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# Construction Environmental Management Plan Wentworth Point new High School

7 Burroway Road, Wentworth Point, NSW 2127

RobertsCo 26 October 2022 AU122229 CEMP Final R01

# **Quality Management**

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This report was prepared in accordance with the scope of services set out in the contract between Geosyntec Consultants Pty Ltd (ABN 23 154 745 525) and the client.

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# **1** Introduction

# 1.1 Project Background

Geosyntec Consultants Pty Ltd (Geosyntec) was engaged by RobertsCo Pty Ltd (the Client), to prepare a Construction Environmental Management Plan (CEMP) for the Wentworth Point new High School redevelopment project, located at 7 Burroway Road, Wentworth Point, NSW (the project site). The site location is presented in Figure 1 and the site layout is presented in Figure 2, Appendix A.

As per the 2022/2023 budget papers, this is now referred to as "Wentworth Point new high school". Future documentation relating to this project, including this document, will be labelled accordingly.

Due to the SSD-11802230 application being submitted as "Sydney Olympic Park new high school", the project name will remain the same on the Planning Portal and future documentation may reference this.

Please also note 'Wentworth point new high school' is the placeholder name for the school. The school naming will occur closer to opening, following a community consultation process.

Based on review of current spatial data, the site is legally identified as Lot 1 in DP 121276305, and occupies an area of approximately 1 ha. The site is currently vacant land which has been partially capped with up to 2m of certified Virgin Excavated Natural Material (VENM). The proposed redevelopment is understood to include school buildings and open space areas within the development footprint, and is consistent with the definition of 'HIL C' as presented in Schedule B1 of National Environment Protection (Assessment of Site Contamination) Measure (1999) as amended in 2013 (NEPM 2013), which includes public open space land use and secondary schools.

Mr Andrew Lau from JBS&G, a NSW EPA accredited Site Auditor, has been appointed by Schools Infrastructure NSW to conduct an audit of the proposed school development with respect to land contamination. This is to ensure that the investigations and any remedial works are undertaken in accordance with the requirements of the NSW Contaminated Land Management Act (1997) so that the land is fit for purpose and meets requirements of **SSD-11802230**, dated 14 October 2022.

The site is impacted with contaminants associated with previous light industrial land use, filling, hazardous building materials, and suspected petroleum storage and infrastructure.

A Remediation Action Plan (RAP) was prepared by Parsons Brinckerhoff (PB) in 2015 for a portion of land identified as Area 1 (part of a wider area known as Stage 1), which included the site.

In 2019, Stage 1 remediation works were undertaken on the wider peninsula site which involved the placement of a cap on part of the area occupied by the proposed school site. The capping works were undertaken by Landcom with Zoic Environmental being the environmental consultant and Mr Andrew Lau appointed as the NSW EPA accredited Site Auditor for these works. Details of the capping works were presented in the following document:

 Zoic Environmental (March 2020) Interim Validation Report Early Works Package Headland Park Wentworth Point Development, 7, 9 and 11 Burroway Road, Wentworth Point, NSW 2127 (Ref: 18170 EW VAL).

The report confirms the placement of capping material in the same configuration that is presently located in this area with the completed works being endorsed by the Site Auditor.

In March 2022 Geosyntec Consultants (formerly Zoic) prepared a RAP addendum:

• Geosyntec (1 March 2022) Remedial Action Plan Addendum, 7-9 Burroway Road, Wentworth Point, NSW 2127 (Ref: 21607 RAP Addendum).

The RAP addendum was to advise on required additions / amendments to the approved PB (2015) RAP, to enable the site to be remediated to a suitable condition for the revised end use of the site as a school. The RAP addendum required: validation criteria updates, remediation requirements for identified underground storage tanks and other infrastructure, validation works sampling and analysis plan, requirements for reinstatement of the marker and capping layer following excavations, management measures for the previously placed cap in the western portion of the site, and discussion of ground gas protection systems.

The RAP addendum was endorsed by the Site Auditor, and **condition C32(c) of the SSD** states the recommendations of the Remedial Action Plan Addendum (1 March 2022 prepared by Geosyntec) must be complied with.

An Interim Audit Advice (0503-2109-002), dated 23 February 2022 ((JBS&G 60990-144,002) was prepared to ensure the remediation works were valid and appropriate. The requested actions detailed in this Advice must be complied with.

The preferred remedial strategy as presented in the PB (2015) RAP, and addendum Geosyntec (2022) RAP, included development of a CEMP for implementation through the remediation and redevelopment works for the infrastructure phase of the project. This CEMP has been prepared in general accordance with the requirements as described in the PB (2015) RAP, the addendum Geosyntec (2022) RAP, the Interim Audit Advice and the draft SSD conditions, and has been adapted to meet the requirements of the site.

### 1.2 Project Description

The proposed development is for the construction and operation of a school known as Wentworth Point new high school.

The Wentworth Point new high school (previously known as the Sydney Olympic Park new high school) is a new high school for 850 students.

# 1.3 CEMP Objectives

This document provides a framework necessary to implement the required management measures associated with proposed excavation and construction works. Once implemented the objective of the management measures will be to ensure that any earthworks on onsite can be carried out without significant adverse impact on the environment or the health of site workers and neighbouring residence.

This CEMP will focus on mitigation and management of environmental and human health issues associated with the earthworks proposed at the site. The management and monitoring aspects and Principal Contractor responsibilities are covered in this CEMP. The CEMP provides task specific (i.e. operational hours, noise management, traffic control, waste management, erosion sediment control) measures for the proposed works and the relevant sub plans referenced within the appendices.

The aims and objectives of the CEMP are to:

- Describe the nature and scope of anticipated environmental impacts, address relevant legislation and approval conditions, and outline actions to be taken to ensure compliance and to mitigate the environmental impacts identified before and through the execution of the construction contract
- Establish the environmental management process involving cooperation between all parties involved in construction to ensure understanding of the key environmental issues for this project so that objectives and targets are met. Standard and site-specific procedures and equipment for mitigation of environmental damage will be implemented

- Identify statutory and non-statutory responsibilities
- Document the environmental management process.

The CEMP ensures the aims and objectives are met through the following:

- Documenting all measures to be taken to manage identified impacts
- Providing a clear indication of the respective environmental responsibilities
- Setting standards and/or performance measures for the relevant environmental issues associated with the construction work
- Describing what actions and measures will be implemented to mitigate the potential impacts of these construction works and ensuring that these works will comply with the relevant standards and/or performance measures
- Describing what procedures will be implemented to register, report and respond to any complaints or non-compliances during the construction works.

The plan addresses **Condition B13 of the SSD-11802230** and includes information / requirements pertaining to (but not limited) to the following:

Reference

#### Table 1.1 SSD-11802230 Condition B13 Requirements

#### Description

Description				
(a)	Details i)	of: Hours of work;	Section 2.6, Development Consent Conditions	
	ii)	24-hour contact details of site manager;	Section 9, Contacts	
	iii)	Management of dust and odour to protect the amenity of the neighbourhood;	Section 4.5, Air Quality Management	
	iv)	Groundwater management plan including measures to prevent groundwater contamination;	Section 4.8.2 Groundwater Management	
	V)	External lighting compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting;	Section 4.9, Construction Lighting	
	vi)	Community consultation and complaints handling as set out in the Community Strategy required by Condition B9	Section 5.2 External and government authority communications	
(b)	<ul> <li>(b) an unexpected finds protocol for contamination and associated communications procedure to ensure that potentially contaminated material is appropriately managed;</li> </ul>		Section 4.11, Contaminated Land and Appendix B - Unexpected Finds Protocol	
(c)	c) Construction Traffic and Pedestrian Management Sub-Plan		Appendix D	
(d)	(d) Construction Noise and Vibration Management Sub-Plan		Appendix E	
(e)	e) Construction Waste Management Sub-Plan		Appendix F	
(f)	Constru	ction Soil and Water Management Sub-Plan	Appendix G	
(g)	Constru	iction Flood Emergency Management Plan	Appendix H	

# 1.4 Certification and Approval

As per condition B13 of the SSD-11802230, prior to the commencement of construction, the Applicant must submit the Construction and Environmental Management Plan (CEMP) to the Certifier and provide a copy to the Planning Secretary for information.

# **2** Statutory and Licence Requirements

This CEMP documents statutory requirements that relate to the works. These include:

- General legislative requirements which apply to construction projects.
- Specific approvals, licences and permits required as part of the implementation of the early works phase.

### 2.1 Project environmental obligations

All construction personnel working on the project have the following general obligations:

- Minimise pollution of land, air and water.
- Use pollution control equipment and keep it in proper working order.
- Preserve the natural and cultural heritage environment.
- Keep the community informed of project works in accordance with RobertsCo Community Engagement Policy.
- Take all feasible and reasonable steps to ensure compliance with the requirements of this CEMP.

# 2.2 Legal and other requirements

In general, all activities carried out onsite must comply with the provisions of all legislation relating to the construction and operation of the Project.

Key planning legislation requirements are listed in Table 2.1 below.

#### Table 2.1 List of Legal and Legislative Requirements

Legislation / Policy (Administering Authority)	Summary of Legislation Requirements	Approvals/Permits or Licences Required
Contaminated Land Management Act 1997 (NSW Office of Environment & Heritage (OEH))	Establishes a process for investigating and, where appropriate, remediating land where contamination presents a risk of harm to human health and/or the environment.	Waste classification is required to be conducted for material disposed offsite. No further approvals required, however management of contaminated soils is to occur in accordance with the waste management plan outlined in this CEMP.
Environmental Planning and Assessment Act 1979	Works must proceed in accordance with the consent provided, including any conditions.	Comply with the Development Consent conditions. Planning approval is required for any changes which are not in accordance with the Development Consent conditions.
Environmental Protection and Biodiversity Conservation Act (1999) (Commonwealth Department of Environment and Water Resources)	The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities, and heritage places – defined in the EPBC Act as Matters of National Environmental Significance (MNES). In addition, the EPBC Act confers jurisdiction over actions that have significant impact on the environment where the actions affect, or are taken on, Commonwealth land, or are carried out by a Commonwealth agency (even if that significant impact is not on one of the nine matters of 'national environmental significance').	

Legislation / Policy (Administering Authority)	Summary of Legislation Requirements	Approvals/Permits or Licences Required
Environmentally Hazardous Chemicals Act 1985 (OEH)	<ul> <li>Regulates the disposal of wastes issued with a "chemical control order" and designated chemical and chemical wastes (including asbestos).</li> <li>Disposal requirements for asbestos are identified under the Protection of the Environment Operations Act 1997 (POEO)</li> <li>Other chemical wastes designated under this act are:</li> <li>Polychlorinated Biphenyls (PCB)</li> <li>Pesticide wastes including used pesticide containers</li> <li>Copper/chrome/arsenic (CCA) wastes.</li> </ul>	No requirements for permit or licence identified.
Heritage Act 1977 (OEH)	Protects all items of environmental heritage (natural and cultural) in NSW. The Act does not apply to Aboriginal "relics".	The site is not listed under the Heritage Act
Local Government Act 1993	Controls environmental impacts including noise, pollution and nuisance not controlled under the POEO Act. Provides for licensing of trade waste discharges, in conjunction with the <i>Liquid Trade Waste</i> <i>Guidelines</i> .	Approval required.
National Parks and Wildlife Act 1974	Provides protection for most fauna species and protected flora. Provides protection for indigenous heritage in NSW. It is an offence: to harm animal which is part of a Threatened Species, Population or Ecological Community; to pick any plant which is part of a Threatened Species, Population or Ecological Community. It is also an offence if a person knows that an area of land is the habitat of a Threatened Species, Population or Ecological Community, to do something or fail to do something that causes damage to that habitat.	There are no Threatened Species which have been identified. The potential for indigenous artefacts, based on the former site use as landfill, considered low.
Noxious Weeds Act 1993 (NSW Department of Primary Industries)	Provides for the identification, classification and control of noxious weeds in NSW. Applies to the management and disposal of noxious weeds if found and removed during works.	No approvals required.
Protection of the Environment Operations Act 1997 (OEH)	Environment protection licences are required for scheduled activities. Provides for the control of polluting activities in NSW to prevent pollution to the environment. Provides a duty to notify OEH of any environmental harm from site activities. Waste Classification is required prior to the removal of waste (including fill/soil) form a site to establish the appropriate means of disposal.	No requirement for an Environment Protection Licence identified for scheduled activities. Waste classification assessment and waste classification certificates (produced by a qualified environmental assessor) are required prior to disposal and are required to accompany all waste soils materials being transported to waste facilities that are licenced by the NSW EPA to accept the respective class of waste. Transport contractors must be appropriately licensed to transport the class of waste they are carrying. NSW EPA is the appropriate regulatory authority for the works.
Soil Conservation Act 1938 (OEH)	Controls activities causing or likely to cause soil erosion or land degradation.	No requirements for permit or approval or licence identified.

Legislation / Policy (Administering Authority)	Summary of Legislation Requirements	Approvals/Permits or Licences Required
	Project activities must prevent soil erosion or land degradation.	
Biodiversity Conservation Act 2016 (BC Act)	This Act protects Threatened Species, Populations and Ecological Communities.	No requirements for permit or licence identified.
Waste Avoidance and Resource Recovery Act	Promotes the waste management hierarchy (avoidance, resource recovery, and disposal).	No requirement for permit or approval or licence identified.
2001 (OEH)		Where possible, excavated material is to be reused onsite.
Waste Management Act 2000 (NSW Office of Water)	Controls water use for excavation activities and in areas of groundwater management.	It is considered unlikely that groundwater will intrude into excavations; however, a temporary groundwater dewatering licence may be required if excavations require dewatering during works.

# 2.3 Approvals, permits and licensing

The Contractor (to be engaged by RobertsCo) will be required to comply with all the relevant prescribed conditions of the development consent.

#### 2.4 Environmental aspects and impacts

A risk management approach will be used to determine the severity and likelihood of an activity's impact on the environment and to prioritise its significance. This process considers potential regulatory and legal risks as well as taking into consideration the concerns of community and other key stakeholders.

The objectives of risk assessment are to:

- Identify activities, events or outcomes that have the potential to adversely affect the local environment and/or human health/property.
- Qualitatively evaluate and categorise each risk item.
- Assess whether risk issues can be managed by environmental protection measures.
- Qualitatively evaluate residual risk with implementation of measures.

Appendix K includes a risk assessment of the potential impact of works on environmental aspects. Measures to minimise the identified environmental risks are also provided.

### 2.5 Objectives and targets

As a means of assessing environmental performance during works, environmental objectives have been established. Environmental objectives and targets for the Project are provided in Table 2.2 below.

Table 2.2	Objectives	and Targets
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Objective	Target	Measurement Tool
Undertake Stage 1 works of the project in accordance with the development consents	Full compliance with statutory approvals.	Inspections, audits (where necessary).

Objective	Target	Measurement Tool
Compliance with all legal requirements	No regulatory infringements. No formal regulatory warning.	Inspections, audits (where necessary).
Minimise impacts on Homebush Bay sediments where possible	Ensure implementation of the erosion and sediment control requirements of the development consents.	Inspections, audits (where necessary).

# 2.6 Development Consent Conditions (Construction Hours)

Consent working hours are:

Day	Start Time	Finish Time
Monday to Friday	7.00 am	6.00pm
Saturday	8.00am	1.00pm
Sundays and Public Holidays	NOWORK	

Other relevant consent conditions:

- Providing noise levels do not exceed the existing background noise level plus 5dB, works may also be undertaken during the following hours:
  - Between 6.00 pm and 7.00 pm Mondays to Friday;
  - Between 1.00 pm and 4.00 pm Saturdays.
- Rock breaking, rick hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:
  - 9.00 am to 12.00 pm Mondays to Friday;
  - 2.00 pm to 5.00 pm Monday to Fridays; and
  - 9.00am to 12.00pm Saturdays.

# 3 Implementation of This CEMP

The roles and responsibilities associated with the works are summarised below:

#### 3.1 Roles and Responsibilities

#### 3.1.1 Roles

Description of the key roles of involved parties is provided below.

#### **Project Manager and Site Superintendent**

- Maintain communication between Principal Contractor, the Environmental Consultant and the appointed Site Auditor
- Ensure compliance with any relevant conditions of the DA consent and regulatory requirements

#### **Principal Contractor**

For the purpose of this CEMP, the Principal Contractor means the Principal Contractor, or their appointed delegate.

- Ensure all appropriate licences and consents are obtained for the early works;
- Ensure all sub-contractors comply with statutory and licence requirements;
- Ensure that all WH&S regulatory requirements are met including preparation, maintenance, implementation and administration of a Health and Safety Plan;
- Ensure implementation of the CEMP at a site level;
- Ensure all records are completed as required in the CEMP;
- Ensure that all environmental protection measures are in place and functioning correctly;
- Ensure daily site inspections (WH&S and environmental) are undertaken and recorded and reported appropriately;
- Undertake continual visual monitoring of surface water within the works area;
- Ensure incident reports and complaint reports are completed and followed up as required;
- Ensure adequate training of all employees and contractors;
- Ensure monitoring is conducted as required in the CEMP and sub-plans;
- Ensure non-conformance and corrective action reports are reported to the Project Manager;
- Ensure corrective actions are undertaken in response to the requests made by the Project Manager regarding specific environmental or safety issues; and
- Ensure all sub-contractors comply with statutory and licence requirements and conditions of the CEMP and sub-plans.

#### Principal Contractor's Environmental Manager / Coordinator

- Supervise the construction activities and ensure all environmental controls are in place.
- Monitor daily work routines so that environmental controls are established and maintained as per the CEMP and detailed mitigation measures.

