

## Pre-Construction Minor Works Approval Form

Minor Works are defined as any low impact activities that are undertaken prior to the commencement of 'construction' as defined in the project's applicable planning approval. However if Minor Works affect or potentially affect heritage items, threatened species, populations or endangered ecological communities, these works are defined as 'construction' unless otherwise determined by the applicable planning authority.

Minor Works approvals do not remove any obligation to comply with the project's applicable planning approval conditions (including requirements prior to 'any works' commencing) or obtain any other applicable permits, licenses or approvals as necessary.

This application and all supporting information must be submitted to Sydney Metro/the Environmental Representative as one (1) PDF file at least 10 business days prior to the commencement of the proposed Minor Works.

Part 1: Application	
<b>Contractor:</b>	RMA Group
<b>Project:</b>	SMC-23-0952
<b>Application Title:</b> (e.g. Smith St trenching works)	CHATSWOOD DEMOLITION AND REMEDIATION PROJECT Shared Path Works – Revision 5
<b>Application Number:</b>	4
<b>Application Date:</b>	30 July 2025
<b>Planning Approval:</b>	SSI 15_7400
<b>Minor Works Categories:</b> <ul style="list-style-type: none"> <li>Highlight as applicable.</li> <li>If Items 4, 8 or 11 are applicable, this form must be endorsed by an Environmental Representative.</li> </ul>	<ol style="list-style-type: none"> <li>Survey, survey facilitation and investigations works (including road and building dilapidation survey works, drilling and excavation).</li> <li>Treatment of contaminated sites.</li> <li>Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities.</li> <li>Operation of ancillary facilities that have minimal impact on the environment and community.</li> <li>Minor clearing and relocation of vegetation (including native).</li> <li>Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments.</li> <li>Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties.</li> <li>Utility relocation and connections.</li> <li>Maintenance of existing buildings and structures.</li> <li>Archaeological testing under the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010) or archaeological monitoring undertaken in association with other Minor Works to ensure there is no impact on heritage items.</li> <li>Any other activities that have minimal environmental impact, including construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access.</li> </ol>
<b>Planning Authority Determination:</b> Will the proposed works affect or have the potential to affect heritage items, threatened species, populations or endangered ecological communities?	<i>If 'Yes', this completed form must be endorsed by an Environmental Representative, approved by Sydney Metro and submitted to the applicable planning authority to determine that the works are not defined as 'construction'.</i>

Part 2: Details

**Describe the proposed Minor Works:**

Including work methodologies, site location(s) and site description(s) (e.g. landscape type, waterways, etc.).

**Activity description – Shared Path Works**

General Activities to be performed for Shared Path Works include the following:

- Site Establishment
- Protection of Roads
- Removal of Hardstand and Tree Relocation
- Construction of Shared Footpath
- Making Good Work Areas
- Demobilisation

The activities are to be performed as **Out of Hours Works (OOHW)** due to requiring a **Road Occupancy Licence (ROL)** for the works to be completed safely.

The works Location is alongside Mowbray Road Chatswood as depicted by Figure 1 below:

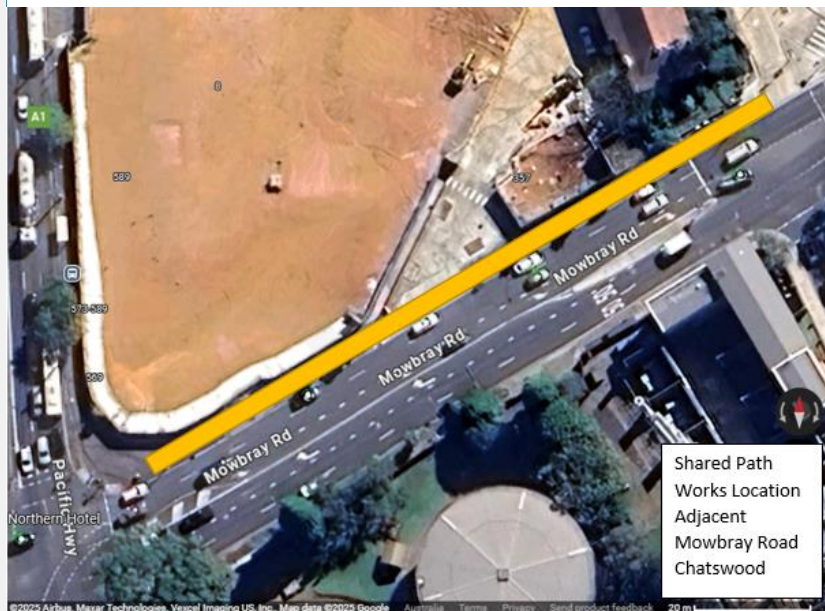


Figure 1: Mowbray Road Shared Path Works

## Works Brief

RMA Group is responsible for protecting external assets as dictated by the footpath design.

RMA Group is responsible for all site establishment and mobilisation requirements, including the application for ROLs, the establishment of traffic control, appropriate environmental controls, and any other safety or establishment measures needed to carry out the work.

RMA Group will be required to construct the shared footpath as per the approved design. This is inclusive of demolition, removal, and disposal of all redundant assets, reconstruction of any kerbs, hoarding or fences, line-marking, and any other works required for public use of the shared footpath.

Heavy maintenance vehicles utilise the left turn on Mowbray Road to access the Northern Dive Service Facility. RMA Group will maintain safe access to the Northern Dive Service Facility for maintenance vehicles and heavy plants.

RMA Group will demobilise the worksite and leave the area clean, safe, and suitable for public use by cyclists and pedestrians.

Conditions of approval and mitigation measures to address environmental risks will be managed in accordance with the environment management plan and the following plans:

- Appendix 1 - Environmental Control Map
- Appendix 2 – Environmental Risk Assessment
- Appendix 3 - Community notification
- Appendix 4 - Construction Management Plan
- Appendix 5 - Waste Management Plan
- Appendix 6 -Traffic Management Plan
- Appendix 7 - Noise and Vibration Impact Statement
- Appendix 8 – Arborist Tree Inspection Reports

<b>Planned Commencement Date:</b>	4 August 2025
<b>Local Sensitivities:</b> Describe the presence (if any) of local sensitive environmental areas and community receptors	Nil





## Part 5: Community Consultation

What community consultation has been undertaken already?

The latest August 2025 monthly Newsletter (Appendix 3) provides the following information pertaining to the Works Scope:

Location	Out-of-hours work
Mowbray Road footpath between Pacific Highway and Frank Channon Walk	24/7 from 4 August until late 2025 <ul style="list-style-type: none"> <li>Northern side footpath closed, pedestrian diversion in place to southern footpath</li> <li>Signage will be in place to help direct pedestrians and cyclists.</li> </ul>

What community consultation is planned to be undertaken?

A doorknock will be carried out to nearby receivers prior to work commencing, to explain the planned scope.

Monthly construction notifications will be issued to a 200m radius around the site for the duration of work.

This will be supported by regular emails to the Chatswood Dive distribution list as required, outlining upcoming impactful work and associated mitigation measures.

Respite Offers will be made to Residential Receivers as required during OOHW based on work activities.

If drafted already, attach applicable Community Notification as Appendix 3.

**Part 6: Contact Details**

Nominate contractor's project manager, environmental and communications contact(s).

<b>Name:</b>		<b>Position:</b>	Project Manager	<b>Phone:</b>	0427 918 437

**Part 7: Signature**

This signature acknowledges that the proposed Minor Works will be undertaken in accordance with this application, have minimal environmental impact and are not defined as 'construction' in accordance with the applicable planning approval.

<b>Name:</b>			
<b>Signature:</b>		<b>Date:</b>	30 July 2025



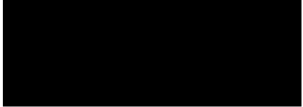



Type

## Determination Page

### (Sydney Metro/Environmental Representative Use Only)

#### 12. Endorsement/Approval

These signatures represent formal endorsement/approval for the proposed Minor Works to commence in accordance with this application and the applicable planning approval requirements (subject to any determination from the applicable planning authority as may be required by the planning approval conditions).

Senior Communications Manager on behalf of	Director Project Communications – Endorsement (required for all applications)	Director Environment, Sustainability & Planning – Approval (required for all applications)	Environmental Representative – Endorsement (required as necessary in accordance with the applicable planning approval, optional for all other circumstances)
Signature:			
Name:			
Date:	30/07/25	1/8/25	31/07/2025
Comments:			A separate OOHW approval would be required (to be endorsed by the AA and approved by the ER separately to this MWA) for all works outside standard construction hours that this MWA mentions.
Conditions:			All controls listed on the ECM and ERSED Plan must be in place for the shared path works.
<input type="checkbox"/>			
<input type="checkbox"/>	Approved (by Sydney Metro)		
<input type="checkbox"/>	Endorsed (by Environmental Representative)		

Rejected



**OFFICIAL**

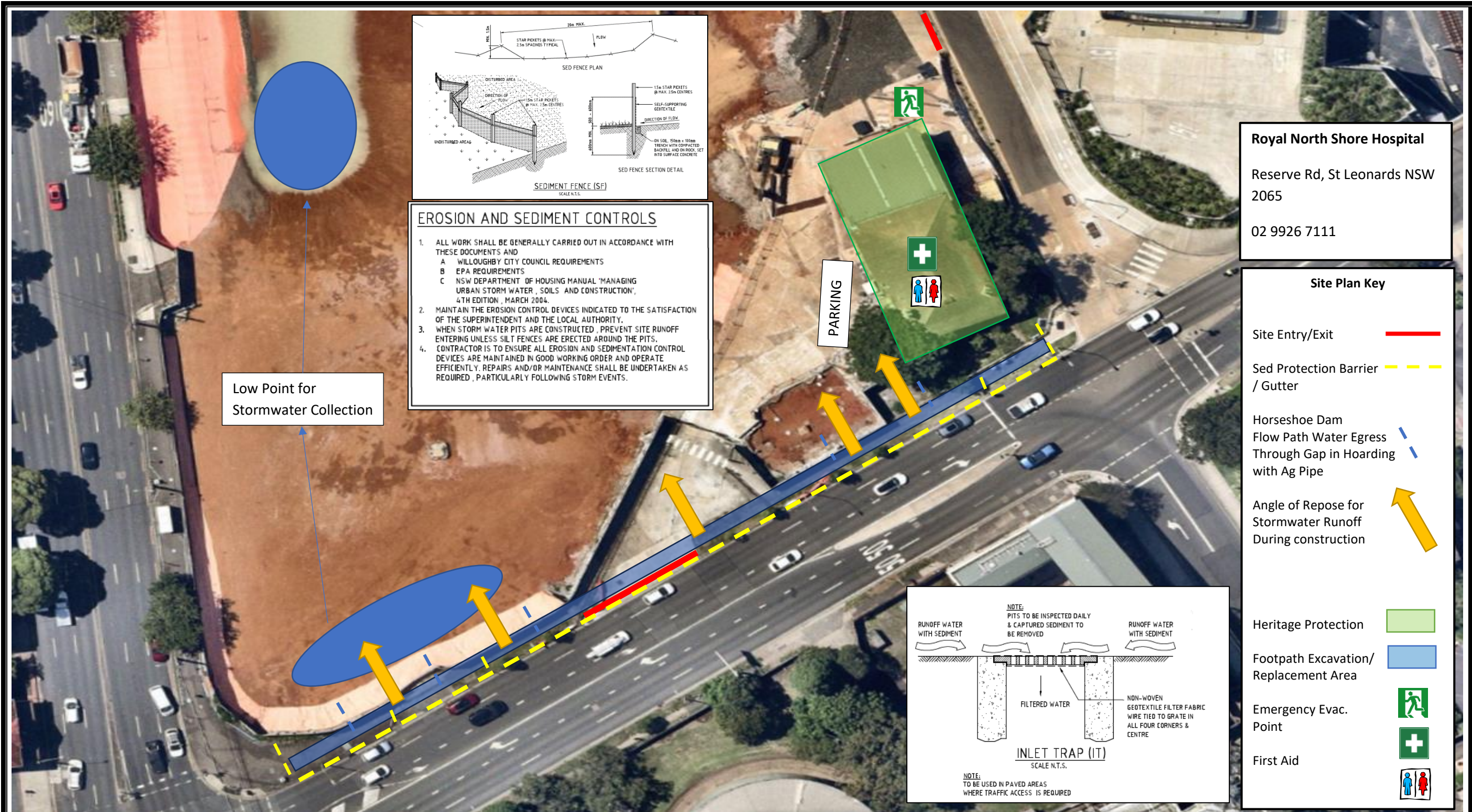
Metro Body of Knowledge (MBoK)

(Uncontrolled when printed)



## Appendix 1: Environmental Control Map

Environmental Control Map.



**Royal North Shore Hospital**  
Reserve Rd, St Leonards NSW  
2065  
02 9926 7111

**Site Plan Key**

- Site Entry/Exit
- Sed Protection Barrier / Gutter
- Horseshoe Dam Flow Path Water Egress Through Gap in Hoarding with Ag Pipe
- Angle of Repose for Stormwater Runoff During construction
- Heritage Protection
- Footpath Excavation/ Replacement Area
- Emergency Evac. Point
- First Aid

	<b>PROJECT NAME</b> Chatswood Precinct Demolition & Remediation Mowbray Rd Chatswood NSW 2067		<b>PROJECT NUMBER</b> P24001	<b>DRAWING NUMBER</b> ECPF002.1		<b>DATE</b> 11/07/2025
	<b>DRAWING NAME</b> Shared Path Works ERSED Plan	<b>CLIENT NAME</b> Sydney Metro	<b>DRAWN</b> LS	<b>APPROVED</b> LS	<b>SCALE</b> Not to Scale	<b>SHEET SIZE</b> A3 Landscape



## Appendix 2: Environmental Risk Assessment



# Sydney Metro - Chatswood Remediation Site

Review Date: 31/10/2025

## Risk Register

RMA GROUP ENVIRONMENTAL RISK REGISTER		IMS Reference: RSK-001				Inherent risk (No Control)			Target Baseline Risk (Maximum Control)			Residual Risk (Current Level Control)			Current Risk Status	Accept Treatment
DATE		Wednesday 30/07/25				Risk Matrix			Risk Appetite			Current Assessment				
Construction Phase	RISK I.D.	Risk Description	Risk Owner	Risk Controls		Likelihood	Consequence	Risk Level	Likelihood	Consequence	Risk Level	Likelihood	Consequence	Risk Level	Within Appetite	Treatment Options
Public	4	Complaints	PM	*RMA will maintain a record of all complaints. Records to be kept in the form of complaint form and register. *Copies of complaint reports to be submitted to Sydney Metro.		3	3	High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
	6	Degradation of Public Roads	PM SS	*Implement and follow CoR Management Plan * Ensure all trucks and vehicles remain on hardstand areas (where possible) to ensure no loose material on vehicle tyres and bodies. * Ensure all required and all appropriate covers are used and secure on trucks. * Vehicles to pass through wheel wash prior to exiting site. * Public roads to be cleaned regularly to prevent build up of mud/soil. * Use licensed drivers and registered vehicles only. * Follow general road rules whilst using public roads. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition		2	4	High	3	6	Low	3	6	Low	Yes	Accept
	44	Negative Media Publicity Event	PM	*RMA personnel to be polite to all media but must refer all complaints, questions etc to Sydney Metro for comment		5	3	Medium	5	4	Low	5	4	Low	Yes	Accept
	47	Protest Event	PM	*RMA will contact Sydney Metro immediately in the event of a protest or threat of protest. *RMA personnel and subcontractors not to interact with protesting parties.		6	3	Low	6	4	Low	6	4	Low	Yes	Accept

Human Resources/Workforce Development	3	Biological Hazards	PM	*No personnel to present to work if sick. *Ensure RPE is cleaned sufficiently at the end of each shift, do not share RPE under any circumstances *No sharing of food *Maintain good hygiene practices - hand and face washing prior to eating or drinking. *Avoid touching the face unless hands have been washed or sanitised. *If a biological hazard is identified onsite that was not identified prior to commencing work onsite, cease work and toolbox talk the hazard and controls. *Wear PPE i.e. gloves, safety glasses, RPE and disposable coveralls if handling or working in an area where it is possible to come into contact with a biological hazard. *Follow controls for Needle Stick Injury	2	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
	7	Drugs & Alcohol	GM PM SM	*Follow RMA Durg & Alcohol Policy. *No drug and alcohol to be brought or consumed on site. *Random drug and alcohol testing may be undertaken	3	1	Very High	5	4	Low	5	4	Low	Yes	Accept
	11	Employee Health & Wellbeing	GM	Follow Workplace Relations and Wellbeing Management Plan	3	3	High	5	5	Low	5	5	Low	Yes	Accept
	59	Subcontractor Management	PM SS SM	*Follow Subcontractor Management Procedure. *Review subcontractor management plans and WHS documentation prior to commencement on site *Perform regular task observations to ensure tasks are being performed in line with documentation *Maintain open lines of communication with subcontractors and Project Manager to keep abreast of subcontractors progress.	3	3	High	4	5	Low	4	5	Low	Yes	Accept
Equipment	22	Equipment Failure	PM	*Project Manager to locate plant & equipment and allocate to the project. Include dates required and how equipment to be collected e.g. float, personnel pick up. If equipment not available Project Manager to procure items using hire partners. *In the event of equipment or machine breakdown, RMA Project Manager to locate alternative equipment/machines. If no RMA items available contact Hire partner to source the items. *Refer to CEMP section 5.25 Plant & Equipment	3	3	High	5	5	Low	5	5	Low	Yes	Accept

Sydney Metro Access	46	Sydney Metro Access Through Site	PM	*Access through RMA's site will be maintained for Sydney Metro and their contractors for the duration of the project. *Access to be gained from the gates off Mowbray Rd. Trucks are to drive through the site and exit through the gates on the eastern boundary allowing access to the Sydney Metro Dive Site. *Access required during site hours should be coordinated with the RMA Project Manager. *Access required outside of work hours to be gained by using RMA and Sydney Metro padlocks in a daisy chain formation. This will allow each respective party to access the site whilst still maintaining site security. *In the event of an emergency the project Project Managers can be contacted to gain access to the site. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition *Refer to CTMP	2	2	Very High	2	6	Medium	2	6	Medium	Yes	Accept with Active Monitoring
	60	Traffic/Vehicles Onsite Vehicle or Pedestrian Interaction	PM	*A Construction Traffic Management Plan (CTMP) must be developed and implemented to control vehicle movements within the site. Follow procedures and instructions within CTMP. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition *Refer to CTMP	2	2	Very High	2	5	Medium	2	5	Medium	Yes	Accept with Active Monitoring
Site Security	1	Access & Egress	PM SS	*Access to the site will only be from Mowbray Rd entry gates. *Heavy vehicles will be required to exit the site via the gates on the eastern site boundary, via the Sydney Metro Dive Site driveway. This will allow heavy vehicles to safely enter Mowbray Rd without disrupting traffic flow. *Entry gates must be locked at the end of the day or when the last person leaves the site. Gates must be locked when the site is unmanned or if there is no spotter at the entry gate off Mowbray Rd. *Delivery vehicles shall be met at the entry gate and escorted to the work area where possible. *No queuing of vehicles on Mowbray Rd. *Personnel must first attend the Site Office (Mowbray House) to sign in and perform pre-start meetings. *All personnel working on the site must complete the site specific induction prior to commencement on site. *Visitors must be escorted by an inducted RMA employee.	3	3	High	5	4	Low	5	4	Low	Yes	Accept
	2	Adverse Weather	PM SS	*RMA project manager and supervisor to monitor the weather conditions closely. *Cease work in heavy rain and during storms.	3	3	High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring



48	Risk to Public	PM SS	<p>*Existing hoardings must be maintained for the duration of the project.</p> <p>*Temporary and existing chainwire fencing must be maintained in good working order for the duration of the project.</p> <p>*Entry gates must be locked at the end of the day or when the last person leaves the site. Gates must be locked when the site is unmanned or if there is no spotter at the entry gate off Mowbray Rd.</p> <p>*No queuing of vehicles on Mowbray Rd.</p> <p>*Site supervisor must conduct a daily safety and environmental check of each site. This check must include a check of perimeter fencing and hoardings. Any issues found involving the hoarding or perimeter fencing must be rectified immediately or if not possible, the appropriate safety measures implemented to prevent access to the site.</p> <p>*A Construction Traffic Management Plan will be developed and implemented to control vehicle movements into and out of the site. This will also include the safe management of pedestrians moving past the site.</p> <p>*Neighbours must be notified prior to asbestos removal work commencing. Notifications must detail what works are expected to occur on site and the commencement dates.</p>	3	2	High	4	5	Low	4	5	Low	Yes	Accept
53	Site Security - Bomb Threat	PM SS	Follow Emergency Response Management Plan	4	1	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
54	Site Security - Fire	PM SS	<p>*Follow Emergency Response Management Plan</p> <p>*RMA to confirm the status of Total Fire Bans. No hot works to be completed during Total Fire Bans.</p> <p>*Fire extinguishers located in an appropriate storage area.</p> <p>*Ensure any hot works activity is documented in Method Statement.</p> <p>*A hot works permit must be completed prior to any hot works activities.</p> <p>*All hot works to have fire extinguisher within reach of the work zone.</p>	3	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
55	Site Security - Robbery event	PM SS	<p>*Follow Emergency Response Management Plan</p> <p>*Follow Site Security Management Plan</p> <p>*Security Management company to perform site security</p> <p>*CCTV cameras to be installed to monitor the site including access points</p>	3	3	High	5	4	Low	5	4	Low	Yes	Accept

	56	Site Security - Site Boundary/Unauthorised Access	PM SS	<p>*Follow Site Security Management Plan</p> <p>*CCTV cameras to be installed to monitor the site including access points.</p> <p>*Existing hoardings must be maintained for the duration of the project.</p> <p>*Temporary and existing chainwire fencing must be maintained in good working order for the duration of the project.</p> <p>*Entry gates must be locked at the end of the day or when the last person leaves the site. Gates must be locked when the site is unmanned or if there is no spotter at the entry gate off Mowbray Rd.</p> <p>*A spotter will be used to monitor vehicle and pedestrian access to the site.</p> <p>*Legislative signage must be installed at entry points to the site. RMA Company signage including the site contact details must be displayed at the entry point to the site.</p> <p>*Personnel must first attend the Site Office (Mowbray House) to sign in and perform pre-start meetings.</p> <p>*All personnel working on the site must complete the site specific induction prior to commencement on site.</p> <p>*Visitors must be escorted by an inducted RMA employee.</p> <p>*Site supervisor must conduct a daily safety and environmental check of each site. This check must include a check of perimeter fencing and hoardings. Any issues found during the daily checks must be rectified immediately or if not possible, the appropriate safety measures implemented to make the site safe.</p>	2	1	Very High	5	5	Low	5	5	Low	Yes	Accept
--	----	---	----------	---	---	---	-----------	---	---	-----	---	---	-----	-----	--------

	65	Site Security - Destruction of Property & Graffiti	PM SS	*Follow Site Security Management Plan *CCTV cameras to be installed to monitor the site including access points. *Existing hoardings must be maintained for the duration of the project. *Temporary and existing chainwire fencing must be maintained in good working order for the duration of the project. *Entry gates must be locked at the end of the day or when the last person leaves the site. Gates must be locked when the site is unmanned or if there is no spotter at the entry gate off Mowbray Rd. *Site supervisor must conduct a daily safety and environmental check of each site. This check must include a check of perimeter fencing and hoardings. Any issues found involving the hoarding or perimeter fencing must be rectified immediately or if not possible, the appropriate safety measures implemented to prevent access to the site. *Graffiti to be reported to the site supervisor or project manager as soon as it is discovered. *Rectify any damage to perimeter hoardings or fencing as soon practical. If damage to hoarding or fencing would cause a breach in site security such as unauthorised access to site, this must be remained immediately.	2	1	Very High	4	5	Low	4	5	Low	Yes	Accept
Waste Management	6	Degradation of Public Roads	PM SS	*Implement and follow CoR Management Plan * Ensure all required and all appropriate covers are used and secure on trucks. * Vehicles to pass through wheel wash priro to exiting site. * Public roads to be cleaned regularly to prevent build up of mud/soil. * Use licensed drivers and registered vehicles only. * Follow general road rules whilst using public roads. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition	2	4	High	3	6	Low	3	6	Low	Yes	Accept

