDE AND MAINTAIN A STRIP OF TURF ON BOTH SIDES OF ALL ROADS AFTER THE CONSTRUCTION OF KERBS.
6. REMOVE ALL TEMPORARY SOIL MANAGEMENT DEVICES AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY AND PRIOR TO SITE HANDOVER.

1. PAVEMENT MARKING SHALL BE WATER BORNE LINEMARKING PAINT IN ACCORDANCE WITH RMS' DELINEATION GUIDELINES' AND WHERE APPLICABLE AS 1742.2 UNLESS OTHERWISE APPROVED ON THE ENGINEERING PLANS.
2. THE RMS & TNSW DOCUMENT SHALL SUPERSEDE AS 1742.2 WHERE DISCREPANCIES BETWEEN THE DOCUMENTS OCCUR.
3. LINE TYPE WARRANTS SHALL BE IN ACCORDANCE WITH NOTE 1.
4. PEDESTRIAN CROSSINGS SHALL BE IN ACCORDANCE WITH NOTE 1.
5. ALL TRAFFIC SIGNS TO BE LOCATED MIN. 0.6M CLEAR OF THE FACE OF KERB OR ROAD CARRIAGE WAY.
6. TRAFFIC AND PARKING CONTROL SIGNS SHALL BE MOUNTED WITH THE FOLLOWING CLEARANCES TO THE BOTTOM OF THE SIGN:
 - a) MIN 2.0m ABOVE THE FOOTPATH
 - b) MIN 2.2m ABOVE PAVEMENT SURFACE
7. ALL WARNING (W), REGULATORY (R) AND TEMPORARY SIGNS (T) TO BE SIZE 'A' UNLESS NOTED OTHERWISE.
8. EXISTING REDUNDANT SIGNS AND STEMS MAY BE REUSED PROVIDING THEY ARE IN GOOD CONDITION.
9. ALL SIGNPOSTING TO BE INSTALLED USING V-LOCK INSERTS IN CONCRETE UNLESS NOTED OTHERWISE.
10. ALL DISTANCES GIVEN FOR SIGNS ARE MINIMUM DISTANCES.
11. GRIND OFF ALL REDUNDANT LINE MARKINGS.
12. ALL LINE MARKING AND SIGNPOSTING TO BE INSTALLED TO R.M.S. DELINEATION GUIDELINES AND STANDARDS AS SOON AS PRACTICABLE.
13. RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE INSTALLED TO R.M.S. DELINEATION GUIDELINES AND STANDARDS.

1. ALL TREES WITHIN THE FOOTPRINT OF THE WORKS ARE TO BE FULLY REMOVED PRIOR TO CONSTRUCTION.

LOT BOUNDARY

RIVER BOUNDARY

BANK STABILISATION
WORKS UNDER DA-370/2020

SWALE DRAIN

STORMWATER DRAINAGE PIPE
& HEADWALL

OUTLINE OF TREE CANOPY
AS PER DRONE SURVEY PREPARED
BY ORION DATED 31/01/2023

DESIGN CONTOURS

EXISTING CONTOURS

FUTURE CONTOURS

SHARED PATH

ELEVATED SHARED PATH

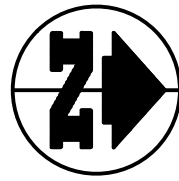
CONTROL LINE

VERGE EDGE

BATTER

EXISTING SERVICES SHOWN ON THESE PLANS ARE NOT GUARANTEED COMPLETE OR CORRECT AND FURTHER INFORMATION IS REQUIRED FROM THE RELEVANT AUTHORITY AND FIELD INVESTIGATION AND ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

[illegible]



LEGEND

SHAKER GRID

SEDIMENT FENCE

FLOATING BOOM

CATCH DRAIN/DIVERSION BANK (SDS-5)

PROVIDE TEMPORARY SANDBAGS AROUND PITS:

1. AFTER PAVEMENT WORKS IF CONSTRUCTION IS STILL ONGOING UPSTREAM.

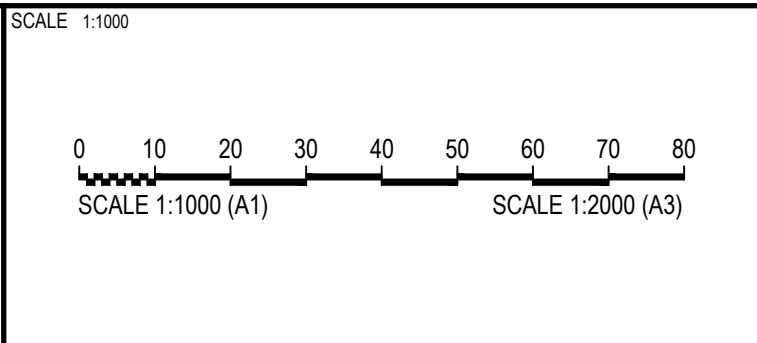
2. TO EXISTING GRATED PITS DOWNSTREAM OF CONSTRUCTION WORKS.

POSSIBLE STOCKPILE LOCATION

AMENDMENTS	FIRST ISSUE	DESIGN	DRAWN	CHECK	APPD.	DATE	AMENDMENT DETAILS
	A	WC	WC	CB	CB	4/03/20	
	A		WC	CB	CB	04/03/20	PRELIMINARY
	B		CP	JH		12/06/20	ISSUED FOR CLIENT REVIEW
	C		BY	JH		09/02/23	ISSUED FOR INFORMATION
	D		BY	JH		13/02/23	ISSUED FOR INFORMATION

STATUS

FOR INFORMATION



CLIENT

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PROJECT

PEDESTRIAN / CYCLIST SHAREWAY
AULD AVENUE, MILPERRA

DISCLAIMER

ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE. NOT FOR CONSTRUCTION UNLESS STAMPED BY CERTIFYING AUTHORITY

DRAWING TITLE

EROSION AND SEDIMENT CONTROL PLAN
SHEET 1 OF 3

PROJECT No.