- Monitor daily work routines so that environmental protection requirements are communicated to all personnel and contractors under his/her control.
- Where necessary stop work activities until adequate environmental safeguards have been implemented.
- Identify areas of improvement.
- Ensure environmental issues are communicated to all site staff.

#### **Other Contractors**

- Ensure work instructions reflect the requirements of this CEMP and other sub-plans.
- Ensure all requirements of the CEMP are implemented.
- Ensure all required records/documentation are maintained and submitted to the head contractor.
- Ensure training/induction of personnel is carried out and that staff operate in an environmentally responsible manner.
- Undertake and report on all monitoring and inspections completed.
- Report all environmental incidents and near misses.

## 3.2 Training and Control Measures

#### 3.2.1 Site Work Inductions

The Principal Contractor, is responsible to ensure all personnel including sub-contractors will receive a site induction prior to commencing work, including:

- Role of the CEMP and associated documents.
- Project responsibilities.
- Hours of work.
- Known areas of site contamination and associated hazards/precautions.
- Water quality protection including erosion and sediment control.
- Traffic and access, including car parking.
- Dust management and control.
- Waste management.
- Emergency and incident management procedures.

The only exception to the above is for personnel working on site for short periods only (e.g. consultant or site visitor). These personnel must sign into and out of the site in accordance with site procedures, and must be escorted on site at all times.

Inductions will be recorded in an induction register, which shall be maintained by the Principal Contractor, or their appointed delegates.

#### 3.2.2 Toolbox Talks, Training and Awareness

Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction. Toolbox talks will include details of specific environmental issues relevant to upcoming works.

Toolbox attendance is mandatory and attendees of toolbox talks are required to sign an attendance form and the records maintained.

#### 3.2.3 Daily Work Briefings

The daily work briefing is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

The **Principal Contractor's Environmental Manager / Coordinator** will conduct a daily work briefing with the site workforce before the commencement of work each day.

The environmental component of pre-starts will be determined by relevant **Principal Contractor's Environmental Manager / Coordinator** and will include any environmental issues that could potentially be impacted by, or impact on, the day's activities. All attendees will be required to sign on to the daily work briefing and acknowledge their understanding of the issues explained.

Prestart topics, dates delivered and a register of attendees will be recorded.

#### 3.2.4 Personal Protective Equipment

All site personnel will be provided with, utilise, and be appropriately trained in the requirements of personnel protective equipment (PPE). PPE requirements will depend on the activity of situation, but may include the following:

- High visibility clothing
- Protective clothing and footwear
- Eye protection
- Respirable (half-faced) masks as required
- Hard hat as required (i.e. in the vicinity of plant)
- Sun protection as required (long sleeves, sunscreen, wide brimmed hat fittings)

Personnel will be trained in the requirements and use of PPE to an appropriate level according to responsibilities.

PPE requirements should be detailed in the Safe Work Method Statements (or similar) which will be provided to the Principal Contractor for review and endorsement. Additional PPE will be required to carry out some aspects of the construction process and the PPE outlined above should only be considered as the basic requirements. Additional PPE will be required if works are to be conduction in asbestos environs.

# 4 Environmental Impacts and Controls

The following sections provides an overview of environmental issues typically encountered, and specific indicative control and/or mitigation measures that should be adopted by all contractors as a minimum, during the project.

Environmental issues that have been identified through the environmental impact assessment for this site has been used to inform this section.

# 4.1 Signage

A sign must be erected in a prominent position on any site involving construction works including excavation, erection or demolition detailing:

- Unauthorised entry of the work site is prohibited
- The name of the Principal Contractor (or person in charge of the work site), their telephone number enabling 24-hour contact
- The name, address and telephone number of the certifier
- The development consent approved construction hours
- The sign must be maintained during excavation, demolition and building work, and removed when the work has been completed

**Condition B26 of the SSD** requires that the Applicant submit an application for proposed signage (including signs to facilitate waste collection and drop/off/pick-up facilities) and relevant surrounding streets to the relevant road authority for approval

# 4.2 Vehicle and Traffic Control

The Contractor will be responsible for ensuring adequate traffic control measures are in place to ensure site safety. In compliance with **condition B25**, a Traffic and Pedestrian Management Sub-Plan has been prepared for the site by STC Consulting, and is presented in Appendix D. Traffic must be managed in accordance with the Traffic and Pedestrian Management Sub-Plan.

Vehicles shall also be maintained to prevent the transfer of mud or wastes onto adjacent streets or other areas, to comply with **condition B18**. If wheel treads contain significant quantities of site soils, the Contractor will provide a wheel wash or manually remove and dispose in stockpiles. A temporary construction vehicle exit will be implemented to prevent tracking of sediment. This will include a timber sleep or metal grid and berm over a gravel bed underlain by geotextile. Details of this temporary construction vehicle exit can be found in the Construction Soil and Water Management Sub-Plan (Appendix G).

As per **condition C9**, all construction vehicles (excluding site personnel vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site or an approved on-street work zone before stopping.

As per **condition C13**, construction vehicles (including concrete agitator trucks) do not arrive at the site or surrounding residential precincts outside of the construction hours of work outlined in the conditions of consent.

#### 4.2.1 Construction Traffic Management Plan

A Construction Traffic Management Plan (CTMP) was written by SCT Consulting as per **condition B15** and is provided in Appendix D.

The Management Plan assumes approximately 84 daily general delivery vehicle movements (42 in and 42 out) on peak days.

The CTMP presents a number of mitigation measures for managing construction traffic impacts, the cumulative impacts of which are considered to be limited relative to the amount of traffic around the Airport. This includes:

- Providing route options for both approaching and departing traffic. This includes an alternative route for school peak periods to avoid the school zone.
- Providing site access points, noting one entry point is existing and another one will be a temporary layback which will require construction.
- Implementing specific procedures for vehicles exiting the site and queuing to enter the site, including a swept path which will require the modification of an on-street parking space to a "No Stopping" zone.
- Specific areas designated as site parking for workers.
- Ensuring neither traffic lanes, pedestrians or public transport routes are affected by the Traffic Management practices on site.
- Providing a Truck Driver Code of Conduct.

The CTMP also provides strategies of the mitigation of impacts which include:

- A Design for Manufacture and Assembly (DfMA) approach.
- Encouraging carpooling.
- Limiting heavy vehicle use of Burroway Road during school pick-up and drop-off hours.
- Covering truckloads transported off-site.
- Material delivery and removal during standard construction hours.
- Avoidance of idling trucks near sensitive receptors.
- Planning of deliveries to reduce number of trucks arriving at the same time.
- Scheduling of all truck movements.
- Vehicles entering and exiting the site to follow a forward direction along a specified travel path.
- Drivers to be instructed to give way to pedestrians and cyclists.
- Conversion of Burroway Road into a contraflow lane operation to prevent impacts to Marina Square customers.
- Traffic controllers to assist with trucks entering or leaving the site.

#### 4.3 Noise and Vibration Management Sub-Plan

As stated in **condition B16**, construction noise must be managed in accordance with the NSW Department of Environment and Climate Change (DECC) *Interim Construction Noise Guideline* (2009).

Construction hours will be limited to allowable hours as specified in the Development Consent Conditions.

Norman Disney & Young have prepared a Construction Noise and Vibration Management Plan (Appendix E), which must be complied with during the project.

The Construction Noise and Vibration Management Plan includes noise and vibration control measures to enable works associated with the main works and construction of the Wentworth Point new high school.

Expected construction activities include:

- Piling
- Excavation
- Concrete pouring
- Material transport
- Façade / fitout works

The following specific mitigation measures for minimising noise are to be adopted:

- Localised barriers / hoarding to minimise noise emissions to Wentworth Point Primary School;
- Minimise number of trucks running simultaneously during works programming;
- Selection of quiet / muffled equipment;
- Trucks and other vehicles should use non-tonal reversing alarms;
- Vehicle warning devices such as horns will not be used as signalling devices;
- Dropping equipment/materials from a height or into trucks is to be avoided;
- Limit timing amount of time each equipment is able run will further reduce noise emissions.

The scope of work is expected to adhere to construction vibration guidelines, with the most intensive activity being the piling works. If any issues or complaints arise, appropriate monitoring will be deployed to establish the cause and levels of vibration. This will inform mitigation measures required. A safe working distance from machinery will be ensured according to the Construction noise and Vibration Guideline 2016 which is summarised in Table 11 of Appendix E.

# 4.4 Construction Waste Management Sub-Plan

A Construction Waste Management Sub-Plan (CWMSP) has been prepared for the site, in accordance with **condition B17 of the SDD**.

The CWMSP outlines the controls required for management procedures for the site including:

- Recording of quantities, classification (for materials to be removed) and validation (for materials to remain) of each type of waste generated during construction and proposed use for materials to remain;
- information regarding the recycling and disposal locations; and
- confirmation of the contamination status of the development areas of the site based on the validation results.

The CWMP is presented in Appendix F.

#### 4.4.1 Excavated Soil and Stockpile Management

The following procedures outlined in the CWMSP must be undertaken prior to, during and following any soil excavation works at the site:

- The site will be fenced off to prevent access by site workers and the general public.
- Stockpiles containing asbestos are to be kept separate from all other types of materials.
- Excavated soils should be stockpiled on top of high-density polyethylene (HDPE) plastic lining (or equivalent) and covered with plastic sheeting in order to prevent the loss of soil from wind erosion (i.e. dust).
- Establish sediment controls around stockpiles via proposed sediments basins and/or hay bales and/or sandbags to prevent and control the loss of soils through water run-off, as well as

protecting any nearby stormwater drains and waterways. Where possible, locate stockpiles away from drainage lines.

- Cover soil stockpiles during any heavy rainfall events. Place sediment control devices (as detailed above) around stormwater drains and stockpiles, as required.
- Where possible, keep topsoil separate from under burden when stockpiling soils.
- Construct the stockpile with no slope greater than 2:1 (horizontal to vertical). A less steep slope may be required, where the erosion risk is high.
- No materials are proposed to be imported to the site as part of the early works and the only material proposed to be removed from the site is waste concrete from existing hardstand. Waste concrete is pre-classified as General Solid Waste under the NSW EPA (2014) Waste Classification Guidelines, however confirmatory assessment will be required upon lifting of the slab (e.g. visual inspection for presence of potential asbestos containing materials).
- Should stockpiles need to be removed and disposed off-site then soil stockpiles need to be classified for off-site disposal purposes in accordance with the NSW EPA (2014) Waste Classification Guidelines.
- Following the completion of excavation works, resultant trenches should be reinstated either with the stockpiled materials removed (i.e. cut-to-fill or spoil), or with certified VENM material.
- Equipment used for soil excavations must be cleaned of loose soil prior to that equipment being used in another area/s.

Waste classification and disposal documentation must be maintained and provided for the remediation validation report.

# 4.5 Air Quality Management

The Project / Site Manager will ensure that all construction facilities erected at the site are designed and operated to minimise the emission of smoke, dust, cement dust, plant and vehicle exhausts and other substances into the atmosphere.

The Principal Contractor and subcontractors shall employ construction methods that will keep the air pollution to a minimum and apply measures such as those listed below to ensure that airborne pollutants do not cause pollution and nuisance near the works:

- The spraying of disturbed soil and roads with water whilst under construction as required.
- The removal of mud from the wheels and bodies of plant and vehicles before it enters public roads or other sealed pavements. This could be rumble grids, dry brushing, wheel wash, etc., depending on the nature of the site.
- The removal of mud or dirt spilt by construction equipment onto public roads or other sealed pavements.
- The provision of coverings or stabilisation of topsoil stockpiles.
- Covering all loads leaving the site.
- Stabilisation of ground likely to be exposed for significant time periods (e.g., using sterile seed).
- Fitting power tools with dust collection devices where practical.
- Keeping all plant and equipment well maintained and not leaving them idling while not being used.
- Reporting excess air emissions from plant and arranging for a service to fix the problem.
- In the event that excessive dust is generated during any operations onsite, the work is to cease and modifications to the process made before operations are resumed. There must be no observable dust transport offsite.

Dust containing respirable crystalline silica particles is commonly called silica dust. Activities such as cutting, grinding, sanding, drilling, loading or demolishing products that contain silica can generate respirable particles of crystalline silica dust that are small enough to breathe into your lungs. Crystalline silica dust can be harmful when it is inhaled into your lungs over a long period of time at low to moderate levels, or short periods at high levels.

From the **1st of July 2020** in NSW dry cutting will be an offence and for those who choose to ignore the law and put their employees a risk, SafeWork inspectors will issue tough new fines for noncompliance.

All subcontractors working on the project that are using, drilling, cutting, sanding or grinding products that are known to contain silica will need to have a system in place that will allow their workers to either wet cut or drill, or will be required to use dust extraction systems on portable tools, or adopt other methods that eliminate or minimise the generation of silica dust.

#### 4.5.1 Asbestos Management Plan

An Asbestos Management Plan (AMP) has been prepared for the construction works at the site (Appendix I).

The AMP provides guidance and strategies for the handling, management and treatment of asbestos including the removal, transport and disposal of asbestos-impacted soils from the site if required, in order to protect the health of onsite workers, visitors and potential offsite receptors and prevent potential spread of asbestos contamination offsite.

The Principal Contractor shall ensure that:

- Workers undertaking work onsite must be trained and be given appropriate occupational health and safety training in relation to asbestos, asbestos awareness training and training in the identification of asbestos containing materials (ACM) which may be encountered during their work
- Workers undertaking work within the site must be inducted into the CEMP
- Workers undertaking work in areas where asbestos may be encountered must be inducted into this AMP
- Other visitors entering the site understand the site safety provisions, including those covered in the CEMP and this AMP, as required
- Persons undertaking site induction acknowledge that they have understood the requirements of the site safety and environmental obligations related to asbestos
- · Records of the site induction relating to asbestos must be kept

The implementation of the AMP should be audited at regular intervals throughout the duration of construction works to confirm that the requirements of the AMP are understood and being implemented and to assess its ongoing suitability.

#### 4.5.2 Odour, Ground Gas and Vapour

Geosyntec will monitor all open excavations and remediated soils with a PID and gas analyser to ensure ambient air concentrations are within the acceptable work safe limits. Concentrations of PID monitoring shall be recorded by field staff on a daily basis. If ambient air concentrations of Volatile Organic Compounds (VOCs) exceed 15ppm for over 30 minutes based on short term exposure limit of 15ppm for benzene (NOHSC 1995), work should cease until levels drop.

### 4.6 Construction Soil and Water Management Sub-Plan

A Construction Soil and Water Management Plan (CSWMP) has been prepared for the site, in accordance with **condition B18 of the SDD**.

The CSWMSP Soil and Water Management Sub-Plan outlines the controls required for management of erosion and sediments at the site during the construction works.

Measures included in the CSWMSP are to be installed in accordance with the publication 'Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) prior to the commencement of any demolition, excavation or construction works upon the site.

The CSWMSP includes requirements for sediment and erosion control devices, silt fences, vehicle access, storm water inlets, stockpiles and monitoring.

The CSWMSP is presented in Appendix G (to be Provided by Roberts Co).

The CSWMSP includes an Acid Sulfate Soils Management Plan (**as per condition B17(d)**), which is included in Appendix J of this CEMP.

## 4.7 Construction Flood and Emergency Management Sub-Plan

A Construction Flood and Emergency Management Plan (FEMP) has been prepared for the site, in accordance with **condition B19 of the SDD**.

The FEMP outlines:

- Flood behaviour in the vicinity of the site, including AEP and PMF events.
- Measures needed to monitor, prepare and plan for floods.
- Known formal flood warnings in the locality.
- Risk of flooding and Flood Hazard Classification.
- Strategies to assist with evacuation, including use of trucks.
- Flood Watches and Warnings.
- Mediums used to communicate flood and evacuation warnings, including general notice given.
- Flood response, including contractor responsibilities and key contact details.
- Emergency Assembly Point location (high point of the site) and evacuation route.

The FEMP concludes that:

- The Wentworth Point road network is generally above the 1% AEP flood level (1.42m AHD) so there is no concern of flood risk.
- The inundation period of a PMF event is longer than a day so the site must be shutdown in advance.

Preparation and Actions for Flood Response outlined in the FEMP includes:

- Monitoring and worker awareness of flood risk.
- Recommendation of evacuation drills at least twice a year.
- Preparation of a Flood Emergency Kit
- Steps for when a flood watch and flood warning is issues

## 4.8 Acid Sulfate Soil Management Plan

An Acid Sulfate Management Plan has been prepared for the site, in accordance with **condition B18 of the SDD**.

Potential acid sulfate soils are known to be present in underlying soils at the site, with potential acid sulfate soils are likely to exist below the water table i.e. 1.5m or below, PB (2015) RAP.

An Acid Sulfate Soil Management Plan (ASSMP, Appendix J) provides guidance on management of materials that are proposed for excavation at the site that may disturb Acid Sulfate Soils (ASS).

The Principal Contractor should appoint a suitably qualified person who will be responsible for managing ASS at the site during the proposed remediation, excavation and construction works. It is expected that daily attendance to the site will be required by a suitably qualified environmental consultant to facilitate soil sampling required under the ASSMP.

Controls and management options at stated in the ASSMP must be followed during all excavation works at the site that may disturb Acid Sulfate Soils.

Monitoring of ASS control/management procedures including excavation methods, spoil management measures, and dewatering and groundwater management should be undertaken. Monitoring requirements are detailed in Section 7 of the ASSMP (Appendix J), which include:

- Soil monitoring program
  - including field pH measurements for all excavated materials
  - laboratory testing (SPOCAS or chromium suite) to confirm required liming rates
  - liming of soils where required
  - onsite retention or off-site disposal
- Water monitoring program
  - Storage of any pumped water in retention basins or fully contained tanks
  - Test for water quality prior to off-site disposal or onsite management.

