

RICHARD CROOKES

CONSTRUCTIONS

SYDNEY MODERN PROJECT
1178

ENVIRONMENTAL MANAGEMENT PLAN

14 April 2021



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APPENDIX 1

Status: Y, N, N/A		
4	ENVIRONMENT	
4.1	RCC Environment Policy	Yes
4.2	Environmental Risk Matrix	Yes
4.3	Environmental Controls	Yes

REVISED

Rev Date	Revision Description	PM's Initials (i.e. acceptance of changes)
23/10/2019	Original Issue - Rev 1	
29/01/2020	Revision 2	
10/07/2020	Updated Environmental Policy - Rev 3	
12/10/2020	Revision 4	
14/04/2021	Revision 5- Updated Risk Matrix	
See front page of PMP for all signatures (all inclusive)		

4 ENVIRONMENTAL MANAGEMENT

CONTRACT PRELIMINARIES 9.4 :ENVIRONMENTAL MANAGEMENT PLAN REQUIREMENTS -	WHERE ADDRESSED
The Contractor must develop, implement and maintain an Environmental Management Plan that must include, as a minimum:	Note
<ul style="list-style-type: none"> • identification of the statutory and other obligations which the Contractor is required to fulfil, including all licences, approvals, consultations and agreements required from Authorities and other stakeholders, and the key legislation and policies applying to the Project; 	Section 4.8
<ul style="list-style-type: none"> • monitoring, inspection and test plans for all activities and environmental qualities which are important to the environmental performance of the Works and any other development activities, including a description of potential site impacts, performance criteria, specific tests and monitoring requirements, protocols and procedures; 	Section 4.10
<ul style="list-style-type: none"> • steps to ensure compliance with all plans and procedures; 	Section 4.10.3
<ul style="list-style-type: none"> • strategies for the management of carbon and energy, water resources, noise, water quality, access and traffic, groundwater, settlement, waste, removal and disposal, hydrology including flooding, visual screening, landscaping and rehabilitation, hazards and risks, and energy use, resource use and recycling; and 	Section 4.7
The Environmental Management Plan must, as a minimum:	Note
<ul style="list-style-type: none"> • identify and assess the risk, provide protection from and mitigate any adverse environmental effect which may result from the performance of any component of the Contractor's activities; 	Appendix 1
<ul style="list-style-type: none"> • define the environmental responsibilities of the Contractor and each position within the Contractor's management team; 	Section 4.4
<ul style="list-style-type: none"> • include schedules of available resources, including personnel to deal with environmental incidents at all stages of the Project; and 	Section 4.4
<ul style="list-style-type: none"> • address the need for environmental safeguards and the adoption of environmentally sensitive work practices during any of the Contractor's activities including, but not limited to, procedures for 	Note
<ul style="list-style-type: none"> - on-going noise, water, air quality, vibration and groundwater monitoring and control; 	Refer to Noise and Vibration Management Plan, Air Quality and Odour Management Plan
<ul style="list-style-type: none"> - management measures to reduce noise levels; 	Refer to Noise and Vibration Management Plan,
<ul style="list-style-type: none"> - management measures to avoid, reduce, reuse and recycle waste; 	Refer to Waste Management Plan
<ul style="list-style-type: none"> - dust control including monitoring, mitigation and remedial actions; 	Section 4.7.5

CONTRACT PRELIMINARIES 9.4 :ENVIRONMENTAL MANAGEMENT PLAN REQUIREMENTS -	WHERE ADDRESSED
- detection, treatment and disposal of contaminated materials and water;	Refer to Asbestos Management Plan and Unexpected Finds Protocol.
- water quality control measures and facilities; and	Section 4.7.9
- erosion and sediment control plans.	Section 4.7.9
The Environmental Management Plan must be further developed and updated:	Note
<ul style="list-style-type: none"> to take into account changes to the environment or generally accepted environmental management practices, new risks to the environment, any pollution, contamination or changes in Law; and 	Section 4.8
<ul style="list-style-type: none"> where requested or required by the Department of Planning and Environment or any other Authority. 	Section 4.10

SSD 6741: CONDITION B61 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN REQUIREMENTS -	WHERE ADDRESSED
Prior to the commencement of works, the Applicant shall prepare and implement a Construction Environmental Management Plan (CEMP) for the development and be submitted to the Certifying Authority. The CEMP must:	Note
a) describe the relevant stages and phases of construction including work program outlining relevant timeframes for each stage/phase;	Section 4.5
b) describe all activities to be undertaken on the site during site establishment and construction of the development;	Section 4.5
c) clearly outline the stages/phases of construction that require ongoing environmental management monitoring and reporting;	Section 4.5
d) detail statutory and other obligations that the Applicant is required to fulfil during site establishment and construction, including approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;	Section 4.8
e) be prepared in consultation with the Council, EPA, DPI, RMS, TNSW, and the OEHL Heritage Division and include specific consideration of measures to address any requirements of these agencies during site establishment and construction;	Section 4.18
f) describe the roles and responsibilities for all relevant employees involved in the site establishment and construction of the works;	Section 4.4
g) detail how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts, including but not limited to noise, traffic and air impacts;	Section 4.10
h) include measures to ensure adequate groundwater entitlement is sourced in order to account for groundwater flows into the construction excavations, unless any exemption applies;	Section 4.16.1
i) management of groundwater during construction;	Section 4.16.1

SSD 6741: CONDITION B61 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN REQUIREMENTS -	WHERE ADDRESSED
l) document and incorporate all relevant sub environmental management plans (Sub-Plans), control plans, studies and monitoring programs required under this part of the consent; and	Section 4.9.2
m) include arrangements for community consultation and complaints handling procedures during construction.	Section 4.11.2
<p>In the event of any inconsistency between the consent and the CEMP, the consent shall prevail.</p> <p>Prior to the commencement of works, a copy of the CEMP must be submitted to Council and the Planning Secretary.</p>	Note

REVIEW OF ENVIRONMENTAL FACTORS (REF): CONDITION 5.2 - CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN REQUIREMENTS	WHERE ADDRESSED
A Construction Environmental Management Plan (CEMP) is to be prepared prior to commencement of works and implemented during the undertaking of works. The CEMP is to include, but not limited to:	Note
(a) Demolition and construction noise management measures.	Refer to Noise and Vibration Monitoring Plan
(b) Demolition and construction waste management measures.	Refer to Waste Management Plan
(c) Construction site management measures (including induction, safety, emergency and incident reporting procedures)	All sections.
(d) Tree protection measures.	Section 4.7.11
(e) Acoustic and vibration management measures.	Refer to Noise and Vibration Monitoring Plan
(f) Air quality, odour and dust management measures.	Refer to Air Quality and Odour Management Plan
(g) Construction traffic management measures.	Refer to Construction Traffic Management Plan
(h) Restrictions on hours during construction.	Section 4.17.1
(i) Heritage related unexpected finds protocols.	Section 4.7.3
(j) Measures associated with the handling, storage and disposal of hazardous materials.	Refer to Hazardous Materials Management Plan
(k) Measures associated with the handling, storage and disposal of hazardous chemicals.	Refer to Hazardous Materials Management Plan

REVIEW OF ENVIRONMENTAL FACTORS (REF): CONDITION 5.2 - CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN REQUIREMENTS	WHERE ADDRESSED
Construction noise is to comply with the City of Sydney Code of Practice for Construction Hours/Noise 1992 and Australian Standard 2436 - 1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites.	Refer to Noise and Vibration Monitoring Plan

4.1 ENVIRONMENTAL MANAGEMENT PLAN

Section 4 of the PMP and the accompanying Appendices represent the project specific Environmental Management Plan (EMP).

RCC’s Environmental Policy has been included in Appendix 1.

RCC Site Manager and WHS Coordinator have been appointed as environmental managers who will be implementing and monitoring the implementation of this plan.

All subcontractors will be required to appoint an environmental manager who will ensure conformity with the plan.

4.2 PURPOSE OF THE ENVIRONMENTAL MANAGEMENT PLAN

The purpose of this Environmental Management Plan is to:

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

4.3 PROJECT OBJECTIVES AND TARGETS - ENVIRONMENT

RCC’s project level environmental objectives and targets have been listed below.

Progress in meeting these objectives and targets will be reported in the Project Reports.

