


Construction Environmental Management Plan

St Anthony of Padua Austral ECS



Document Control

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1. General

1.1. Introduction

This Construction Environmental Management Plan (CEMP) has been prepared by Trinity Fitout and Construction for the St Anthony of Padua ECS Development. This CEMP and its sub-plans are developed in accordance with the SSD-8865-Mod 6 Conditions of Consent.

The project forms a later stage of the overall development with previous stages under the SSD-8865 which have been already completed.

Trinity Construction environmental management systems, the relevant project approval documentation. The purpose of this Construction Environmental Management Plan is to: Identify the environmental issues (aspects and impacts) for this project;

- Maintain Compliance with the SSDA;
- Establish, communicate & implement environmental operational controls to reduce any adverse impacts on the environment from Trinity activities, products and services.
- implement and Monitor compliance by Trinity and its suppliers & subcontractors with the requirements of all relevant environmental legislation, conditions of any applicable licence, approval and permit, regulatory requirements and this EMP.
- Action any outcomes from incidents or accidents, project audits or other identified non-conformances to continually improve the Trinity environmental management system.

Trinity Fitout and Construction is committed to being an environmentally and socially responsible organisation while meeting the needs of our clients without hindering future generations. To achieve this goal we require all persons involved in any way with this project to comply with the requirements of this CEMP. Any person found to be in breach of these requirements will be subject to appropriate action which may include expulsion from the Site.

We encourage all persons to be actively involved in limiting our impact on the environment, including reporting and resolving environmental related issues. If you identify any problems while on the Site, you must report them immediately to your supervisor or Site Management.

This EMP is to be read in conjunction with the Trinity Management System (IMS), documents referenced in this CEMP unless indicated otherwise form part of the IMS.

1.2. Description of Project

Client: Sydney Catholic Early Childhood Services (SCECS)

Scope:

The project, located at 140 Eleventh Ave, Austral, involves the design and construction of a new single level early learning centre for children aged 0 – 5 Years old for SCECS adjacent to St Anthony of Padua Catholic College Austral. This project comprises construction of:

- Demolition of Existing Modular Structure
- Construction of New Early Childhood Services Building
- Hard and soft Landscaping

This CEMP will apply to all construction activities relating to the project, including:

- Site establishment and installation of fencing and gates
- Demolition & Earthworks
- Construction of the New Building
- Construction of new Landscaping
- Installation of new services and internal finishes

Indicative plant and equipment to be utilised:

- Excavators
- Rollers
- Mobile cranes
- Trucks
- Concrete pumps
- Concrete trucks

The project will be delivered in a single stage and delivered over a 12-month period.

2. Operating Hours

Construction activities are to generally comply with the SSD conditions. Generally, the working hours shall be as follows, in accordance with the approved SSD:

- **Monday to Friday:** 7:00 am to 6:00 pm
- **Saturday:** 8:00 am to 1:00 pm
- **Sunday & Public Holidays:** No work permitted

3. Project Contact Details

Position: Project Manager
Name: Luke Zammit
Contact number: 0435 001 373

Position: Site Manager (24hr contact)
Name: Robert Blazevic
Contact number: 0402 624 104

Principle Contractor: Trinity Fitout and Construction Pty Ltd
Address: L1/15 Forest Rd, Hurstville NSW 2220
Contact number: 02 9587 2299

4. Site Management

A Site Establishment Plan has been developed, refer Appendix A. This plan has been developed in consultation with the client and St Anthony’s of Padua Catholic College. The main driver of the plan was the safety of the school’s students and staff. Trinity has strategically placed access points and fencing/hoarding to ensure limited interactions between construction staff and school stakeholders. This in turn should ensure the ongoing safety the school. A Construction Traffic and Pedestrian Management Plan has been developed (Refer Appendix) to provide a solution for traffic and pedestrian access to the construction site.

5. Project Planning

5.1. Strategy

Construction of Austral ECS will be via a Design and Construct Contract and the other Project/Site Specific Management Plans.

The Project management team will be responsible for:

- Site establishment
- Temporary fencing of compound to ensure security
- Hoarding off to any existing facilities
- Environmental protection apparatus being correctly installed and or maintained ready for use in case of emergency
- Site inductions, environmental & safety meetings
- Production, review and approval of work method statements and Waste management plans
- Monitoring adherence to Waste Management plans
- Monitoring inspection and testing methods and records

5.2. Project Designers and Consultants

Contact details for project designers and consultants are established and distributed by the superintendent on initiation of the project. Some of these are displayed on the wall of the site office, as well as filed in the appropriate folder.

Project Disciplines	Consultant Company and Name
Council	Liverpool Council
Client	Sydney Catholic Early Childhood Services (SCECS)
Superintendent	Platform Projects
Project Architect	Neeson Murcutt Neille
Head Contractor	Trinity Fitout & Construction
PCA Certifier	Construction Certification Solutions

5.3. Neighbour Notification

Managing Neighbour interfaces with the construction process is an important part of the process of environment interaction. The following processes will be undertaken by Trinity to inform neighbours of the work as well as provide a contact point:

- Site Sign will be erected giving contact details of the site manager to be contacted for any concerns/queries regarding the construction works
- Ensure a communication objective to keep the community informed of construction impacts. This objective will be achieved through several approaches including:
 - Building key college community stakeholder relationships and maintain good will with impacted communities
 - Managing community expectations and building trust by effectively managing enquiries and complaints
 - Providing timely information to impacted stakeholders and broader communities
 - Addressing and correcting misinformation within the public domain
 - Reducing the risk of project delays caused by negative third-party intervention
 - Leaving a positive legacy in each community

Trinity will also provide a construction sign board alongside the main entrance to the site providing the details of a 24-hour contact to ensure the surrounding community have direct contact regarding site related queries throughout the duration of the project.

6. Environmental Impact Issues

6.1.1. Air Quality and Dust Management

To minimise the adverse effects on stakeholders of air quality (airborne dust and pollutants) in and around the construction site. Implementation of the following controls to be maintained at or above acceptable levels throughout the construction period.

The following activities may cause excessive dust or otherwise affect air quality:

- Demolition
- Excavation
- Landscaping
- High winds

Dust minimisation techniques are to be employed as needed during construction, including the use of water carts/sprinklers as necessary. Air quality is to be managed through the proper maintenance of all machinery on site (refer to Trinity Construction Safety Management Plan). Any incidents where poor air quality becomes an issue is to be assessed on a case by case basis and managed according to all relevant legislation.

The measures in the below table are required to be implemented and maintained to demonstrate compliance with the conditions listed to reduce the impact, if any, on surrounding neighbours and workers.

Table 1 – Management of Dust Impacts

Potential source	Potential impacts	Mitigation	Responsibility	Performance measures
Excavation/Demolition	Neighbourhood Complains, Worker Exposure	Water Suppression during dry conditions. Daily water suppression during earthworks activities. Site shade cloth installed to fence if not solid hoarding.	Principal Contractor, Subcontractor	Onsite Observation of Dust and visual monitoring.
Asbestos Dust (Unexpected Finds)	Neighbourhood Complains, Worker Exposure	Air Monitoring for air quality, Suppression with water.	Principal Contractor, Subcontractor	Onsite Observation, Implementation of AMP and compliance.
Dirt Stockpiles	Wind Driven Dust to Neighbourhood,	Covering of stockpiles with tarps/fabric and water suppression. Site shade cloth installed to fence.	Principal Contractor, Subcontractor	Visual Evidence, or replacement of fabric
Truck Loads	Neighbourhood Complains, Worker Exposure	Ensure Trucks entering and leaving site have loads covered.	Principal Contractor, Subcontractor	Surveillance of trucks entering and exiting site.

6.2. Noise & Vibration

Noise impacts from construction are an ongoing concern for all construction projects. Construction noise management will be in accordance with the Construction Noise and Vibration Assessments and will be the responsibility of the Principal Contractor to enforce.

Trinity Fitout and Construction will be sure to manage and ensure all noise and vibration will meet the NSW Environmental Protection Authority and local council guidelines. All site activities which have the potential to create noise and vibration omissions will be controlled and suitable equipment is utilised to mitigate the associated disruption to the school and surrounding neighbours.

Excessive vibration can negatively impact the surrounding environment with potential disruption to wildlife and discomfort to people. Continuous or high intensity vibrations can weaken structures and prolonged vibration can lead to soils compaction, landslides or changes to groundwater flow. Assessment of the risk due to vibration is to be undertaken and controls implemented. Minimal high impact works are expected for this construction to cause excessive vibrations.

Please refer to Appendix Construction Noise & Vibration Management Plan. All noise and vibration mitigation measures identified within this report are being implemented during this project.

We will implement a noise and vibration complaints procedure and in the event of a complaint, we will implement noise or vibration monitoring, whichever is applicable. These services will be provided by our acoustic consultant as required. We will then provide reports back to the client with the findings.

6.3. Traffic

Traffic management will be in accordance with the Construction Traffic Management Plan and will be the responsibility of the Principal Contractor to enforce.

A Construction Traffic Management Plan (CTMP) is to be developed prior to the commencement of construction, outlining measures to minimise disruption to the local traffic flow, ensure the safety of workers and road users, and reduce the environmental impact of construction-related traffic. The CTMP should include strategies such as clearly marked detours, traffic control devices (e.g., signs, barriers), and appropriate scheduling of deliveries and construction activities to avoid peak traffic hours. Where necessary, temporary road closures, diversions, or lane reductions should be implemented with sufficient notification to the public and relevant authorities. Traffic management also considers pedestrian and cyclist safety around the construction zone.

Compliance with the TMP is essential to minimise congestion, accidents, and delays, and failure to adhere to traffic management guidelines may result in fines, project delays, or other enforcement actions. Traffic management will be as per the developed Traffic Management Plan (incorporated under the Site Specific Management Plan) and will be the responsibility of the Site Manager to enforce.

The effectiveness of the TMP control measures will be monitored regularly, in particular the Environmental Inspection conducted weekly will formally prompt the inspection of the effectiveness of the control measures in addition to the informal observations made by Site Management in their day to day operations.

6.4. Waste Management

Waste Management will be in accordance with the Waste Management Plan. A waste management plan will be developed in conjunction with the selected waste contractor for the project and will be audited at random intervals throughout the course of the project.

6.5. Acid Sulphate Soils

Acid sulphate soils (ASS) pose a significant environmental risk when disturbed, as they can generate sulfuric acid upon exposure to oxygen, leading to soil degradation, water contamination, and harm to aquatic life. If ASS is present, mitigation measures should be implemented, including soil management plans, controlled excavation techniques, and the application of neutralising agents such as lime to prevent acidification. Additionally, water

runoff from disturbed areas must be carefully managed to avoid the release of acidic leachate into surrounding ecosystems.

6.6. Groundwater

As per the site Geotechnical Report groundwater inflows are not expected within the lower ground excavations. However, as long-term monitoring has not been undertaken to date, groundwater seepage may fluctuate with seasonal weather patterns, and as such, should minor groundwater be encountered, the inflows should be managed using simple sump & pump techniques. In the unlikely event groundwater is encountered works will cease and the principal contractor will consult with relevant consultants to assess and implement applicable measures.

6.7. Other Contaminates

Other contaminants such as heavy metals, hydrocarbons, and chemical pollutants must be managed to prevent environmental harm. Organisations should conduct site assessments to identify legacy contamination or potential pollutant sources, implementing appropriate containment, remediation, or waste management strategies. Spill prevention and response plans should be in place to minimise the risk of accidental discharges, while stormwater management systems can help prevent contamination of water bodies.

7. Sediment and Erosion Control

This section identifies sediment control systems to be implemented on the project. The sediment control systems are designed to minimise erosion on-site and retain sediment eroded by water and wind.

Sediment and erosion control will be as per the sediment and erosion control plan. These plans have been prepared in accordance with Landcom's guide on Managing Urban Stormwater (the "Blue Book")

The erosion and sediment control devices described will be installed during site preparation works along with the site fences and sheds. These devices will be in place throughout all construction phases, especially excavation.

7.1. Sediment and Erosion Control Devices

Unnecessary disturbance of the site shall not occur and all cuts are to be stabilised as soon as possible after the completion of site earthworks. Extra care will be taken to prevent sediment run off into all neighbouring lots and stormwater. Any collected silt will be disposed of in accordance with all other relevant codes and standards.

7.2. Silt Fences

Silt fences are to be installed to all site boundaries. Geotextile fabric will be fixed to the temporary construction fencing to the 'downhill' boundaries of the site. The fabric will be turned down under the existing ground line and secured at regular intervals not exceeding 3m.

7.3. Vehicle Access

Vehicular access will be controlled to prevent sediment being tracked. This will be done by maintaining an all weather access/driveway composed of an approved course aggregate surface or concrete. Also if the need arises a shaker grid will be installed to the main access by Trinity during the construction works. Any sediment that is tracked onto the surrounding roads will be cleaned off in a timely manner.

7.4. Stormwater Inlets

All stormwater inlets are to be covered with geotextile fabric in a roll or other format to ensure that no sediment enters into the stormwater system. This will be the responsibility of the Site Manager to enforce. The rolls will not only be placed directly at the inlets, they will also be placed at regular intervals in the gutters 'upstream' from the inlets creating multiple barriers.

7.5. Stockpiles

If appropriate topsoil is to be stockpiled on site then the following measures will be put in place. If stockpiling is required, stockpiles shall be stored at least 2 meters clear of drainage lines, natural watercourse and established trees.

Stockpiles will have temporary silt fences in place around the stockpiles to create an enclosure and if necessary they will be covered with shade cloth or tarpaulin to retain the materials on the stock pile. The location of stock piles will be determined on site.

7.6. Dust Control

The shade cloth to the boundary fences will be maintained throughout all stage of construction to assist in dust control. Also if the need arises due to excessive dust being created, the site will be watered down by a water truck where possible, and/or sprinklers and hoses. Also all stockpiled soils will be covered during periods of high wind to reduce the dust created from on site storage.

7.7. Monitoring

In order to maintain the various erosion and sediment control devices, regular inspections, repairs and cleaning will be carried out on the silt fences to the boundaries, stockpiles, waste enclosures, and to the stockpile covers in accordance with the Construction Soil and Water Management Plan.

Inspections of the site erosion and sediment control devices will be carried out in accordance with Environmental Inspections, conducted weekly pending tasks being executed.

8. Incident Management

All incidents no matter how minor must be reported to Site Management as soon as practical. The incident scene is not to be disturbed until directed otherwise by Site Management and or as required to make the scene safe to assist an injured person or prevent immediate further damage to the environment or property.

In the event of an incident, first priority is the health and safety of persons involved and secondly the protection of the environment and property.

In the event of an incident, the applicable [Emergency Response Plan](#) is to be implemented, typically the following is to immediately occur:

- Trinity become aware of incident
- Scene isolated
- Situation evaluated, if required evacuation procedure activated
- Scene made safe to prevent further injury and or damage
- First aid provided
- Further environment and property damage prevented and or minimised

As soon as practical all significant/critical incidents such as a fatality, serious injury, permanent or serious environmental and or property impact/damage or a near miss with the potential to have been any of those, the WHSEQ Manager is to be immediately notified.

Upon the incident being controlled and the scene made safe, Incident/Accident Reporting and Investigation Procedure and Environmental Emergency Response, is to be actioned.

8.1. Emergency Contacts

Site Emergency Contact Details details the key contacts that may be required in the event of an emergency. The details are available at the beginning of this plan and on the site entry sign.

8.2. Emergency Response Plans

Potential Emergency	What to Do	Relevant Authorities and Persons
Injury caused by: <ul style="list-style-type: none"> • Fire • Explosion • Machinery accidents • Minor injuries 	<ul style="list-style-type: none"> • For serious injuries call an ambulance. You should also have the contact details of the nearest doctor, Medical Centre and Hospital. • Immediately inform the site First Aid Officer. • Follow the procedures as detailed in the Site Safety plan. • For major injuries contact the Site Manager or Project Manager 	<ul style="list-style-type: none"> • Emergency Services • Nearest Doctor • Medical Centre • Site Manager • Project Manager
Fire <ul style="list-style-type: none"> • Fire at the diesel tank • Fire at any of the machineries • Fire caused by vandalism 	<ul style="list-style-type: none"> • Evacuate all personnel to a safe area immediately. • Call the Fire Brigade (Emergency Services). • If the fire is likely to damage neighbouring property inform the adjacent residents. • Follow the procedures as detailed in the Site Safety plan. • For major fire emergencies, contact the Site Manager or Project Manager 	<ul style="list-style-type: none"> • Emergency Services • Site Manager • Project Manager • Adjacent residents
Explosion (e.g. rupture in a gas line)	<ul style="list-style-type: none"> • Evacuate all personnel to a safe area immediately. • Call the Emergency Services immediately. • Contact the neighbouring residents. • If service related, call the relevant service provider (e.g. AGL) • Follow the procedures as detailed in the Site Safety Plan • Contact the Site Manager or Project Manager 	<ul style="list-style-type: none"> • Emergency Services • AGL • Site Manager • Project Manager • Adjacent residents
Spills <ul style="list-style-type: none"> • Major spill when filling the diesel tank • Major spill from the diesel tank stored on-site • Spill or release of other hazardous chemicals of material 	<ul style="list-style-type: none"> • For major spills, immediately call the Fire Brigade. • Identify the source of the spill. • Refer to the Material Safety Data Sheet (MSDS) and quickly evaluate the hazards of the material. • If the material is dangerous, evacuate the site immediately and notify the neighbours. • If it is safe, stop the source of the spill immediately. • Contain the spill and control its flow. • Block storm water drains downstream of the spill. • EPA and local council must be notified about any spills that are likely to threaten the environment. 	<ul style="list-style-type: none"> • Emergency Services (fire brigade) • DEC • Council Officer • Site Manager • Project Manager • DNR

Potential Emergency	What to Do	Relevant Authorities and Persons
	<ul style="list-style-type: none"> • If the spill is likely to impact on the catchments, contact Department of Natural Resources (DNR) immediately. • Clean up small spills promptly to prevent run-off into the storm water system. • Contact the Site Manager or Project Manager 	
Heavy rainstorm and flood – beyond the capacity of the sediment and erosion controls on-site. Or, failure of the sedimentation control measures.	<ul style="list-style-type: none"> • Contain/minimise the flow. • Contact Council immediately. • Investigate reasons for failure and prepare an incident report including details of five-day rainfall figures. • Contact the Project Manager 	<ul style="list-style-type: none"> • Council • Site Manager • Project Manager
Discovery of items of conservation value (e.g. flora & fauna, heritage)	<ul style="list-style-type: none"> • Fence off the area as “no go” zone and contact the Site Manager or Project manager immediately for further action. 	<ul style="list-style-type: none"> • Site Manager • Project Manager
Discovery of contaminated material on-site (e.g. underground fuel storage tanks)	<ul style="list-style-type: none"> • Fence off the area as “no go” zone and contact the Site Manager or Project manager immediately for further action. 	<ul style="list-style-type: none"> • Site Manager • Project Manager
Rupture of Authority pipelines (water pipes, sewerage pipes)	<ul style="list-style-type: none"> • Contain/minimise the flow • Ensure all spilled materials are contained on site or if running off site are directed through sediment control measures • Block storm water drains downstream of the spill. • Contact relevant authority as soon as possible • EPA and local council must be notified about any spills that are likely to threaten the environment. • If the spill is likely to impact on the catchments, contact Department of Natural Resources (DNR) immediately. 	<ul style="list-style-type: none"> • Relevant Authority • DEC • Council Officer • Site Manager • Project Manager • DNR
Waste contractor not submitting waste dockets and illegally disposing of waste in an unauthorized facility	<ul style="list-style-type: none"> • Immediate contact with contractor to establish reasons • Hold all payments to contractor • Request waste dockets for approved facility • Notify local council where waste is being deposited (section 148 POEO Act 1997) 	<ul style="list-style-type: none"> • Site Manager • Project Manager • Environment Manager • Council Officer

Appendix 1: Site Establishment Plan

Appendix 2: Construction Traffic and Pedestrian Management Sub-Plan



CONSTRUCTION TRAFFIC AND PEDESTRIAN MANAGEMENT SUB-PLAN

St Anthony of Padua Catholic College – Early Learning Centre
140 Eleventh Avenue, Austral

Reference: 22.212r04v02
Date: March 2026

Suite 2.08, 50 Holt St
Surry Hills, NSW 2010

t: (02) 8324 8700
w: www.traffix.com.au

DOCUMENT VERIFICATION

Job Number	22.212			
Project	140 Eleventh Avenue, Austral			
Client	Trinity Construction & Fitout			
Revision	Date	Prepared By	Checked By	Signed
v02	03/03/2026	Andrew Baraket	Tom Mojsiejuk	<i>Tom Mojsiejuk</i>

SAFEWORK NSW CERTIFICATES

Prepare a Work Zone Traffic Management Plan			
Name	Tom Mojsiejuk	Certificate No.	5201837

Reference should be made to the Curriculum Vitae (CV) provided in **Appendix A**.

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1. INTRODUCTION

TRAFFIX has been commissioned Trinity Fitout & Construction to prepare a Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) report for St Anthony of Padua Catholic College at 140 Eleventh Avenue, Austral, specifically the construction of a Catholic Early Learning Centre (CELC). This State Significant Development (SSD) has been approved by the NSW Department of Planning (DPE) under SSD-8865.

This report documents the construction traffic management arrangements, methodology and traffic impacts associated with the demolition, bulk excavation, structure, and fitout & finishes stages of construction. This report should be read in conjunction with any other construction documentation prepared by Trinity Fitout & Construction.

The report is structured as follows:

- Section 2: Outlines the CTPMSP requirements
- Section 3: Documents existing traffic conditions
- Section 4: Describes the overall construction program
- Section 5: Describes the proposed traffic management arrangements
- Section 6: Concludes the report

2. CTPMSP REQUIREMENTS

2.1 Traffic Guidance Scheme

The Traffic Guidance Scheme (TGS) that is included in this report, should be implemented taking due account of on-site conditions as will occur over the construction period. Accordingly, construction crew are expected to respond in a pro-active manner to ensure that this plan is implemented to maximum effect and with no obvious safety issues being overlooked. In particular, the following matters are considered noteworthy:

- All signs are to be placed where clear visibility is available;
- Installations should be checked intermittently during the course of the day/s; and
- SafeWork NSW certified Traffic Controllers shall be on-site during work hours to supervise vehicle movements, should vehicle movements equate to or exceed 10 truck movements (5 in, 5 out) per hour.

It is noted that TRAFFIX is responsible for the preparation of the TGS only and not for its implementation, which is the responsibility of the project manager/builder.

2.2 Development Consent

The Development Consent outlines a requirement for the preparation of a CTPMSP and in particular, Condition C20 states:

A Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:

- a) *Be prepared by a suitably qualified and experienced person(s);*

Refer to the 'Document Verification' page at the start of this report and Appendix A, which provides the SafeWork NSW Certificates and CV, respectively.

- b) *Be prepared in consultation with Council;*

Refer to Section 2.3 and Appendix B, which outlines the consultation and correspondence with Council.

c) *Detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; and*

Refer to Section 5 and Appendix E, which details the Traffic Management Arrangements and Traffic Guidance Scheme to manage vehicular access and pedestrian traffic, respectively.

d) *Detail heavy vehicle routes, access and parking arrangements.*

Refer to Sections 5.1, 5.2 and 5.5, which details the heavy vehicle routes, construction access and parking arrangements, respectively.

2.3 Council Consultation

In accordance with Condition C20 (b) of the Development Consent, this CTPMSP has been prepared in consultation with Council. Reference should be made to the correspondence with Council, dated 18 May 2022 and provided in **Appendix B**, noting the following aspects:

- CTPMSP to be in accordance with Liverpool City Council's *Assessment of Construction Traffic Management Plan*; and
- Submission of the CTPMSP to Council is sufficient to satisfy Condition C20.

Accordingly, this CTPMSP has been prepared in accordance with Liverpool City Council's *Assessment of Construction Traffic Management Plan* and has been updated to take into consideration construction vehicle access from Fourth Avenue.

2.4 Other Applications

Other applications will be required to be prepared at a later stage and submitted online to Council's Transport Management Unit for approval (where applicable):

- Road occupancy approval (including placement of construction plant) is required for any works within the public road reserve;
- Works zone applications and associated signposting plan;
- Footpath occupancy and hoarding installation;
- Road opening approval (including connections to existing services); and
- Each application will require work/site specific TGS plans.

3. EXISTING CONDITIONS

3.1 Location and Site

The subject site known as St Anthony of Padua Catholic College is located at 140 Eleventh Avenue, Austral is located approximately 11.0 kilometres west of Liverpool Railway Station and is legally identified as Lots 811 and 812 of DP2475. More specifically, the site is situated on the southern side of Eleventh Avenue, approximately 2.0 kilometres north of Bringelly Road.

The site is rectangular in configuration and has a site area of approximately 26,300m². It has a northern boundary of approximately 160 metres to Eleventh Avenue, and an eastern boundary of approximately 150 metres to nearby rural property, while the western frontage of 150 metres and southern frontage of 160 metres to adjoining lots that form part of St Anthony of Padua Catholic College, respectively. The location of the construction works identified within this plan relates to the north-eastern portion of the site where the proposed Early Learning Centre is proposed.

The site currently contains structures associated with the St Anthony of Padua Catholic College and an at-grade carpark with access to and from Eleventh Avenue and Tenth Avenue.

A Location Plan is presented in **Figure 1**, with a Site Plan presented in **Figure 2**.

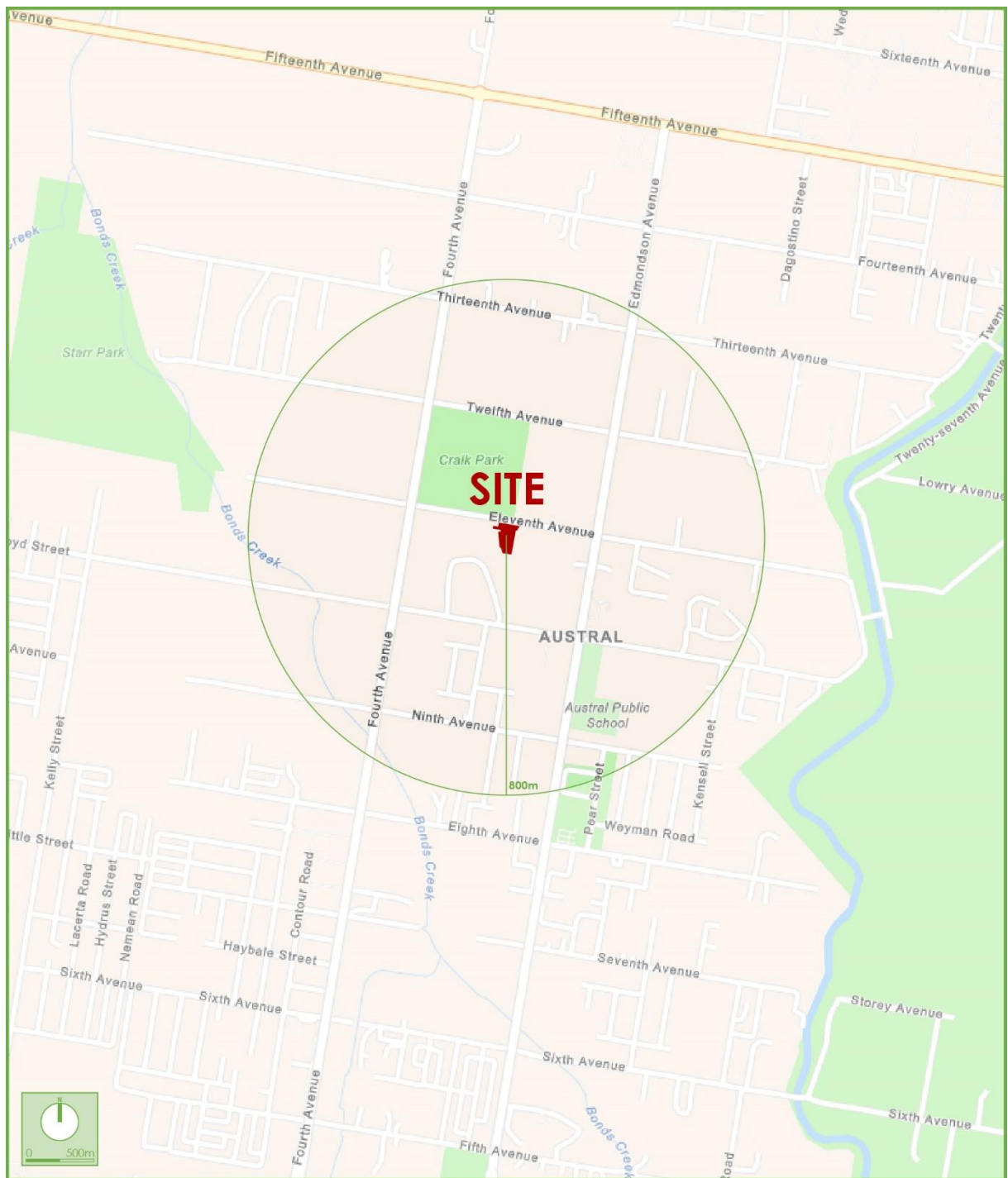


Figure 1: Location Plan

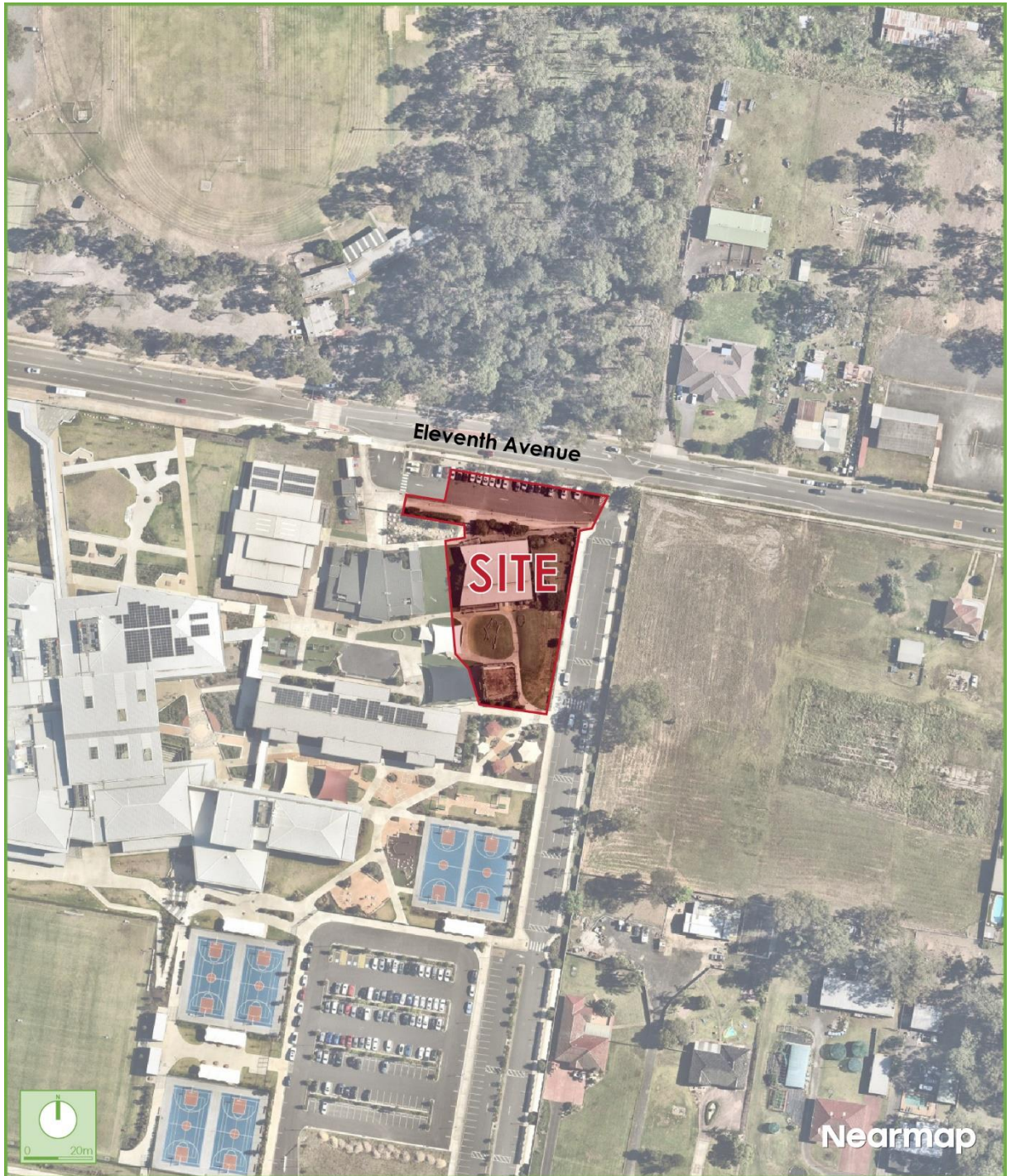


Figure 2: Site Plan

3.2 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

- **Bringelly Road:** a TfNSW Main Road (MR 647) that traverses east-west between Camden Valley Way in the east and Greendale Road in the west. Within the vicinity of the site, it is subject to 80km/h speed zoning and accommodates three (3) lanes of traffic in each direction. Bringelly Road does not permit on-street parking on either side of the road and has been identified by TfNSW as a 26.0 metre B-double route.
- **Edmondson Avenue:** a local road that traverses north-south between Fifteenth Avenue in the north and Bringelly Road in the south. It is subject to 60km/h speed zoning and accommodates a single lane of traffic in each direction. Edmondson Avenue permits unrestricted on-street parking along both sides of the road.
- **Fourth Avenue:** a local road that traverses north-south between a dead-end after Gurner Avenue in the north and Bringelly Road in the south. It is subject to 60km/h speed zoning and accommodates a single lane of traffic in each direction. Fourth Avenue permits unrestricted on-street parking along both sides of the road, with the northern section of the road identified by TfNSW as a 26.0 metre B-double route (between Fifteenth Avenue and Seventh Avenue).
- **Tenth Avenue:** a local road that traverses east-west between Twenty Ninth Avenue in the east and Kelly Street in the west. It is subject to 60km/h speed zoning and accommodates a single lane of traffic in each direction. Tenth Avenue permits unrestricted on-street parking along both sides of the road.

- Eleventh Avenue: a local road that traverses east-west between Twenty Ninth Avenue in the east and forms a dead-end after Fourth Avenue in the west. It is subject to 60km/h speed zoning and accommodates a single lane of traffic in each direction. Eleventh Avenue permits unrestricted on-street parking along both sides of the road.
- Fifteenth Avenue: a local road that traverses east-west between Cowpasture Road in the east and a dead-end after Wishart Road in the west. It is subject to 60km/h speed zoning and accommodates a single lane of traffic in each direction. Fifteenth Avenue permits unrestricted on-street parking along both sides of the road, with the western section of the road identified by TfNSW as a 26.0 metre B-double route (between Fourth Avenue and Ramsay Road)

It can be seen from **Figure 3** that the site is conveniently located with respect to the main collector road servicing the region, being Edmondson Avenue. As such, traffic can effectively be distributed onto the wider road network, minimising traffic impacts.