#### 4.8.1 Surface Water

Soil stockpiled during excavation works should be suitably contained to prevent run-off of any potentially contaminated water or soil to the surrounding environment, including the stormwater system. Control measures shall be established to prevent surface water run off entering and leaving excavation and stockpile areas. Control measures may include:

- Limiting the extent of cleared areas.
- Temporary bunding or diversion drains.
- HDPE sheeting placed under stockpiles.
- Silt fences/hay bales to surround stockpiles.
- Protection of existing drains with silt fencing/hay bales/sandbags.

These mitigation measures must be regularly inspected to ensure that they are in good condition and if necessary, upgraded where their performance is deteriorating.

Stormwater run-off quality may be adversely affected in the event of rainfall. Hay bales should be placed near down-gradient stormwater entry points to prevent entry of contaminated sediment to stormwater, which may result from the project works.

#### 4.8.2 Groundwater Management and Dewatering

Some dewatering may be required given the proposed remediation works for the infrastructure delivery include the bulk excavation of specific cut-to-fill areas to depths that may extend up to 3.0 mBGL. It is important to note that, due to the potential contamination status of groundwater beneath the Project area, no extracted groundwater can be discharged from the site (i.e., to sewer or stormwater).

The procedure for managing groundwater seepage and dewatering during the development works is outlined in Section 6 of the ASSMP (Appendix J). In summary:

- Minimise the depth of dewatering
- Gain approvals for groundwater disposal

- pH testing and neutralisation assessment
- ongoing groundwater monitoring.

Specifics for these management and monitoring requirements are provided in Table 6.1 of the ASSMP (Appendix J).

All removed water should be contained until it is disposed of or otherwise managed onsite.

If water is disposed of as waste it should be stored, transported and disposed of according to NSW EPA requirements.

#### 4.8.3 Sediment

Offsite drains, gutters, roads and access ways shall be maintained free of sediment in accordance with regulatory requirements. Where required, gutters and roadways shall be swept regularly to keep them free from sediment.

#### 4.8.4 Water Quality, Pollution and Turbidity

All equipment and vehicles used during the construction works must be well maintained and serviced to ensure they are in proper working order and reduce the likelihood of oil/fuel leaks and spills.

Oil spill response kits must be kept onsite at all times during the construction phase to manage any spills occurring from boats and/or equipment.

Measures described to mitigate and/or manage generation of marine litter also apply to water quality/ pollution and must be adopted.

Timing of works should avoid periods of high rainfall or poor weather condition to reduce the potential for water quality impacts.

Silt curtains are likely to be effective in limiting the spread of sediments that may be mobilised during construction works.

Measures to reduce water quality impacts related to disturbance / re-suspension of contaminated marine sediments and soils are to be included in the ESCP to be developed by the appointed Principal Contractor upon finalisation of the construction methodology.

## 4.9 Construction Lighting

As required by **condition B11** of the SSD for the project, the Principal Contractor will endeavour to ensure all external lighting during construction meets the requirements for AS 4282-2019 Control of the obtrusive effects of outdoor lighting. The Principal Contractor will engage specialty consultants to provide advice regarding the light type and locations to ensure compliance to this clause.

### 4.10 Damage to Services

Before commencing any excavation works, the Contractor should obtain, from the Dial Before You Dig information service or relevant public authorities or owners of underground services, written confirmation of the exact positions of all underground services at and around the site, and verify and prominently mark the locations of the underground service on the site.

In addition, an underground service clearance should be performed prior to intrusive works, particularly if there are areas of the site that are outside the Dial Before You Dig coverage areas.

## 4.11 Contaminated Land and Unexpected Finds

The site is impacted with contaminants associated with previous light industrial land use, filling, hazardous building materials, and suspected petroleum storage and infrastructure.

In March 2022 Geosyntec Consultants (formerly Zoic) prepared a RAP addendum for the site

 Geosyntec (1 March 2022) Remedial Action Plan Addendum, 7-9 Burroway Road, Wentworth Point, NSW 2127 (Ref: 21607 RAP Addendum).

The RAP addendum was to advise on required additions / amendments to the approved PB (2015) RAP, to enable the site to be remediated to meet the suitable of the revised end use of the site as a school. The RAP addendum required: validation criteria udpates, remediation requirements for identified underground storage tanks and other infrastructure, validation works sampling and analysis plan, requirements for reinstatement of the marker and capping layer following excavations, management measure for the previously placed cap in the western portion of the site, and discussion of ground gas protection systems.

The RAP addendum was endorsed by the Site Auditor, and **condition C32(c) of the SSD** states the recommendations of the Remedial Action Plan Addendum (1 March 2022 prepared by Geosyntec) must be complied with.

As per **condition B32**, a NSW EPA-accredited Site Auditor must be engaged to provide advice throughout the duration of works to ensure that any work required in relation to soil or groundwater contamination is appropriately managed.

As per **condition C32**, site investigations must be conducted to confirm the full nature and extent of contamination at the project area.

Furthermore, **condition C33** requires that remediation at the site must be carried out in accordance with the recommendations of the Geosyntec Remedial Action Plan Addendum, dated 1 March 2022, and approved by an NSW EPA-accredited Site Auditor as required by **condition B32**.

An unexpected find protocol has been included in Appendix B of this CEMP for reference during site excavation works.

# 5 Communication

Effective communication between the Principal Contractor, sub-contractors, other members of the project team, and external stakeholders is important to ensure effective implementation of the CEMP. Project communication can be categorised into internal and external communications.

## 5.1 Internal Communications

Communication on environmental issues within the project team will be maintained through the following channels:

- Site inductions to be provided by head contractor or delegate, in accordance with Section 3.2.
- Daily work briefings briefings by Principal Contractor's Environmental Manager / Coordinator prior to work commencement each morning should highlight environmental issues and mitigation measures of relevance to the day's works.
- Emergency contact sheets to be located at the site compound, site entrance and other appropriate locations. The sheets will contain emergency contact numbers and other information such as evacuation maps. Further contact details are provided in Section 9, and Emergency Response Plan in Appendix L.

## 5.2 External and government authority communications

#### 5.2.1 Consultation with the community and stakeholders

All community and stakeholder consultation is to be undertaken by the Principal Contractor prior to and throughout the project.

#### 5.2.2 Regulatory Authorities

Communication with a range of Regulatory Authorities shall be undertaken throughout the Project. This communication shall be through the Project Manager. Any communication from a regulator must be notified to the Principal Contractor's Environmental Manager / Coordinator, and records of all communications retained and appropriately filed.

The names and contact numbers for two site personnel who are available on a 24-hour basis and who have authority to take immediate action to shut down any activity or to effect any pollution control measure are to be confirmed.

Any Penalty Infringement Notices of official warnings from regulators are to be treated as 'incidents' and reported in accordance with the requirements of Section 6 of the CEMP. Each incident shall be investigated and corrective actions assigned and completed to address the root cause of the infringement.

#### 5.2.3 Complaints and enquiries procedure

Community and stakeholder consultation is to be undertaken by the Principal's Representative prior to and throughout the project. The arrangement in relation to complaints and enquiries handling between the Principal and the appointed Principal Contractor will be finalised prior to construction commencing.

All community complaints will be notified to the relevant stakeholders in line with **condition B9** of the SSD.

The Principal Representatives' staff will respond to complaints in accordance with **condition B9** of the SSD, with a complaints handling procedure developed specifically for this project.

All complaints received during the construction period will be recorded in an up-to-date complaint register, as required under Consent Conditions.

The complaints register will be made available on the project website, and update monthly, in accordance with **condition A24 of the SSD**.

# 6 Incident and Management Reporting

## 6.1 Incident notification

An incident as defined in the SSD for the project is:

An occurrence or set of circumstances that causes, or threatens to cause, material harm which may of may not be, or cause, a non-compliance.

Material harm is further defined as harm that:

- a) Involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or
- b) Results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)

The Principal's Representative and the Principal are to be notified of any incident as soon as possible and at least within 24 hours.

Immediate notification is to occur for any pollution incidents that have caused, or have the potential to cause, material harm to the environment.

When requested by RobertsCo, the Principal Contractor is to provide an incident investigation report, including identification of the cause of the incident and corrective actions taken.

The Planning Secretary must be notified though the major projects portal immediately after the Principal becomes aware of an incident, in accordance with **condition A26 of the SSD**, and incident reports prepared in accordance with the requirements of **condition A27 of the SSD**.

In accordance with **condition A29 of the SSD**, the notification must identify the development (including the development application number and the name of the development if it has one), and set out condition of consent that the development is non-compliance with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

### 6.2 Environmental incident management and reporting

The project team will manage unexpected or accidental environmental incidents throughout the construction phase. The following environmental incidents are considered possible for the project:

- Spills or leaks of fuel or other chemical associated with the remediation works.
- Significant release of sediment and/or contaminated soils to drainage lines, stormwater or sewer.
- Spillage of spoil or waste during transportation from site to waste facility.
- Fire and flood.

It is the responsibility of the Principal Contractor to manage the immediate response to environmental incidents and implement any identified follow up actions required to mitigate the incident and prevent its recurrence. It is also the Principal Contractor's responsibility to ensure workers are trained in incident response and reporting, and the required equipment is available and in good working order.

Condition **A31 of the SDD** requires that the plans required under the consent, including this CEMP, be reviewed within three months of submission of any incident reports. The Planning Secretary and the Certifier must be notified in writing that a review is being carried out.

### 6.2.1 Incident notification to RobertsCo

The Project Manager, Site Superintendent and the Principal must be notified in writing immediately after project staff becomes aware of an incident or a non-conformance with the conditions of approval. The notification must identify the project (including the development application number and the name of the development if it has one), and set out the location and nature of the incident.

A written incident notification must also be submitted to the Project Manager, Site Superintendent and the Principal within seven days after becoming aware of an incident. Notification is required to be given under this condition even if the view is formed that an incident has not occurred.

#### 6.2.2 Detailed incident report within 30 days

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements as stated in **Appendix 2 of the SSD**, including:

- a) A summary of the incident
- b) Outcomes of an incident investigation, including identification of the cause of the incident;
- c) Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- d) Details of any communication with other stakeholders regarding the incident.

# 7 Inspection, Monitoring and Review

# 7.1 Environmental Inspection and Monitoring

The Principal Contractor's Environmental Manager / Coordinator must undertake weekly inspections of the work site to evaluate the effectiveness of environmental controls. All environmental management activities and controls should be monitored. A monitoring checklist is included in Appendix C.

The checklist outlines:

- When the environmental management activity is required.
- Responsible party.
- The methods to monitor effectiveness.
- If and when follow up activity is required.
- Provide an area for sign off.

All monitoring records must be collated, distributed and stored for reference.

Specific monitoring requirements as stated in the SDD are as follows:

- Condition B18 (d), requires monitoring of water quality at acid sulfate soil treatment areas. Further detail on measure and management is outlined in the Acid Sulfate Soils Management Plan, in Appendix J
- Condition C16 requires that vibratory compactors must not be used closer than 30 metres from residential buildings, unless vibration monitoring confirms compliance with the vibration criteria. Further detail and measure and management is outlined in Construction Noise and Vibration Management Plan in Appendix E.

# 7.2 Environmental Auditing

The purpose of environmental auditing is to verify compliance with:

- This CEMP and sub-plans.
- Conditions of development consent.
- Any relevant legal and other requirements (e.g. licences, permits, regulations, contract documentation).

Periodic audits of environmental controls and measures must be conducted throughout the duration of site works. Audits shall comprise of both internal and external audits.

**Condition C36** requires Independent Audits of the development to be conducted and carried out in accordance with the Independent Audit Post Approval Requirements.

## 7.3 Non-Conformance and Corrective Action

Environmental non-conformances include:

- Not meeting the conditions of consent;
- Not conducting the monitoring required by the conditions of consent;

- Situations or events that do not comply with the safeguards and procedures specified in this CEMP; or
- Specified operating procedures or supplementary documents.

Corrective action involves the management of environmental non-conformances, incidents or complaints that occur. Preventative action involves the management of situations where a potential for a non-conformance, incident or complaint has been identified. Preventative action can also include identified areas of continual improvement to reduce environmental risks and impacts.

Any environmental non-conformance will be recorded using an Incident and Non-conformance Report Form and the appropriate corrective action will be identified. The Person responsible for identifying the non-conformance must also complete the Non-conformance Report Form.

The Principal Contractor is required to manage the tracking and close-out of any non-conformances.

# 7.4 Reporting

The following reporting will be undertaken:

- Weekly reporting on site works and operations including complaints, incidents or evidence of non-compliance;
- · Weekly reporting covering outcomes of pollution control and waste management;
- Environmental incident reports, to be completed onsite and notified promptly to the Project Manager. All complaints must be noted and reported to RobertsCo and the relevant authority if appropriate. Where appropriate, the incident will also be investigated and action taken to minimise any adverse environmental effects wherever possible;
- Site walkover check, to be completed by Principal Contractor's Environmental Manager / Coordinator during regular site inspections to check compliance and record corrective measures required; and
- Site personnel register, to be completed at induction.

## 7.5 Review

This CEMP and sub-plans must be reviewed by the project manager in consultation with the project team whenever any major change occurs and update periodically to reflect any changes in the construction activities and/or site conditions. At a minimum the review shall occur every six months during construction. Environmental controls and procedures should always remain applicable to the activities being carried out.

The CEMP is to be reviewed monthly throughout the duration of the site works to ensure it remains applicable to the construction activities. If alterations to construction activities are made, then a review of the CEMP is also required to ensure that effective environmental controls/monitoring are in place.

The Contractor is responsible for the review of the CEMP to ensure that environmental measures and controls outlined within the CEMP and sub-plans are applicable to the works. A record is to be kept of the reasons for review.

The appointed environmental consultant is responsible for making subsequent changes to the CEMP.

Subsequent to updates to the CEMP or sub-plans occurring, a copy will be provided to the Project Manager who will be responsible for organising the dissemination of the updated information to site personnel likely through the Site Manager and toolbox talks.

# 8 Documentation

# 8.1 Environmental records

The Principal Contractor's Environmental Manager / Coordinator is responsible for maintaining all environmental management documents as current at the point of use. Types of records include:

- All inspection and compliance reports/records.
- Induction and training records.
- Reports on environmental incidents, other environmental non-conformances, complaints and follow-up action.
- All environmental management documents are subject to ongoing review and continual improvement. This includes times of change to scheduled activities or to legislative or licensing requirements.
- Only the **Principal Contractor's Environmental Manager / Coordinator**, or delegate, has the authority to change any of the environmental management documentation.

### 8.2 Document and data control

Project records, including contractor records, will be maintained to provide evidence of the effective operation of this CEMP and may include:

- Induction records
- Correspondence to/from stakeholders.
- Permits, licences and approvals.
- Training records.
- Environmental complaints/enquiries.
- Non-conformance and corrective action records.
- Environmental incidents.
- Audits and reports.