Project specific objective and targets are to be identified, listed and tracked internally

- | | |
|-------------|--|
| ENVIRONMENT | <ul style="list-style-type: none"> • “O/T” Minimise impacts on the community by action community complaints within 24hrs, no repeat complaints • “O” Reduce environmental impacts by investigating, documenting and rectifying non-effective environmental controls • “O/T” Legal compliance by aiming for zero EPA/Local council cleanup notices per year • “T” 4 site walks per month documented |
|-------------|--|

4.4 RESPONSIBILITIES

Refer to Roles and Responsibilities Matrix below for environmental responsibilities, which are also included in RCC's PMP.

Initials	Site Implementation of the Project Management Plan														RCC Business Systems Management										
	PI/LF	ADC	IC		JM	AE/MP/LM	PN/LB/KC/TC	MB/BB	JT/JH	MR/JS	JP	GR/JW		SS			Subcontractors	Construction Director/Manager	Business Systems QA/ENV Manager	Human Resources Manager	WHIS Manager	Rehabilitation Coordinator	Commercial Manager	External Auditors	
Project Tasks and Duties	Project Director	Project Manager - Construction	Project Manager - Design	Site Manager	Senior Project Engineer	Project/Site Engineer	Contract Manager/Administrator	Design Manager/Coordinator	Cadet	Foreman	Document Controller	WHS & Env Coordinator	Leading Hand	Construction worker	Other										
<i>(Insert * in box for nominee, delete or add rows as required for tasks required / not required)</i>																									
Environmental management																									
Identification of project environmental risks (aspects & impacts) and development of the EMP to document controls		*		*	*							*													
Planning & conducting training incl. inductions		*		*	*							*						*	*	*					
Inspections, monitoring & testing				*	*	*				*		*						*	*	*					
Compliance with the EMP, corrective & preventative action				*	*	*				*		*						*	*	*					*
Verification of compliance (audits) and review of system effectiveness (ie is it working as planned?)		*		*	*					*		*						*	*	*					*
Incident management & emergency response		*		*	*					*		*						*	*	*					
Environmental Policy, objectives & targets		*		*	*					*		*						*	*	*					
Allocation of resources for Environmental management		*		*	*					*		*						*	*	*					
Compliance with legal & other requirements		*		*	*					*		*						*	*	*					
Keeping abreast of changes in legal & other requirements		*		*	*					*		*						*	*	*					
Acquire & disseminate environmental management information				*	*					*		*						*	*	*					
Develop & implement procedures				*	*					*		*						*	*	*					
Assessing suppliers/subcontractors abilities to comply with the EMS		*		*	*	*	*			*		*						*	*	*					
Ensuring compliance with RCC procedures and site rules	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Monitoring or technological changes & management practices				*	*					*		*						*	*	*					
Liaise with regulatory authorities (Local Council, Heritage Office, DECCW etc)		*		*	*					*		*						*	*	*					
Management of community complaints		*		*	*					*		*						*	*	*					

4.5 CONSTRUCTION STAGING

The Sydney Modern Project construction will be staged in the below stages for the purposes of ongoing Environmental Monitoring and Reporting.

STAGE	APPROXIMATE DURATION	KEY ACTIVITIES
Site Establishment	Oct 2019 – Nov 2019	<ul style="list-style-type: none"> - Perimeter Hoarding Construction. - Site Accommodation Establishment. - Environmental Control Establishment. - Temporary Services.
Lincoln Crescent – REF Works	Nov 19 – Jan 20	<ul style="list-style-type: none"> - Construction of temporary kiosk substation. - Undergrounding of overhead powerlines. - Construction of Lightpole footings and erection of new smart poles.
Demolition – CC1	Nov 19 – Mar 20	<ul style="list-style-type: none"> - Site clearing. - Demolition of existing northern fuel bunker. - Demolition of existing pump room and chamber substation. - Demolition of new openings to southern fuel bunker and existing columns.
Earthworks – CC1	Jan 19 – Jun 20	<ul style="list-style-type: none"> - Construction of permanent shoring piles. - Bulk excavation to reduced levels. - Permanent Rock anchoring.
Structure – CC2	Mar 20 – Apr 21	<ul style="list-style-type: none"> - Construction of a new concrete framed structure from LL4 -LL2. - Construction of new composite framed structure from LL2-Entry level.
Façade, services & Finishes – CC3	Nov 20 – Oct 21	<ul style="list-style-type: none"> - Installation of glazed façade elements. - Installation of stone cladding. - Construction of rammed earth walls - Fitout of all services and finishes. - Construction of roofs and roof spaces.

STAGE	APPROXIMATE DURATION	KEY ACTIVITIES
External Works – CC3	Dec 20 – Oct 21	<ul style="list-style-type: none"> - Waterproof membranes. - Construction of hard and soft landscaping.

4.6 ENVIRONMENTAL RISKS/ ENVIRONMENTAL ASPECTS

Potential environmental obligations and risks associated with RCCs projects will be identified in the project risk workshop, as described in Section 1 of the PMP, Project Planning.

Additionally, environmental impacts associated with trades/activities will be identified using the Environmental Risk Matrix, Appendix 1.

The Environmental Risk Matrix will be reviewed and updated as a (minimum 6 monthly) and updated in Appendix 1 Section 4.3 of this EMP. Where risks are identified as medium to high in the matrix, the impacts associated with RCC’s activities, Contractual requirements, DA, Products and services will be deemed as “significant” and require operational controls as described in Appendix 1 section 4.3.

Significant aspects may impact on the environment positively (eg. recycling) or negatively (eg. pollution).

The Environmental Risk Matrix will be provided to subcontractors and suppliers as part of the subcontract and supply contracts.

4.7 STRATEGIES FOR ENVIRONMENTAL MANAGEMENT

4.7.1 RESOURCES

The project provides an opportunity for RCC to expand its practical and theoretical knowledge of Resource Management and ESD. RCC ‘s project team will implement the following strategies and mitigations from the project:

- Conservation of resources e.g. water, through recycling and reduction of use.
- Reduction of material usage through efficient design and material management. The beneficial reuse of materials through waste segregation and recycling.
- The substitution of environmentally damaging materials with recycled/less harmful materials for the environment
- Environmental training and management of Contractor activities to ensure that the ESD objectives are met.
- Reputation enhancement through successful implementation of techniques and policies
- Greenstar certified site accommodation.

4.7.2 SURFACE AND GROUND WATER, MARINE WATERWAYS

General site works have the risk of sediment and other materials leaving the site via storm water or into the marine waterways which may alter turbidity of water or the chemical balance. RCC’s will implement the following mitigation strategies undertaken by RCC’s project team.

- Construction will be undertaken in accordance with the Erosion and Sediment Control Plans prepared encompassing all components of the proposed development.
- All erosion and sediment control measures are to be provided in accordance with Landcom's *'Managing Urban Stormwater, Soils & Construction Guidelines (The Blue Book)'* and are to be maintained regularly and after rainfall events.
- Stormwater flows are to be managed in accordance with the Water and Stormwater Management Plan for the site.
- All control measures are not to be removed until all disturbed areas have been stabilised.
- Spill kits will be located at key points on the site to mitigate any potential spillages before they contaminate the ground and potential water sources.
- Review as built drawings and investigate local as built stormwater infrastructure to understand the network and ensure its adequately protected, if the network cannot be understood, testing measures will be implemented to understand the local stormwater network.

4.7.3 HERITAGE

The Sydney Modern Project includes significant works on the existing Domain Oil Tanks which are listed on the Sydney Local Environmental Plan and NSW State Heritage Register; which are within close proximity of a number of additional World, State and Sydney listed items, see below. There is a potential risk that works will impact on the heritage values/elements on these tanks. RCC's Project Team will implement the following strategies as required by the SSD:

- All workers are to be inducted into a site specific heritage induction developed by GML Heritage, attached appendix .
- All workers are to be inducted and informed of the potential archaeological finds.
- Excavation supervised by a qualified archaeologist.
- In the case of heritage/archaeological disturbance, all work in the immediate area will be ceased and the find will be reported to the relevant authority. Works will not recommence in the area until the disturbance/find has been mitigated and written instruction is received to recommence work.