19-000908

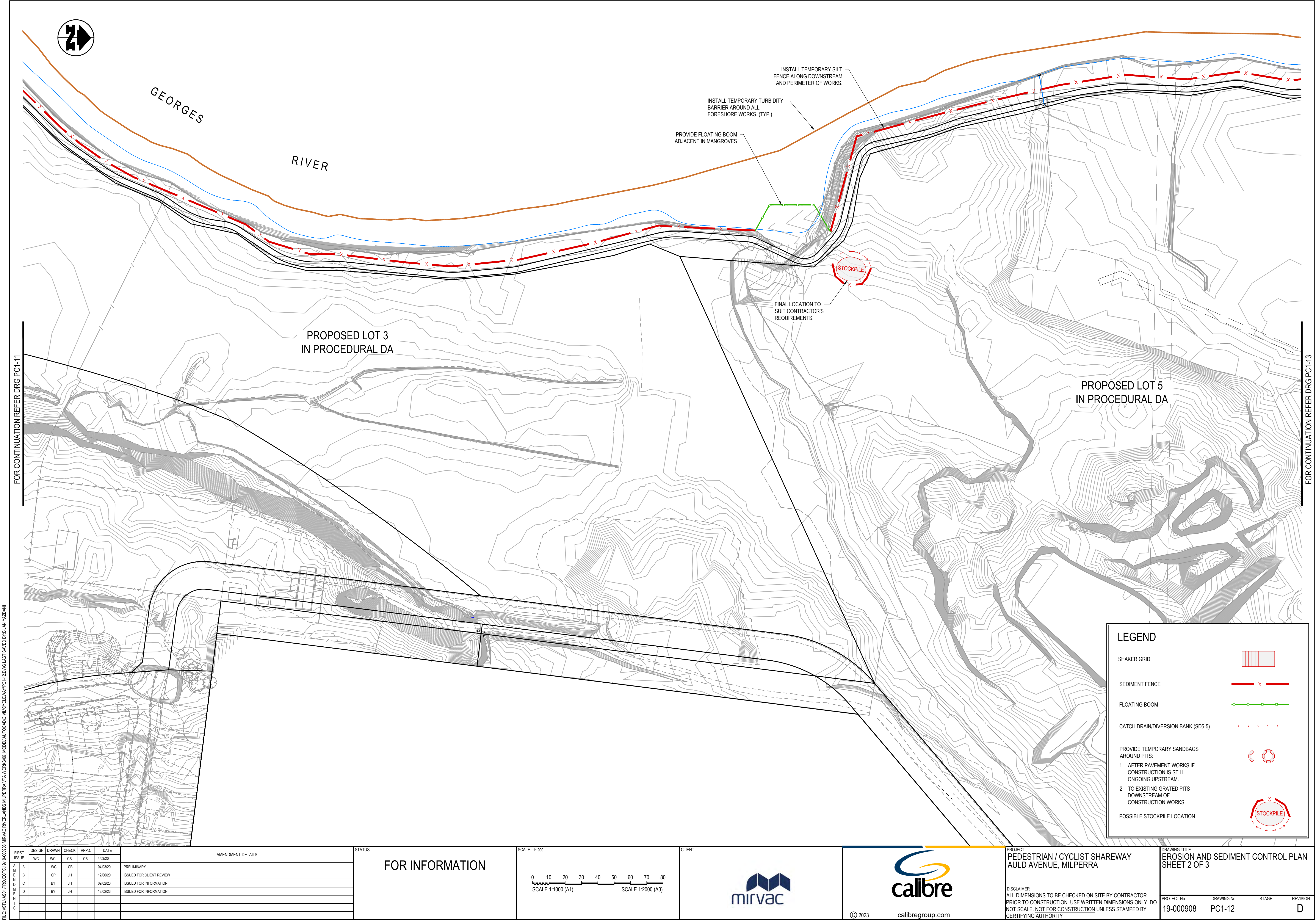
DRAWING No.

PC1-11

STAGE

REVISION

D



FOR CONTINUATION REFER DRG PC1-11

FOR CONTINUATION REFER DRG PC1-13

LEGEND

SHAKER GRID

SEDIMENT FENCE

FLOATING BOOM

CATCH DRAIN/DIVERSION BANK (SD5-5)

PROVIDE TEMPORARY SANDBAGS AROUND PITS:

1. AFTER PAVEMENT WORKS IF CONSTRUCTION IS STILL ONGOING UPSTREAM.

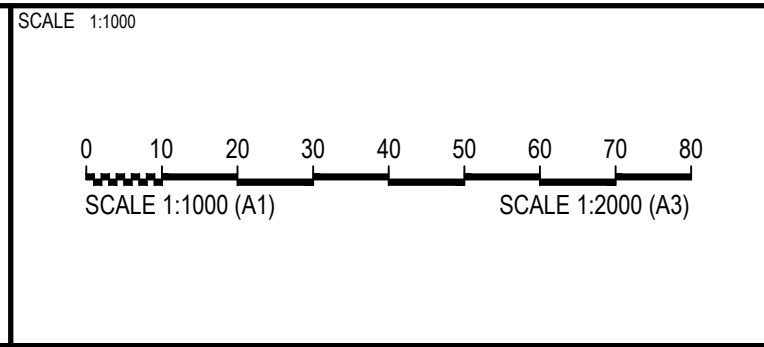
2. TO EXISTING GRATED PITS DOWNSTREAM OF CONSTRUCTION WORKS.

POSSIBLE STOCKPILE LOCATION

AMENDMENTS	FIRST ISSUE	DESIGN	DRAWN	CHECK	APPD.	DATE	AMENDMENT DETAILS
	A	WC	WC	CB	CB	4/03/20	
	B	WC	WC	CB	CB	04/03/20	
	C	CP	JH	JH	JH	12/06/20	
	D	BY	JH	JH	JH	09/02/23	
						13/02/23	ISSUED FOR INFORMATION

STATUS

FOR INFORMATION



PROJECT

PEDESTRIAN / CYCLIST SHAREWAY

AULD AVENUE, MILPERRA

DISCLAIMER

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DRAWING TITLE

EROSION AND SEDIMENT CONTROL PLAN

SHEET 2 OF 3

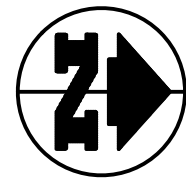
PROJECT No. 19-000908

DRAWING No. PC1-12

STAGE

REVISION

D



GEORGES
RIVER

INSTALL TEMPORARY TURBIDITY
BARRIER AROUND ALL
FORESHORE WORKS. (TYP.)

PROVIDE FLOATING BOOM
ADJACENT IN MANGROVES

INSTALL TEMPORARY SILT
FENCE ALONG DOWNSTREAM
AND PERIMETER OF WORKS.

FINAL LOCATION TO
SUIT CONTRACTOR'S
REQUIREMENTS.

(STOCKPILE)

FINAL LOCATION TO
SUIT CONTRACTOR'S
REQUIREMENTS.

(STOCKPILE)

PROPOSED LOT 5
IN PROCEDURAL DA

INSTALL TEMPORARY SHAKER GRID AND
WASHDOWN FACILITY AT CONSTRUCTION
SITE EXIT. FINAL LOCATION TO
SUPERINTENDENT'S REQUIREMENTS.

LEGEND

SHAKER GRID



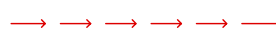
SEDIMENT FENCE



FLOATING BOOM

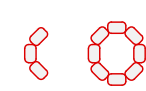


CATCH DRAIN/DIVERSION BANK (SD5-5)



PROVIDE TEMPORARY SANDBAGS
AROUND PITS:

1. AFTER PAVEMENT WORKS IF
CONSTRUCTION IS STILL
ONGOING UPSTREAM.
2. TO EXISTING GRATED PITS
DOWNSTREAM OF
CONSTRUCTION WORKS.



POSSIBLE STOCKPILE LOCATION



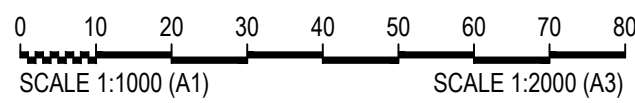
FOR CONTINUATION REFER DRG PC1-12

REV	DATE	BY	CHKD	APPD	DATE	DESCRIPTION
A	04/03/20					PRELIMINARY
B	12/06/20	JH				ISSUED FOR CLIENT REVIEW
C	09/02/23	JH				ISSUED FOR INFORMATION
D	13/02/23	JH				ISSUED FOR INFORMATION

STATUS

FOR INFORMATION

SCALE 1:1000



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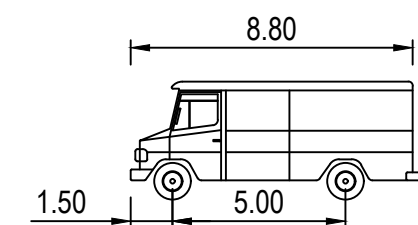
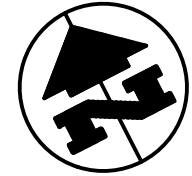
PROJECT
PEDESTRIAN / CYCLIST SHAREWAY
AULD AVENUE, MILPERRA

DISCLAIMER
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PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO
NOT SCALE. NOT FOR CONSTRUCTION UNLESS STAMPED BY
CERTIFYING AUTHORITY

DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN
SHEET 3 OF 3

PROJECT No.	DRAWING No.	STAGE	REVISION
19-000908	PC1-13		D

FILE: I:\STL\AS\PROJECTS\1919-000908 MIRVAC RIVERLANDS MILPERRA\IPA WORKS\06_MODEL\AUTOCAD\CIVIL\CYCLIST\BWAY\PC2-50.DWG LAST SAVED BY: BUIAN YAZDANI

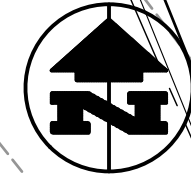


SERVICE VEHICLE (8.8m)
OVERALL LENGTH 8.80m
OVERALL WIDTH 2.50m
OVERALL BODY HEIGHT 4.30m
MIN. BODY GROUND CLEARANCE 0.427m
TRACK WIDTH 2.50m
LOCK TO LOCK TIME 4.0s
KERB TO KERB TURNING RADIUS 12.5m

LEGEND

- VEHICLE BODY
- - - VEHICLE BODY CLEARANCE (0.5m)
- - - WHEEL TRAILS
- ▨ VEHICLE BODY ENVELOPE

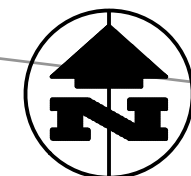
PLAN
SCALE 1:100



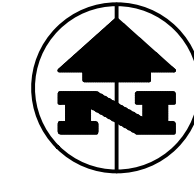
AREA OF REINFORCED
TURF TO SUIT SERVICE
VEHICLE TURNPATH

AREA OF REINFORCED
TURF TO SUIT SERVICE
VEHICLE TURNPATH

PLAN
SCALE 1:100



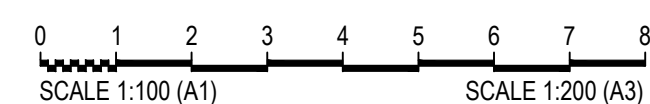
PLAN
SCALE 1:100



PLAN
SCALE 1:100

FOR INFORMATION

SCALE: AS SHOWN



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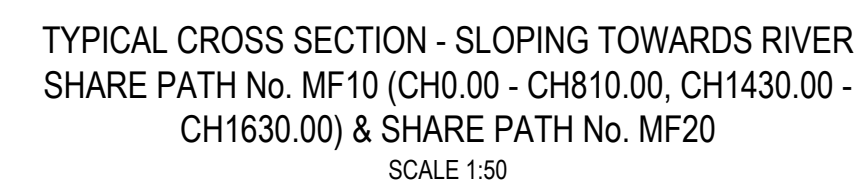
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PROJECT
PEDESTRIAN / CYCLIST SHAREWAY
AULD AVENUE, MILPERRA

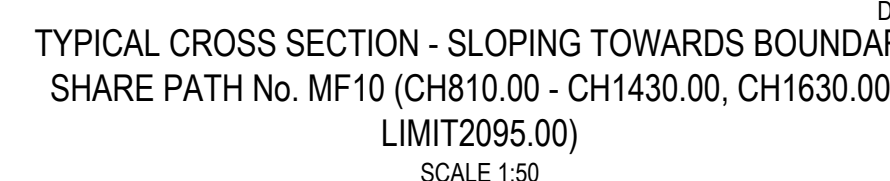
DISCLAIMER
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PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO
NOT SCALE. NOT FOR CONSTRUCTION UNLESS STAMPED BY
CERTIFYING AUTHORITY

DRAWING TITLE
TURNING PATH LAYOUT PLAN

PROJECT No.	DRAWING No.	STAGE	REVISION
19-000908	PC2-50		C



TYPICAL CROSS SECTION - SLOPING TOWARDS RIVER
SHARE PATH No. MF10 (CH0.00 - CH810.00, CH1430.00 -
CH1630.00) & SHARE PATH No. MF20
SCALE 1:50



TYPICAL CROSS SECTION - SLOPING TOWARDS BOUNDARY
SHARE PATH No. MF10 (CH810.00 - CH1430.00, CH1630.00)
LIMIT 2095.00)
SCALE 1:50



TYPICAL SECTION ELEVATED SHAREPATH
SCALE 1:50

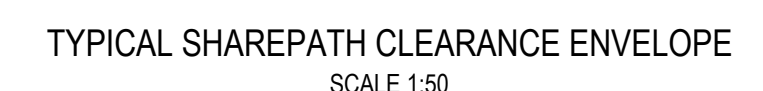


TYPICAL CLEARANCE REQUIREMENTS
SCALE 1:25

TYPE 1 - 275mm SHAREPATH (CH0 - CH1520)

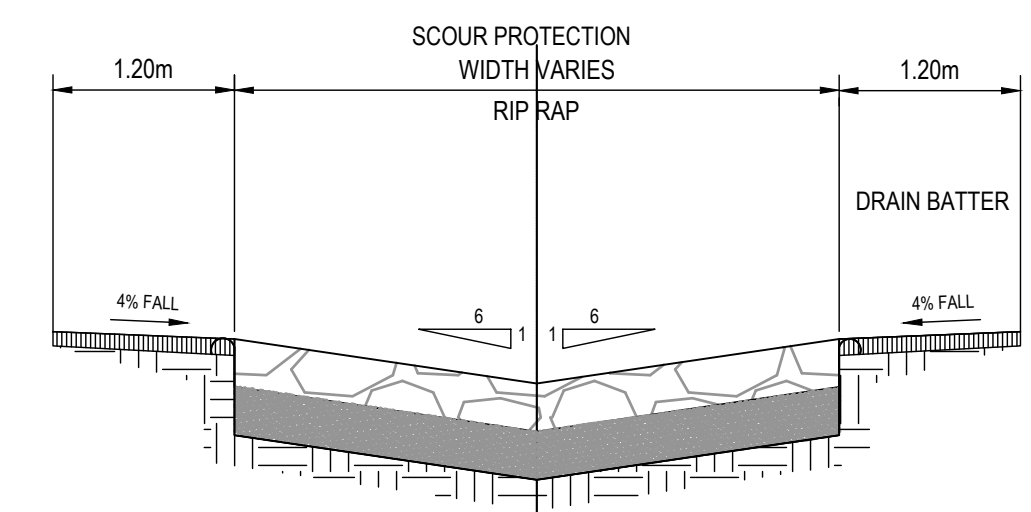
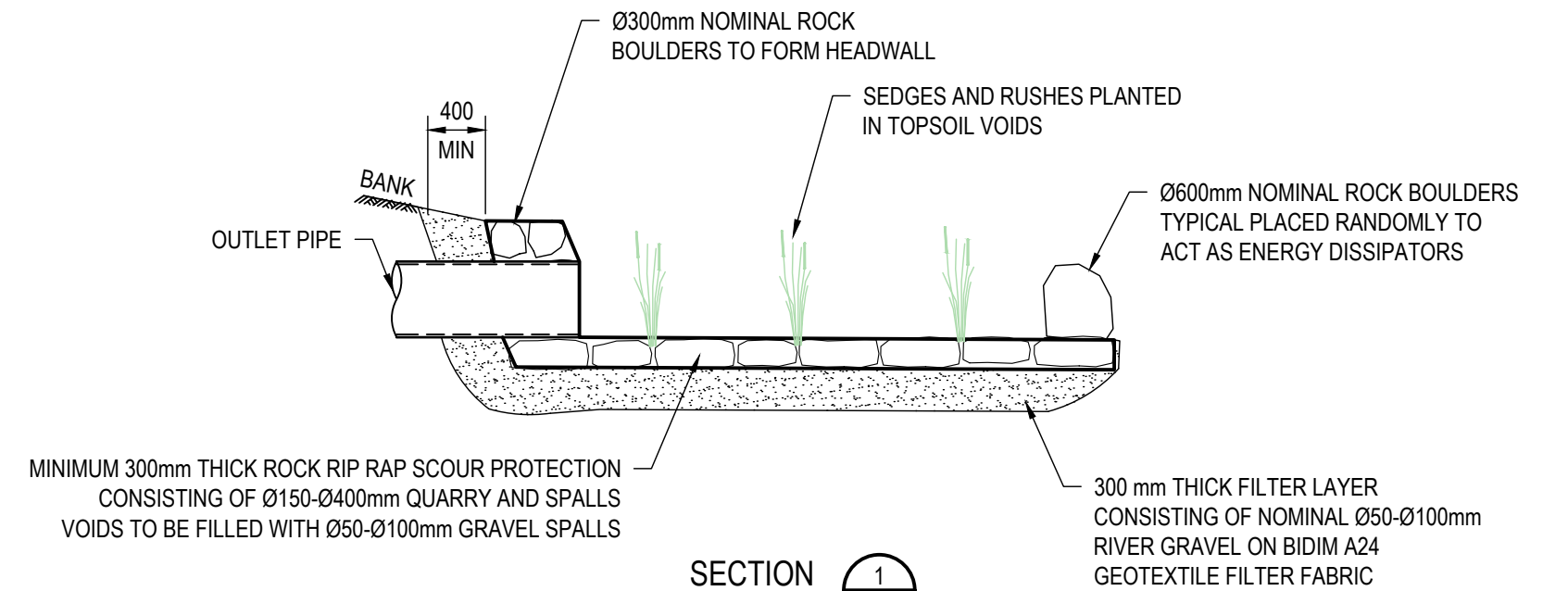
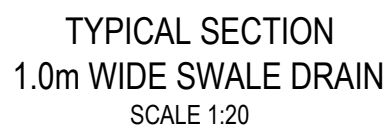
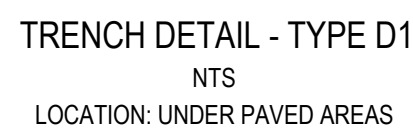