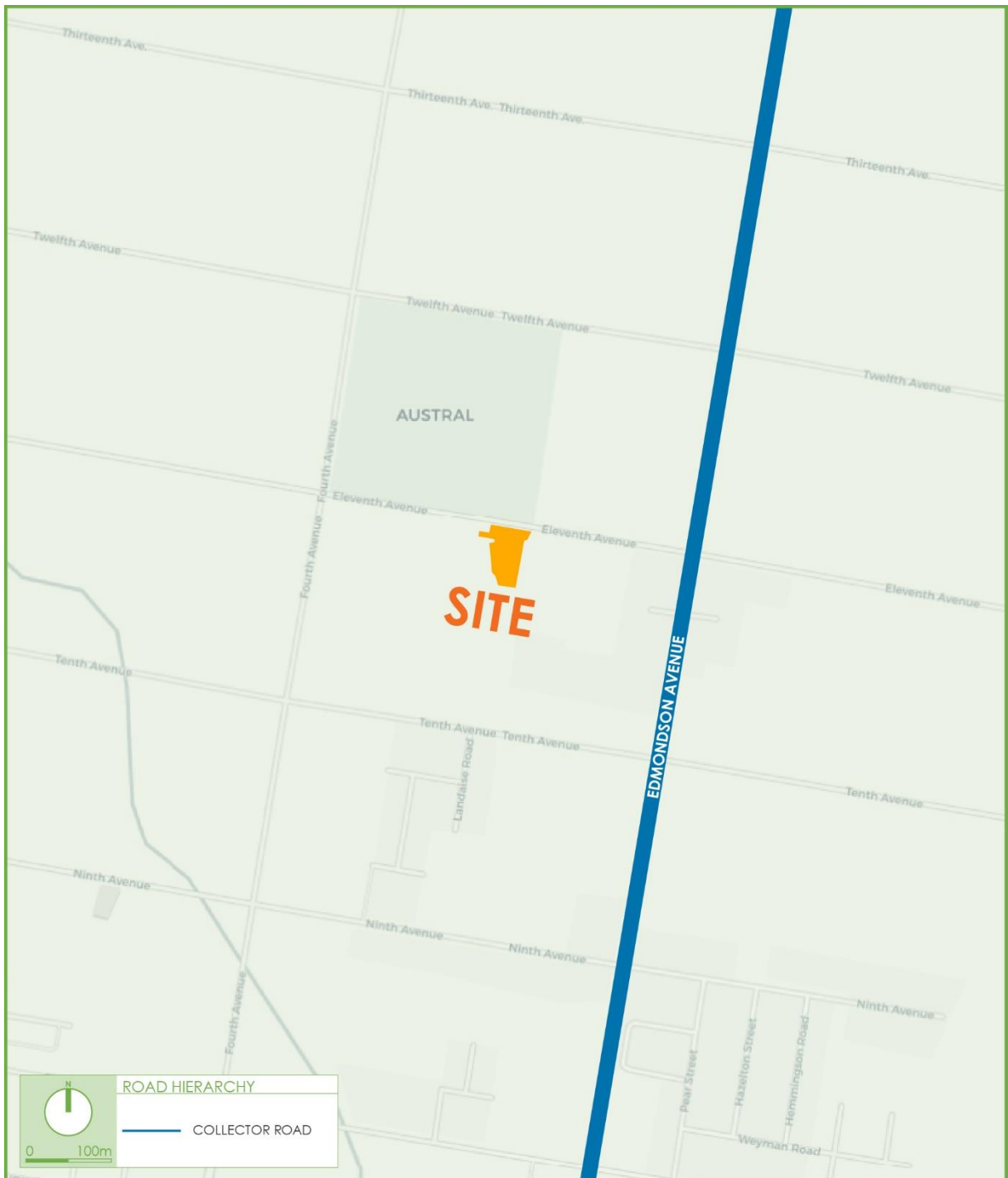


Figure 3: Road Hierarchy

3.3 Public Transport

The existing bus services operating within 400 metres (optimum walking distance) of the site is presented in **Figure 4**, with the closest situated along the southern frontage of the site. These bus stops provide regular services to the following routes:

- 855 – Rutleigh Park to Liverpool via Austral and Leppington Station
- 861 – Denham Court to Carnes Hill via Austral

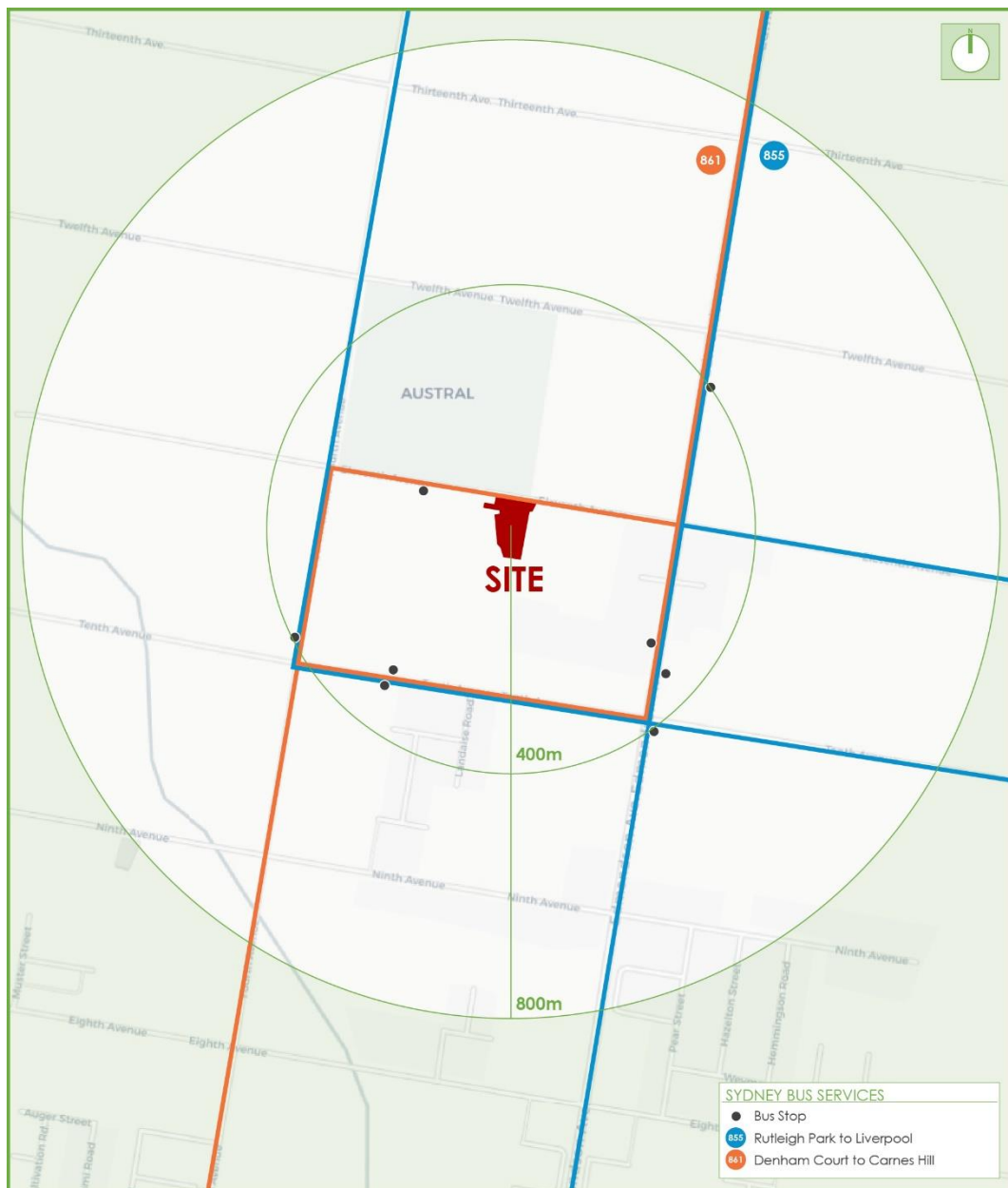


Figure 4: Public Transport

4. OVERVIEW OF CONSTRUCTION PROGRAM

4.1 Times of Operation

The proposed construction hours of operation are summarised below.

- Monday to Friday 7:00am to 6:00pm;
- Saturday 8:00am to 1:00pm; and
- Sunday or Public Holiday No building activities are to be carried out at any time.

4.2 Site Establishment Plans

Reference should be made to the Site Establishment Plans presented in **Appendix C**, which includes the proposed locations of:

- Site offices, sheds, amenities and pedestrian access;
- Materials laydown area;
- Light and heavy vehicle accesses; and
- Contractor parking area.

4.3 Overview of Construction Works

The proposed construction works during all stages of construction are summarised below.

4.3.1 Demolition Stage

This stage is anticipated to occur over a 4-week period, pending the approval of this CTMP. A maximum of 15 workers will be on site at any given time, with an average of 10 workers. The maximum sized truck to be utilised during this stage will be 12.5 metre long heavy rigid vehicles (HRVs). All demolition works are proposed to occur within the site, with construction vehicle access proposed from a dedicated construction vehicle access off Eleventh Avenue.

This stage will have an average of 20 trucks per day (20 in, 20 out) and a maximum of five (5) trucks per hour (5 in, 5 out). This truck volume would equate to an average of two (2) trucks per hour, which is considered minor and will have negligible impacts on the surrounding key intersections.

4.3.2 Bulk Excavation Stage

This stage is anticipated to occur over a 5 week period and will involve a maximum of 15 workers on site at any given time, with an average of 10 workers. The maximum sized truck to be utilised during this stage will be 12.5 metre long heavy rigid vehicles (HRVs). All bulk excavation works are proposed to occur within the site, with construction vehicle access proposed from a dedicated construction vehicle access off Eleventh Avenue.

This stage will have an average of 20 trucks per day (20 in, 20 out) and a maximum of five (5) trucks per hour (5 in, 5 out). This truck volume would equate to an average of two (2) trucks per hour, which is considered minor and will have negligible impacts on the surrounding key intersections.

4.3.3 Structure Stage

This stage is anticipated to occur over a 6 week period and will involve a maximum of 30 workers on site at any given time, with an average of 20 workers. The maximum sized truck to be utilised during this stage will be 12.5 metre long heavy rigid vehicles (HRVs). All structure works are proposed to occur within the site, with construction vehicle access proposed from a dedicated construction vehicle access off Eleventh Avenue.

This stage will have an average of 20 trucks per day (20 in, 20 out) and a maximum of five (5) trucks per hour (5 in, 5 out). This truck volume would equate to an average of two (2) trucks per hour, which is considered minor and will have negligible impacts on the surrounding key intersections.

4.3.4 Fitout & Finishes Stage

This stage is anticipated to occur over a 32 week period and will involve a maximum of 30 workers on site at any given time, with an average of 20 workers. The maximum sized truck to be utilised during this stage will be 12.5 metre long heavy rigid vehicles (HRVs). All fitout and finishes works are proposed to occur within the site, with construction vehicle access proposed from a dedicated construction vehicle access off Eleventh Avenue.

This stage will have an average of 15 trucks per day (15 in, 15 out) and a maximum of five (5) trucks per hour (5 in, 5 out). This truck volume would equate to an average of two (2) trucks per hour, which is considered minor and will have negligible impacts on the surrounding key intersections.

5. TRAFFIC MANAGEMENT ARRANGEMENTS

5.1 Truck Routes

The proposed truck routes make use of TfNSW approved 26.0 metre B-double routes where possible, with a copy of the routes provided to all drivers prior to attending the site. The proposed truck routes are presented in **Figures 5** and **6** below and summarised as follows.

5.1.1 Site Compound (Gates 1 and 2)

- Ingress to subject site:
(*Inbound*)
 1. Trucks will arrive on Cowpasture Road/Hoxton Park Road.
 2. Turn onto Fifteenth Avenue, westbound.
 3. Turn left onto Fourth Avenue, southbound.
 4. Turn left onto Eleventh Avenue, eastbound
 4. Turn right onto site.

- Egress from the subject site:
(*Outbound*)
 1. Trucks will depart onto Eleventh Avenue, westbound.
 2. Turn right onto Fourth Avenue, northbound.
 3. Turn right onto Fifteenth Avenue, eastbound.
 4. Turn onto Cowpasture Road/Hoxton Park Road.

5.1.2 Pours and Large Deliveries (Gate 3)

- Ingress to subject site:
(*Inbound*)
 1. Trucks will arrive on Cowpasture Road/Hoxton Park Road.
 2. Turn onto Fifteenth Avenue, westbound.
 3. Turn left onto Fourth Avenue, southbound.
 4. Turn left onto Eleventh Avenue, eastbound
 4. Turn right onto site.

- Egress from the subject site:
(*Outbound*)
 1. Trucks will depart onto Tenth Avenue, westbound.
 2. Turn right onto Fourth Avenue, northbound.
 3. Turn right onto Fifteenth Avenue, eastbound.
 4. Turn onto Cowpasture Road/Hoxton Park Road.

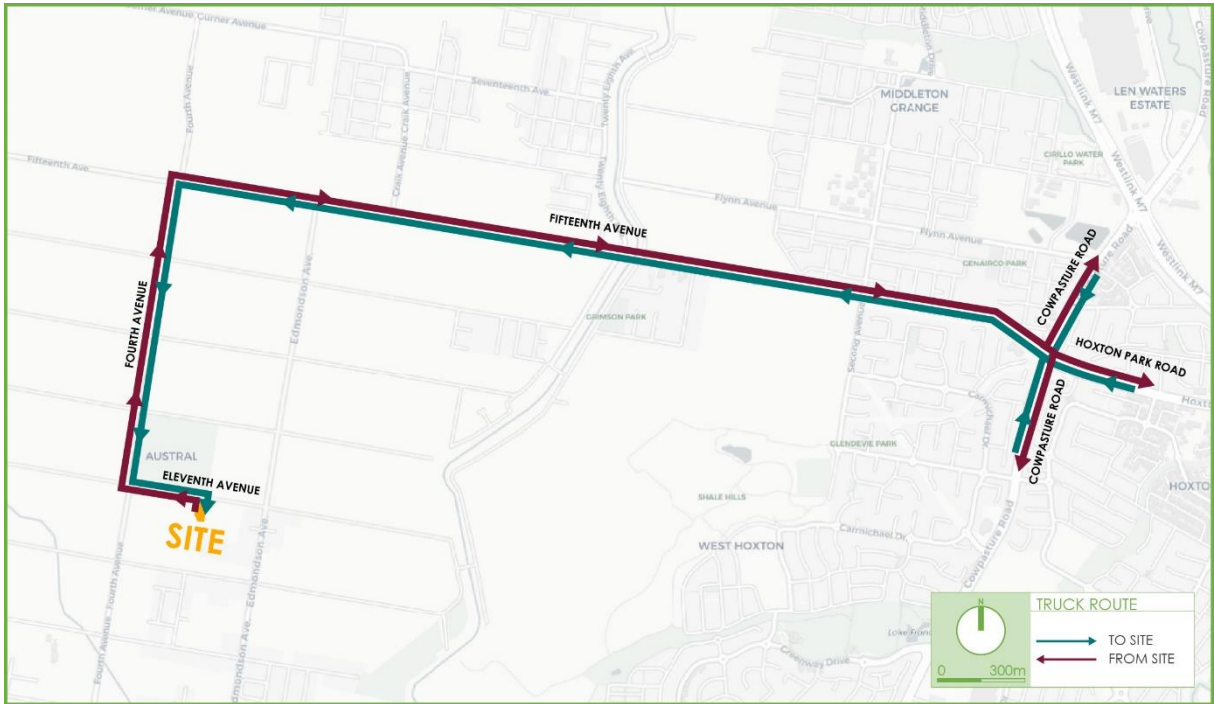


Figure 5: Proposed Truck Routes to/from Gates 1 and 2

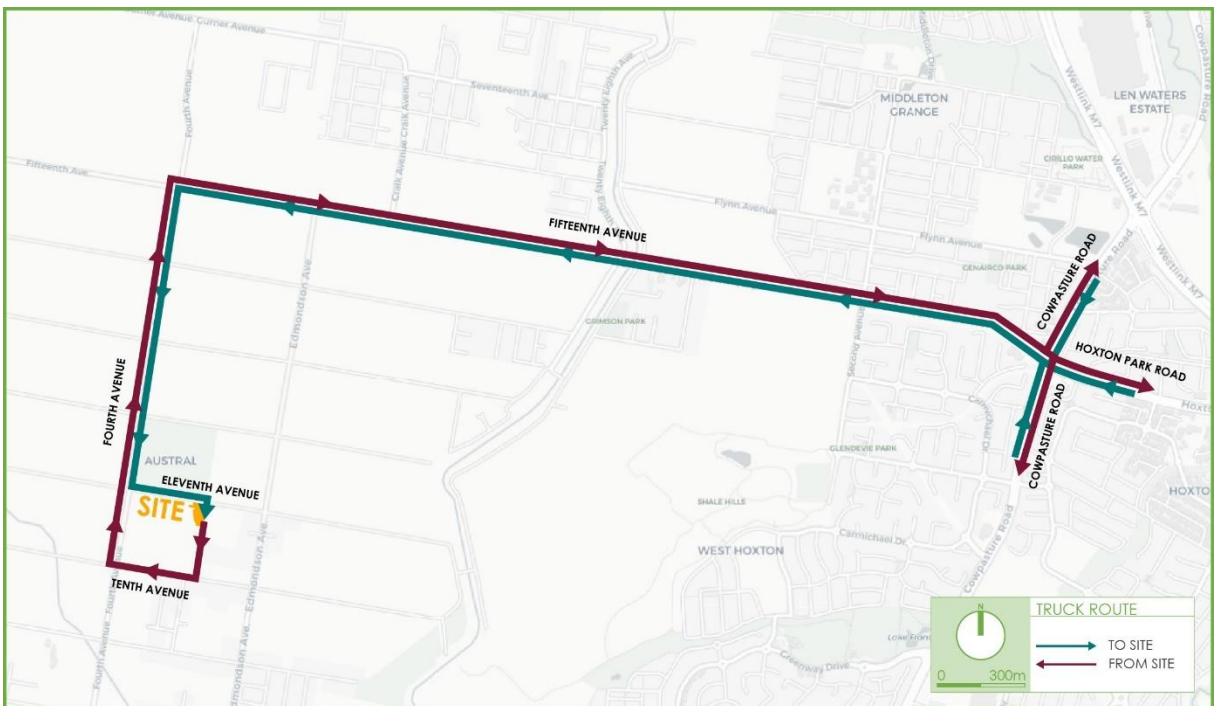


Figure 6: Proposed Truck Routes to/from Gate 3

5.2 Construction Access

All trucks will be linked via CB radio and/or hands-free mobile and will only be called onto site when required and when there is sufficient capacity to accommodate the proposed trucks. This management of loading / unloading or deliveries is envisaged to be the same throughout all stages of construction and will ensure no trucks would be required to queue or park on-street. The construction accesses to be utilised throughout all stages are outlined as follows:

5.2.1 General Works

➤ Eleventh Avenue Access

- Situated on Eleventh Avenue, approximately 310 metres east of Fourth Avenue;
- 9.0 metre wide vehicular access at the property boundary;
- Connected to the existing car parking area which will be utilised as material laydown area;
- Maximum sized vehicle accessing the site will be 12.5 metre long heavy rigid vehicles (HRV).

Typically, vehicles will be expected to exit the site via the egress only driveway onto Eleventh Avenue. However, it is expected that for big deliveries and pours vehicles will be incapable of circulating within the car park. As such they are expected to egress the site via Fourth Avenue at the southern boundary of the site.

A swept path analysis has been undertaken and included in **Appendix D**, demonstrating satisfactory vehicle movements of the largest size vehicle to be accommodated on-site being 12.5m heavy rigid vehicles (HRV).

5.2.2 Other Comments

In addition to the above, all construction vehicles will be restricted to the following:

- All vehicles will be required to enter and egress the site in a forward direction;
- Heavy vehicles with a length of 12.5 metres will be restricted to a maximum of 6 trucks per hour (6 in, 6 out) on school days between 7:00am-10:00am and 3:00pm-7:00pm, with intermittent stoppages for construction access to be minimised;
- No construction vehicle movements will be permissible during school peak drop-off and pick-up periods, being 8:00am-9:00am and 2:30pm-3:30pm; and

- Stoppages or delays to buses will not be permissible, with bus stop access to be maintained at all times throughout all stages of construction.

5.3 Crane Requirements

Temporary cranes are proposed to be utilised during all construction stages. It is understood that all cranes and pumps will be wholly contained on-site at all times.

5.4 Pedestrian Control

Pedestrian and cyclists access surrounding the site will be managed safely during all construction stages, with A-Class hoarding and Cyclone fencing. As mentioned above, SafeWork NSW certified Traffic Controllers would be on hand at Eleventh Avenue & Tenth Avenue vehicular accesses to manage vehicle and pedestrian movements, should vehicle movements equate to or exceed 10 truck movements (5 in, 5 out) per hour. These arrangements are considered acceptable and will ensure pedestrian safety is maintained at all times.

5.5 Employee Parking

In accordance with the DA Consent Condition C28, construction workers will be permitted to park on-site throughout all stages of construction, with a dedicated contractor parking area, within the site compound accessed from Eleventh Avenue. Reference should be made to the Site Establishment Plans in **Appendix C**, with an extract presented in **Figure 6** that shows sufficient area to accommodate all contractor parking on-site.

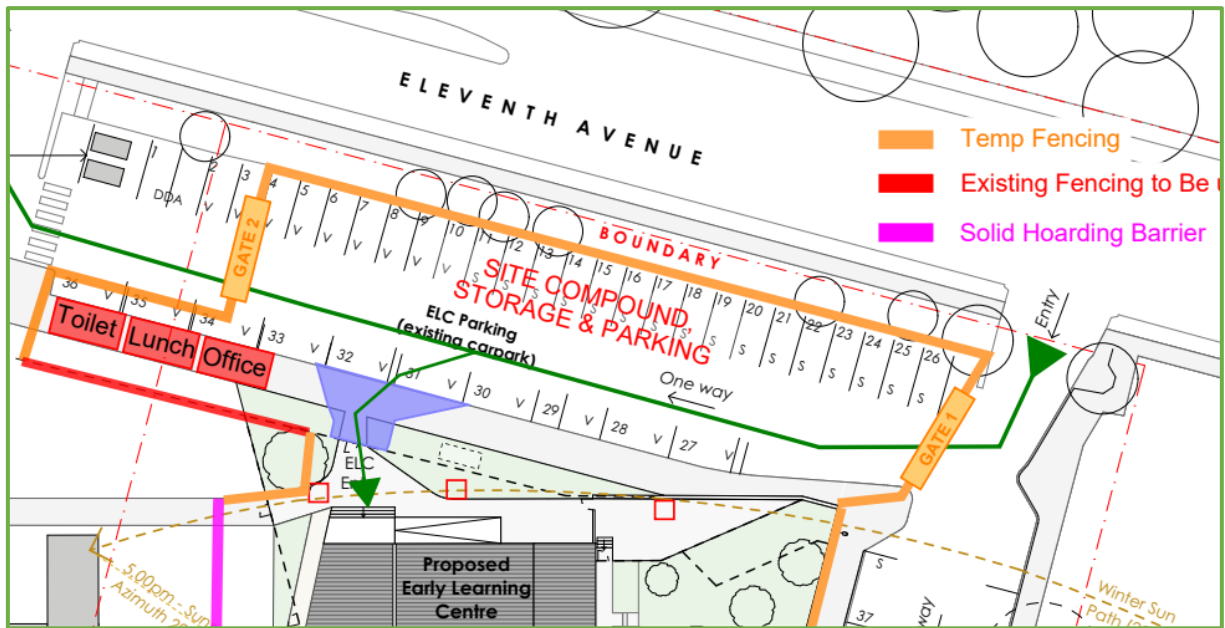


Figure 6: Contractor Parking Area

Accordingly, parking for all construction workers will be accommodated on-site. Nevertheless, workers will be encouraged to car-pool and utilise available public transport services in order to minimise the demand for surrounding on-street parking spaces. In the unlikely event workers park on-street, workers are to adhere to the signposted parking restrictions, NSW Road Rules and not obstruct residential access.

5.6 Community Contact

Appropriate signage with contact details (phone number and email) is to be installed at the site to allow local community members to make contacts in relation to work activities.

5.7 Driver Code of Conduct

All drivers will be required to adhere to the following driver code of conduct:

- a) Minimise the impacts of earthworks and construction on the local and regional road network;
- b) Minimise conflicts with other road users;
- c) Minimise road traffic noise; and
- d) Ensure truck drivers use specified routes – this will be addressed through the induction process.

5.8 Traffic Guidance Scheme

The TGS included in **Appendix E** demonstrate the proposed signage and traffic management measures to be adopted during all stages of construction. This TGS will ensure all vehicular access and pedestrian traffic is managed safely and efficiently, with copies of the TGS to be kept on-site at all times. This TGS has been designed in accordance with the *TfNSW Traffic Control at Works Sites Technical Manual*.

6. CONCLUSION

This report should be read in conjunction with other construction documentation prepared by Trinity Fitout & Construction relating to the internal construction activities. The plan outlined above is considered satisfactory and will minimise any disruptions to the neighbouring developments. This plan meets all required of the *TfNSW Traffic Control at Work Sites Technical Manual* and is recommended for adoption.

APPENDIX A

Curriculum Vitae



TOM MOJSIEJUK

SENIOR ENGINEER

Qualifications and Associations

- Bachelor of Planning - Macquarie University
- Master of Traffic and Transport Engineering – Monash University
- Prepare A Work Zone Traffic Management Plan

Areas of Expertise

Tom, is an urban planner and traffic engineer who joined TRAFFIX in 2024 and has experience in areas related to the preparation of traffic impact assessments, planning proposals, green travel plans, strategic transport planning, construction traffic management plans (CTMPs) and internal management plans.

Tom is proficient in the analysis of traffic generation, trip distribution and traffic modelling using SIDRA Intersection. He has extensive knowledge of Australian Standards, Austroads Guidelines and Transport for NSW (TfNSW) requirements.

Relevant Experience

Western Sydney University – Parramatta South Campus Strategy

Involvement in the preparation of a strategic development plan to inform the future Parramatta South Campus Strategy.

This study involved the review of existing site conditions utilising traffic survey data and identifying key transport routes in line with the One University approach to inform the future development strategy.

University of Sydney - TIA

Involvement in the production of a Traffic Impact Assessment report for the refurbishment and repurposing of existing buildings on campus for an interim retail and place precinct.

This traffic study involved reviewing existing travel data and campus facilities to support additional retail and ancillary uses on site.

Maddens Plains Subdivision - TIA

Involvement in the preparation of a Traffic Impact Assessment report for a 175 lot residential subdivision on greenfield land with a focus on swept path analysis and SIDRA intersection modelling for both light and commercial vehicles.

This traffic study was primarily aimed at two (2) key intersections, in particular their performance and condition. The model was developed to assess the impacts of the proposed 175 lot residential development over the existing network conditions.

Forestville RSL redevelopment – TIA

Involvement in the preparation of a Traffic Impact Assessment report for the Forestville RSL club and seniors living redevelopment.

This study involved a review of existing conditions surrounding the proposed site, trip distribution analysis and SIDRA 9.1 modelling.

Campbelltown Arts Centre – Design and Car Parking Strategy

Involvement in the preparation of a site specific design and car parking strategy.

This study involved the review of existing site conditions utilising traffic survey data of existing car parks to identify parking demand and requirements to inform the future Campbelltown Arts Centre development.

UPA Wahroonga SSDA – TAIA, CTMP, GTP

Involvement in the production Traffic Impact Assessment report, Construction Management Plan and Green Travel Plan for the UPA Wahroonga SSDA.

The TAIA element involved a review of existing conditions surrounding the proposed site, trip distribution analysis and SIDRA 9 modelling. The CTMP element involves the analysis of several routes noting the constrained nature of the site to develop a feasible plan for construction vehicles.

APPENDIX B

Council Consultation

Neil Caga

Subject: FW: SCS - St Anthony of Padua Catholic School - Stage 4 - SSDA Condition C20 [22.212]

From: Mahavir Arya

Sent: Wednesday, 18 May 2022 4:13 PM

To: Rocco Bombardiere; Charles Wiafe

Cc: Tim Calpito; Jim Gilvarry; Robin Merrick; Billy Vasiliou

Subject: Re: SCS - St Anthony of Padua Catholic School - Stage 4 - SSDA Condition C20

Hi Rocco

To satisfy this condition, please provide a copy of Construction Traffic Management Plan (CTMP) for Council comments. Please use [Assessment of Construction Traffic Management Plan](#) application form which is available on Council website indicates required information to be included with the CTMP. Submission of the CTMP will satisfy the consent condition C20.

In addition, Traffic Operational Plan is also required. This plan is to include pedestrian and traffic movements following completion of the construction activities and is regularly been reviewed in consultation with Council's Road Safety Officer to ensure road safety in and around the school.

Please contact me should you be having any further questions.

Regards

Mahavir

Mahavir Arya

Transport Engineer

**LIVERPOOL
CITY
COUNCIL**

02 8711 7592 | | AryaM@liverpool.nsw.gov.au

Customer Service: 1300 36 2170 | 33 Moore Street Liverpool, NSW 2170, Australia



www.liverpool.nsw.gov.au



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From: Rocco Bombardiere

Sent: Wednesday, 18 May 2022 3:46 PM

To: Mahavir Arya; Charles Wiafe

Cc: Tim Calpito; Jim Gilvarry; Robin Merrick; Billy Vasiliou

Subject: SCS - St Anthony of Padua Catholic School - Stage 4 - SSDA Condition C20

Hi Mahavir & Charles,

Seek your assistance on a contact in Council who would assist with consultation on the Construction Traffic & Pedestrian Management Plan review.

C20	<p>A Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:</p> <p>(a) be prepared by a suitably qualified and experienced person(s);</p> <p>(b) be prepared in consultation with Council;</p> <p>(c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; and</p> <p>(d) detail heavy vehicle routes, access and parking arrangements.</p> <p><u>AED REQUIREMENTS</u></p> <ul style="list-style-type: none"> • <i>Provide a copy of the Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP), prepared in accordance with this condition.</i>
-----	---

Kind regards

Rocco

Rocco Bombardiere
Associate Director



Carmichael Tompkins Property Group

Suite 14.04, Level 14 Aurora Place, 88 Phillip Street, Sydney NSW 2000

T: +61 (0)2 9160 6305

M: +61 (0)438 678 912

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Sydney | Melbourne

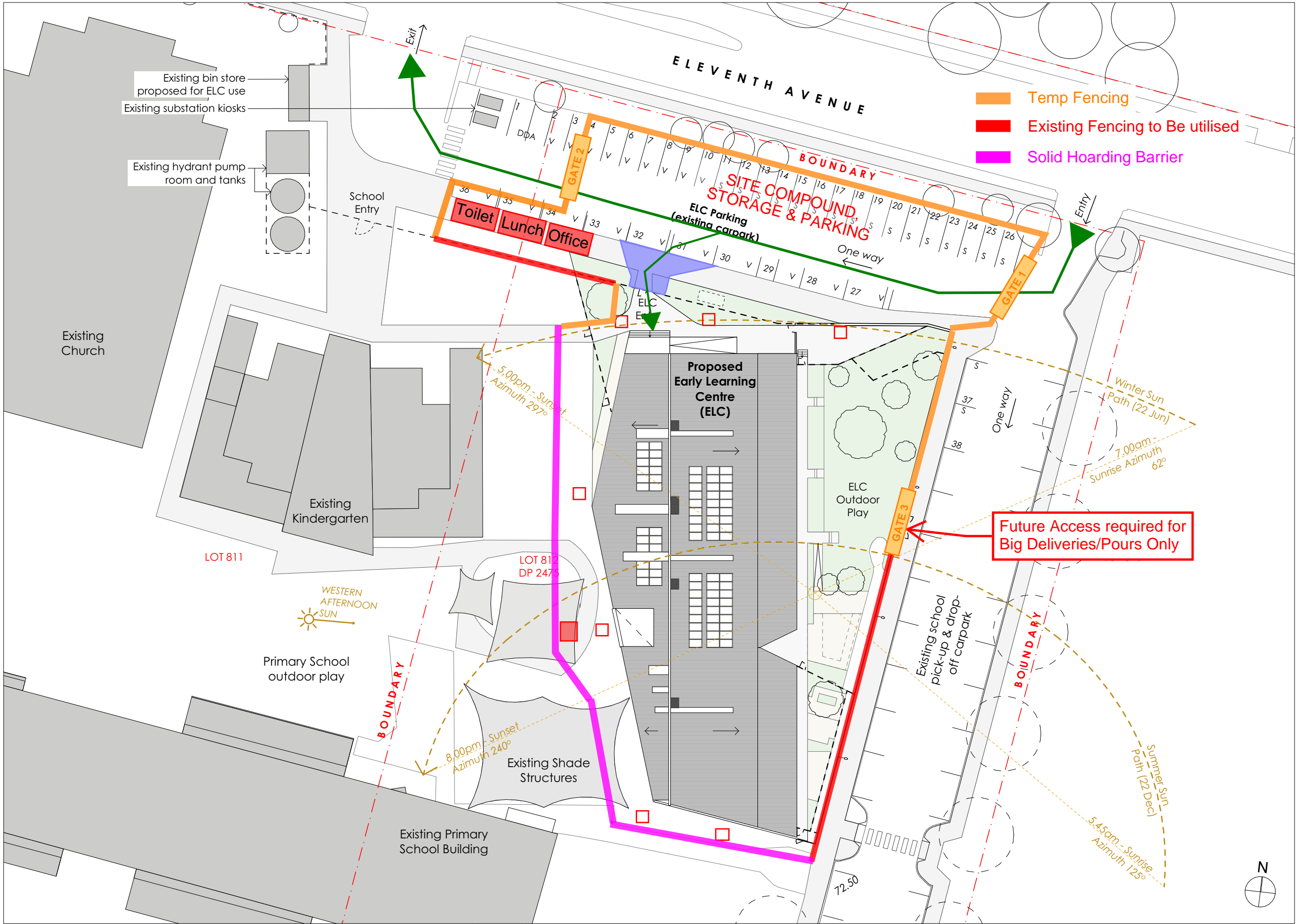
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APPENDIX C