The AGNSW and Domain Oil Tanks are provided statutory heritage protection under the following listings:

ITEM NAME	ADDRESS	LISTING
Art Gallery of NSW Including Interiors (Many Parts)	2B Art Gallery Road, Sydney	Sydney Local Environment Plan 2012 (Item No. 11665)
Royal Botanic Gardens and Domain (includes Oil Tanks)	Farm Cove	NSW State Heritage Register (Item No. 01070)

The AGNSW, Domain Oil Tanks and the remained Sydney Modern site are located within close proximity to the below World, NSW State and Sydney Local Heritage listings:

ITEM NAME	ADDRESS	LISTING
Sydney Opera House	Bennelong Point	World Heritage List
Sydney Opera House	Bennelong Point	World Heritage List
The Domain Lodge, including interiors	Art Gallery Road, the Domain	Sydney Local Environment Plan 2012 (Item No. 1664)
Woolloomooloo Finger Wharf	Cowper Wharf Road, Woolloomooloo	NSW State Heritage Register (Item No. 01437)
The Gunnery	43-51 Cowper Wharf Road, Woolloomooloo	NSW State Heritage Register (Item No. 00927)
Terrace	55 Victoria Street, Potts Point	NSW State Heritage Register (Item No. 00068)
Bomera and Tarana	1 Wylde Street, Potts Point	NSW State Heritage Register (Item No. 01400)
The Bells Hotel including interior	1-7 Bourke Street, Woolloomooloo	Sydney Local Environment Plan 2012 (Item No. I2106)
Potts Point/Elizabeth Bay	Potts Point	Sydney Local Environment Plan 2012 (Item No. C51)

4.7.4 TRAFFIC

Construction will occur over an extended period that would see an increase in local traffic. Construction vehicles will enter the site from Lincoln Crescent and Art Gallery Road via difference gates. There is a requirement for a works zone on Lincoln Crescent to be 65m long, taking up on street car parking spaces. This is not expected to affect the availability of parking around the Wharf Terraces and Woolloomooloo.

There is no parking on site, and construction workers will be advised of that during the induction. The increased traffic is not predicted to have an impact on local traffic flow and only a minor inconvenience to road users is expected. RCC Project Team will implement the following mitigations strategies in place:

- Prepare and implement a Construction Pedestrian Traffic Management Plan (CPTMP) based on the detailed construction methodology and the use of construction plant and vehicles.
- Existing traffic access and arrangement are to be maintained during construction as much as possible.
- Traffic during construction shall be managed in accordance with AS 1742.3-1996 *"Manual of Uniform Traffic Control Devices Part 3: Traffic Control Devices for Works on Roads"*.
- Notify surrounding residents and businesses in advance of the works.
- All vehicles transporting demolition and spoil waste to be filled to capacity and covered to minimise truck movements.
- Obtain all necessary approvals for road and footpath closures and the like prior to works in those areas commencing.
- All traffic shall comply with local road laws in and out of the site.

4.7.5 AIR QUALITY & DUST CONTROL

The main impact to air quality during construction is expected to arise from the generation of localised dust associated with demolition and earthworks. Given the proximity to residential and gallery spaces, there is the potential for neighbours to be impacted by dust, particularly on windy days. RCC's project team, demolition and earthworks subcontractor will implement the following mitigations strategies:

- Prepare and implement an Air Quality and Odour Management Plan based on the detailed construction methodology and the use of construction plant and vehicles.
- Hand watering and use of sprinklers to minimise dust generation from demolition and earthworks.
- All construction machinery to be turned off when not in use to minimise emissions where possible.
- All demolition and earthworks trucks to have loads covered to minimise dust.
- Shaker grids will be installed at all vehicle entry/exit points.
- Water carts to provide dust suppression on site (if required)
- Installation of hardstand to the Art Gallery Road construction zone.

4.7.6 NOISE AND VIBRATION

Construction of the development will result in short term noise impacts. The nearest residential stakeholder is approximately 30m from the Eastern boundary, and the nearest business is the Art Gallery of NSW which is located on the boundary to the south of the site.

Noise from the development would result from general construction activities including the movement and operation of heavy vehicles and construction plant. RCC's Project Team and Subcontractors will implement the following mitigation strategies:

- Site construction noise will be managed in accordance with the Noise and Vibration Management Plan (CNVMP) developed based on construction methodology and equipment type.
- Keep community informed in relation to intensive activities (where applicable)
- No work to occur outside of approved SSD hours including respite periods. If it is deemed necessary to undertake works outside of these hours, approval from council is to be received and residents notified of the extension of hours.
- No loud swearing or unnecessary shouting or loud radios on site.
- Work generating high noise levels will be scheduled during less sensitive time periods.
- Plant to be shut off when not in use.

4.7.7 WASTE

The main source of waste for the development will be demolished material and excavated spoil. Construction waste generated will be minimised, recycled, reused or recovered where practical. RCC Project Team and all Subcontractors will implement the following mitigation strategies:

- Prepare and implement a Waste Management Plan (WMP) based on construction methodology and materials predicted to be used.
- All contaminated/hazardous waste is to be handled and disposed of by suitably qualified subcontractors.

- Non-recyclable waste will be disposed of at an EPA approved landfill or transfer station.
- Appropriate waste bins will be provided by RCC to all subcontractors for use and sort rubbish as much as practical.
- Monthly waste reports will be generated by our disposal company and monitored by RCC for ways to minimise waste production/maximise reuse and track against targets.

4.7.8 VISUAL

The visual appearance of the site is important to the surround neighbours and visitors to the AGNSW and RBG. RCC Project Team will employ the following mitigation strategies to ensure the site remains presentable.

- Painted A Class timber hoarding to the perimeter of the site with graphics approved by INSW and AGNSW.
- Freshly painted B class hoarding to Lincoln Crescent.
- New neat and tidy shade cloth to all scaffolding and stretcher stairs.

4.7.9 STORMWATER TREATMENT

Erosion, sedimentation and construction activities to minimise onsite and off-site environmental impacts will be controlled during demolition & construction. To achieve this the following performance/compliance criteria and operational controls will be employed.

Performance Criteria

1. Uncontaminated surface flow from off-site areas will be diverted around the development site.
2. The pH of water leaving the site will be in the range of 6.5 - 8.5
3. Suspended Solids will be Turbidity not to exceed 50 NTU (or equivalent), which is substantially below 50mg/L. The reason for this reduction is for protection of aesthetic value (visual appearance) of Sydney Harbour which should not be discoloured by stormwater discharge from the site