8	Dust	PM SS	<ul style="list-style-type: none"> <li>*Temporary fencing to have shade cloth installed to minimise off-site dust release.</li> <li>* Use targeted water spray to help suppress dust during waste load out. Water spray devices such as handheld pump spray bottles and high-pressure water sprayers will be used on this site.</li> <li>*Monitor wind levels daily. It may be necessary to halt work temporarily during high wind occasions.</li> <li>*Truck driver to remain in cabin during loading.</li> <li>*Operator performing waste loadout must have cabin door closed with air conditioning running.</li> <li>*Truck loads must be covered prior to leaving site.</li> <li>*Personnel to wear P2 dust mask during truck load out. P3 respirator to be worn if the waste being loaded out is contaminated in nature.</li> <li>*Refer to CEMP section 5.18 Dust Suppression</li> </ul>	2	4	High	4	5	Low	4	5	Low	Yes	Accept
18	Environment - Noxious Weed propagation	PM SS	<ul style="list-style-type: none"> <li>* Ensure all trucks and vehicles remain on hardstand areas (where possible) to minimise interaction with weeds or plants</li> <li>* Vehicles to pass through wheel wash prior to exiting site.</li> <li>*Refer to CEMP section 5.23 Flora &amp; Fauna</li> </ul>	3	4	Medium	6	4	Low	6	4	Low	Yes	Accept
20	Environment - Release of Asbestos or other Hazardous Substances	PM SS	<ul style="list-style-type: none"> <li>*Truck loads must be covered prior to leaving site.</li> <li>*Do not overload trucks to minimise the risk of truck tip over or material falling from trailers.</li> <li>*Refer to ARCP</li> <li>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</li> <li>*Refer to CEMP section 5.14 Spill Response</li> </ul>	2	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
24	Exposure to Asbestos	PM SS	<ul style="list-style-type: none"> <li>*Truck driver to remain in cabin during loading of asbestos or contaminated materials</li> <li>*Maintain dust suppression during loading of waste stockpiles</li> <li>*Establish exclusion zones around load out areas where the material contains asbestos.</li> <li>*Only the required personnel to be within the load out area.</li> <li>*Personnel required to be within the load out area must wear the appropriate asbestos PPE including P3 respirator, disposable coveralls, safety glasses, gloves and safety boots.</li> <li>*Refer to ARCP</li> </ul>	3	3	High	5	5	Low	5	5	Low	Yes	Accept

	25	Exposure to Other Hazardous Substances	PM SS	*Truck driver to remain in cabin during loading of asbestos or contaminated materials *Maintain dust suppression during loading of waste stockpiles *Establish exclusion zones around load out areas where the material contains contaminated materials. *Only the required personnel to be within the load out area. *Personnel required to be within the load out area must wear the appropriate PPE. The required PPE will be determined based on the Waste Classification of the material being loaded out. *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods *Refer to CEMP section 5.14 Spill Response	3	3	High	5	5	Low	5	5	Low	Yes	Accept
	60	Traffic/Vehicles Onsite Vehicle or Pedestrian Interaction	PM	*A Construction Traffic Management Plan (CTMP) must be developed and implemented to control vehicle movements within the site. Follow procedures and instructions within CTMP. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition *Refer to CTMP	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
	61	Traffic/Vehicles Offsite Vehicle or Pedestrian Interaction	PM SS	*A Construction Traffic Management Plan will be developed and implemented to control vehicle movements into and out of the site. This will also include the safe management of pedestrians moving past the site. Follow procedures and instructions within CTMP. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition *Refer to CTMP	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
	63	Waste Management Uncontrolled Waste	PM	*All waste must be classified in line with the NSW EPA Waste Classification Guidelines. *All loads of soil must not leave site without a waste classification. *All waste must be sorted into appropriate streams to maximise recycling. *Waste to be disposed of at a licensed landfill or recycling facility. *Waste dockets must be kept, recorded and a copy issued to Sydney Metro. *Waste Tracking must be performed by RMA's Project Manager. *Refer to CEMP section 5.20 Waste Management *Refer to WMP	3	2	High	6	4	Low	6	4	Low	Yes	Accept
Site Establishment	2	Adverse Weather	PM	*RMA project manager and supervisor to monitor the weather conditions closely. *Cease work in heavy rain and during storms.	3	3	High	4	5	Low	4	5	Low	Yes	Accept

5	Dangerous Goods	PM	*Identify dangerous goods by checking the label and source an SDS*Dangerous goods must be stored in accordance with their SDS. *Dangerous goods may only be transported by persons who have been trained in the handling and transportation of dangerous goods. Licence to transport required for the driver and the vehicle. Transport documents required for transport and must be carried in the vehicles cabin. *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods	3	3	High	4	5	Low	4	5	Low	Yes	Accept
6	Degradation of Public Roads	PM	* Ensure all required and all appropriate covers are used and secure on trucks. * Use licensed drivers and registered vehicles only. * Follow general road rules whilst using public roads. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
8	Dust	PM SS	*Temporary fencing to have shade cloth installed to minimise off-site dust release. *Monitor wind levels daily. It may be necessary to halt work temporarily during high wind occasions. *Personnel to wear P2 dust mask in dusty conditions. *Refer to CEMP section 5.18 Dust Suppression	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
13	Environment - Archaeological/Heritage	PM	*Areas of Heritage Significance should be marked out on site by the Heritage Consultant *Archaeological/Heritage Method Statement to be prepared by Heritage Consultant. *Site induction to include the location of significant areas and what controls will be in place whilst performing work in these areas. *Refer to CEMP section 5.24 Heritage, Archaeological and Aboriginal Artefacts	4	4	Medium	5	6	Low	5	6	Low	Yes	Accept
14	Environment - Chemical/Hazardous/ Non-Hazardous Substance Spills	PM SS	*Ensure all substances (hazardous and non-hazardous) are stored correctly in line with the SDS. *Ensure a spill kit is located on site. Multiple spill kits will be used for this site due to the large size of the site. *Follow Spill Response Procedure noted in the CEMP *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods *Refer to CEMP section 5.14 Spill Response	3	3	High	4	5	Low	4	5	Low	Yes	Accept



15	Environment - Fauna/Flora	PM SS	<p>*To prevent the spread of weeds, all equipment and in particular personnel boots will be cleaned prior to entering or leaving the site. Any plant material removed during this process must be bagged and disposed of at a licenced landfill.</p> <p>*Prior to commencing works, the site including any vegetation will be inspected for the presence of Fauna. If native fauna is encountered on site work will cease and the fauna will be allowed to move away from the area. If fauna is required to be removed from site, RMA will contact the client representative and request advice and or assistance in its removal. All native fauna is protected by law direct contact with wildlife should be avoided wherever possible.</p> <p>*If injured wildlife is encountered, the project site supervisor should contact the nearest wildlife rescue organisation to assist with its relocation.</p> <p>*In the event personnel are bitten or scratched report to the First Aid Officer.</p> <p>*Refer to CEMP section 5.23 Flora &amp; Fauna</p>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
17	Environment - Heat Stress	PM SS	<p>*Ensure no one works alone. By implementing a buddy system workers are more aware to lookout for each other.</p> <p>*RMA must provide adequate drinking water and hydration should be maintained during the day.</p> <p>*Encourage workers to take more breaks throughout the shift and stay hydrated.</p> <p>*Provide sunscreen and encourage personnel to regularly apply it.</p> <p>*Wear light weight long sleeve shirts and long pants to protect against burns.</p> <p>*Attach brims to hard hats for sun protection.</p> <p>*Refer to CEMP section 5.15 Heat Stress &amp; Skin Protection</p>	2	3	High	4	5	Low	4	5	Low	Yes	Accept
32	Hazardous/Non-Hazardous Substances	PM SS	<p>*Any substances to be used or stored on the site must have a current SDS immediately available.</p> <p>*Identify all substances on site and refer to the SDS for transport, storage, use and disposal methods. Refer to SDS for PPE requirements when using the product.</p> <p>*Substances must be stored in a designated area. This will be discussed in the site induction.</p> <p>*A spill kit will be kept on site in the event of a spill occurring on site. Spill kits to be located in the site shed and site office.</p> <p>*Follow Spill Response Procedure in the event of a spill/leak of chemicals, dangerous goods, or hazardous/non-hazardous substance.</p> <p>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</p> <p>*Refer to CEMP section 5.14 Spill Response</p>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept

	43	Needle Stick Injury	PM SS	<ul style="list-style-type: none"> <li>*Site induction to cover the potential of finding needles during works and what to do if they are found (correct disposal).</li> <li>*Perform an inspection of the work area for needles/syringes.</li> <li>*Carefully lift rubbish etc. and look for needles.</li> <li>*Sharps container must be available on site to dispose of any needles found.</li> <li>*Only handle sharps by the syringe. Do not touch the needle. Keep the sharp end away from the body and do not walk towards other people holding the needle.</li> <li>*Use tongs to pick up the needle if it is unsafe to hold it or if the tube/syringe is not present or broken.</li> <li>*Wear safety boots, gloves and long pants and sleeves during site activities.</li> </ul>	3	2	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
	45	Noise & Vibration	PM SS	<ul style="list-style-type: none"> <li>* Follow procedures and instructions in the Noise and Vibration Management Plan</li> <li>*Any noise creating activity must be minimised where possible and is to be completed during hours approved by Sydney Metro (Mon-Fri 7am to 6pm &amp; Sat 8am to 6pm)</li> <li>*All equipment and machinery shall be operated in an efficient manner to minimise the emission of background noise around the site.</li> <li>*Equipment will be selected for the project on the basis of its noise performance and will be fitted with noise attenuation mufflers to meet Australian Standards for noise generation.</li> <li>*Perform noise/vibration monitoring when directed by the Noise and Vibration Management Plan.</li> <li>*Personnel to wear ear protection when advised by the site supervisor.</li> <li>*Refer to CEMP section 5.21 Noise &amp; Vibration Management</li> </ul>	1	3	Very High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring

49	Services Aboveground/Overhead	PM SS	<p>*When working within 3m of aboveground/overhead powerlines or structures RMA to utilise Above Ground Service Work Permit.</p> <p>*Inspect the site for any unknown overhead services or structures.</p> <p>*Overhead powerlines are situated along the Pacific Highway. These powerlines are located outside of the site boundaries, however safe approach distances will be maintained.</p> <p>*Tiger tails to be placed on overhead powerlines on Pacific Hwy and Nelson St.</p> <p>*When working within 2m of an Ausgrid asset RMA are to contact Ausgrid. Ausgrid to determine if an Ausgrid representative needs to be present to supervise the work.</p> <p>*If necessary, install physical barriers to prevent machinery from exceeding safe approach distance.</p> <p>*Refer to CEMP section 5.19 Services and Above and Undergrond Structures</p>	3	2	High	5	5	Low	5	5	Low	Yes	Accept
58	Snakes, Spiders, Insects etc.	PM SS	<p>*Perform a visual inspection of the work area prior to commencing any work.</p> <p>*All RMA personnel and subcontractors must be on the lookout for snakes, spiders etc. at all times.</p> <p>*Avoid lifting or moving debris or onsite objects unless necessary.</p> <p>*Avoid accessing suspect areas unless necessary.</p> <p>*A qualified first aider must be present on site at all times. The first aider must be identified during the site induction and must be contactable and available at all times.</p> <p>*First aid facilities will be located in the site shed and site office.</p> <p>*If a snake is found work is to cease and the site supervisor is to be notified immediately.</p> <p>*RMA personnel, subcontractors or visitors must wear the appropriate PPE i.e. Steel toe shoes, long sleeve shirt and long pants and gloves when required.</p>	3	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
60	Traffic/Vehicles Onsite Vehicle or Pedestrian Interaction	PM	<p>*A Construction Traffic Management Plan (CTMP) must be developed and implemented to control vehicle movements within the site. Follow procedures and instructions within CTMP.</p> <p>*Refer to CEMP section 5.22 Traffic Management and Local Road Condition</p> <p>*Refer to CTMP</p>	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
61	Traffic/Vehicles Offsite Vehicle or Pedestrian Interaction	PM SS	<p>*A Construction Traffic Management Plan will be developed and implemented to control vehicle movements into and out of the site. This will also include the safe management of pedestrians moving past the site. Follow procedures and instructions within CTMP.</p> <p>*Refer to CEMP section 5.22 Traffic Management and Local Road Condition</p> <p>*Refer to CTMP</p>	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring

	62	Unexpected Finds	PM	*Follow Unexpected Finds Procedure *Follow Unexpected Finds Procedure for Archaeological finds as per the Archaeological Method Statement *Refer to CEMP section 7 Unexpected Finds Protocol *Refer to CEMP section 5.24 Heritage, Archaeological and Aboriginal Artefacts	3	4	Medium	5	5	Low	5	5	Low	Yes	Accept
Demolition Works - Removal of Existing Footpath	2	Adverse Weather	PM	*RMA project manager and supervisor to monitor the weather conditions closely. *Cease work in heavy rain and during storms. *Where possible heavy machinery to remain on hardstand areas to prevent creation of mud or slurry.	3	3	High	4	5	Low	4	5	Low	Yes	Accept
	5	Dangerous Goods	PM	*Identify dangerous goods by checking the label and source an SDS* Dangerous goods must be stored in accordance with their SDS. *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods	3	3	High	4	5	Low	4	5	Low	Yes	Accept
	8	Dust	PM SS	*Temporary fencing to have shade cloth installed to minimise off-site dust release. * Use targeted water spray to help suppress dust during concrete cutting and demolition. Water spray devices such as handheld pump spray bottles and high-pressure water sprayers will be used on this site. *Monitor wind levels daily. It may be necessary to halt work temporarily during high wind occasions. *Operators performing demolition of hardstand areas must have cabin door closed with air conditioning running. *Personnel to wear P2 dust mask during concrete cutting or removal. P3 respirator to be worn if the concrete being removed contains asbestos. *Refer to CEMP section 5.18 Dust Suppression	1	3	Very High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
	12	Environment - Air Pollution	PM SS	*Machinery and equipment must be serviced and maintained to ensure they are running correctly and are not producing excessive emissions. *Maintain erosion and sediment controls to prevent dust being released from stockpiles and excavations. *Follow controls for Dust *Refer to CEMP section 5.18 Dust Suppression *Refer to CEMP section 5.25 Plant & Equipment *Refer to CEMP section 5.28 Odour Control	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept

13	Environment - Archaeological/Heritage	PM	<ul style="list-style-type: none"> <li>*Areas of Heritage Significance should be marked out on site by the Heritage Consultant</li> <li>*Archaeological/Heritage Method Statement to be prepared by Heritage Consultant.</li> <li>*Site induction to include the location of significant areas and what controls will be in place whilst performing work in these areas.</li> <li>*Excavation Director provided by the Heritage Consultant is to supervise any excavation work within Heritage significant/sensitive areas.</li> <li>*Refer to CEMP section 5.24 Heritage, Archaeological and Aboriginal Artefacts</li> </ul>	3	3	High	4	5	Low	4	5	Low	Yes	Accept
14	Environment - Chemical/Hazardous/ Non-Hazardous Substance Spills	PM SS	<ul style="list-style-type: none"> <li>*Ensure all substances (hazardous and non-hazardous) are stored correctly in line with the SDS.</li> <li>*Ensure a spill kit is located on site. Multiple spill kits will be used for this site due to the large size of the site.</li> <li>*Follow Spill Response Procedure noted in the CEMP</li> <li>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</li> <li>*Refer to CEMP section 5.14 Spill Response</li> </ul>	3	3	High	4	5	Low	4	5	Low	Yes	Accept
15	Environment - Fauna/Flora	PM SS	<ul style="list-style-type: none"> <li>*To prevent the spread of weeds, all equipment and in particular personnel boots will be cleaned prior to entering or leaving the site. Any plant material removed during this process must be bagged and disposed of at a licenced landfill.</li> <li>*Prior to commencing works, the site including any vegetation will be inspected for the presence of Fauna. If native fauna is encountered on site work will cease and the fauna will be allowed to move away from the area. If fauna is required to be removed from site, RMA will contact the client representative and request advice and or assistance in its removal. All native fauna is protected by law direct contact with wildlife should be avoided wherever possible.</li> <li>*If injured wildlife is encountered, the project site supervisor should contact the nearest wildlife rescue organisation to assist with its relocation.</li> <li>*In the event personnel are bitten or scratched report to the First Aid Officer.</li> <li>*Refer to CEMP section 5.23 Flora &amp; Fauna</li> </ul>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
16	Environment - Groundwater Contamination	PM SS	<ul style="list-style-type: none"> <li>*Maintain erosion and sediment controls to prevent contaminated material being released from stockpiles and excavations and leaching or running into groundwater.</li> <li>*Refer to CEMP section 5.17 Erosion, Sediment, Water Quality Control</li> </ul>	3	4	Medium	5	5	Low	5	5	Low	Yes	Accept

17	Environment - Heat Stress	PM SS	<ul style="list-style-type: none"> <li>*Ensure no one works alone. By implementing a buddy system workers are more aware to lookout for each other.</li> <li>*Operators of machinery to ensure air conditioning is turned on during operations.</li> <li>*RMA must provide adequate drinking water and hydration should be maintained during the day.</li> <li>*Encourage workers to take more breaks throughout the shift and stay hydrated.</li> <li>*Provide sunscreen and encourage personnel to regularly apply it.</li> <li>*Wear light weight long sleeve shirts and long pants to protect against burns.</li> <li>*Attach brims to hard hats for sun protection.</li> <li>*Refer to CEMP section 5.15 Heat Stress &amp; Skin Protection</li> </ul>	2	3	High	4	5	Low	4	5	Low	Yes	Accept
18	Environment - Noxious Weed propagation	PM SS	<ul style="list-style-type: none"> <li>* Ensure all trucks and vehicles remain on hardstand areas (where possible) to minimise interaction with weeds or plants</li> <li>* Vehicles to pass through wheel wash prior to exiting site.</li> <li>*Refer to CEMP section 5.23 Flora &amp; Fauna</li> </ul>	3	4	Medium	6	4	Low	6	4	Low	Yes	Accept
19	Environment - Odour Event	PM SS	<ul style="list-style-type: none"> <li>*Cease work and notify Sydney Metro.</li> <li>*Find the source of the odour.</li> <li>*Remove the source of the odour and use an odour suppressant as required.</li> <li>*Return to work once approvals granted by Sydney Metro.</li> <li>*Refer to CEMP section 5.28 Odour Control</li> </ul>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
20	Environment - Release of Asbestos or other Hazardous Substances	PM SS	<ul style="list-style-type: none"> <li>*Ensure air monitoring is conducted during excavation or removal of asbestos.</li> <li>*Cease work and follow Unexpected Finds Procedure if asbestos or other substances identified in unknown locations.</li> <li>*Follow Controls for Exposure Asbestos</li> <li>*Refer to ARCP</li> <li>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</li> <li>*Refer to CEMP section 5.14 Spill Response</li> </ul>	3	4	Medium	5	5	Low	5	5	Low	Yes	Accept
21	Environment - Stormwater Contamination	PM SS	<ul style="list-style-type: none"> <li>*Maintain erosion and sediment controls to prevent contaminated and uncontaminated material being released from stockpiles and excavations and running into stormwater.</li> <li>*Refer to CEMP section 5.17 Erosion, Sediment, Water Quality Control</li> </ul>	3	4	Medium	5	5	Low	5	5	Low	Yes	Accept



	24	Exposure to Asbestos	PM SS ASBS	<p>*Notify SafeWork NSW 5 days prior to commencing asbestos removal.</p> <p>*Asbestos Removal Control Plan to be developed.</p> <p>*SWMS to be provided for asbestos removal and all staff must be trained in the SWMS prior to any asbestos removal works commencing.</p> <p>*Set up asbestos exclusion zones delineated with barricades, hazard tape, flags etc. with regulatory signage clearly visible.</p> <p>*Wear appropriate PPE, i.e. disposable overalls, P3 RPE, gloves, safety glasses and rubber soled safety boots during asbestos removal.</p> <p>*Set up a decontamination area in accordance with the ARCP. The decontamination area must be located on the exclusion zone boundary and act as the entry/exit point to the asbestos area.</p> <p>*Only personnel trained in the removal of asbestos are able to perform asbestos removal activities.</p> <p>*Only H Class HEPA filtered asbestos vacuums can be used during asbestos removal.</p> <p>*DO NOT wear contaminated PPE outside the asbestos exclusion zones.</p> <p>*Maintain dust suppression methods – targeted water spray during remediation from pump spray bottles and high-pressure water sprayer.</p> <p>*All asbestos waste is to be double bagged/wrapped and must pass through the decontamination area before being transported to the designated waste vehicle or skip bin.</p> <p>*Air monitoring to be performed by Occupational Hygienist.</p> <p>*Asbestos air monitoring results from the previous day to be made available at the beginning of each new day. If the reporting limit of &gt;0.02 fibres/mL is detected, works will cease immediately, and asbestos work controls will be investigated and reassessed. Works may only recommence once the removal contractor, licensed asbestos assessor and the client are satisfied that the revised control methods are adequate and further air monitoring returns results &lt;0.01 fibres/mL. SafeWork NSW need to be notified in the event of reaching or exceeding the reporting limit of &gt;0.02 fibres/mL.</p> <p>*Refer to ARCP</p>	2	2	Very High	5	5	Low	5	5	Low	Yes	Accept
--	----	----------------------	------------------	--	---	---	-----------	---	---	-----	---	---	-----	-----	--------

25	Exposure to Other Hazardous Substances	PM SS	<ul style="list-style-type: none"> <li>*Maintain dust suppression during concrete cutting or demolition</li> <li>*Establish exclusion zones around work areas where the material contains contaminated materials.</li> <li>*Only the required personnel to be within the work area.</li> <li>*Follow Unexpected Finds Procedure if unexpected material encountered.</li> <li>*Personnel required to be within the work area must wear the appropriate PPE. The required PPE will be determined based on the Waste Classification of the material being worked with.</li> <li>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</li> <li>*Refer to CEMP section 5.14 Spill Response</li> </ul>	2	3	High	5	5	Low	5	5	Low	Yes	Accept
32	Hazardous/Non-Hazardous Substances	PM SS	<ul style="list-style-type: none"> <li>*Any substances to be used or stored on the site must have a current SDS immediately available.</li> <li>*Identify all substances on site and refer to the SDS for transport, storage, use and disposal methods. Refer to SDS for PPE requirements when using the product.</li> <li>*Substances must be stored in a designated area. This will be discussed in the site induction.</li> <li>*A spill kit will be kept on site in the event of a spill occurring on site. Spill kits to be located in the site shed and site office.</li> <li>*Follow Spill Response Procedure in the event of a spill/leak of chemicals, dangerous goods, or hazardous/non-hazardous substance.</li> <li>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</li> </ul>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
33	Hot Works/Fire/Explosion	PM SS	<ul style="list-style-type: none"> <li>*RMA to confirm the status of Total Fire Bans. No hot works to be completed during Total Fire Bans.</li> <li>*Fire extinguishers located in an appropriate storage area.</li> <li>*Ensure any hot works activity is documented in Method Statement.</li> <li>*A hot works permit must be completed prior to any hot works activities.</li> <li>*All hot works to have fire extinguisher within reach of the work zone.</li> <li>*Refer to CEMP section 5.13 Hot Works &amp; Fire Prevention</li> </ul>	2	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring

43	Needle Stick Injury	PM SS	<ul style="list-style-type: none"> <li>*Site induction to cover the potential of finding needles during works and what to do if they are found (correct disposal).</li> <li>*Perform an inspection of the work area for needles/syringes.</li> <li>*Carefully lift rubbish etc. and look for needles.</li> <li>*Sharps container must be available on site to dispose of any needles found.</li> <li>*Only handle sharps by the syringe. Do not touch the needle. Keep the sharp end away from the body and do not walk towards other people holding the needle.</li> <li>*Use tongs to pick up the needle if it is unsafe to hold it or if the tube/syringe is not present or broken.</li> <li>*Wear safety boots, gloves and long pants and sleeves during site activities.</li> </ul>	3	2	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
45	Noise & Vibration	PM SS	<ul style="list-style-type: none"> <li>* Follow procedures and instructions in the Noise and Vibration Management Plan</li> <li>*Any noise creating activity must be minimised where possible and is to be completed during hours approved by Sydney Metro (Mon-Fri 7am to 6pm &amp; Sat 8am to 6pm)</li> <li>*All equipment and machinery shall be operated in an efficient manner to minimise the emission of background noise around the site.</li> <li>*Equipment will be selected for the project on the basis of its noise performance and will be fitted with noise attenuation mufflers to meet Australian Standards for noise generation.</li> <li>*Perform noise/vibration monitoring when directed by the Noise and Vibration Management Plan.</li> <li>*Minimise vibration by using the smallest/lightest possible piece of machinery to perform the tasks.</li> <li>*Personnel to wear ear protection when advised by the site supervisor.</li> <li>*Refer to CEMP section 5.21 Noise &amp; Vibration Management</li> </ul>	1	3	Very High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
46	Sydney Metro Access Through Site	PM SS	<ul style="list-style-type: none"> <li>*Where hardstand is being removed in the vicinity of the Sydney Metro thoroughfare / haul road, ensure the work area is clearly demarcated.</li> <li>*Use additional temporary fencing to create separation between the removal area and the haul road.</li> <li>*Request notice of access from Sydney Metro prior to vehicles attending site.</li> <li>*The location of Sydney Metro thoroughfare to be discussed during site inductions.</li> <li>*Refer to CEMP section 5.22 Traffic Management and Local Road Condition</li> <li>*Refer to CTMP</li> </ul>	2	2	Very High	2	6	Medium	2	6	Medium	Yes	Accept with Active Monitoring
49	Services Aboveground/Overhead	PM SS	<ul style="list-style-type: none"> <li>*Inspect the site for any unknown overhead services or structures.</li> <li>*When working within 3m of aboveground/overhead powerlines or structures RMA to utilise Above Ground Service Work Permit.</li> <li>*Overhead powerlines are situated along the Pacific Highway. These powerlines are located outside of the site boundaries, however safe approach distances will be maintained.</li> <li>*Tiger tails to be placed on overhead powerlines on Pacific Hwy and Nelson St.</li> <li>*When working within 2m of an Ausgrid asset RMA are to contact Ausgrid. Ausgrid to determine if an Ausgrid representative needs to be present to supervise the work.</li> <li>*If necessary, install physical barriers to prevent machinery from exceeding safe approach distance.</li> <li>*Refer to CEMP section 5.19 Services and Above and Undergrnd Structures</li> </ul>	3	2	High	5	5	Low	5	5	Low	Yes	Accept