1. PAVEMENT DESIGN PREPARED BY CONSTRUCTION SCIENCES PROJECT 5017200152.C DATED 16 JULY 2020
2. ALL PAVEMENT DESIGNS ARE SUBJECT TO GEOTECHNICAL TESTING & DESIGN DURING CONSTRUCTION
3. CONCRETE PAVEMENT FINISH TO BE CONFIRMED BY SUPERINTENDENT OR LANDSCAPE ARCHITECT AT TIME OF CONSTRUCTION



TYPICAL SHAREPATH CLEARANCE ENVELOPE
SCALE 1:50

FIRST ISSUE A M B N D M E N T S	DESIGN	DRAWN	CHECK	APPD.	DATE	AMENDMENT DETAILS	STATUS	SCALE AS SHOWN	CLIENT		PROJECT PEDESTRIAN / CYCLIST SHAREWAY AULD AVENUE, MILPERRA	DRAWING TITLE SHARED PATH TYPICAL SECTIONS			
	SN	CP	JH	JH	13/06/20										
	A		CP	JH	12/06/20	ISSUED FOR CLIENT REVIEW	FOR INFORMATION				DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE. NOT FOR CONSTRUCTION UNLESS STAMPED BY ENGINEERING AUTHORITY.	PROJECT No. 19-000908	DRAWING No. PC3-10	STAGE	REVISION C
	B		BY	JH	09/02/23	ISSUED FOR INFORMATION									
	C		BY	JH	13/02/23	ISSUED FOR INFORMATION									
					</										

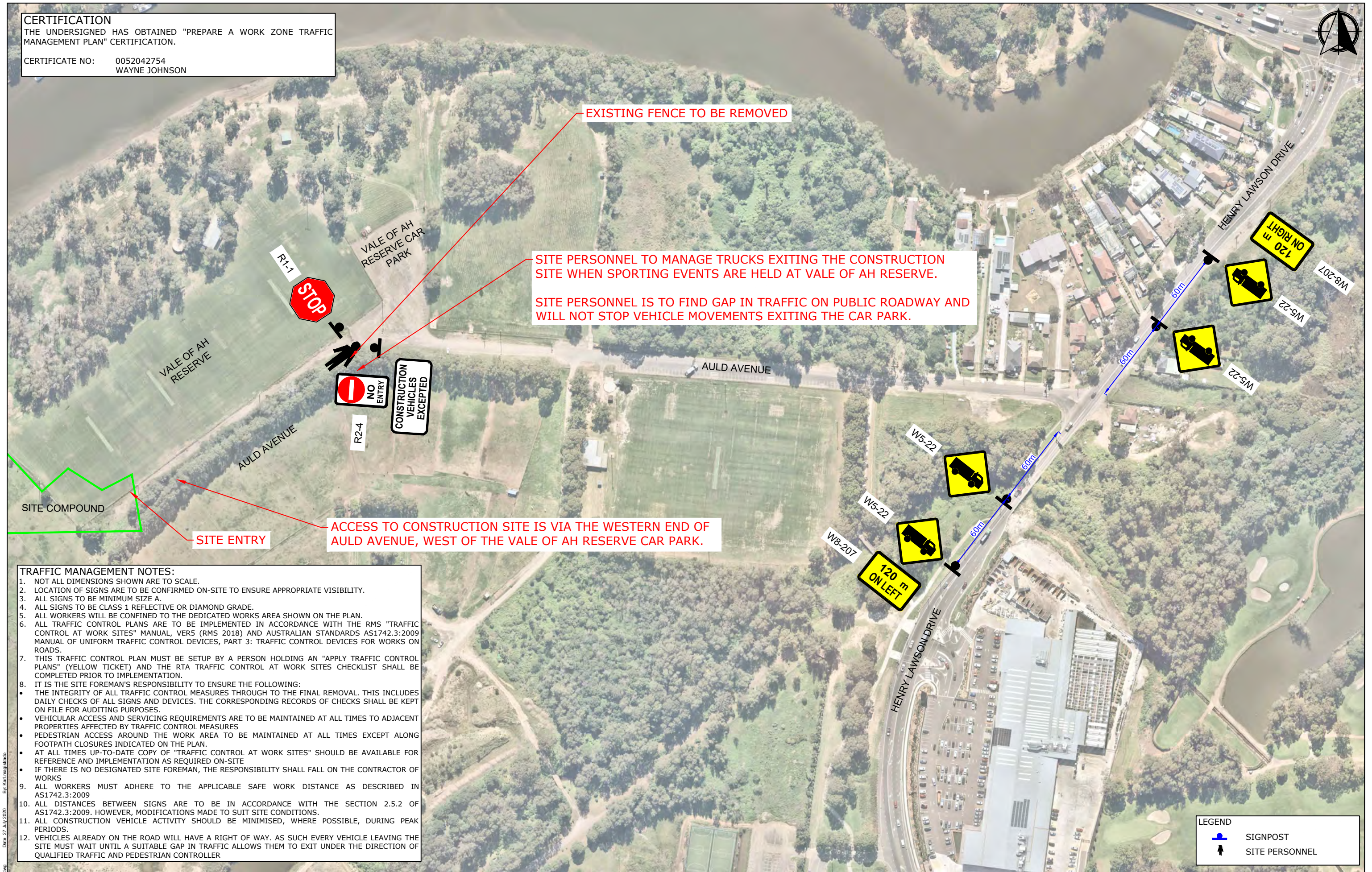


DESIGN WC DRAWN WC CHECK JH APPD. JH DATE 12/06/20	AMENDMENT DETAILS				STATUS FOR INFORMATION	SCALE AS SHOWN	CLIENT  © 2023calibregroup.com	PROJECT PEDESTRIAN / CYCLIST SHAREWAY AULD AVENUE, MILPERRA DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE. NOT FOR CONSTRUCTION UNLESS STAMPED BY CERTIFYING AUTHORITY.	DRAWING TITLE CIVIL WORK DETAILS			
	A	CP	JH						ISSUED FOR CLIENT REVIEW			
	B	BY	JH						ISSUED FOR INFORMATION			
	C	BY	JH						ISSUED FOR INFORMATION			
PROJECT No. 19-000908					DRAWING No. PC3-80		STAGE		REVISION C			