Operational Controls

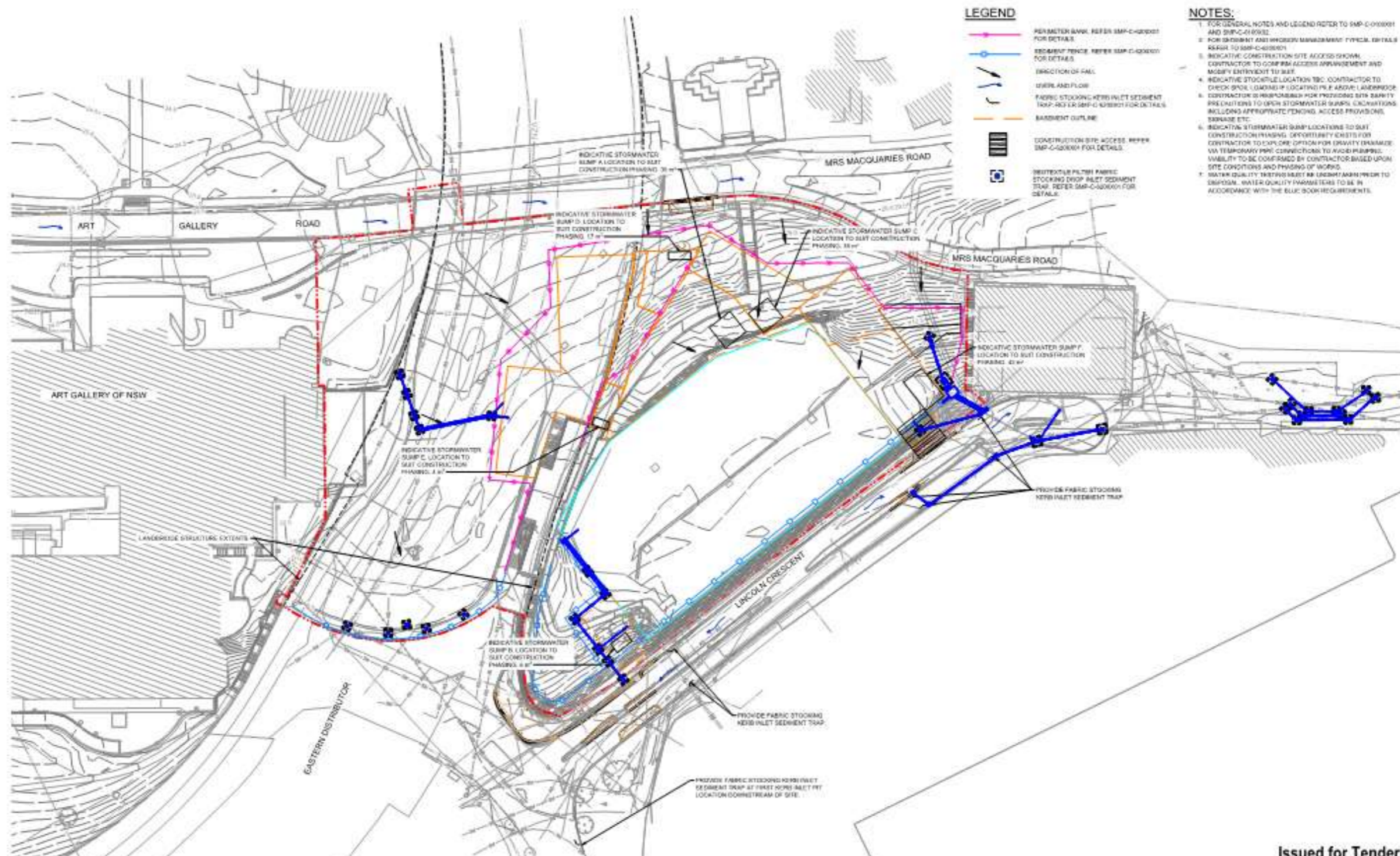
Aspect	Controls	Position / Responsibility	Record
General	a) Temporary drainage systems will be established to divert clean waters around the land development areas as appropriate. b) Erosion and sediment control procedures are to be undertaken in accordance with NSW Department of Housing's <i>Managing Urban Stormwater</i> (2004). c) Potential contaminant sources (oil, chemicals, diesel fuel) will be separated from surface water flows by appropriate storage and bunding. d) Water in bunds is not to be discharged to stormwater/ waterways. e) Refuelling locations will be established on hardstand areas, away from drainage systems & waterways. f) Refer <i>Dept. Environment, Conservation & Climate Change</i> :	SM/SS	Env Inspection Checklist

	<p>http://www.environment.nsw.gov.au/mao/bundingspills.htm</p> <p>g) All chemicals, including pesticides, will be used, stored and disposed of as per MSDS. Refer erosion control and sedimentation basin construction drawings attached to the rear of this procedure.</p>		
Discharging Water from Excavations & Detention Basins	<p>a) <u>Irrigation over grassed & vegetated areas or reuse for dust suppression is the preferred option for stormwater disposal.</u></p> <p>b) Discharge only the top clarified portion, and tanker the remaining sludge to a treatment facility or landfill.</p> <p>c) Pre-flocculating may be required when dealing with very fine soils such as clay and silt (Section 4.4).</p> <p>d) Skim hydrocarbons from the surface using oil absorbent booms or skimmers.</p> <p>e) Attach a float to the end of the pump suction line to ensure that sediment is not stirred up during pumping.</p> <p>f) Filter pumped discharge water through geotextiles fabric or gravel filter beds.</p> <p>g) Ensure that:</p> <ol style="list-style-type: none"> I. The water is monitored prior to discharge. Refer Section 3.0. II. The discharge does not result in soil erosion. III. There is no surface runoff to waterways or the stormwater system. <p>h) Water should not be discharged to the stormwater system if oil is visible on the surface, or if there is reason to suspect that the pit is contaminated with fuel, sewage or other contaminants.</p> <p>i) If water cannot be treated onsite, contact a waste management company to organise transport to EPA licenced facility for disposal.</p> <p>It is illegal to discharge wastewaters which are still "dirty"/contaminated to stormwater systems.</p>	SM/SS	Test Results Photos
Discharges to Sewer	<p>a) In accordance with a site trade waste agreements issued by Sydney Water or the relevant Water Authority in the area.</p> <p>b) Filtration units (if required) can be constructed from skips of a size appropriate to the pumping rate (usually -10 m³ will be sufficient).</p> <p>c) Place approximately five alternate layers of geotextile fabric and 75mm blue metal in the skip. The water is pumped in at the top (with flocculation when required) and exits via a tube attached at the bottom of the skip.</p> <p>Discharge to sewer, sample and test as required by Sydney Water.</p>	SM/SS	Test Results Trade Waste Reports Photos
Flocculation	<p>a) Refer MSDS and product spec prior to use.</p> <p>b) The use of gypsum as a flocculating agent is preferred because it is environmentally inert.</p> <p>c) Gypsum should be applied at a rate of about 0.3 kilograms per m³ of water.</p> <p>d) The gypsum is to be applied by spreading it evenly over the surface by hand. A period of at least three hours (preferably 12 hours is usually required) prior to pumping out of closed waters;</p> <p>e) Mixing improves the performance of the gypsum and other flocculants.</p> <p>f) For sediment-laden waters which prove difficult to flocculate, pumping the dosed water into a truck-mounted tank with a simply mixing apparatus and then returning the mixed water back to the pits may assist.</p> <p>g) Alternative flocculating products such as Magnafloc should be trialled when gypsum is not effective.</p>	SM/SS	Test Results Approvals for Discharge Dewatering Field Test Results Sheet Retention of field samples Photos

	<p>h) Ultrion can also be used. This is a concentrated chemical and information should be obtained from Nalco Australia.</p> <p>i) Ultrion dosage is around 100 – 250 ml of Ultrion per KL (or m³) of water depending on turbidity.</p> <p>Technical advice on flocculation may be needed to ensure effectiveness. Contact an environmental consultant.</p>		
Monitoring	<p>a) Inspections as per the Site Tasks Checklist</p> <p>b) During or after a significant rainfall event to confirm operational adequacy of the erosion control devices & equipment.</p> <p>Sample and test as per DECC or Local Council requirements.</p>	SM/SS	Environmental Inspection Checklist Dewatering Field Test Results Sheet
Reporting	<p>a) In accordance with:</p> <p>I. This procedure</p> <p>II. EPA or Local Council DA requirements</p> <p>Non conformance of a legal breach (ie. fine) will be recorded on the RCC Incident and Accident Forms and reviewed at the RCC management meetings.</p>	SM/SS	Test Results Incident & Accident Reports Monthly Reporting
Non Compliance	<p>a) Visual observations reveal excessive suspended particulate and/or oil and grease within off-site discharge.</p> <p>b) Inspections reveal excessive sediment accumulated at onsite control facilities.</p> <p>c)</p>	SM/SS	Environmental Inspection Checklist Test Results NCRS Incident & Accident Reports.
Emergency	<p>a) WATCH THE WEATHER AND PREPARE FOR ADVERSE CONDITIONS</p> <p>b) Spill kits available on site for small spills.</p> <p>c) Site personnel trained in used of spill kits.</p> <p>d) For larger spills (particularly where hazardous chemicals are involved), follow emergency response plan - Call Fire Brigade 000</p> <p>e) If rainfall floods the site, set up site fences, bunding and pumps to minimise uncontrolled/untreated runoff from site.</p>	SM/SS	Test Results Incident & Accident Reports. Photographs DEC Incident Report No

4.7.10 EROSION AND SEDIMENT CONTROL PLAN

Erosion and sediment control will be set up during site establishment phase of the project. This will be installed per the below Erosion and Sediment Control Plan (developed by Arup Civil) and monitored weekly by RCC site supervisors. During the weekly audit, RCC will review the below measures and upgrade or install additional measures as required by the site at the time of the planned works.