# 9 Contacts

#### Table 9.1

Authorities to notify for Material Harm pollution incidents that present an immediate threat to human health or property

Order	Authority	Contract Number
1	Fire and Rescue NSW	000
2	NSW EPA Environment Hotline	131 555
3	Ministry of Health – Parramatta Public Health Unit	(02) 9845 5555
4	SafeWork NSW	13 10 50
5	City of Parramatta Council (Afterhours Contact)	1300 617 058

#### Table 9.2

Authorities to notify for Material Harm pollution incidents that do NOT present an immediate threat to human health or property

Order	Authority	Contract Number
1	NSW EPA Environment Hotline	131 555
2	City of Parramatta Council (General Contact)	1300 617 058
3	Ministry of Health – Randwick Public Health Unit	(02) 9840 3603
4	SafeWork NSW	13 10 50
5	Fire and Recure NSW	000

#### Table 9.3

#### **Project Contacts**

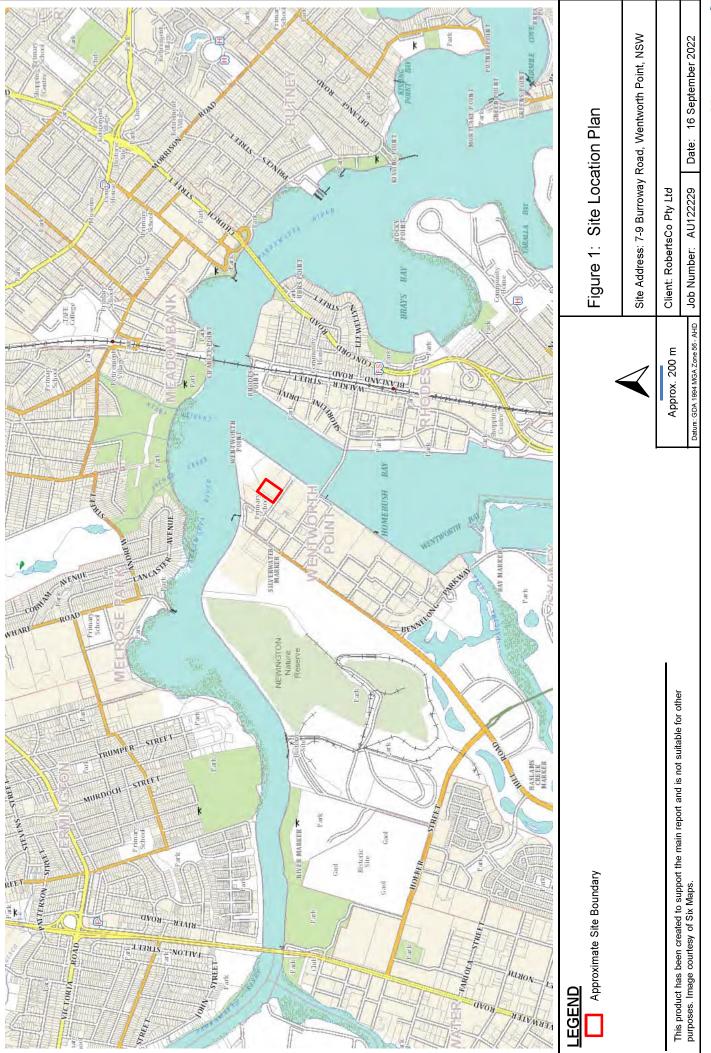
Position	Contact name	Phone number
Site Project Manager (24hr contact)	Ben Drayton	0439 719 570
Health and Safety Manager (24hr contact)	Ben Drayton	0439 719 570
Environmental Manager (24hr contact)	James McMillan	0404 202 312



# Appendix A Figures

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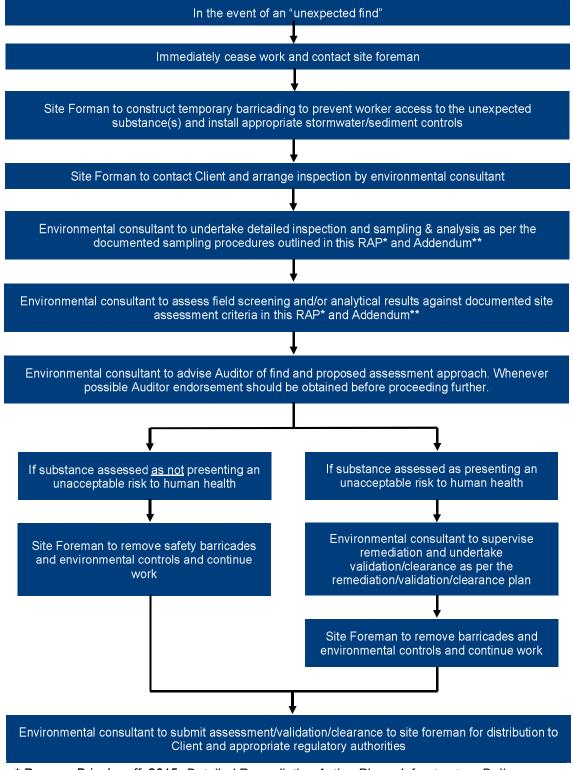




Geosyntec<sup>D</sup> consultants Appendix B Unexpected Finds Protocol

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## Appendix B – Unexpected Finds Protocol



\* Parsons Brinckeroff, 2015, Detailed Remediation Action Plan – Infrastructure Delivery, Wentworth Point Development, Ref 22070048B-RES-REP-001 RevC

\*\*Geosyntec, 2022, Remediation Action Plan Addendum, Ref: 21067 Final RAP Addendum 1Mar22.

Appendix C Weekly Environmental Checklist

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Appendix C Weekly Environmental Checklist

#### **Appendix C: Weekly Environmental Checklist**

Inspection report for Environmental Controls

1 Has any rainfall greater than 10mm been received in the preceding 24 hrs?

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

2 Are temporary drains and bunds effective in diverting all runoff from exposed areas to silt traps or other sediment control structures before leaving the site? Yes/No

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

3 Do any silt traps/sediment control/water storage structures (including wheel wash) need maintenance, repair, cleaning or disposal to operate effectively? Yes/No

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

4 Have any odours, dust or emissions been observed on site, or any air quality complaints been received? Yes/No

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

5 Are fuels, chemicals or substances store correctly & spill kits in place?

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

6 Are stockpiles and waste disposal including tracking being managed correctly?

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

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Yes/No

If NO, state location, action need and priority

If NO, state action needed

Yes/No

1

Yes/No

If YES, state location, action need and priority

If NO, state action needed

If YES, state location, action need and priority

If YES, state amount and confirm erosion &

sediment control inspection completed

nvironmental Check

Yes/No

Geosyntec<sup>▷</sup>



Yes/No

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

#### If NO, state action needed

8 Are works being undertaken in accordance with issued authority approvals/permits (EPA, DPI Fisheries, RMS, etc)? Yes/No

Mon	Tues	Wed	Thurs	Fri	Sat	Sun

If NO, state action needed

#### 9 Are actions taken after last inspection adequate and effective?

 Mon
 Tues
 Wed
 Thurs
 Fri
 Sat
 Sun

If NO, state action needed

Inspected by:

# Appendix D Traffic and Pedestrian Management Sub-Plan

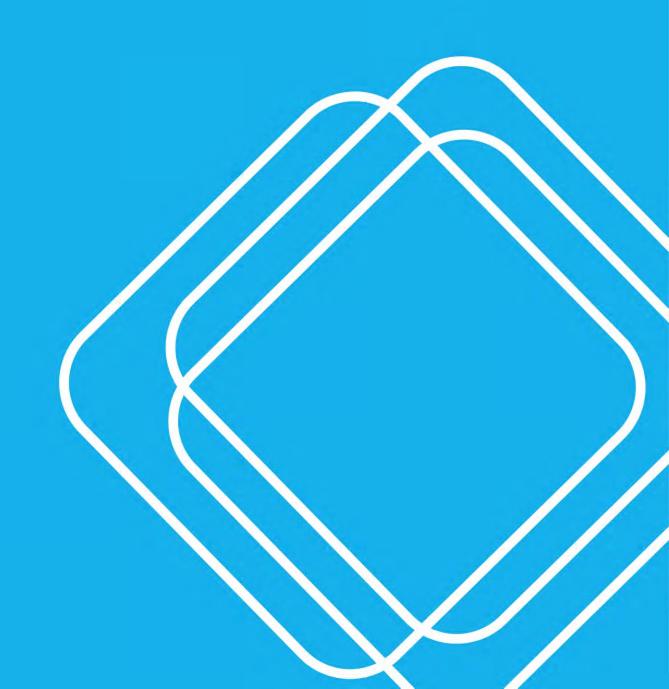
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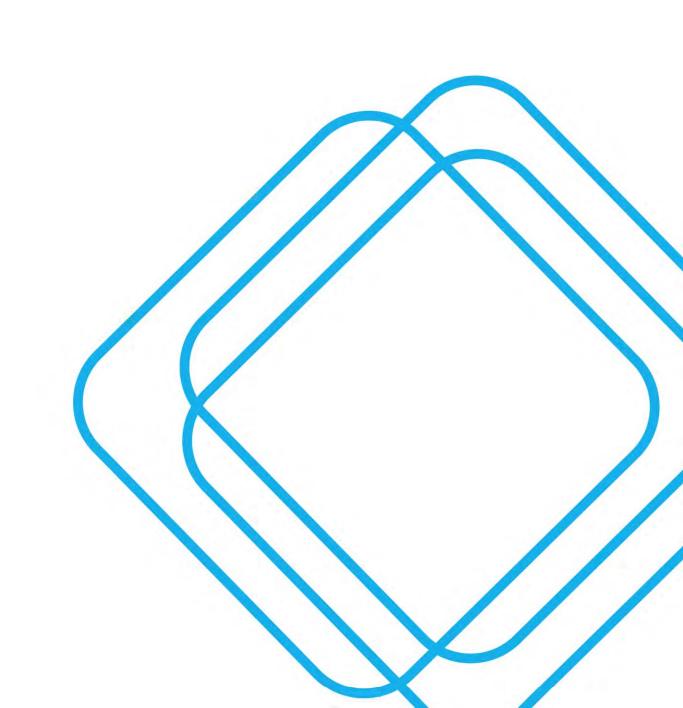


# CONSTRUCTION TRAFFIC AND PEDESTRIAN MANAGEMENT SUB-PLAN

Wentworth Point new High School

18 OCTOBER 2022





# Quality Assurance

4.0

5.0

6.0

Project Name:	Wentworth Point new H	Wentworth Point new High School						
Project Number:	SCT_00265	SCT_00265						
Document name:	Construction Traffic an	d Pedestrian Management Su	ub-Plan					
Client:	Roberts Co (NSW) Pty	Limited	ABN:	61 620 108 483				
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Final issued to Council and TfNSW

Final draft issued to Council and TfNSW

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28 September 2022

11 October 2022

19 October 2022

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## 1.0 Context

#### 1.1 Introduction

SCT Consulting was engaged by Roberts Co for Wentworth Point new high school. As part of the scope of the work, it is required to develop a Construction Traffic Management Plan (CTMP).

As per the 2022/2023 budget papers, this project is now referred to as "Wentworth Point new high school". Future documentation relating to this project, including this document, will be labelled accordingly.

Due to the SSD-11802230 application being submitted as "Sydney Olympic Park new high school", the project name will remain the same on the Planning Portal and future documentation may reference this.

Please also note 'Wentworth Point new high school' is the placeholder name for the school. The school naming will occur closer to opening, following a community consultation process.

The proposed development is for the construction of Wentworth Point new high school, which is located within the peninsula of Wentworth Point at 3 Burroway Road, Wentworth Point across parts of three lots: Lot 202 DP1216628, Lot 203 DP1216628 and Lot 204 DP1216628. The school will cater for up to 850 students.

The site forms part of the Wentworth Point Planned Precinct, which was rezoned in 2014 for high-density residential, public recreation, school, and business purposes.

#### 1.2 Satisfaction of conditions of consent

A reconciliation of the conditions of consent and this document is provided in Table 1-1.

Table 1-1	Evaluation of conditions of	f consent relating to construction	traffic management plan
		r consent relating to construction	traine management plan

The 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       This document is a construction traffic plan         (a) be prepared by a suitably qualified and experienced person(s);       The Construction Traffic Management prepared under the guidance of a cherging end.	fic management
person(s); prepared under the guidance of a che engineer.	
Traffic Guidance Schemes are prepa accredited individual. Refer to <b>Appendix A</b> for CVs of the	nartered traffic ared by an
(b) be prepared in consultation with Council and TfNSW; Feedback from TfNSW and Council incorporated as shown in Appendix	
	υ.
(c) detail:     Refer to Section 4.0.       (i) measures to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services;     Refer to Section 4.0.	
(ii) measures to ensure the safety of vehicles and pedestrians accessing adjoining properties where shared vehicle and pedestrian access occurs; Refer to <b>Appendix C</b> , which shows scheme for the management of impart modes.	
(iii) heavy vehicle routes, access and parking Refer to Sections 2.4 and 6.1. arrangements;	
(iv) the swept path of the longest construction vehicle entering and exiting the site in association with the new work, as well as manoeuvrability through the site, in accordance with the latest version of AS 2890.2; and	
(v) arrangements to ensure that construction vehicles enter and leave the site in a forward direction unless in specific exceptional Refer to <b>Appendix C</b> , which propose guidance scheme that proposes traf	
circumstances under the supervision of accredited traffic controller(s). Refer to <b>Appendix B</b> , which shows points can be entered and exited in a	
A Driver Code of Conduct must be prepared and communicated by the Applicant to heavy vehicle drivers and must address the following:	
(a) minimise the impacts of earthworks and construction on the local and regional road network; Refer to Section 5.0.	
(b) minimise conflicts with other road users;	
(c) minimise road traffic noise; and	

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Condition	Detail	Response
B21	Prior to the commencement of construction, the Applicant must submit a Construction Worker Transportation Strategy to the Certifier. The Strategy must detail the provision of sufficient parking facilities or other travel arrangements for construction workers in order to minimise demand for parking in nearby public and residential streets or public parking facilities. A copy of the strategy must be provided to the Planning Secretary within two working days of it being requested.	A Construction Worker Transportation Strategy is provided in <b>Section 6.0</b> .

#### 1.3 Council CTMP approval conditions

Council requires the following requirements to be undertaken as the CTMP is implemented. Roberts Co accepts these conditions:

- A dilapidation report for the existing roundabout, kerb and gutter, traffic islands and other Council assets in Burroway Road is to be provided to Council's Traffic and Transport Services (traffic@cityofparramatta.nsw.gov.au) with photos of the facility before construction commences and after completion. The applicant is liable to repair any damage caused to any Council asset to the satisfaction of Council's Civil Assets section.
- Waterways Street and Wentworth Place are privately owned roads that are managed by the respective stratas. Hill Road north of Burroway Road is managed by Sydney Olympic Park. The applicant must obtain concurrence from the respective road managers prior to erecting any signage.
- 3. The Builder is to set up a hotline for nearby residents and parents of the school children that they can call should they have any complaints, concerns or need assistance regarding issues related to the construction traffic/activity and or construction worker parking.
- 4. Heavy vehicle trips during school zone times should not occur to ensure the safety of school children given the sites close proximity to Wentworth Point Public School.
- An off-street construction worker parking area is to be established in parts of the lots that do not form part of the development. The capacity of construction work carpark must be enough to accommodate the workforce for all stages of the development.
- 6. The installation of a 'No Stopping' restriction to facilitate construction vehicle access will require an application for a Works Zone and approval through the Parramatta Traffic Committee.
- 7. Pedestrian movements are to maintained along Burroway Road at all times. Traffic Controllers are to be present during construction working hours to halt pedestrians whilst construction vehicles are entering/exiting the site only. At all times vehicles, entering and exiting the site are to be required to give way to pedestrians travelling on the footpath.
- 8. All activities, including loading / unloading vehicles and storage for equipment, materials and waste are to be within the works site and are not to impede traffic flow
- 9. The Builder is to keep the roadway (including footpath) in a serviceable state for the duration of the project. Road pavement/footpath damaged as a result of truck movements/ construction activity is to be maintained during the duration of development by developer at no cost to Council to satisfaction of Council's Supervisor Civil Assets.
- 10. Affected residents and businesses must be notified in writing prior to the start of the various phases of construction. The notification must include the hotline number in that they can call for construction traffic related complaints/concerns. A copy of the notification shall be submitted to City of Parramatta Council. Access to these residents and businesses must be maintained unless otherwise agreed. Any comments are to be recorded and taken into consideration when planning construction activities.
- 11. Occupation of any part of the footpath or road (mobile crane, skip bin, carrying out work, erecting/dismantling hoarding, reconstruction of footpath and the like) during construction works of the development shall require a Road Occupancy Permit from Council. The applicant is to obtain a Temporary Road Occupancy Permit through Council's Traffic and Transport Services, prior to occupying any part of the footpath or road.

- 12. The applicant is required to obtain a Hoarding/Tower Crane permit from Council prior to erecting any Hoarding/Tower Crane on Council road/footpath/construction site. The application can be access via Council's website.
- 13. City of Parramatta Council is to be notified of any future disruption to roadways and footpaths and any changes to the CTMP. The final approved version of the CTMP and any subsequent revisions are to be provided to Council for its records. It is to be noted that additional conditions may be applied to the CTMP by Council in future should public amenity be detrimentally affected.

# 2.0 Proposed works

#### 2.1 Construction works overview

The school design features a six-storey building high school. The proposed construction site layout and entries are shown in **Figure 2**–1.

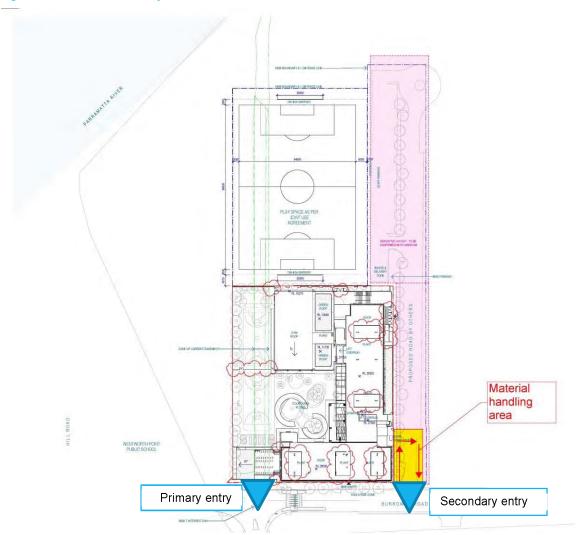


Figure 2–1 Construction site layout

Source: Roberts Co, 2022

#### 2.2 Program and working hours

It is intended that works would be carried out as the following program:

- Early Works: October 2022 to January 2023
- Phase 1 Construction: February 2023 to December 2023
- Phase 2 Construction: February 2023 to December 2023.

#### Conditions C3 to C7 govern construction hours:

- C3. Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:
  - (a) between 7am and 6pm, Mondays to Fridays inclusive; and
  - (b) between 8am and 1pm, Saturdays.
  - No work may be carried out on Sundays or public holidays.
- C4. Notwithstanding condition C3, provided noise levels do not exceed the existing background noise level plus 5dB, works may also be undertaken during the following hours:
  - (a) between 6pm and 7pm, Mondays to Fridays inclusive; and
  - (b) between 1pm and 4pm, Saturdays.
- C5. Construction activities may be undertaken outside of the hours in condition C3 and C4 if required: (a) by the Police or a public authority for the delivery of vehicles, plant or materials; or

(b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or

(c) where the works are inaudible at the nearest sensitive receivers; or

(d) for the delivery, set-up and removal of construction cranes, where notice of the crane-related works is provided to the Planning Secretary and affected residents at least seven days prior to the works; or

(e) where a variation is approved in advance in writing by the Planning Secretary or her nominee if appropriate justification is provided for the works.

- C6. Notification of such construction activities as referenced in condition C5 must be given to affected residents before undertaking the activities or as soon as is practical afterwards.
- C7. Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:
  - (a) 9am to 12pm, Monday to Friday;
  - (b) 2pm to 5pm Monday to Friday; and
  - (c) 9am to 12pm, Saturday.