50	Services Underground	PM SS	<p>*Conduct a Dial Before You Dig enquiry, consult plans and perform underground services searches if required.</p> <p>*Ground penetration permit to be completed</p> <p>*Confirm service isolations and terminations of underground services.</p> <p>*If existing services are to remain live these should be marked or tagged and locations discussed during the pre-start meetings or toolbox talk. Install protective measures around the service if possible.</p> <p>*Excavations around known underground services should be completed using pot holing or non-destructive digging methods.</p> <p>*All electrical, telecommunications and plumbing isolation and termination works to be completed by a qualified/licenced tradesperson.</p> <p>*If at any time you come across unidentified cables / services. Work must cease to this area. Immediately contact the site supervisor who is to establish if this is a live / isolated service.</p> <p>*Refer to CEMP section 5.19 Services and Above and Undergrond Structures</p>	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
52	Silica Dust	PM SS	<p>*Where there is a risk of creating or coming into exposure of silica dust:</p> <ul style="list-style-type: none"> <li>- Wet or dampen surfaces before working</li> <li>- Apply water to the cutting face during work</li> <li>- Capture slurry and dispose of slurry in sealed containers</li> <li>- Use a dust mask during works and clean up.</li> </ul> <p>*Follow Exposure Control Plan and Respiratory Protection Control Plan. Personnel must wear P2 half face mask. Mask must be fit tested. Personnel must be clean shaven.</p>	3	3	High	4	5	Low	4	5	Low	Yes	Accept
58	Snakes, Spiders, Insects etc.	PM SS	<p>*Perform a visual inspection of the work area prior to commencing any work.</p> <p>*All RMA personnel and subcontractors must be on the lookout for snakes, spiders etc. at all times.</p> <p>*Avoid lifting or moving debris or onsite objects unless necessary.</p> <p>*Avoid accessing suspect areas unless necessary.</p> <p>*A qualified first aider must be present on site at all times. The first aider must be identified during the site induction and must be contactable and available at all times.</p> <p>*First aid facilities will be located in the site shed and site office.</p> <p>*If a snake is found work is to cease and the site supervisor is to be notified immediately.</p> <p>*RMA personnel, subcontractors or visitors must wear the appropriate PPE i.e. Steel toe shoes, long sleeve shirt and long pants and gloves when required.</p>	3	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
60	Traffic/Vehicles Onsite Vehicle or Pedestrian Interaction	PM	<p>*A Construction Traffic Management Plan (CTMP) must be developed and implemented to control vehicle movements within the site. Follow procedures and instructions within CTMP.</p> <p>*Refer to CEMP section 5.22 Traffic Management and Local Road Condition</p> <p>*Refer to CTMP</p>	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
62	Unexpected Finds	PM	<p>*Follow Unexpected Finds Procedure</p> <p>*Follow Unexpected Finds Procedure for Archaeological finds as per the Archaeological Method Statement</p> <p>*Refer to CEMP section 7 Unexpected Finds Protocol</p> <p>*Refer to CEMP section 5.24 Heritage, Archaeological and Aboriginal Artefacts</p>	2	4	High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
63	Waste Management Uncontrolled Waste	PM SS	<p>*All waste must be sorted into appropriate streams to maximise recycling.</p> <p>*Waste will be stockpiled ready for loadout and removal from site.</p> <p>*Refer to CEMP section 5.20 Waste Management</p> <p>*Refer to WMP</p>	3	3	High	5	5	Low	5	5	Low	Yes	Accept

Footpath Construction Works	2	Adverse Weather	PM	*RMA project manager and supervisor to monitor the weather conditions closely. *Cease work in heavy rain and during storms. *Where possible heavy machinery to remain on hardstand areas to prevent creation of mud or slurry.	3	3	High	4	5	Low	4	5	Low	Yes	Accept
	5	Dangerous Goods	PM	*Identify dangerous goods by checking the label and source an SDS*Dangerous goods must be stored in accordance with their SDS. *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods	3	3	High	4	5	Low	4	5	Low	Yes	Accept
	8	Dust	PM SS	*Follow controls for Exposure to Asbestos *Follow controls for Exposure to Other Hazardous Substances *Temporary fencing to have shade cloth installed to minimise off-site dust release. * Use targeted water spray to help suppress dust during excavation work. Water spray devices such as handheld pump spray bottles and high-pressure water sprayers will be used on this site. *Monitor wind levels daily. It may be necessary to halt work temporarily during high wind occasions. *Operators performing excavations must have cabin door closed with air conditioning running. *Personnel to wear P2 dust mask during dusty conditions. P3 respirator to be worn if the ground is known or suspected to contain contaminants such as asbestos. *Refer to CEMP section 5.18 Dust Suppression	1	3	Very High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
	12	Environment - Air Pollution	PM SS	*Machinery and equipment must be serviced and maintained to ensure they are running correctly and are not producing excessive emissions. *Maintain erosion and sediment controls to prevent dust being released from stockpiles and excavations. *Follow controls for Dust *Refer to CEMP section 5.18 Dust Suppression *Refer to CEMP section 5.25 Plant & Equipment *Refer to CEMP section 5.28 Odour Control	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
	13	Environment - Archaeological/Heritage	PM	*Areas of Heritage Significance should be marked out on site by the Heritage Consultant *Archaeological/Heritage Method Statement to be prepared by Heritage Consultant. *Site induction to include the location of significant areas and what controls will be in place whilst performing work in these areas. *Excavation Director provided by the Heritage Consultant is to supervise any excavation work within Heritage significant/sensitive areas. *Refer to CEMP section 5.24 Heritage, Archaeological and Aboriginal Artefacts	3	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
	14	Environment - Chemical/Hazardous/Non-Hazardous Substance Spills	PM SS	*Ensure all substances (hazardous and non-hazardous) are stored correctly in line with the SDS. *Ensure a spill kit is located on site. Multiple spill kits will be used for this site due to the large size of the site. *Follow Spill Response Procedure noted in the CEMP *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods *Refer to CEMP section 5.14 Spill Response	3	3	High	4	5	Low	4	5	Low	Yes	Accept

15	Environment - Fauna/Flora	PM SS	<p>*To prevent the spread of weeds, all equipment and in particular personnel boots will be cleaned prior to entering or leaving the site. Any plant material removed during this process must be bagged and disposed of at a licenced landfill.</p> <p>*Prior to commencing works, the site including any vegetation will be inspected for the presence of Fauna. If native fauna is encountered on site work will cease and the fauna will be allowed to move away from the area. If fauna is required to be removed from site, RMA will contact the client representative and request advice and or assistance in its removal. All native fauna is protected by law direct contact with wildlife should be avoided wherever possible.</p> <p>*If injured wildlife is encountered, the project site supervisor should contact the nearest wildlife rescue organisation to assist with its relocation.</p> <p>*In the event personnel are bitten or scratched report to the First Aid Officer.</p> <p>*Refer to CEMP section 5.23 Flora &amp; Fauna</p>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
16	Environment - Groundwater Contamination	PM SS	<p>*Maintain erosion and sediment controls to prevent contaminated material being released from stockpiles and excavations and leaching or running into groundwater.</p> <p>*Refer to CEMP section 5.17 Erosion, Sediment, Water Quality Control</p>	3	4	Medium	5	5	Low	5	5	Low	Yes	Accept
17	Environment - Heat Stress	PM SS	<p>*Ensure no one works alone. By implementing a buddy system workers are more aware to lookout for each other.</p> <p>*Operators of machinery to ensure air conditioning is turned on during operations.</p> <p>*RMA must provide adequate drinking water and hydration should be maintained during the day.</p> <p>*Encourage workers to take more breaks throughout the shift and stay hydrated.</p> <p>*Provide sunscreen and encourage personnel to regularly apply it.</p> <p>*Wear light weight long sleeve shirts and long pants to protect against burns.</p> <p>*Attach brims to hard hats for sun protection.</p> <p>*Refer to CEMP section 5.15 Heat Stress &amp; Skin Protection</p>	2	3	High	4	5	Low	4	5	Low	Yes	Accept
18	Environment - Noxious Weed propagation	PM SS	<p>* Ensure all trucks and vehicles remain on hardstand areas (where possible) to minimise interaction with weeds or plants</p> <p>* Vehicles to pass through wheel wash priro to exiting site.</p> <p>*Refer to CEMP section 5.23 Flora &amp; Fauna</p>	3	4	Medium	6	4	Low	6	4	Low	Yes	Accept
19	Environment - Odour Event	PM SS	<p>*Cease work and notify Sydney Metro.</p> <p>*Find the source of the odour.</p> <p>*Remove the source of the odour and use an odour suppressant as required.</p> <p>*Return to work once approvals granted by Sydney Metro.</p> <p>*Refer to CEMP section 5.28 Odour Control</p>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
20	Environment - Release of Asbestos or other Hazardous Substances	PM SS	<p>*Ensure air monitoring is conducted during excavation or removal of asbestos.</p> <p>*Cease work and follow Unexpected Finds Procedure if asbestos or other substances identified in unknown locations.</p> <p>*Follow Controls for Exposure Asbestos</p> <p>*Refer to ARCP</p> <p>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</p> <p>*Refer to CEMP section 5.14 Spill Response</p>	3	4	Medium	5	5	Low	5	5	Low	Yes	Accept
21	Environment - Stormwater Contamination	PM SS	<p>*Maintain erosion and sediment controls to prevent contaminated and uncontaminated material being released from stockpiles and excavations and running into stormwater.</p> <p>*Refer to CEMP section 5.17 Erosion, Sediment, Water Quality Control</p>	3	4	Medium	5	5	Low	5	5	Low	Yes	Accept

24	Exposure to Asbestos	PM SS ASBS	<p>*Notify SafeWork NSW 5 days prior to commencing asbestos removal.</p> <p>*Asbestos Removal Control Plan to be developed.</p> <p>*SWMS to be provided for asbestos removal and all staff must be trained in the SWMS prior to any asbestos removal works commencing.</p> <p>*Set up asbestos exclusion zones delineated with barricades, hazard tape, flags etc. with regulatory signage clearly visible.</p> <p>*Wear appropriate PPE, i.e. disposable overalls, P3 RPE, gloves, safety glasses and rubber soled safety boots during asbestos removal.</p> <p>*Set up a decontamination area in accordance with the ARCP. The decontamination area must be located on the exclusion zone boundary and act as the entry/exit point to the asbestos area.</p> <p>*Only personnel trained in the removal of asbestos are able to perform asbestos removal activities.</p> <p>*Only H Class HEPA filtered asbestos vacuums can be used during asbestos removal.</p> <p>*DO NOT wear contaminated PPE outside the asbestos exclusion zones.</p> <p>*Maintain dust suppression methods – targeted water spray during remediation from pump spray bottles and high-pressure water sprayer.</p> <p>*All asbestos waste is to be double bagged/wrapped and must pass through the decontamination area before being transported to the designated waste vehicle or skip bin.</p> <p>*Air monitoring to be performed by Occupational Hygienist.</p> <p>*Asbestos air monitoring results from the previous day to be made available at the beginning of each new day. If the reporting limit of &gt;0.02 fibres/mL is detected, works will cease immediately, and asbestos work controls will be investigated and reassessed. Works may only recommence once the removal contractor, licensed asbestos assessor and the client are satisfied that the revised control methods are adequate and further air monitoring returns results &lt;0.01 fibres/mL. SafeWork NSW need to be notified in the event of reaching or exceeding the reporting limit of &gt;0.02 fibres/mL.</p> <p>*Refer to ARCP</p>	2	2	Very High	5	5	Low	5	5	Low	Yes	Accept
25	Exposure to Other Hazardous Substances	PM SS	<p>*Maintain dust suppression during excavations</p> <p>*Establish exclusion zones around work areas where the material contains contaminated materials.</p> <p>*Only the required personnel to be within the work area.</p> <p>*Follow Unexpected Finds Procedure if unexpected material encountered.</p> <p>*Personnel required to be within the work area must wear the appropriate PPE. The required PPE will be determined based on the Waste Classification of the material being worked with.</p> <p>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</p> <p>*Refer to CEMP section 5.14 Spill Response</p>	2	3	High	5	5	Low	5	5	Low	Yes	Accept
32	Hazardous/Non-Hazardous Substances	PM SS	<p>*Any substances to be used or stored on the site must have a current SDS immediately available.</p> <p>*Identify all substances on site and refer to the SDS for transport, storage, use and disposal methods. Refer to SDS for PPE requirements when using the product.</p> <p>*Substances must be stored in a designated area. This will be discussed in the site induction.</p> <p>*A spill kit will be kept on site in the event of a spill occurring on site. Spill kits to be located in the site shed and site office.</p> <p>*Follow Spill Response Procedure in the event of a spill/leak of chemicals, dangerous goods, or hazardous/non-hazardous substance.</p> <p>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</p> <p>*Refer to CEMP section 5.14 Spill Response</p>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept

33	Hot Works/Fire/Explosion	PM SS	*RMA to confirm the status of Total Fire Bans. No hot works to be completed during Total Fire Bans. *Fire extinguishers located in an appropriate storage area. *Ensure any hot works activity is documented in Method Statement. *A hot works permit must be completed prior to any hot works activities. *All hot works to have fire extinguisher within reach of the work zone. *Refer to CEMP section 5.17 Erosion, Sediment, Water Quality Control	2	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
43	Needle Stick Injury	PM SS	*Site induction to cover the potential of finding needles during works and what to do if they are found (correct disposal). *Perform an inspection of the work area for needles/syringes. *Carefully lift rubbish etc. and look for needles. *Sharps container must be available on site to dispose of any needles found. *Only handle sharps by the syringe. Do not touch the needle. Keep the sharp end away from the body and do not walk towards other people holding the needle. *Use tongs to pick up the needle if it is unsafe to hold it or if the tube/syringe is not present or broken. *Wear safety boots, gloves and long pants and sleeves during site activities.	3	2	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
45	Noise & Vibration	PM SS	* Follow procedures and instructions in the Noise and Vibration Management Plan *Any noise creating activity must be minimised where possible and is to be completed during hours approved by Sydney Metro (Mon-Fri 7am to 6pm & Sat 8am to 6pm) *All equipment and machinery shall be operated in an efficient manner to minimise the emission of background noise around the site. *Equipment will be selected for the project on the basis of its noise performance and will be fitted with noise attenuation mufflers to meet Australian Standards for noise generation. *Perform noise/vibration monitoring when directed by the Noise and Vibration Management Plan. *Minimise vibration by using the smallest/lightest possible piece of machinery to perform the tasks. *Personnel to wear ear protection when advised by the site supervisor. *Refer to CEMP section 5.21 Noise & Vibration Management	1	3	Very High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
46	Sydney Metro Access Through Site	PM SS	*Where excavation work is being performed in the vicinity of the Sydney Metro thoroughfare / haul road, ensure the work area is clearly demarcated. *Use additional temporary fencing to create separation between the removal area and the haul road. *Request notice of access from Sydney Metro prior to vehicles attending site. *The location of Sydney Metro thoroughfare to be discussed during site inductions. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition *Refer to CTMP	2	2	Very High	2	6	Medium	2	6	Medium	Yes	Accept with Active Monitoring
49	Services Aboveground/Overhead	PM SS	*When working within 3m of aboveground/overhead powerlines or structures RMA to utilise Above Ground Service Work Permit. *Inspect the site for any unknown overhead services or structures. *Overhead powerlines are situated along the Pacific Highway. These powerlines are located outside of the site boundaries, however safe approach distances will be maintained. *Tiger tails to be placed on overhead powerlines on Pacific Hwy and Nelson St. *When working within 2m of an Ausgrid asset RMA are to contact Ausgrid. Ausgrid to determine if an Ausgrid representative needs to be present to supervise the work. *If necessary, install physical barriers to prevent machinery from exceeding safe approach distance. *Refer to CEMP section 5.19 Services and Above and Undergrond Structures	3	2	High	5	5	Low	5	5	Low	Yes	Accept



50	Services Underground	PM SS	<p>*Conduct a Dial Before You Dig enquiry, consult plans and perform underground services searches if required.</p> <p>*Ground penetration permit to be completed</p> <p>*Confirm service isolations and terminations of underground services.</p> <p>*If existing services are to remain live these should be marked or tagged and locations discussed during the pre-start meetings or toolbox talk. Install protective measures around the service if possible.</p> <p>*Excavations around known underground services should be completed using pot holing or non-destructive digging methods.</p> <p>*All electrical, telecommunications and plumbing isolation and termination works to be completed by a qualified/licenced tradesperson.</p> <p>*If at any time you come across unidentified cables / services. Work must cease to this area. Immediately contact the site supervisor who is to establish if this is a live / isolated service.</p> <p>*Refer to CEMP section 5.19 Services and Above and Undergrond Structures</p>	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
52	Silica Dust	PM SS	<p>*Where there is a risk of creating or coming into exposure of silica dust:</p> <ul style="list-style-type: none"> <li>- Wet or dampen surfaces before working</li> <li>- Apply water to the cutting face during work</li> <li>- Capture slurry and dispose of slurry in sealed containers</li> <li>- Use a dust mask during works and clean up.</li> </ul> <p>*Follow Exposure Control Plan and Respiratory Protection Control Plan. Personnel must wear P2 half face mask. Mask must be fit tested. Personnel must be clean shaven.</p>	3	3	High	4	5	Low	4	5	Low	Yes	Accept
58	Snakes, Spiders, Insects etc.	PM SS	<p>*Perform a visual inspection of the work area prior to commencing any work.</p> <p>*All RMA personnel and subcontractors must be on the lookout for snakes, spiders etc. at all times.</p> <p>*Avoid lifting or moving debris or onsite objects unless necessary.</p> <p>*Avoid accessing suspect areas unless necessary.</p> <p>*A qualified first aider must be present on site at all times. The first aider must be identified during the site induction and must be contactable and available at all times.</p> <p>*First aid facilities will be located in the site shed and site office.</p> <p>*If a snake is found work is to cease and the site supervisor is to be notified immediately.</p> <p>*RMA personnel, subcontractors or visitors must wear the appropriate PPE i.e. Steel toe shoes, long sleeve shirt and long pants and gloves when required.</p>	3	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
60	Traffic/Vehicles Onsite Vehicle or Pedestrian Interaction	PM	<p>*A Construction Traffic Management Plan (CTMP) must be developed and implemented to control vehicle movements within the site. Follow procedures and instructions within CTMP.</p> <p>*Refer to CEMP section 5.22 Traffic Management and Local Road Condition</p> <p>*Refer to CTMP</p>	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
62	Unexpected Finds	PM	<p>*Follow Unexpected Finds Procedure</p> <p>*Follow Unexpected Finds Procedure for Archaeological finds as per the Archaeological Method Statement</p> <p>*Refer to CEMP section 7 Unexpected Finds Protocol</p> <p>*Refer to CEMP section 5.24 Heritage, Archaeological and Aboriginal Artefacts</p>	2	4	High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
63	Waste Management Uncontrolled Waste	PM SS	<p>*All waste must be sorted into appropriate streams to maximise recycling.</p> <p>*Waste will be stockpiled ready for loadout and removal from site.</p> <p>*Refer to CEMP section 5.20 Waste Management</p> <p>*Refer to WMP</p>	3	3	High	5	5	Low	5	5	Low	Yes	Accept

Demobilisation	2	Adverse Weather	PM	*RMA project manager and supervisor to monitor the weather conditions closely. *Cease work in heavy rain and during storms.	3	3	High	4	5	Low	4	5	Low	Yes	Accept
	5	Dangerous Goods	PM SS	*Identify dangerous goods by checking the label and source an SDS. *Transport and dispose of substances in line with SDS *Dangerous goods may only be transported by persons who have been trained in the handling and transportation of dangerous goods. Licence to transport required for the driver and the vehicle. Transport documents required for transport and must be carried in the vehicles cabin. *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods	3	3	High	4	5	Low	4	5	Low	Yes	Accept
	6	Degradation of Public Roads	PM	* Ensure all required and all appropriate covers are used and secure on trucks. * Vehicles to pass through wheel wash prior to exiting site. * Public roads to be cleaned regularly to prevent build up of mud/soil. * Use licensed drivers and registered vehicles only. * Follow general road rules whilst using public roads. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
	8	Dust	PM SS	*Monitor wind levels daily. It may be necessary to halt work temporarily during high wind occasions. *The removal of dust control measures such as shade cloth should be left until the end of demobilisation. *Personnel to wear P2 dust mask in dusty conditions. *Refer to CEMP section 5.18 Dust Suppression	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
	14	Environment - Chemical/Hazardous/ Non-Hazardous Substance Spills	PM SS	Transport and dispose of substances in line with SDS *Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods *Refer to CEMP section 5.14 Spill Response	3	3	High	4	5	Low	4	5	Low	Yes	Accept

15	Environment - Fauna/Flora	PM SS	<p>*To prevent the spread of weeds, all equipment and in particular personnel boots will be cleaned prior to entering or leaving the site. Any plant material removed during this process must be bagged and disposed of at a licenced landfill.</p> <p>*Prior to commencing works, the site including any vegetation will be inspected for the presence of Fauna. If native fauna is encountered on site work will cease and the fauna will be allowed to move away from the area. If fauna is required to be removed from site, RMA will contact the client representative and request advice and or assistance in its removal. All native fauna is protected by law direct contact with wildlife should be avoided wherever possible.</p> <p>*If injured wildlife is encountered, the project site supervisor should contact the nearest wildlife rescue organisation to assist with its relocation.</p> <p>*In the event personnel are bitten or scratched report to the First Aid Officer.</p> <p>*Refer to CEMP section 5.23 Flora &amp; Fauna</p>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept
17	Environment - Heat Stress	PM SS	<p>*Ensure no one works alone. By implementing a buddy system workers are more aware to lookout for each other.</p> <p>*RMA must provide adequate drinking water and hydration should be maintained during the day.</p> <p>*Encourage workers to take more breaks throughout the shift and stay hydrated.</p> <p>*Provide sunscreen and encourage personnel to regularly apply it.</p> <p>*Wear light weight long sleeve shirts and long pants to protect against burns.</p> <p>*Attach brims to hard hats for sun protection.</p> <p>*Refer to CEMP section 5.15 Heat Stress &amp; Skin Protection</p>	2	3	High	4	5	Low	4	5	Low	Yes	Accept
18	Environment - Noxious Weed propagation	PM SS	<p>* Ensure all trucks and vehicles remain on hardstand areas (where possible) to minimise interaction with weeds or plants</p> <p>* Vehicles to pass through wheel wash prior to exiting site.</p> <p>*Refer to CEMP section 5.23 Flora &amp; Fauna</p>	3	4	Medium	6	4	Low	6	4	Low	Yes	Accept
32	Hazardous/Non-Hazardous Substances	PM SS	<p>*Identify all substances on site and refer to the SDS for transport and disposal methods.</p> <p>*Ensure all hazardous and non-hazardous materials are removed from site.</p> <p>*Refer to CEMP section 5.12 Storage of Fuel, Chemicals or other Hazardous Goods</p>	3	4	Medium	4	5	Low	4	5	Low	Yes	Accept

45	Noise & Vibration	PM SS	<p>* Follow procedures and instructions in the Noise and Vibration Management Plan</p> <p>*Any noise creating activity must be minimised where possible and is to be completed during hours approved by Sydney Metro (Mon-Fri 7am to 6pm &amp; Sat 8am to 6pm)</p> <p>*All equipment and machinery shall be operated in an efficient manner to minimise the emission of background noise around the site.</p> <p>*Equipment will be selected for the project on the basis of its noise performance and will be fitted with noise attenuation mufflers to meet Australian Standards for noise generation.</p> <p>*Perform noise/vibration monitoring when directed by the Noise and Vibration Management Plan.</p> <p>*Personnel to wear ear protection when advised by the site supervisor.</p> <p>*Refer to CEMP section 5.21 Noise &amp; Vibration Management</p>	1	3	Very High	3	5	Medium	3	5	Medium	Yes	Accept with Active Monitoring
58	Snakes, Spiders, Insects etc.	PM SS	<p>*Perform a visual inspection of the work area prior to commencing any work.</p> <p>*All RMA personnel and subcontractors must be on the lookout for snakes, spiders etc. at all times.</p> <p>*Avoid lifting or moving debris or onsite objects unless necessary.</p> <p>*Avoid accessing suspect areas unless necessary.</p> <p>*A qualified first aider must be present on site at all times. The first aider must be identified during the site induction and must be contactable and available at all times.</p> <p>*First aid facilities will be located in the site shed and site office.</p> <p>*If a snake is found work is to cease and the site supervisor is to be notified immediately.</p> <p>*RMA personnel, subcontractors or visitors must wear the appropriate PPE i.e. Steel toe shoes, long sleeve shirt and long pants and gloves when required.</p>	3	3	High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
60	Traffic/Vehicles Onsite Vehicle or Pedestrian Interaction	PM	<p>*A Construction Traffic Management Plan (CTMP) must be developed and implemented to control vehicle movements within the site. Follow procedures and instructions within CTMP.</p> <p>*Refer to CEMP section 5.22 Traffic Management and Local Road Condition</p> <p>*Refer to CTMP</p>	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring

	61	Traffic/Vehicles Offsite Vehicle or Pedestrian Interaction	PM SS	*A Construction Traffic Management Plan will be developed and implemented to control vehicle movements into and out of the site. This will also include the safe management of pedestrians moving past the site. Follow procedures and instructions within CTMP. *Refer to CEMP section 5.22 Traffic Management and Local Road Condition *Refer to CTMP	2	1	Very High	4	4	Medium	4	4	Medium	Yes	Accept with Active Monitoring
--	----	---	----------	---	---	---	-----------	---	---	--------	---	---	--------	-----	-------------------------------------

## Appendix 3: Community Notification

# Project update – Chatswood Dive Site

August 2025

## Sydney Metro is Australia’s biggest public transport project.

Services started in May 2019 in the city’s North West with a train every four minutes in the peak. On 19 August 2024, services began on the new section of the M1 Line, including 15.5 kilometres of metro rail extending from the existing Metro North West at Chatswood, under the harbour and through the Sydney CBD and onto Sydenham. Commuters can now catch metro services every four minutes in the peak from new stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Gadigal and Waterloo, and new metro platforms at Central.