Site Establishment Plans

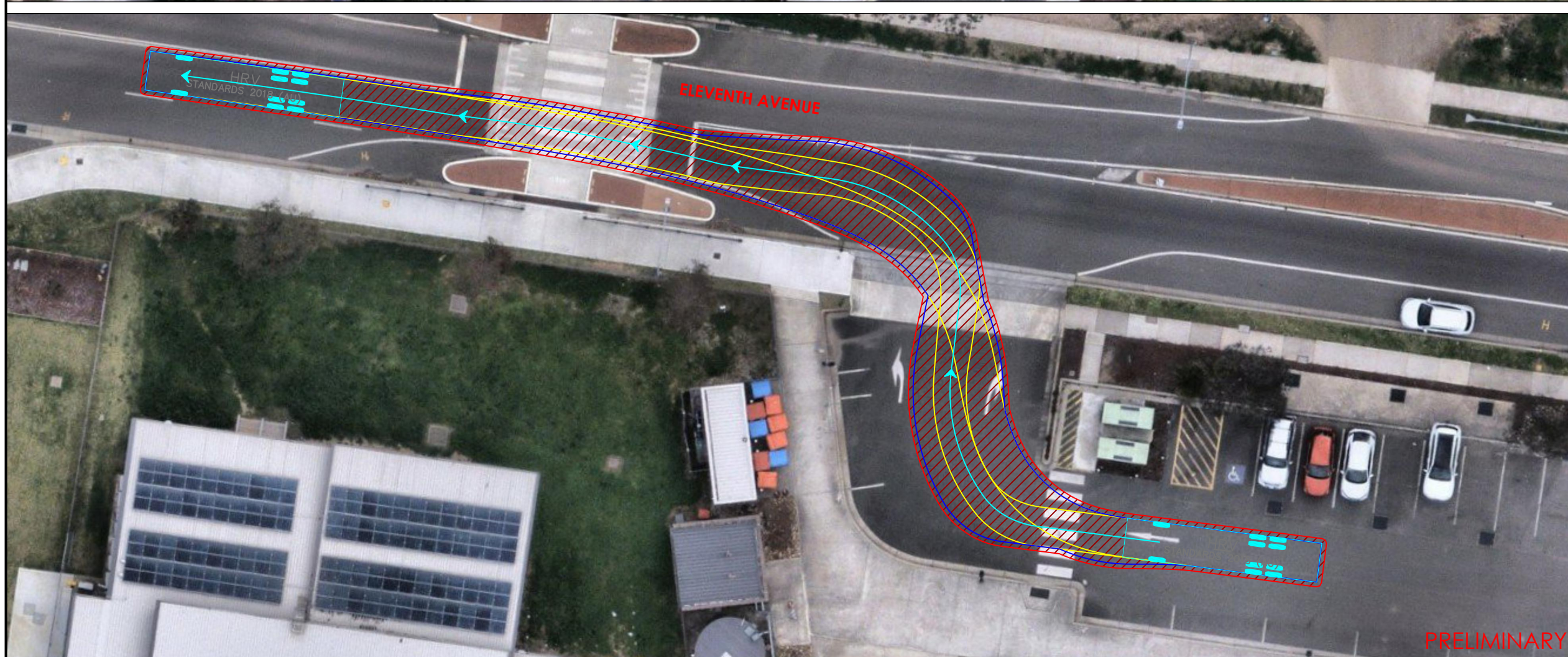
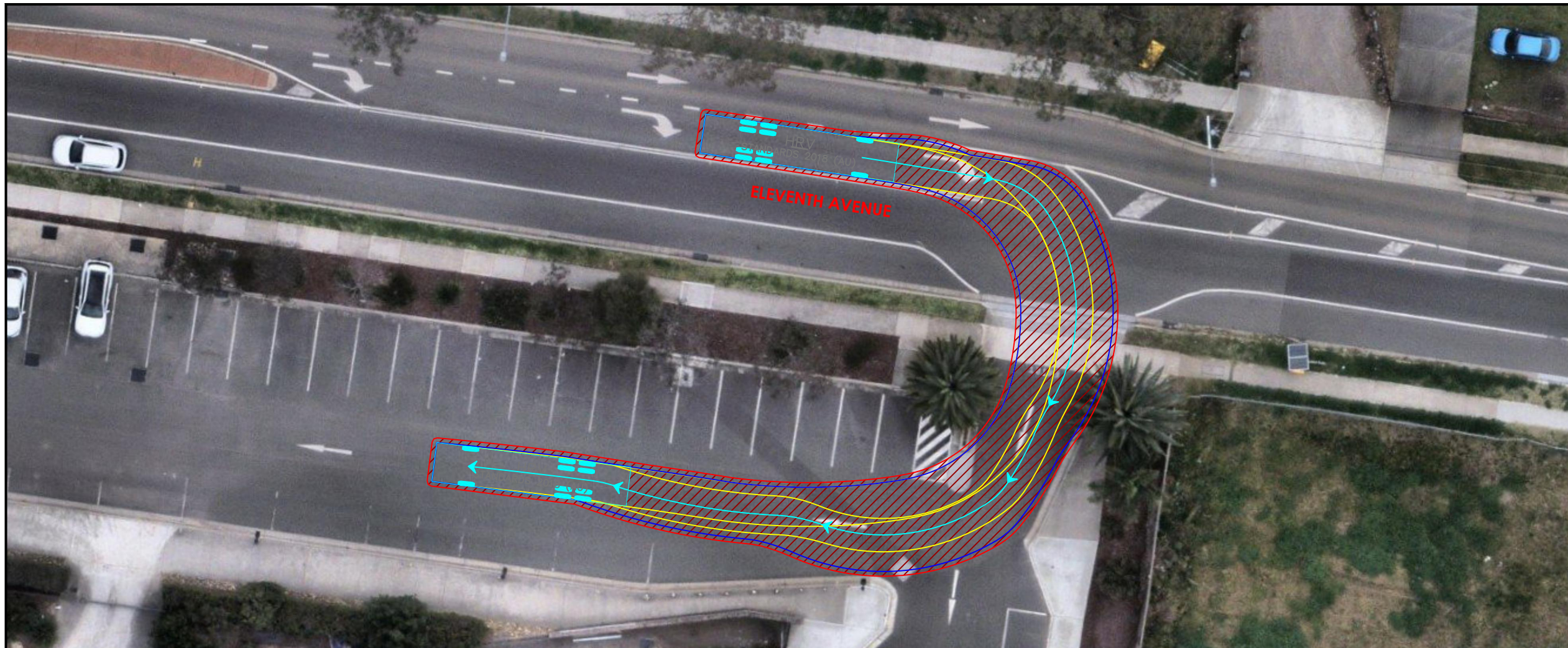


- Temp Fencing
- Existing Fencing to Be utilised
- Solid Hoarding Barrier

Future Access required for Big Deliveries/Pours Only

APPENDIX D

Swept Path Analysis



Notes:
 This drawing is prepared for information purposes only. It is not to be used for construction.
 TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.
 Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (AS/NZS 2890.1:2004 Parking facilities - Off-street car parking, and/or AS2890.2:2002 Parking facilities - Off-street commercial vehicle facilities). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

Rev.	Revision Note	By.	Date
A	Swept Path Analysis	AB	26-02-26

Swept Path Legend

	Wheel Path
	Vehicle Body Envelope
	Clearance Envelope (300mm)

Architect
 Client
 Trinity Fitout & Construction

Scale / Plan Orientation

 1:300 @ A3

Project Description
 St Anthony of Padua Catholic College
 140 Eleventh Avenue, AUSTRAL NSW 2179

Drawing Prepared By
TRAFFIX
 TRAFFIC AND TRANSPORT PLANNERS

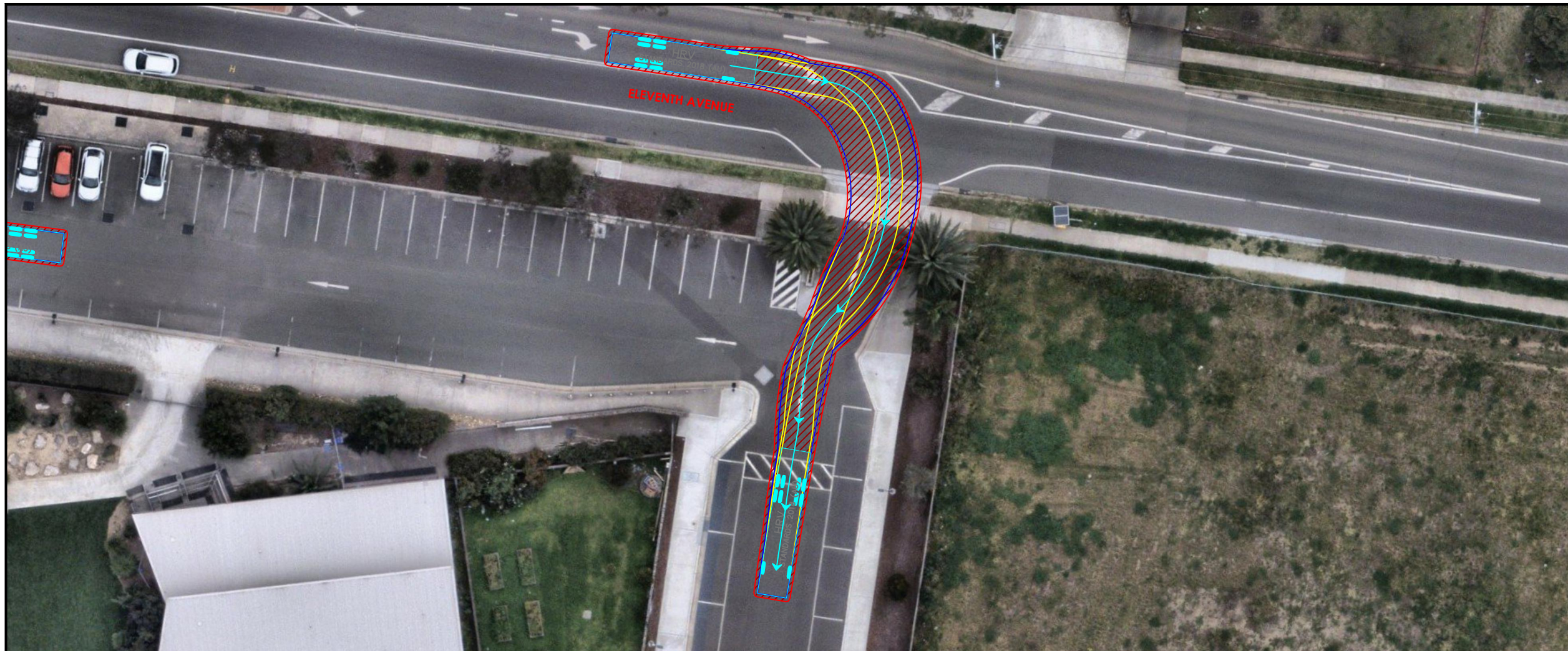
Suite 2.08, 50 Holt Street t: +61 2 8324 8700
 Surry Hills, NSW 2010 f: +61 2 9830 4481
 PO Box 1124 w: www.traffix.com.au
 Strawberry Hills, NSW 2012

Drawing Title
 Swept Path Analysis
 Construction Vehicle Access - Rigid Vehicles
 12.5m HRV
 Top: Site Entry from Eleventh Avenue
 Bottom: Site Egress to Eleventh Avenue

Drawn: AB Checked: TM Date:

22.212d05v01 TRAFFIX [CTPMSP] - Swept Path Analysis_9275.SV\$.dwg			
Project No.	Drawing Phase	Drawing No.	Rev.
22.212	CTPMSP	TX.01	A

PRELIMINARY



Notes:

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Rev.	Revision Note	By.	Date
A	Swept Path Analysis	AB	26-02-26

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect

Client
Trinity Fitout & Construction

Scale / Plan Orientation

0 4 8 12 16m

1:400 @ A3

Project Description
St Anthony of Padua Catholic College
140 Eleventh Avenue, AUSTRAL NSW 2179

Drawing Prepared By

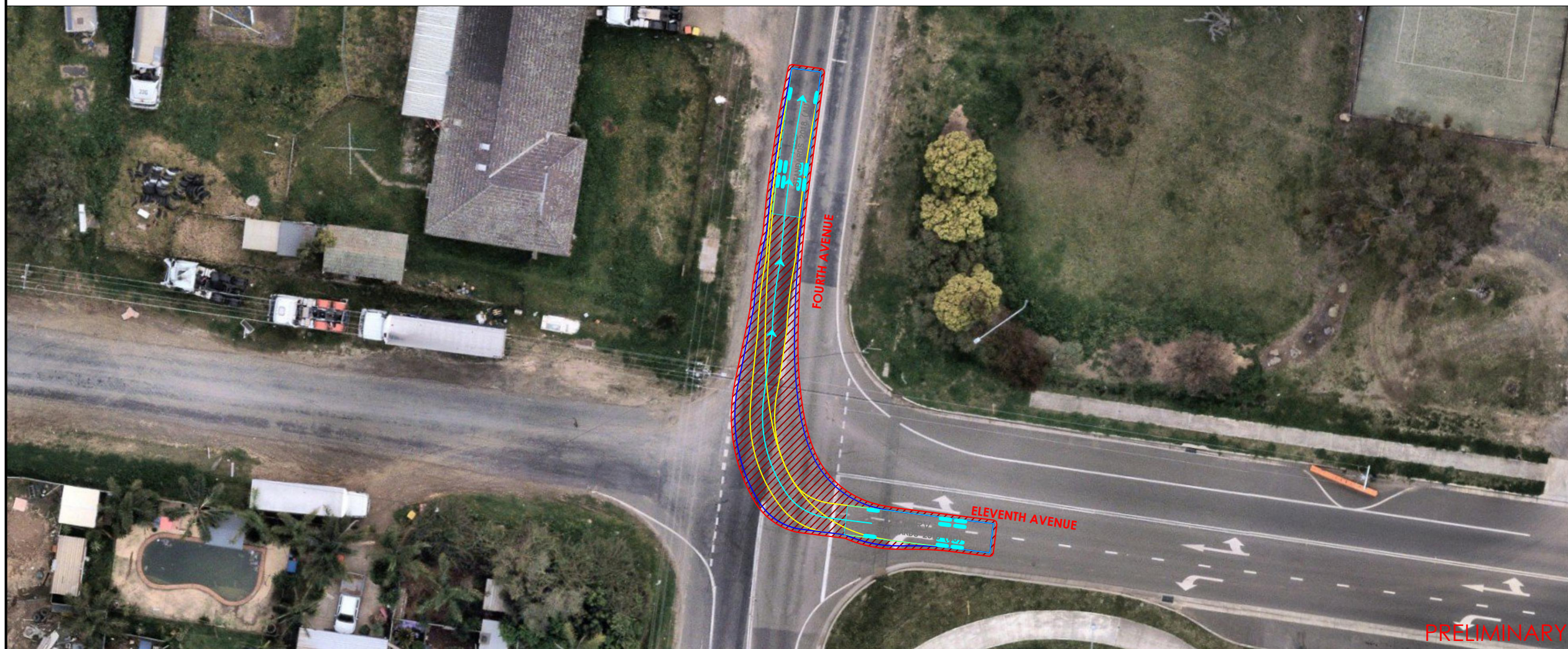
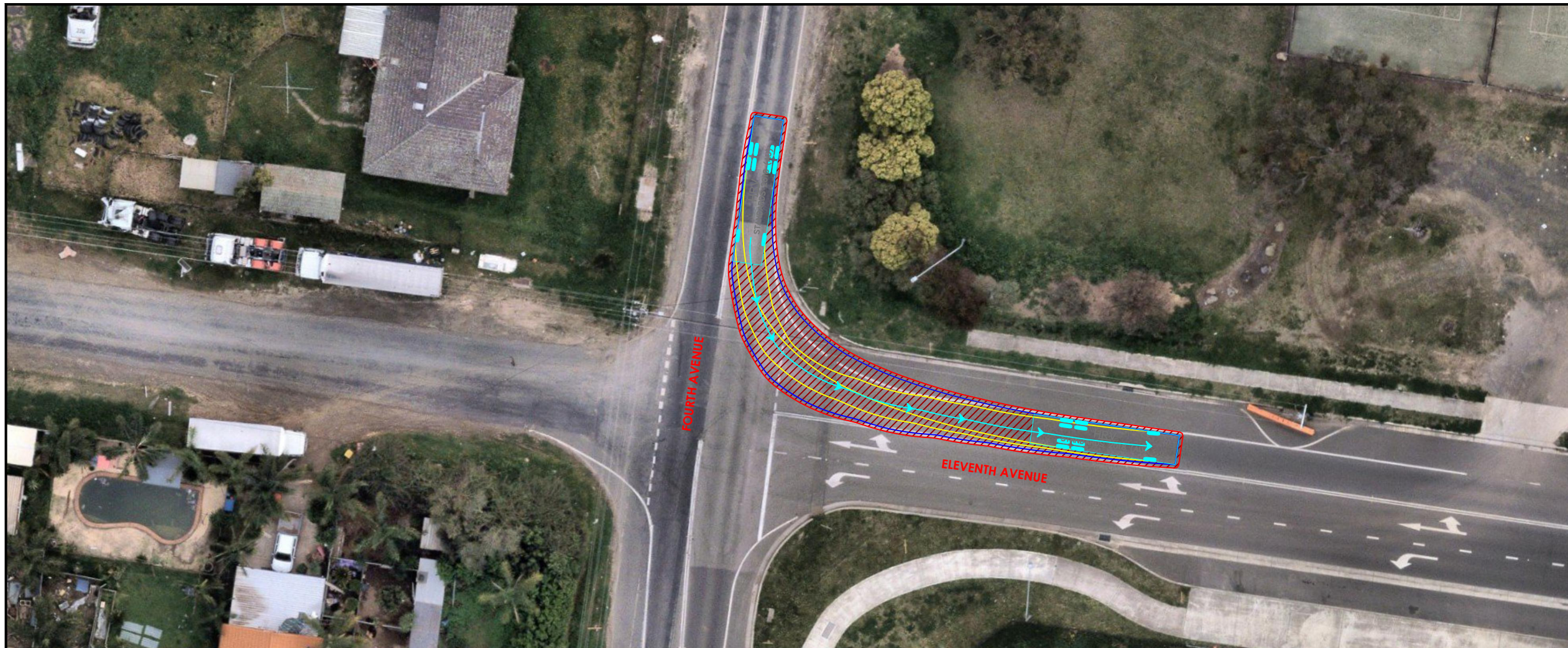
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PO Box 1124 w: www.traffix.com.au
Strawberry Hills, NSW 2012

Drawing Title
Swept Path Analysis
Construction Vehicle Access - Pours
12.5m HRV
Top: Site Entry from Eleventh Avenue
Bottom: Site Egress to Tenth Avenue

Drawn: AB	Checked: TM	Date:	
22.212d05v01 TRAFFIX [CTPMSP] - Swept Path Analysis_9275.SV\$.dwg			
Project No. 22.212	Drawing Phase CTPMSP	Drawing No. TX.02	Rev. A

PRELIMINARY



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Rev.	Revision Note	By.	Date
A	Swept Path Analysis	AB	26-02-26

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect

Client
Trinity Fitout & Construction

Scale / Plan Orientation

0 4 8 12 16m

1:400 @ A3

Project Description
St Anthony of Padua Catholic College
140 Eleventh Avenue, AUSTRAL NSW 2179

Drawing Prepared By

TRAFFIX
TRAFFIC AND TRANSPORT PLANNERS

Suite 2.08, 50 Holt Street t: +61 2 8324 8700
Surry Hills, NSW 2010 f: +61 2 9830 4481
PO Box 1124 w: www.traffix.com.au
Strawberry Hills, NSW 2012

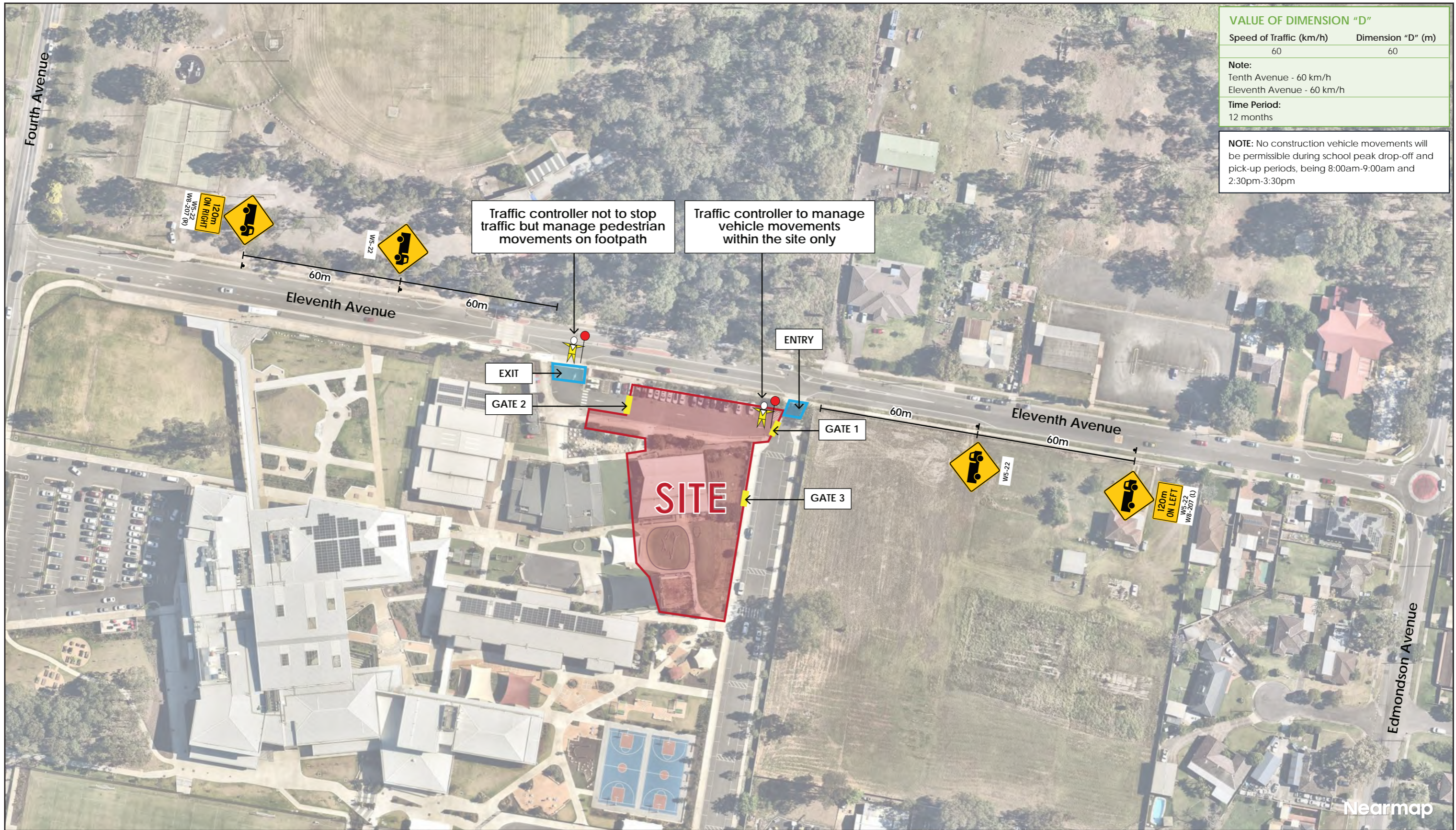
Drawing Title
Swept Path Analysis
12.5m HRV
Top: Left turn from Fourth Avenue to Eleventh Avenue
Bottom: Right turn from Eleventh Avenue to Fourth Avenue

Drawn: AB	Checked: TM	Date:
22.212d05v01 TRAFFIX [CTPMSP] - Swept Path Analysis_9275.SV\$.dwg		
Project No.	Drawing Phase	Drawing No. Rev.
22.212	CTPMSP	TX.03 A

PRELIMINARY

APPENDIX E

Traffic Guidance Scheme



VALUE OF DIMENSION "D"	
Speed of Traffic (km/h)	Dimension "D" (m)
60	60
Note: Tenth Avenue - 60 km/h Eleventh Avenue - 60 km/h	
Time Period: 12 months	
NOTE: No construction vehicle movements will be permissible during school peak drop-off and pick-up periods, being 8:00am-9:00am and 2:30pm-3:30pm	

TRAFFIX

TRAFFIC AND TRANSPORT PLANNERS

📍 Suite 2.08, 50 Holt Street
Surry Hills, NSW 2010

☎ (02) 8324 8700

✉ info@traffix.com.au

LEGEND ▬ Vehicle Access

- GENERAL NOTES
- Plan not to scale.
 - All signage dimension D shall comply with the minimum requirements of TfNSW TCAWS Technical Manual.
 - Qualified personnel to undertake a site inspection prior to implementation.
 - It must be noted that TRAFFIX is not responsible for the implementation of this TGS, which is the responsibility of the on-site qualified traffic controller.

PROJECT
140 ELEVENTH AVENUE AUSTRAL

PROJECT NUMBER: 22.212 DATE: 27.02.2026

CLIENT
TRINITY FITOUT AND CONSTRUCTION

TGS
TGS 01: ALL STAGES OF CONSTRUCTION

PREPARED BY
TOM MOJSIEJUK

APPROVED BY
TOM MOJSIEJUK

SAFework NSW CARD NUMBER
5201837

SIGNATURE
Tom Mojsiejuk



TRAFFIX

TRAFFIC AND TRANSPORT PLANNERS

Suite 2.08, 50 Holt Street
 Surry Hills, NSW 2010
 (02) 8324 8700
 info@traffix.com.au

LEGEND Exit Point

- NOTES
- Plan not to scale.
 - All signage dimension D shall comply with the minimum requirements of TfNSW TCAWS Technical Manual.
 - Qualified personnel to undertake a site inspection prior to implementation.
 - It must be noted that TRAFFIX is not responsible for the implementation of this TGS, which is the responsibility of the on-site qualified traffic controller.

PROJECT
140 ELEVENTH AVENUE AUSTRAL

PROJECT NUMBER DATE
 22.212 27.02.2026

CLIENT
 TRINITY FITOUT AND CONSTRUCTION

TGS
TGS 02: ALL STAGES OF CONSTRUCTION

PREPARED BY
 TOM MOJSIEJUK

APPROVED BY
 TOM MOJSIEJUK

SAFework NSW CARD NUMBER
 5201837

SIGNATURE

Appendix 3: Construction Noise and Vibration Management Sub-Plan

St Anthony of Padua Catholic College, Austral
Construction Noise and Vibration Management Plan

Project ID	20220605.1
Document Title	Construction Noise and Vibration Management
Attention To	Sydney Catholic Schools Ltd

Revision	Date	Document Reference	Prepared By	Checked By	Approved By
0	19/05/2022	20220605.1/1905A/R0/RG	RG		GW

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1 INTRODUCTION

Acoustic Logic has been engaged to prepare a Noise and Vibration Management Plan for the demolition and construction works associated with St Anthony of Padua Catholic College, Austral to satisfy Condition C21 of SSD 8865 conditions of consent.

The issues which will be addressed in this report are:

- Identification of the noise and vibration standards which will be applicable to this project.
- Identification of potentially impacted nearby development.
- Identify likely sources of noise and vibration generation and predicted noise levels at nearby development.
- Formulation of a strategy to comply with the standards identified and mitigation treatments in the event that compliance is not achievable.

2 SITE DESCRIPTION

The proposed construction works include excavation and the construction of new school buildings. Typical works anticipated are as follows:

- Bulk and detailed excavation (clay / soft shale). It is expected that the duration of these works will be approximately 4 months.
- Bored piling of foundations, approximately 3 months concurrent with excavation.
- Use of mobile cranes, (see figure 1 for crane zone).
- Erection of building structures (powered hand tools for formwork, concrete pump, vibrators).
- Façade Installation (powered hand tools)
- Landscaping (front end loaders etc).
- Internal fit out.

Work hours are as follows:

Day	Building Construction / Excavation Works
Monday – Friday	7am – 6pm
Saturday	8am – 1pm
Sunday & Public Holidays	No Work

2.1 RECEIVER LOCATIONS

Sensitive receiver locations as presented in Figure 1 and detailed below. These locations will be used as a basis for this assessment.

- **S1 & S2:** Existing School classroom buildings immediately adjacent to the works zone;
- **R1:** Residential dwellings along Tenth Avenue to the south east;
- **R2:** Residential dwellings across Tenth Avenue to the south;
- **R3:** Residential dwellings across Fourth Avenue to the west;
- **R4:** Residential dwellings across Eleventh Avue to the north-east.

An aerial photo of the site, monitoring locations and surrounding receivers is shown in Figure 1.



- Construction Zone
- Piling Zone
- Concrete Pump / Crane Zone
- Remediation works
- Vehicle Access
- School Receivers
- Residential Receivers

Figure 1 - Site Map and Receiver Locations

3 CONSENT CONDITIONS

3.1 SSD 8865 - CONDITION C21

A Construction Noise Management Sub-Plan must address, but not limited to the following:

- (a) Be prepared by a suitably qualified and experienced noise expert;*
- (b) Describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009).*
- (c) incorporate the measures as recommended in the*
- (d) Noise and Vibration Impact Assessment report for SSDA (SSD 8865) (Project No. 180123, Revision J) prepared by JHA dated 19 March 2020;*
- (e) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers;*
- (f) Include strategies that have been developed with the community for managing high noise generating works;*
- (g) describe the community consultation undertaken to develop the strategies in Schedule 3 condition C21(d);*
- (h) include a complaints management system that would be implemented for the duration of the construction; and*
- (i) include a program to monitor and report on the impacts and environmental performance of the development and the effectiveness of the management measures in accordance with Schedule 3 condition C21(d).*

4 NOISE AND VIBRATION MANAGEMENT LEVEL

4.1 BACKGROUND NOISE MEASUREMENTS

4.1.1 External Background Noise Levels for Residential Receivers

Long term unattended and attended background noise measurements were undertaken by JHA at project approval stage as part of SSDA documentation. *Noise & Vibration Impact Assessment* prepared by JHA and approved by the consent authority (project number 200489, dated 31/03/2021) contains detailed noise monitoring. Results of background noise monitoring are presented in the table below.

Table 1 – Measured Background Noise Levels, dB(A) L₉₀

Location	Period / Time	Background Noise Level dB(A) L ₉₀
Project Site	Day (7am to 6pm)	37

4.1.2 Internal Background Noise Measurements for School Receivers

Noise measurements were obtained using a Norsonic 140 Sound Level Analyser, set to A-weighted fast response. The sound level meter was calibrated before and after the measurements using a Norsonic 1251 Sound Level Calibrator. No significant drift was recorded.

Attended measurements were conducted within the classes closest to the proposed construction area to establish internal background noise levels during class.

Attended measurements were conducted on the 26th of May 2022 whilst classrooms were occupied.

The background noise levels established from the attended noise monitoring are detailed in the Table below.

Table 2 - Measured Internal Noise Levels – Australian Performing Arts Grammar School (255 Broadway, Glebe)

Tenancy/Room	Internal Noise Level, L ₉₀ dB(A)
Existing Years 1-4 Downstairs Collaboration Space	48
Existing Years 1-4 Downstairs Collaboration Space	49
Existing Years 1-4 Upstairs Collaboration Space	52
Year 5-6 Demountable Classroom	56

The mean internal noise level from the above measurements has been outlined in Table 3 below. The internal noise level for the demountable classroom has been excluded to represent the quietest / worst affected classrooms.

Table 3 -Average Internal Noise Level

Location	Internal Noise Level L ₉₀ dB(A)
School (Internal)	50

4.2 EPA INTERIM CONSTRUCTION NOISE GUIDELINE

The EPA Interim Construction Noise Guideline (ICNG) assessment requires:

- Determination of noise management levels (based on ambient noise monitoring).
- Review of operational noise levels at nearby development.
- If necessary, recommendation of noise controls strategies in the event that compliance with noise emission management levels is not possible.

4.2.1 Residential Receivers

EPA guidelines adopt differing strategies for noise control depending on the predicted noise level at the nearest residences:

- *“Noise affected” level.* Where construction noise is predicted to exceed the “noise effected” level at a nearby residence, the proponent should take reasonable/feasible work practices to ensure compliance with the “noise effected level”. For residential properties, the “noise effected” level occurs when construction noise exceeds ambient levels by more than 10dB(A)_{Leq(15min)}.
- *“Highly noise affected level”.* Where noise emissions are such that nearby properties are “highly noise effected”, noise controls such as respite periods should be considered. For residential properties, the “highly noise effected” level occurs when construction noise exceeds 75dB(A)_{Leq(15min)} at nearby residences.

A summary of the recommended noise levels from the ICNG is presented below in Table 4.

Table 4 – Noise Management Levels - Residential

Location	“Noise Affected” Level - dB(A) _{Leq(15min)}	“Highly Noise Affected” Level - dB(A) _{Leq(15min)}
All Surrounding Residents	47	75

If noise levels exceed the management levels identified in the tables above, reasonable and feasible noise management techniques will be reviewed.

4.2.2 School Receivers

The EPA ICNG outlines noise management levels for sensitive land use others than residences. The guideline provides the following noise levels applicable to the existing school still in operation:

- Classrooms – 45dB(A) Internal Noise Level
- Active Recreation Areas (Playgrounds, Outdoor Sport Areas) – 65dB(A) External Noise Level

Noise management levels are summarised in the table below.

Table 5 - Noise Management Levels - School

Receiver	Location	Noise Management Level - $dB(A)_{Leq(15min)}$
School	Classrooms	45 - Internally
	Recreation Areas	65 - Externally

4.3 AUSTRALIAN STANDARD AS 2436:2010 GUIDE TO NOISE CONTROL ON CONSTRUCTION, MAINTENANCE AND DEMOLITION SITES

Australian Standard AS 2436 provides guidance on noise and vibration control in respect to construction and demolition sites, the preparation of noise and vibration management plans, work method statements and impact studies.

The Standard states that:

- Some construction and demolition activities are by their very nature noisy. The authorities responsible for setting management levels for essential works will take note of the constraints imposed by such activities, especially when they are of short duration.
- Construction, demolition and maintenance works pose different problems of noise and vibration control when compared with most other types of industrial activity, since (a) they are mainly carried on in the open; (b) they are often temporary in nature although they may cause considerable disturbance whilst they last; (c) the noise and vibration arise from many different activities and kinds of plant, and their intensity and character may vary greatly during different phases of the work; and (d) the sites cannot be separated by planning controls, from areas that are sensitive to noise and vibration.

The standard provides advice and guidelines for the prediction of impacts and the methods available to manage impacts. The guideline promulgates feasible and reasonable mitigation strategies and controls, and stakeholder liaison, in the effort to reach a realistic compromise between site activities and impacts on neighbouring properties.

4.4 VIBRATION

Vibration caused by construction at any residence or structure outside the subject site must be limited to:

- For structural damage vibration, German Standard DIN 4150-3 *Structural Vibration: Effects of Vibration on Structures; and*
- For human exposure to vibration, the evaluation criteria presented in the British Standard BS 6472:1992 *Guide to Evaluate Human Exposure to Vibration in Buildings (1Hz to 80Hz)* for low probability of adverse comment.

4.4.1 Structure Borne Vibrations (Building Damage Criteria)

German Standard DIN 4150-3 (1999-02) provides vibration velocity guideline levels for use in evaluating the effects of vibration on structures. The criteria presented in DIN 4150-3 (1999-02) are presented in Table 4.

It is noted that the peak velocity is the value of the maximum of any of the three orthogonal component particle velocities as measured at the foundation, and the maximum levels measured in the x- and y-horizontal directions in the plane of the floor of the uppermost storey.

Table 6 – DIN 4150-3 (1999-02) Safe Limits for Building Vibration

TYPE OF STRUCTURE		PEAK PARTICLE VELOCITY (mms ⁻¹)			
		At Foundation at a Frequency of			Plane of Floor of Uppermost Storey
		< 10Hz	10Hz to 50Hz	50Hz to 100Hz	All Frequencies
1	Buildings used in commercial purposes, industrial buildings and buildings of similar design	20	20 to 40	40 to 50	40
2	Dwellings and buildings of similar design and/or use	5	5 to 15	15 to 20	15
3	Structures that because of their particular sensitivity to vibration, do not correspond to those listed in Lines 1 or 2 and have intrinsic value (e.g. buildings that are under a preservation order)	3	3 to 8	8 to 10	8

Nearby residences would be classified as a type 2 structure.

4.4.2 Assessing Amenity

The NSW EPA document “*Assessing Vibration: A Technical Guideline*” provides procedures for assessing tactile vibration and regenerated noise within potentially affected buildings and is used in the assessment of vibration impact on amenity.

Relevant criteria are presented below.

Table 7 – EPA Recommended Vibration Criteria

		RMS acceleration (m/s ²)		RMS velocity (mm/s)		Peak velocity (mm/s)	
Place	Time	Preferred	Maximum	Preferred	Maximum	Preferred	Maximum
Continuous Vibration							
Residences	Daytime	0.01	0.02	0.2	0.4	0.28	0.56
Offices		0.02	0.04	0.4	0.8	0.56	1.1
Workshops		0.04	0.08	0.8	1.6	1.1	2.2
Impulsive Vibration							
Residences	Daytime	0.3	0.6	6.0	12.0	8.6	17.0
Offices		0.64	1.28	13.0	26.0	18.0	36.0
Workshops		0.64	1.28	13.0	26.0	18.0	36.0

5 NOISE AND VIBRATION ASSESSMENT AND RECOMMENDATIONS

5.1 ACTIVITIES TO BE CONDUCTED AND THE ASSOCIATED NOISE LEVELS

Typically, the most significant sources of noise generated during a construction project will be demolition, excavation, civil works and piling. A summary of sound power levels of major construction processes/equipment is detailed in Table 8.