#### 2.3 Construction traffic

Construction workers would typically arrive in light vehicles. The designated entry gate for the light vehicle is located at the eastern end of Burroway Road, which is an existing driveway. The estimated on-site workers for different stages are shown as follows.

- Early Works: 50 workers
- Phase 1 Construction: 300 workers
- Phase 2 Construction: 150 workers.

It is expected that one worker generates one inbound trip in the morning and one outbound trip in the afternoon. The estimated light vehicle trips are shown in **Table 1**.

Stage	Vehicle length	Workers	Daily trips*
Early works	5.2m	50 people	42 * 2 = 84 movements
Phase 1		300 people	250 * 2 = 500 movements
Phase 2		150 people	125 * 2 = 250 movements

#### Table 1 Light vehicle trip generation

\*This has considered a vehicle occupancy of 1.2 people/car due to carpooling.

The heavy construction vehicle type and the generation are estimated in **Table 2** according to an email correspondence with Roberts Co on February 1, 2022.

#### Table 2 Heavy vehicle trip generation

Construction vehicle	Vehicle length	Trips*	Purpose
Heavy Rigid Vehicle	12.5m	50 daily movements on pour days Up to 10 otherwise	Mobile concrete booms, concrete trucks, Regenerated electrical output (REO) deliveries
Semi-trailer	Up to 19m	Up to 2 a week	Piling rig delivery
Truck and dog	Up to 22m	Up to 20 daily	Material loading out and bringing in

\*Note that one movement represents one directional trip.

#### 2.4 Construction vehicle haulage routes

**Figure 2**–2 shows that Burroway Road and Hill Road are both approved Higher Mass Limits (HML) routes that permit a B-Double vehicle up to 26m. This facilitates the access of the construction vehicles between the site and Sydney's HML network including Parramatta Road and M4. There are no restrictions placed on this route.







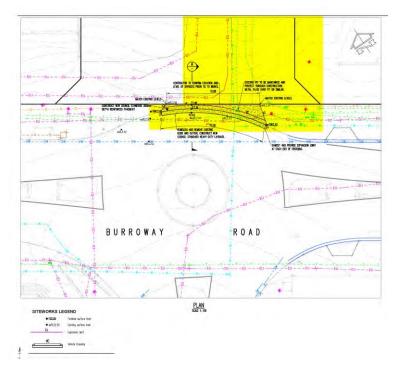
There are two temporary accesses proposed to service the vehicular access during construction. **Figure 2**–1 shows the eastern access, which is the existing access on Burroway Road. It is expected that a construction vehicle needs to give way to the opposing vehicle at the accesses due to the turning manoeuvring and limited access width.

Most construction activities will occur within site the subject site, bounded by fencing to prevent unintended access by pedestrians.

A temporary layback will be constructed on the northern side of the intersection of Burroway Road/Wentworth Place to the relevant standards (**Figure 2**–3). The purpose of the layback is to allow construction vehicles to enter the site in this location. The layback will be removed after the project completion.

The construction of the layback will require undertaking construction within the road corridor on Burroway Road.

#### Figure 2–3 Layback construction and work area (yellow highlight)



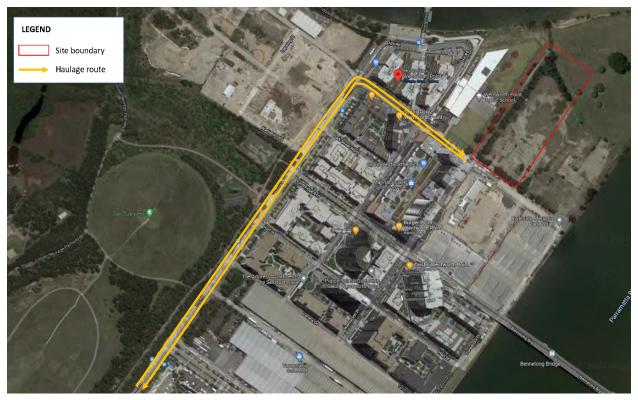
Source: TTW and Roberts Co

The proposed access route used by heavy vehicles to and from the site during the works program would be (**Figure** 2-4):

- Access to the site is via Hill Road northbound, turning right into Burroway Road, then into the two construction accesses
- Egress from the site will be via Burroway Road westbound to Hill Road turning left.

Since Burroway Road has a school zone between Wentworth Place and Hill Road, the construction vehicle movements will be minimised during school peak periods (7.30-9.30am and 2.30-4.00pm).

#### Figure 2–4 Haulage route during construction



#### 2.5 Swept path

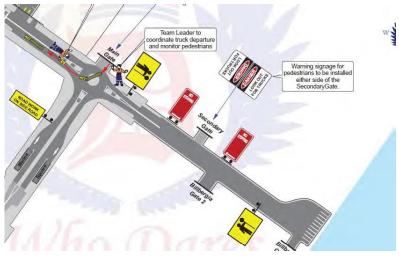
A swept path assessment has been conducted along the haulage routes to/from the site for different types of vehicles (**Appendix A**). All major vehicle types have been tested – a 19m articulated vehicle, a 12.5m rigid vehicle and a 22m truck and dog combination.

The swept path assessment sheets 15 and 16 are only applicable during the contraflow arrangements explained in **Section 4.3**.

The swept path assessment shows that the heavy vehicle manoeuvring along the haulage route is feasible and would not impact the infrastructure and on-street parking. However, some treatment is required at the below locations:

- The central island of the roundabout at Burroway Road/Wentworth Place is mountable which facilitates the truck manoeuvring, especially for the entry/exit movement at the western access.
- The turning movements of both a 19m long semi-trailer and a 22m truck and dog are workable at the
  intersection of Burroway Road/Hill Road. The most critical movement is the left turn from Burroway Road to Hill
  Road. The road space can accommodate vehicle movement with limited encroachment of the traffic island and
  kerb or any intrusion into the opposing traffic lane.
- The first on-street parking space to the west of the eastern access may prevent a heavy vehicle from left turning into the site. Hence, this parking space is recommended to be removed and replaced with a "No Stopping" zone (refer to Figure 2–5). There is no conflict with the on-street parking on the southern side of Burroway Road.

#### Figure 2–5 Location of no stopping zones proposed



Source: Who Dares, 2022

# 3.0 Impact identification

#### 3.1 Construction parking impacts

The construction vehicle parking area for construction could accommodate parking for a workforce of 75 to 300 people, which satisfies the on-site parking demand for each stage.

Worker parking is proposed to occur to the east of the site in the balance of the lots not forming part of the development. The detailed parking area in different construction stages is shown in **Appendix C**.

The on-street parking on Burroway Road to the east of Wentworth Place is currently unrestricted. There is no setback of the parking spaces from the eastern access, resulting in potential conflicts between a parked vehicle and a construction vehicle to/from the site. A "No stopping" zone is recommended around the eastern access location to improve sight lines (refer **Figure 2–5**).

#### 3.2 Pedestrian and cyclist access impacts

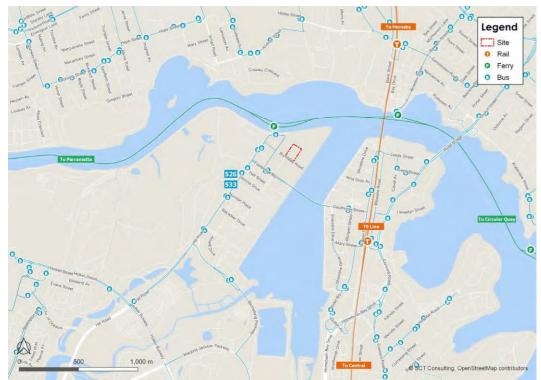
Pedestrian and cyclist access and safety need to be prioritised and alternative routes should be provided where needed. Footpaths adjacent to work sites, particularly sites with high volumes of construction vehicle movements, are proposed to be traffic controlled to manage the conflict between construction vehicles and pedestrians. Where work sites have an impact on footpaths, consideration will be given to the requirements of all pedestrians and especially users with specific requirements (e.g. elderly, strollers, disabled).

The footpath on the northern side of Burroway Road close to the site does not experience a high pedestrian demand given limited development and trip generators. However, there would still be conflicts between construction vehicles and pedestrians accessing parking on the northern side of Burroway Road at the two temporary access driveways. Traffic control plans include appropriate warning signage at these locations for pedestrians. The presence of traffic controllers is required at these locations.

#### 3.3 Public transport impacts

There are no public bus routes that use Burroway Road adjacent to the site (**Figure 3**–1), so no public transport impacts are expected. The connection between Burroway Road and Wentworth Place is proposed to remain open at all times during construction, so if there are any temporary public transport demands, these can be catered for (e.g., an excursion for Wentworth Point Public School).





# 4.0 Mitigation of impacts

#### 4.1 DFMA approach

School Infrastructure NSW is committed to using innovative, sustainable, and efficient construction techniques to assist in the delivery of the school upgrade program, which includes the use of Design for Manufacture and Assembly (DfMA) for this school's construction works.

DfMA is a design and construction process that combines the manufacture of building components, such as wall systems and facades, in a factory (off-site) environment, with on-site construction assembly.

The approach has broad benefits, including cost savings, greater scalability, and reduced impacts on operational schools. DfMA relies on the scheduled delivery of building components and modules. When compared to traditional construction methods, DfMA creates less noise, less traffic, less pollution, and less dust which results in less impact on the transport network.

The approach is paired with modular building techniques that establish a grid system of between 4.5-4.9 m - a parameter that works as an optimal module size regarding materials and transport, but also as an optimal spatial requirement for teaching spaces.

Parts are transported to the site and lifted via crane into position, after which they are assembled. It may be possible to drive the vehicle on-site. The exact location and size of the crane will be determined subject to further consultation with Council, Transport for NSW, and the community.

#### 4.2 General impacts

Road network impacts by worker traffic to the site will be mitigated by the construction workers generally starting earlier and finishing earlier than the commuter peak periods and would likely not coincide with the school or road network peak periods. Construction workers will be encouraged to carpool, reducing the impact on the road network and local parking demands. Refer to **Section 6.0** for more details.

So as not to adversely impact the traffic system during the construction period, the construction traffic is expected to be managed as follows:

- Heavy vehicle use of Burroway Road to be limited up to one hour before and during school drop-off hours (7.30-9.30am) and up to one hour after and during drop-off hours (2.30-4.00pm).
- Truckloads would be covered during transportation off-site.
- All activities, including the delivery of materials, would not impede traffic flow along local roads.
- Materials would be delivered, and spoil removed during standard construction hours.
- Avoidance of idling trucks alongside sensitive receivers.
- Deliveries would be planned to ensure a consistent and minimal number of trucks arriving at the site at any one time.

To manage drivers' conduct the following measures are to be implemented:

- All truck movements will be scheduled.
- Vehicles are to enter and exit the site in a forward direction along the travel path shown on delivery maps.
- Drivers are to always give way to pedestrians and cyclists.

The number of vehicle movements during the construction phase is less than is forecast at the full delivery of the precinct<sup>1</sup>. The below four intersections were shown to operate at Level of Service A during the full operational capacity of the high school in *Sydney Olympic Park new high school Transport Access Impact Assessment* by SCT Consulting, 2021.

- Hill Road/Burroway Road
- Burroway Road/Waterway Street

<sup>&</sup>lt;sup>1</sup> Refer Sydney Olympic Park new high school Transport Access Impact Assessment\_v5.1.pdf, page 50 for expected total future traffic generation, which totals more than 500 vehicles per hour in the peak on Burroway Road at this location.

- Burroway Road/Wentworth Place
- Pedestrian zebra Crossing on Burroway Road.

Hence, the intersection performance is expected to be acceptable during the construction phase as well.

A Driver Code of Conduct is provided in **Appendix D** and will be provided to all truck drivers before they are active on the job.

#### 4.2.1 Cumulative impacts

Major projects and developments in the area awaiting delivery are listed below:

- 9-11 Burroway Road balance of lands, Landcom, mixed use residential and non-residential: site is currently in the planning proposal phase and unlikely to be under construction in coming two years
- Parramatta Light Rail Stage 2: while funded, construction wouldn't start until at least Q3 2024
- 14-16 Hill Road, Sekisui House: a development application was lodged in December 2021, so there is the
  potential that if it is approved imminently, there could be concurrent construction.
- Block H, Billbergia mixed use: Currently the subject of further planning including a DCP amendment. Unlikely
  to be under construction concurrently.

There could therefore be concurrent construction activities occurring between 14-16 Hill Road and the site. The sites are 340m distant and share only one intersection (Hill Road / Burroway Road). The cumulative traffic impact of the operation of the Wentworth Point new High School was assessed with the full traffic generation of the 9-11 Burroway Road, 14-16 Hill Road and Block H developments all at full construction. The impacts were shown to be manageable. Therefore, though concurrent construction could occur, the congestion impacts are expected to be less than has been assessed in the SSDA approvals.

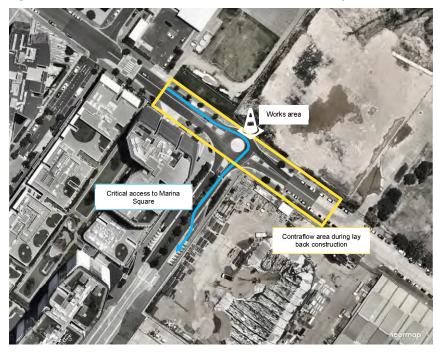
#### 4.3 Impacts to Marina Square

The primary retail parking area for Marina Square is accessed via a southbound ramp on Wentworth Place. There are no alternative routes to this parking facility. During the construction, this route needs to remain viable for customers. During the construction of the layback on Burroway Road/Wentworth Place, the work zone needs to be compatible with this movement. The only way to retain the route and provide the minimum 1.2m distance between the work zone and cars is to convert Burroway Road into contraflow lane operations. All traffic on the northern side of the intersection would need to be diverted to the southern side to avoid conflict with workers.

This is covered in the Traffic Control Plans provided in **Appendix B**. Refer to **Figure 4–2** for a summary. A road occupancy license would be required to undertake these works and will be applied for directly to City of Parramatta Council.

The contraflow proposed in **Appendix B** is only required during the construction of the layback. The dates of construction are yet to be confirmed but would occur during the early works phase (October 2022 – January 2023). The contraflow would be in place likely less than two weeks subject to construction programming.

Figure 4–1 Contraflow area and critical access route for Marina Square access



#### 4.4 Traffic controllers

Traffic controllers will be used to stop traffic on the public streets and accesses to allow trucks to enter or leave the site. Where possible, vehicles must enter and exit the site in a forward direction. They must wait until a suitable gap in traffic allows them to assist trucks to enter or exit the site. The Roads Act does not give any special treatment to trucks leaving a construction site, the vehicles already on the road have the right-of-way. Vehicles entering, exiting, and driving around the site will be required to always give way to pedestrians.

The proposed locations for traffic controllers are shown in Figure 4-2, including two temporary accesses.

Image: Contract of the contract of

Figure 4–2 Proposed locations for traffic controllers

Truck movements to site will be managed so that if trucks arrive, the driveway will be sufficiently clear so that they can enter site without queuing in the road network. This will be managed by site managers and traffic controllers.

Road Occupancy Licenses will be applied for the following approval for locations where traffic control is required. A detailed traffic control plan (TCP) is included in **Appendix B**.

# 5.0 Driver Code of Conduct

Drivers are to abide by this code of conduct.

#### Table 5-1 Driver code of conduct

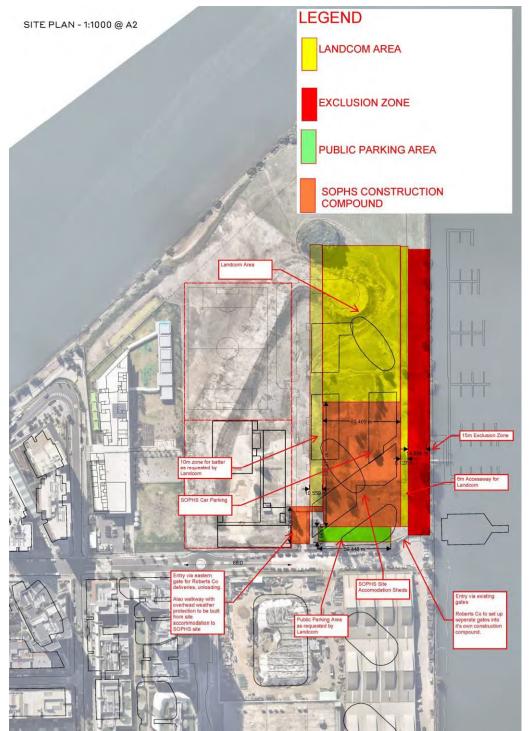
Requirement	Details
Legal	<ul> <li>Drivers shall be appropriately and currently licensed</li> <li>Drivers are to be aware of and abide by the Road Rules 2014 (NSW)</li> <li>Where fitted, seat belts must be worn at all times whilst operating equipment</li> <li>Parking shall be in designated areas in accordance with posted signage and road line marking where provided</li> <li>At all times drivers shall maintain a safe speed whilst taking into account nominated speed limits, weather conditions and site signage</li> <li>Drivers shall comply with signposted load limits</li> <li>Drivers shall be aware of pedestrian crossings and give way to pedestrians</li> </ul>
Environment	<ul> <li>Drivers shall only arrive at the site at authorised delivery times</li> <li>Deliveries are to be scheduled with the shift supervisor</li> <li>Drivers shall ensure loads are covered when delivering products or leaving the site with a full load</li> <li>Drivers shall arrange for the clean-up of any spillage emanating from the truck e.g. due to overloading, sprung tail gates</li> <li>Drivers shall ensure there are no unauthorised discharges into adjacent drains or waterways</li> <li>Compression brakes must not be used within the suburb of Wentworth Point</li> <li>Trucks to avoid idling near schools, shopping centres and schools</li> </ul>
Haulage routes	<ul> <li>All haulage trucks travelling to and from the site will do so via Hill Road and Burroway Road only.</li> <li>Truck traffic must not use Wentworth Place, Footbridge Boulevard or other minor residential streets.</li> <li>Trucks are to conduct a U-turn on site and not in the public road network.</li> <li>Trucks are to enter and leave the site in a forward direction.</li> <li>Heavy vehicle use of Burroway Road to be av during school pick up and drop off hours (8.00-9.30am and 2.30-4.00pm).</li> </ul>
Site management	<ul> <li>Drivers will be inducted from the site prior</li> <li>Drivers are authorised to enter the site to carry out their allocated tasks. Access to other areas of the plant is prohibited</li> <li>Walk, don't run; beware of slip, trip and fall hazards, especially when exiting a vehicle</li> <li>Drivers are to inform the shift supervisor of any incidents as soon as safely achievable</li> </ul>

# 6.0 Construction Worker Transportation Strategy

#### 6.1 Provision of car parking

Landcom and SINSW have collaborated to allow the use of NSW Government land to house construction worker parking for the duration of the project delivery. Land designated as "SOPHS Construction Compound" in **Figure 6–1** has been agreed for construction worker parking.