RMA Group is carrying out remediation work within the residual land at Chatswood Dive Site. From August 2025, RMA Group is also delivering works to construct a new shared path along Mowbray Road. The path will provide a safe and convenient connection for pedestrians and cyclists, linking the Pacific Highway and Mowbray Road intersection to the extended Frank Channon Walk. The Mowbray Road shared path is designed to support future growth in active transport, complementing Willoughby Council’s new cycleway from Hampden Road to St Leonards.

## Remaining work at Chatswood Dive Site

**Standard project work hours are Monday to Friday, 7am to 6pm and Saturday, 8am to 6pm.**

Location	Work during standard hours
Chatswood Dive Site residual land	<ul style="list-style-type: none"><li>• Remediation work including concrete saw-cutting and hammering, excavation, compaction, removal of contaminated soil and offsite disposal of the contaminated soil</li><li>• Constructing a driveway within the remediation site boundary, including placing and finishing concrete.</li><li>• Soil Sampling</li><li>• Ongoing noise and vibration monitoring</li><li>• Delivery of materials and equipment</li><li>• General maintenance activities including adjustments to site hoarding</li></ul>

**Out-of-hours work (night) work hours – due to the nature of some activities and for the safety of community and workers, some work will occur outside standard construction hours**

Location	Out-of-hours work
Mowbray Road footpath between Pacific Highway and Frank Channon Walk	<p>24/7 from 4 August until late 2025</p> <ul style="list-style-type: none"><li>• Northern side footpath closed, pedestrian diversion in place to southern footpath</li><li>• Signage will be in place to help direct pedestrians and cyclists.</li></ul>



4 August from 8pm to 5 am

- Installation of temporary fencing and temporary barriers.

4-15 August from 8pm to 5 am

- Demolition, excavation and removal of existing footpath using saw-cut and tipper truck.
- This work will cause some noise, but it is expected to stay within threshold. Noise monitoring will be on-going to ensure works stay within allowable noise limit.
- Vibration is expected to be minimal. Vibration monitoring will be on-going to ensure works stay within allowable limit.

18 August until mid-October 2025 from 8pm to 5 am

- Alterations to service pits to lift the pit to shared path level using pit lifters.

## What to expect

- Traffic control and directional signage will be in place to ensure the safety of workers, pedestrians, and the wider community.
- The existing footpath along Mowbray Road will be closed for the duration of the works. Pedestrians will be guided to use the designated crossings at the Pacific Highway and Mowbray Road intersections. Traffic controllers will be on site to assist and ensure safe passage.
- To allow the work to be carried out safely, a single eastbound lane closure on Mowbray Road is planned during the following periods:
  - Weeknights: Monday to Friday, 8pm to 5am
  - Weekends: Friday 8pm to Monday 4am
  - **Weekdays: Monday to Friday, 10am to 2:30pm (subject to confirmation)**
- Construction equipment to be used includes hand tools, saw-cutter, pit lifters, tipper trucks, concrete agitator trucks, concrete trowel machines, asphalt pavers, concrete saw, excavator, skid steer loader & vibratory roller
- Night works will require site lighting.
- Access to buildings and driveways will be maintained at all times.
- Some construction activities will generate noise. The project team will make every effort to minimise disruption, including the use of non-tonal reversing beepers, saw-cut as opposed to excavation and instructing workers to keep noise to a minimum. Noise monitoring will be ongoing to help ensure comfort for the local community.
- Vibration is expected to be minimal. Vibration monitoring will be on-going to ensure works stay within allowable limit.

## Location of works

---

### Contact us



24-hour Community Information Line **1800 171 386**



**[sydneymetro@transport.nsw.gov.au](mailto:sydneymetro@transport.nsw.gov.au)**



Sydney Metro City & Southwest, PO Box K659,  
Haymarket NSW 1240

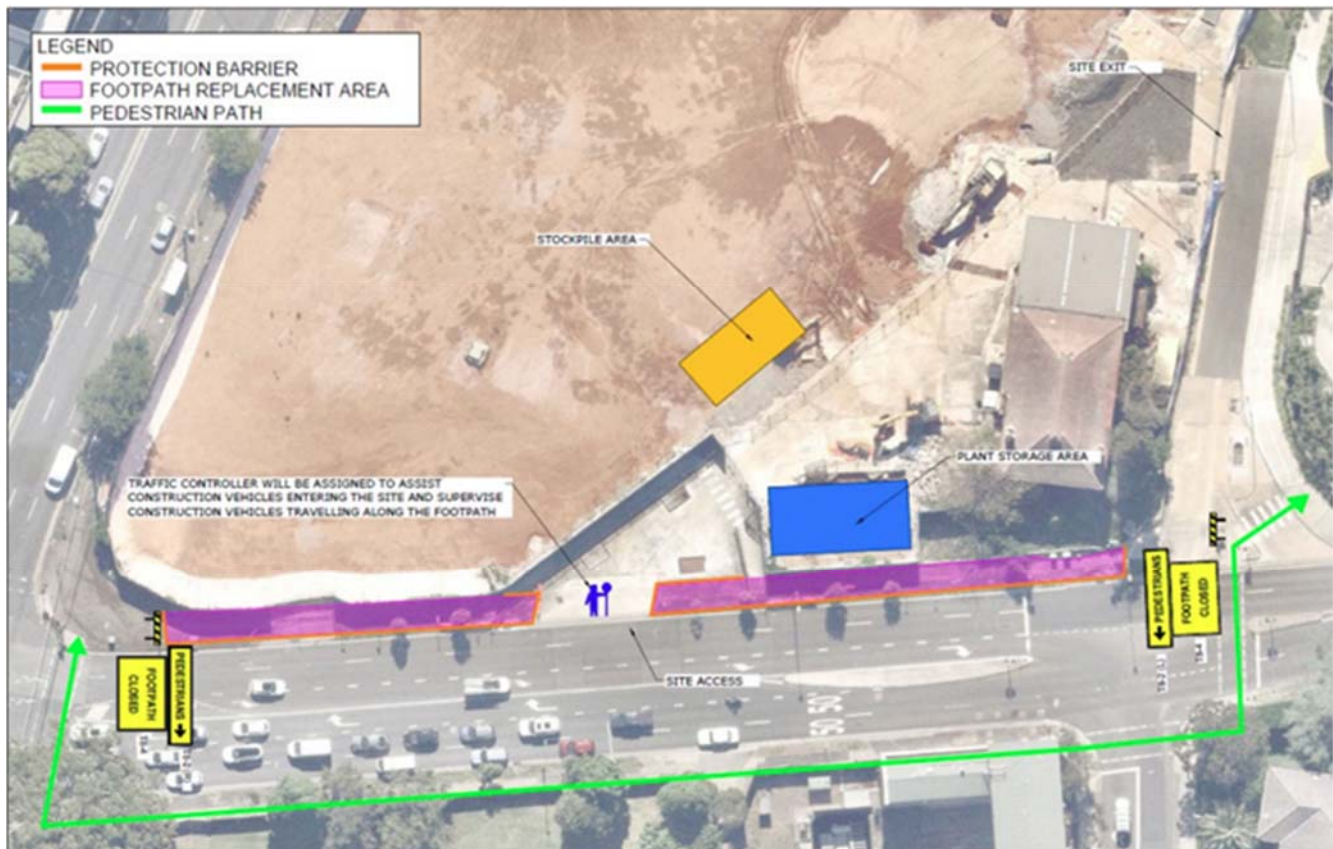


### Translating and interpreting service

If you need help understanding this information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us on **1800 171 386**

---





**Thank you for your cooperation and understanding while we complete this essential work.**

If you have any questions about the remaining work at the Chatswood Dive Site, please contact the Sydney Metro Project Communications Team by calling 1800 171 386 (24-hour community information line) or emailing [sydneymetro@transport.nsw.gov.au](mailto:sydneymetro@transport.nsw.gov.au)

## Contact us



24-hour Community Information Line **1800 171 386**



**[sydneymetro@transport.nsw.gov.au](mailto:sydneymetro@transport.nsw.gov.au)**



Sydney Metro City & Southwest, PO Box K659,



## Translating and interpreting service

If you need help understanding this information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us

## Appendix 4 - Construction Management Plan



# CONSTRUCTION MANAGEMENT PLAN

*Sydney Metro Chatswood Precinct  
Worksite Mowbray Road Footpath  
Works  
Chatswood NSW 2067*

Project No  
P24001

Contractor & Client Information			
<b>Contractor</b>	RMA Contracting Pty Ltd	<b>Client</b>	Sydney Metro
<b>Address</b>	Unit 12, 6-20 Braidwood St Strathfield South NSW 2136	<b>Address</b>	Level 43, 680 George Street Sydney NSW 2000
<b>Phone</b>	1300 798 808	<b>Phone</b>	1800 684 490
<b>ABN</b>	28 092 116 704	<b>ABN</b>	12 354 063 515
<b>Key Contact</b>	[REDACTED] 0404 504 282	<b>Key Contact</b>	[REDACTED] 0455 212 442

Consultation			
Document created in consultation with:			
<b>Project Manager</b>	[REDACTED]	<b>Systems Manager/Environmental Project Administrator</b>	[REDACTED]
<b>Project Manager</b>	[REDACTED]	<b>Project Administrator</b>	[REDACTED]
<b>Site Superintendent/Supervisor</b>	[REDACTED]		

Document Review					
[REDACTED]		[REDACTED]		[REDACTED]	
<b>Name</b>	[REDACTED]	<b>Name</b>	[REDACTED]	<b>Name</b>	[REDACTED]
<b>Position</b>	Project Administrator	<b>Position</b>	Project Manager	<b>Position</b>	Safety & Environmental Manger
<b>Date</b>	01/04/25	<b>Date</b>	01/04/25	<b>Date</b>	01/04/25

Revision History					
Rev.	Description	Date	Author	Reviewed	Approved
A	Issued for review	01/04/25	[REDACTED]	[REDACTED]	[REDACTED]

## CONTENTS PAGE

<b>1. PROJECT INFORMATION.....</b>	<b>4</b>
1.1 THE PROJECT .....	4
1.2 PROJECT AND SITE INFORMATION .....	4
1.3 PROJECT CONTACT INFORMATION .....	5
1.4 CONSULTATION WITH SYDNEY METRO.....	7
1.5 PROJECT SPECIFIC MANAGEMENT SYSTEM SET-UP CHECKLIST .....	7
<b>2. SUMMARY OF WORKS.....</b>	<b>9</b>
2.1 PREPARATION AND MOBILISATION .....	9
2.2 DEMOLITION OF EXISTING CONCRETE FOOTPATH .....	9
2.3 ADJUSTING SERVICE PITS: .....	10
2.4 IMPORTING FILL AND EARTHWORKS: .....	10
2.5 CONSTRUCTION OF NEW CONCRETE FOOTPATH:.....	10
2.6 STREET SIGNAGE :.....	11
2.7 REINSTATING THE GRASS VERGE: .....	11
2.8 SUMMARY .....	12
<b>3. SITE LOGISTICS .....</b>	<b>13</b>
3.1 SITE ACCESS PLAN.....	13
3.2 SITE INDUCTION .....	13
3.3 PRE-START MEETINGS .....	13
3.4 SITE NOTICE BOARD.....	14
3.5 EMERGENCY RESPONSE.....	14
3.6 HOURS OF WORK.....	15
3.7 SITE ACCESS, SECURITY AND PUBLIC SAFETY .....	16
3.8 SUBCONTRACTORS.....	16
3.9 STORAGE OF FUEL, CHEMICALS OR OTHER HAZARDOUS GOODS.....	17
3.10 HOT WORKS & FIRE PREVENTION.....	17
3.11 SPILL RESPONSE .....	18
3.12 HEAT STRESS & SKIN PROTECTION .....	18
<b>4. STAKEHOLDER COMMUNICATION &amp; COMMUNITY ENGAGEMENT .....</b>	<b>20</b>
4.1 PROCEDURE .....	20
<b>5. ENVIRONMENTAL MANAGEMENT .....</b>	<b>22</b>
5.1 EROSION & SEDIMENT CONTROL.....	22
5.2 DUST SUPPRESSION .....	23
5.3 SERVICES AND ABOVE AND UNDERGROUND STRUCTURES. ....	23
5.4 WASTE MANAGEMENT .....	24
5.5 NOISE & VIBRATION MANAGEMENT .....	26
5.6 TRAFFIC MANAGEMENT .....	27
5.7 HERITAGE, ARCHAEOLOGICAL AND ABORIGINAL ARTEFACTS.....	29
5.8 PLANT & EQUIPMENT.....	30
5.9 PERSONAL PROTECTION EQUIPMENT (PPE) .....	31
5.10 SITE CLEAN UP .....	31
<b>6. UNEXPECTED FINDS PROTOCOL .....</b>	<b>32</b>
<b>7. ENVIRONMENTAL CONTROL PLAN .....</b>	<b>33</b>
<b>8. ENVIRONMENTAL RISK REGISTER.....</b>	<b>36</b>

# **1. PROJECT INFORMATION**

## **1.1 THE PROJECT**

This Construction Management Plan CMP is for Footpath Variation Works as part of the Sydney Metro Chatswood Precinct Demolition and Remediation Works.

SMC-23-0952 Design and Construct of Chatswood Demolition and Remediation for the City and Southwest Metro Project.

This project falls under the construction and operation of the section between Chatswood and the Sydenham dive site known as “CSSI\_7400”. The works are undertaken as ‘Low-Impact Works’ per the Chatswood to Sydenham Staging Report and are subject to CSSI Planning Approvals. RMA is required to comply with CSSI\_7400, including the modifications to this approval, to the extent required by Sydney Metro.



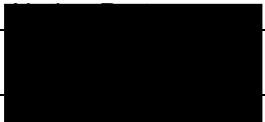
## **1.2 PROJECT AND SITE INFORMATION**

The site is located within the Willoughby Local Government Area (LGA) and a former Ausgrid property. The eastern boundary is defined by the main north shoreline, with the Pacific Highway to the west, Nelson Street to the north and Mowbray Road to the south.

RMA has been engaged by Sydney Metro to remediate legacy contamination that has been identified at the Chatswood site.

The scope involves the construction of a footpath along Mowbray Road adjacent the Chatswood Remediation Site.

### 1.3 PROJECT CONTACT INFORMATION

Name	Role(s)	Contact Number
<b>RMA Contracting Pty Ltd</b>		
	Project Manager	0404 504 282
	Project Manager	0427 918 437
	Environmental Manager	0427 701 409
	Site Superintendent/ Supervisor/First Aid Officer	0410 396 621
	Project Administration	0450 547 620
	Rehabilitation Coordinator	0434 611 964
<b>Sydney Metro</b>		
	Project Manager	0455 212 442
	Senior Project Manager	0400 008 122
<b>Validation Consultant</b>		
	Validation Consultant	1300 876 976
	Principal – Environmental Advisory	0418 689 493
	Consultant	1300 876 976
<b>Subcontractors and Consultants</b>		
AMBS Ecology & Heritage	Heritage Consultant	02 9518 4489
Lian Ramage	Excavation Director	02 9518 4489
AMBS Ecology & Heritage		
Bulk Transport Solutions	Haulage and Bulk Transport	02 9625 8588
C&A Consulting Group	Temporary Works Design	0414 673 310
AAA Traffic Control	Traffic Control	02 9675 7731
EMS Environmental Monitoring Services	Noise & Vibration Consultant	02 9317 0100
Occupational Hygiene Consulting P/L	Occupational Hygiene Consultant	0429 700 016
Tetra Tech Coffey	Geotechnical Survey	02 9406 1000
<b>Hospital</b>		
Royal North Shore Hospital	General Enquiries & Emergency Department	02 9926 7111
Reserve Road St Leonards NSW 2065		
<b>Emergency Contact</b>		
Ambulance, Police, Fire Brigade		000 or 112 mobiles
SafeWork NSW		131 050
AARNet Pty Ltd NSW		1300 275 662
Ausgrid		02 4951 0899
FibreSense Pty Limited (NSW)		1300 947 466
Jemena Gas North		1300 880 906
NBN Co		1800 687 626
Nextgen NCC – NSW		1800 262 663

Optus and or Uecomm NSW	1800 505 777
Sydney Metro	02 8265 9400
Sydney Trains Metro North	02 9848 9578
Sydney Water	13 20 92
Telstra NSW Central	1800 653 935
TPG Telecom (NSW)	1800 786 306
Transport for NSW	02 9983 3030
Verizon Business (NSW)	02 8210 3243
Vocus Communications	1800 262 663
Willoughby City Council	02 9777 1000
EPA	131 555
SES	132 500
Poison Helpline	131 126
Roads and Maritime Services	132 213



## 1.4 CONSULTATION WITH SYDNEY METRO

RMA will maintain open communication with Sydney Metro for the duration of the project. This will be achieved through weekly environmental management meetings, attendance of Traffic & Transport Liaison Group (TTLG) meetings, email correspondence and phone or in person conversations.

To assist Sydney Metro in fulfilling their obligations under the CSSI Planning Approval, RMA will provide to Sydney Metro the required information, documents, details and data as requested. This information will include regular updates of the program, work stages and progress, changes to scope, changes to traffic management including haul routes and unexpected finds including heritage or archaeological finds.

## 1.5 PROJECT SPECIFIC MANAGEMENT SYSTEM SET-UP CHECKLIST

	Item	Responsibility	NOTES
1	On being informed of a new project starting, a blank copy of the Project Site File shall be produced on Hammertech.	Project Manager Project Administrator	
2	The Project Site File is to be issued to the Site Supervisor.	Project Manager Project Administrator	
3	The Site Supervisor is to ensure that site-specific management plans are housed on site for the complete duration of the project and is made available for inspection by any person working on this site.	Site Superintendent/ Supervisor	
3a	The Site Supervisor is to ensure that any parts of this plan deemed relevant to a subcontractor is provided to the subcontractor prior to them starting work on this site and A copy of any changes to this plan that are relevant to a subcontractor must be provided to that subcontractor as soon as practicable after the change is made.	Site Superintendent/ Supervisor	
4	The site team shall conduct a Construction planning meeting, filling out all relevant information contained in the Site File.	Project Manager Site Superintendent/ Supervisor	
5	Set up the Site Notice Board attaching copies of all relevant documents nominated in the CMP	Site Superintendent/ Supervisor	
6	Ensure that First Aid Kits are available in the locations nominated in the Site Plan and check that the contents are complete as required in the WHS Regulation	Site Superintendent/ Supervisor	
7	Ensure that fire extinguishers have been currently checked and are in the locations nominated in the Site Plan.	Site Superintendent/ Supervisor	
8	As workers come onto site ensure that they receive Site Induction Training. All Induction information must be recorded and filed in the Project Site File	Site Superintendent/ Supervisor	
9	Ensure that the Site Staff have carried out all their responsibilities and the Project Site File has been set up correctly on site.	Project Manager	
10	Ensure that as Sub-contractors commence on site,	Site Superintendent/	



## Construction Management Plan

---

	their employees have been trained, inducted, and are aware of the contents and procedures contained in the CMP	Supervisor	
--	--	------------	--

## 2. SUMMARY OF WORKS

### 2.1 *PREPARATION AND MOBILISATION*

- **Permits (Road Opening Permit):** Only required for kerb reconstruction.
- **Traffic Management Plan (TMP):** Required

#### 2.1.1 **Site Establishment:**

Installation of pedestrian diversion devices (By Others)

Installation of approved delineation barriers

**Services Scan:** Conduct a detailed services scan ascertaining depth and direction of existing services. Mark on site and provide spotter hardcopy of as built.

**Note :** Demolition of the existing concrete path and flora shall occur wholly within the footpath reserve and shall commence from area 1 proceeding to area 2 then area 5 proceeding to area 3. Thus allowing the plant to travel over the existing hardstand.

### 2.2 *DEMOLITION OF EXISTING CONCRETE FOOTPATH*

**Plant / Equipment :** Walk behind concrete saw, 2.5 tonne excavator, 2 tonne tipper

**Access :** All personnel and plant shall access the working area via the Main Gate located on Mowbray Rd. Demolition of the existing concrete path and flora shall occur wholly within the footpath reserve and shall commence from area 1 proceeding to area 2, then area 5 proceeding to area 3.

**Working Area :** The working area is defined as that area from back of kerb to the face of the hoarding line. Plant and personnel shall traverse solely on the existing footpath. Under no circumstances are personnel to occupy Mowbray Rd or its air space.

**Existing Trees :** Those trees identified to be removed shall be removed, prior to the demolition of any existing paths, providing clear access for plant. Battery operated reciprocating saw or similar shall be used to cut the trees 200mm above existing ground level. Pending the location of existing services the stump shall be removed via excavator or hand.

**Concrete Cutting:** Using a walk behind concrete saw, cut the existing footpath along the boundary lines and into 500 x 1000mm sections or other manageable sizes.

**Removal of Concrete :** After cutting, break up the concrete using an excavator and load into a tipper truck that shall be parking parallel to the existing hoarding . The excavator shall not slew towards or over Mowbray Rd, it must slew towards the hoarding at all times and only operate whilst under the supervision of a designated spotter.

Once fully laden the tipper truck shall drive along the footpath (under the supervision of a designed spotter) into the Main Gate and unload at a designated stockpile. The tipper shall reverse along the footpath to the work face once again.

**Excavation to Depth :** Excavation to the design subgrade level will be achieved via a 2 tonne excavator loading the material into a tipper truck that shall be parking parallel to the existing hoarding . The excavator shall not slew towards or over Mowbray Rd, it must slew towards the hoarding at all times and only operate whilst under the supervision of a designated spotter.

Once fully laden the tipper truck shall drive along the footpath (under the supervision of a designed spotter) into the Main Gate and unload at a designated stockpile. The tipper shall reverse along the footpath to the work face once again.

### **2.3 ADJUSTING SERVICE PITS:**

**Access :** All personnel and plant shall access the working area via the Main Gate located on Mowbray Rd. Service pit adjustment shall occur wholly within the footpath reserve and shall commence from area 1 proceeding to area 2 then area 5 proceeding to area 3.

**Consultation with Service Providers:** Liaise with relevant service authorities and authorised contractors to undertake service pit adjustments. Working from Area 1 to Area 2 and from area 5 to area 3.

### **2.4 IMPORTING FILL AND EARTHWORKS:**

**Plant / Equipment :** 2 Tonne roller, 2.5 tonne excavator, 2 tonne tipper

**Access :** All personnel and plant shall access the working area via the Main Gate located on Mowbray Rd. Earthworks shall occur wholly within the footpath reserve and shall commence from area 1 proceeding to area 2 then area 5 proceeding to area 3.

**Proof Roll & DGB20 Importation :** Proof roll the existing subgrade and each subsequent fill layer not exceeding 150mm. The roller shall enter and exit the work area via Main Gate under the supervision of a dedicated spotter.

Any unstable or soft spots shall be removed with the use of an excavator and replaced with suitable fill material locally.