Section 2 outlines the major works to be undertaken. The highest noise levels are likely to be generated during bulk excavation of the sandstone substrate.

With respect to construction noise, the impact on nearby development will be dependent on the activity in question and where on the site the activity is undertaken. The primary construction equipment and sound power levels associated with the works are as follows:

Table 8 - Sound Power Levels of the Proposed Equipment

Equipment / Process	Sound Power Level – dB(A)*
Bored Piling Rig	111
Excavator	110
Concrete Pump	108
Trucks	107
Crane (Mobile)	104
Materials Handling (Forklifts etc)	100
Powered Hand Tools	100

***Noise levels take into account correction factors (for tonality, intermittency where necessary).**

The noise levels presented in the above table are derived from the following sources, namely:

- Table A1 of Australian Standard 2436-2010.
- Data held by this office from other similar studies.

Noise levels take into account correction factors (for tonality, intermittency where necessary).

5.2 NOISE IMPACT ASSESMENT

The predicted noise levels during excavation and construction will depend on:

- The activity undertaken; and
- The distance between the work site and the receiver. For many of the work areas, the distance between the noise source and the receiver will vary depending on which end of the site the work is undertaken. For this reason, the predicted noise levels will be presented as a range.

Predicted noise levels are presented below. Predictions take into account the noise reduction as a result of distance only.

Table 9 – Predicted Noise Generation to S1 School Receiver

Activity	Predicted Level – dB(A) $L_{eq}(15min)$ (Internal Areas)	Comment
Bored Piling	42 – 55	Exceeds Noise Management Level when work occurs in proximity to building. Refer to Recommendations Section 5.5.
Excavator (in clay/soil)	41 – 55	
Concrete Pump	39 – 50	
Trucks	38 – 51	
Materials Handling (Forklifts etc)	33 – 55	
Powered Hand Tools	33 – 44	
Crane (Mobile)	35 - 46	

Table 10 – Predicted Noise Generation to S2 School Receiver

Activity	Predicted Level – dB(A) $L_{eq}(15min)$ (Internal Areas)	Comment
Bored Piling	44 – 69	Typically exceeds noise management level. Refer to Recommendations Section 5.5.
Excavator (in clay/soil)	43 – 68	
Concrete Pump	46 – 66	
Trucks	40 - 65	
Materials Handling (Forklifts etc)	33 – 58	
Powered Hand Tools	33 - 58	
Crane (Electric)	42 - 62	

Table 11 – Predicted Noise Generation to R1 Residential Receiver

Activity	Predicted Level – dB(A) $L_{eq(15min)}$ (External Areas)	Comment
Bored Piling	50 – 58	Meets highly noise affected management level at all times. Exceeds noise affected management level only when working close to eastern boundary. Refer to Recommendations Section 5.5
Excavator (in clay/soil)	49 – 57	
Concrete Pump	47 – 55	
Trucks	46 – 55	
Materials Handling (Forklifts etc)	37 – 44	Within ICNG noise management levels at all times.
Powered Hand Tools	37 – 44	
Crane (Electric)	44 - 47	

Table 12 – Predicted Noise Generation to R2 Residential Receiver

Activity	Predicted Level – dB(A) $L_{eq(15min)}$ (External Areas)	Comment
Bored Piling	50 – 54	Meets highly noise affected management level at all times. Generally exceeds noise affected management level. Refer to Recommendations Section 5.5
Excavator (in clay/soil)	49 – 53	
Concrete Pump	46 – 49	
Trucks	46 – 63	
Materials Handling (Forklifts etc)	39 – 59	Exceeds noise management level when working close to southern boundary.
Powered Hand Tools	39 – 44	Within ICNG noise management levels at all times.
Crane (Electric)	42 - 45	

Table 13 – Predicted Noise Generation to R3 Residential Receiver

Activity	Predicted Level – dB(A) $L_{eq(15min)}$ (External Areas)	Comment
Bored Piling	50 – 58	Meets highly noise affected management level at all times. Generally exceeds noise affected management level. Refer to Recommendations Section 5.5
Excavator (in clay/soil)	49 – 57	
Concrete Pump	47 – 52	
Trucks	46 – 58	
Materials Handling (Forklifts etc)	39 – 50	Generally meets ICNG noise management levels. Marginal exceedances may be expected when working close to southern boundary.
Powered Hand Tools	39 – 47	
Crane (Electric)	43 – 48	

Table 14 – Predicted Noise Generation to R4 Residential Receiver

Activity	Predicted Level – dB(A) $L_{eq(15min)}$ (External Areas)	Comment
Bored Piling	48 – 55	Meets highly noise affected management level at all times. Generally exceeds noise affected management level. Particularly when working close to the north-eastern boundary. Refer to Recommendations Section 5.5.
Excavator (in clay/soil)	47 – 54	
Concrete Pump	45 – 52	
Trucks	44 – 51	
Materials Handling (Forklifts etc)	37 – 44	Within ICNG noise management levels at all times.
Powered Hand Tools	37 – 44	
Crane (Electric)	43 – 46	

5.3 DISCUSSION – NOISE

Exceedances of the highly noise affected level for residential receivers are not expected to occur during construction. School receivers are expected to be impacted by construction works due to their close proximity to the works zone. Exceedances of the noise management level are expected to occur during the majority of works.

Works with the highest potential to disturb the amenity of classrooms and recreational areas are piling and excavation activities. Given the 4-month duration of excavation, feasible and reasonable work practices should be implemented to minimise noise impacts on surrounding residents.

Other work practices which are above the noise affected management level (but generally below the 'highly noise affected level') are expected to be of a shorter duration (piling) or able to be effectively scheduled to minimise impact (concrete pump).

Once excavation/piling works have been completed, general construction works are expected to generally be of a lower noise level. A further noise reduction would be expected for any internal works once façade works have been completed.

Specific recommendations are detailed in Section 5.5

5.4 DISCUSSION - VIBRATION

Typically, rock hammering is the activity with the greatest potential for vibration generation. Given that rock hammering will not be occurring, vibration impacts on the school and nearby residential receivers are unlikely. Vibration monitoring will not be required for the proposed works.

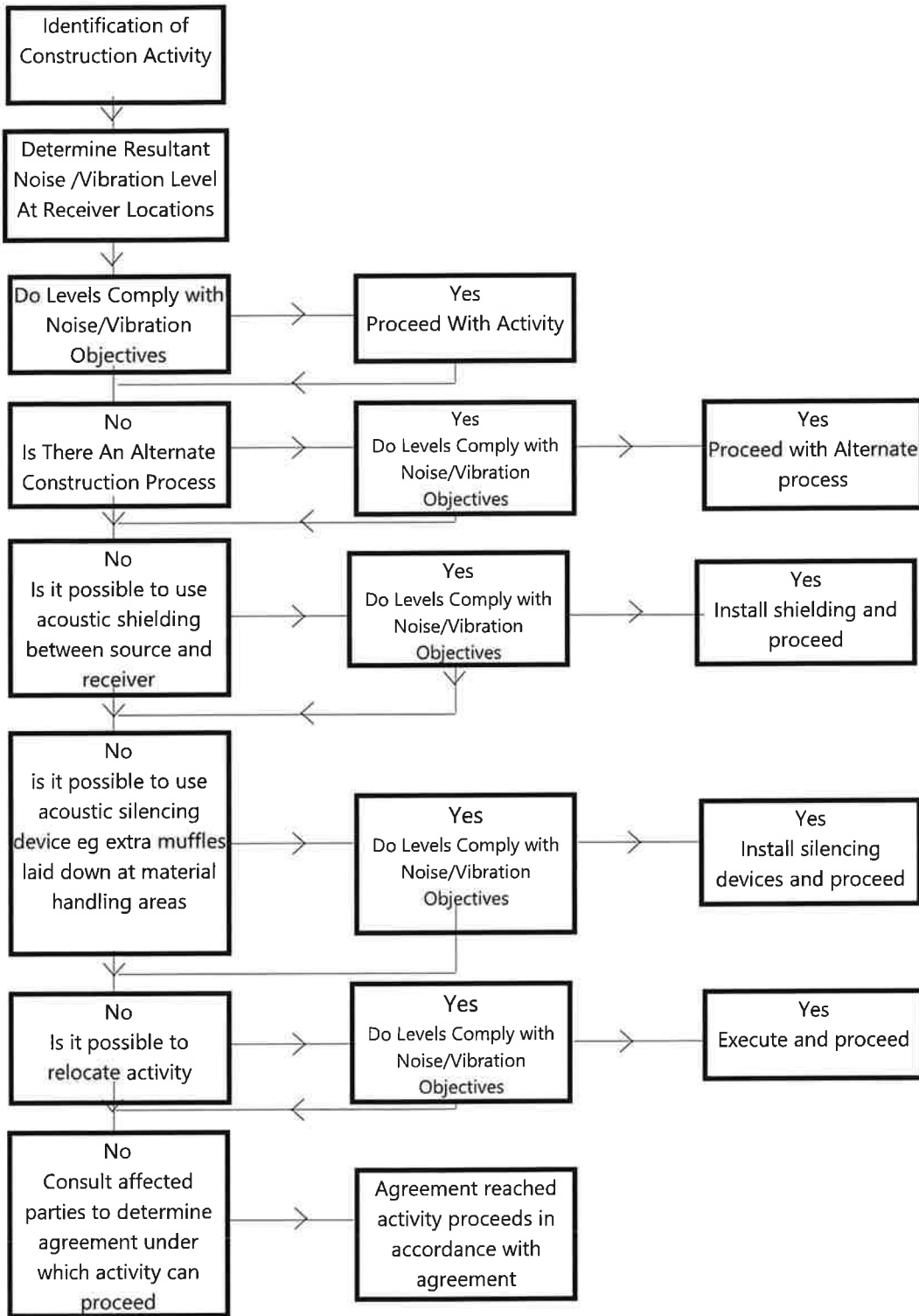
5.5 RECOMMENDATIONS

In light of the above assessment, and to mitigate potential noise impacts from the development at St Anthony of Padua Catholic College, we recommend the following management controls be implemented:

- The scheduling of construction activities should be undertaken to reasonably minimise noise impacts to school and residential receivers. Where feasible, construction works should be concentrated within school holiday periods to reduce the length of construction noise impacts on the school.
- Respite periods are to be implemented for when excavation and piling works are required and will generate noise levels exceeding those in Table 2. It is recommended that 2-hours of respite should be arranged in consultation with the school.
 - An example of recommended excavation and piling times (with a respite period included) is:
 - Monday – Friday: 7am – 12pm
 - Monday – Friday: 2pm – 6pm
- Community and school consultation is proposed be undertaken throughout the construction process. In this regard regular letterbox drops detailing site progress and scheduled works is proposed. In particular, these should detail the extent and times of high noise works (excavation and piling) which is planned to be undertaken.
- Quiet work methods/technologies:
 - The primary noise generating activity at the site will be the bulk excavation period. As much as practicable, use of quieter excavation methods is adopted.
 - Excavation is conducted initially using excavator with bucket (quietest excavation method), then use of rock rippers when rock strength permits.
 - Concrete pump trucks should generally be located away from the school buildings where feasible.
- Attended noise measurements within school buildings and at surrounding properties can be undertaken at the beginning of each construction stage to quantify the level of construction noise typically emitted from the site. This may be used to inform any mitigation strategies which could be implemented.
- Materials handling/vehicles:
 - Trucks and forklifts in general use on site are to use a non-tonal reversing beacon where possible (subject to OH&S requirements) to minimise potential disturbance of surrounding receivers;
 - Avoid careless dropping of construction materials into empty trucks.
 - Trucks, trailers and delivery vehicles are to turn off engines when idling to reduce noise impacts (unless required for concrete pumping or similar).
- Complaints handling:
 - An after hours contact number is displayed outside of the building site, so that in the event that surrounding development believes that a noise breach is occurring, they may contact the site.
 - In the event of complaint, the procedures outlined in Section 8 are adopted.
- Site Induction:
 - A copy of the Noise Management Plan is to be available to contractors. The location of the Noise Management Plan should be advised in any site induction.
 - Site induction should also detail the site contact to be notified in the event of noise complaint.

6 CONTROL OF CONSTRUCTION NOISE AND VIBRATION – PROCEDURAL STEPS

The flow chart presented below illustrates the process that will be followed in assessing construction activities.



7 ADDITIONAL NOISE AND VIBRATION CONTROL METHODS

In the event of complaints, there are a number of noise mitigation strategies available which can be considered. The determination of appropriate noise control measures will be dependent on the particular activities and construction appliances. This section provides an outline of available methods.

7.1.1 Selection of Alternate Appliance or Process

Where a particular activity or construction appliance is found to generate excessive noise levels, it may be possible to select an alternative approach or appliance.

7.1.2 Acoustic Barrier

Given the position of adjacent school buildings, it is unlikely that noise screens will provide significant acoustic benefit for upper levels but will provide noticeable improvement for those on ground level.

The placement of barriers at the source is generally only effective for static plant. Equipment which is on the move or working in rough or undulating terrain cannot be effectively attenuated by placing barriers at the source.

Barriers can also be placed between the source and the receiver.

The degree of noise reduction provided by barriers is dependent on the amount by which line of sight can be blocked by the barrier. If the receiver is totally shielded from the noise source reductions of up to 15dB(A) can be effected. Where only partial obstruction of line of sight occurs, noise reductions of 5 to 8dB(A) may be achieved. Where no line of sight is obstructed by the barrier, generally no noise reduction will occur.

As barriers are used to provide shielding and do not act as an enclosure, the material they are constructed from should have a noise reduction performance that is approximately 10dB(A) greater than the maximum reduction provided by the barrier. In this case the use of a material such as 10mm or 15mm thick plywood (radiata plywood) would be acceptable for the barriers.

7.1.3 Material Handling

The installation of rubber matting over material handling areas can reduce the sound of impacts due to material being dropped by up to 20dB(A).

7.1.4 Treatment of Specific Equipment

In certain cases it may be possible to specially treat a piece of equipment to dramatically reduce the sound levels emitted.

7.1.5 Establishment of Site Practices

This involves the formulation of work practices to reduce noise generation. A more detailed management plan will be developed for this project in accordance to the construction methodology outlining work procedures and methods for minimising noise.

7.1.6 Combination of Methods

In some cases it may be necessary that two or more control measures be implemented to minimise noise.

7.1.7 Noise Monitoring Techniques

Where noise monitoring is undertaken (either by attended short term measurements or long term unattended noise monitoring), it should be conducted at a practical location representative of the impact to nearby noise sensitive receivers. Where this is not possible, noise measurements of construction processes should be taken such that noise levels can be accurately predicted to receivers. Any reporting of noise measurement results may include the following information:

- The date and time that the measurements were undertaken;
- The location of measurements, noise receivers and construction processes. A site map should be included for clarity.
- A description of the construction processes being undertaken during the measurement period.
- The measured noise construction noise levels, and the noise level at the façade of nearby receivers (if noise levels are predicted).
- A comparison to the NSW EPA Interim Construction Noise Guideline noise management levels.

8 DEALING WITH COMPLAINTS

Should ongoing complaints of excessive noise or vibration recommendations occur immediate measures shall be undertaken to investigate the complaint, the cause of the exceedances and identify the required changes to work practices.

If a noise complaint is received the complaint should be recorded. Any complaint form should list:

- The name and address of the complainant (if provided);
- The time and date the complaint was received;
- The nature of the complaint and the time and date the noise was heard;
- The name of the employee who received the complaint;
- Actions taken to investigate the complaint, and a summary of the results of the investigation;
- Required remedial action, if required;
- Validation of the remedial action; and
- Summary of feedback to the complainant.

A permanent register of complaints should be held.

9 CONCLUSION

An assessment of noise from construction works associated with St Anthony of Padua Catholic College has been presented within this report to satisfy Condition C21 of SSD 8865.

The acoustic assessment of the proposed works has been made with reference to the existing consent conditions for the site and relevant policies & guidelines for construction noise – namely the *Interim Construction Noise Guideline*.

Based on the assessment, noise emissions from construction activities can generally meet the relevant noise emission levels to residential receivers. School receivers are expected to be impacted by various construction activities due to their close proximity and elevation. Recommendations have been provided to minimise the noise impacts on surrounding receivers.

A Construction Noise and Vibration Plan has been developed that will be used to minimise impacts on the surrounding properties. Provided that the mitigation techniques as recommended in sections 5.5, 6, 7 & 8 of this report are adopted, noise and vibration impacts on the adjacent buildings are expected to be controlled.

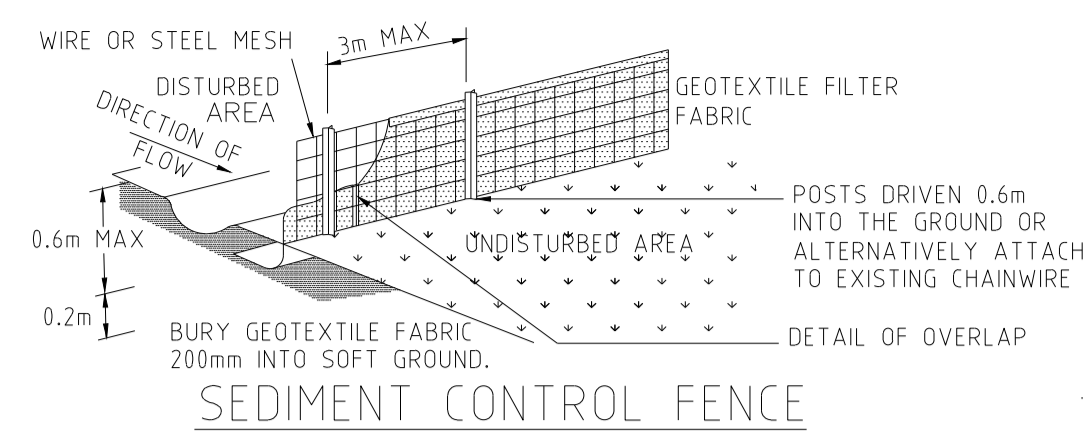
Please contact us should you have any further queries.

Yours faithfully,

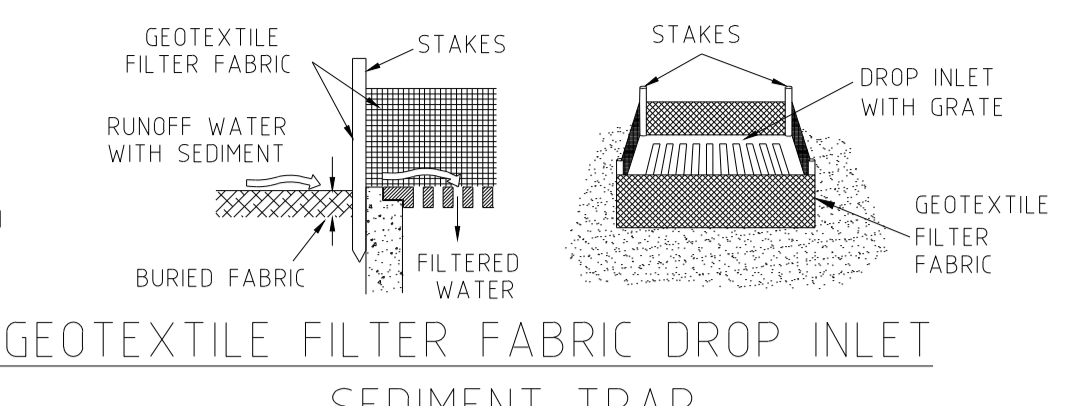


Acoustic Logic Pty Ltd
Ruben Ghannoum

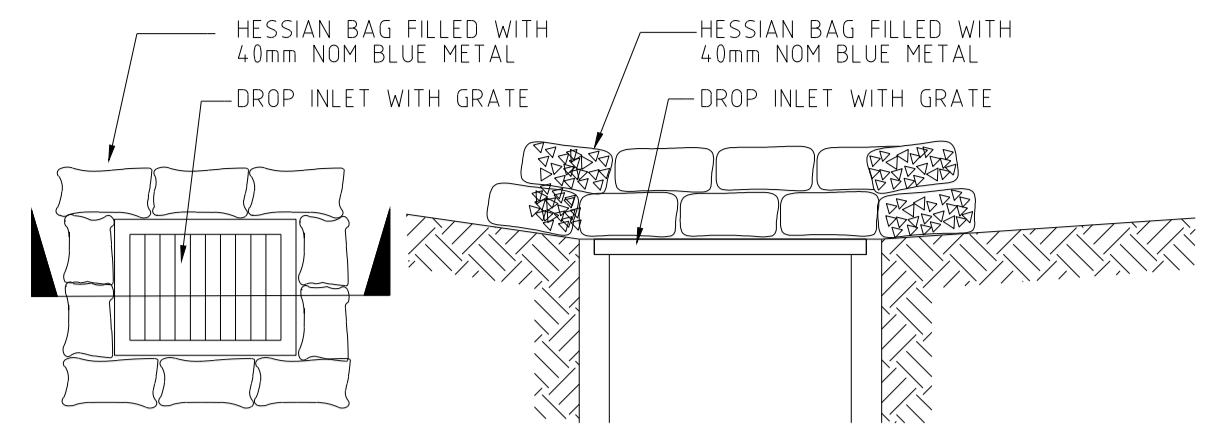
Appendix 4: Erosion and Sediment Control Plans



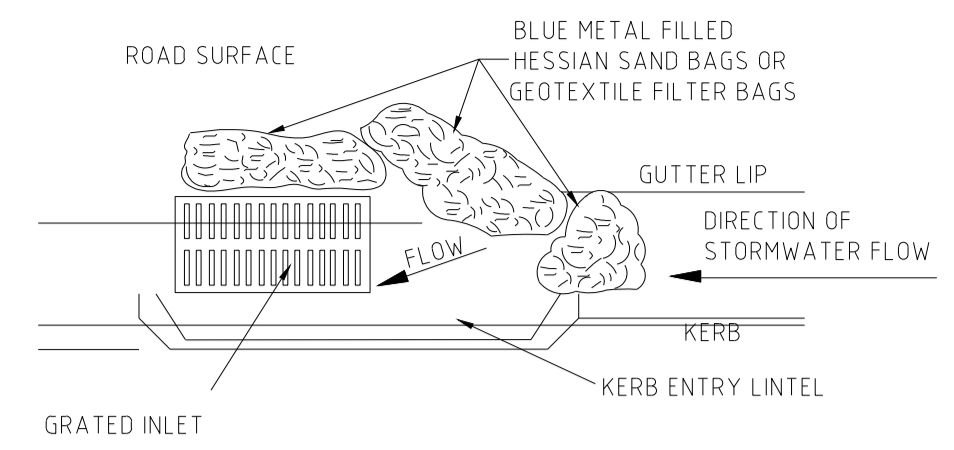
SEDIMENT CONTROL FENCE
NTS



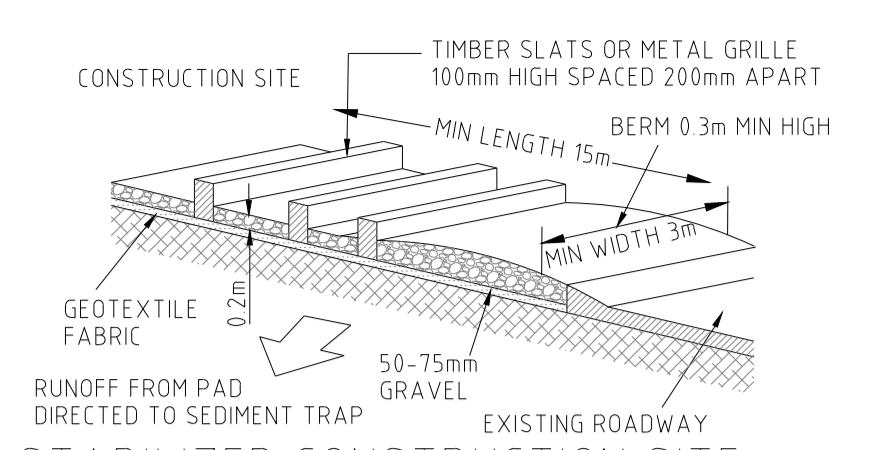
GEOTEXTILE FILTER FABRIC DROP INLET
NTS



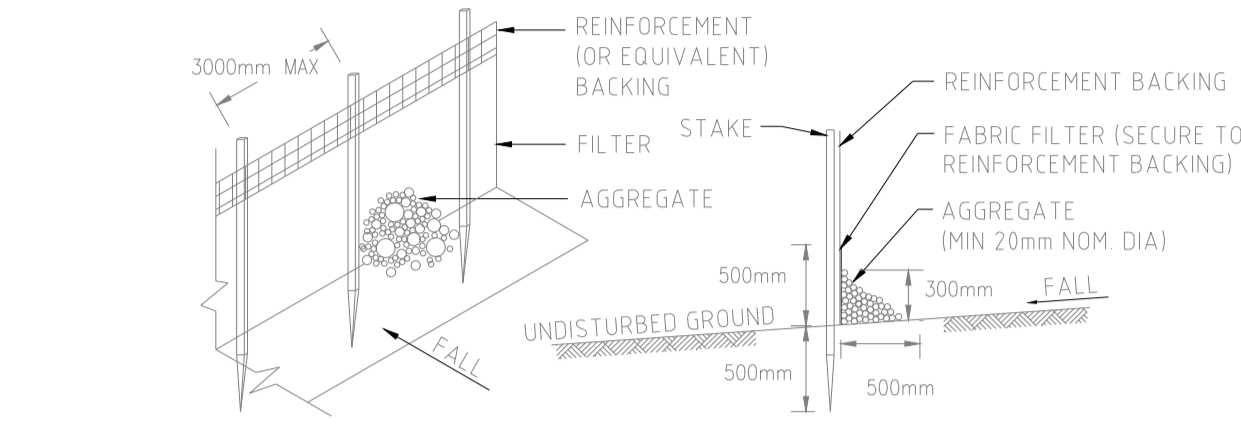
HESSIAN BAG DROP INLET
NTS



NEW/EXISTING GRATED KERB ENTRY PIT
SEDIMENT CONTROL BARRIER
NTS



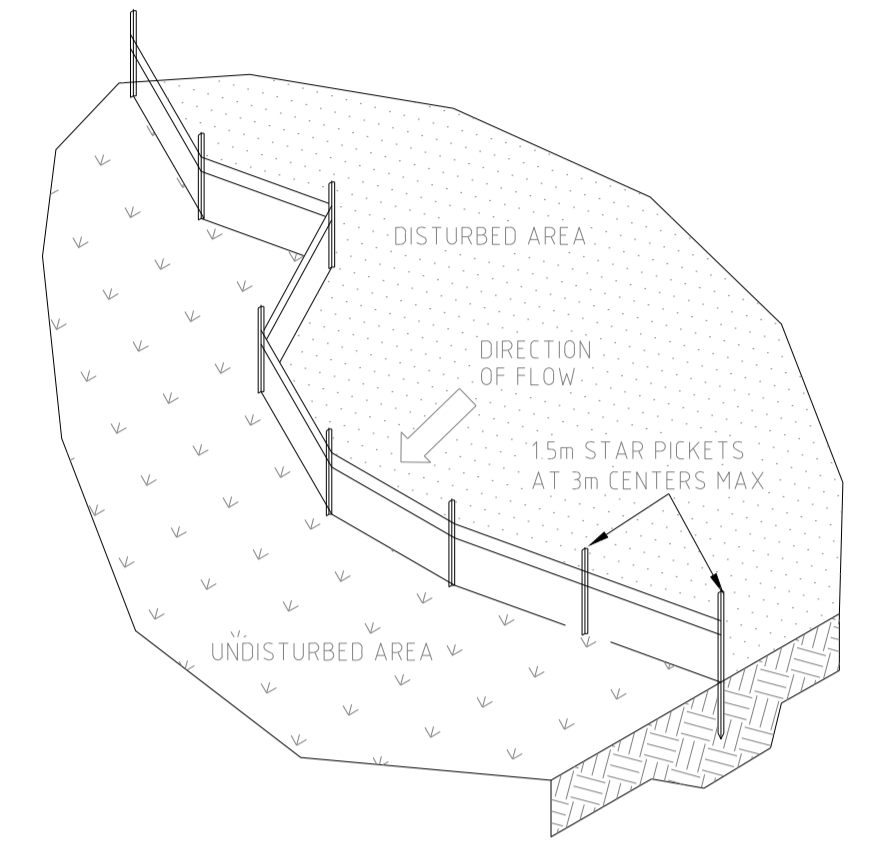
STABILIZED CONSTRUCTION SITE
VEHICLE ENTRY/EXIT
NTS



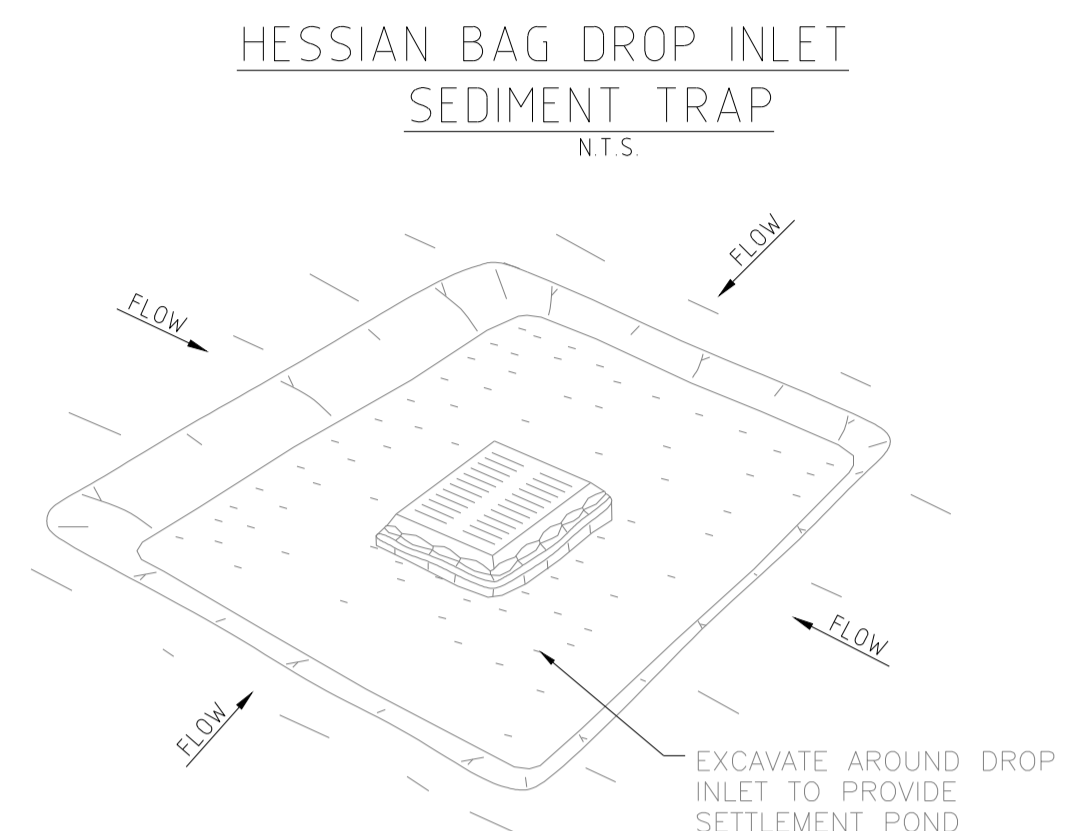
SEDIMENT FENCE DETAIL FOR ROCKY GROUND
NTS

SEDIMENT FENCE NOTES-

1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR AT THE TOE OF A SLOPE.
2. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND SUFFICIENT TO PROVIDE RIGID SUPPORT, 3 METERS APART. WHERE THERE IS INSUFFICIENT SOIL DEPTH OVER ROCK, HOLES ARE TO BE DRILLED INTO ROCK TO ACCEPT THE STAR PICKETS.
3. ON SOFT GROUND MATERIALS, DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC & COMPACT.
5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY THE GEOTEXTILE MANUFACTURER. USE A REINFORCEMENT BACKING WITH NON SELF-SUPPORTING GEOTEXTILE FABRIC.
6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
7. ON HARD OR ROCKY GROUND, SMOOTH A 500mm WIDE STRIP UPSLOPE OF THE FENCE LINE. TURN THE BOTTOM 500mm OF THE FABRIC UPSLOPE AND ANCHOR IN PLACE WITH SUITABLE AGGREGATE.
8. WHERE A SEDIMENT FENCE IS CONSTRUCTED DOWN SLOPE FROM A DISTURBED BATTER THE FENCE SHOULD BE LOCATED 1.5 TO 2.0 METERS DOWN SLOPE FROM THE TOE OF THE BATTER.



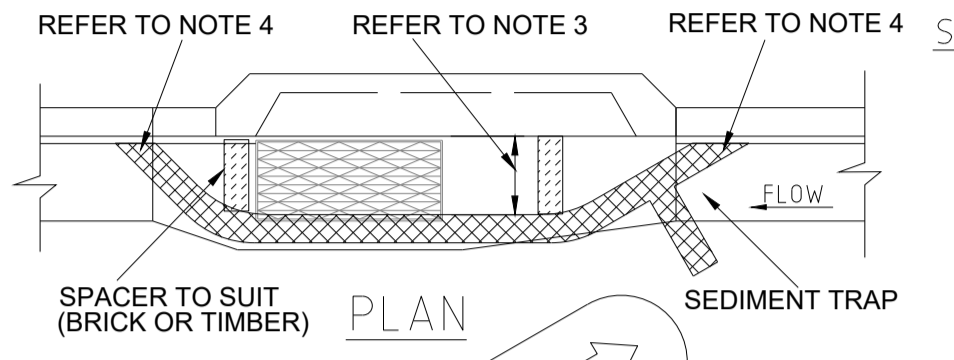
SEDIMENT FENCE LAYOUT PLAN
NTS



EXCAVATED SEDIMENT TRAP
NTS

EXCAVATED SEDIMENT TRAP NOTES-

1. REMOVE THE SEDIMENT WHEN IT HAS ACCUMULATED TO HALF THE DESIGN DEPTH OF THE TRAP AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
2. PROVIDE 50 cu.m/Ha OF SEDIMENT STORAGE VOLUME.
3. REFER TO THE MAINTENANCE REQUIREMENTS.