Appendix B

Traffic Control Plan

CERTIFICATION
THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.
CERTIFICATE NO: 0052042754
WAYNE JOHNSON



By: Karl Marshall
Date: 27 July 2020
Filename: 18383CAD002-200724-TCPP.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	24/07/20



PROJECT	RIVERLANDS GOLF COURSE		
TITLE	TRAFFIC CONTROL PLAN		

LEGEND		
	SIGNPOST	
	SITE PERSONNEL	
DWG No.	18383CAD002 FIGURE 1	
DATE STAMP	24 JULY 2020	
PROJECT No.	SCALE	REV.
18383	1:2.4 @A3	A

Appendix C

Site Access Report

Our Ref: 18383

7 November 2023

Egis Group
Level 2, 2 Burbank Place, Norwest Business Park
Norwest NSW 2153

Attention: Ruben Bravo

Dear Ruben,

**RE: RIVERLANDS GOLF COURSE – PEDESTRIAN AND CYCLIST SHARED PATH
SITE ACCESS TRAFFIC LETTER – MAINTENANCE VEHICLES**

Background

A pedestrian and cyclist shared path with bridge crossings along the George River foreshore would be constructed to address the Voluntary Planning Agreements (VPA), as part of the Riverlands Golf Course Redevelopment (DA-370/2020).

The consent condition pertaining to traffic and access includes Condition 27, which states the following:

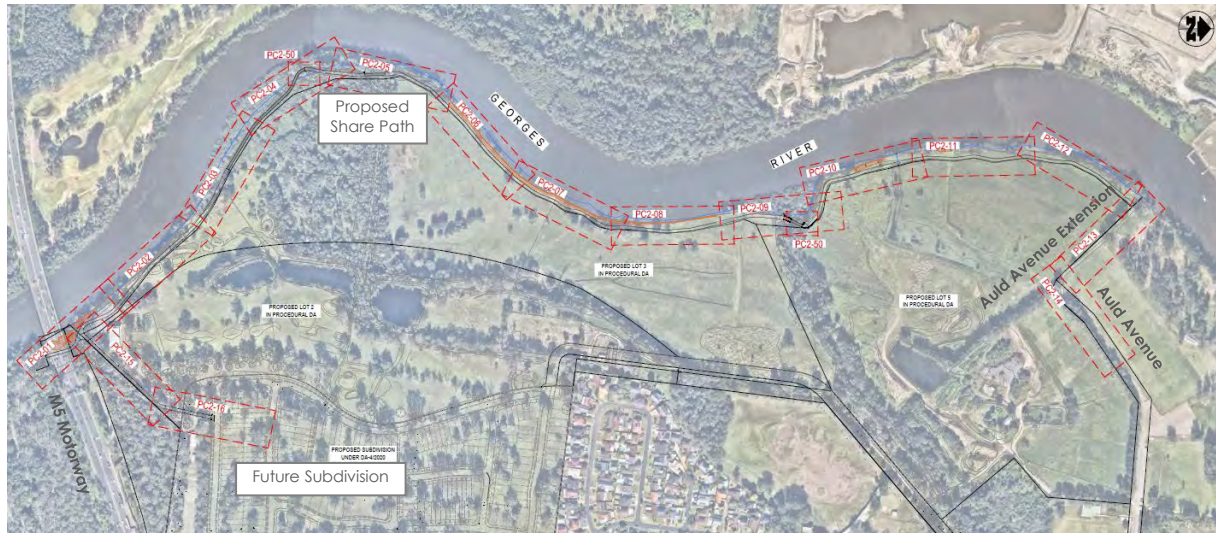
27) Prior to the issue of any Subdivision Works Certificate or Works Permit, a Site Access report shall be approved by Council's Director of City Assets or his/her representative confirming that the site can be accessed and serviced by the nominated required vehicles to enable the 5-year maintenance period to be achieved but also on-going maintenance.

A site access report is required to demonstrate that the subject site can be accessed by the nominated service vehicles as part of the ongoing and 5-year maintenance activities.

The Transport Planning Partnership (TPPP) has prepared this Site Access Traffic Letter (the letter) with a swept path assessment to accompany the Construction Traffic Management Plan (CTMP) of the proposed shared path in response to consent condition #27.

The proposed shared path is provided along the George River foreshore, and connected to the future subdivision to the south, and Auld Avenue to the north. It is noted that the final configuration of the Auld Avenue extension is not available and hence falls outside of the scope of the swept path assessment. The extent of the shared path is shown in Figure 1.

Figure 1: Extent of Pedestrian and Cyclist Shared Path



The proponent has advised that vegetation management would occur once every three to six months in the foreshore area, with the design service vehicle being a 6.4m Small Rigid Vehicle (SRV), such as a 2-3 tonne payload truck and laden work ute delivering landscaping supplies. Service vehicles would generally travel along the paved shared path to access the foreshore area for maintenance works.

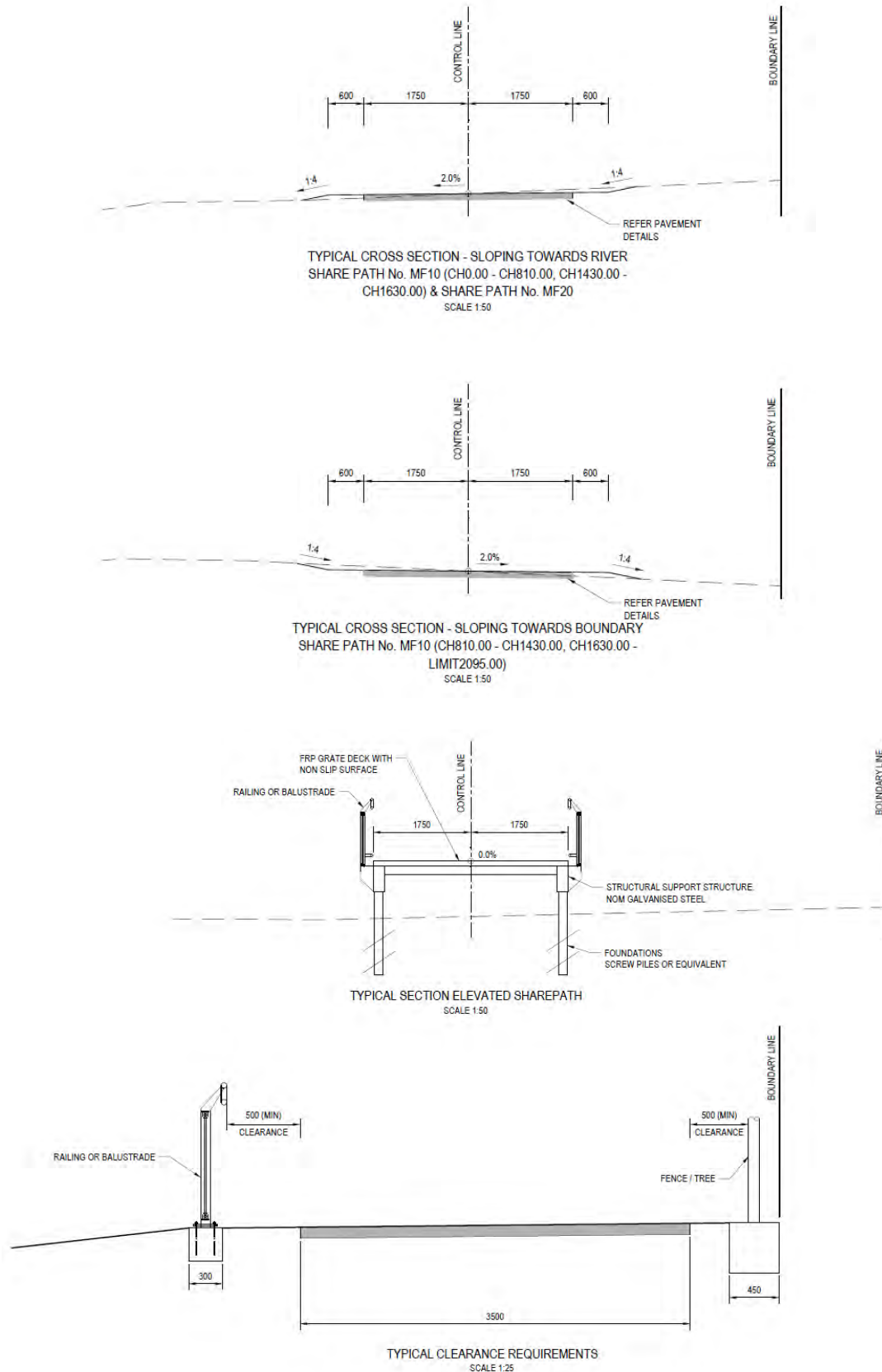
Maintenance works would be undertaken during off-peak periods where possible, when pedestrian and cyclist movements are lower.