DGB20 material shall be brought to the work face via a 2 tonner tipper which shall reverse along the work area under the guidance of a dedicated spotter to the desired location. The spreading of materials shall be via an excavator and or hand

Due to the tight nature of the work area, plant maybe required to layup within the site compound area until required at the work face. Each movement of plant is to be performed under the supervision of a dedicated spotter and to occur wholly within the footpath reserve

**Detailed Excavation:** Utilising the excavator, excavate to achieve the new concrete details as per construction documentation, with excess spoil being placed into the tipper truck and stockpiled within the site compound

### **2.5 CONSTRUCTION OF NEW CONCRETE FOOTPATH:**

**Plant / Equipment :** Concrete pump, Concrete truck, Formwork, hand tools, concreting tools

**Access :** All personnel and plant shall access the working area via the Main Gate located on Mowbray Rd. Concrete placement shall occur wholly within the footpath reserve and shall commence from area 1 proceeding to area 2 then area 5 proceeding to area 3.

**Formwork:** All materials shall be walked from the site compound to the work area. Taking care to ensure that the materials are at all times stored and carried parallel to the site hoarding.

**Reinforcement:** All materials shall be walked from the site compound to the work area by hand. Fabric reinforcement shall be always carried close to the hoarding, set down against the hoarding first and laid ensuring maximum clearance to Mowbray Rd at all times.

**Concrete Placement:** Shall be via a concrete pump established within the site compound, allowing for concrete trucks to enter in a forward manner and reverse onto the concrete pump.

The concrete line shall be laid on the ground to the work area, ensuring that it does not cross the construction site entry gate at any time.

Cleaning of the concrete pump and lines shall be performed within the site compound.

**Finishing:** Once the concrete is placed, the concrete shall be finished with hand tools, which shall be walked to work area from the site compound via the landscape area. A dedicated spotter is to always be present during the use of bull floats and broom finishing tools or any other tool with an extended handle.

**Concrete Cutting:** Cutting shall occur via hand tools with personnel and plant accessing the work area via the Main Gate

## **2.6 STREET SIGNAGE :**

**Plant / Equipment :** Wheel barrows and hand tools

**Access :** All personnel and plant shall access the working area via the Main Gate located on Mowbray Rd. Works shall occur wholly within the footpath reserve and shall commence from area 1 proceeding to area 2 then area 5 proceeding to area 3.

Small foundations shall be excavated via hand with the respective posts installed and concreted into position. Excess materials and waste, shall be transported by hand from the work area to the site compound.

## **2.7 REINSTATING THE GRASS VERGE:**

**Plant / Equipment :** Wheel barrows, tipper truck, hand tools, water cart

**Access :** All personnel and plant shall access the working area via the main Gate located on Mowbray Rd. Works shall occur wholly within the footpath reserve and shall commence from area 1 proceeding to area 2 then area 5 proceeding to area 3.

**Turf & Turf Underlay:** Under the dedicated supervision of a spotter, reverse the tipper truck to the work area and by hand unload and spread the turf underlay, once spread to level lay turf and move to the next area.

**Watering :** A water cart or similar shall position itself in the set down area in front of the Main Gate. Run out the required hose length to adequately cover the new turf area. Ensuring that the water spray is existing the site.

## **2.8 SUMMARY**

The proposed methodology will ensure that all activities are carried out without entering Mowbray Rd or its airspace. Access to the work site will be through the Main Gate, located on Mowbray Rd, and all personnel and plant will remain entirely within the footpath reserve, delineated via an approved barrier system.

This includes the demolition of the existing concrete footpath, the removal of trees, excavation, and the adjustment of service pits, all of which will be performed within the designated work area. Plant, such as excavators and tipper trucks, will operate solely on the existing footpath, avoiding any interaction with Mowbray Rd or its airspace. Spotters will be present to supervise all plant movements, ensuring that no equipment or personnel encroach onto Mowbray Rd.

During the construction of the new concrete footpath and the supply of concrete shall occur from within the site compound and arrive at the work face via pumping hoses, all tasks will be confined to the footpath reserve and not cross or impact Gate ##.

The reinstatement of the grass verge will similarly be conducted within the footpath reserve, with all turf laying and watering carried out under the supervision of dedicated spotters. At no point will any plant or personnel occupy Mowbray Rd or its airspace, ensuring the safety and efficiency of the work.

### **2.8.1 Reconstruction of Kerb**

After the completion of the footpath works the layback at chainage 10 to chainage 23 will be removed and a kerb and gutter rebuilt.

The works will require a road opening licence (ROL) for a partial lane closure.

## **3. SITE LOGISTICS**

### **3.1 SITE ACCESS PLAN**

The purpose of the Site Access Plan is to identify:

- Site Access Points: This shows access points for workers, vehicles, and deliveries
- Storage Areas: This identifies locations for materials and equipment
- Worker Facilities: This describe toilets, break areas, first aid station locations
- Security Measures: This Describe fencing, hoarding, surveillance, etc.
- Emergency Exits & Assembly Points: Locations Specified

### **3.2 SITE INDUCTION**

Prior to commencement on site, RMA will ensure that all persons carrying out the nominated work have participated in the Site-Specific Safety Induction. All personnel must first report to the Site Office located in Mowbray House and be inducted into the site by the Project Manager or Site Superintendent/Supervisor.

Records of the Safety Induction shall be maintained within the Site Office for the duration of the project.

Prior to commencement, RMA will ensure that all persons carrying out the nominated work have relevant training including the General WHS Induction Training for Construction Work in NSW or equivalent, in accordance with NSW WHS Legislation along with any relevant environmental training.

Records of the "General" Construction Industry induction shall be confirmed prior to commencing on site.

All visitors to the site are required to sign in at the Site Office and must be escorted at all times by a fully inducted RMA staff member.

### **3.3 PRE-START MEETINGS**

A Pre-Start meeting shall be held with all workers before any work commences or when work activity changes.

The meeting shall include discussion on immediate work task/issues and environmental information for that group on that shift or task. It is recorded on Form 096 Daily Pre-Start Meeting.

The meeting may cover such issues as:

- Work that is of highest priority.
- Preparation and review of EWMS.
- Environmental work practices to be used.
- Permits required.

- Impact from other contractors or subcontractors.
- Technical procedures to be used.
- Impact of weather on the day.

### **3.4 SITE NOTICE BOARD**

The Site Office (Mowbray House) and or site shed facilities shall have a noticeboard installed to display relevant Environmental information inclusive of:

- Environmental alerts,
- Internal memos,
- Client advisories,
- Company policies,
- Project contact details
- First Aiders

### **3.5 EMERGENCY RESPONSE**

RMA have prepared an Emergency Response Management Plan for this project. This plan will be used to control any Environmental emergencies that may arise.

#### **3.5.1 General Site Emergency Procedure**

Site Superintendent/Supervisor to notify all personnel and visitors to site of accident and emergency procedures during site induction and will clearly define first aid facilities.

#### **IDENTIFY EMERGENCY**

Confirm emergency (Fire/ accident / injury) with another person.

#### **RAISE ALERT**

Alert is to be raised by person identifying emergency.

For Fire alert the Site Superintendent/Supervisor.

For Accident alert the First Aid Officer and Site Superintendent/Supervisor.

For injury alert the First Aid Officer.

#### **IN ALL CASES**

***Do not put yourself in danger.***

***Do not move injured personnel except where there is a chance of further danger.***

#### **SERVICES**

Where there is a chance of heightening the emergency, turn off Electricity and Gas supply if there is the ability to do so.

#### **FOR FIRE, SELF EXTINGUISH**

Extinguish the fire with extinguisher or other means, if the fire is small and it is safe to do so.

Person closest to extinguisher is to bring the extinguisher to the location of the fire if it is safe to do so.

#### **EVACUATE**

RMA Site Superintendent/Supervisor shall raise the alarm by sounding the emergency horn continuously.



The RMA Site Superintendent/Supervisor shall call the emergency Services giving clear and precise information about the emergency.

All personnel, if safe to do so, shall evacuate the building/site by the closest exit. Take your bags and valuables with you if it is safe to do so.

All personnel to assemble at the Evacuation Assembly Point as marked on the Site Plan and discussed during the Site Induction.

The senior person from each Sub-Contractor shall account for all personnel under their control and report to the RMA Site Superintendent/Supervisor.

The RMA Site Superintendent/Supervisor shall ascertain from these reports whether all personnel have been evacuated from the site.

Where it is found that personnel are not accounted for, the Site Superintendent/Supervisor shall take appropriate action without exposing anyone to further danger.

### **3.6 HOURS OF WORK**

All works and deliveries will be completed within the nominated working hours.

Nominated working hours for this site are:

Monday – Friday 7am – 6pm

Saturday 8am – 6pm.

No work Sunday or Public Holidays.

These are the standard construction hours as stipulated in Condition E36 of the CSSI Planning Approval.

RMA do not foresee the need for out of hours work, however if this is required RMA will follow the Sydney Metro Out of Hours Work Protocol. Acceptable reasons to perform work outside of the Standard Hours of Work are stipulated in Condition E44 of the CSSI Planning Approval. If out of hours work is to be performed, RMA may only do so if it falls within one of the listed categories.

If emergency work is required out of hours, RMA must notify Sydney Metro immediately to allow sufficient notification to the Environmental Representative (ER), Acoustics Advisor (AA) and all affected sensitive receivers. RMA must notify Sydney Metro in the form of a written email or text message.

As a form of mitigation, community notification is to be undertaken within two hours of the commencement of emergency works. In line with the Sydney Metro Out of Hours Work Strategy Protocol, these notifications will generally be prepared by RMA using a small hand-written Sydney Metro template card for distribution to the immediate surrounding community. These cards will include the following details as a minimum:

- Scope,
- Location,
- Hours,
- Duration,
- Types of equipment to be used, and
- Likely impacts.

Within 24 hours of completion of any emergency works, RMA is to provide a written emergency works report to Sydney Metro. The emergency works report is to include as a minimum:

- Date, time, duration and cause of the emergency,
- Description of emergency works undertaken,
- Mitigation measures implemented to address the impacts of the emergency works, and
- Actions/Measures taken or to be taken to prevent or mitigate recurrence of the emergency. If there are no appropriate actions/measures to be taken, explanation is to be provided as to why.

### **3.7 SITE ACCESS, SECURITY AND PUBLIC SAFETY**

The site will be accessed from the designated driveway off Mowbray Rd. RMA personnel and subcontractors must use designated access/egress routes. Access and egress routes must be kept clean and clear of any obstructions at all times.

Pedestrian pathways will be delineated using crowd control barriers. Where pedestrians need to cross vehicle pathways, a gate will be installed in the crowd control barriers. This acts as a physical barrier between vehicles and pedestrians, and also prompts pedestrians to check for vehicles before opening gates.

Unauthorised access to the site will be controlled through the installation hoardings and temporary perimeter fencing. Temporary fencing must be:

- A suitable height to deter entry, i.e. 1.8 metres high,
- Constructed from dedicated materials,
- Difficult to climb,
- Difficult to gain access underneath, and
- Stable and able to withstand anticipated loads.

This fencing will be locked at all times the site is left unattended. Contact details of applicable site management will be affixed to the fencing in the event of an emergency.

Alternate offsite pedestrian access will be provided where required that safely re-directs the public away from any potential areas of risk. All visitors to the site shall be required to first report to the site office (Mowbray House).

Personnel required to work on site must have completed a site-specific induction. The site induction must detail specific access requirements, security procedures and work areas.

Upon arrival all persons must report to the site office (Mowbray House) and complete a pre-start meeting.

It is a condition of site entry that all persons wear high vis vests or clothing.

Only persons necessary to the project will be permitted to the site.

### **3.8 SUBCONTRACTORS**

All subcontractors are to complete their works in accordance with this CEMP. No subcontractors will be appointed for management of works at the site. All environmental responsibilities will be managed by RMA. An environmental induction of all subcontractors will be undertaken before site

works. Subcontractors will be evaluated for engagement using RMA's form 074 – Subcontractor Engagement.

### **3.9 STORAGE OF FUEL, CHEMICALS OR OTHER HAZARDOUS GOODS**

Sufficient supplies of absorbent materials will be kept onsite to recover any liquid spillage. Liquid spills will be cleaned up using dry methods, by placing absorbent material on the spill and sweeping or shovelling the material into a secure bin. Spilt materials will be tested and assessed according to NSW EPA (2014) Waste Classification Guidelines Part 1: Classifying Waste and then disposed of in an odour free manner that does not pollute waters.

Dangerous goods, as defined by the *Australian Dangerous Goods Code*, must be stored and handled strictly in accordance with:

- all relevant Australian Standards
- for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund,
- Storing and Handling Liquids: Environmental Protection – Participants Manual (Department of Environment and Climate Change, May 2007); and
- the Environmental Compliance Report: Liquid Chemical Storage, Handling and Spill Management – Part B Review of Best Practice and Regulation (Department of Environment and Conservation (NSW), 2005).

In the event of an inconsistency between the requirements listed from (a) to (d) above, the most stringent requirement shall prevail to the extent of the inconsistency.

All hazardous sub that may be required on site will be stored and managed in accordance with the *Storage and Handling of Dangerous Goods Code of Practice* (WorkCover NSW, 2005) and *Hazardous and Offensive Development Application Guidelines: Applying SEPP 33* (Department of Planning, 2011).

Storage of chemicals or goods other than dangerous goods is to be in a bunded area 110% above the quantity stored.

Copies of Safety Data Sheets (SDS) will be maintained on site for each of the chemicals used and stored on site.

A spill kit will be kept on site in the event of a chemical spill occurring on site. RMA must ensure as best as possible to prevent spills from entering watercourses to maintain NSW Water Quality Objectives.

Plant and equipment will be refuelled offsite where possible, or if onsite refuelling is required this will be performed on hard stand areas of the site.

### **3.10 HOT WORKS & FIRE PREVENTION**

All personnel inclusive of sub-contractors, shall take all reasonable measures to prevent the ignition of flammable materials, this will be achieved through good housekeeping practices such as, but not limited to:

- The continual disposal of wastepaper.
- Rags.
- General waste.

- Clearing of combustible vegetation (maybe subject to Local Council Area approval), and
- Any other flammable materials deemed to be a fire hazard.

All fire extinguishers shall be only of the approved type and selected based on the type and size of fire that is likely to be encountered. These fire extinguishers will be located in easily accessible, designated and sign posted locations and shall:

- Typically, be AB(E) - Powder Fire Extinguisher ABE, distinguished by a white coloured band around the top of the cylinder),
- Be located at site office / lunch facilities,
- Be located on all RMA light vehicles,
- Be located externally on all heavy vehicles and machinery,
- Be tested, tagged and maintained by an external service provider on a 6 monthly basis.

All employees shall be trained in the correct identification and use of firefighting equipment to be used for each firefighting application.

In the event of a fire, the Site-Specific Emergency Response Management Plan shall be implemented and adhered to.

All hot work shall only commence after the Hot Work Permit has been completed and approved by the Project Manager and only carried in pre-determined and dedicated (approved) spaces.

The RMA Project Manager must confirm the status of Total Fire Bans. No hot work is to be completed during bans.

Hot work must be detailed in the SWMS and risks detailed in the Risk Register.

### **3.11 SPILL RESPONSE**

If a spill occurs, immediately alert area occupants and Site Superintendent/Supervisor, and evacuate the area, if necessary.

If the emergency results in a fire, apply fire emergency response procedures. (Emergency Response Management Plan)

Wear personal protective equipment, as appropriate to the hazards. Consider respiratory protection. Refer to the Safety Data Sheet or product packaging for information.

Attend to any people who may be contaminated. Contaminated clothing must be removed immediately, and the skin flushed with water for no less than fifteen minutes.

Use spill kit to contain spill. Following the instructions on spill kits to contain spill.

Protect floor drains or other means for environmental release. Spill socks and absorbent material may be placed around drains, as needed.

If the spill cannot be controlled, Site Superintendent/Supervisor to contact Emergency Services.

### **3.12 HEAT STRESS & SKIN PROTECTION**

As the RMA working environment is predominantly outdoors, exposed to the elements, special consideration shall be given to the management of heat and dehydration which can be triggered by extremes of both hot and cold temperatures.

All employees and sub-contractors will be encouraged to consume effective amounts of fluids throughout the working day to remain hydrated. RMA shall provide drink stations within the site shed and site office to ensure personnel remain hydrated.

RMA shall ensure that appropriate Personal Protective Equipment inclusive of long sleeve cotton shirts, long trousers, broad brim hats, and sunscreen lotion (SPF 30+) is provided for all personnel exposed to the effects of UV radiation and temperature extremes.

RMA site management shall ensure that all long sleeve clothing be kept rolled down the full length of the arm and buttoned up at all times to minimise UV exposure, entanglement hazards and abrasive / scratch injuries.

Long pants will be worn at all times to minimise exposure to UV radiation and abrasive / scratch injuries.

Employees shall be warned of the dangers of exposure to UV rays through pre-start and tool-box meetings, and of the necessity to correctly wear all protective clothing and equipment supplied.

## 4. STAKEHOLDER COMMUNICATION & COMMUNITY ENGAGEMENT

### 4.1 PROCEDURE

RMA company signage detailing contact information of the contractor (RMA) will be displayed at the site boundary. The contact details must include a 24hr telephone number.

The RMA Project Manager will be responsible for informing Sydney Metro of any concerns raised by members of the public.

Each complaint will be dealt with to ensure it is resolved in accordance with state and federal regulatory requirements.

A register of environmental complaints will be kept on site and will be acknowledged by the complainant and the Site Superintendent/Supervisor. The Site Superintendent/Supervisor will inform the Project Manager of the complaint and mitigating action will be taken. The RMA Project Manager will advise the client's representative of the events

#### Purpose

This procedure describes the methods for communication and consultation established by RMA to ensure that all internal and external parties are provided with the relevant quality, health, safety, and environment information on a regular basis, when required and/or in response to communications.

#### Definitions

Persons Conducting a Business or Undertaking (PCBU): includes RMA as the employer and other businesses RMA has dealings with

Worker: includes all employees and any other person who carries out work for RMA.

#### Standard (including relevant legislation)

Refer to Policies, and Health, Safety and Environment Legislation and Information Sources, for details relating to relevant standards and legislation for each State/Territory, and requirements of ISO 9001:2015, ISO 45001:2018, ISO 14001:2015.

#### Procedure

RMA has implemented internal communication and consultation processes. Consultation needs to happen when:

- Identifying hazards and assessing risks, from the work carried out or to be carried out.
- Making decisions about ways to eliminate or minimise risks.
- Making decisions about adequacy of facilities for the welfare of Workers.
- Proposing changes that may affect the health or safety of Workers.
- Making decisions about procedures for consulting with Workers.

Consultation can also be beneficial when:

- Formulating and/or changing policies, procedures, or forms.
- Formulating Job Safety Analysis and Safe Work Method Statements.
- Conducting investigations into incidents or near misses.
- Investigating safety or environmental issues or concerns.

Information is conveyed through a number of mechanisms, including:

- Staff memos, emails, and letters.
- Notice boards.
- Company newsletter.
- Management and staff meetings and minutes.
- Toolbox meetings and minutes.
- Internal Training, including Induction.
- Critical incident reports.
- Accident and incident investigation.
- Signs.
- Payslips.
- Verbal instruction.
- Daily Equipment Reports.
- Employee Health & Safety Representatives (HSRs).
- Committees and Committee Meeting Minutes.

### **Toolbox/Work group meetings**

Where internal information is conveyed verbally at Toolbox/Work Group meetings the superintendent/supervisor shall maintain a record of the items discussed and the employees and subcontractors present at the meeting. These meetings may be used as a forum to:

- establish and agree on consultation arrangements and mechanisms.
- consult with employees on and about proposed changes to the work environment, processes or practices that could have health and safety implications.

New issues raised at Toolbox/Work Group meetings are to be noted and followed up by the superintendent/supervisor or referred on to the appropriate person/s for a response.

## 5. ENVIRONMENTAL MANAGEMENT

### 5.1 EROSION & SEDIMENT CONTROL

It is RMA's aim to ensure that operational impacts on the environment are minimised. RMA will prevent sediment moving offsite by:

- Diverting surface runoff away from disturbed soil and stockpiles.
- Installing sediment and erosion controls before remediation starts.
- Reusing topsoil where possible and stockpile separately.
- Inspecting controls at least weekly and immediately after rainfall.
- Rectifying damaged controls immediately.
- Removing controls once surfaces have been stabilised, including removing trapped sediment in drainage lines.

RMA propose to install sediment controls in any areas where material runoff may occur. Erosion and sediment control measures are to be implemented in accordance with *Managing Urban Stormwater: Soils and Construction Volume 1* (Landcom, 2004) and *Managing Urban Stormwater: Soils and Construction Volume 2* (Department of Environment and Climate Change, 2008a). Control measures are to be designed as a minimum for the 80th percentile; 5-day rainfall event.

Erosion and sediment controls must be installed and appropriately maintained to minimise water pollution. When implementing our controls, RMA will take into consideration the information from the Managing Urban Stormwater guidelines more commonly known as the "Blue Book".

RMA intend to use Coir Logs to boarder our excavations to prevent erosion and sediment run off. The Coir Logs will be repositioned as excavations progress, ensuring we maintain effective controls.

Stockpiled materials considered a high risk of releasing sediment will be covered with geofabric material or plastic and weighted down to prevent wind blowing across the stockpile. Stockpiles will also have Coir Logs positioned where run off may occur as a second line of defence.

Pit blocks will be put in place for stormwater pits around the active concrete demolition/excavation work area to prevent any contaminated water leaving the site. Geofabric is installed on stormwater pits away from the active work area to allow clean water to passively leave the clean area of site while retaining any potential sediments and pollutants.

Any accumulated water at low points of the site should be pumped to stormwater following inspection and use of RMA Discharge Permit. RMA are required to maintain NSW Water Quality Objectives where our activities involve site water discharge.

Where possible, vehicle movements will be confined to hardstand areas, designated tracks, pathways, and work areas to minimise disturbance to existing ground cover.

Stop work in the immediate vicinity of unexpected contamination. Indicators of contamination include discoloured soil, strong chemical or petrol odours and leachate. Contain disturbed material on an impermeable surface and cordon areas off. The Sydney Metro Project Manager will be notified immediately of any unexpected finds.

In heavy rainfall or waterlogged conditions, site works may need to cease temporarily to prevent the risk of tracking material offsite or creating loose ground material which may then run off site.



Daily weather patterns and weather forecasts are to be closely monitored during the works and scheduled around any heavy rainfall period. All required controls will be checked by the Site Superintendent/Supervisor on a daily basis throughout the project to ensure they are maintained in a fully functional condition. In the event of accumulation of sediment around any controls that may reduce their effectiveness, the sediment will be removed in such a manner as to not disturb or damage the control in any way. Damaged sediment controls will be replaced immediately or as quickly as practicable.

Portable site amenities will be located away from watercourses or drainage lines.

Plant and equipment must be maintained daily whilst on site to ensure items are leak free, and any necessary repairs made immediately upon discovering leaks. Alternatively, if equipment cannot be repaired onsite, remove the item, and replace it with a leak-free item. If washing down of equipment is required, this should be completed within designated washout areas. Plant and equipment will be refuelled offsite where possible, or if onsite refuelling is required this will be performed on hard stand areas of the site.

If sediment or soil is tracked offsite this material will be swept up each day or prior to expected rainfall.

## **5.2 DUST SUPPRESSION**

During the concrete removal, and excavation activities there is a requirement to manage the generation and potential off-site release of dust.

Water will be used as a dust suppressant during all site works. This includes during demolition of concrete hardstand, excavation works, and footpath construction. RMA will ensure the amount of water used on this site is sufficient to suppress dust but will not be enough to generate run off. This will be controlled using equipment such as hand help pump spray bottles, and short bursts from high pressure water sprayers rather than hoses with a continuous water flow.

All waste loads in bins and trucks will be covered prior to being removed from site.

Stockpiled materials considered a high risk of releasing sediment or dust will be covered with geofabric material or plastic and weighted down to prevent wind blowing across the stockpile.

Where possible, vehicle movements will be confined to hardstand areas, designated tracks, pathways, and work areas to minimise disturbance to existing ground cover and generation of dust.

## **5.3 SERVICES AND ABOVE AND UNDERGROUND STRUCTURES.**

### **Services Within the Work Area**

Before the commencement of the remediation demolition activities, any services such as water, sewer, electricity, and telecommunications will be identified and marked. Services will be isolated/terminated and removed prior to work commencing by Sydney Metro.

RMA will perform a DBYD search along with a services search of the work area to confirm Sydney Metro survey details.

If there are any existing services are to remain live within our work area these should be marked or tagged, and locations discussed during the pre-start meetings or toolbox talk. RMA will install protective measures around the service if possible. If there is any doubt about the location of a service, non-destructive digging methods will be employed to identify the presence of the underground service.

### **Above Ground Structures/Overhead Services**

There are overhead powerlines located along the Pacific Highway and Nelson St. These powerlines are located outside of the site boundaries, however safe approach distances will be maintained for the duration of the work.

Safe approach distances will be maintained in line with RMA's procedure PRC037 Safe Approach distances to Overhead Power Lines.