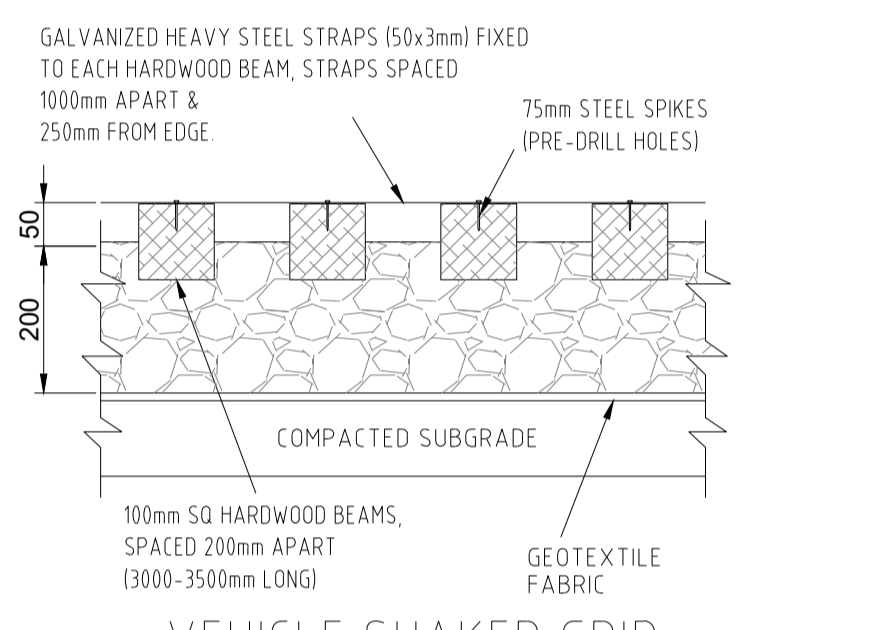
GEOTEXTILE FILTER BAGS
NTS

SEDIMENT BARRIER FOR PITS & PIPES, NOTES-

1. SLEEVES ARE TO BE MADE FROM GEOTEXTILE FABRIC LONGER THEN THE LENGTH OF THE INLET PIT.
2. FILL SLEEVE WITH 5 OR 10mm CLEAN GRAVEL.
3. PLACE THE SLEEVE AT THE OPENING OF THE KERB INLET LEAVING A 100mm GAP TO ACT AS AN EMERGENCY OVERFLOW.
4. SLEEVE MUST BE PLACED AGAINST THE KERB TO PREVENT BYPASS.
5. FIT SLEEVE TO ALL INLETS DOWNSTREAM OF THE WORKS.
6. FOR DRAINAGE WORKS FIT GEOTEXTILE FABRIC OR GEO BAGS TO UPSLOPE FACE OF ALL OPEN PIPES.
7. MAINTAIN AN OPENING AT THE TOP OF THE PIPE OF 1/3 OF THE PIPE DIAMETER.
8. THE FILTERS ARE TO BE CLEANED AND MAINTAINED DAILY.
9. ALL CARE SHOULD BE TAKEN TO MINIMIZE SEDIMENT REACHING THE STORMWATER SYSTEM BY MINIMIZING EXCAVATION WORKS AND PREVENTING EXCESS WATER FLOW THROUGH WORKS.

SITE ENTRY/EXIT NOTES-

1. STABILIZED TO PREVENT THEM BECOMING A SOURCE OF SEDIMENT. BY PROVIDING A VEHICLE SHAKE AREA, THIS MAY CONSIST OF A TIMBER, CONCRETE OR STEEL SHAKER GRID OR RUBBLE AREA.
2. THE VEHICLE EXIT AREA IS TO BE MAINTAINED IN A CLEAN & SERVICEABLE CONDITION DURING THE TOTAL TIME OF USAGE.
3. ANY UNSEALED ROAD BETWEEN THE DEVICE AND COUNCILS ROADWAY IS TO BE TOPPED WITH 100mm THICK, 40mm NOMINAL SIZE AGGREGATE.
4. PUBLIC ROADS MUST BE KEPT FREE OF DIRT AND MUD. SEDIMENT TRACKED ONTO THE PUBLIC ROADWAY BY VEHICLES LEAVING THE CONSTRUCTION SITE IS TO BE SWEEP UP IMMEDIATELY.
5. FENCES SHOULD BE ERECTED TO ENSURE VEHICLES CAN NOT BYPASS THE STABILIZED ACCESS POINTS, UNLESS COMING FROM A STABILIZED AREA.



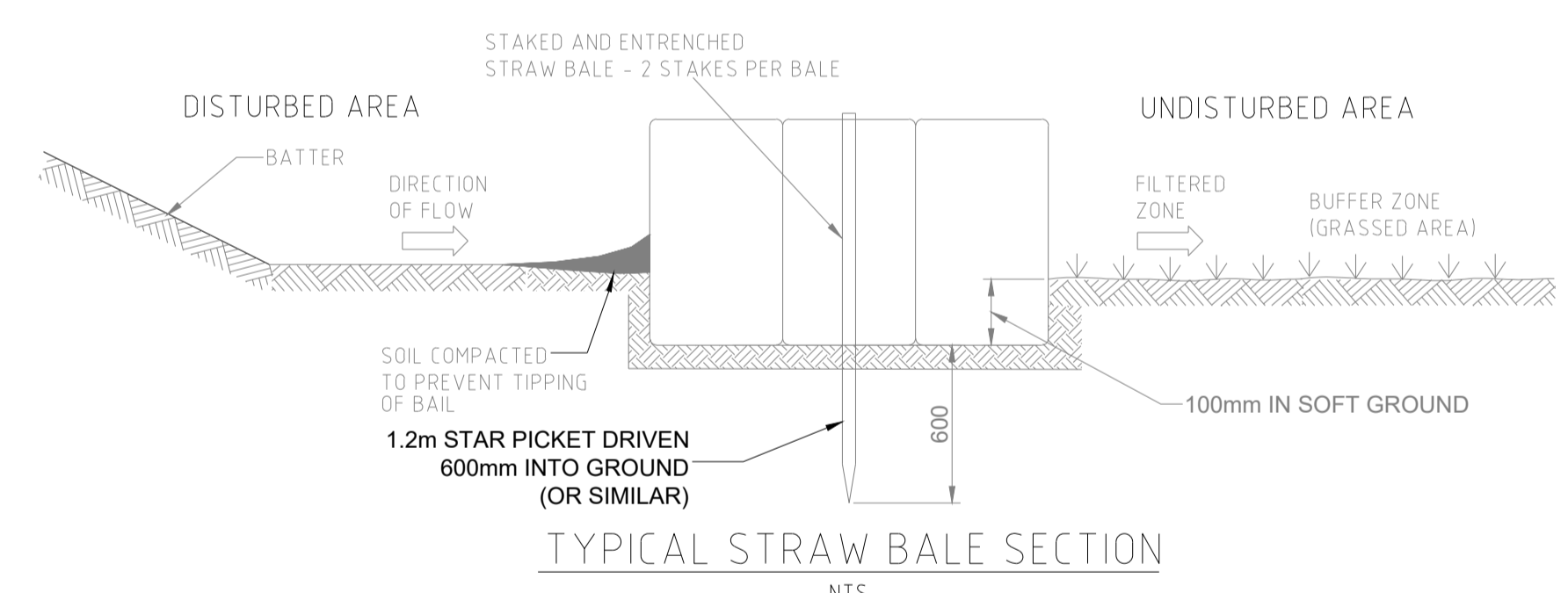
VEHICLE SHAKER GRID
NTS

SITE ENTRY/EXIT CONSTRUCTION NOTES-

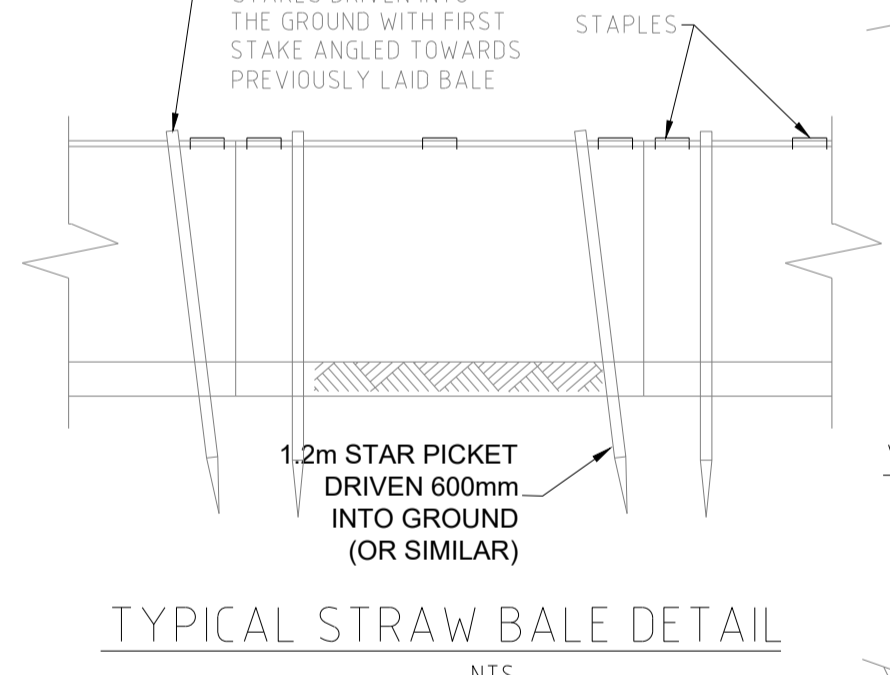
1. STRIP TOP SOIL & LEVEL SITE. PROVIDE CATCH DRAIN AT SIDES TO DIRECT RUNOFF WATER TO SEDIMENT TRAPS.
2. COMPACT SUBGRADE AND REMOVE ANY HIGH POINTS.
3. COVER AREA WITH GEOTEXTILE FABRIC. THIS MAY BE WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706.4-90) OF 2500 N.
4. CONSTRUCT 200mm THICK RUBBLE PAD OVER GEOTEXTILE USING ROAD BASE OR 30-40mm AGGREGATE. MINIMUM LENGTH 15 METRES OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3 METRES. CONSTRUCT 300mm HIGH HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT TRAP.
5. WHERE GRIDS ARE USED FIRST CONSTRUCT A 150 THICK PAD OVER GEOTEXTILE FABRIC. LEVEL THIS IN BOTH DIRECTIONS. LOWER GRID ON TO THE PREPARED BASE AND ENSURE THAT NO PART IS SITTING ON ANY HIGH POINTS. BACKFILL THE SPACES BETWEEN THE GRIDS TO WITHIN 50mm OF THE TOP.
6. PROVIDE RAMPS AT ENDS AND SIDE OF GRIDS. IF DEPRESSIONS OCCUR IN THE RAMPS DURING USE. ADD ADDITIONAL MATERIAL.

MAINTENANCE REQUIREMENTS-

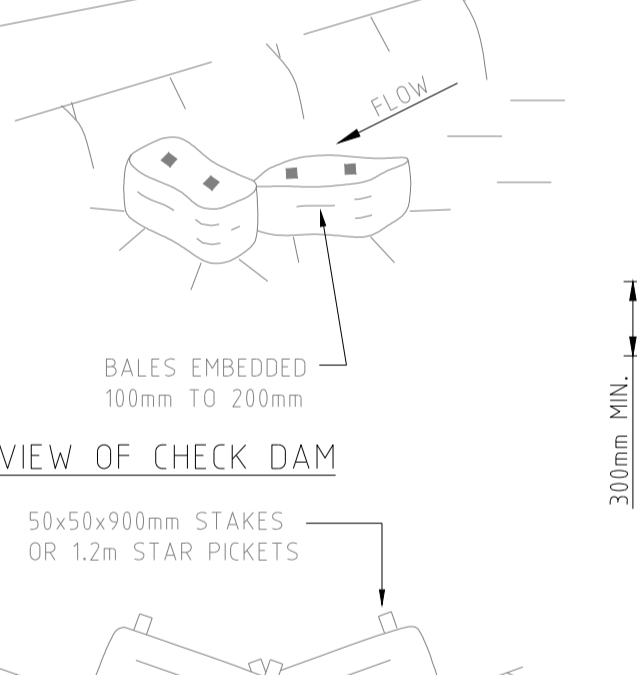
1. ACCUMULATED SILT & SEDIMENT MUST BE REMOVED AT REGULAR INTERVALS AND AFTER EACH MAJOR STORM.
2. SILT & SEDIMENT MUST BE REMOVED FROM OFF THE SITE OR TO A COUNCIL APPROVED LOCATION WITHIN THE SITE, WHERE IT WILL NOT ERODE.
3. THE SEDIMENT FENCES, BALES & TRAPS SHALL BE REGULARLY INSPECTED, ESPECIALLY AFTER RAIN AND KEPT IN GOOD REPAIR AND FUNCTIONING CONDITION AT ALL TIMES.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT, EROSION & WATER POLLUTION SHALL BE MINIMIZED.
5. THE SEDIMENT TRAPS SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTION AREA HAS BEEN PROPERLY STABILIZED.



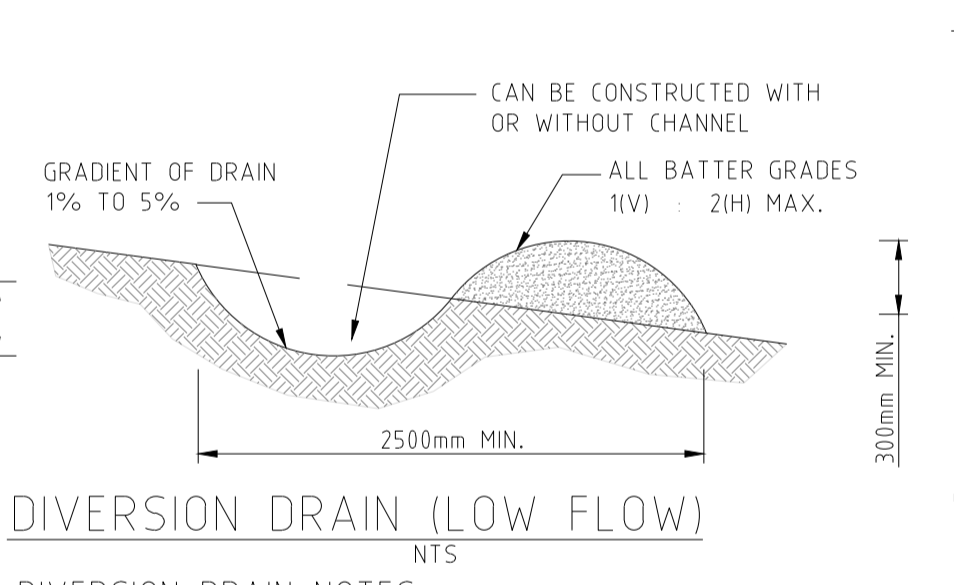
TYPICAL STRAW BALE SECTION
NTS



TYPICAL STRAW BALE DETAIL
NTS



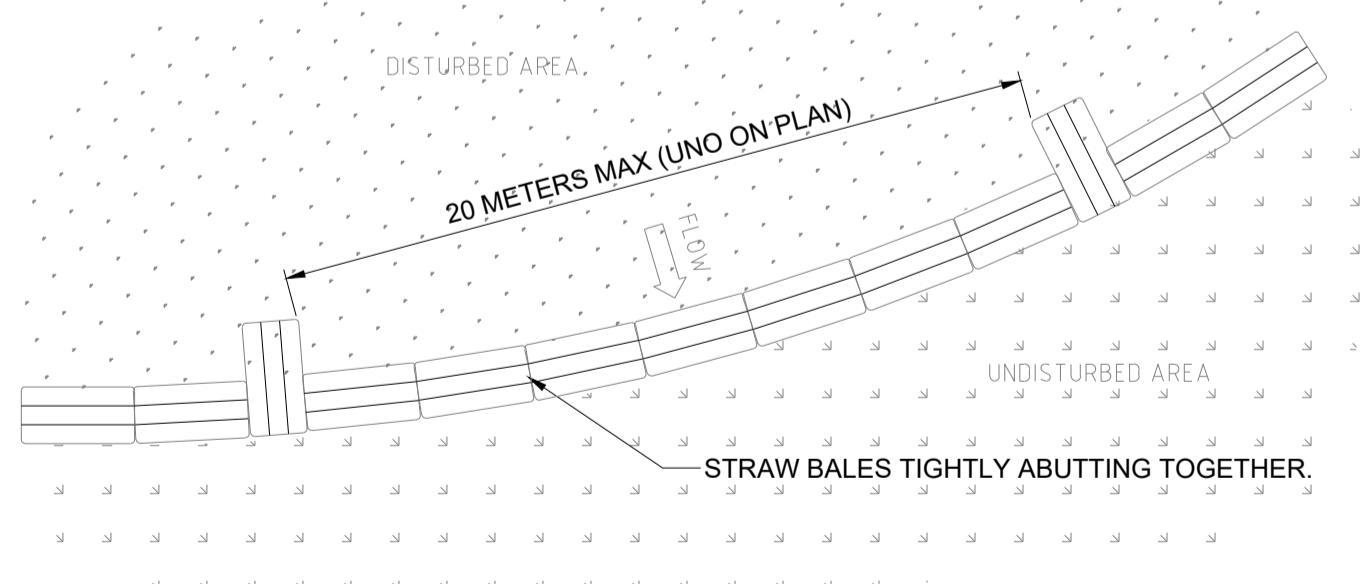
CHECK DAM SECTION
NTS



DIVERSION DRAIN (LOW FLOW)
NTS

DIVERSION DRAIN NOTES-

1. CONSTRUCT WITH GRADIENT OF 1 PER CENT TO 5 PER CENT.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE.
3. DRAINS TO BE OF CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
4. EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
5. PERMANENT OR TEMPORARY STABILIZATION OF THE EARTH BANK TO BE COMPLETED WITHIN 10 DAYS OF CONSTRUCTION.
6. ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO A SEDIMENT BASIN OR SIMILAR.
7. DISCHARGE RUN OFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILIZED OR AN UNDISTURBED DISPOSAL SITE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
8. COMPACT BANK WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
9. EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.



TYPICAL STRAW BALE LAYOUT PLAN
NTS

LONGITUDINAL GRADE (%)	SPACING (METERS)
0 - 5	4.0
5 - 10	3.0
10 - 15	2.0
GREATER THAN 15	1.0

STRAW BALE CHECK DAM DETAILS
NTS

STRAW BALE NOTES-

1. CONSTRUCT STRAW BALE FILTER AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR AT THE TOE OF A SLOPE.
2. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS TO BE PLACED PARALLEL TO GROUND.
3. MAXIMUM HEIGHT OF FILTER IS ONE BALE.
4. ON SOFT MATERIALS, EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS. ANGLE THE FIRST STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE STAKES 600mm INTO THE GROUND AND FLUSH WITH THE TOP OF THE BALES.
5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWN SLOPE FROM A DISTURBED BATTER THE BALES SHOULD BE LOCATED 1.5 TO 2.0 METERS DOWN SLOPE FROM THE TOE OF THE BATTER.
6. WHERE REQUIRED WRAP GEOTEXTILE FILTER FABRIC AROUND BALES AND STAPLE IN POSITION.

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REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
A	ISSUE FOR CONSTRUCTION CERTIFICATE	23/03/2026			

CLIENT

PROJECT

AUSTRAL - EARLY CHILDHOOD SERVICE

PREPARED BY

WSce
Driven by excellence, built on experience.

TITLE				
SOIL AND WATER MANAGEMENT DETAILS				
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	S.C.	I.S.	J.G.	J.G.
JOB No.	DRAWING No.	ISSUE		
5914009	C2.02	A		
DATE	STATUS			
SEPTEMBER 2024	ISSUE FOR CC			

FOR CONSTRUCTION

Appendix 5: Construction Waste Management Sub-Plan

WASTE AND RECYCLING MANAGEMENT PLAN

ST ANTHONY'S OF PADUA AUSTRAL
EARLY CHILDHOOD SERVICES

Prepared by Trinity Fitout and Construction Pty Ltd



Luke Zammit 16/2/26

WASTE AND RECYCLING MANAGEMENT PLAN

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WASTE AND RECYCLING MANAGEMENT PLAN

1.0 INTRODUCTION

This Waste and Recycling Management Plan (WRMP) has been prepared to manage waste generated from the construction stage of the St Anthony's of Padua Early Childhood Services project, in accordance with the relevant regulations, SSD consents and Client requirements.

The implementation of this WRMP provides for the effective management of solid and liquid waste, and details management practices for the reuse, recycling and lawful disposal of waste generated during construction.

The requirements of the following legal requirements have been addressed in this document:

- NSW Protection of the Environment Operations Act 2000,
- Waste Classification Guidelines Part 1: Classifying Waste, NSW EPA (2009) Aim or objective, and
- NSW Waste Avoidance and Recovery Act 2001.

2.0 DEFINITIONS

ASS - Acid Sulphate Soils.

EPA - NSW Environment Protection Authority.

POEO Act - Protection of the Environment

SDS - Operations Act Safety Data Sheet

WRMP - Project specific Waste and Recycling Management Plan (this document).

3.0 PURPOSE & OBJECTIVES

The purpose of the WRMP is to implement a waste management strategy for the effective management of waste generated during construction.

The goals for effective management of construction waste include:

- Prevention importing of waste on to the site,
- Prevent or mitigate construction generated waste in the following priority order.
 - Avoiding waste, then
 - Reusing materials, then
 - Recycling and reprocessing, then
 - Disposing waste (if first three measures are not possible).
- Continually monitor and improve waste management on the project,
- Ensure disposal of chemical, fuel and lubricant containers, solid and liquid wastes comply with requirements of the EPA and Council.
- Ensure resource recovery is undertaken effectively, and
- Ensure recycling is undertaken efficiently.

WASTE AND RECYCLING MANAGEMENT PLAN

4.0 RESPONSIBILITIES & ACCOUNTABILITIES

Responsibilities for the effective implementation of the WRMP are provided below.

Action	Responsibility
Implementation of the WRMP	Project Manager & Site Manager
Document and implement control measures through project risk assessment.	Project Manager, Site Manager, Supervisors and Subcontractors
Supervise the implementation of mitigation measures.	Site Manager
Implement methodology for managing and/or disposing construction waste.	Site Manager and/or Subcontractor
Monitor and report on performances and effectiveness of waste and recycling strategies.	Site Manager, Project Manager and waste removal contractor
Maintain internal records of inspection, monitoring, and reviews.	Project Manager & Site Manager
Identify and report on non-conformances and incidents.	All project stakeholders
Investigate and implement corrective actions to prevent incidents from re-occurring.	Project Manager and/or Subcontractor (as applicable)

5.0 WASTE MANAGEMENT

5.1 Identification and Classification

The EPA provides guidance on the classification of waste into groups that pose similar risks to the environment and human health and are classified under the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2009).

“General solid waste (non-putrescible)” class of waste is identified as the most significant contributor to waste generated during the construction phase.

The generation of any “Liquid Waste” is not anticipated other than wastewater from onsite amenities, which will be managed in accordance with Council requirements and applicable permits.

Typical wastes and quantities that are anticipated to be generated during the construction phase of the project are indicated in the table below.

Waste Type	Classification	Expected quantity	Treatment
Cardboard, paper	General Solid Waste	1 Tonnes	Recycle

WASTE AND RECYCLING MANAGEMENT PLAN

Timber (treated and untreated)	General Solid Waste	1 Tonnes	Reuse/Recycle where possible/Dispose
Glass and Plastics	General Solid Waste	2 Tonnes	Recycle where possible/Dispose
Metal	General Solid Waste	5 Tonnes	Recycle
Waste paints/ glues & solvents	Liquid	10 Litres	Treatment/Dispose
Fill (Soil, clay, sand etc.)	General Solid Waste	300m3	Reuse/Recycle/Dispose
Concrete, Bricks, Blocks Rocks, tiles, etc.	General Solid Waste	50 Tonnes	Reuse/Recycle/Dispose
ACM	General Solid Waste (VENM if not oxidised)	Not Expected	Not Expected
Green waste (cleared vegetation)	General Solid Waste	150m3	Mulch/Reuse where possible/Recycle
Other general building waste	General Solid Waste	100 Tonnes	Dispose/re use

WASTE AND RECYCLING MANAGEMENT PLAN

5.2 Objectives and Targets

The following targets have been established to minimise the volume of material that is disposed of in landfill. These targets will be documented within the Project Plan, responsibilities assigned and reviewed monthly to ensure the targets are being met.

Waste Type / Classification	Treatment Target	Treatment Location
General Solid Waste (Demolition, Excavation, and Construction)	Recycle 80% total volume	Waste Facility
Excavated fill	Reuse total Volume where possible	On site

5.3 Separation, Storage and Handling

Sorting and Separation

Wastes of different classifications will be kept separate at all times. If small amounts become mixed with other wastes, the entire quantity of waste will be classified as the highest risk of classification of the waste stream.

Recyclable waste shall be kept separate in a designated area for later disposal at an appropriate recycling facility.

Storage/Handling

All general solid waste generated shall be stored in waste containers within the construction site and sent to the authorised waste facility for disposal, as appropriate.

Handling, storage and transport of hazardous materials and waste that may be encountered, shall be in accordance with the relevant Safety Data Sheet (SDS). Hazardous waste shall be stored in the dedicated waste containers located within the construction site compound and removed as required by a licensed waste contractor to an approved waste facility.

Waste shall be stored in an environmentally safe manner and shall not be stored or allowed to come in contact with any incompatible waste, where possible.

Storage of fuels and chemicals shall be in a purpose built secured bunded area. The capacity of the bunded area is to be at least 110% of the largest container stored within as per EPA requirements. An emergency response spill kit shall be located adjacent to the bunded area.

All storage containers and locations for the various wastes shall be clearly labelled to ensure that mixing of wastes is avoided.

Lipman's site Supervisor shall be consulted if the nature of a waste if it is unknown.

WASTE AND RECYCLING MANAGEMENT PLAN

Recycling

Where appropriate, recycling of materials may be performed during the construction phase the project.

Where relevant and feasible, recyclable material generated from the project may be collected in designated bins for transport to an appropriate recycling facility. Where appropriate, recycled materials will be incorporated into the construction works

Scrap metal bins will be provided for the collection of any scrap metal. This metal will then be transported to a metal recycling facility.

Timber formwork shall be reused as many times as possible to avoid the excessive generation of timber waste.

Concrete (waste and/or rejected) shall be stored separately in a designated area within the site. Wherever possible, this concrete may either be utilised on site in the form of fill or disposed of in an appropriate recycling facility.

Excavated material from site shall be stored separately according to material type and either used to backfill or disposed within an approved waste facility.

Contaminated excavated materials from throughout the project will be stockpiled and then stored within a burrow pit below the sporting fields as per the Remediation Action Plan. The burrow pit will then be capped with geofabric material and VENM/ENM.

5.4 Energy Use

The most significant sources of energy consumption during construction will be from plant and equipment using diesel and other fuels, and from electricity use in the site offices facilities, if not generated onsite.

In order to limit the consumption of energy on the project the following measures may be implemented.

- Limit idling time of plant and equipment whilst on site.
- Maintenance and servicing of plant and equipment is to be undertaken as required by manufacturers' specifications to ensure maximum operation efficiency.
- Energy efficient equipment in office and amenities will be utilised where appropriate.

WASTE AND RECYCLING MANAGEMENT PLAN

6.0 TRAINING & AWARENESS

All workers will undergo a Site Induction, outlining environmental aspects and controls to be implemented on the project. The induction will provide necessary awareness of waste and the procedures to follow for proper waste recycling and disposal on site.

Toolbox meetings will also be held to reinforce a positive attitude towards waste management.

7.0 EMERGENCY RESPONSE

In the event of an emergency such as a chemical spillage, it will be handled in accordance with the Emergency Response management procedures detailed in the Project Plan.

Incidents which are notifiable to authorities or requires evacuation of the project shall be investigated, reported and corrective actions implemented to prevent re-occurrence.

8.0 WASTE RECORDING AND REPORTING

Waste disposal records (including weighbridge dockets and monthly waste/recycling reports) will be obtained, filed, stored, and archived in accordance with the records control procedure.

The following information in relation to the storage, treatment and disposal of waste will be recorded in accordance with EPA requirements:

- Amount and type of waste transported,
- Name and licence plate number of the transporter,
- Date of transportation, and
- Name and location of the receiving waste facility.

Waste will be transported to an approved waste facility only.

Documentation including Transport Certificates will be completed if required. The transporter will be informed of the nature of waste to be transported.

The EPA will be informed of any suspected breaches in the POEO Act with respect to transportation of waste.

Monthly project reports shall be prepared and provided to the Client outlining the project's performances against established objectives and targets (Refer Clause 5.2 above).

Appendix 6: Construction Soil and Water Management Sub-Plan


CONSTRUCTION SOIL & WATER MANAGEMENT PLAN

St Anthony's of Padua Austral ECS

140 Eleventh Avenue, Austral



Document Control

Version	Date Approved	Brief Description	Approved By
1	16/02/2026	Plan Created	LZ 

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Introduction

The project is a design and construct project for Sydney Catholic Early Childhood Services involving the construction of an Early Learning Centre (ELC) in the North East Corner of the previously completed stages of the St Anthony of Padua School. Trinity are responsible for the delivery of the ELC building works only. Carpark and Roadworks have previously been completed by others.

SSD Consent – Construction Soil & Water Requirements

The following conditions of consent relating to Construction Soil & Water Requirements within SSDA-8865 Modification 6 include,

C24. *The Applicant must prepare a Construction Soil and Water Management Plan (CSWMSP) and the plan must address, but not be limited to the following:*

(a) be prepared by a suitably qualified expert, in consultation with Council;

(b) describe all erosion and sediment controls to be implemented during construction in accordance with the publication Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004) commonly referred to as the 'Blue Book';

(c) provide a plan of how all construction works will be managed in a wet-weather events (i.e. storage of equipment, stabilisation of the Site);

(d) detail all off-Site flows from the Site; and

(e) describe the measures that must be implemented to manage stormwater and flood flows for small and large sized events, including, but not limited to 1 in 1-year ARI, 1 in 5-year ARI.

C26. *Prior to the commencement of construction of a relevant stage, the Applicant must:*

(a) install erosion and sediment controls on the site to manage wet weather events in accordance with the CSWMSP (Schedule 3 condition C24); and

(b) divert existing clean surface water around operational areas of the site.

C27. *Prior to the commencement of construction of a relevant stage, the Applicant must implement measures to manage Acid Sulfate Soils. These measures must include handling, treatment, monitoring of water quality at treatment areas and disposal of Acid Sulfate Soils.*

D33. *Adequate provisions must be made to collect and discharge stormwater drainage during construction of the building to the satisfaction of the Certifier. The prior written approval of Council must be obtained to connect or discharge site stormwater to Council's stormwater drainage system or street gutter.*

Purpose of the Construction Soil & Water Management Plan

The purpose of the Dewatering Management Plan is to;

- Provide a comprehensive soil & water management plan for the St Anthony's of Padua – ELC project during its construction stage;
- Provide a practical and logical staging program for the implementation of erosion and sediment control measures;
- Protect water quality, by preventing sediment laden surface water generated by storms from entering sensitive receptors; and
- Comply with the relevant regulatory requirements including the DA/SSD conditions as referenced above.

Trinity responsibilities include;

- Overall implementation of the CSWMP
- Overall compliance with Trinity System Procedures for Erosion & Sedimentation Control
- Induct site personnel on the site safety & environmental requirements of the CSWMP prior to commencing any work on site, develop specific work methods (as required) and create excavation permits for each activity
- Coordinate site environmental monitoring through site inspections & compile/maintain internal records.
- Identify non-conformances and notify relevant authorities should any occur.

Erosion & Sediment Control Plan

In accordance with regulatory requirements, the Erosion and Sediment Control Plan (ESCP) for the construction phase of the project has been prepared to detail the following:

- Identification of construction activities on site causing soil erosion and generating sediment;
- Implementation of measures to minimise soil erosion and transport of sediment downstream of the project during its construction phase;
- Identification of the location, function and capacity of any erosion and sediment control structures; and
- Maintenance of structures during construction.

The following erosion & sediment controls will be implemented on site during construction of the project and are described in the following sub-sections;

- Stabilised Entry/Exit Point – Use of hardstands where possible
- Temporary Sediment Basins (where applicable)
- Sediment Filter Fences
- Swales
- Stockpiles

Soil & Water Management Plans & Details have been prepared by WSCE and are appended to this plan as **Appendix B**. These plans will be reviewed and amended, if required, during construction stages.

Stabilised Entry/Exit Point

A stabilised entry/exit points will be established to reduce the likelihood of vehicles tracking soil materials onto the site access way and public roads. The nominated point is to be kept clean of any loose material by regular sweeping and cleaning. It is important to note that all vehicles entering or leaving the site will not be tracking across any excavated areas unnecessarily. Wheels of all vehicles will be cleaned prior to exiting the construction site to prevent the tracking of mud. In the unlikely event of spillage on public roads because of site construction activities, the area will be cleaned immediately. Existing hardstand areas will be utilized to minimize impacts.

Sediment Filter Fences

Sediment filter fences shall be installed, as required, around the perimeter of areas where the project is to be constructed, with either the use of star pickets and filters to intercept water or the filters installed against the perimeter fence.

The filter fences will be checked after each storm event for damage or clogging by silt or debris and appropriate maintenance and/or repair actions taken.

Stockpile Management

Stockpiles will be constructed away from areas of drainage flows, as and when required. Stockpiles will be minimised through effective management of excavated or incoming fill material.

Where practicable, stockpile will be stabilised, if in place for more than ten days, and will be formed with sediment filters in place immediately downslope.

Other Site Controls

Other site controls to be employed may include:

- Receptacle bins will be provided for any lightweight litter with bins removed on a regular basis;
- Any concrete and mortar slurries will be collected and stockpiled at designated locations on site for incorporating into fill areas of the site or disposed of at a Licenced facility;
- Washout of concrete agitators (if necessary) is to be undertaken only in areas nominated by the Trinity;
- Any material removed during site stripping and grubbing works will be disposed of in an appropriate manner at an appropriately licensed facility, if not suitable for reuse;
- Temporary soil and water management structures will be removed only after the lands they are protecting are stabilised.

Dust Control

All practicable measures should be taken to reduce dust emanating from the site. Factors that contribute to dust production are:

- Wind over a cleared surface;
- Wind over stockpiled material; and
- Movement of machinery in unpaved areas.

Visible dust should not be present at the site boundary. Proposed measures to minimise the potential for dust generation include:

- Use of water sprays on unsealed or exposed soil surfaces;
- Covering/stablising of stockpiled materials and excavation faces (particularly during periods of site inactivity and/or during windy conditions);
- Establishment of dust screens consisting of a 1.8m high shade cloth or similar material secured to a chain wire fence at the perimeter of the site;
- Maintenance of dust control measures to keep the facilities in good operating condition;
- Stopping earthworks during strong winds where excessive dust is present; and
- Loading or unloading of dry soil as close as possible to stockpiles to prevent spreading of loose material around the development area.

Where stockpiles remain on-site or soil remains exposed for a period of longer than several days, dust monitoring should be undertaken at the site.

Dust is also produced during the transfer of material to and from the site. All material should be covered during transport and should be properly disposed of on delivery. No material is to be left in an exposed, un-monitored condition.

All equipment and machinery should be brushed or washed down before leaving the site to limit dust and sediment movement off-site. In the event of prolonged rain and lack of paved areas all vehicles should be washed down prior to exit from the site, and any soil or dirt on the wheels of the vehicles removed. Water used to clean the vehicles will be appropriately disposed as per the requirements of the relevant waste classification guidelines.

Dewatering

Surface Water

The following plans & details by Warren Smith Consulting Engineers document the required erosion & sediment control measures to be implemented for the project;

- WSCE- C2.01 Soil and Water Management Plan
- WSCE- C2.02 Soil and Water Management Details

As the construction site is less than 2500m² a sediment basin is not required. Dewatering is to be undertaken in accordance with the Department of Planning, Housing and Infrastructure - Guidelines for erosion and sediment control on building sites.

<https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/guidelines-erosion-and-sediment-control-building-sites>

However, during excavation works a temporary sediment basin may be utilised as required to manage water during storm events. This would be in accordance with the WSCE plans and details provided. All dewatering is to be completed in accordance with Landcom's "Managing Urban Stormwater - Soils and Construction (4th edition, Landcom 2004) commonly referred to as the 'Blue Book'". All overland flows will be conveyed to the sediment basins, which will subsequently be released to the schools existing infrastructure (drainage, road).

All stormwater runoff from the construction area will be stored within the site and treated prior to any controlled discharge offsite. No uncontrolled discharge off-site will occur unless the design capacity for the sediment basins is exceeded during intensive rainfall events. Based on Environmental Protection Authority and Australian & New Zealand Guidelines for Fresh & Marine Water Quality and 'Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition), all controlled water releases off-site must meet the flowing requirements prior to discharge:

- pH within the range of 6.5 to 8.5;
- Suspended solids - no greater than 50mg/L;
- Oils and grease – no visible films or odour;
- Litter – no visible litter washed (or blown) from the site.