Source: Roberts Co, 2022

The site will allow for a total of 300 workers to park on site, which is the maximum number of workers expected to visit site at the peak of construction.

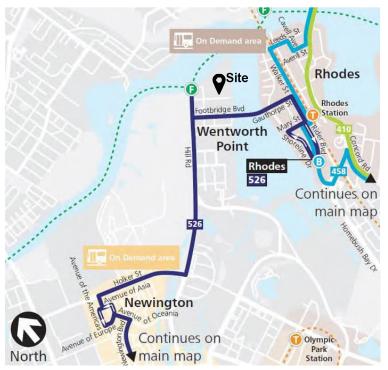
This is sufficient for construction worker parking and will be the most attractive option. Located immediately adjacent to the site, it will be more attractive than other parking options and will not be time restricted or paid parking. As a result, there is no expected overspill parking demand on-street or in other car parking lots in the peninsula.

#### 6.2 Use of walking, cycling and public transport to access site

Construction workers will be encouraged use public transport to access site, reducing the impact on the road network and local parking demands.

**Figure 6–2** shows the public transport network in the vicinity of the site. Bus route 526 provides connectivity to Sydney Olympic Park and Rhodes Train Stations.

#### Figure 6–2 Public transport network



Source: Transport for NSW

The Baylink shuttle network provides connectivity to the Sydney Trains rail network in Rhodes (**Figure 6–3**). The Baylink shuttle is a privately funded service so may not continue in operation.





Source: Baylink Shuttle, 2022

This will not result in any increase in on-street parking or demand for other parking facilities in the area.

## 7.0 Conclusions

With the majority of construction movements occurring outside of the busiest peak periods, the transport network is expected to have sufficient capacity to accommodate the additional traffic movements. With the proposed management measures, the impacts on other road users are mitigated.

# APPENDIX A



"Great transport and great places are impossible to separate"

#### Qualifications

Bachelor of Engineering (Civil) (Hons)(Adv) Bachelor Commerce (Fin) CPEng | NER

#### Affiliations

Member, Engineers Australia

#### Referees

Ryan Thoroughgood Senior Project Director School Infrastructure NSW Ryan.Thoroughgood7@det.nsw.edu.au 0418 336 016

Edmond Platon Network Development Leader Greater Sydney Transport for NSW edmond.platon@transport.nsw.gov.au 0466 312 054



# Jonathan Busch

#### ASSOCIATE DIRECTOR

With over a decade of experience in transport advisory, Jonathan Busch has worked at major engineering consultancies (AECOM & Cardno) and for TfNSW. Jonathan is a project manager, director, and technical lead, having a breadth of experience in complex projects such as Camperdown Health and Education Precinct Transport Study, Royal Prince Alfred Redevelopment, Bays Precinct, over a dozen new or expanded school projects, WestConnex Stage 1b tender traffic modelling, Sydney Light Rail, Parramatta Light Rail, and program management of transport for land use change led by NSW Government proponents.

Jonathan has significant expertise in understanding the value and role of planning in delivering customer outcomes that have been delivered. His work on WestConnex Stage 1b LSJH tender in Vissim contributed to the tenderer's innovative design at Concord ramps, which offered NSW a significant value-add compared with the reference design and is now constructed.

With over a dozen school projects and three hospital projects, he understands the challenges in preparing tailored designs to unique user requirements. As a chartered and nationally registered traffic engineer, Jonathan draws on both engineering and behavioural designs to solve complex problems.

#### Areas of Expertise

- Program management with diverse stakeholders
- Transport for land use change policy leadership
- Multi-modal strategic and detailed transport planning for places and corridors
- Communication
- Project management of dynamic projects.

#### Key Projects

- NSW Schools Expansion Transport Assessment | SINSW
- RPA Hospital Redevelopment, Camperdown | Health Infrastructure NSW
- The Bays Precinct Transport and Mobility Plan | UrbanGrowth
- Parramatta Light Rail Transport Integration Modelling Advisory | TfNSW
- Greater Parramatta & Olympic Peninsula Program (GPOP) Strategic Case | TfNSW
- Springhill Masters Roads Traffic Modelling | TfNSW
- Parramatta Outer Ring Road Problem Definition Report | TfNSW
- Double Bay Pedestrianisation Study | Woollahra Council
- WestConnex M4 East Tender | LSJH Consortium
- Sydney Airport Ground Access Solutions | Sydney Airport
- Planned Precincts and Growth Areas | TfNSW
- Brisbane Bus and Train Tunnel EIS | Brisbane City Council
- Western Sydney GIC Project Management | TfNSW CSP
- Intelligent Congestion Management Program | Transport Management Centre
- Rouse Hill LLGPT Northern Residential Planning Proposal | GPT
- Newcastle Minmi Estate Land and Environment Court Proceedings | Winten Property Group

# Relevant Experience

Project NSW School Expansion & New Builds Role Project Director & Technical Lead Client School Infrastructure NSW Time Period 2019-2022	<ul> <li>SINSW) is overseeing a once in a generation investment into school expansion, which includes expansion or new builds across Greater Metropolitan Sydney;</li> <li>Jonathan has a led a technical team to provide transport planning and traffic assessment services for more than 14 primary and high schools;</li> <li>Provided rapid transport assessment using spatial analytics and focusing on behaviour change programs, transport impact assessment to support Planning Proposals, Traffic Access Impact Assessments, Transport Access Guides and School Travel Plans, swept path assessments and extensive stakeholder consultation.</li> </ul>
Project RPA Hospital Redevelopment Role Project Manager Client Health Infrastructure NSW Time Period 2019-2021	<ul> <li>Project Manager for the development of the transport, traffic and parking plan for the expansion of the Royal Prince Alfred Hospital. NSW Government has committed \$750m to the expansion of the hospital, which will have major impacts on traffic volumes, parking demand and pedestrian flows.</li> <li>The transport, traffic and parking plan will support the overall Precinct Plan by setting out clear proposals for better access to the hospital campus, including better public transport access;</li> <li>The plan has recently been endorsed by senior stakeholders, including the Chief Executive of the Sydney Local Health District, and now forms the basis for the next phase of implementation in consultation with TfNSW, City of Sydney and Inner West Council.</li> </ul>
Project The Bays Precinct Transport and Mobility Plan Role Deputy Project Director & Program Manager Client UrbanGrowth Time Period 2015-2017	<ul> <li>Development of leading policy advice in context of significant planning uncertainty, multiple industry interfaces (ports, maritime, road project delivery, property and Government developer) and diverse stakeholders.</li> <li>Google negotiations advisor (responses to term sheet, led development of TfNSW advice and negotiations presentation material).</li> <li>Management of over \$2m with multiple consultants within agreed budgets.</li> <li>Managed cabinet reporting.</li> <li>Advice on methodology to determine feasible development within different transport scenarios.</li> </ul>
Project Parramatta Light Rail Network Management Strategy Role Transport Planning Lead and Project Manager Client Transport for NSW Time Period 2017	<ul> <li>Parramatta Light Rail Stage 1 received project approval by the Minister for Planning, which included several conditions which need to be satisfied. Planning condition E10 in the conditions of approval is for a Network Management Strategy. The strategy is complete but confidential.</li> <li>Project managed the preparation of the strategy, working closely with the client to shape manage timeframes, deliverables, and expectations.</li> <li>Led preparation of (and contributed to) a network management strategy, which considered all modes of transport in the area affected by the project as well as construction details.</li> <li>Worked with diverse stakeholders to agree on contents of the strategy.</li> </ul>



#### **Curriculum Vitae**

Tim Emslie Tel: 0417 467 814 Email: tìm@whodares.com.au

Tim Emslie

SENIOR EVENTS MANAGER

#### QUALIFICATIONS

- Advanced Diploma of Events (Credit Level) – Northern Sydney Institute (Ryde TAFE) 2015
- Bachelor of Music (Contemporary Performance) - The Australian Institute of Music; Sydney NSW, 2007-2009
- Several credits and distinctions towards partial completion of a Bachelor of Computer Science (Games Technology) with - Charles Sturt University; Bathurst NSW, 2005-2006
- Higher School Certificate St Ignatius College, Riverview; Sydney NSW, 1998-2004
- NSW Drivers Licence (Class C)
- Forklift Licence
- First Aid Certificate

#### **INTERESTS**

- Long distance cycling and trail running
- Ride organiser for the Audax Australia long distance cycling club since 2011
- Hiking and camping

#### **Personal statement**

I have eight years of experience in a broad variety of roles involving events management. I tackle every new task with enthusiasm and drive, and I aim to achieve excellence in event management through attention to detail and a desire to create a memorable and safe experience for participants, volunteers and staff members alike.

Each event has its unique challenges that require nimble thinking and team work to overcome unforeseen circumstances.

#### **Key experience**

Planning and permitting of large scale outdoor events

Liaison with sponsors and participants

**Event supplies and documentation** 

**Event execution and reporting** 

#### **Current employment**

#### Senior Events Manager Who Dares

February 2017 - Current



Who Dares is a leader in the field of traffic planning and management. Our reputation for excellence is founded in our technical expertise, ability to manage risk, extensive experience and resourcefulness. Who Dares is able to deliver traffic planning and risk assessments for complex, large scale, multi stake holder events as well as the film and television industry.

My key responsibilities include:

Meeting clients, establishing the client's needs, developing a plan that will satisfy those needs and costing the planning and implementation of the plan.
Developing and writing plans, organising resources and managing the deployment of resources including very large teams of workers.

- •Liaising with stakeholders and government agencies to obtain approvals.
- Filing debrief reports and attend post event meetings to support and promote continual improvement.

#### **Curriculum Vitae**

#### **Previous employment**

#### Field Operative

#### **Moreton Hire**

#### January 2016 - February 2017

As a Field Operative I have gained experience bumping in/out a wide range of different events in various venues all over Sydney and Regional NSW. The scale of these setups start at something as simple as a small furniture delivery right through to multi day exhibition and outdoor event builds.

#### **Event Operations Assistant**

#### Oxfam Australia

June 2016 to September 2016

My key responsibilities include:

- Supporting the Events Operations Coordinator to manage on the day delivery of the Trailwalker event including the implementation of event plans and operational plans
- Book event staff, accommodation, flights and event vehicles

#### Event Coordinator; Corporate Orientations and Outreach Coordinator; and Ride Guide roles

#### CauseForce Australia

#### Oct 2011 - Nov 2015

I have four years' experience in event organisation with CauseForce Australia and during this time I was promoted to the role Sydney Event Coordinator for the 2-day Ride to Conquer Cancer & The Weekend to End Women's Cancers.

My time at CauseForce has given me an excellent understanding of the requirements needed for the successful execution of a major multi-day event including thorough planning, good communication, teamwork and running to schedule. I commenced as a Ride Guide in October 2011 making registration and support calls to participants. In 2012, I moved into the role of Orientations and Outreach Coordinator, running all the orientations for the Sydney Event Sched In September 2013, I was promoted to Event Coordinator for the Sydney Ride and Walk events. I designed a completely new course for both events which required negotiation with local councils and close coordination with NSW Police and Traffic Management consultants. I presented details of the planned event to the NSW Department of Premier and Cabinet for approval.

In September 2013, I was promoted to Event Coordinator for the Sydney Ride and Walk events. I designed a completely new course for both events which required negotiation with local councils and close coordination with NSW Police and Traffic Management consultants. I presented details of the planned event to the NSW Department of Premier and Cabinet for approval.