As an added control measure, tiger tails will be fitted to the overhead lines on Pacific Hwy and Nelson St and will be maintained for the duration of the project.

### **Underground Services or Structures**

RMA will review Sydney Metro survey plans if available to locate known services.

A Dial Before You Dig enquiry will be lodged and the RMA Project Manager will review the plans and perform underground services searches if required.

If existing services are to remain live these should be marked or tagged, and locations discussed during the pre-start meetings or toolbox talk. Install protective measures around the service if possible.

RMA is aware of the Underground Storage Tanks and their locations and will be removing these tanks as part of our scope of works.

### **RMS Road Infrastructure**

All excavations adjacent to RMS road infrastructure must meet the requirements of RMS Technical Direction (GTD 2012/0001) Excavation adjacent to RMS infrastructure.

## **5.4 WASTE MANAGEMENT**

RMA have prepared a Waste Management Plan for this project. This plan details the key points of Waste Minimisation, Preparation of Waste, Waste Streams, Classification, and Waste Tracking. The key waste streams and our preparation and disposal methods are listed below.

### **Waste Minimisation and Recycling**

In order to maximise the amount of waste being recycled and minimise the amount of waste going to landfill, all waste will be separated into the various waste streams at the source during the duration of the works. The various waste streams and their final destination are shown below.

Asbestos	Landfill
GSW	Landfill
Steel	Recycle
Liquid Waste	Landfill
Concrete	Recycle
General waste	Landfill

### **Preparation Prior to Disposal**

Prior to disposal of all materials there is some preparation required to ensure the materials are suitable for recycling or, in the case of hazardous materials are packaged in a form that will prevent spillage and possible contamination of other areas along the transport route.

### **Waste Streams:**

#### **General waste**

General waste generated throughout the project will be placed into a receptacle with a closable lid. General waste may contain food scraps etc. generated by on-site workers. General waste will be removed from the work area as necessary and will not be left to overflow or become odorous.

General waste will be transported to and disposed of at a licensed landfill.

**Asbestos**

The asbestos waste expected on this site is mixed with concrete or soil.

Asbestos contaminated soil will be temporarily stockpiled for sampling and a Waste Classification. Once a waste classification is received, the soil will be loaded into trucks using an excavator to be disposed of offsite. Asbestos waste must be kept damp, this will be done using a hose or from water mist generated using a high-pressure water sprayer.

Concrete containing asbestos will be stockpiled or loaded directly into trucks for offsite disposal as asbestos waste.

Where stockpiled material will remain onsite overnight, the material stockpiled will be covered with 200µm thick plastic and labelled as containing asbestos waste. The site must be made secure, with perimeter and temporary fencing checked for security and the gates must be fitted with a chain and lock and must be locked when the site is unattended.

All ACM waste is to be transported to and disposed of at a landfill licensed to receive asbestos waste.

Each load of asbestos over 10m<sup>2</sup> or 100kgs must be accompanied by an EPA Waste Tracking consignment and each load must be secured and covered.

All asbestos waste bags are to be labelled:

CAUTION ASBESTOS

DO NOT INHALE DUST

DO NOT OPEN OR DAMAGE BAG

**Soil (Non-Asbestos)**

Excavated soil will be stockpiled waiting for sampling and a Waste Classification. Once a waste classification is received, the soil will be loaded into trucks using an excavator and transported to a landfill in accordance with its Classification.

**Decommissioned USTs**

Washed and uncontaminated USTs will be separated from general waste, broken into manageable pieces, or loaded directly onto a truck to be transported to a metal recycling facility.

**Liquid Waste – Residual Fuel**

All liquid waste will be treated as flammable F100 NEPM classification. DG rated vacuum tankers will be utilised to remove liquid waste, as well as conduct tank washing. Liquid waste will be transported by the DG rated tanker to a suitably licensed disposal facility.

**Demolition Waste**

Demolition waste will consist of concrete and steel. Demolition waste will be separated to maximise reuse and recycling.

The waste will be broken down into small manageable pieces by an excavator and stockpiled. The waste will then be loaded into trucks according to their waste stream using the excavator.

Smaller hand sorted and collected demolition waste may be placed into small bins/containers. Bins should have wheels for easy transportation. The bins/containers will be transported to the general

waste skip bin or stockpile and the waste will be transferred from the bins into the skip bin/stockpile.

Recyclable material will be transported to the appropriate recycling facility. Demolition waste that cannot be recycled will be transported to and disposed of at a licensed landfill.

#### **Disposal Dockets**

All disposal dockets will be kept, and copies issued to Sydney Metro once received and recorded.

### **5.5 NOISE & VIBRATION MANAGEMENT**

A Noise and Vibration Impact Statement will be prepared for this project by Consultant EMS.

This plan will detail the noise and vibration limits and controls required for this site. Vibration from construction activities must not exceed the vibration limits set out in the British Standard BS 73852:1993 *Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration*.

In general RMA will:

- RMA will ensure all works are completed within allowable work hours. If a need arises to work outside of the nominated hours, approval will be sort from the client's representative.
- Equipment will be selected for the project on the basis of its noise performance. All equipment shall be operated in an efficient manner to minimise the emission of background noise around the site.
- Inform workers of project specific noise issues and mitigation measures during RMA site induction.
- Machinery will be checked daily and will be maintained in good working order.
- Review and implement any complaints and where reasonable implement additional mitigation measures. Maintain a record of any complaints.

#### **Workplace Health and Safety for Nearby Workers**

At no time can noise generated by construction exceed the National Standard for exposure to noise in the occupational environment of an eight-hour equivalent continuous A-weighted sound pressure level of LAeq,8h, of 85dB(A) for any employee working at this site.

#### **Noise Mitigation – Residential and Non-Residential Receivers**

Sydney Metro are required to provide additional mitigation to residential and non-residential receivers in accordance with the Sydney Metro City and South West Noise and Vibration Strategy. RMA will provide Sydney Metro with all information, documents, details and data relating to our on-site activities that may contribute to noise exceedance. The Noise and Vibration Impact Statement prepared for this project has been issued to Sydney Metro and details the predicted noise levels for each aspect of our work.

RMA must ensure all works are coordinated in accordance with the Sydne Metro Noise and Vibration Strategy and the Noise and Vibration Impact Statement prepared by EMS to provide the required respite periods.

An existing timber hoarding has been erected around the site boundary. This hoarding has been installed in line with condition A19 and A20 of the CSSI Planning approval. The hoarding has been constructed in such a way that it minimises visual, noise and air quality impacts on sensitive receivers such as neighbours and the community. RMA will at all times maintain this hoarding to ensure its effectiveness.

### **Vibration Monitoring Near Heritage Items**

RMA will seek the advice of a Heritage specialist on the methods and locations for installation of vibration, movement and noise monitoring equipment for heritage listed structures such as Mowbray House.

Vibration testing must be carried out before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, RMA must review the construction methodology and, if necessary, implement additional mitigation measures.

## **5.6 TRAFFIC MANAGEMENT**

Only RMA employees and subcontractors with a current driver's licence will be able to operate vehicles to, from and on site.

Traffic in and around the work face shall be minimised by:

- Restricting movement to those vehicles involved in immediate work activities.
- Designating, sign posting and demarcating specific traffic flow areas.

Sydney Metro have prepared a Construction Traffic Management Framework. RMA have read this document, and it has been used in the preparation of a Construction Traffic Management Plan (CTMP) for this project.

Vehicle access to and from the site is to be managed in the CTMP to ensure pedestrian, cyclist and motorist safety. Directional signage and line marking will be used to direct and guide drivers and pedestrians past the site. This may be supplemented by Variable Message Signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternate routes if the CTMP deems this is necessary.

Where existing footpath routes used by pedestrians and / or cyclists are affected by construction, a condition survey will be carried out to confirm they are suitable for use (eg suitably paved and lit), with any necessary modifications to be carried out in consultation with the local council.

In the event of a traffic related incident, co-ordination would be carried out with the CBD Coordination Office and / or the Transport Management Centre's Operations Manager.

RMA must not block or obstruct access to existing properties surrounding our site. Onsite parking will be available for RMA employees and subcontractors to prevent the need to park on the surrounding streets. The site is also in close proximity to public transport and RMA will encourage personnel to use public transport where feasible.

Daily on-site traffic movements and protection of pedestrians will be managed by RMA in accordance with the Vehicle Movement Plan prepared daily during the pre-start meeting.

The vehicle movement plan will direct site traffic and pedestrians in a way that provides maximum safety and minimal disruption.

A spotter will be used to direct traffic flow during deliveries to/from site, or during loading of trucks.

Vehicles will enter the site from the designated entry point off Mowbray Rd. Vehicles will then leave the site via the Sydney Metro Dive Site driveway. This allows vehicles to enter in a forward direction, and to exit the site in a forward direction turning onto Mowbray Rd at a set of traffic lights preventing interruption of traffic flow to Mowbray Rd. RMA will minimise truck movements during peak periods within commercial centres and around school zones during pick and drop off times.



Peak periods are 7am to 10am and 4pm to 7pm Monday to Friday. School zone times are between 8:00am – 9:30am and 2:30pm – 4:00pm.

Driveway Access and any associated works will be managed via TMP and relevant TCP Plans. Vehicles and Pedestrian Management will occur subject to TCP controls and relevant Traffic Controllers and Signage.

To maintain pedestrian safety, RMA will delineate pedestrian walkways using crowd control barriers. Where pedestrians need to cross vehicle pathways, a gate will be installed in the crowd control barriers. This acts as a physical barrier between vehicles and pedestrians, and also prompts pedestrians to check for vehicles before opening gates.

## **5.7 HERITAGE, ARCHAEOLOGICAL AND ABORIGINAL ARTEFACTS**

RMA have engaged AMBS Ecology & Heritage to act as our Heritage Consultant.

AMBS Ecology and Heritage have developed an Archaeological Method Statement for this project. In line with Condition E17 of the CSSI Planning Approval, this document was prepared in consultation with the Heritage Council of NSW. The document has been reviewed and endorsed by Heritage NSW, Delegate of the Heritage Council of NSW.

The work is to be carried out in close proximity to Mowbray House heritage site and there is a high potential for further archaeological deposits across the site. Work will be carried out under supervision of a heritage consultant. All work must proceed with caution and excavation works in particular must be completed in strict accordance with the Scope of Works.

Any excavation works in Heritage or Archaeological Sensitive areas must be directly supervised by the Excavation Director appointed by AMBS. The nominated Excavation Director for this project is Lian Ramage. Heritage NSW have reviewed her experience and have found she meets the requirements of Condition E17 of the CSSI Planning Approval.

Where archaeological excavation is required, the Excavation Director must be present to oversee excavation and advise on archaeological issues. The Excavation Director must be given the authority to advise on the duration and extent of oversight required.

RMA must not destroy, modify or otherwise physically affect any Heritage item not identified in documents referred to in Condition A1 of the CSSI Planning Approval.

With reference to Mowbray House, advice regarding vibration has been given by an Acoustic Consultant. The direct advice given in the Endorsement Letter reads:

*“My endorsement is therefore subject to a precautionary approach, with an interim vibration criterion of 2.5mm/s (consistent with section 3.1.9.2 of the Noise and Vibration Technical Paper in the EIS) and attended vibration monitoring during site trials of any high vibration activity (such as hammering) to determine safe working distances. After a structural engineering assessment of Mowbray House has taken place, there will be an opportunity to review and potentially increase the applicable vibration limit at this location.”*

RMA will seek the advice of a Heritage specialist on the methods and locations for installation of vibration, movement and noise monitoring equipment for heritage listed structures such as Mowbray House.

Vibration testing must be carried out before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, RMA must review the construction methodology and, if necessary, implement additional mitigation measures.

The confidentiality of any heritage, archaeological and or Aboriginal information/artefacts will be maintained at all times. Information about such items will not be made public in any form.

A final archaeological report must be submitted to the Heritage Council of NSW within two (2) years of the completion of archaeological excavation on the project. The report must include information on the entire historical archaeological program relating to the CSSI.



## **Unexpected Finds**

In the event of an unexpected find, RMA will cease work and contact Heritage Consultant AMBS and Sydney Metro immediately. The site will be made safe with an exclusion zone implemented until such time as a consultant is arranged to inspect the work site or we are cleared by Sydney Metro to proceed with our works.

A formal Unexpected Finds Procedure and Exhumation Management Procedure have been developed by Sydney Metro and forms part of the AMBS Archaeological Method Statement. RMA will defer to these procedures in the event of a heritage or archaeological unexpected find.

If potential relic/s is/are discovered, work in the area must cease and the Excavation Director must be notified and assess the significance level of the find/s and provide mitigation advice according to the significance level and the impact proposed. The Excavation Director must attend the site in accordance with Condition E18 of the CSSI Planning Approval to oversee the excavation where relics of State significance are found.

An Archaeological Relic Management Plan specific to the relic of State significance must be prepared in consultation with the Heritage Council of NSW (or its delegate) to outline measures to be implemented to avoid and/or minimise harm to and/or salvage the relic of State significance.

Construction in the vicinity of the discovery must not recommence until the requirements of the ARMP have been implemented, in consultation with the Excavation Director.

## **Aboriginal Heritage**

In the case of Aboriginal objects being identified, the Aboriginal Cultural Heritage Assessment must be implemented. Excavation and or salvage must be undertaken by a qualified archaeologist in consultation with the Registered Aboriginal Parties. Where items were previously unidentified all works must cease in the affected area and a suitably qualified and experienced Aboriginal heritage expert must be contacted to provide specialist heritage advice before works recommence.

## **Human Remains**

In the event Human Remains are discovered, RMA must not harm, modify, or otherwise impact those found during the course of our work. An Exhumation Management Plan must be prepared by Sydney Metro and implemented to guide the relocation of recovered human remains.

RMA will provide Sydney Metro with the required information to allow the appropriate notifications as per the CSSI Planning Approval.

## **5.8 PLANT & EQUIPMENT**

Plant or machinery that is not in use must be stored so that it does not create a risk to workers or the general public. Mobile plant must be parked on a firm level surface with the handbrake applied, the motor switched off and rendered inoperable by removing any keys. All machinery and equipment will be switched off when not in use for an extended period of time to reduce emissions.

Only personnel holding relevant high risk work licences or proof of competency are permitted to operate plant and machinery.

All plant and machinery used on RMA projects must have up-to-date servicing records this includes machines that are hired. RMA Site Superintendent/Supervisor to ensure purchase/hire and deliveries of plant comply with WHS specifications. Site Superintendent/Supervisor to obtain WHS information from suppliers of plant & machinery.

Plant and machinery must be inspected daily by the operator using the RMA Plant inspection booklet or the logbook provided with hire machines. Plant & equipment must be leak free, and any minor defects are to be repaired by the operator before use. If major problems are found the



machine must be repaired by a qualified person before its use on site. Emissions from items of machinery or equipment will also be checked during the daily inspection.

Plant and equipment will be refuelled offsite where possible, or if onsite refuelling is required this will be performed on hard stand areas of the site.

Plant and Equipment must be well maintained and serviced to minimise emissions. RMA will perform a daily pre-start check on all machinery used on site.

## **5.9 PERSONAL PROTECTION EQUIPMENT (PPE)**

Appropriate PPE will be issued to all employees at the time of employment as defined by the individual's employment conditions.

The PPE listed below is available for issue to RMA personnel:

<b>Mandatory</b>	<b>Task Specific/When Required</b>
Steel Cap Safety Footwear	Gloves
Safety Helmets	Eye Protection
Hi-Vis Safety Vest or Clothing	Ear Protection
Long sleeve shirt and long pants	Sun Block
	P2/P3 mask or half face respirator
	Face shield with respirator
	Disposable overalls

## **5.10 SITE CLEAN UP**

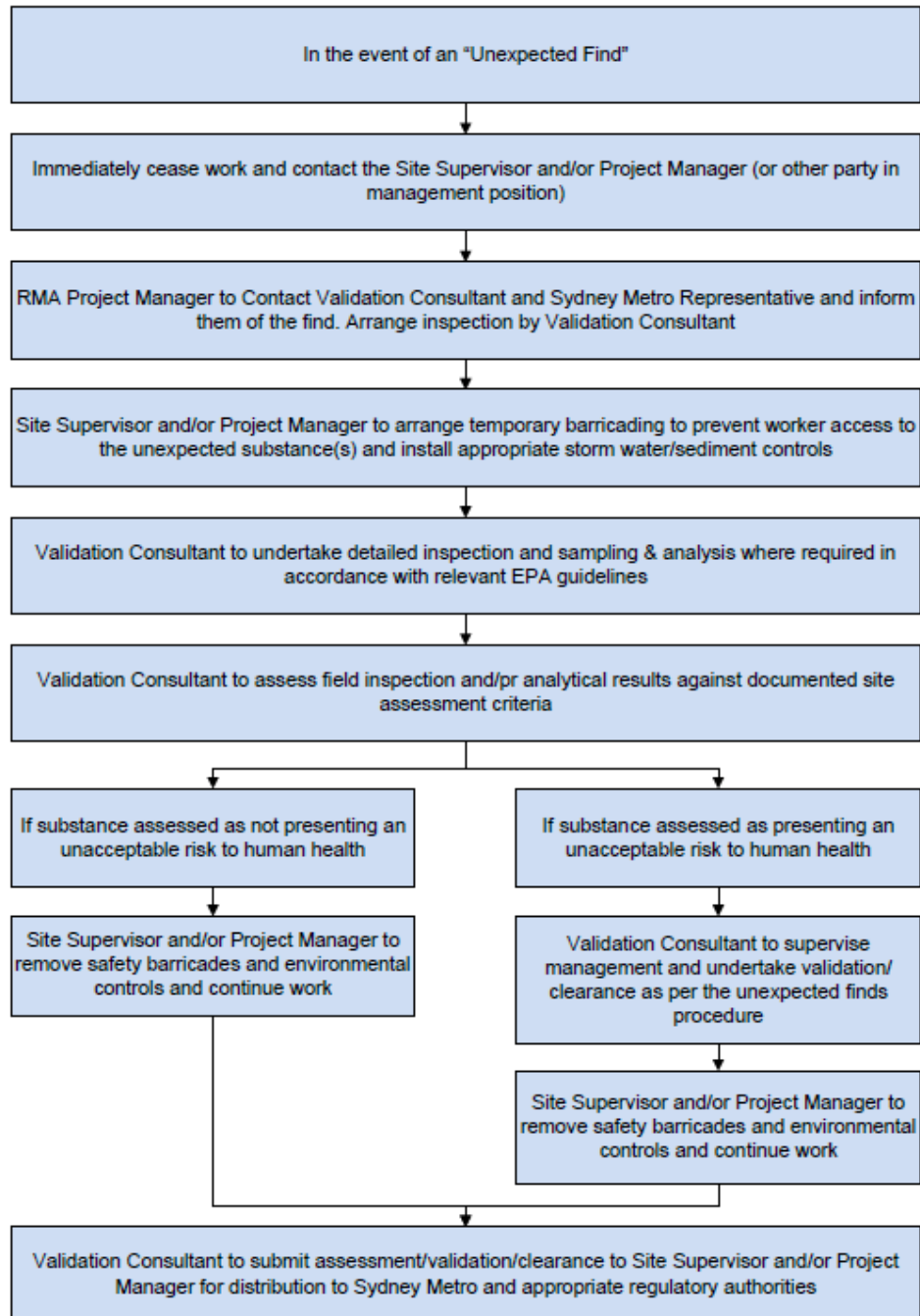
Upon completion of all works RMA will demobilise from site, ensuring all machinery, equipment and vehicles are removed from site. All safety and environmental controls implemented throughout the course of the works will be removed also.

The site will be left clean and tidy and will in no way pose any danger to Sydney Metro staff or visitors.

## 6. UNEXPECTED FINDS PROTOCOL

In the event of an unexpected find or release of hazardous building material RMA will defer to our Unexpected Finds Protocol.

**Unexpected Finds Protocol Flowchart**



## Appendix 5 - Waste Management Plan

Refer to Section 5.4 of CMP in Appendix 4

## Appendix 6 -Traffic Management Plan



# Mowbray Road Shared Path, Chatswood Construction Traffic Management Plan

Prepared for:

RMA Contracting Pty Ltd

22 July 2025

The Transport Planning Partnership

# Mowbray Road Shared Path, Chatswood Construction Traffic Management Plan

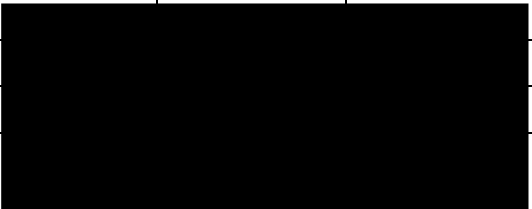

Client: RMA Contracting Pty Ltd

Version: V04

Date: 22 July 2025

TPP Reference: 24326

## Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	24/04/2025				-
V02	29/04/2025				-
V03	17/07/2025				-
V04	22/07/2025				

---

## Table of Contents

1	Introduction .....	1
1.1	Background.....	1
2	Existing Conditions .....	2
2.1	Site Description .....	2
2.2	Surrounding Road Network .....	2
2.2.1	Mowbray Road .....	3
2.2.2	Pacific Highway .....	3
2.3	Public Transport.....	3
2.4	Pedestrian and Cyclist Infrastructure .....	5
3	Proposed Construction Activities .....	6
3.1	Description of Construction Activities .....	6
3.2	Work Hours.....	7
3.3	Construction Vehicles, Plant and Equipment .....	7
3.4	Construction Workers and Parking Arrangements .....	8
3.5	Construction Vehicle Routes.....	8
3.6	Works Zone Requirements .....	9
3.7	Road Occupancy Requirements .....	10
3.8	Materials and Handling Area .....	10
3.9	Hoarding.....	10
3.10	Alternative Pedestrian Route .....	10
4	Construction Traffic Assessment Implications.....	11
4.1	Construction Traffic Generation .....	11
4.2	Truck Layover Area.....	11
4.3	On-street parking.....	11
4.4	Pedestrian and Cycle Access.....	11
4.5	Public Transport Accessibility.....	12
4.6	Emergency Vehicles .....	12
4.7	Existing Sydney Metro Dive Site Access .....	12
4.8	Combined Impact with Other Developments.....	12
5	Construction Traffic Management Measures.....	13
5.1	Traffic Guidance Scheme .....	13
5.2	Site Inspection and Monitoring.....	13
5.3	Vehicle Access and Truck Routes .....	14

5.4	Site Induction Training .....	14
6	Conclusion .....	15

## Tables

Table 2.1: Public Transport Facilities .....	4
Table 3.1: Construction Staging .....	7

## Figures

Figure 2.1: Site Context .....	2
Figure 2.2: Public Transport Map .....	4
Figure 2.3: Surrounding Cycleways .....	5
Figure 3.1: Proposed Construction Area and Kerbside Lane Closure. ....	6
Figure 3.2: Vehicle Access Routes.....	9

## APPENDICES

- A. TRAFFIC GUIDANCE SCHEME (TGS)
- B. CONSTRUCTION SITE PLAN



# 1 Introduction

## 1.1 Background

Sydney Metro is proposing to upgrade a segment of footpath along the north side of Mowbray Road between Pacific Highway and Hampden Road, being the frontage of the Sydney Metro dive site, to a shared path.

The proposed shared path is some 125m long and is to be constructed as part of the public domain works for Sydney Metro Chatswood to Sydenham.

The Transport Planning Partnership (TPPP) has prepared this Construction Traffic Management Plan (CTMP) and the associated Traffic Guidance Scheme (TGS) presented in Appendix A to assess, manage and mitigate the pedestrian/traffic impacts associated with the proposed construction works.

The purpose of this CTMP is to detail how traffic and pedestrians will be managed during the proposed construction works. This CTMP will provide a strategy to reduce the impacts to traffic, pedestrian and access in the surrounding during each construction stage to provide a safe environment for all the road users, while maintaining access to the Sydney Metro dive site which will remain operational for maintenance works in the future.