Water contained within the site will be treated with a coagulating/flocculating agent such as Aluminium Sulphate which will be distributed to the sediment basin in accordance with the relevant manufacturer's recommendations (Quantity added, Wait time prior to testing etc.).

Following this the water will be tested to the requirements of Environmental Protection Authority and Australian & New Zealand Guidelines for Fresh & Marine Water Quality using a pH meter, turbidity test tubes & via visual inspection to confirm no oils, grease & or litter present to confirm compliance with the requirements noted above. If the required criteria are met, then the water will be discharged from site.

Acid Sulphate Soils

Based on the findings in Alliance Geotechnical Report, it is not expected that Acid Sulphate Soils will be encountered within the project site. As such, development of measure for handling, treatment & monitoring of water will not be required.

Small and Large Rainfall Events

In the event of small and large sized rain events including but not limited to 1 in 1-year ARI, 1 in 5-year ARI. Additional measures and preparation will take place prior to ensure sediment fences and controls are in place to avoid unnecessary site runoff. Preparations in accordance with the Department of Planning, Housing and Infrastructure - Guidelines for erosion and sediment control on building sites.

<https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/guidelines-erosion-and-sediment->

[control-building-sites](#)

- All stockpiles to be capped
- Stabilised access roads to be installed from carpark to relevant workfaces
- Safety inspection to be carried out prior to works recommencing.

Additional risks and considerations below have been made.

4.4.1 Assessment of Erosion Hazard

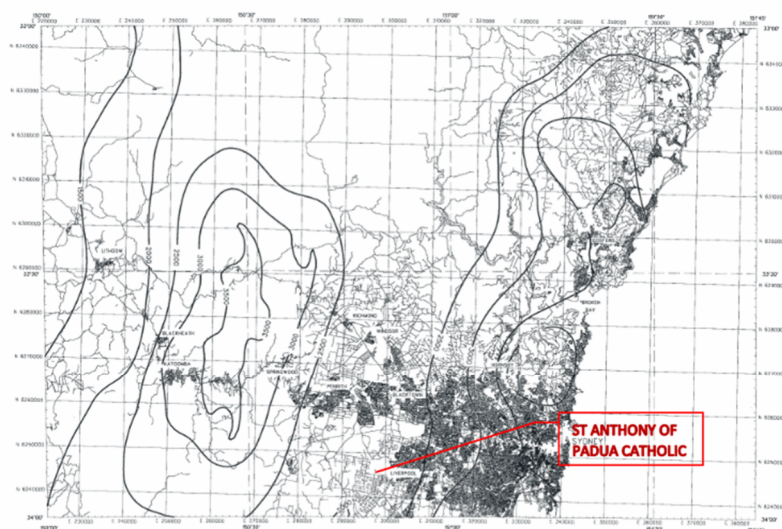
(a) A simple procedure is provided to identify those sites of low erosion hazard, where the normal suite of erosion control measures, defined in earlier sections of this Chapter, is considered adequate.

(b) The potential erosion hazard associated with a specific site can be simply determined from figure 4.6, based on:

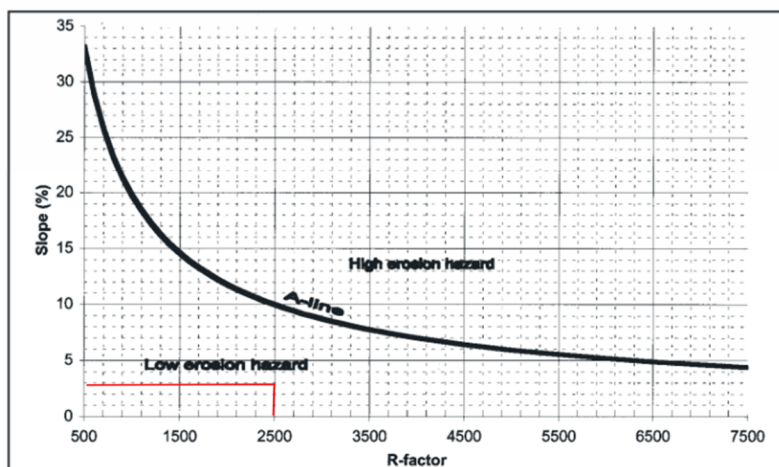
- the R-factor (rainfall erosivity) that relates to your site location, determined from the maps provided in Appendix B; and
- the typical upper slope gradient (measured in percent) of the site landform.

(i) Sites below the A-line on figure 4.6 have low potential erosion hazards and the standard erosion control measures defined in earlier sections of this Chapter are considered adequate. Planners of such sites need not undertake the tasks outlined in the remainder of Section 4.4^[8].

(ii) Sites above the A-line have high potential erosion hazards and designers should apply the guidelines in Section 4.4.2, below.



The site slope is in average 2.8%, so the level of erosion hazard as per section 4.4.1 is low, see below:



$R_{(y\%ile, 5 \text{ days})}$ as per appendix L, assuming a design for a 85th percentile, 5-day depth we have a 32.2mm rainfall depth:

CONSTRUCTION SOIL & WATER MANAGEMENT PLAN

Location	2-day rainfall depths (mm)					5-day rainfall depths (mm)				
	75% Aile	80% Aile	85% Aile	90% Aile	95% Aile	75% Aile	80% Aile	85% Aile	90% Aile	95% Aile
North Coast										
Coffs Harbour	18.3	23.6	31.8	44.4	70.8	33.6	42.7	55.8	74.9	117.6
Dorrigo	22.1	27.9	36.4	49.0	77.0	40.3	49.3	63.7	84.8	132.0
Grafton	14.0	17.8	22.9	31.2	48.9	23.3	29.0	37.2	50.1	75.4
Lismore	16.3	20.6	26.4	36.3	57.0	28.6	35.3	45.2	60.2	95.3
Port Macquarie	18.0	22.9	29.8	41.4	65.3	32.0	40.1	51.8	70.0	106.2
Taree	15.0	19.0	24.9	35.5	56.4	25.0	31.7	41.2	55.9	90.6
Tweed Heads	23.4	29.5	37.6	50.8	78.7	39.6	48.5	62.5	82.5	126.8
Central Coast/Munter										
Cessnock	13.4	16.5	21.1	28.5	45.0	20.3	24.4	31.0	42.8	63.0
Gosford (Marara)	16.7	21.3	28.4	39.8	63.0	27.9	35.0	45.8	62.2	99.3
Nelson Bay	17.5	22.3	28.9	39.4	58.9	30.4	38.1	48.3	63.5	91.5
Newcastle	13.7	17.6	23.0	31.8	48.1	24.4	30.5	38.9	51.8	76.7
Scotts	12.4	15.3	19.3	25.0	37.8	19.0	22.6	27.7	35.9	51.3
Wyong	16.8	20.8	26.9	37.2	58.8	26.8	33.8	43.2	58.7	90.1
Sydney/Blue Mountains										
Barkston	11.4	14.5	19.6	27.0	42.0	19.4	24.4	31.5	42.6	66.6
Blacktown	12.0	15.0	20.3	28.0	43.6	19.0	24.6	32.2	43.2	70.8
Camden	13.6	16.8	21.8	29.2	44.8	20.2	25.1	32.0	43.4	66.3
Campanelltown	12.2	15.2	19.0	26.9	42.1	19.3	23.9	30.6	43.2	63.3
Hornsby	15.7	20.6	27.4	38.1	61.0	25.9	32.8	43.3	60.0	92.5
Katamba	16.5	20.6	26.7	37.6	60.2	28.0	35.2	45.4	63.0	99.6
Lithgow	11.4	14.0	18.3	24.2	35.3	19.5	23.6	29.4	37.8	56.4
Liverpool	12.2	15.5	20.0	28.4	43.2	19.2	24.4	32.2	43.8	70.2
Mona Vale	19.0	23.6	29.2	38.7	62.0	29.0	35.2	44.0	61.2	92.0
Musman	15.2	19.3	25.4	35.8	57.7	26.2	32.9	43.2	59.6	91.5
Parramatta North	11.7	15.2	20.6	28.2	45.5	20.3	25.8	33.1	45.8	74.1
Perrin	14.0	18.2	23.6	31.5	49.5	21.8	27.4	35.0	47.6	74.6
Richmond	10.2	13.5	18.0	24.9	39.2	17.5	22.4	29.5	39.7	61.4
Ryde	14.7	18.3	24.9	34.3	53.5	23.4	29.5	38.8	53.6	80.5
Springwood	15.5	20.1	25.9	35.0	55.6	25.2	31.4	40.4	55.0	84.1
Sutherland	15.0	18.8	24.9	34.8	55.0	23.4	29.7	38.9	54.6	85.1
Sydney 12.7	16.6	22.4	31.6	52.1	23.3	29.7	38.8	55.2	84.3	
Wallacia	14.0	17.8	23.0	31.4	48.8	22.1	27.6	36.6	48.8	76.2
Wilberforce	11.4	14.9	19.8	27.7	46.4	19.8	24.6	33.2	46.7	69.4
Illawarra/South Coast										
Albion Park	16.5	21.1	27.9	39.1	67.4	25.2	31.8	41.9	59.8	101.2
Batemans Bay	13.7	17.8	24.1	34.2	54.9	22.1	28.0	37.4	52.4	84.4
Bega	12.6	16.1	21.3	30.5	51.1	19.5	24.6	32.5	46.2	77.2
Cooma	7.6	9.8	13.0	17.8	27.2	12.5	15.8	20.0	25.8	39.1
Helensburgh	23.1	28.7	38.1	53.0	81.3	35.6	45.0	57.4	78.2	124.6
Kiama	14.7	19.1	24.9	35.5	57.2	25.5	32.2	42.1	58.3	90.7
Kangaroo Valley	16.8	21.4	29.2	41.7	70.6	26.8	34.2	45.7	67.0	115.6
Mittagong	14.7	18.3	23.4	31.8	49.1	22.9	28.0	36.2	49.0	75.2
Robertson	15.8	20.3	27.9	38.2	67.3	28.4	36.0	46.1	67.3	113.0
Wollongong	13.8	18.0	24.8	36.6	61.3	25.4	33.0	43.5	60.8	95.6
Northern Tablelands and Northwestern Slopes										
Armidale	12.4	15.2	19.3	25.0	35.3	19.8	24.1	29.2	37.4	52.9
Gunnedah	14.2	17.3	21.3	27.7	39.2	20.0	24.1	30.2	38.4	53.0
Tamworth	15.2	18.3	22.2	27.7	39.6	21.6	25.2	30.8	39.2	54.2
Tenterfield	18.8	22.3	26.7	33.8	46.0	26.7	31.4	38.1	47.4	63.3
Central Tablelands and Central Western Slopes										
Bathurst	10.7	13.2	16.5	21.4	30.4	16.8	20.6	24.9	31.4	43.7
Cowra	12.0	14.7	18.0	22.9	32.8	18.1	21.6	26.1	32.5	44.9
Dubbo	12.7	16.0	20.2	26.1	36.0	18.8	22.8	28.4	35.6	50.7
Southern Tablelands and Southwestern Slopes										
Albury	11.8	14.4	17.4	22.4	31.8	20.0	23.7	28.4	35.2	45.2
Goulburn	7.8	10.0	13.2	18.0	27.4	14.2	17.8	22.2	28.6	40.8
Jindabyne	11.9	14.2	17.3	22.6	33.4	17.3	20.6	24.9	32.0	46.8
Queanbeyan	12.7	15.2	18.9	24.2	34.3	18.0	21.3	25.8	33.0	45.1
Wagga	8.2	11.4	14.4	19.3	27.6	15.6	18.8	23.4	29.4	40.2
Northwestern, Southwestern and Far Western Plains										
Bourke	11.7	14.6	18.3	24.8	35.6	15.3	19.0	23.9	30.9	44.5
Broken Hill	7.1	9.1	12.0	16.8	25.9	9.7	12.2	16.2	21.6	33.0
Griffith	9.5	11.7	14.0	18.5	26.2	13.8	16.4	20.6	25.4	34.6
Murree	12.6	15.8	19.3	25.1	36.8	18.0	21.9	26.8	36.3	51.4
Wagyan	12.2	15.2	19.1	25.6	37.3	16.5	20.4	25.8	33.8	47.8

Implementation of the CSWMP

Inspection

Trinity will inspect the site, providing particular attention to the following matters:

- Ensure the site is cleaned of any loose materials such as soil, sand and debris (or other materials) that may be a source of sediment or pollution.
- Construct additional erosion and/or sediment control works as might become necessary to ensure the desired protection is given to down slope lands and waterways.
- Remove trapped sediment from upslope of sediment fences and bales.
- Maintain erosion and sediment control measures in a functioning condition until all construction and other activities are completed and the site is rehabilitated.
- If any runoff is accidentally bypassing the sediment control structure, rectify immediately by diverting runoff to function as intended.
- Remove temporary soil conservation structures as a last activity in the rehabilitation program.

Recording

Trinity will keep the following records via our site diary system/site inspection sheets:

- Weather conditions (such as rainfall and wind speed/direction), if any.
- The condition of any soil and water management works.
- Any corrective actions or remedial works undertaken.

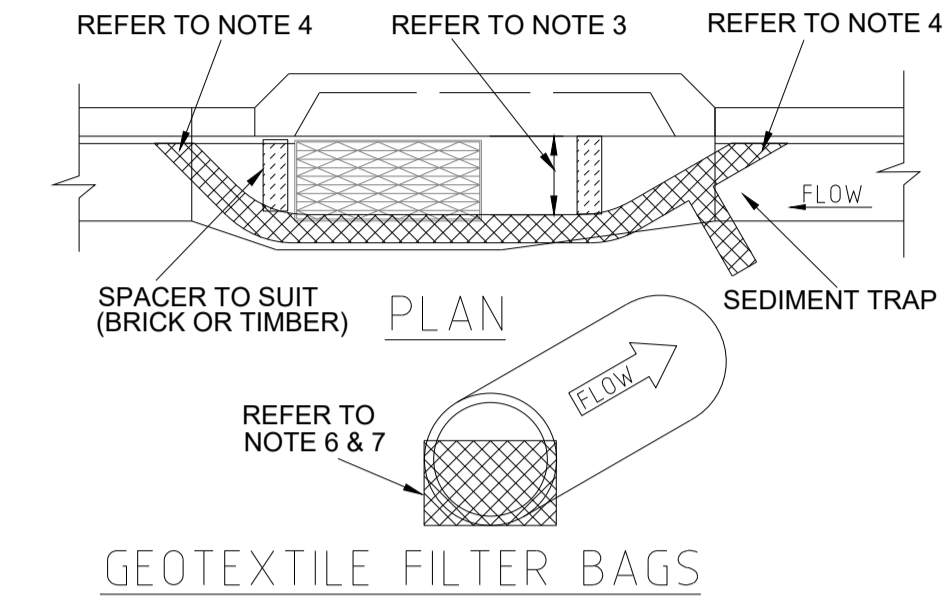
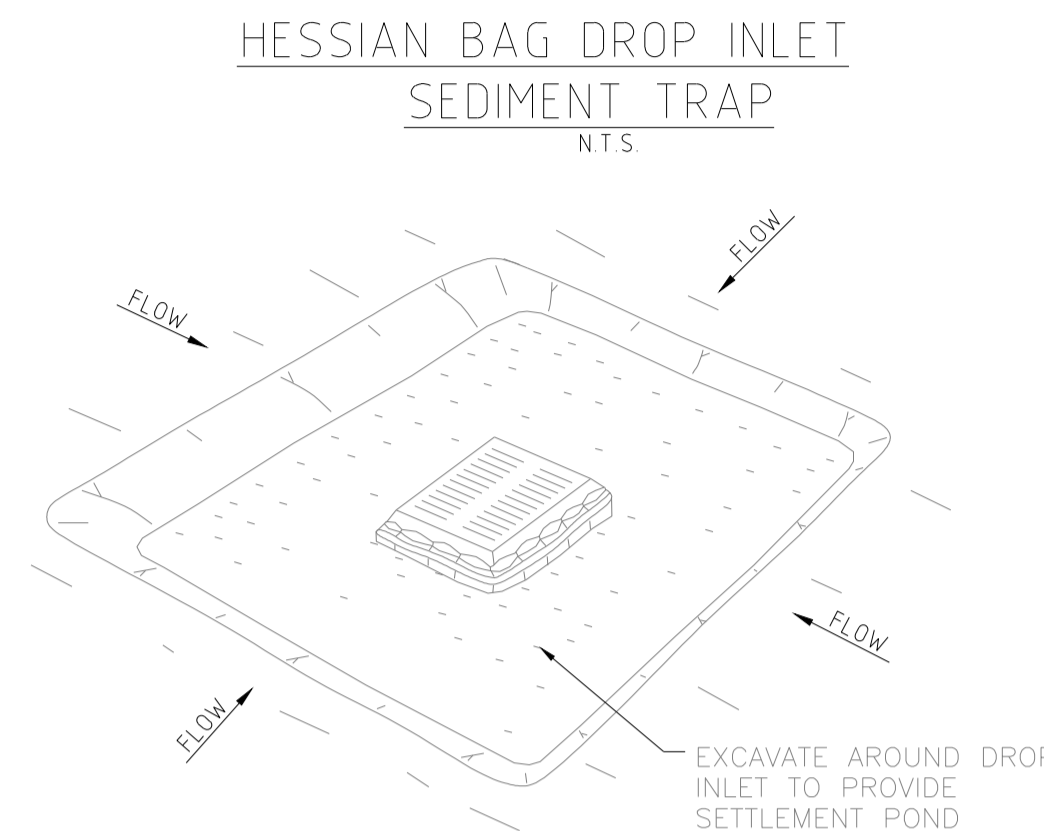
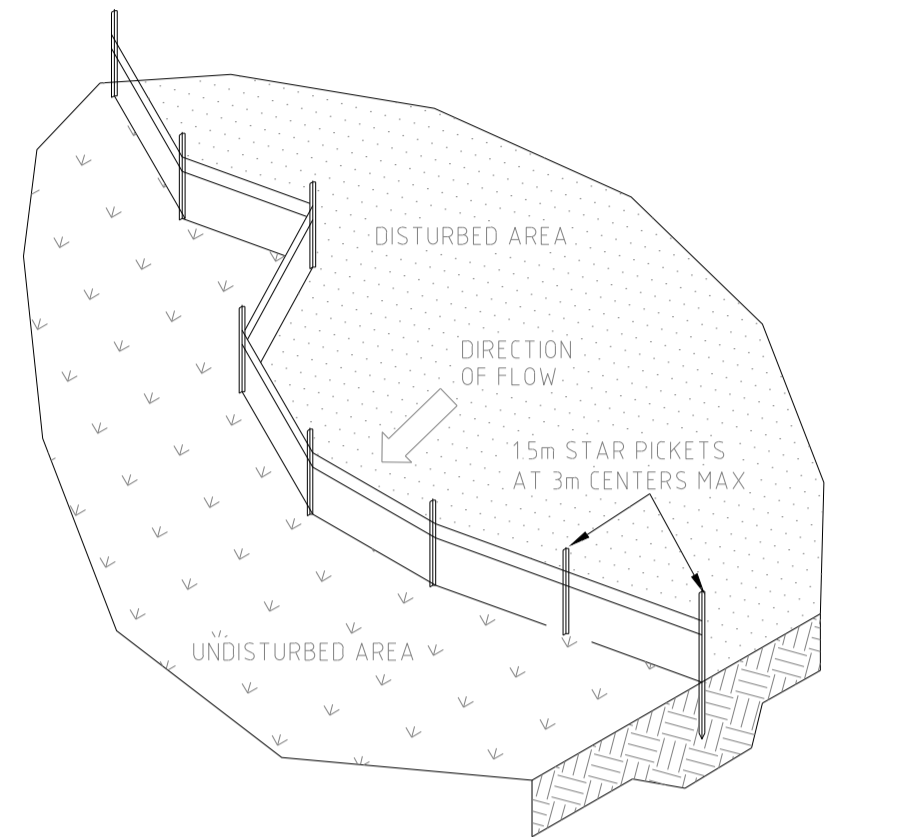
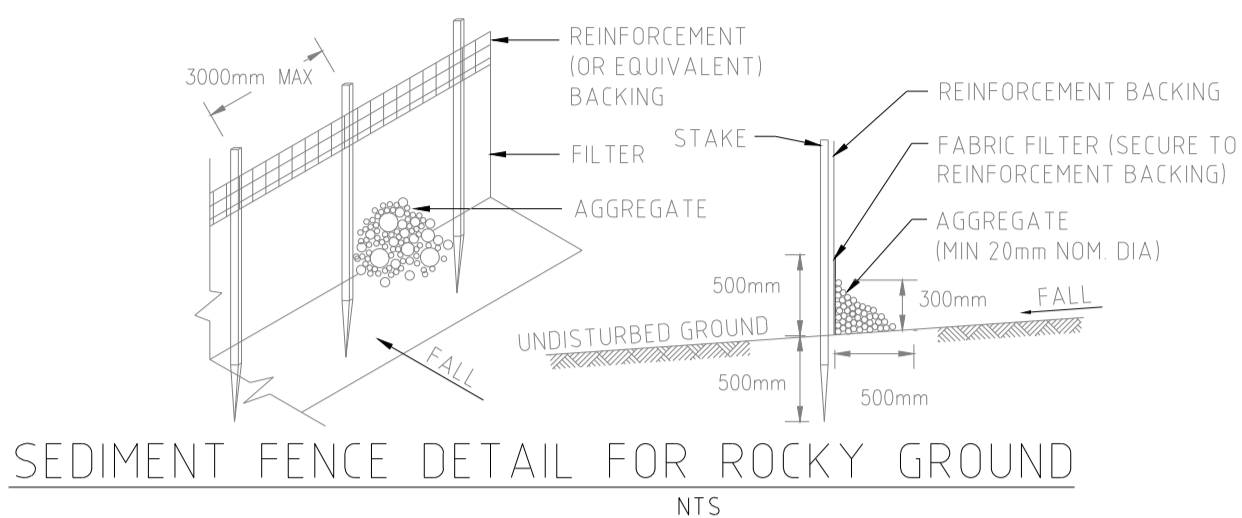
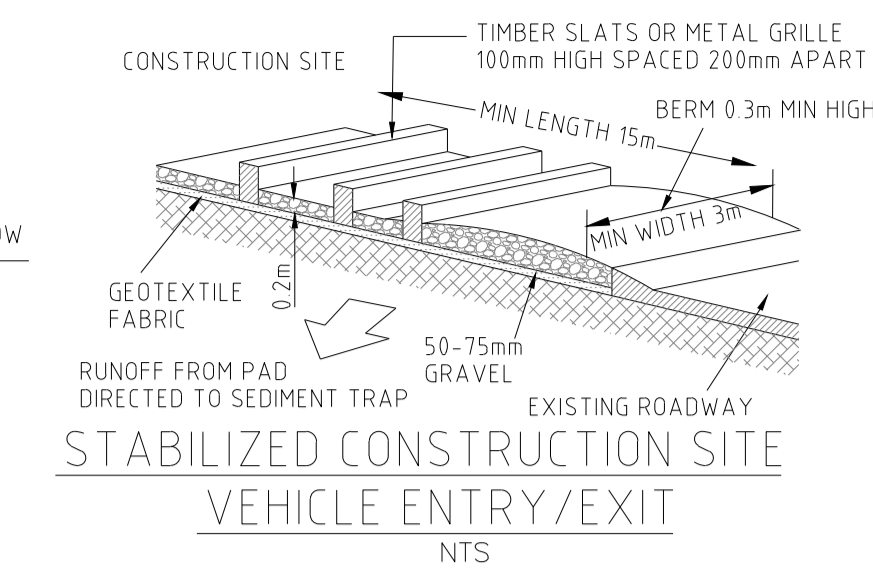
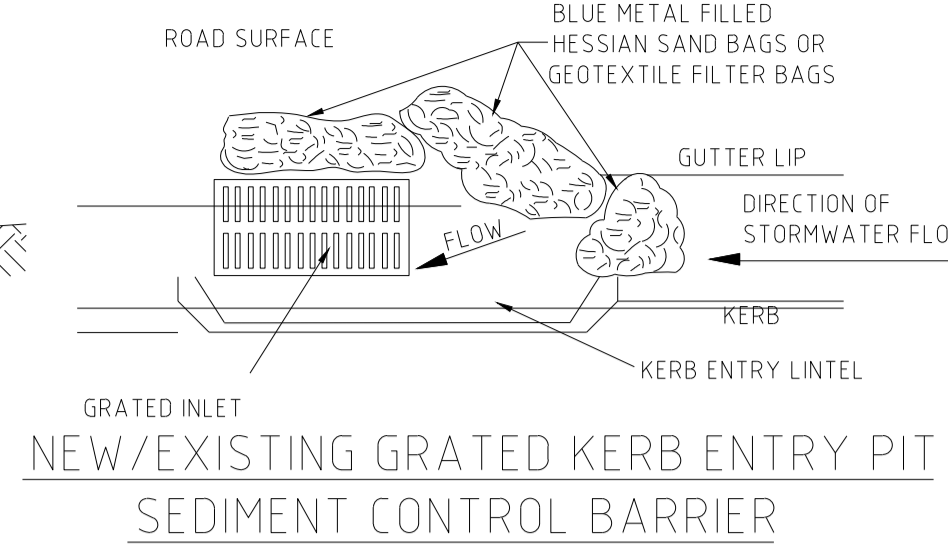
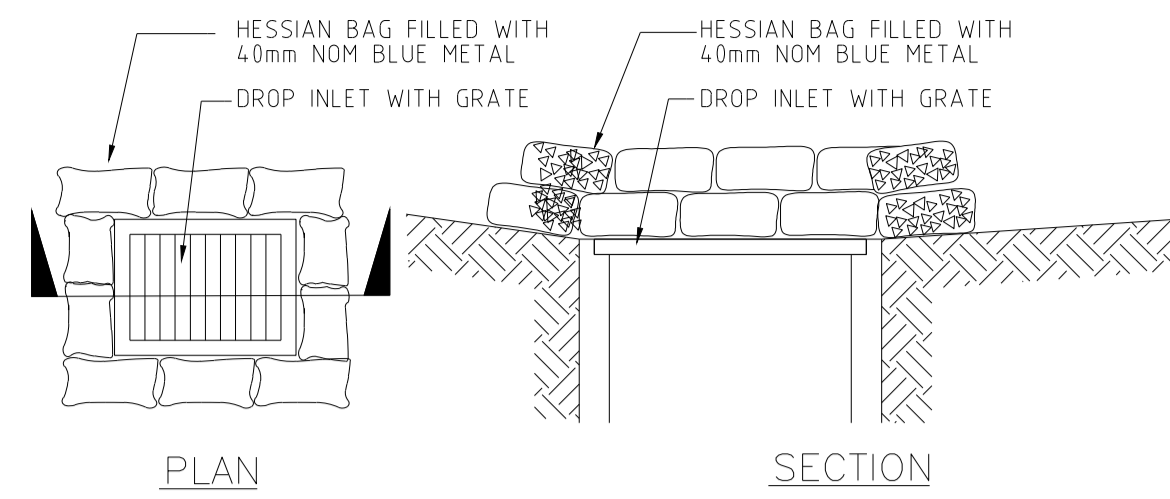
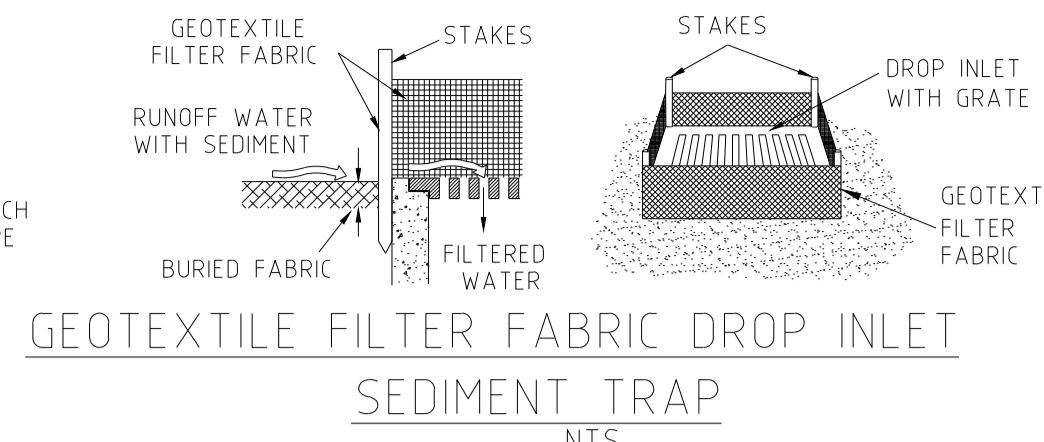
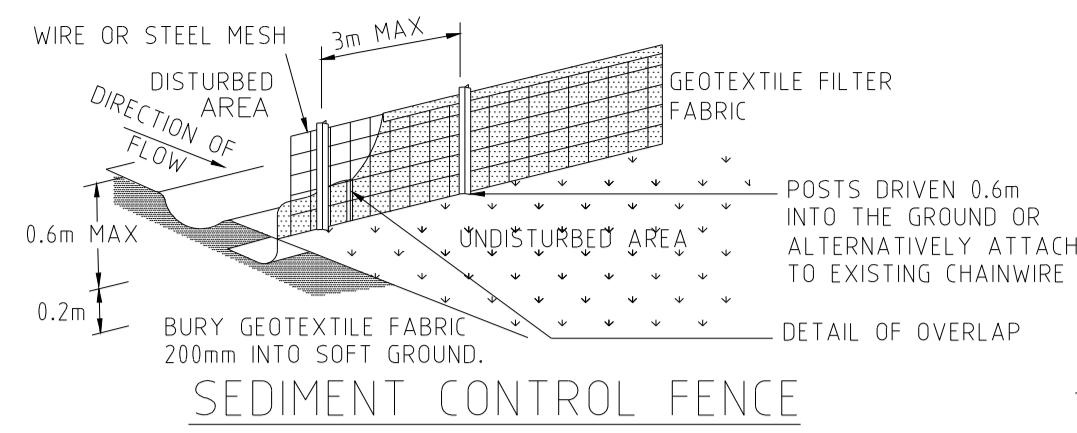
All records entered will be kept on-site and made available to Liverpool City Council as well as to the relevant authorities and/or any other authorised person on request.

Additional Management Practices

In addition to the management practices specified above, Trinity will further ensure that:

- The CSWMP is being implemented correctly;
- Erosion and sediment control measures are maintained in an effective condition until all earthwork activities are completed and the site stabilised;
- Essential modifications are made to the CSWMP, if and when necessary, to ensure the desired protection is given to down slope lands and waterways;
- Waste bins will be emptied as necessary and in an approved manner.
- The stormwater system that is constructed (temporary or permanent) will be kept in good, working condition.
- Any pollutants removed from the nominated storage and/or treatment devices will be disposed of in an approved manner, where further pollution to down slope lands and waterways should not occur.

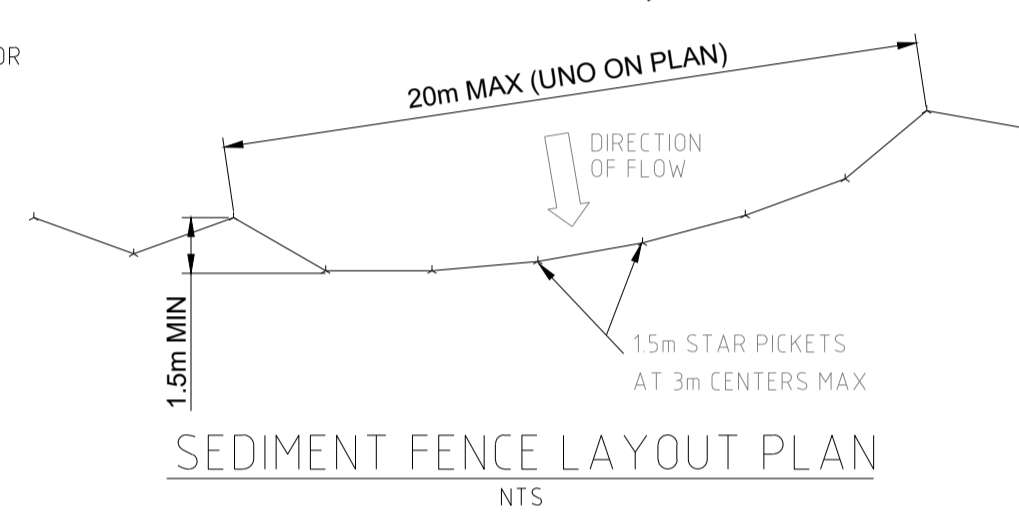
Appendix A – Soil and Water Management Plans Prepared by WSCE



- SITE ENTRY/EXIT NOTES-**
- ALL VEHICLE ENTRANCES & EXITS TO THE CONSTRUCTION SITE MUST BE STABILIZED TO PREVENT THEM BECOMING A SOURCE OF SEDIMENT. BY PROVIDING A VEHICLE SHAKE AREA, THIS MAY CONSIST OF A TIMBER, CONCRETE OR STEEL SHAKER GRID OR RUBBLE AREA.
 - THE VEHICLE EXIT AREA IS TO BE MAINTAINED IN A CLEAN & SERVICEABLE CONDITION DURING THE TOTAL TIME OF USAGE.
 - ANY UNSEALED ROAD BETWEEN THE DEVICE AND COUNCILS ROADWAY IS TO BE TOPPED WITH 100mm THICK, 40mm NOMINAL SIZE AGGREGATE.
 - PUBLIC ROADS MUST BE KEPT FREE OF DIRT AND MUD. SEDIMENT TRACKED ONTO THE PUBLIC ROADWAY BY VEHICLES LEAVING THE CONSTRUCTION SITE IS TO BE SWEEP UP IMMEDIATELY.
 - FENCES SHOULD BE ERECTED TO ENSURE VEHICLES CAN NOT BYPASS THE STABILIZED ACCESS POINTS, UNLESS COMING FROM A STABILIZED AREA.

SEDIMENT FENCE NOTES-

- CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR AT THE TOE OF A SLOPE.
- DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND SUFFICIENT TO PROVIDE RIGID SUPPORT, 3 METERS APART. WHERE THERE IS INSUFFICIENT SOIL DEPTH OVER ROCK, HOLES ARE TO BE DRILLED INTO ROCK TO ACCEPT THE STAR PICKETS.
- ON SOFT GROUND MATERIALS, DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- BACKFILL TRENCH OVER BASE OF FABRIC & COMPACT.
- FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY THE GEOTEXTILE MANUFACTURER. USE A REINFORCEMENT BACKING WITH NON SELF-SUPPORTING GEOTEXTILE FABRIC.
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
- ON HARD OR ROCKY GROUND, SMOOTH A 500mm WIDE STRIP UPSLOPE OF THE FENCE LINE. TURN THE BOTTOM 500mm OF THE FABRIC UPSLOPE AND ANCHOR IN PLACE WITH SUITABLE AGGREGATE.
- WHERE A SEDIMENT FENCE IS CONSTRUCTED DOWN SLOPE FROM A DISTURBED BATTER THE FENCE SHOULD BE LOCATED 1.5 TO 2.0 METERS DOWN SLOPE FROM THE TOE OF THE BATTER.