The proposed shared path has varying widths with the minimum being 3.5m at the elevated sections with railing / balustrade provided on both sides of the shared path.

Outside of the elevated shared path sections, part of the shared path would be widened to 4.2m to 4.7m. A minimum of 500mm clearance to the fence / tree / railing / balustrade / river / boundary line would be provided.

Typical cross sections of the shared path are shown in Figure 2.

Figure 2: Proposed Shared Path Cross Sections



Swept Path Assessment

A swept path assessment has been undertaken to demonstrate whether sufficient clearances would be available to accommodate the travel path of the design service vehicle (up to and including a 6.4m SRV).

The swept path assessment has been undertaken from south to north at critical locations such as tight bends. The nominated critical locations that have been assessed in the swept path assessment are shown in Figure 3, with the full swept path assessment presented in Attachment One.

Figure 3: Identified Critical Locations for Swept Path Assessment



Note: The swept path assessment excludes the connection with the future Auld Avenue extension given the final configuration is not available at this stage.

The swept path assessment presented in Attachment One shows that a SRV would be able to traverse the proposed shared path without any issues.

Maintenance activities would be required infrequently once every three to six months and are expected to occur during the off-peak periods where possible, when pedestrian and cycling activities are minimal. Service vehicle drivers are to travel at a speed no greater than 10km/h for the safety of pedestrians and cyclists.

Summary and Conclusion

The swept path assessment has demonstrated that sufficient clearances are available at the identified critical locations along the shared path to accommodate the travel path of service vehicles up to 6.4m long.

We trust the above is to your satisfaction. Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,



Wayne Johnson
Director

Attachment One

Swept Path Assessment



LEGEND

● SWEEP PATH - CRITICAL LOCATIONS

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	SC	DL	WJ	02/11/23
B	ISSUE FOR DISCUSSION	SC	DL	WJ	07/11/23



PROJECT	RIVERLANDS GOLF COURSE - PEDESTRIAN AND CYCLIST SHARED PATH		
TITLE	SWEEP PATH ANALYSIS - LOCATION OVERVIEW		

DWG No.		18383CAD004	
		FIGURE 1	
DATE STAMP			
07 NOVEMBER 2023			
PROJECT No.	SCALE	REV.	
18383	1:350 @A3	B	

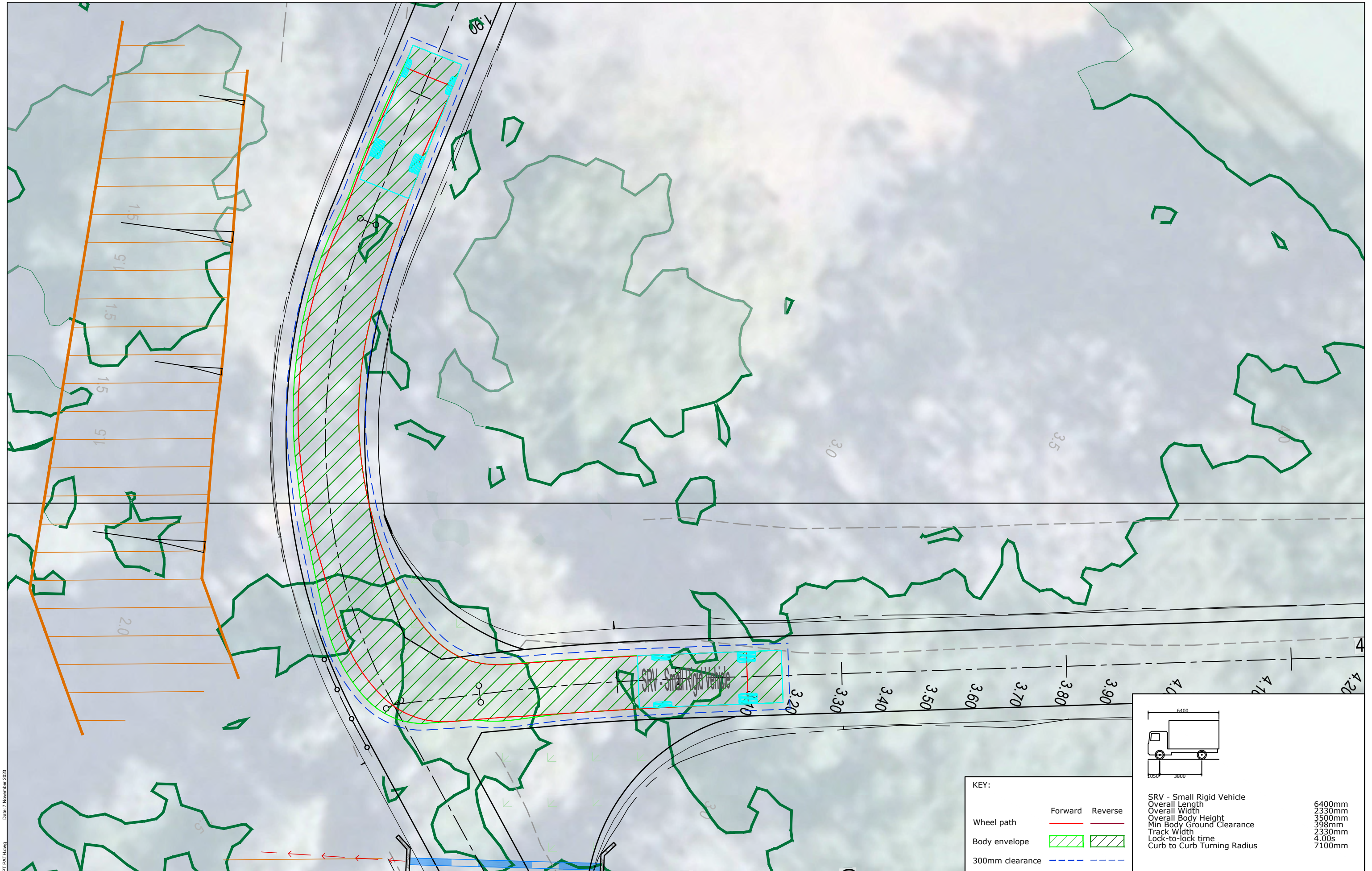


REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	SC	DL	WJ	02/11/23
B	ISSUE FOR DISCUSSION	SC	DL	WJ	07/11/23