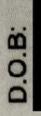
# SafeWork NSW

# WORK HEALTH & SAFETY TRAFFIC CONTROL WORK

# Timothy Scott EMSLIE

Card No: TCT0073149

Date of Issue: 30/05/2017 Type of traffic control work: IMP PWZ TCR

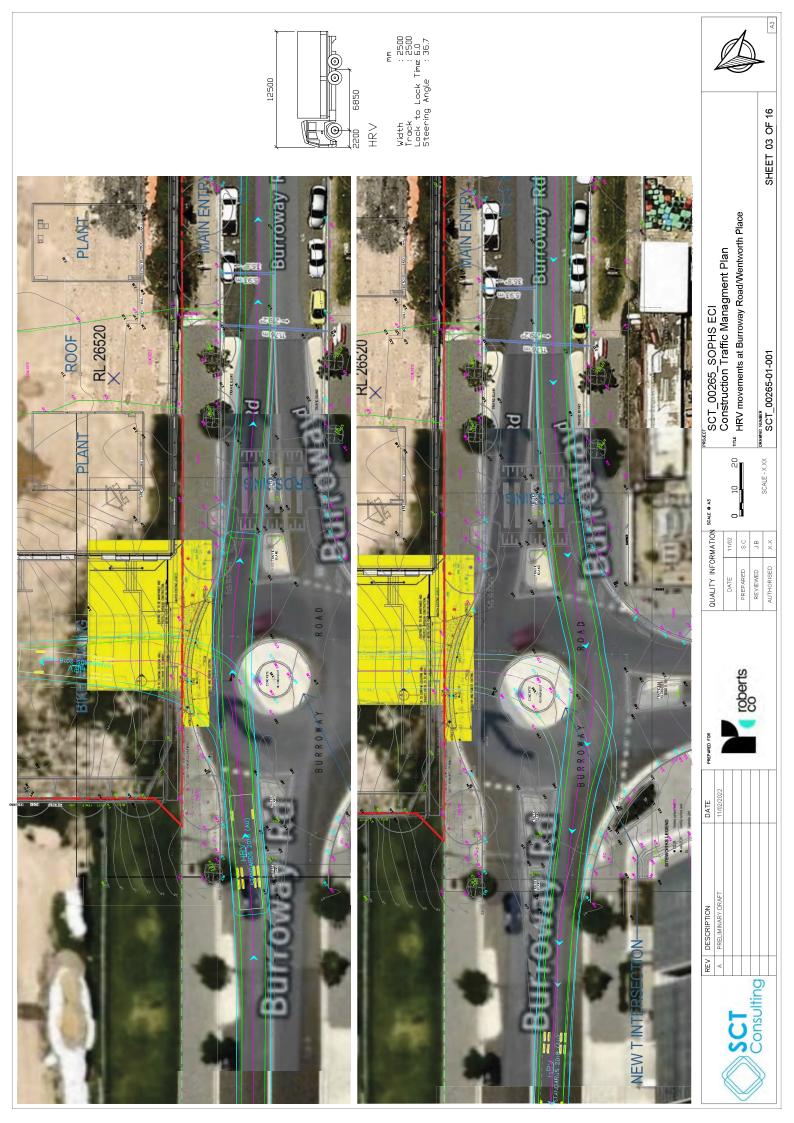


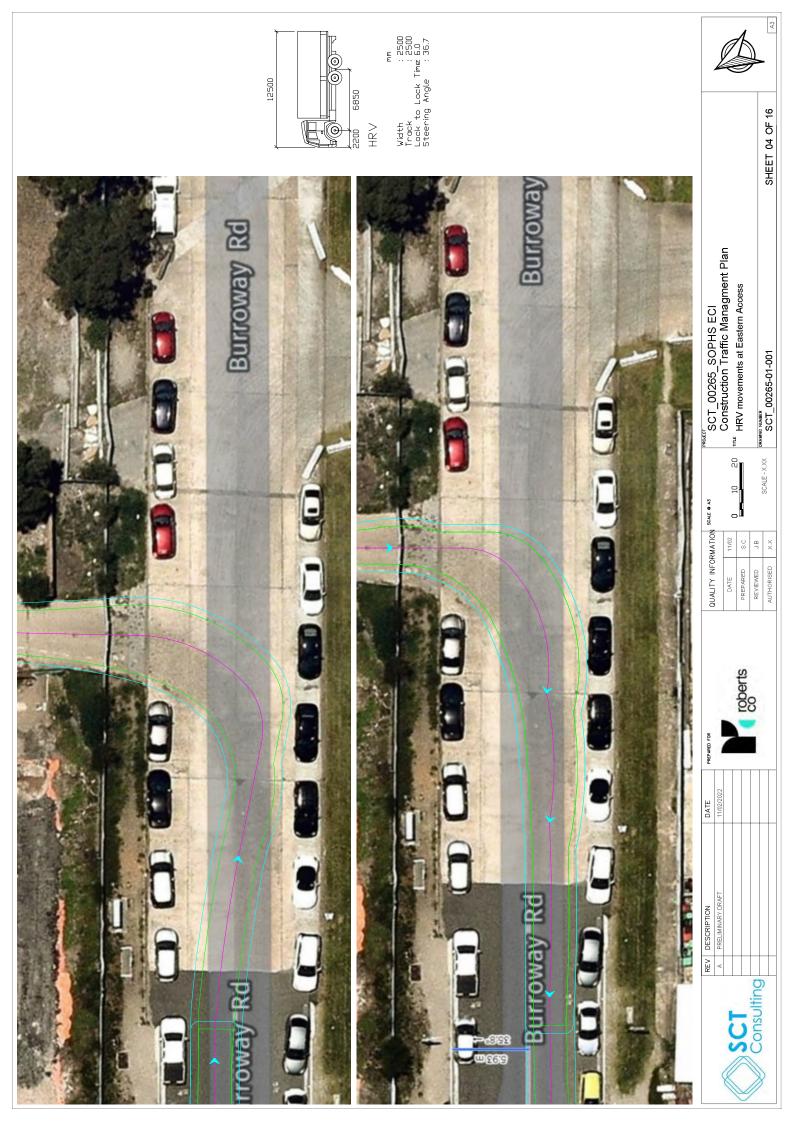


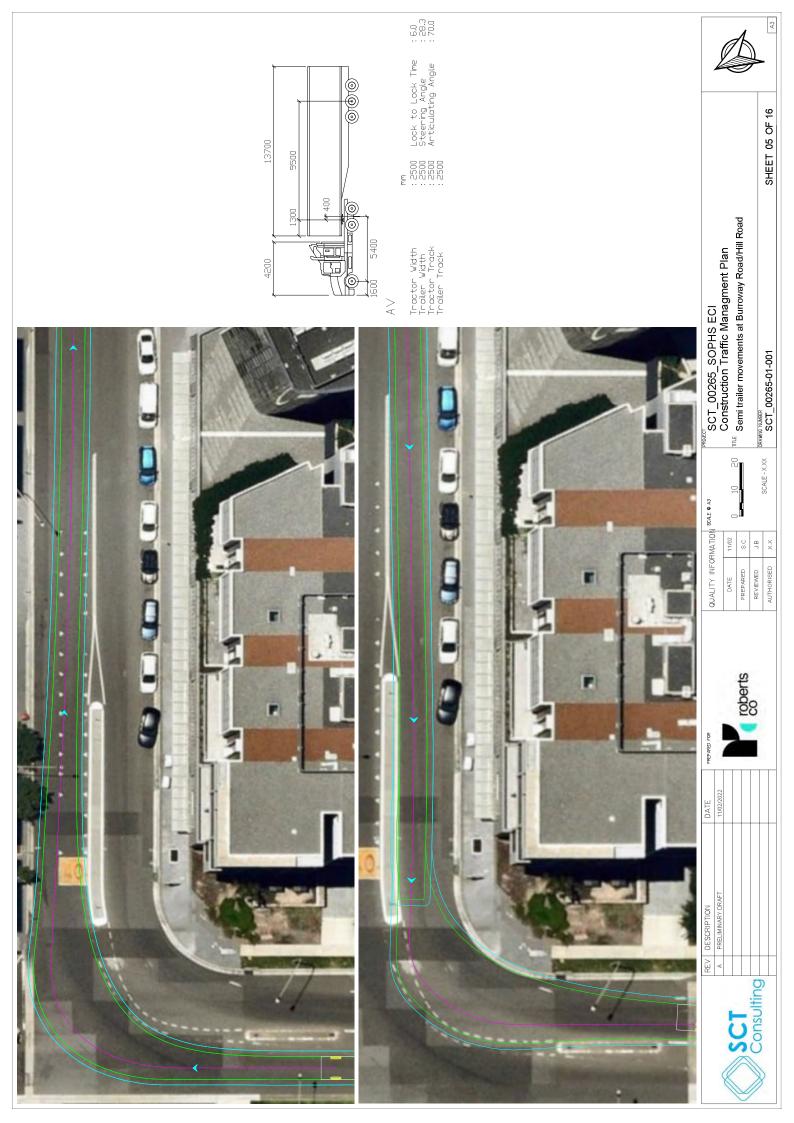
## APPENDIX B Swept Path Assessment



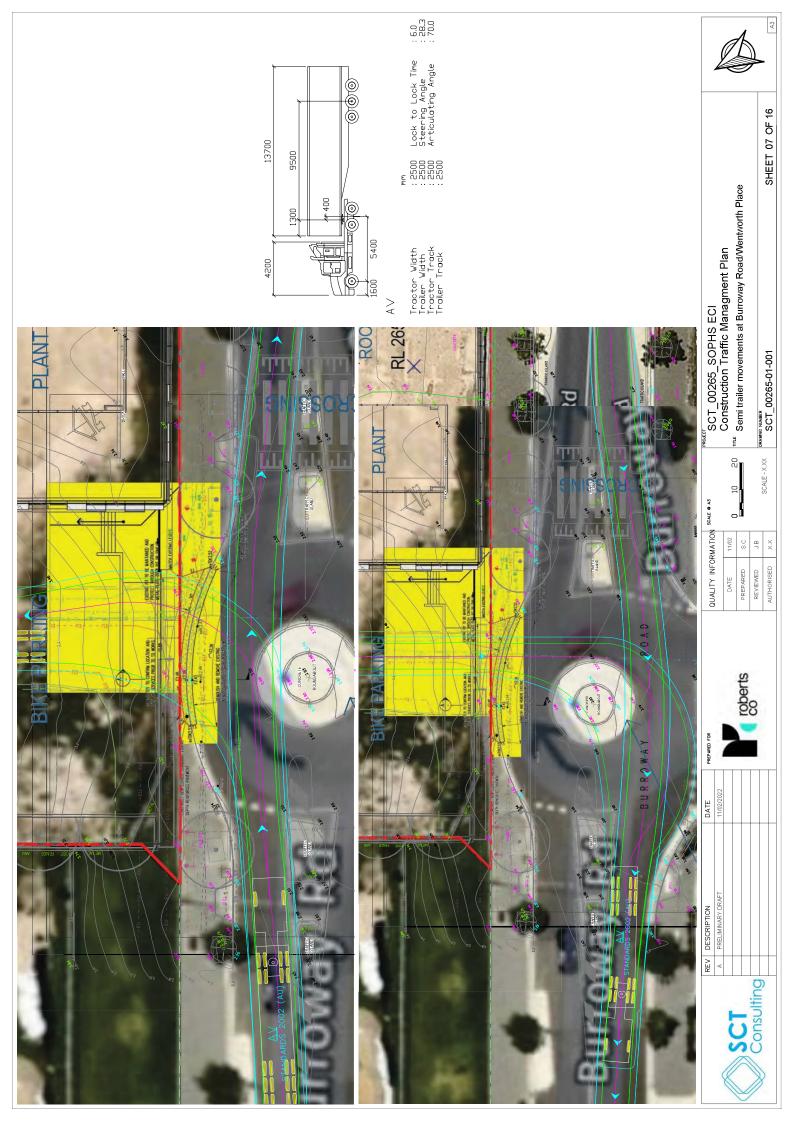


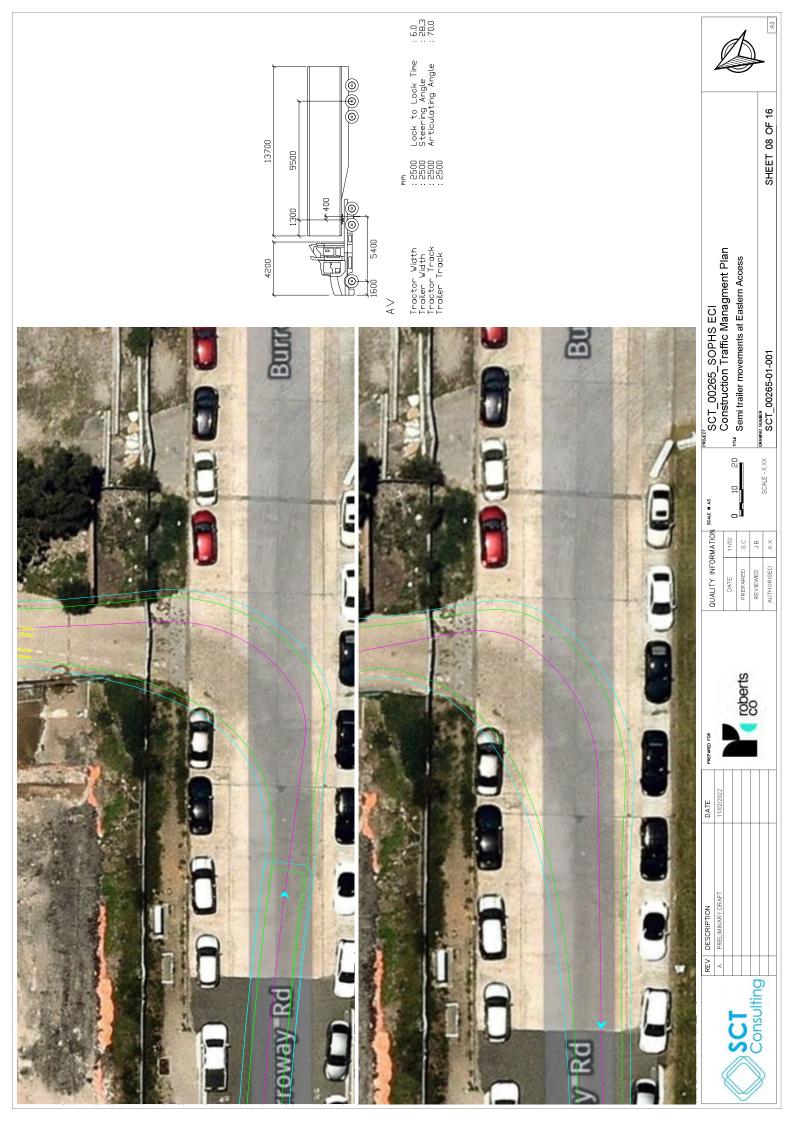