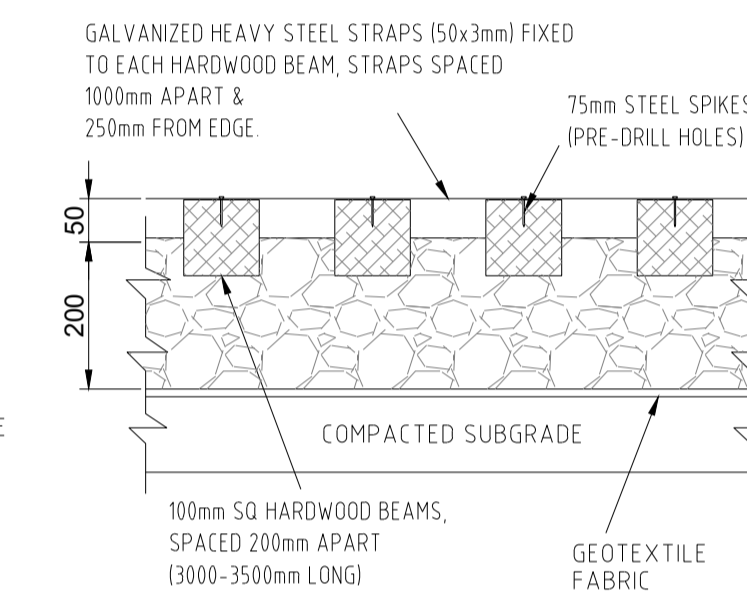


EXCAVATED SEDIMENT TRAP NOTES-

- REMOVE THE SEDIMENT WHEN IT HAS ACCUMULATED TO HALF THE DESIGN DEPTH OF THE TRAP AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
- PROVIDE 50 cu.m/Ha OF SEDIMENT STORAGE VOLUME.
- REFER TO THE MAINTENANCE REQUIREMENTS.

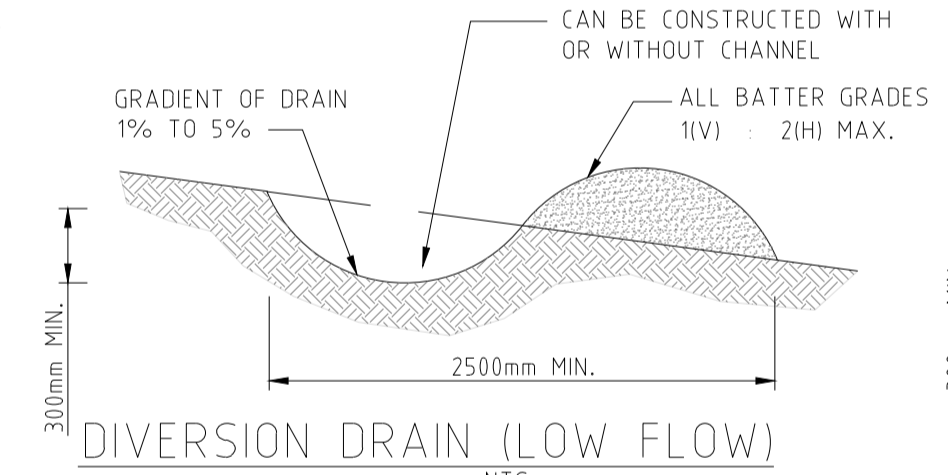
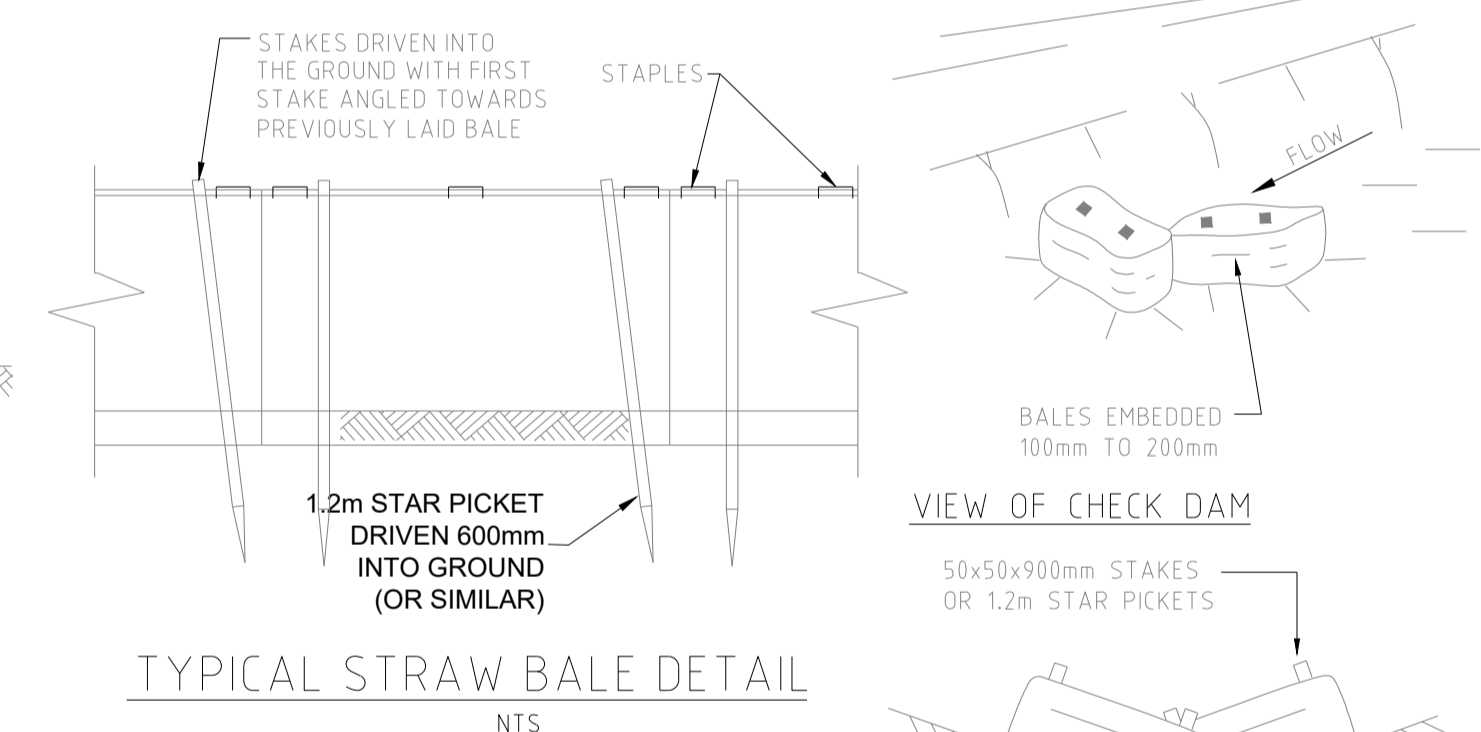
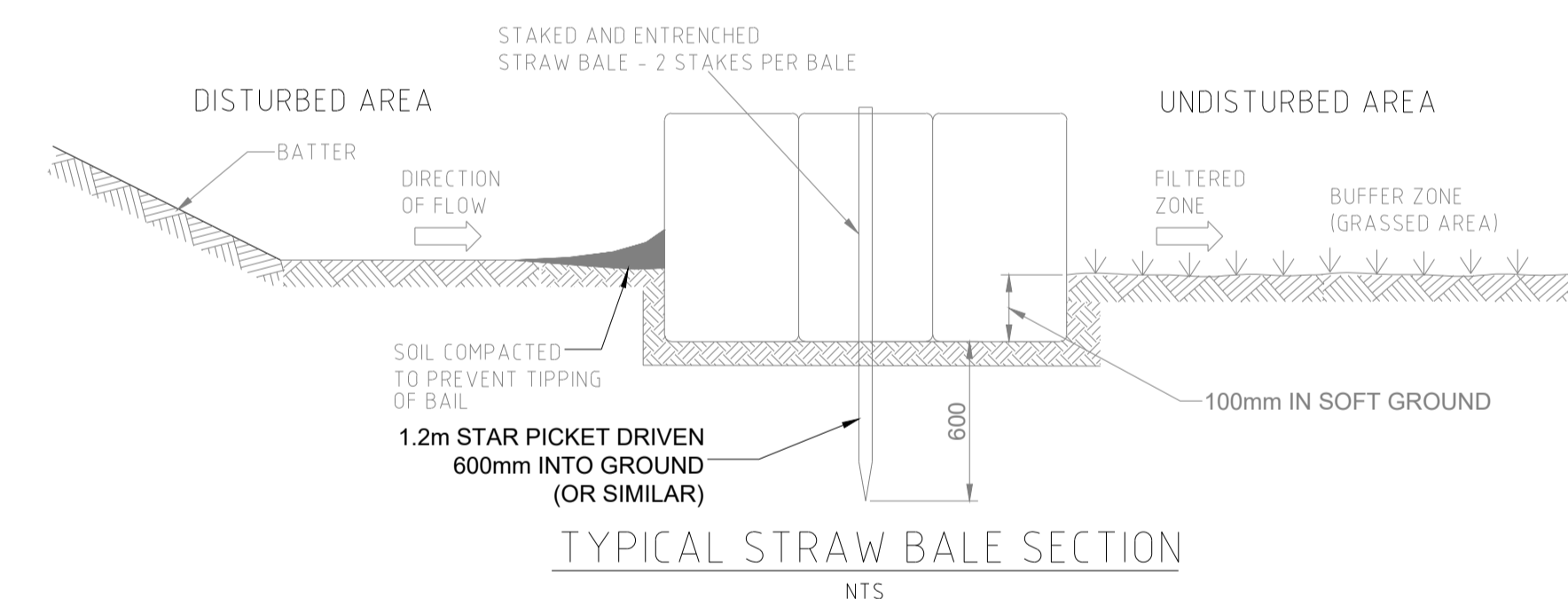
SEDIMENT BARRIER FOR PITS & PIPES, NOTES-

- SLEEVES ARE TO BE MADE FROM GEOTEXTILE FABRIC LONGER THEN THE LENGTH OF THE INLET PIT.
- FILL SLEEVE WITH 5 OR 10mm CLEAN GRAVEL.
- PLACE THE SLEEVE AT THE OPENING OF THE KERB INLET LEAVING A 100mm GAP TO ACT AS AN EMERGENCY OVERFLOW.
- SLEEVE MUST BE PLACED AGAINST THE KERB TO PREVENT BYPASS.
- FIT SLEEVE TO ALL INLETS DOWNSTREAM OF THE WORKS.
- FOR DRAINAGE WORKS FIT GEOTEXTILE FABRIC OR GEO BAGS TO UPSTREAM FACE OF ALL OPEN PIPES.
- MAINTAIN AN OPENING AT THE TOP OF THE PIPE OF 1/3 OF THE PIPE DIAMETER.
- THE FILTERS ARE TO BE CLEANED AND MAINTAINED DAILY.
- ALL CARE SHOULD BE TAKEN TO MINIMIZE SEDIMENT REACHING THE STORMWATER SYSTEM BY MINIMIZING EXCAVATION WORKS AND PREVENTING EXCESS WATER FLOW THROUGH WORKS.



VEHICLE SHAKER GRID SITE ENTRY/EXIT CONSTRUCTION NOTES-

- STRIP TOP SOIL & LEVEL SITE. PROVIDE CATCH DRAIN AT SIDES TO DIRECT RUNOFF WATER TO SEDIMENT TRAPS.
- COMPACT SUBGRADE AND REMOVE ANY HIGH POINTS.
- COVER AREA WITH GEOTEXTILE FABRIC. THIS MAY BE WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706.4-90) OF 2500 N.
- CONSTRUCT 200mm THICK RUBBLE PAD OVER GEOTEXTILE USING ROAD BASE OR 30-40mm AGGREGATE. MINIMUM LENGTH 15 METRES OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3 METRES. CONSTRUCT 300mm HIGH HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT TRAP.
- WHERE GRIDS ARE USED FIRST CONSTRUCT A 150 THICK PAD OVER GEOTEXTILE FABRIC. LEVEL THIS IN BOTH DIRECTIONS. LOWER GRID ON TO THE PREPARED BASE AND ENSURE THAT NO PART IS SITTING ON ANY HIGH POINTS. BACKFILL THE SPACES BETWEEN THE GRIDS TO WITHIN 50mm OF THE TOP.
- PROVIDE RAMPS AT ENDS AND SIDE OF GRIDS. IF DEPRESSIONS OCCUR IN THE RAMPS DURING USE. ADD ADDITIONAL MATERIAL.



DIVERSION DRAIN NOTES-

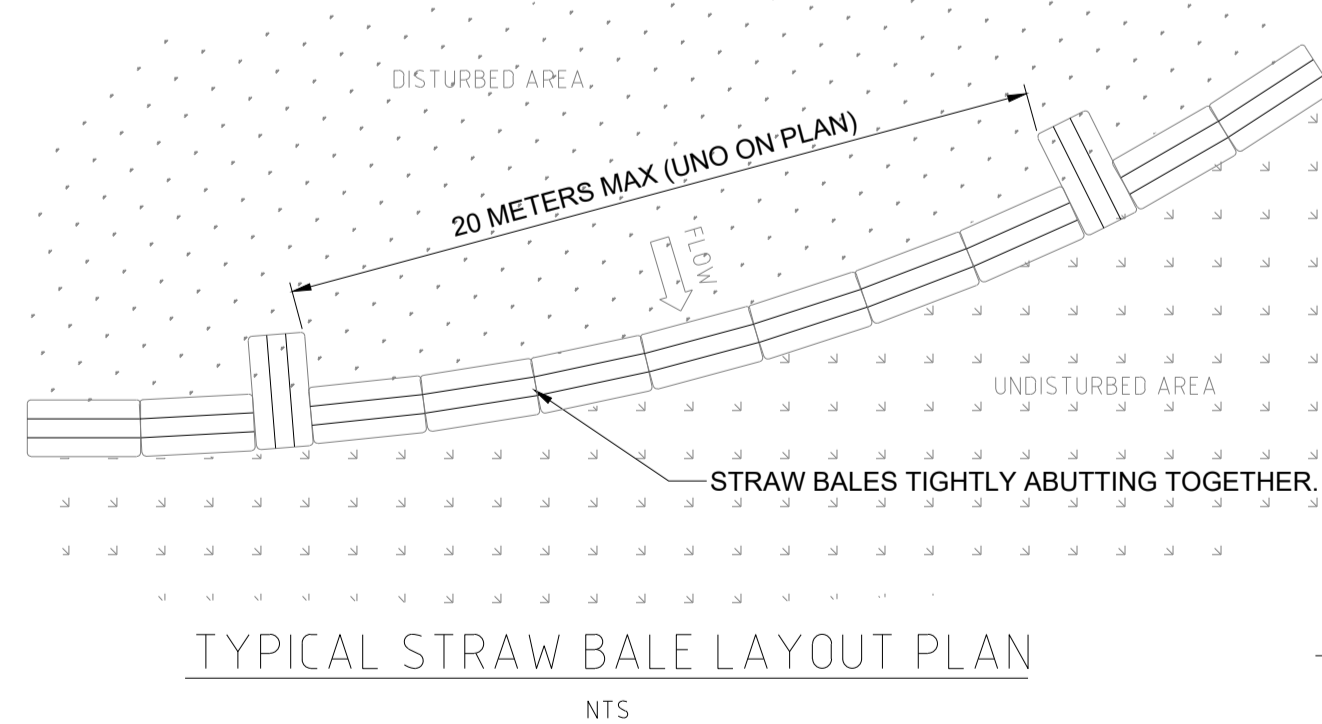
- CONSTRUCT WITH GRADIENT OF 1 PER CENT TO 5 PER CENT.
- AVOID REMOVING TREES AND SHRUBS IF POSSIBLE.
- DRAINS TO BE OF CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
- EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
- PERMANENT OR TEMPORARY STABILIZATION OF THE EARTH BANK TO BE COMPLETED WITHIN 10 DAYS OF CONSTRUCTION.
- ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO A SEDIMENT BASIN OR SIMILAR.
- DISCHARGE RUN OFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILIZED OR AN UNDISTURBED DISPOSAL SITE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
- COMPACT BANK WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
- EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.

MAINTENANCE REQUIREMENTS-

- ACCUMULATED SILT & SEDIMENT MUST BE REMOVED AT REGULAR INTERVALS AND AFTER EACH MAJOR STORM.
- SILT & SEDIMENT MUST BE REMOVED FROM OFF THE SITE OR TO A COUNCIL APPROVED LOCATION WITHIN THE SITE, WHERE IT WILL NOT ERODE.
- THE SEDIMENT FENCES, BALES & TRAPS SHALL BE REGULARLY INSPECTED, ESPECIALLY AFTER RAIN AND KEPT IN GOOD REPAIR AND FUNCTIONING CONDITION AT ALL TIMES.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT, EROSION & WATER POLLUTION SHALL BE MINIMIZED.
- THE SEDIMENT TRAPS SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTION AREA HAS BEEN PROPERLY STABILIZED.

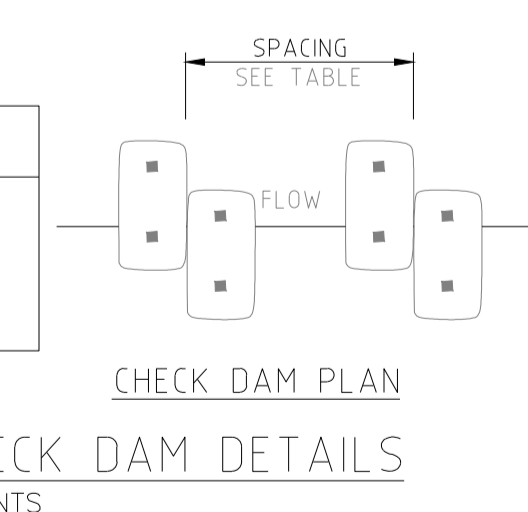
STRAW BALE NOTES-

- CONSTRUCT STRAW BALE FILTER AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR AT THE TOE OF A SLOPE.
- PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS TO BE PLACED PARALLEL TO GROUND.
- MAXIMUM HEIGHT OF FILTER IS ONE BALE.
- ON SOFT MATERIALS, EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS. ANGLE THE FIRST STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE STAKES 600mm INTO THE GROUND AND FLUSH WITH THE TOP OF THE BALES.
- WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWN SLOPE FROM A DISTURBED BATTER THE BALES SHOULD BE LOCATED 1.5 TO 2.0 METERS DOWN SLOPE FROM THE TOE OF THE BATTER.
- WHERE REQUIRED WRAP GEOTEXTILE FILTER FABRIC AROUND BALES AND STAPLE IN POSITION.



LONGITUDINAL GRADE (%)	SPACING (METERS)
0 - 5	4.0
5 - 10	3.0
10 - 15	2.0
GREATER THAN 15	1.0

STRAW BALE CHECK DAM DETAILS



Path: X:\240000 - TP - A14 -
 Plot Date: 23/03/2026 14:1:30
 Cad File: T:\01\4009\CD\Drawings\CAD\01_2026\02_Soil and Water Management\Detail.dwg
 Login Name: asook

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REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
A	ISSUE FOR CONSTRUCTION CERTIFICATE	23/03/2026			

CLIENT

PROJECT

AUSTRAL - EARLY CHILDHOOD SERVICE

PREPARED BY

WSce
Driven by excellence, built on experience.

TITLE				
SOIL AND WATER MANAGEMENT DETAILS				
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	S.C.	I.S.	J.G.	J.G.
JOB No.	DRAWING No.	ISSUE		
5914009	C2.02	A		
DATE	STATUS			
SEPTEMBER 2024	ISSUE FOR CC			

FOR CONSTRUCTION

Luke Zammit

From: Luke Zammit
Sent: Thursday, 19 February 2026 1:19 PM
To: KumarJ2@liverpool.nsw.gov.au
Cc: lcc@liverpool.nsw.gov.au
Subject: 5914005 | SSDA-8865 - CSWMP
Attachments: 5914006-WSCE-CS-DD-C2.02_Soil_and_Water_Management_Plan_[03].pdf; 5914006-WSCE-CS-DD-C2.01_Soil_and_Water_Management_Plan_[05].pdf; Email from Jason Kumar dated 4.7.22.pdf

Hi Jason,

Hope you are well. Please find attached Soil and Water Management Plans and Details prepared by Warren Smith Consulting Engineers for the final stage of the St Anthony of Padua SSDA 8865 works in regards to condition C24 a which requires consultation with Council for the Construction Soil and Water Management Plans.

Please note these are new plans to the previous stage plans approved by Liverpool Council in attached email on 4/7/22 provided by Lipman. This is a smaller scale building on the same subject site with previous stages all completed by others.

Could you please confirm if you have any comments or issues by COB 27th February.

Kind Regards,

Luke Zammit | Senior Project Manager | 0435 001 373

Trinity Fitout & Construction

Sydney | Hunter | Illawarra | Regional NSW



Lachlan Ryan

To: Jason Kumar
Cc: Tim Calpito
Subject: RE: 5914005 | SSDA-8865 - CSWMP

From: Jason Kumar <KumarJ2@liverpool.nsw.gov.au>
Sent: Monday, 4 July 2022 3:48 PM
To: Lachlan Ryan <lachlanr@lipman.com.au>
Cc: Tim Calpito <timc@lipman.com.au>
Subject: RE: 5914005 | SSDA-8865 - CSWMP

Hi Lachlan,

Thanks for the email below.

Council has reviewed the Soil and Water Management Plans and Details prepared by Warren Smith Consulting Engineers, Job No. 5914005, drawings C2.01-03, revision 3, dated 1/07/2022 for the phase 3 works. Council has no objection to the proposed plans.

Council is satisfied with condition C24 (a) in the development consent (SSDA-8865).

Should you have any enquiries, please contact on the details below.

Thanks

Jason Kumar
Acting Land Development Engineer

**LIVERPOOL
CITY
COUNCIL**

02 8711 7634 | | KumarJ2@liverpool.nsw.gov.au

Customer Service: 1300 36 2170 | 33 Moore Street Liverpool, NSW 2170, Australia



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Appendix 7: Aboriginal Culture Heritage Management Plan

**Approved Development of
St Anthony of Padua Catholic School
at 135-165 Tenth Avenue and
170-140 Eleventh Avenue,
Austral, Liverpool City Council LGA, NSW**
Aboriginal Cultural Heritage Management Sub-Plan

Prepared for Lipman on behalf of The Catholic Archdiocese of Sydney

June 2022

KAYANDEL
ARCHAEOLOGICAL SERVICES



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Document Status

Version No.	Purpose of Document	Orig	Review	Review Date	Approval for Issue	Date Issued
1.1	Internal Review	TJ & SC	NS	21/09/2020	NS	22/0/2020
1.2	Client Review	NS	CTPG	22/09/2020	SS	22/09/2020
1.3	RAP Review	NS	RAPs	22/09/2020	RAPs	30/09/2020
2.0	Final ACHMSP	NS	LS	30/09/2020	LS	30/09/2020
3.1	Internal Review	BA	NS	20/05/2022	NS	31/05/2022
3.2	Client Review	DA	TC	31/05/2022	TC	31/05/2022
3.3	RAP Review	DA	RAPS	31/05/2022		28/06/2022
3.4	Final Draft	NS	LS	31/05/2022	LS	31/05/2022
4.0	Final ACHMSP	NS	LS	29/06/2022	LS	30/06/2022

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1 INTRODUCTION

This Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) has been developed in order to manage impacts to Aboriginal heritage during the construction of the St Anthony of Padua Catholic School in Austral.

This ACHMSP has been prepared to Condition C23 and C30 of the Development Consent (SSD-8865) for the redevelopment of the St Anthony of Padua Catholic School (refer to Section 1.1).

1.1 Project Background

Kayandel (2018) prepared an Aboriginal Cultural Heritage Assessment Report (ACHAR) to support an Environmental Impact Statement (EIS) for the proposed redevelopment of St Anthony of Padua at 125-165 Tenth Avenue and 170-140 Eleventh Avenue, Austral.

The ACHAR was prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning and Environment (DPE).

The ACHAR was prepared in accordance with the:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010a);
- *The Code of Practice for the Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b); and,
- *The Guide to Investigating, Assessing and Report on Aboriginal Cultural Heritage in NSW* (OEH, 2011).

The assessment included a field survey, and a review of background resources including soil landscapes, geology, hydrology and past reports and site records to inform predictive statements about the likelihood of Aboriginal heritage sites to occur within the Subject Area.

As part of preparing the ACHAR, a search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken. No previously recorded Aboriginal sites have been documented within the Subject Area.

As part of undertaking the field survey, Kayandel (2018) did not identify any previously unrecorded Aboriginal sites or areas of Potential Archaeological Deposit (PAD) within the Subject Area.

Based on the sensitivity mapping undertaken by AMBS (2012) (refer to Figure 13 of Kayandel (2018)), and the results of the Kayandel field survey, the Subject Area was assessed as having low archaeological sensitivity.

Kayandel (2018) recommended the following:

1. No further assessment of the Aboriginal heritage within the Subject Area is required to inform the proposed State Significant Development (SSD) application (refer to Sections 1.2 and 1.3 of Kayandel (2018));
2. Should the proposed works be amended and result in potential impacts to areas previously not inspected as part of this assessment, further investigations may be required;
3. Consultation should continue with the Registered Aboriginal Parties (RAPs) at intervals not exceeding 6 months until such time as the works approved under the SSD have been completed;
4. Prior to the commencement of any ground disturbance works authorised by the SSD, an Aboriginal Cultural Heritage Management Plan (ACHMP) should be developed by a qualified and experienced practitioner in Aboriginal cultural heritage in consultation with the

Registered Aboriginal Parties (RAPs); this should include a provision for unexpected finds, and methodologies for further investigation and reporting where required;

5. The final ACHMP must be kept onsite so that it can be referred to in the event of an unexpected find being identified;
6. All relevant staff and contractors should be made aware of their statutory obligations for heritage under the *National Parks and Wildlife Act 1974*, which may be implemented as a heritage induction;
7. If, during the course of development works, suspected historic cultural heritage material is uncovered, work should cease in that area immediately. Heritage NSW (formerly the Heritage Branch, Office of Environment & Heritage) (Enviroline 131 555) should be notified and works only recommence when an approved management strategy has been developed; and,
8. A copy of the final report should be sent to the RAPs identified in Kayandel (2018, Table 3).

A draft copy of this ACHMSP was provided to the RAPs in September 2020.

1.2 Location of the Subject Area

The Subject Area is situated within the Liverpool City Council Local Government Areas (LGA), and is also within the Leppington North Precinct of the South West Growth Centre (see Figure 1).

The Subject Area comprises of the allotments listed below and covers approximately 10.92ha. The Subject Area extends along the southern side of Eleventh Avenue to Tenth Avenue and west from Fourth Avenue towards Edmondson Avenue in the east (see Figure 2):

- Lots 1 & 2 DP1232692; and,
- Lots 810-812, 840-842 DP2475.

1.3 General Scope of Development Works

The SSD application (SSD-8865) was for the concept development application for St Anthony of Padua School redevelopment including:

- A Concept Proposal for alterations and addition to the existing school to accommodate up to 2480 students and 200 staff members, in three stages comprising:
 - Retention of the existing buildings;
 - Maximum building envelopes for the school buildings, a childcare centre, a church and a trade training centre, site layout, access arrangements, car parking areas and landscaping;
 - Outline staging of the development;
- Stage 1 of the development for the detailed design, construction and use of the buildings, comprising:
 - Demolition works, tree removal and site remediation work;
 - A new two - four storey school building (central hub);
 - A bell tower at the entrance piazza;
 - A new two-storey building at the north-western corner to accommodate gymnasium / hall, indoor sport courts and indoor swimming pool / recreation centre;
 - Retention and use of existing single storey building for Kindergarten classrooms;
 - Accommodation of up to 2280 students (K – 12);
 - A canteen and café within the site;
 - Expansion of an existing building at the north-eastern corner to provide for a single storey 125-place childcare centre;

- o Accommodation of up to and 200 staff members;
- o Car parking areas for up to 326 car spaces, outdoor play areas, hard and soft landscaped areas;
- o Associated external road works and intersection upgrades; and,
- o Staged construction and use of the buildings in six construction phases.

1.4 Relevant Conditions of Consent for Concept Proposal

Table 1 identifies the Conditions of Consent that relate to Aboriginal heritage. The aforementioned Conditions of Consent have been addressed in this ACHMSP.

Part	Description	Location within ACHMSP
Condition C23 – Construction Environmental Management Plan		
(a)	be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties (RAPs)	Section 1.6 Section 3 and Appendix II
(b)	include recommendations of the Aboriginal Cultural heritage Assessment Report (ACHAR) prepared by Kayandel dated August 2018.	Sections 1.1 and 6
Condition C30 – Aboriginal Heritage		
-	Prior to commencement of construction of a relevant stage, the Applicant must consult with RAPs to determine specific requirements and management measures to be used on site during construction, including protection of any objects or items in perpetuity.	Section 3 and Appendix II Section 6

Table 1: Conditions of Consent – Aboriginal heritage

1.5 Purpose and Objectives

The purpose of this ACHMSP is to describe how Aboriginal heritage will be protected and managed by Lipman on behalf of the Catholic Archdiocese of Sydney during the construction of the project.

A provision for managing impacts to unexpected historical heritage items has also been included as part of this ACHMSP (refer to Section 6.2.2).

Specific objectives include:

- An unexpected finds procedure developed in consultation with Heritage NSW and Registered Aboriginal Parties (RAPs) for the management of any previously unidentified Aboriginal heritage finds;
- A description of the measures that would be implemented for:
 - o Ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that records are kept of these inductions;
 - o Ongoing consultation with Aboriginal stakeholders during the implementation of the plan
- A program to monitor and report on the effectiveness of these measures and any heritage impacts of the project.

This ACHMSP should be read in conjunction with the following document:

- Proposed Redevelopment of St Anthony of Padua Catholic School 125-165 Tenth Avenue (Lot 2 DP1232692 and Lots 842-839 DP2475) and, 170-140 Eleventh (Lot 1 DP1232692 and Lots 810-

812 DP2475), Austral, Liverpool City Council LGA, NSW: Aboriginal Cultural Heritage Assessment Report (Kayandel, 2018).

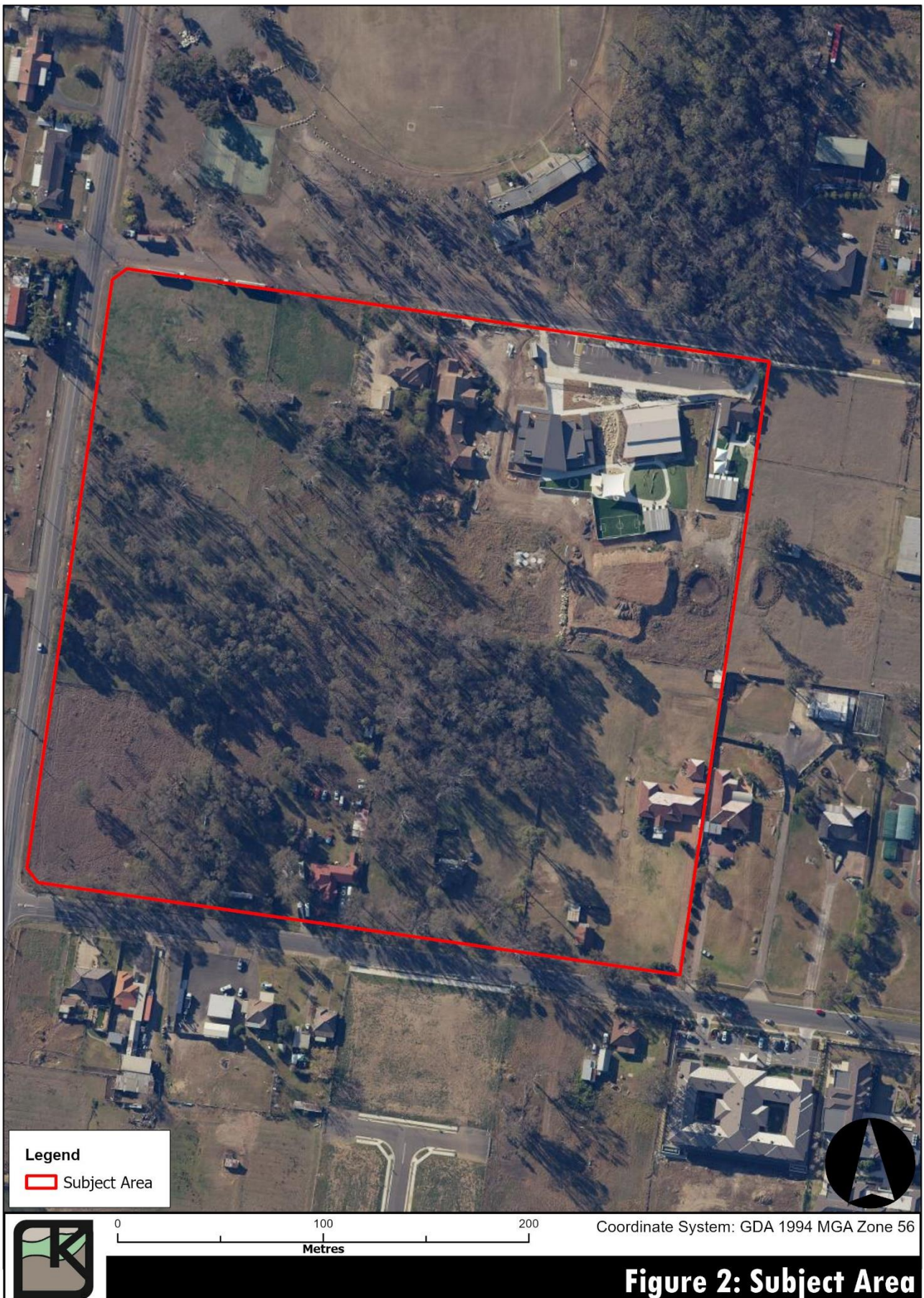
1.6 Personnel

This ACHMSP has been prepared by Kayandel (refer to Table 2).

Person	Qualifications	Experience	Tasks
Britt Andrews	B. Arts (His. and Anc. His. and Arch.), B. Com. and Media Studies (Digital Media and Com.)	>1 year	Background research, report drafting
Steven Castell	B. Arts Ext (Arch/Anthro)	4 years	Background research, report drafting
Natalie Stiles	B. Arts (Arch/Palaeo), Grad Cert. Arts (Arch), MGIS&RemoteSens	>10 years	Mapping, ACHMSP review
Lance Syme	B. Arts (Arch/Palaeo), Grad. Dip. (Heritage Cons.), M. ICOMOS	>20 years	Project supervisor, quality control

Table 2: Kayandel personnel involved in the preparation of this ACHMSP





2 ENVIRONMENTAL REQUIREMENTS

The following section outlines the environmental requirements of the project including relevant legislation and guidelines that have been used to aid in the formulation of this ACHMSP.

2.1 Relevant Legislation and Guidelines

Legislation relevant to heritage management includes:

- *Environmental Planning and Assessment Act 1979 (EP&A Act)*;
- *National Parks and Wildlife Act 1974 (NPW Act)*;

The main guidelines, specifications, and policy documents relevant to this ACHMSP include:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010a)*;
- *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Australia ICOMOS, 2013)*; and,
- *The Code of Practice for the Investigation of Aboriginal Objects in New South Wales (DECCW, 2010b)*.

2.2 Commitment to Cultural Heritage Preservation

According to Allen and O'Connell (2003), Aboriginal people have inhabited the Australian continent for the last 50,000 years. New evidence out of the Northern Territory has pushed this date back to around 60,000 years with the Malakanunja II rock shelter dated at 61,000 +9000/-13,000 BP (Clarkson et al., 2015).

In NSW, according to Bowler et al. (2003), Aboriginal people have occupied the land for over 42,000 years. However, preliminary evidence presented by Bosis (2017) from a subsurface testing program in South-Western NSW suggests Aboriginal people may have occupied the semi-arid zone of the region for 50,000 years.