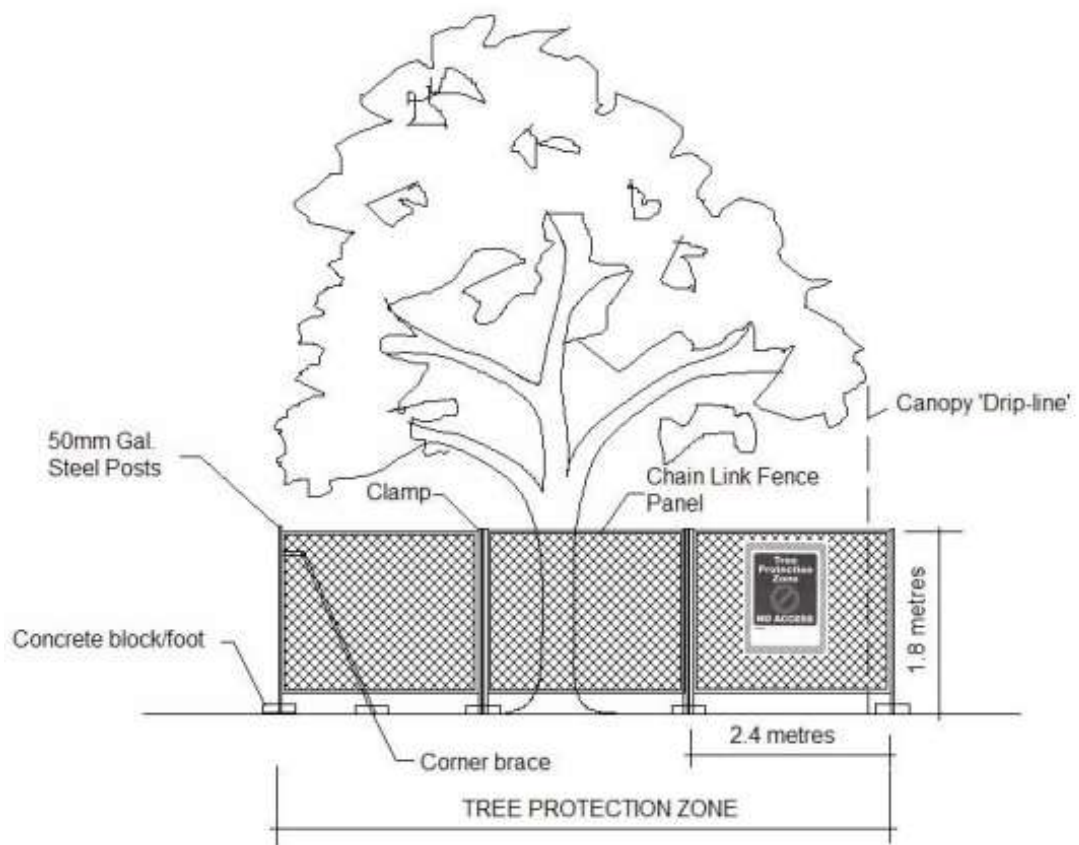


	Revisions 01 Design Development Stage 1 02 Handover to Tender	Date 21.03.19 27.03.19	Scale 1:1000 Scale 1:1000	All drawings to be printed in COLOUR	SANAA Architectural Firm 100 Pitt Street Sydney NSW 2000 Phone: +61 2 9233 1111 Fax: +61 2 9233 1111	ART GALLERY NSW Art Gallery of NSW Art Gallery Road Sydney, NSW 2000 Phone: +61 2 9233 1111 Fax: +61 2 9233 1111	ARUP Environmental Management 100 Pitt Street Sydney NSW 2000 Phone: +61 2 9233 1111 Fax: +61 2 9233 1111	Art Gallery of NSW Expansion Project - Sydney Modern Sediment and Erosion Control Plan SMP-C-1200X01 02
	The Art Gallery of NSW Sydney NSW 2000 Phone: +61 2 9233 1111 Fax: +61 2 9233 1111			Date: 27.03.19 Scale: 1:1000	SANAA architectus	ARUP	Issued for Tender	

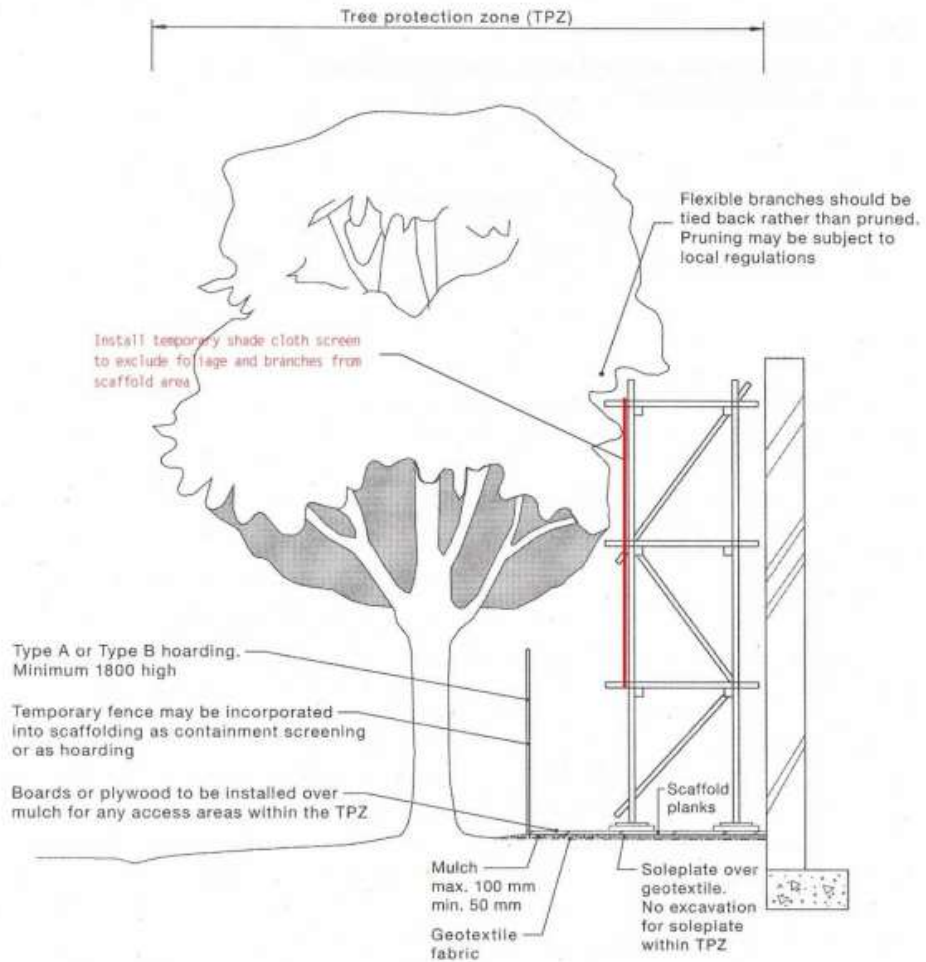
4.7.11 TREE PROTECTION

Tree Protection will be set up during site establishment phase of the project. This will be installed in line with the SSD Arborist Report developed by Earthscape Horticultural Services - November 2017.

The tree protection will be installed to all trees to be retained per the below tree protection plans. Once the tree protection is completed, this will be inspected and signed off by the project arborist in accordance with the conditions of consent. In addition to this RCC will inspect the tree protection on a weekly basis to ensure its fit for purpose. During the weekly audit, RCC will review the below measures and upgrade or install additional measures as required by the site at the time of the planned works upon advice from the project arborist.