PROJECT	RIVERLANDS GOLF COURSE - PEDESTRIAN AND CYCLIST SHARED PATH		
TITLE	SWEPT PATH ANALYSIS AS2890.2 6.4m SMALL RIGID VEHICLE		

DWG No.	18383CAD004 FIGURE 2		
DATE STAMP	07 NOVEMBER 2023		
PROJECT No.	SCALE	REV.	
18383	1:250 @A3	B	



SRV - Small Rigid Vehicle
Overall Length 6400mm
Overall Width 2330mm
Overall Body Height 3500mm
Min Body Ground Clearance 398mm
Track Width 2330mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 7100mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	SC	DL	WJ	02/11/23
B	ISSUE FOR DISCUSSION	SC	DL	WJ	07/11/23



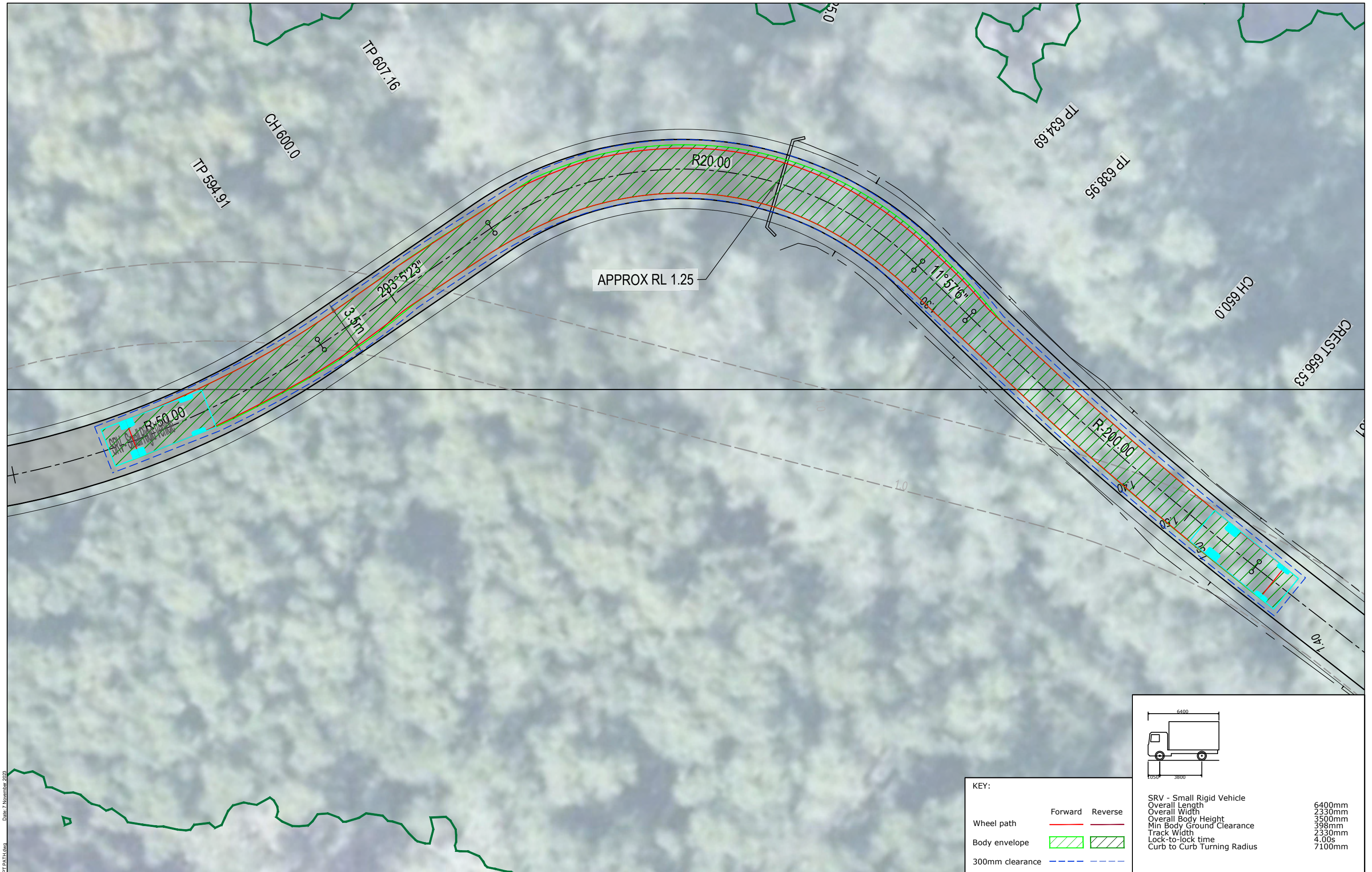
PROJECT

RIVERLANDS GOLF COURSE - PEDESTRIAN AND CYCLIST SHARED PATH

TITLE

SWEPT PATH ANALYSIS
AS2890.2 6.4m SMALL RIGID VEHICLE

DWG No. 18383CAD004 FIGURE 3		
DATE STAMP 07 NOVEMBER 2023		
PROJECT No. 18383	SCALE 1:150 @A3	REV. B



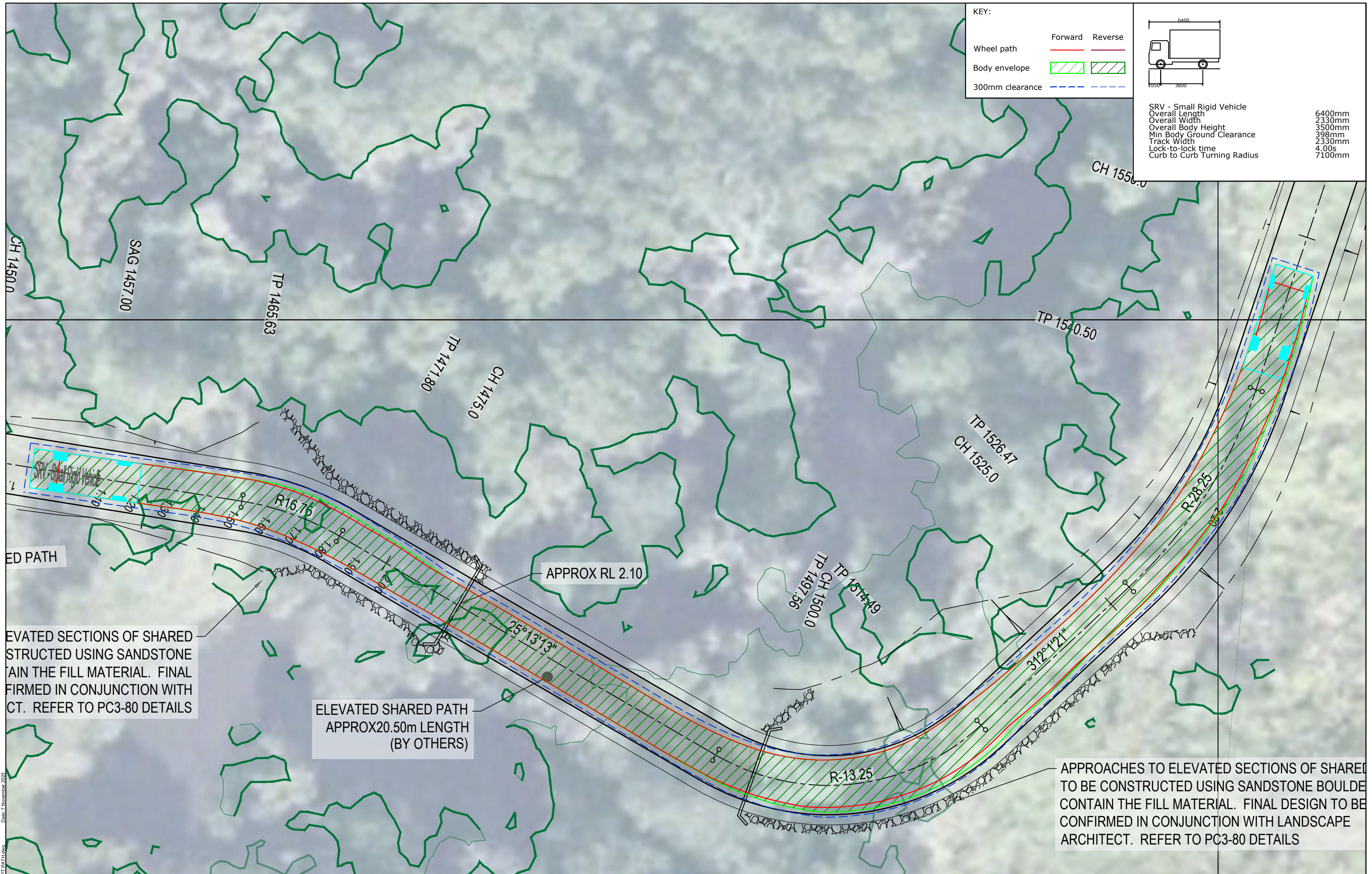
Filename: 18383CAD004-231107-SWEEP PATH.dwg Date: 7 November 2023