This report and the associated TGS have been prepared and checked by engineers who hold the SafeWork NSW Work Health & Safety – Traffic Control Work (PWZ) Training Card, as follows:

- Paul Cai – Card No. TCT0056802

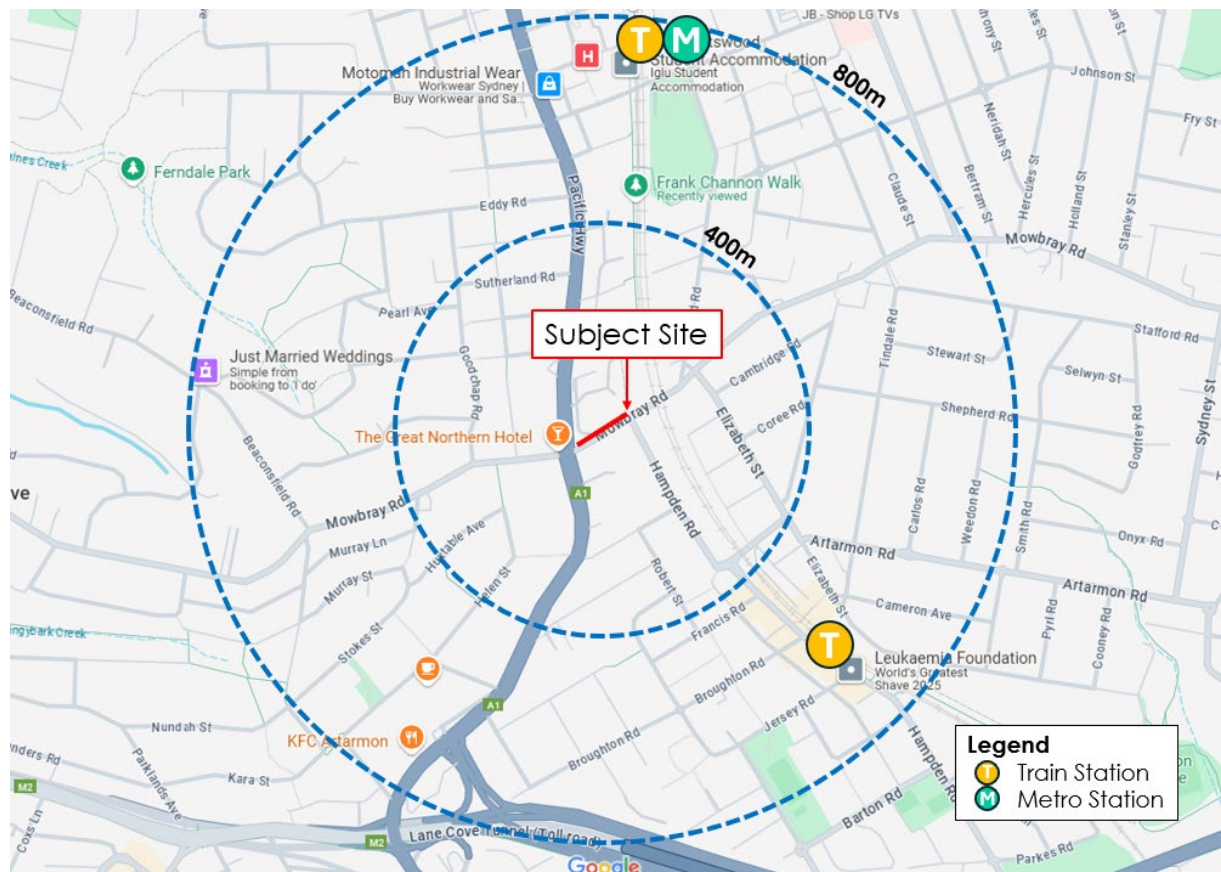
## 2 Existing Conditions

### 2.1 Site Description

The construction area (subject site) is located on the north side of Mowbray Road between Hamden Road and Pacific Highway, being the frontage of the Sydney metro dive site. The subject site falls within the local government area of Willoughby City Council. The adjoining site is currently remediated land from the Sydney Metro Chatswood dive site.

Figure 2.1 shows the location of the site relative to the surrounding context.

**Figure 2.1: Site Context**



### 2.2 Surrounding Road Network

The site fronts Mowbray Road and Pacific Highway along the southern and western boundary of the site respectively. A brief description of the roads adjoining the site is provided below.

### 2.2.1 Mowbray Road

Mowbray Road is a two-way regional road aligned in an east-west direction with two travel lanes in each direction near the site. Vehicles are permitted to turn right into Mowbray Road from Pacific Highway and vehicles from Mowbray Road are permitted to turn right onto Pacific Highway.

Parking is prohibited on both sides of the road in the vicinity of the site and a clearway is in effect from 6am to 10am on weekdays in the eastbound direction, and from 3pm to 7pm on weekdays in the westbound direction.

Mowbray Road has a posted speed limit of 50 km/h in the vicinity of the site.

### 2.2.2 Pacific Highway

Pacific Highway is a two-way state road aligned in a north-south direction west of the site with three travel lanes in each direction. Parking is prohibited on both sides of the road in the vicinity of the site and a clearway is in effect from 6am to 7pm on weekdays, and 9am to 6pm on weekends and public holidays.

The Pacific Highway has a posted speed limit of 60km/h in the vicinity of the site.

## 2.3 Public Transport

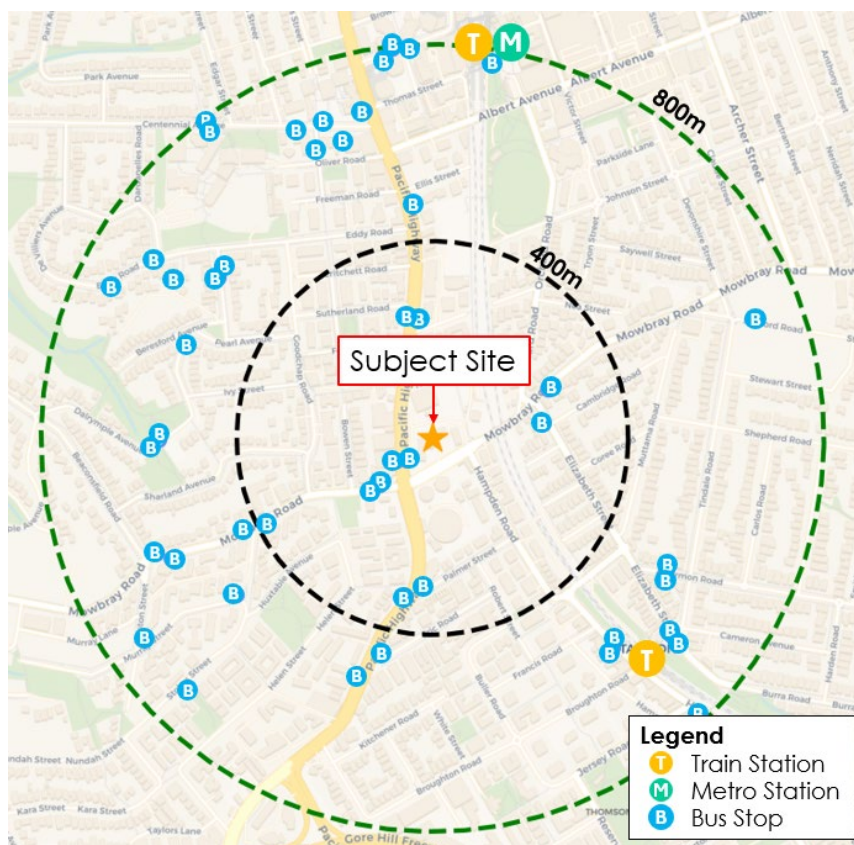
A summary of the public transport facilities and their respective frequencies is shown in Table 2.1. Figure 2.2 shows the proximity of the site to the surrounding public transport services.

Chatswood train and metro station and Artarmon train station are located within 1km walk (14 minutes) of the subject site. A bus stop is located adjacent to the site on Pacific Highway. No bus stop is located on Mowbray Road in the vicinity of the site.

**Table 2.1: Public Transport Facilities**

Service	Route	Route Description	Site Proximity	Frequency	
				Weekday peak	Weekend (off peak)
Metro	M1	Tallawong to Sydenham Line	800m	4 minutes	10 minutes
Rail	T1 North Shore and Western Line	Berowra to City via Gordon	650m	3 – 5 minutes	7 minutes
	T9 Northern Line	Hornsby to North Shore via City	650m	15 minutes	15 minutes
Bus	113	Chatswood to Royal North Shore Hospital	80m	Hourly (Tues – Thurs)	No services
	144	Manly to Chatswood via St Leonards	80m	5 minutes	10 minutes
	258	Chatswood to Lane Cove West	180m	1 service (Tues – Thurs)	No services
	530	Burwood to Chatswood	60m	30 minutes	30 minutes
	533	Sydney Olympic Park to Chatswood via Rhodes & North Ryde	180m	15 minutes	30 minutes
	536	Gladesville to Chatswood via Hunters Hill	80m	30 minutes (Tues – Thurs)	No services

**Figure 2.2: Public Transport Map**



Basemap source: OpenStreetMap

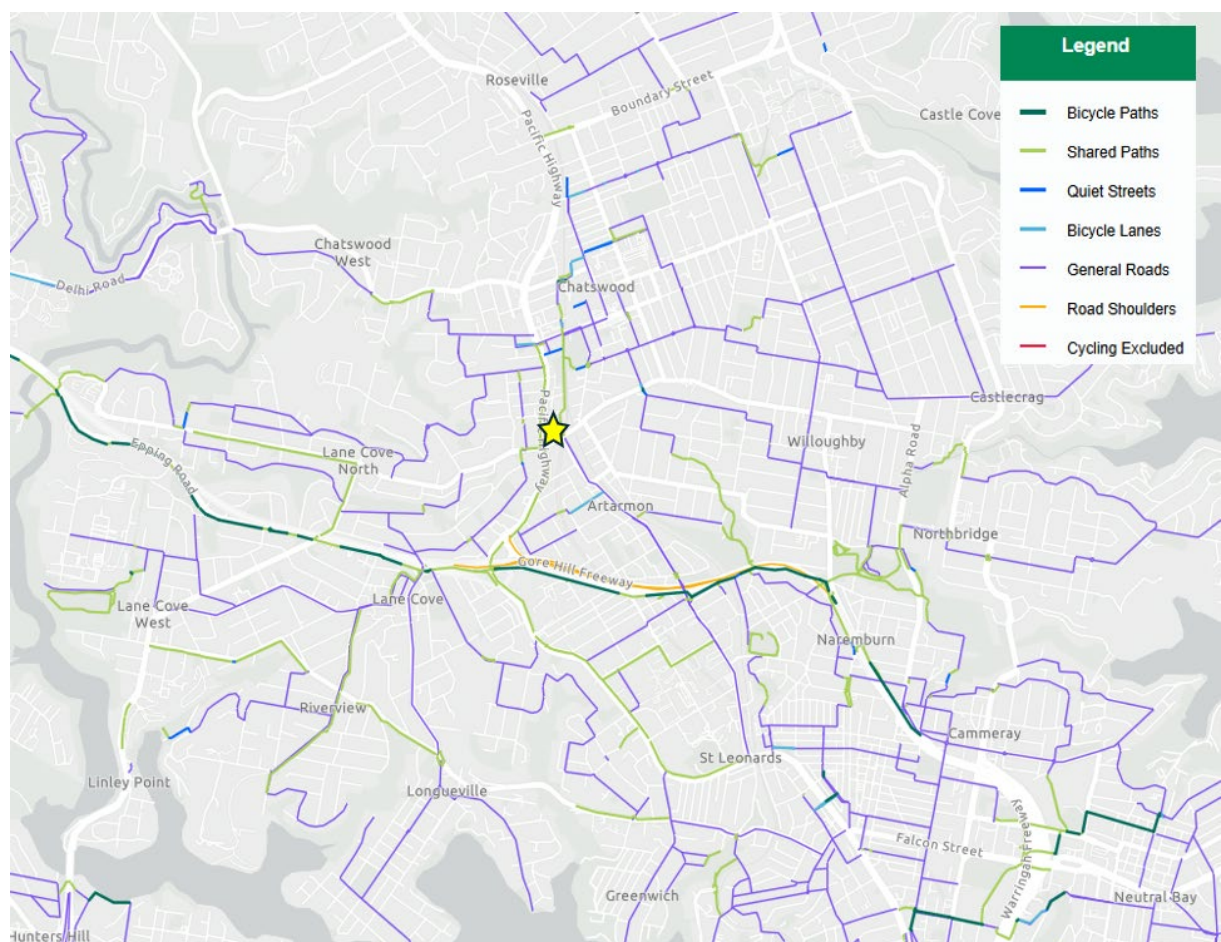


## 2.4 Pedestrian and Cyclist Infrastructure

Pedestrian footpaths are generally provided on all streets surrounding the site. Signalised pedestrian crossings are provided on all approaches to the Pacific Highway / Mowbray Road intersection. Signalised crossings are also provided on the east and south approach to the Mowbray Road / Hampden Road intersection.

Cycling routes surrounding the site include off-road and on-road paths as shown in the cycleway network map in Figure 2.3.

**Figure 2.3: Surrounding Cycleways**



Source: TfNSW Cycleway Finder 2025

## 3 Proposed Construction Activities

### 3.1 Description of Construction Activities

The proposed shared path construction works will involve demolition of the existing footpath, adjusting service pits, earthworks, construction of a new shared path, installation of street signage and reinstating the grass verge.

It is proposed to close the kerbside lane along the construction area on the northern side of Mowbray Road to provide a safety buffer for the construction works during the construction hours. The proposed construction area and closure of the kerbside lane are shown in Figure 3.1. The construction works and associated kerbside lane closure will generally occur at night only between 8pm and 5am, Sunday to Thursday, to minimise the impact on traffic in the surrounding.

Notwithstanding that, it is anticipated that the removal of the redundant driveway on the western side and reinstatement of kerb would be carried out on a weekend with a kerbside lane closure for all of Saturday and Sunday. However, the exact dates for the driveway removal and kerb reinstatement works are yet to be confirmed. A separate application will be submitted to relevant authorities (i.e. Council/TfNSW) for approval when required, and a Road Occupancy Licence will be obtained prior to the kerbside lane closure.

**Figure 3.1: Proposed Construction Area and Kerbside Lane Closure.**



It is expected that the total duration of the construction works is about 60 working days. The construction staging and estimated duration of each stage is shown in Table 3.1.

**Table 3.1: Construction Staging**

Stage	Estimated Duration
Demolition of existing footpath	10 days
Adjusting service pits	15 days
Importing fill and earthworks	15 days
Construction of new concrete shared path	10 days
Installation of street signage	5 days
Reinstating the grass verge	5 days
<b>Total</b>	<b>60 days</b>

## 3.2 Work Hours

It is proposed that the construction works will take place during the following hours:

- Sunday to Thursday: 8pm – 5am

Notwithstanding, the construction work hours will be subject to Council's approval. If work outside the approved standard work hours is required (i.e. concrete pour for the new shared path), approval from Council would be required prior to the commencement of any works. The construction contractor shall be responsible for liaising with Council to obtain any relevant permit approvals.

## 3.3 Construction Vehicles, Plant and Equipment

Various types of trucks/machinery are expected to visit the construction site, including a 2.5-tonne excavator, concrete mixer trucks and 2-tonne tipper trucks (overall length approximately 5m).

During the demolition stage and earthworks stage, it is anticipated that the largest construction vehicle will be a 2-tonne tipper truck. During the construction of a new concrete shared path, the largest construction vehicle is anticipated to be a concrete truck.

Machinery/equipment (i.e. excavator, roller, concrete saw, hand tools, etc.) will be transported to the site at the start of each stage and be transported from the site at the end of each stage. Delivery of construction equipment and machinery will not occur on a daily basis. All plant and equipment will be stored within the designated storage area within the site after working hours each day.



## 3.4 Construction Workers and Parking Arrangements

It is anticipated that the peak number of construction workers on site at any one time will be 12 workers. Six car parking spaces will be provided within the dive site for the construction works. The provision of off-street parking spaces is considered acceptable take into consideration of the available public transport options near the site.

Notwithstanding the above, it is proposed to implement the following measures to encourage construction workers to use public transport:

- Provide an on-site tool drop-off and storage facility to allow workers to drop off and store their specific machinery for the project to prevent the need to drive equipment in each day.
- Inform staff during the induction and regular management meetings that limited car parking spaces will be available for construction workers.
- Instruct construction workers to use public transport to access the site.
- Construction workers who are required to travel by car are encouraged to carpool when possible, thus minimising traffic impact and parking demand.

## 3.5 Construction Vehicle Routes

Generally, construction vehicles have origins and destinations throughout Sydney. Dedicated construction vehicle routes have been developed to provide the shortest distances to/from the arterial road network, whilst minimising the impact of construction traffic on local streets within the vicinity of the site.

All vehicle drivers will be advised of the designated truck routes to/from the site and be required to adhere to the nominated routes. The designated routes to/from the site are shown in Figure 3.2.

It is proposed that construction trucks will enter the site in a forward direction via the existing Sydney Metro dive site driveway on Mowbray Road.

Tipper trucks will reverse along the footpath to the excavation/material filling areas under guidance of a traffic controller or a dedicated spotter. Construction vehicles will park wholly within the construction areas. During the demolition/excavation stage, once the tipper truck is fully loaded, it will drive along the footpath into the Main Gate of the dive site, and unload at a designated stockpile area as shown in Figure 3.2. Then the tipper truck will reverse along the footpath to the work face once again.



During the construction of new concrete shared path stage, concrete mixer trucks will enter the site or the kerbside work zone in a forward direction, then park at the designated area within the dive site. A concrete line pump will be used to pump concrete to the work area. The concrete line shall be laid on the ground to the work area and ensuring that it does not cross the driveway and entry gate of the dive site at any time.

All construction vehicles will exit the site in a forward direction as per existing vehicle movement arrangement of the dive site and turn right onto Mowbray Road at the signalised intersection of Mowbray Road / Hamden Road.

**Figure 3.2: Vehicle Access Routes**



### 3.6 Works Zone Requirements

It is proposed that the kerbside lane along the construction area on the northern side of Mowbray Road will be closed to ensure the safety of the construction works. However, no construction vehicles will be parked at the kerbside lane.

All construction works, loading/unloading activities and vehicle standing will be contained within the Sydney Metro dive site or the construction areas which will be enclosed to public access.

### 3.7 Road Occupancy Requirements

A Road Occupancy Licence (ROL) application will be submitted to the relevant authorities for temporarily occupying the kerbside lane along the construction area on Mowbray Road. A Traffic Guidance Scheme (TGS) has been prepared for the proposed kerbside lane closure, which is provided in Appendix A. The ROL application will be a separate application from this CTMP.

### 3.8 Materials and Handling Area

All materials handling and plant equipment, including waste storage, are expected to be wholly stored within the dive site in the designated areas, as shown in the construction site plan provided in Appendix B. It is not expected that any public road will be required for such purposes. However, if temporary use of any public roads is required for storage purposes or the like, prior consultation with Council will be undertaken. All relevant permit approvals will also be obtained prior to the commencement of such activities.

### 3.9 Hoarding

Appropriate fence and/or barriers will be installed to enclose the construction areas, isolate the construction areas from public access, and separate the construction activities from traffic on Mowbray Road and pedestrians.

It is proposed that traffic cones will be utilised to close the kerbside lane during construction, with a 0.5m clearance to the travel lane to separate and protect the construction areas from traffic on Mowbray Road.

### 3.10 Alternative Pedestrian Route

It is proposed that the footpath along the construction area on the northern side of Mowbray will be closed during the construction period.

Pedestrians that need to walk along footpath on the northern side of Mowbray Road will be guided to use the footpath on the southern side of Mowbray. Pedestrians will cross the road using the existing signalised pedestrian crossing at the intersections of Mowbray Road / Pacific Highway and Mowbray Road / Hampden Road. Appropriate barriers and pedestrian signage will be installed to guide pedestrians to walk around the construction area, as shown in the Traffic Guidance Scheme (TGS) in Appendix A.

## 4 Construction Traffic Assessment Implications

### 4.1 Construction Traffic Generation

The construction vehicle traffic generated by the proposed works is expected to be maximum of 6 trucks (12 two-way movements) per day. These truck movements would occur in the evening only during the proposed 8pm to 5am construction period.

Trips generated by construction workers are anticipated to be negligible as there are only a maximum of 12 workers on site at any one time.

Therefore, the construction traffic generated by the proposed construction activities is not expected to cause an adverse impact on the local road network.

### 4.2 Truck Layover Area

Truck drivers will co-ordinate with site managers to ensure that access to the work site and a vacant loading area are available prior to approaching the site. Truck queuing or marshalling on streets shall not be permitted.

### 4.3 On-street parking

The proposed works are anticipated to have minimal impact on on-street parking in the vicinity of the site. The majority of the site frontage is sign posted as a "No Stopping" zone, with a Mail Zone located between the Pacific Highway intersection and the site access.

### 4.4 Pedestrian and Cycle Access

Pedestrian and cycle access along the north side of Mowbray Road within the scope of the proposed works will be prohibited during the construction period. Pedestrians and cyclists will be redirected to the other side of the road as discussed in Section 3.10. The proposed construction works are not expected to have an adverse impact on pedestrian/cycle movements.

## 4.5 Public Transport Accessibility

The development will not have any impact on existing public transport accessibility.

## 4.6 Emergency Vehicles

No special provisions for emergency service vehicles are required as part of the proposed construction activities. Emergency vehicle access to the Sydney Metro dive site will not be impacted.

## 4.7 Existing Sydney Metro Dive Site Access

Access to the existing Sydney Metro dive site will be maintained as per existing. The construction site manager and appointed traffic controller will need to ensure the construction activities do not affect the operation of the Sydney Metro dive site.

## 4.8 Combined Impact with Other Developments

No other works will be carried out on site during the footpath works. It is anticipated that the current operation of the Sydney Metro dive site will have approximately one vehicle visiting the site per week for the metro network work.

## 5 Construction Traffic Management Measures

### 5.1 Traffic Guidance Scheme

A site-specific Traffic Guidance Scheme (TGS) has been prepared for the proposed construction activities at the site and the proposed kerbside lane and footpath closure.

The TGS has been prepared in accordance with TfNSW's Traffic Control at Work Site Manual and AS1742.3 by an engineer who holds the SafeWork NSW Work Health & Safety – Traffic Control Work (PWZ) Training Card.

Pedestrian signage will be installed at the intersection of Mowbray Road/Pacific Highway and the intersection of Mowbray Road/Hampden Road to warn pedestrians closure of the footpath and guide pedestrians to use the footpath on the other side of the road.

Appropriate traffic delineation and signage will be implemented to guide traffic approaching eastbound of Mowbray Road, east of the Pacific Highway, to travel around the construction areas.

All advisory road signage will be installed in accordance with AS1742.3 *Manual of Uniform Traffic Control Devices – Traffic Control Devices for Works on Roads* and the TfNSW's *Traffic Control at Work Site Manual*.

Traffic control devices/facilities required by the TGS must be set up, installed, monitored and maintained by a person who holds a current TfNSW accreditation and photo card to implement Traffic Guidance Scheme.

Signage would be installed and maintained throughout the duration of works, as required. Signage would then be removed once the works are completed.

The TGS is provided in Appendix A of this report.

### 5.2 Site Inspection and Monitoring

Monitoring under this CTMP will be undertaken by the contractor during daily inspections of construction activities to monitor compliance with the requirements of Council and this plan.

A daily inspection before the start of construction activities shall take place to ensure that conditions accord with those stipulated in the plan and that there are no potential hazards.

## 5.3 Vehicle Access and Truck Routes

Construction vehicles will radio/call the site office on approach to ensure a loading area is available. All loading and unloading activities will be undertaken within the designated areas during appropriate work hours. Queueing or marshalling of construction vehicles shall not be permitted on public roads.

All construction vehicles shall enter from and exit onto the public road in a forward direction. Reversing movement within the construction area can only occur under supervision of a traffic controller/or a designated spotter (a site personnel).

Other protocols would be in place to ensure:

- Site induction shall include procedures for accessing the work site from Mowbray Road.
- Drivers shall adhere to the nominated vehicle routes, as shown in Figure 3.2.
- Drivers shall be aware of pedestrians and cyclists in the vicinity of the site.
- Drivers shall be aware of existing sign posted speed limits.
- Vehicles are to egress the site in a suitable traffic gap (vehicles already on public roads have the right-of-way and must not be stopped).

## 5.4 Site Induction Training

All construction workers employed at the site by the construction contractor shall be required to undergo a site induction training.

The induction training shall include nominated construction transport routes to and from the construction site for construction vehicles, along with standard environmental, WH&S, driver protocols and emergency protocols. This training would be the responsibility of the construction contractor.

## 6 Conclusion

This Construction Traffic Management Plan (CTMP) has been prepared to document the proposed construction activities and associated construction traffic management measures necessary to facilitate the construction works along the footpath on the northern side of Mowbray Road between Pacific Highway and Hampden Road.

Based on the findings contained in this CTMP, it is concluded that:

- The construction works will be undertaken in six stages, including demolition of the existing footpath, adjusting service pits, earthworks, construction of the new shared path, installation of street signage and reinstating the grass verge.
- The total duration of the construction works is expected to be approximately 60 days.
- It is proposed to close the kerbside lane along the construction site on the northern side of Mowbray Road to provide a safety buffer for the construction works. A separate ROL application will be submitted to relevant authorities for occupying the kerbside lane.
- The proposed construction activities are expected to generate up to 12 truck movements per day. This level of construction traffic volume is not expected to have an adverse impact on the local road network.
- Throughout all stages of the construction works, all loading and unloading of trucks is to occur within the site.
- All construction vehicles shall enter and exit the Sydney Metro dive site in a forward direction.
- It is proposed to close the footpath on the northern side of Mowbray Road and redirect pedestrians to use the footpath on the other side of the road between Pacific Highway and Hampden Road. Pedestrians will cross the road using the existing signalised pedestrian crossings. No adverse impacts are expected on pedestrian and cyclist movements.
- Six off-street car parking spaces will be provided within the Sydney Metro dive site for construction workers. It is expected that some construction workers will travel to/from the construction site via public transport. Several measures will be implemented to encourage workers to use public transport.
- The proposed construction activities will have no impact on existing on-street parking.
- A number of driver protocols should be established for truck drivers to follow the nominated construction transport route, while maintaining the safety of the surrounding road users and pedestrians.