Tree Protection Fence Example

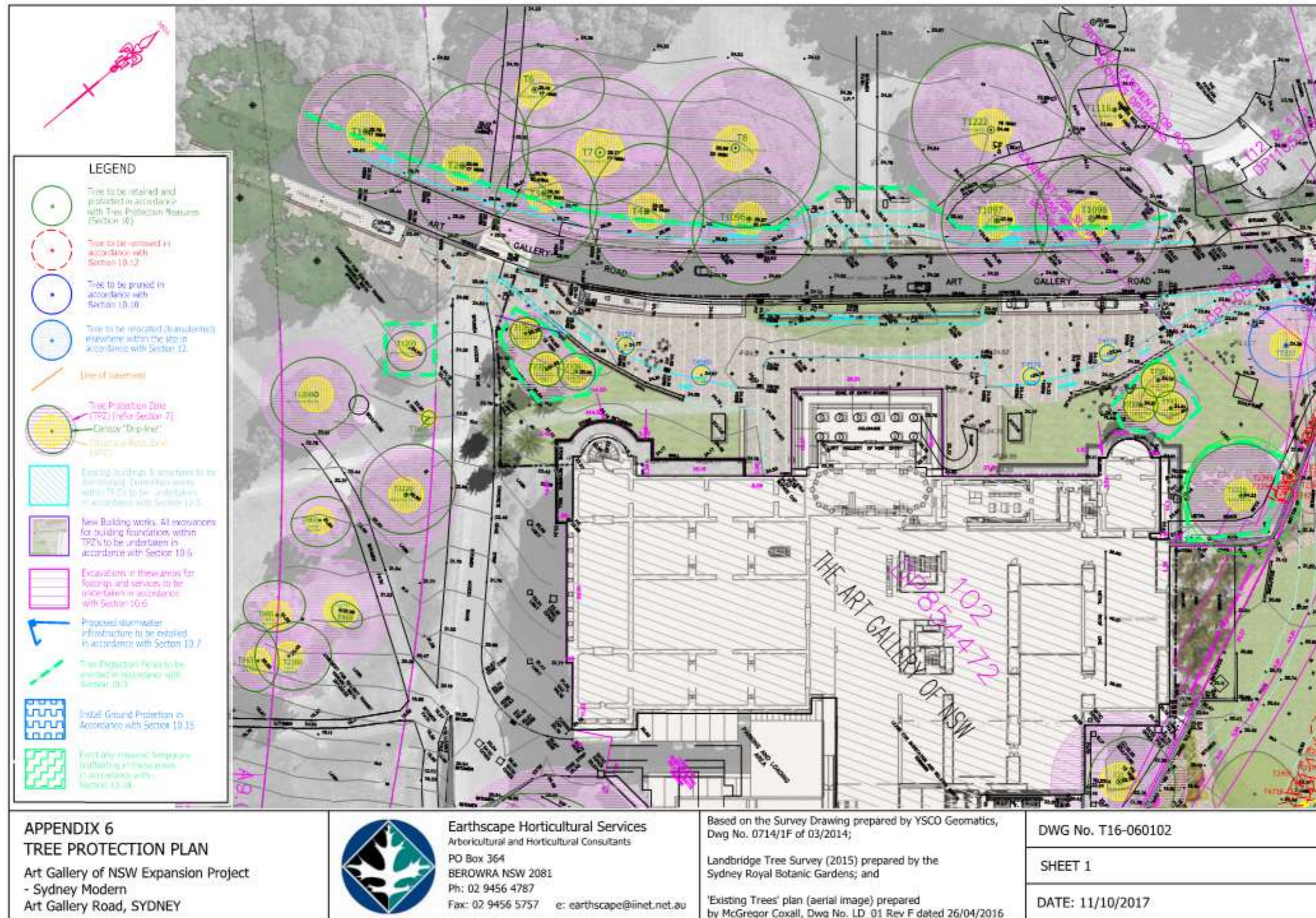


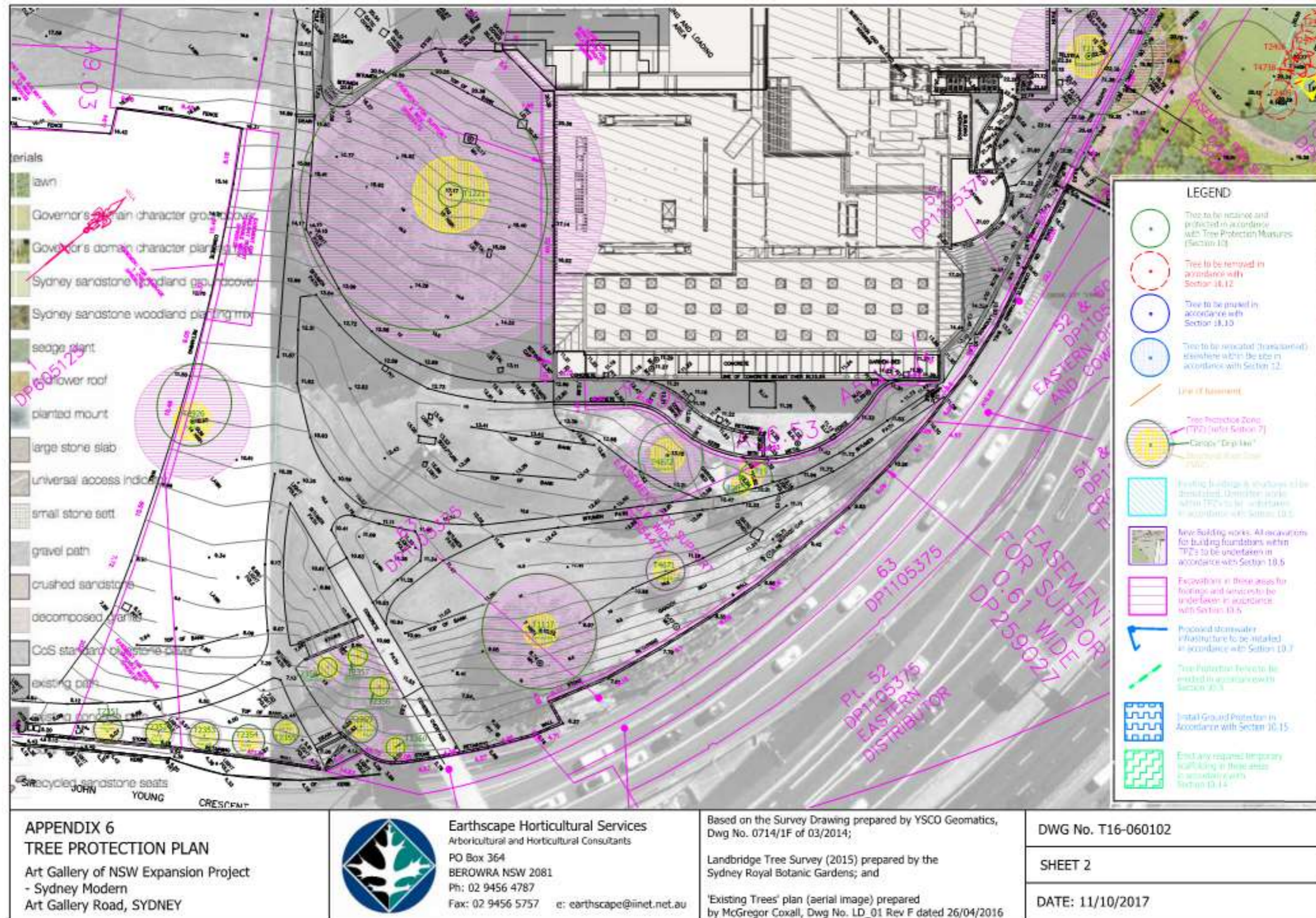
NOTE: Excavation required for the insertion of support posts for tree protection fencing should not involve the severance of any roots greater than 20 mm in diameter, without the prior approval of the project arborist.

Temporary Scaffolding within Tree Protection Zone



Tree Protection Example







LEGEND

- Tree to be retained and protected in accordance with Tree Protection Measures (Section 10)
- Tree to be removed in accordance with Section 10.12
- Tree to be pruned in accordance with Section 10.10
- Tree to be relocated (transplanted) elsewhere within the site in accordance with Section 12.
- Line of basement
- Tree Protection Zone (TPZ) [refer Section 7]
Canopy "Drip-line"
Structural Root Zone (SRZ)
- Existing buildings & structures to be demolished. Demolition works within TPZ's to be undertaken in accordance with Section 10.5
- New Building works. All excavations for building foundations within TPZ's to be undertaken in accordance with Section 10.6
- Excavations in these areas for foundations and services to be undertaken in accordance with Section 10.6
- Proposed stormwater infrastructure to be installed in accordance with Section 10.7
- Tree Protection Fences to be erected in accordance with Section 10.3
- Install Ground Protection in Accordance with Section 10.15
- Erect any required temporary scaffolding in these areas in accordance with Section 10.14