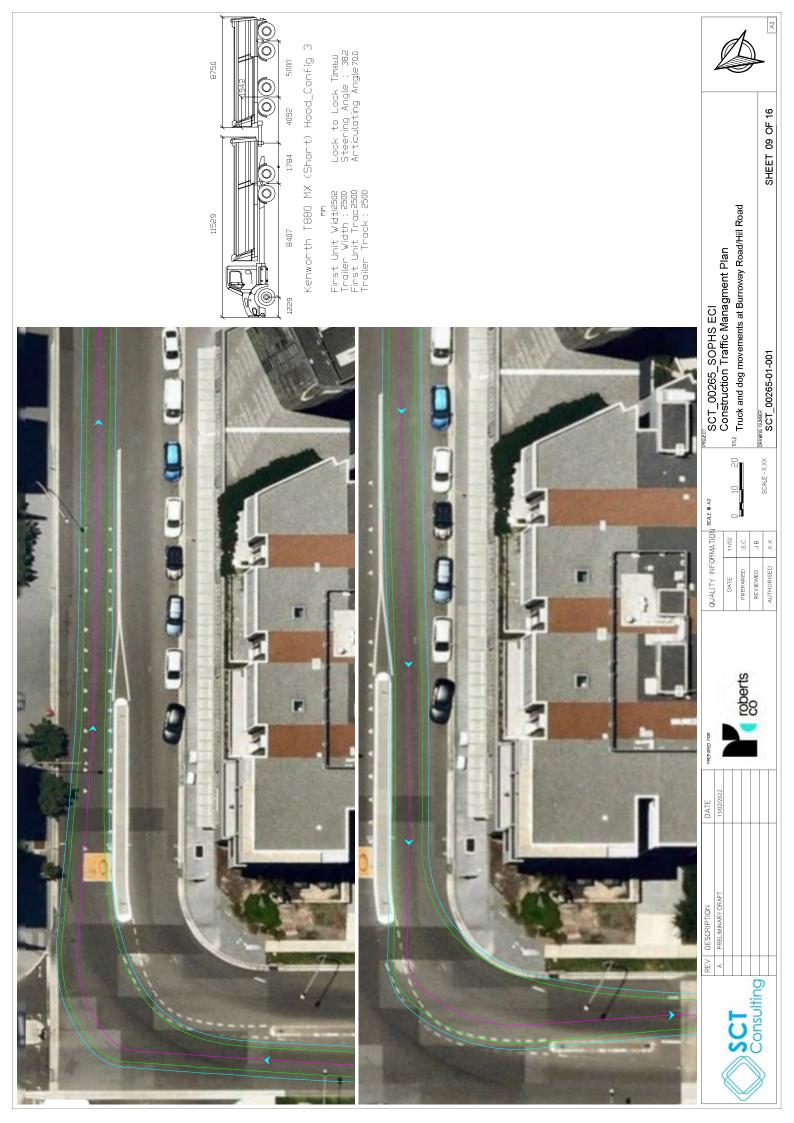






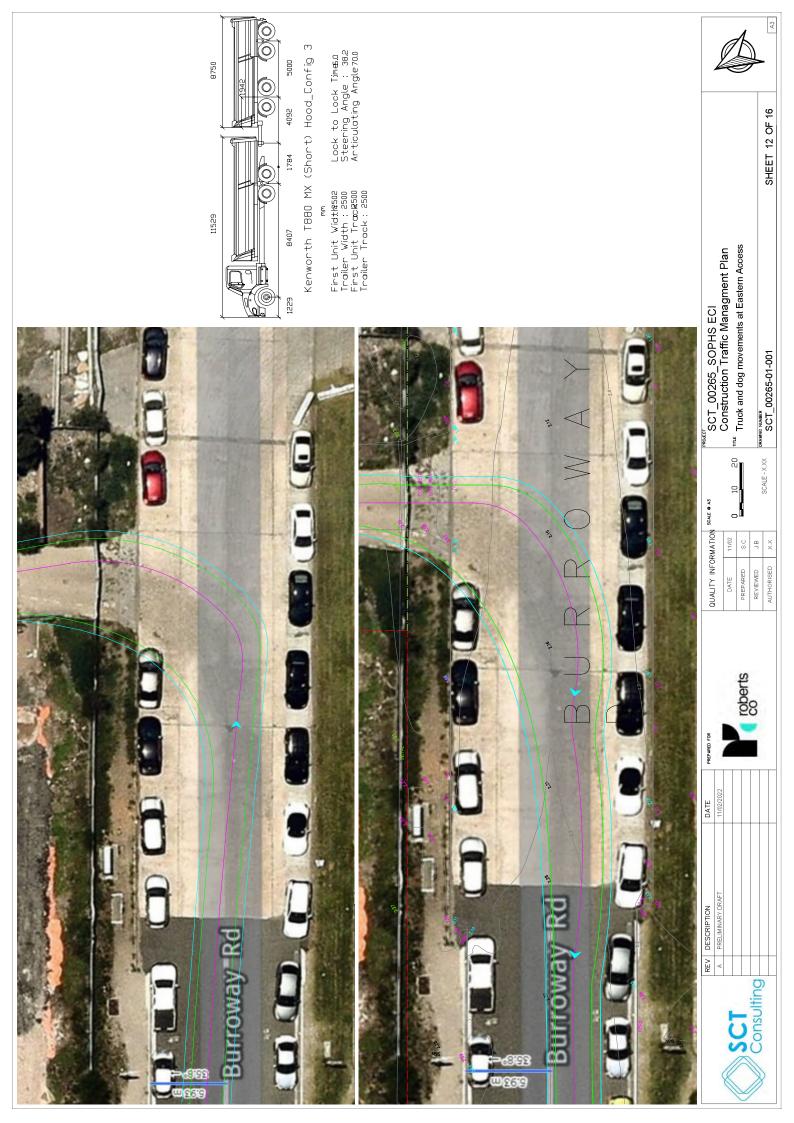


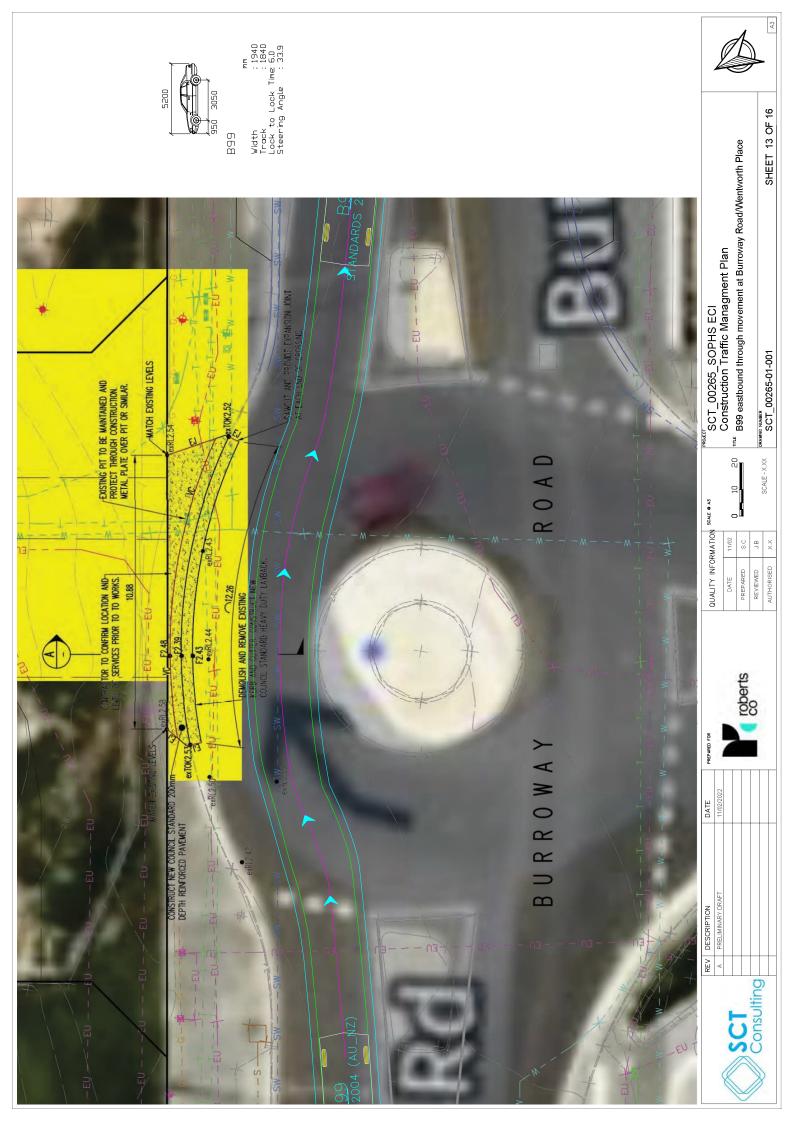


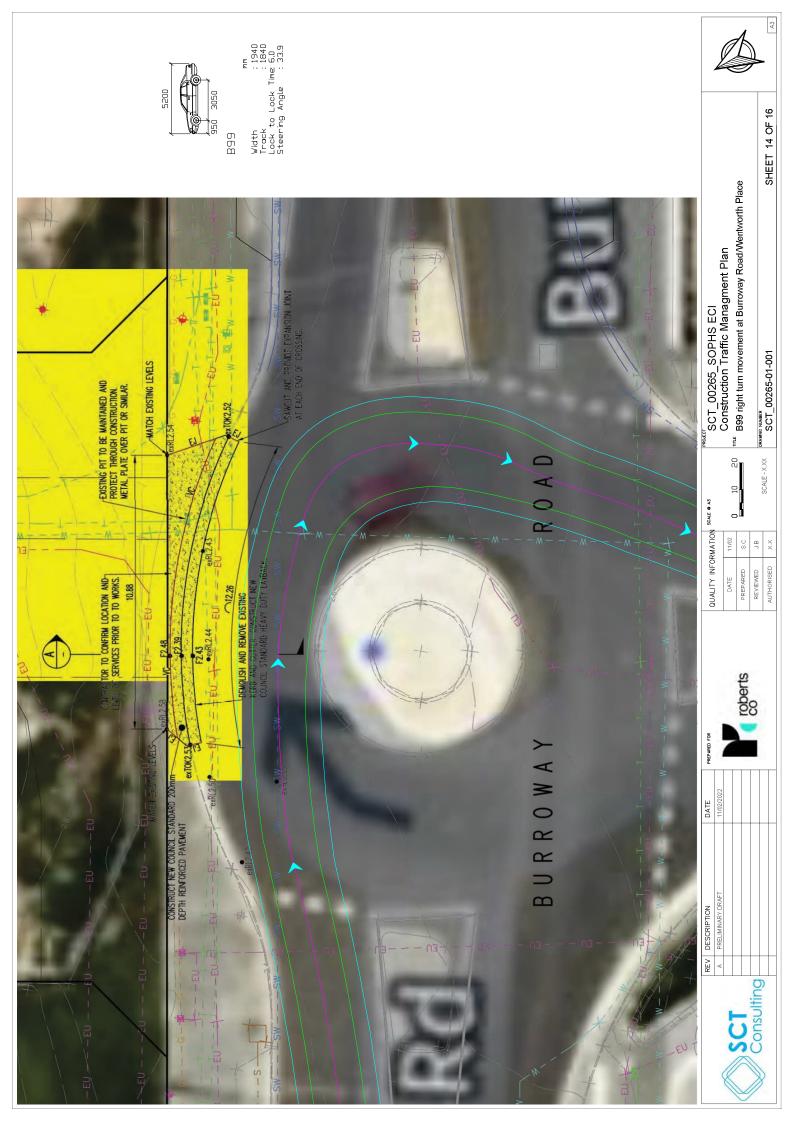




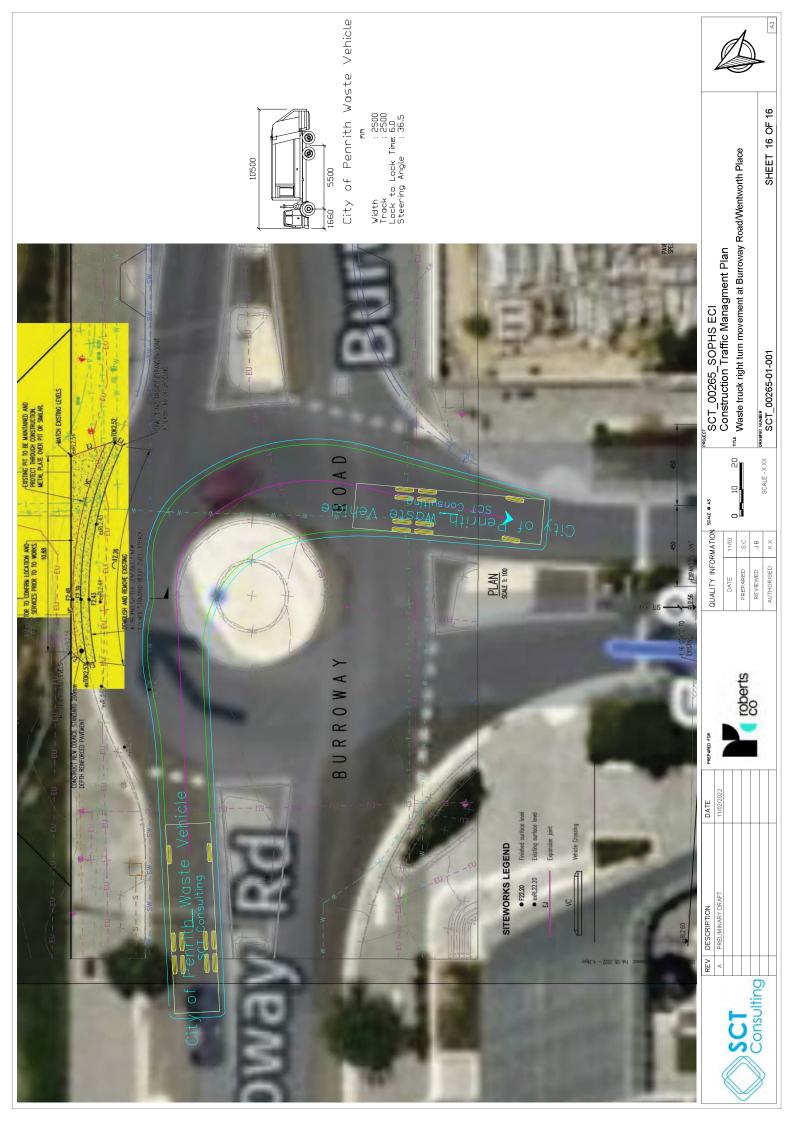






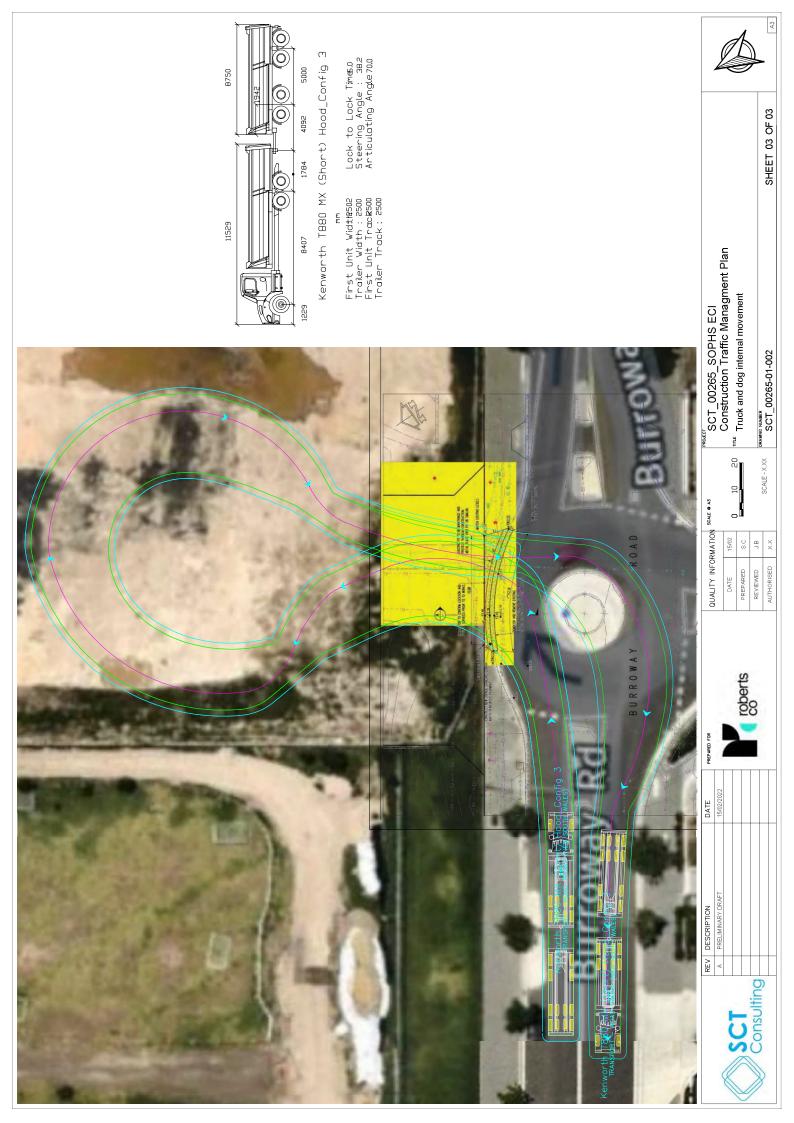




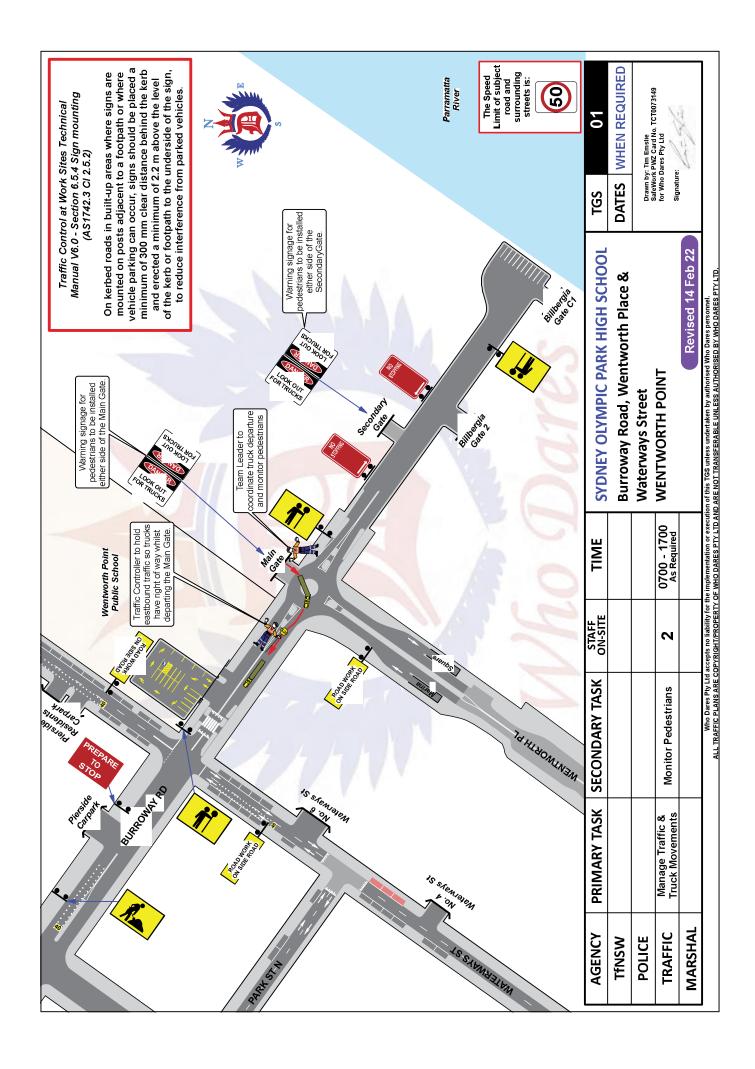


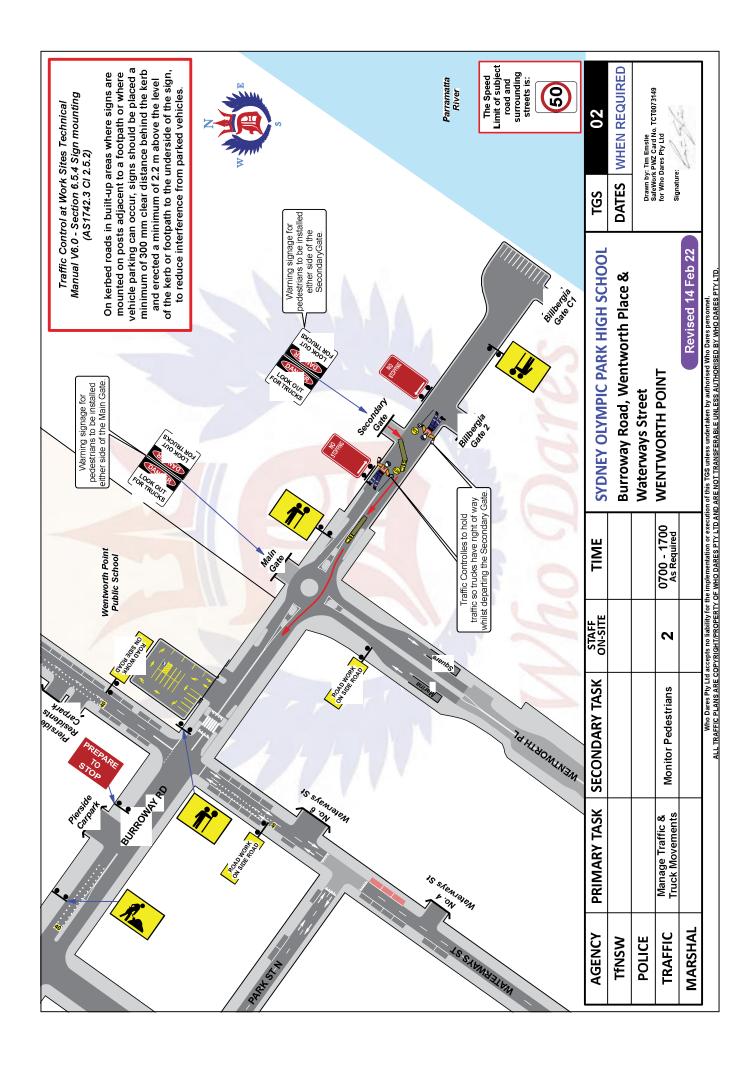


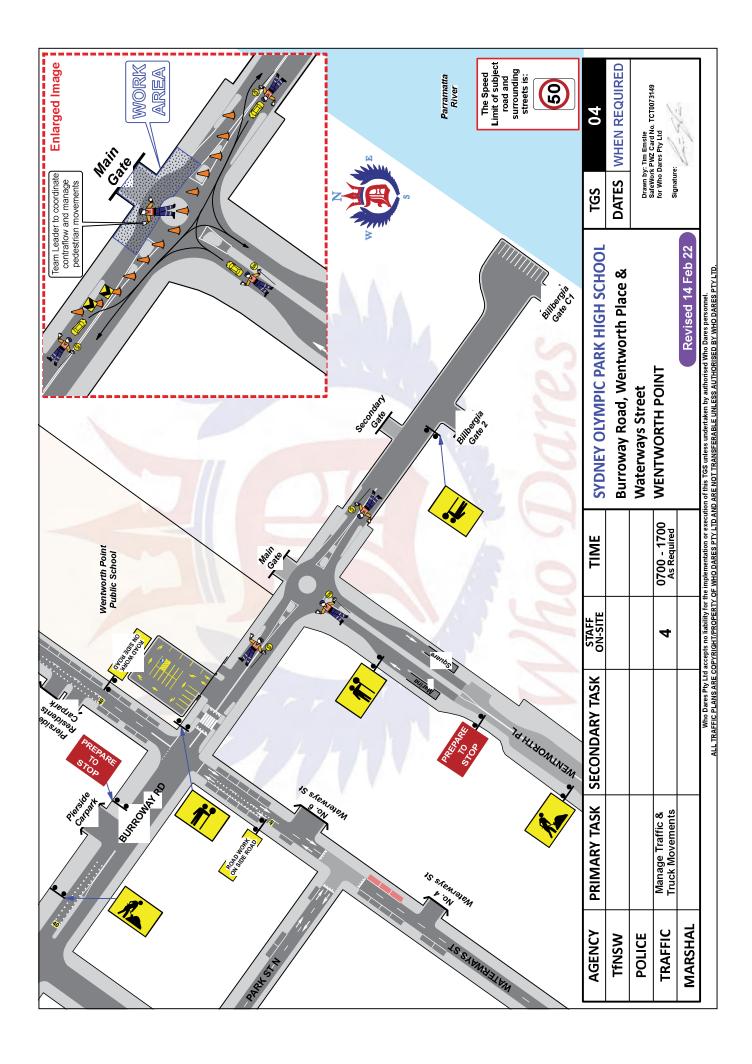




## APPENDIX C<br/> Traffic Control Plans







## APPENDIX D Evidence of Consultation