In conclusion, the proposed CTMP measures would adequately address the potential impacts of the construction works on the surrounding road network and road users.

## Appendix A

### Traffic Guidance Scheme (TGS)





SITE PERSONNEL/ TRAFFIC CONTROLLER TO ASSIST CONSTRUCTION VEHICLES ENTERING THE SITE AND SUPERVISE CONSTRUCTION VEHICLES TRAVELLING ALONG THE CONSTRUCTION ZONE.

PLANT STORAGE AREA

STOCKPILE AREA

MOWBRAY ROAD

ACCESS TO BE MAINTAINED 24/7 TO METRO SITE

CERTIFICATION  
THE UNDERSIGNED HAS OBTAINED THE SAFEWORK NSW "TRAFFIC CONTROL WORK TRAINING CARD" CERTIFICATION.

CERTIFICATE NO: TCT0056802

- TRAFFIC MANAGEMENT NOTES:
1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
  2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
  3. ALL SIGNS TO BE MINIMUM SIZE A.
  4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
  5. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
  6. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE TFNSW "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER 6.1 (2022) AND AUSTRALIAN STANDARDS AS1742.3:2019 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
  7. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLANS" (YELLOW TICKET) AND THE TFNSW TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
  8. IT IS THE SITE FOREMAN'S RESPONSIBILITY TO ENSURE THE FOLLOWING:
    - THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
    - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
    - PEDESTRIAN ACCESS AROUND THE WORK AREA TO BE MAINTAINED AT ALL TIMES.
    - AT ALL TIMES UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
    - IF THERE IS NO DESIGNATED SITE FOREMAN, THE RESPONSIBILITY SHALL FALL ON THE CONTRACTOR OF WORKS
  9. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2019.
  10. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH THE SECTION 4.3.2 OF AS1742.3:2019. HOWEVER, MODIFICATIONS MADE TO SUIT SITE CONDITIONS.
  11. ALL CONSTRUCTION VEHICLE ACTIVITY SHOULD BE MINIMISED, WHERE POSSIBLE, DURING PEAK PERIODS.
  12. ROAD WORK SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
  13. NO TRUCK QUEUING OR PARKING WILL BE PERMITTED IN ANY PUBLIC ROAD OUTSIDE THE PROPOSED WORKS ZONE.
  14. VEHICLES ALREADY ON THE ROAD WILL HAVE A RIGHT OF WAY. AS SUCH EVERY VEHICLE LEAVING THE SITE MUST WAIT UNTIL A SUITABLE GAP IN TRAFFIC ALLOWS THEM TO EXIT UNDER THE DIRECTION OF QUALIFIED TRAFFIC AND PEDESTRIAN CONTROLLER.
  15. PEDESTRIANS WILL ONLY BE HELD FOR SHORT TIME TO ALLOW TRUCKS TO ENTER AND EXIT FROM THE SITE. PEDESTRIANS HAVE THE RIGHT OF WAY ON THE FOOTPATH AND WILL NOT BE STOPPED IN ANTICIPATION.
  16. ADJOINING PROPERTIES AND SIDE ROADS WILL NOT BE AFFECTED BY THE WORKS.

LEGEND

- FOOTPATH EXCAVATION/ REPLACEMENT AREA
- FLASHING DIRECTIONAL ARROW
- TRAFFIC CONES
- SIGNPOST
- SITE PERSONNEL / TRAFFIC CONTROLLER
- PROTECTION BARRIER
- SITE ACCESS
- PEDESTRIAN DETOUR ROUTES

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	PC	PC	22/07/25



PROJECT

TITLE

SYDNEY METRO MOWBRAY ROAD

TRAFFIC GUIDANCE SCHEME

DWG No.	24326CAD004		
	FIGURE 1		
DATE STAMP	22 JULY 2025		
PROJECT No.	24326	SCALE	1:1000 @A3
REV.	A		




## Appendix B

### Construction Site Plan





	<b>PROJECT NAME</b> Chatswood Precinct Demolition & Remediation Mowbray Rd Chatswood NSW 2067		<b>PROJECT NUMBER</b> P24001		<b>DRAWING NUMBER</b> ECPF001.0		<b>DATE</b> 01/04/2025
	<b>DRAWING NAME</b> Project Environmental Control Plan - Footpath	<b>CLIENT NAME</b> Sydney Metro	<b>DRAWN</b> NM	<b>APPROVED</b> LS	<b>SCALE</b> Not to Scale	<b>SHEET SIZE</b> A3 Landscape	



The Transport Planning Partnership  
Suite 402 Level 4, 22 Atchison Street  
St Leonards NSW 2065

P.O. Box 237  
St Leonards NSW 1590

02 8437 7800

[info@tpp.net.au](mailto:info@tpp.net.au)

[www.tpp.net.au](http://www.tpp.net.au)

## Appendix 7 - Noise and Vibration Impact Statement

## Appendix 8 – Arborist Tree Inspection Report



Malcolm Bruce B. A,  
(MacQuarrie University)  
Diploma of Arboriculture  
(Ryde College)  
Consultant Arborist

ABN  
97 363 034 490

Phone  
0405 626 970

Email  
majbruce@hotmail.com



INSPECTION OF  
STREET TREES,  
LOCATED ALONG  
339 MOWBRAY  
ROAD,  
CHATSWOOD

## Contents

1	Introduction .....	2
2	Aims.....	3
3	Methods.....	3
4	Tree Observations and Assessment .....	2
5	Location of Trees .....	3
6	Observations and Discussion of the Trees .....	4
7	Recommendations .....	9
8	References .....	10
	Disclaimer .....	11



## 1 Introduction

- 1.2 The subject site was inspected 3/2/2025
- 1.3 This report was prepared for RMA Contracting Pty Ltd;
- 1.4 This report has been written to fore fill the requirements of the *Critical State Significant Infrastructure Sydney Metro City & Southwest Chatswood to Sydenham Conditions of Approval* Point E6 (DPE 2017), which states:-

*The CSSI must be designed to retain as many trees as possible and provide replacement trees such that there a net increase in the number of trees. The Proponent must commission an independent, experienced and suitably qualified arborist to prepare a comprehensive Tree Report before removing any trees as detailed in the EIS, as amended by the documents listed in A1. The Tree Report must include: (a) a description of the conditions of the tree(s) and its amenity and visual value; (b) consideration of all options to avoid tree removal, including relocation of services, redesign or relocation of ancillary components (such as substations, fencing etc.) and reduction of standard offsets to underground services; and (c) measures to avoid tree removal, minimise damage to, and ensure the health and stability of those trees to be retained and protected. This includes details of any proposed canopy or root pruning, root protection zone, excavation, site controls on waste disposal, vehicular access, materials storage and protection of public utilities. In the event that tree removal cannot be avoided, then replacement trees are to be planted within, or in close proximity to the CSSI or other location in consultation with the Relevant Councils and agreed by the Secretary. The size of the replacement trees will be determined in consultation with the relevant Council. A copy of the Tree Report must be submitted to the Secretary before the removal, damage and/or pruning of any trees, including those affected by the site establishment works. All recommendations of the Tree Report must be implemented by the Proponent, unless otherwise agreed by the Secretary. The Tree Report may be prepared for the entire CSSI or separate reports may be prepared for individual areas where tree removal and/or pruning is proposed..*

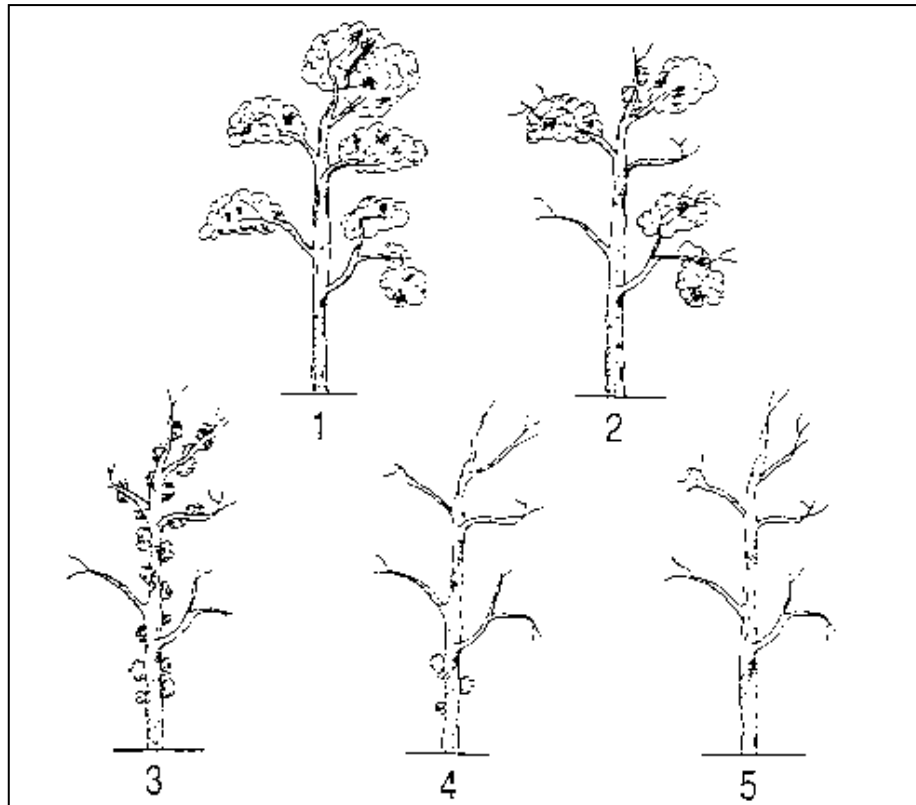
- 1.5 © This document is property of Malcolm Bruce and can only be used by the nominated client in Point 1.3 or the client's agent;

## **2 Aims**

- 2.1 To examine the nominated trees and assess the tree's health, structure and environmental conditions;
- 2.2 To identify and describe any health, structural or environmental issues relating to the subject tree;
- 2.3 To provide and recommend workable solutions to ameliorate and health, structural or environmental issue detected during the assessment process and to recommend suitable actions for the tree, if necessary.

## **3 Methods**

- 3.1 Health of the trunk and branches was assessed by examination for insect and pathogen invasion, scarring, bark splitting and excess shedding, death of major branches and known structural weakness indicators, using the Visual Tree Assessment Method (VTA) to Stage 1, which includes use of a sounding (acoustic) hammer. (Mattheck & Breloer 1994, pp. 12–13, 145). No internal examination of any trees was conducted;
- 3.2 Crown Health was assessed by examination for excessive leaf drop, sparse crowing, small and medium branch death, yellow or discolouration of the leaves and insect and pathogen invasion of the leaves. Additionally, Crown Health was assigned a number based on comparison with illustrations in Figure 1: Crown Health Assessment. Within this comparison system the lower the number the better the health of the tree's crown. The assessed number has can be found in Table 3;
- 3.3 The tree was assessed using the Significant Retention Value (See Table 1) and SULE method (Barrel 2001) (See Table 2)



**Figure 1: Crown Health Assessment**

**Table 1: Significant Retention Value**

Retention Value	Significance Description
High	A mature tree that contributes positively to a site due to its botanical, historical or local significance in combination with good physiological characteristics such as health, form, structure and future development. Significant efforts should be made to retain this tree and it should be considered for retention within a proposed development
Medium	A semi-mature to mature tree which exhibits fair or good characteristics of health, structure or form and/or may provide some amenity value to the surrounding area or habitat value. Should be considered for retention if possible, within a development design proposal and may be modified to allow for construction (e.g.: canopy pruning, root pruning etc).
Low	A tree that provides minimal contribution to the surrounding landscape and/or may be in poor or declining health. This tree may have a poor structure, poor form, be a noxious/poisonous or listed weed species or a combination of these characteristics. It may be in an inappropriate location. This tree is not worthy of being a constraint to a development design proposal.
Nil	A tree with no landscape significance and its retention is inappropriate. The removal of this tree would be of benefit to the landscape.

**Table 2: SULE Table (After Barrel 2001)**

	1	2	3	4	5
	Long:	Medium:	Short:	Remove	Small, Young or Regularly Pruned
	Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk	Trees that appeared to be retainable at the time of assessment for 15–40 years with an acceptable level of risk	Trees that appeared to be retainable at the time of assessment for 5–15 years with an acceptable level of risk	Trees which should be removed in the next 5 years	Tree that can be reliably removed moved or replaced
<b>A</b>	Structurally sound trees in positions that can accommodate future growth	Trees which may only live between 15 and 40 years.	Trees which may only live between 5 and 15 years.	Dead, dying, suppressed or declining trees because of disease or inhospitable conditions	Small trees less than 5m in height
<b>B</b>	Trees which could be made suitable for long-term retention by remedial care	Tree which may live for more than 40 years but would be removed for safety or nuisance reasons	Trees which may live for more than 15 years but would be removed for safety or nuisance reasons.	Dangerous trees because of instability or recent loss of adjacent trees	Young trees less than 15 years old but over 5m in height
<b>C</b>	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention	Trees which may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting	Trees which may live for more than 15 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting	Dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form	Formal hedges and trees intended for regular pruning to artificially control growth
<b>D</b>		Trees which could be made suitable for retention in the medium term by remedial care	Trees which require substantial remedial tree care and are only suitable for retention in the short term	Damaged trees that are clearly not safe to retain	Damaged trees that are clearly not safe to retain
<b>E</b>				Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting	Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting
<b>F</b>					Trees that are damaging or may cause damage to existing structures within 5 years
<b>G</b>					Trees that will become dangerous after removal of other trees for the reasons given in (a) to (f)
<b>H</b>					Trees in categories (a) to (g) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review

#### 4 Tree Observations and Assessment

Table 3: Tree Assessment

No	Scientific Name	Common Name	Trunk and Branch Health	Crown Health	Crown health Assessment Code	Overall Health	SULE Rating	Observed Issues	Retention Value	Recommendation
4	<i>Lophostemon confertus</i>	Brushbox	Good	Good	1	Good	5A	Immature tree, planted against the kerb with a growth area that is insufficient for future growth	Low	Relocate
5	<i>Lophostemon confertus</i>	Brushbox	Good	Good	1	Good	5A	Immature tree, planted against the kerb with a growth area that is insufficient for future growth	Low	Relocate
6	<i>Lophostemon confertus</i>	Brushbox	Good	Good	1	Good	5A	Immature tree, planted against the kerb with a growth area that is insufficient for future growth	Low	Relocate
7	<i>Lophostemon confertus</i>	Brushbox	Fair	Fair	1	Fair	5A	Immature tree, planted against the kerb with a growth area that is insufficient for future growth	Low	Relocate
8	<i>Lophostemon confertus</i>	Brushbox	Good	Good	1	Good	5A	Immature tree, planted against the kerb with a growth area that is insufficient for future growth	Low	Relocate
9	<i>Lophostemon confertus</i>	Brushbox	Good	Good	1	Good	5A	Immature tree, planted against the kerb with a growth area that is insufficient for future growth	Low	Relocate
10	<i>Jacaranda mimosafolia</i>	Jacaranda	Fair	Fair	1	Fair	5F	Growing against heritage structure with some branch damage, starting to block footpath	Low	Remove



## 5 Location of Trees



Figure 2: Position of the Tree from Sixmaps 2025



## 6 Observations and Discussion of the Trees

- 6.1 There are nine trees growing along Mowbray Road, within a road verge of less than 600mm in width, planted against the road kerb. (See Figure 2) The nine trees are *Lophostemon confertus* (Brushbox). There is one medium sized specimen that appears to be approximately 10 years in age with a Diameter at Breast Height of 26 centimetres, labelled Tree 3. (See Figure 2 and Figure 3) The remainder of the trees (8) appear to have been planted in last 12 months. Only Trees 4 to 9 will be impacted by the proposed footpath changes. These smaller trees are displaying either genetic variation or responses to differing environmental conditions, as there are variations in size, health and vigour. (See Figure 3 to Figure 6) *Lophostemon confertus* is a very robust species with the capacity to grow in adverse conditions and survive significant root, trunk and branch damage. The species seems to be fairly resistant to air pollution, making this species suitable for road side plantings;



Figure 3: Trees 1 to 3, planted close to the kerb. These trees will not be impacted by the proposed footpath changes



**Figure 4: Trees 4 and 4, planted too close to the kerb. These trees will be impacted by the proposed footpath changes**



**Figure 5: Tree 6 and 7, showing growth differences and planting too close to the kerb. These trees will be impacted by the proposed footpath changes**





**Figure 6: Trees 8 and 9, planted on the kerb. These trees will be impacted by the proposed footpath changes**

- 6.2 *Lophostemon confertus* is a relatively fast growing species, when suitable conditions are present. *Lophostemon confertus* does prefer fertile soils (Boland et al, 1984, P.580). The Glenorie Landscape Soils of this site are relatively fertile soils. (Chapman and Murphy, 1989, P.68) The presence of fertile soils suggests that the majority of the *Lophostemon confertus* (Trees 4 to 9) will rapidly reach a moderate size and eventually become trees with a crown width of over 20 metres, a height of between 20 and 30 metres, with Diameter at Breast Height of between 50 and 100 centimetres and an active, widespread root system with large trunk buttresses;
- 6.3 Trees 4 to 9 will rapidly expand to occupy the narrow road verge, with the root systems displacing the concrete footpath pavement and lifting the kerb and guttering, with the possibility of causing deformity in the road pavement. Additionally, the trees have been planted within 200mm to 300mm from the kerb. These trees will start to displace the kerb as they mature. Further, as the crown will rapidly grow out into the kerbside lane of Mowbray Road, as well as impeding pedestrian traffic. A larger *Lophostemon confertus* (Tree 3) is already displaying “truck pruning”. (See Figure 7) These trees are too close to the roadway and will become a traffic hazard. Mowbray Road is a busy “B” road that accesses the areas of Northbridge, Castlecrag and parts Willoughby. These trees are suitable for less well used suburban streets and not for planting in areas with restricted areas. Although trees are

important in reducing road surfaces from degrading from direct sunlight (Moore, 2021, pers comms), these *Lophostemon confertus*, have been planted too close to the roadway and will rapidly become a hazard to traffic. The expansion of the crown and buttresses will greatly impede pedestrian traffic within this location and present a significant trip hazard. Trees 4 to 9 will destroy the existing infrastructure, the kerb and guttering and lift part if the road surface. Trees 4 to 9 have been inappropriately planted without consideration for the overall size that these trees will achieve;



**Figure 7: Tree 3 showing "truck" pruning on the roadside side**

- 6.4 The *Lophostemon confertus* (Trees 4 to 9) should be removed. The trees should be not just be removed but should be properly lifted by an experienced tree mover or landscaper and transplanted to a locality where there are Brushboxes that have declined, reached their Safe Useful Life or have died;
- 6.5 Tree 10 is an immature *Jacaranda mimosafolia* growing within the heritage house site, against the front fence. (See Figure 2 and Figure 8) It is understood that the fence is also part of the heritage fabric of the site. This Jacaranda appears to have been self-sown. It is doubtful that a horticulturalist would have planted this species so close to a fence. Jacarandas are a fast-growing species, which reflects their evolutionary history, being member of the *Bignoniaceae* family. The *Bignoniaceae* family is dominated by vines and lianas, which Jacarandas are thought to have evolved from. As with all lianas, Jacarandas



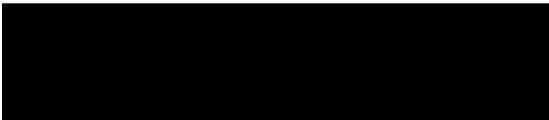

readily resprout epicormic shoots when the trunk or branches are damaged. (CABI 2025) Burges (2005) describes epicormic shoots stating: - *“They are usually crowded and not strongly attached to the tree. Unlike normal branches that develop in a “socket” of overlapping wood tissues, these new shoots are anchored only in the outermost layers of the parent branches. Consequently, they are likely to break as they mature.”* Tree 10 has already been damaged and the tree has developed some epicormic shoots. As epicormic shoot become larger they can break off easily. Proximity to a pedestrian area can be a risk. Further, Jacarandas develop an expansive and extensive root system. Gilman and Watson (1993) P.33 states that Jacarandas *“surface roots can lift sidewalks or interfere with mowing”*. Tree 10 is not a suitable species to be growing near the proposed footpath, because the crown will become a pedestrian hazard, both blocking access and the potential for impact from failed epicormic branches, and the root system will lift the footpath, resulting in a trip hazard. Additionally, Tree 10 will damage the heritage fence. Tree 10 should be removed before the tree becomes hazardous and before it damages adjoining structures;



**Figure 8: Tree 10 a small Jacaranda, already impeding the existing footpath with expanding branch architecture**

## 7 Recommendations

- 7.1 The Brushboxes, Trees 4 to 9, should be removed to allow construction works to achieve the min 2-3m width for shared path and that so the trees will not compromise shared path integrity (See Point 6.1 to Point 6.4 for description of the trees and details of issues);
- 7.1.1 The Brushboxes, Trees 4 to 9, should be removed by a professional tree remover or landscaper and planted in a selected location that is suitable for the growth habit of this species and to provide the desired protection of an adjoining roadway. Engaging a professional tree remover or landscaper will ensure that Trees 4 to 9 are moved safely without damage and minimal loss of vigour;
- 7.2 Tree 10, a small, immature, *Jacaranda mimosifolia*, should be removed as soon as possible, before the tree becomes hazardous and starts to damage infrastructure and heritage item;
- 7.3 The current replacement tree numbers for removed trees for the Chatswood-Sydenham works exceeds the requirement of 1 replacement tree for 1 removed tree. As Trees 4 to 9 are being transplanted to another location, there is no requirement to replace the trees that are being moved from the road verge of Mowbray Road. Although tree replacement is not desirable along the Mowbray Road verge, if a decision is made to replace transplanted trees in a nearby location within Mowbray House, then any moved tree should be replaced by endemic species, such as *Allocasuarina torulosa* (She-oak) or *Backhousia myrtifolia* (Cinnamon Myrtle), grown as specified in AS 2303 of 2018 *Tree stock for landscape use* (Standards Australia, 2018), in a 5 litre container and between 1 and 2 metres in height.

  
  
B.A. (Hons) (MacQuarie) Land Management  
Diploma of Arboriculture (Distinction) (Ryde TAFE) (AQF Level 5 Arborist)  
Arboriculture Australia Member No. 00012035  
TRAQs Credential ID. juxv2vjz

## 8 References

- Boland, D., J., and Brooker, M., I., H., (eds), 1984, *Forest Trees of Australia*, Thomas Nelson, CSIRO, Melbourne
- Burges, C., 2005, *Topping Trees*, HGIC 1024, Clemson University Cooperative Extension Service
- CABI Compendium, 2025, *Jacaranda mimosifolia*, [Jacaranda mimosifolia \(jacaranda\) | CABI Compendium](#)
- Chapman G.A. and Murphy C.L., 1989, *Soil Landscapes of the Sydney 1:100,000 Sheet Report*, Department of Conservation and Land Management, Sydney P. 66 to 70
- Department of Planning and Environment (DPE), 2017, *Critical State Significant Infrastructure Sydney Metro City & Southwest Chatswood to Sydenham Conditions of Approval*
- Gilman, E., F. and Watson, D., G., 1993, *Jacaranda mimosifolia*, Fact Sheet ST-318, USA Department of Agriculture, Forest Services
- Harris, R., W., Clark, J., R., and Matheny, N., P., 2004, *Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines* (4th Edt), Prentice Hall, New Jersey.
- Mattheck, C., and Breloer, H., 1998, *The Body Language of Trees*, The Stationery Office. London, England.
- Mattheck, C., 2007, *Update Field Guide for Visual Tree Assessment 1st edition*, Forschungszentrum Karlsruhe GmbH, Karlsruhe
- Moore., G., 2021, Pers Comms, Roadside Trees
- Six Maps, 2025, viewed 10<sup>th</sup> February 2025
- Williams, V., 2015, *How Do You Decide When to Remove a Tree?*, University of Maryland Extension, Home and Garden Section

### Disclaimer

While the author of this document has attempted to make the information on this subject as accurate as possible, the information provided is for use by the author's client and their direct agents only and is provided in good faith without any express or implied warranty. There is no guarantee given as to the accuracy or currency of any information supplied from texts or references used in the writing of this document. The author does not accept responsibility for any loss or damage occasioned by use of the information contained in this document. All access and use is at the risk of the client and their direct agents. Information or opinions provided about any living entity, be they flora or fauna, are an expression of the situation at the time of inspection or collection of data and are not to be taken as a stable unchanging situation. The author reserves the right to withdraw or vary such information or opinion at any time without notice and to impose limitations on the use of such information and opinion. The author is not responsible for misuse or misquotation of the text, diagram or figures within this document. The content of this report remains the intellectual property of the author in perpetuity.