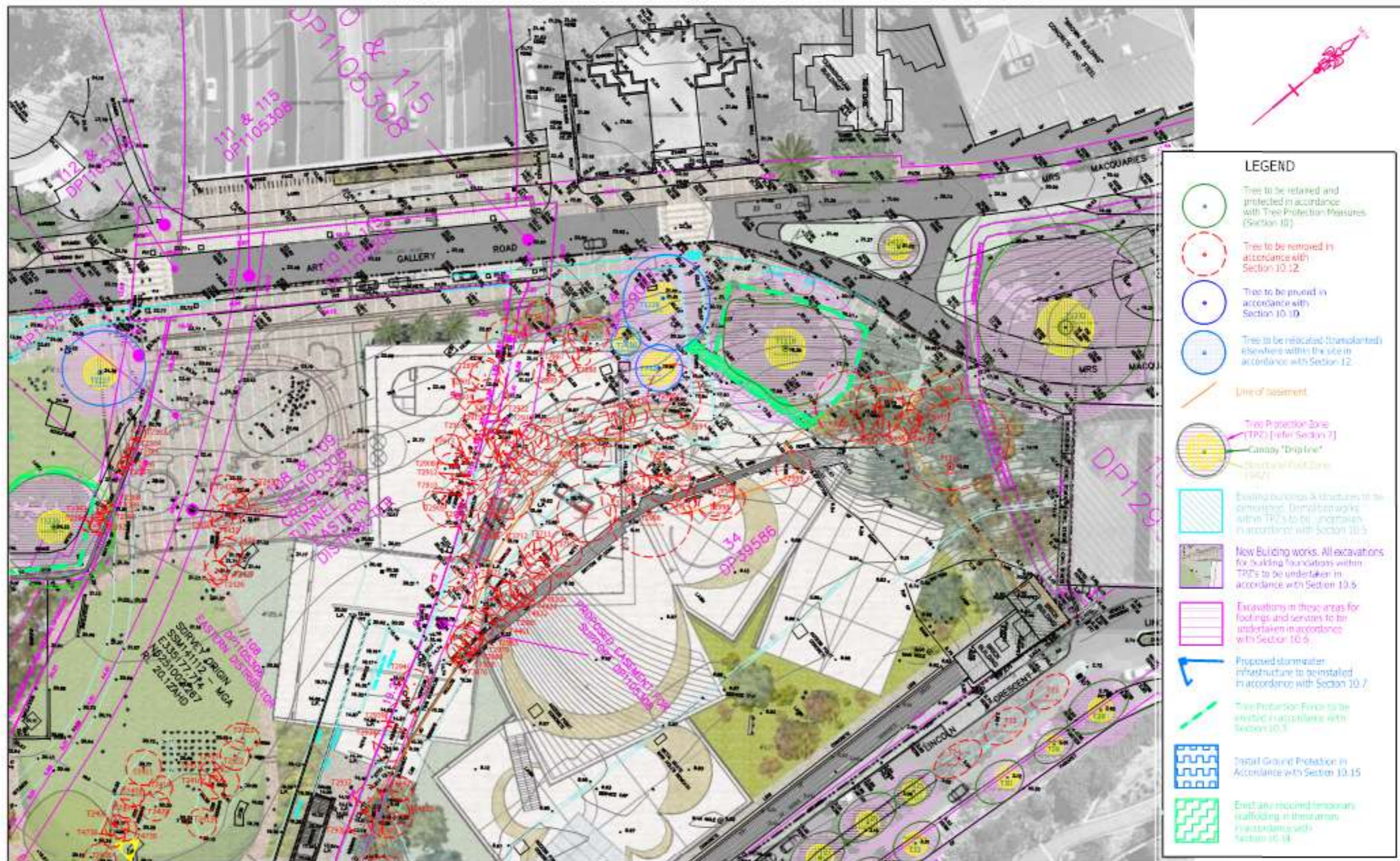
APPENDIX 6
TREE PROTECTION PLAN
 Art Gallery of NSW Expansion Project
 - Sydney Modern
 Art Gallery Road, SYDNEY



Earthscape Horticultural Services
 Arboricultural and Horticultural Consultants
 PO Box 364
 BEROWRA NSW 2081
 Ph: 02 9456 4787
 Fax: 02 9456 5757 e: earthscape@iinet.net.au

Based on the Survey Drawing prepared by YSCO Geomatics, Dwg No. 0714/1F of 03/2014;
 Landbridge Tree Survey (2015) prepared by the Sydney Royal Botanic Gardens; and
 'Existing Trees' plan (aerial image) prepared by McGregor Coxall, Dwg No. LD_01 Rev F dated 26/04/2016

DWG No. T16-060102
 SHEET 3
 DATE: 2/11/2017



APPENDIX 6
TREE PROTECTION PLAN
 Art Gallery of NSW Expansion Project
 - Sydney Modern
 Art Gallery Road, SYDNEY



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 by McGregor Coxall, Dwg No. LD_01 Rev F dated 26/04/2016

DWG No. T16-060102
 SHEET 4
 DATE: 2/11/2017

4.8 LEGISLATIVE COMPLIANCE

Legislative requirements that apply to the project are detailed in PMP Appendix 1 legal register. The PM will amend the legal register to make it project specific

Where Development Consents, permits or approvals relate specifically to the project, these issues will also be deemed as “significant” and will be included in the project environmental risk assessment, Project Environmental Management Plans & environmental procedures.

The RCC intranet provides a summary of key environmental legislation and how it relates to the company’s activities, products and services.

RCC’s systems Manager will review the Environmental Management Plan as new legislation becomes available to ensure ongoing compliance, and every 12 months what ever occurs first.

4.9 ENVIRONMENTAL IMPACTS AND CONTROLS

4.9.1 PROJECT ENVIRONMENTAL MANAGEMENT PLANS

Project Environmental Management Sub-Plans describe operations controls to specifically manage environmental issues. The Project Environmental Management Sub-Plans have been developed these for part of the SSD requirements.

The Site Supervisor will inspect the environmental controls in accordance with these plans.

Information on hazardous materials, including each material’s potential impact on the environment and measures to be taken in the event of accidental release will managed via the Hazardous Substances Register [Form 21.3](#).

4.9.2 SUPPLEMENTARY ENVIRONMENTAL PROCEDURES

Supplementary procedures required by the contract, Development Application or deemed necessary by the Project Manager will be attached to this plan. Where required, these documents may require preparation by a special consultant.

Also refer to the RCC intranet.

Supplementary Management Plans required are:

- Remediation Action Plan – Appendix 2
- Acid Sulfate Soil Management Plan – Appendix 3
- Construction Noise and Vibration Management Plan – Appendix 4
- Air Quality and Odour Management Plan – Appendix 5
- Waste Management Plan – Appendix 6
- Hazardous Materials Management Plan – Appendix 7
- Unexpected Finds Protocol – Appendix 8
- Asbestos Management Plan – Appendix 9
- Construction Pedestrian Traffic Management Plan – Appendix 10
- Community Engagement Plan - Appendix 11
- Heritage Induction – Appendix 12

4.9.3 SUBCONTRACTORS AND SUPPLIERS

Sub-contractors, and where relevant suppliers, engaged at the site must meet the environmental management requirements specified in the EMP.

The Subcontractors are made fully aware of their responsibilities under the terms of the applicable environmental legislation, all subcontractors will be provided a copy of the project Environmental Management Plans and will participate in site induction.

Subcontractors whose activities may have a significant impact on the environment (refer Risk Assessment) will be requested to submit Safe Work Method Statements (SWMS), ITPs or environmental procedures with details of how they manage any environmental aspects and impacts associated with their activities.

Consideration of normal and abnormal operations, along with emergency scenarios will be included in the SWMS as required.

Subcontractor performance will be monitored against their contract requirements and appropriate environmental management practices are being followed.

4.9.4 CONTAMINATED SITE PROCEDURE & WASTE MANAGEMENT

Projects undertaken by RCC on contaminated sites will have Contaminated Site Assessment (CSA) reports available. The CSA reports are required to be provided as part of planning approvals process of a proposed development.

It is essential that any obligations on recommendation made with the CSA or associated approvals are reviewed in detail.

All relevant CSA reports, documents and relevant approvals will be obtained and reviewed prior to site activities commencing. Operational controls will include any specific procedures described in the report or approvals.

Where required, ITPs and/or SWMS will be developed and completed to address requirements of CSAs.