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	SC	DL	WJ	02/11/23
B	ISSUE FOR DISCUSSION	SC	DL	WJ	07/11/23



PROJECT	RIVERLANDS GOLF COURSE - PEDESTRIAN AND CYCLIST SHARED PATH	
TITLE	SWEPT PATH ANALYSIS AS2890.2 6.4m SMALL RIGID VEHICLE	

DWG No. 18383CAD004	
FIGURE 4	
DATE STAMP 07 NOVEMBER 2023	
PROJECT No. 18383	SCALE 1:200 @A3
REV. B	

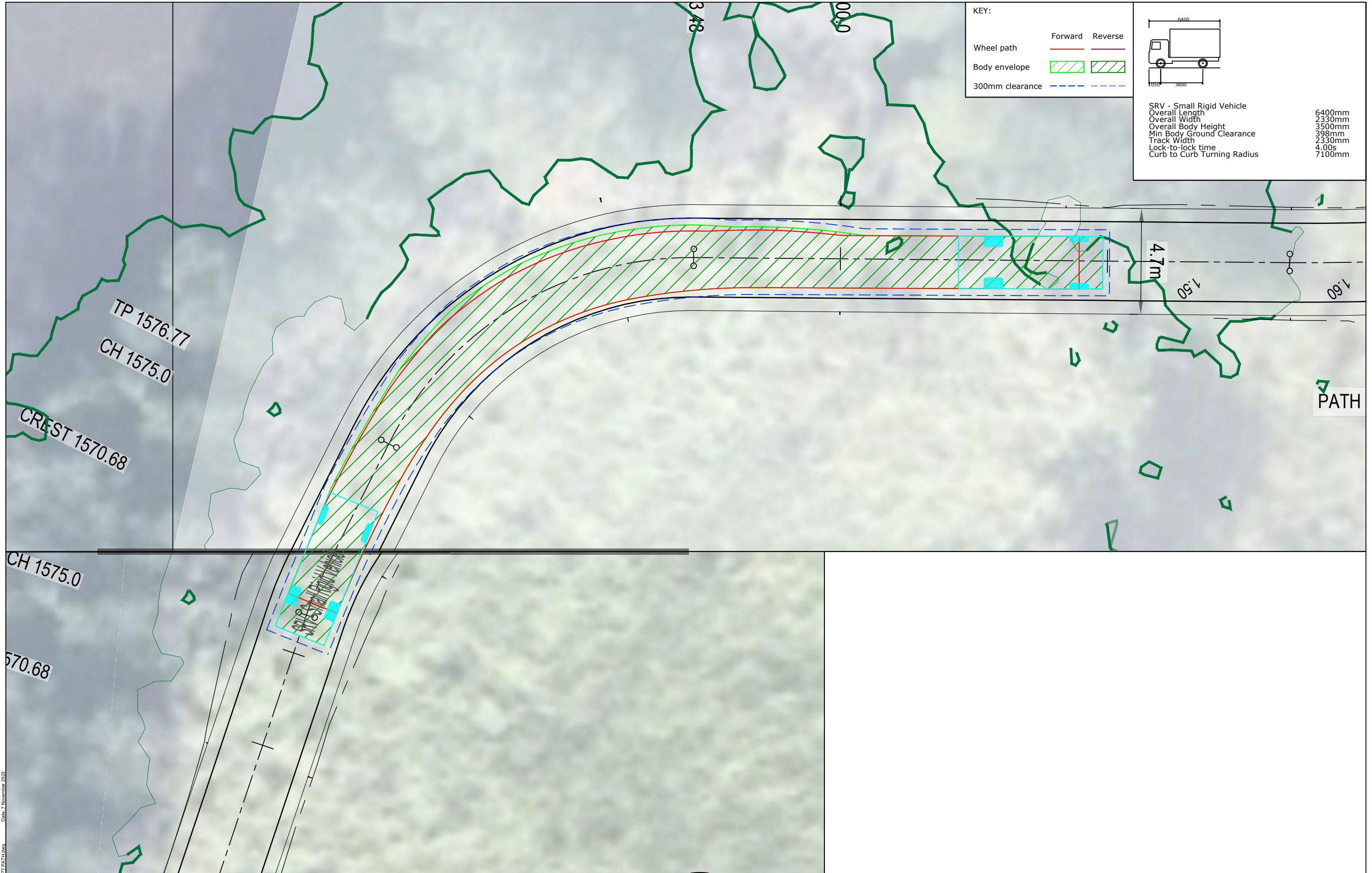


REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	SC	DL	WJ	02/11/23
B	ISSUE FOR DISCUSSION	SC	DL	WJ	07/11/23



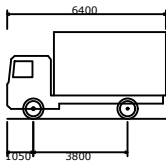
PROJECT	RIVERLANDS GOLF COURSE - PEDESTRIAN AND CYCLIST SHARED PATH		
TITLE	SWEPT PATH ANALYSIS AS2890.2 6.4m SMALL RIGID VEHICLE		

DWG No.	18383CAD004 FIGURE 5		
DATE STAMP	07 NOVEMBER 2023		
PROJECT No.	SCALE	REV.	
18383	1:200 @A3	B	



KEY:

Wheel path	Forward	Reverse
Body envelope		
300mm clearance		



SRV - Small Rigid Vehicle
Overall Length 6400mm
Overall Width 2330mm
Overall Body Height 3500mm
Min Body Ground Clearance 398mm
Track Width 2330mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 7100mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	SC	DL	WJ	02/11/23
B	ISSUE FOR DISCUSSION	SC	DL	WJ	07/11/23



PROJECT	RIVERLANDS GOLF COURSE - PEDESTRIAN AND CYCLIST SHARED PATH		
TITLE	SWEPT PATH ANALYSIS AS2890.2 6.4m SMALL RIGID VEHICLE		

DWG No.	18383CAD004 FIGURE 6		
DATE STAMP	07 NOVEMBER 2023		
PROJECT No.	SCALE	REV.	
18383	1:150 @A3	B	

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