Without being part of the Aboriginal culture, and the productions of this culture, it is not possible for non-Aboriginal people to fully understand their meaning to Aboriginal people – only to move closer towards understanding this meaning with the help of the Aboriginal community. Similarly, definitions of Aboriginal culture and cultural heritage without this involvement constitute outsider interpretations.

With this preface, Aboriginal cultural heritage broadly refers to things that relate to Aboriginal culture and hold cultural meaning and significance to Aboriginal people (DECCW, 2010a, p. 3). There is an understanding in Aboriginal culture that everything is interconnected. In essence, Aboriginal cultural heritage can be viewed as potentially encompassing any part of the physical and/or mental landscape, that is, 'Country' (DECCW, 2010a, p. iii).

Aboriginal people's interpretation of cultural value is based on their "traditions, observance, lore, customs, beliefs and history" (DECCW, 2010a, p. 3). The things associated with Aboriginal cultural heritage are continually / actively being defined by Aboriginal people. These things can be associated with traditional, historical or contemporary Aboriginal culture (DEC, 2005, p. 1; DECCW, 2010a, p. 3).

2.2.1 Tangible Aboriginal Cultural Heritage

Three categories of tangible Aboriginal cultural heritage may be defined:

- Things that have been observably modified by Aboriginal people;

- Things that may have been modified by Aboriginal people, but no discernible traces of that activity remain; and/or,
- Things never physically modified by Aboriginal people (but associated with Dreamtime Ancestors who shaped those things).

2.2.2 Intangible Aboriginal Cultural Heritage

Examples of intangible Aboriginal cultural heritage would include memories of stories and 'ways of doing', which would include language and ceremonies (DECCW, 2010a, p. 3).

2.2.3 2.2.3 Statutory

Currently Aboriginal cultural heritage, as statutorily defined by the *NPW Act* consists of objects and places.

Aboriginal objects are defined as:

any deposit, object or material evidence...relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Aboriginal places are defined as a place that is or was of special Aboriginal cultural significance. Places are declared under section 84 of the *NPW Act*.

2.2.4 2.2.4 Values

Aboriginal cultural heritage is broadly valued by Aboriginal people as it is used to define their identity as both individuals and as part of a group (DEC, 2005, p. 1 & 3; DECCW, 2010b). More specifically it is used:

- To provide a:
 - "Connection and sense of belonging to Country" (DECCW, 2010a, p. 15);
 - "Link between the present and the past" (DECCW, 2010a, p. iii).
- As a learning tool to teach Aboriginal culture to younger Aboriginal generations and the general public (DECCW, 2010a, p. 3).

As further evidence of Aboriginal occupation prior to European settlement for people who do not understand the magnitude to which Aboriginal people occupied the continent (DECCW, 2010a, p. 3).

The NSW government and all of its entities are committed the protection and preservation of Aboriginal and non-Aboriginal cultural heritage in NSW.

3 ABORIGINAL COMMUNITY CONSULTATION

3.1 Aboriginal Consultation undertaken as part of the Project Approval

Consultation and collaboration with registered Aboriginal stakeholders has been integral to the assessment and management of Aboriginal cultural heritage for the project.

Consultation undertaken to date is outlined in the ACHAR (Kayandel, 2018), this was undertaken in accordance with the consultation requirements (DECCW, 2010a).

3.2 Ongoing Aboriginal consultation

Ongoing consultation between Lipman, the Catholic Archdiocese of Sydney, and Registered Aboriginal Parties (RAPs) regarding the management of Aboriginal cultural heritage associated with the project will continue throughout the life of this project.

Ongoing consultation will consist of the following actions:

- Outcomes for any proposed modification to the consent for the project;
- Outcomes of any unexpected Aboriginal finds;
- Outcomes for any unexpected Aboriginal archaeological features; and,
- Updates to this ACHMSP.

In the event of an unexpected Aboriginal heritage find, Lipman and/or the Catholic Archdiocese of Sydney, or a qualified Archaeologist will consult with RAPs regarding the management of Aboriginal heritage items.

Following consultation with the various stakeholders, the ACHMSP will be updated to include any comments raised and to document the consultation undertaken (refer to Appendix II).

3.2.1 ACHMSP RAP Review - 2020

A copy of version 1.3 of the ACHMSP was provided to RAPs for their review and comment.

Refer to Table 3 and Appendix II for a copy of the comments received from the RAPs in regard to v1.3 of the ACHMSP.

RAP	RAP's Comment(s)	Kayandel's Response
Thoorga Nura (received 24/09/2020)	Has no comments at this stage	N/A
Goobah (received 24/09/2020)	Agrees with the mitigation measures in the management plan and that he has no comments otherwise.	N/A
Wailwan Aboriginal Digging Group (received 25/09/2020)	At this point I do not have any more to add to this project. Everything seems to be satisfactory.	N/A
Kamilaroi-Yankuntjatjara Working Group (received 28/09/2020)	We agree & support your report & looking forward to working with you on this project	N/A
Darug Custodian Aboriginal Corporation (received 28/09/2020)	We support the recommendations in this Draft report	N/A
Barraby Cultural Services (received 29/09/2020)	Following on from my phone conversation I have reviewed and	N/A

RAP	RAP's Comment(s)	Kayandel's Response
	agree with the report associated with this project	
Yurrandaali Cultural Services (received 29/09/2020)	Happy for us to proceed with the project as it is.	N/A
Kawul Cultural Services (received 29/09/2020)	Happy with the recommendations and management strategies that are contained within the ACHMSP and that she does not have any additional management strategies to add	N/A
Didge Ngunawal Clan (received 29/09/2020)	Happy with the recommendations and management strategies that are contained within the ACHMSP and that they don't have any additional management strategies to add.	N/A
Cubbitch Barta Native Title Claimants Aboriginal Corporation (received 30/09/2020)	I would like to make comment on is that the usual unexpected finds and human remains statement is made in this document, who during the construction process has the knowledge to identify unexpected finds on site?	As part of Strategy 1 "Heritage Inductions and Toolbox" (refer to Section 6.2.1) there will be a discussion regarding the process of identifying unexpected Aboriginal finds, and unexpected Aboriginal remains. These processes are also detailed in Sections 6.2.2 and 6.2.3. The ACHMSP also includes Appendix I which provides reference examples of Aboriginal finds and remains for people on-site to refer to as part identifying any unexpected Aboriginal finds and/or Aboriginal remains.

Table 3: RAP comments on version 1.3 of the ACHMSP

3.2.2 ACHMSP RAP Review – 2022

A copy of version 3.3 of the ACHMSP was provided to RAPs for their review and comment.

Refer to Table 4 and Appendix III for a copy of the comments received from the RAPs in regard to v3.3 of the ACHMSP.

RAP	RAP's Comment	Kayandel's Response
Kamilaroi-Yankuntjatjara Working Group (received 28/09/2020)	The whole study area and surrounding area is of high significance to us Aboriginal Peoples, for tens of thousands of years the area has been occupied by Aboriginal Peoples, in turn We have a deep connection to the sky, water ways and land. The area would have been utilised for daily activities such as camping, hunting, fishing and ceremonial practices etc. There are water ways within the area that are utilised by Aboriginal Peoples. Yes, it's the	Thanks for sending through your comments detailing the cultural significance of the Subject Area and the surrounding area. We will pass your comments onto the Proponent so that they can be incorporated into any interpretative plan that may be being produced for the development.

RAP	RAP's Comment	Kayandel's Response
	<p>tangible aspects that archaeology looks for but it's also the intangible and aesthetic aspects that must be considered when it comes to cultural heritage. There are stories of the dreaming and creations stories that should be sort when it comes to place and connecting to country.</p>	
	<p>The study area is significant due to the multiple water ways in an ecosystem rich. The main water way that is close by to the to the site are Kemps Creek. This water way runs across the land utilised by many for many reasons such as fresh water, bathing, gathering of food and for everyday life activities. Water is a giver of life without water we would not be here so we should respect, conserve and mange water ways as naturally as possible and keep them maintained. Aboriginal people have been following waterways for tens of thousands of years a sense of way finding and a deep connection we hold.</p>	
	<p>Is there a cultural interpretation plan for this project? due to the project being accessed by the wider community we believe there is an opportunity to archive connecting with country through design, art, digital displays, apps, native gardens, or landscaping. It is important to incorporate interpretation into you project as it educates the wider community and our next generations about the traditional owners of the land, a keeping place should also be sort to house artefacts on country. This is a way in which to close the gap and better our understanding of one of the oldest continuing cultures in the world.</p>	
	<p>We would like to agree to your report and look forward to furthering consultation for this project.</p>	

Table 4: RAP comments on version 3.3 of the ACHMSP

4 EXISTING ENVIRONMENT

The following sections summarise what is known about Aboriginal heritage within and adjacent to the Subject Area based on information provided in:

- Proposed Redevelopment of St Anthony of Padua Catholic School 125-165 Tenth Avenue (Lot 2 DP1232692 and Lots 842-839 DP2475) and, 170-140 Eleventh (Lot 1 DP1232692 and Lots 810-812 DP2475), Austral, Liverpool City Council LGA, NSW: Aboriginal Cultural Heritage Assessment Report (Kayandel, 2018).

4.1 Aboriginal Cultural Heritage

No previously recorded Aboriginal sites have been documented within the Subject Area.

As part of preparing the ACHAR, Kayandel (2018) did not identify any previously unrecorded Aboriginal sites or areas of Potential Archaeological Deposit (PAD) within the Subject Area.

Based on the sensitivity mapping undertaken by AMBS (2012) (refer to Figure 13 of Kayandel (2018)), and the results of the Kayandel field survey, the Subject Area was assessed as having low archaeological sensitivity.

5 IMPACTS TO ABORIGINAL HERITAGE

The key construction activities and the associated impacts to Aboriginal heritage values were identified and assessed during the Aboriginal cultural heritage assessment process as per the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010b), and the Guide to Investigating, Assessing and Report on Aboriginal Cultural Heritage in NSW (OEH, 2011).

The consequence and likelihood of each activity's impact on Aboriginal heritage values is detailed below.

5.1 Aboriginal Heritage Impacts

The potential impacts on Aboriginal heritage could include:

- Direct impacts and disturbance to the entire site or the majority of a site containing Aboriginal objects due to the construction of the project. This impact can be complete or partial.
- Indirect impacts to Aboriginal objects or cultural values, such as from development related changes to the landscape or scenic context of a site or item.

As noted in Section 4.1, no Aboriginal sites, or areas of Potential Archaeological Deposit (PAD) have been identified within the Subject Area, and as such the approved works will not result in direct and/or indirect to Aboriginal sites.

6 MITIGATION MEASURES

6.1 Construction Related Measures

Specific mitigation measures to address impacts on Aboriginal heritage are outlined in Table 5. Where required, further details of the proposed mitigation measures are provided in Section 6.2.

Strategy	Requirement	Personnel
1	Heritage inductions to be completed as part of the overall site induction	Project Manager / Archaeologist
2	Procedure to follow in case of unexpected Aboriginal finds	Construction contractor
3	Procedure to follow in case of the discovery of human remains	Construction contractor

Table 5: Construction Related Measures

6.2 Heritage Protection Management Strategies

6.2.1 Strategy 1: Heritage Inductions and Toolbox Talks

All contractors and staff working on site will undergo site induction training (or be supervised by a staff member that has had the relevant training) relating to Aboriginal heritage management issues. The induction training will address elements related to heritage management including:

- Requirements of this ACHMSP and relevant legislation;
- Roles and responsibilities for heritage management;
- Location of identified heritage sites;
- Proposed heritage management and protection measures;
- Basic identification skills for Aboriginal artefacts and human remains;
- Specific training for personnel working in the vicinity of Aboriginal heritage sites identified within the Subject Area;
- Procedure to follow in case of an unexpected heritage item find during construction works;
- Procedure to follow in case of discovery of human remains during construction works; and,
- Penalties and non-compliance with this ACHMSP.

Training records for all project personnel will be kept and maintained in a register detailing names, dates, content and type of training undertaken. This ACHMSP should be kept on site at all times and be readily accessible. The requirements of the ACHMSP and the unexpected finds protocols should be incorporated into toolbox talks, where works are commencing in the vicinity of heritage items or sites, the mapping presented in this report should be reviewed and management measures assessed to ensure no impacts beyond the project approval are likely to take place.

6.2.2 Strategy 2: Procedure to Follow in case of Unexpected Aboriginal Finds

As noted in Section 4.1, no Aboriginal sites, or areas of Potential Archaeological Deposit (PAD) have been recorded within the Subject Area.

Based on the sensitivity mapping undertaken by AMBS (2012) (refer to Figure 13 of Kayandel (2018)), and the results of the Kayandel field survey, the Subject Area was assessed as having low archaeological sensitivity.

Should further previously unrecorded Aboriginal sites, or archaeological features such as shell middens, or hearths be identified during the course of the development works, the following process should be followed:

- Works must cease in the vicinity and the find should not be moved until assessed by a qualified Archaeologist;
- The Archaeologist will investigate and assess the find to determine the nature, extent and significance of the find. This will enable recommendations to be provided on how work can proceed and whether any further work is required. The archaeologist must supply written advice to the Project Manager stating:
 - Determination of whether the find is an Aboriginal object;
 - Advice on how the project is to proceed and whether the establishment of any no-go areas is necessary;
 - Recommendation on further works that may be required and timeframe for completion of these works;
 - Any Aboriginal finds will be registered on the Aboriginal Heritage Information Management System (AHIMS). Where sites are impacted, a site impact form will be completed and lodged with AHIMS prior to impact.
- Create a no-go area around the find based upon the advice of the Archaeologist; and,
- The archaeologist's written advice will be supplied to Heritage NSW, the Secretary and RAPs for their review. This will include a statement concerning the find, management measures implemented and notification of any further works arising. RAPs are to be involved in any further assessments or works as required. Any comments made by Heritage NSW, the Secretary and RAPs will be incorporated into the written advice prior to finalisation and work proceeding.

Should any previously unidentified Aboriginal finds as outlined above be identified, this will trigger a review of this ACHMSP in accordance with Section 9.

Please note that Appendix I contains guidelines around the identification of Aboriginal objects and site types.

6.2.3 Strategy 3: Procedure to follow in case of the discovery of human remains

If any suspected human remains are discovered during the proposed works, all activity in the area must cease. The following process must be undertaken:

- Immediately cease all work at that location and not further move or disturb the remains;
- Notify the NSW Police, DPIE, and Heritage NSW's Environmental Line on **131 555** as soon as practicable and provide details of the remains and their location;
- Establish an appropriate no-go area. This will need to be established in consultation with NSW Police, Heritage NSW and if necessary, a qualified Archaeologist;
- Works will not be able to recommence within the location of the find until confirmation from NSW Police and Heritage NSW is obtained. If the remains are confirmed as not being human, then works may recommence. If the remains are human then consultation with NSW Police, Heritage NSW, and the RAPs to establish a plan of management will be required;
- Works in the vicinity of the remains will only be able to recommence once the plan of management has been established and approval has been obtained from all relevant parties; and,

- Should any human remains be identified, this will trigger a review of this ACHMSP in accordance with Section 9.

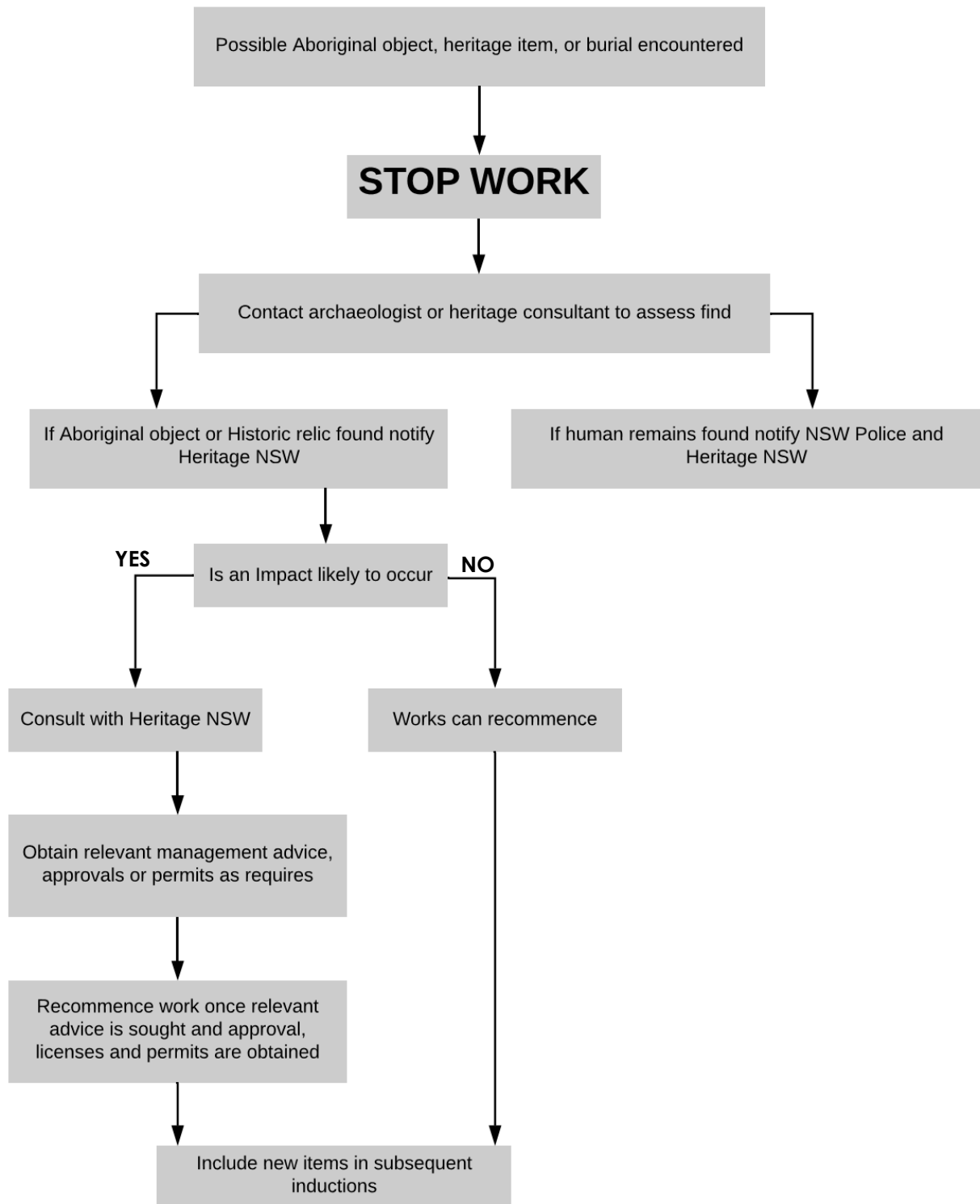


Figure 4: Decision Flowchart for Unexpected Aboriginal Finds

6.2.4 Strategy 4: Ongoing consultation with Aboriginal stakeholders

Consultation with Aboriginal stakeholders will be continued throughout the life of this project as outlined in Section 3 above.

6.2.5 Strategy 5: Monitoring and reporting

A program to monitor and report on the effectiveness of the measures and any heritage impacts will consist of reassessing the above listed strategies following the completion of works.

Upon completion of the works, a short report will be prepared, documenting:

- The effectiveness of the ACHMSP measures;
- A list of sites salvaged, harmed, and relocated;
- Confirmation the ASIRFs have been completed and submitted to AHIMS; and,
- A copy of the Aboriginal Site Impact Recording (ASIR) forms.

A copy of the report will be provided to Aboriginal stakeholders for the project, and Heritage NSW by email to heritagemailbox@environment.nsw.gov.au.

7 COMPLIANCE MANAGEMENT

7.1 Roles and Responsibilities

The Diocese Project Manager is responsible for ensuring all activities in this manual are carried out prior to and during construction, along with reporting any incidents to Heritage NSW.

The construction contractor must comply with the activities outlined in this manual and any deviation to activities outlined in this manual must be reported to the Diocese Project Manager.

Name	Role/Responsibility	Contact Details
Sydney Catholic Schools	Diocese Project Manager	Simon Romalis simon.romalis@lipman.com.au
Lipman	Construction Contractor	TBA
Heritage NSW	Regulator/Compliance	131555 heritagemailbox@environment.nsw.gov.au
Lance Syme	Kayandel Principal	(02) 4627 8622 info@kayandel.com.au

Table 6: Roles and Responsibilities and Contact Details

7.2 Recording Keeping

The following records must be kept by the archaeologist, construction contractor and the Diocese Project Manager:

- Any archaeological salvage of cultural material prior to and during construction; and,
- Any breaches of the approval conditions and/or this ACHMSP, and the incident report provided to Heritage NSW.

7.3 Incidents

If an incident occurs that results in actual or potential impacts on known heritage items and/or archaeological items that are discovered unexpectedly, Heritage NSW will be informed immediately.

The report to Heritage NSW should also be sent to the Diocese Project Manager and the archaeologist and include the following information:

- Any contravention to the strategies outlined in the ACHMSP;
- The nature of the incident;
- The actual or likely impact of the incident on Aboriginal objects and/or Aboriginal places;
- The nature and location of the Aboriginal objects and/or places, referring to and providing maps and photos where appropriate; and,
- The measures which have been taken or will be taken to prevent a recurrence of the incident.

7.4 Reporting

Reporting requirements and responsibilities of heritage related issues should be documented as outlined in Table 7 below:

Action	Responsibility
A short summary of the report	Archaeologist
Describe any ongoing consultation with or involvement of RAPs	Project Manager/Archaeologist
Provide details of the Aboriginal objects which were fully or partially harmed in the course of undertaking the construction	Construction contractor/Project Manager/Archaeologist
Detail any community collection of Aboriginal objects undertaken by the RAPs	Archaeologist
Comment on the effectiveness of any mitigation measures that were implemented	Construction contractor
Comment on the effectiveness of any mitigation plan which was in place	Construction contractor
If any Aboriginal objects were moved to a temporary storage location, a description of the nature and types of Aboriginal objects which are now at that location	Archaeologist
Detail the results of any analysis of Aboriginal objects	Archaeologist
Detail the long term management arrangements for any Aboriginal objects	Archaeologist

Table 7: Reporting Roles and Responsibilities

8 TRAINING AND AWARENESS

The construction contractor must comply with all Diocese WHS manuals and procedures. Prior to the commencement of construction, the construction contractor must undertake a cultural heritage induction which will include the following:

- A description of Aboriginal cultural heritage in Australia;
- A description of Aboriginal cultural heritage in the Cumberland Plains region;
- A description of the tangible and intangible aspects of Aboriginal heritage and why it is important;
- An overview of the *National Parks and Wildlife Act 1974* and the *Heritage Act 1977* and the implications and fines applicable for breaching the Acts;
- A general overview of cultural heritage site types (refer to Appendix I);
- The process for reporting unknown cultural heritage sites;
- The process for reporting damage to cultural sites; and,
- The process for reporting human remains.

9 REVIEW AND IMPROVEMENT

9.1 Continuous Improvement

Opportunities for the improvement of this CHMP will be found through the ongoing evaluation of environmental management performance against environmental policies, objectives and targets. The purpose of this is to:

- Identify opportunities for the improvement of environmental management and performance;
- Determine the cause or causes of non-conformances and deficiencies;
- Development and implementation of a plan of corrective and preventative actions to address any non-conformances and deficiencies in this ACHMSP;
- Corroborate the efficiency of the corrective and preventative actions;
- Document any changes in procedures resulting from process improvement; and,
- Revise the objectives and targets of this CHMP accordingly.

9.2 ACHMSP Update and Amendment

This will occur as needed. A copy of the updated ACHMSP and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure. The ACHMSP will also be updated and resubmitted for approval in the event a previously unidentified heritage item is found.

10 REFERENCES

- Allen, J., & O'Connell, J. F. (2003). The Long and the Short of It: Archaeological Approaches to Determining When Humans First Colonised Australia and New Guinea. *Australian Archaeology*, 57(Shaping the Future Pasts: Papers in Honour of J.Peter White), 5-19.
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- Australia ICOMOS. (2013). *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*. Burwood, VIC: Australia ICOMOS Incorporated.
- Biosis. (2017). *Updated Balranald Sun Farming Project, NSW: Archaeological Report*. Prepared for Overland Sun Farming Company Pty Ltd.
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- DEC. (2005). *Draft Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation*. Sydney, NSW: Department of Environment and Conservation
- DECCW. (2010a). *Aboriginal Cultural Heritage Consultation Requirements for Proponents*. Sydney South: Department of Environment, Climate Change and Water NSW
- DECCW. (2010b). *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. Sydney South: Department of Environment, Climate Change and Water NSW
- Kayandel. (2018). *Proposed Redevelopment of St Anthony of Padua Catholic School 125-165 Tenth Avenue (Lot 2 DP1232692 and Lots 842-839 DP2475) and, 170-140 Eleventh (Lot 1 DP1232692 and Lots 810-812 DP2475), Austral, Liverpool City Council LGA, NSW: Aboriginal Cultural Heritage Assessment Report*. Prepared for Pepper on behalf of Catholic Archdiocese of Sydney.
- OEH. (2011). *Guide to Investigating, Assessing and Report on Aboriginal Cultural Heritage in NSW*. South Sydney: Office of Environment and Heritage

APPENDIX I. Identifying Aboriginal objects and site types



Isolated stone artefact



Stone artefact scatter



Shell midden



Stone Quarry



Modified/Carved Tree



Burial



Aboriginal gathering and resource location



Hearth

Appendix II. Aboriginal Consultation Log

Date	Time	Nature of consultation	Action taken by:
22/09/2020	6:17pm	Sent draft Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) to all 20 RAPs for comment to address Conditions 23 and 30 of the SSD approval.	NS
23/09/2020	8:30am	Received acknowledgment of receipt of ACHMSP from Wyanita Tranter of GLALC	NS
24/09/2020	1:00pm	Phone calls attempted to 14 RAPs Gandangara Local Aboriginal Land Council, Darug Land Observations Pty Ltd, Barraby Cultural Services, Yurrandaali Cultural Services, Phil Khan Didge Ngunawal Clan, Darug Tribal Aboriginal Corporation, Wailwan Aboriginal Digging Group, Cubbitch Barta Native Title Claimants Aboriginal Corporation, Goobah, THOORGA NURA, Darug Custodian Aboriginal Corporation, Butucarbin Aboriginal Corporation and Kawul Cultural Services to ask if they had received the ACHMSP and if they had had a chance to read it, results of calls is details below	SC
24/09/2020	1:00pm	Phone call made to Gandangara Local Aboriginal Land Council and spoke to reception, they stated they had passed the email on to the Heritage team, they took my number and said they would get someone to call me back	SC
24/09/2020	1:00pm	Phone call made to John Carriage of THOORGA NURA who said he has no comments at this stage	SC
24/09/2020	1:00pm	I spoke with Basil Smith of Goobah who said he had received the email and read the document. Basil said he agrees with the mitigation measures in the management plan and that he has no comments otherwise.	SC
25/09/2020	7:53am	Received email from Glenda Chalker of Cubbitch Barta Native Title Claimants Aboriginal Corporation requesting hard copy of ACHMSP to be sent to her	NS
25/09/2020	3:41pm	follow up emails sent to the 17 RAPs who we had not yet received comments from, to ask if they had any comments regarding the recommendations or management strategies within the ACHMSP	SC
25/09/2020	1:00pm	Received email from Phil Boney of Wailwan Aboriginal Digging Group who said at this point I do not have any more to add to this project. Everything seems to be satisfactory. Thank you.	SC
28/09/2020	8:34am	Received email from Vicki Slater of Kawul Cultural Services who said she will take a look at it today.	SC
28/09/2020	12:46am	Received email from Phil Khan of Kamilaroi-Yankuntjatjara Working Group who agree & support your report & looking forward to working with you on this project'.	SC
28/09/2020	-	Hard copy of ACHMSP sent to Glenda Chalker of Cubbitch Barta Native Title Claimants Aboriginal Corporation	SC
28/09/2020	11:16am	Received comments from Justine Coplin of Darug Custodian Aboriginal Corporation who support the recommendations in this Draft report	NS
29/09/2020	10:23am	I spoke to Bo Field who said he is happy for us to proceed with the project as it is.	SC
29/09/2020	10:23am	Spoke to Vicki Slater of Kawul Cultural Services who said that she is happy with the recommendations and management strategies that are contained within the ACHMSP and that she does not have any additional management strategies to add.	SC
29/09/2020	10:23am	Received email from Lee Field who stated that 'I have reviewed and agree with the report associated with this project'.	SC
29/09/2020	10:37am	Spoke to Paul Boyd and Lilly Carroll of Didge Ngunawal Clan who said that she is happy with the recommendations and management strategies that are contained within the ACHMSP and that he does not have any additional management strategies to add.	SC

Approved Development of St Anthony of Padua Catholic School at 135-165 Tenth Avenue and 170-140 Eleventh Avenue, Austral, Liverpool City Council LGA,
NSW
Aboriginal Cultural Heritage Management Sub-Plan

30/09/2020	11:15am	Received comments from Cubbitch Barta Native Title Claimants Aboriginal Corporation via email	NS
1/10/2020	12:52pm	Issued final ACHMSP to all 20 RAPs via email (attached as pdf)	SC
20/05/2022	5:37pm	Sent the DRAFT Aboriginal Cultural Heritage Management Sub-Plan for review and comment to RAP	DA
2/06/2022	7:38am	Glenda Chalker (CBNTCAC) requested a hard copy of the ACHMSP be posted to her	DA
9/06/2022	10:16am	Received email from Justine Coplin (DCAC) advising she was having trouble opening the ACHMSP OneDrive link	DA
9/06/2022	12:32pm	Emailed Justine (DCAC) a pdf copy of the ACHMSP	DA
10/06/2022	-	Express posted a hard copy of the ACHMSP to Glenda Chalker (CBNTCAC)	NS
22/06/2022	11:15am	Sent a follow up for the DRAFT Aboriginal Cultural Heritage Management Sub-Plan's review and comment to RAP	DA
29/06/2022	11:38am	Received comments from Kadibulla Khan (Kamilaroi-Yankuntjatjara Working Group)	DA

Appendix III. 2022 RAP Comments

From: Phil Khan <philipkhan.acn@live.com.au>

Sent: Wednesday, June 29, 2022 11:38 AM

To: Divina Alfonso <divina.alfonso@kayandel.com.au>

Subject: Re: Kayandel Project - KA-175 St Anthony of Padua Catholic School at 135-165 Tenth Avenue and 170-140 Eleventh Avenue, Austral, Liverpool City Council LGA, NSW

Dear Divina,

Thank you for your St Anthony of Padua Catholic School at 135-165 Tenth Avenue and 170-140 Eleventh Avenue, Austral, NSW.

The whole study area and surrounding area is of high significance to us Aboriginal Peoples, for tens of thousands of years the area has been occupied by Aboriginal Peoples, in turn We have a deep connection to the sky, water ways and land. The area would have been utilised for daily activities such as camping, hunting, fishing and ceremonial practices etc. There are water ways within the area that are utilised by Aboriginal Peoples. Yes, it's the tangible aspects that archaeology looks for but it's also the intangible and aesthetic aspects that must be considered when it comes to cultural heritage. There are stories of the dreaming and creations stories that should be sort when it comes to place and connecting to country.

Sky knowledge is a place to start understanding the sky is like a reflection of the land for Indigenous Peoples. An example that is relevant to the area is the dark emu in the sky (better known as the darks space within the milky way). The emu provides knowledge of what's happen on the land for instance hunting times, seasonal change and travel routes can be recognised by looking into the night sky. It's this knowledge that get missed time and time again.

We can also understand the knowledge of sustainability and or agricultural practices along with aquaculture knowledge of occupation that occurred before colonisation, Australia is one big estate that was managed and cared for by Aboriginal Peoples still today. We must consider burials when excavating the land as we are unaware of the locations of such burials due to colonisation and disposition of the land.

Fire played a big part in the Aboriginal lifestyle as the flora needs to be burnt to rejuvenate, this was known by Aboriginal people and was carried out seasonally. The Aboriginal people moved around seasonally and knew the land very well, in fact they could read the land navigating them around, like they used the sky to navigate around and to understand the weather from reading the sky and stars at night. We Aboriginal people hold a connection to the sky and many of our dreaming stories are told through the stars and constellations along with the land and wildlife.

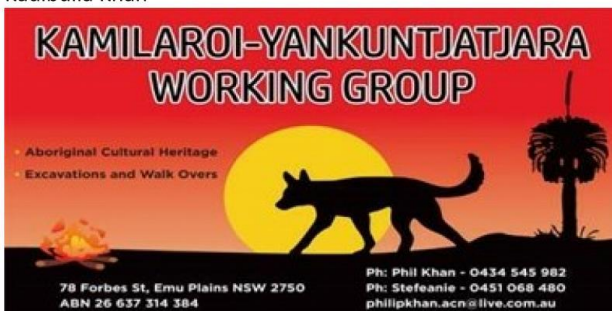
The study area is significant due to the multiple water ways in an ecosystem rich. The main water way that is close by to the site are Kemps Creek. This water way runs across the land utilised by many for many reasons such as fresh water, bathing, gathering of food and for everyday life activities. Water is a giver of life without water we would not be here so we should respect, conserve and manage water ways as naturally as possible and keep them

maintained. Aboriginal people have been following waterways for tens of thousands of years a sense of way finding and a deep connection we hold.

Is there a cultural interpretation plan for this project? due to the project being accessed by the wider community we believe there is an opportunity to archive connecting with country through design, art, digital displays, apps, native gardens, or landscaping. It is important to incorporate interpretation into you project as it educates the wider community and our next generations about the traditional owners of the land, a keeping place should also be sort to house artefacts on country. This is a way in which to close the gap and better our understanding of one of the oldest continuing cultures in the world.

We would like to agree to your report and look forward to furthering consultation for this project.

Kind Regards
Kadibulla Khan



From: Divina Alfonso <divina.alfonso@kayandel.com.au>
Sent: Friday, 24 June 2022 4:01 PM
To: Phil Khan <philipkhan.acn@live.com.au>
Subject: RE: Kayandel Project - KA-175 St Anthony of Padua Catholic School at 135-165 Tenth Avenue and 170-140 Eleventh Avenue, Austral, Liverpool City Council LGA, NSW

Hi Phil,

Sorry for this. Please see attached file for your checking.

Thank you.

Regards

Divina Alfonso
Assistant



PO Box 440, Picton NSW 2571
Tel. +61 (0)2 4627 8622 Fax. +61 (0)2 4605 0815
Please consider the environment when printing this email.

From: Phil Khan <philipkhan.acn@live.com.au>
Sent: Friday, June 24, 2022 1:55 PM
To: Divina Alfonso <divina.alfonso@kayandel.com.au>

Appendix 8: Unexpected Finds Protocol

Unexpected Finds Protocol

In the event of an unexpected find, immediately cease work and contact the site foreman.



Site foreman to construct temporary high visibility barricading to prevent worker access to the area. Foreman to apply appropriate stormwater/sediment control measures.



Site foreman to take arrange an inspection by the Environmental Consultant



Environmental Consultant to undertake a detailed site inspection and collect representative samples for analysis as per documented sampling procedures outlined in this RAP.

Environmental Consultant to assess field screening and/or laboratory analytical results against documented site Clean-Up criteria outlined in this RAP



If substance is assessed as not presenting a risk to human health, then:



Site foreman to remove safety barricades and environmental controls and continue works



If substance is assessed as presenting a risk to human health, then:



Environmental Consultant to supervise remediation & undertake validation sampling as required. An addendum to this RAP may be required.



Site foreman to remove safety barricades and environmental controls and continue works



Note: Results of testing and disposal location to be advised to the planning secretary



Environmental Consultant to submit an assessment/validation/clearance to site foreman for distribution to Client and appropriate regulatory authorities.