The Site Manager will notify the site workforce of potential contamination issues associated with the contaminated site development and that they seek advice should problems be identified.

The Site Manager will maintain spoil disposal records using [Form 18.1](#) Record of Waste and [Form 18.4](#) Waste Tracking. Disposal dockets are to be reconciled with quantities of materials leaving the site. Dockets are to be retained for RCC records.

4.9.5 IMPORTED FILL

The Project Manager will ensure that records will be maintained of all products such as imported fill, recycled products etc used on site to enable traceability if future health and safety issues arise.

No fill is to be imported to site without a Consultants Validation report for the material that indicates its suitability for the land use.

[Form 25.08](#) Imported fill register will be used along with marked up drawings of the fill areas.

4.10 MONITORING

4.10.1 INSPECTIONS AND FIELD TESTING

Environmental site inspections will be undertaken using [Form 18.3](#) at a frequency listed in the Site Task Checklist, Appendix 1. The form is to be made site specific based on the identified risks.

Field testing of water collected on site (excavations, trenches, paint washout etc) will be tested prior to discharge and results record on the Dewatering & Field Test Sheet. [Form 18.6](#)

Other inspections and testing will be performed as required by plans described in Section 4.7.1.

4.10.2 PERFORMANCE OF THE EMP

The Project EMP will be monitored following implementation:

- Environmental operational controls are being effectively applied;
- Project specific environmental monitoring targets specified in the Development Consent or other planning permits for air, water and noise are met;
- Unpredicted impacts are identified and remedial action is taken; and
- The project objectives being met.

Responsibilities for monitoring and compliance requirements are detailed in the Project Environmental Plans.

Monthly reports are provided to the RCC Directors for review and the performance of projects against RCC's company objectives and targets is reviewed on a quarterly basis.

4.10.3 MONITORING PROCEDURES

Inspections & audits of the site including environmental controls shall be conducted in accordance with RCC standard procedure. The following inspections will be conducted onsite throughout the time on the project:

- Weekly site inspections and environmental walks
- Monthly observations and reviews
- 3-6 monthly internal audits
- External audits as scheduled by INSW.

Where an environmental issue/non-conformance is raised on any internal inspection, the relevant subcontractor will be notified on Aconex and required to bring the issue into compliance in the timeframe allocated. If the Subcontractor does not fulfil this requirement, a fine may be issued. Implementation of Aconex and Aconex field allows RCC to track progress and previous progress by contractors to analyse their performance.

If a large number of non-conformances are raised, with one subcontractor, RCC may choose to review work methodology or monitoring procedures to mitigate potential future non-conformances.

4.11 COMMUNICATION AND CONSULTATION

4.11.1 TRAINING

Prior to the commencement of project activities, all site personnel (including sub-contractors) will attend a site induction. This will include an outline of the requirements of this EMP and the responsibilities and accountabilities of all site personnel.

The project environmental site rules will be included in the induction session.

Training records will be kept to verify who has attended the training. Refer Site Inductions Section 3.5

4.11.2 COMMUNITY CONSULTATION

The Site Manager/Supervisor shall conduct and encourage RCC employees and subcontractors to conduct toolbox meetings to address safety & environmental hazards in and around the site, community interactions & feedback, company alerts posted on Crookes net, Client raised environmental issues, safe work practices, coordination and responsibilities.

The Project Manager will advise relevant residents of the nature and scope of works.

Refer Appendix 1 of the PMP Community Consultation and Engagement Plan.

4.11.3 EXTERNAL STAKEHOLDERS

External stakeholders in the project have been listed in Section 1 of the PMP, Emergency/Stakeholder Contact Details:

4.11.4 COMMUNITY COMPLAINTS

Upon receiving a community complaint, site personnel are to complete [Form 18.5](#) Community Feedback.

Remedial action must be taken as soon as practical Note it is an RCC objective to have all complaints actioned with 24hours. Any action taken must be recorded on the form.

The Site Manager/Supervisor is to include the completed [Form 18.5](#) in the site files.

4.12 EMERGENCY PLANNING & RESPONSE

Refer to the Incident and Emergency Plan in Appendix 1.

4.13 INCIDENT INVESTIGATION & REPORTING

4.13.1 INCIDENT MANAGEMENT AND REPORTING

Incident reporting and Investigation refer to procedure [QAP-8.5-001](#)

Definitions:

Class 1: Dangerous occurrence, or actual harm to an ecosystem, property loss or clean up exceeds \$10,000 (as prescribed in 2.1.) Class 1 incidents and some cases Class 2 (as determined by senior management) will be investigated, as directed by BS Environmental Manager, WHS Head of Safety and/or where required initiate the RCC Business Continuity Plan

Form 03 0 Investigation Report will be completed by the BS Environmental Manager or Senior Safety Advisors and the original forwarded to the Project Manager and reviewed by the BS

Environmental Manager WHS Head of Safety and reported to Senior management and Executives/Board.

Class 2: Major Leak, spill or escape off site of liquids, near miss/dangerous occurrence i.e. plant/equip damage, disruption to services. Note: Some Class 2 will be investigated at the discretion of the BSM / WHS Head of Safety

Class 3: Minor Leak, spill or escape off site of liquids all less than >10lts, Dust, Vibration

The Site Manager/Supervisor will ensure that all Class 2 and Class 3 incidents in or around the site, involving RCC personnel, subcontractors, visitors or passers-by, external authorities, Unions etc. are reported regardless of how minor they appear at the time of the occurrence.

4.13.2

DUTY TO NOTIFY ENVIRONMENT PROTECTION AUTHORITY (EPA) OF POLLUTION INCIDENT - NOTIFIABLE INCIDENT

Pollution Incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed on the premises, but it does not include an incident or set of circumstances involving only the emission of noise.

Incidents that require a (Duty to Notify) to the regulatory authorities EPA Pollution line (phone 131 555) under section 148 of the Protection of the Environmental Operations Act 1997 (PEO Act) are:

- If the actual or potential harm to the health or safety of human beings or ecosystems is not trivial,
- If actual or potential loss or property damage (including clean-up costs) associated with a pollution incident may exceed \$10,000

For all Notifiable Incidents, the following activities should be undertaken:

- The incident site must not be disturbed until an inspector arrives at the scene or directs otherwise, this may include plant, substance, structure or thing associated with the incident. The person with management or control of the workplace is responsible for preserving the incident site, so far as reasonably practicable
- The incident site will be preserved unless it prevents any action needed to:
 - To minimise the risk of further notifiable incident
 - To facilitate a EPA investigation

For Regulator "reportable incidents", the Supervisor will notify the Project Manager, Business Systems Environmental Manager and or WHS Head of Safety to seek advice, then immediately prepare the submission of Notification to the regulator.

Business Systems Environmental Manager and or WHS Head of Safety will confirm and organise legal representation to assist in the preparation of the reports and initiate the RCC Business Continuity Plan

In some contracts it is a requirement to notify the Client's Representative immediately e.g. GC21 Contracts and relevant DPIE SSD reportable incidents (Refer Form 06.0).

4.14 INCIDENT DEBRIEF / CLOSURE

Where an investigation is undertaken and it is determined that an “incident debrief ” is to be carried out using [Form 04 0](#), the Incident debrief will be distributed to all relevant stakeholders and Senior / Executive Management.

Outcomes of Investigations / findings may initiate an internal Alert for distribution.

4.15 NON CONFORMANCE

In the event of breach in the requirements of the EMP, such as:

- Non compliance with the RCC/ subcontractors SWMS or other environmental procedures;
- Non complying activities noted during site inspections (high risk or potential for legal breach);
- Following concerns regarding potential breaches in environmental legislation raised by RCC, the client or other stakeholders such as local council or the EPA;
- Changes to the RCC system or subcontractors procedures, as a result of corrective or preventative action following and environmental incident, inspection or external audit.

[Form 31.1](#) - Non Conformance Report or via Aconex will be completed and issued to the offending party.

Non Conformances will be registered in [Form 31.2](#) Non Conformance Report Register or on soft copy.

A copy of the Non Conformance Notice will be forwarded to the Project Manager and the subcontractor, who will implement appropriate corrective action.

Additionally Contractors Notices or Main Contractor Notices may be issued in certain circumstances, as described in Section 2 of the PMP.

4.16 ADDITIONAL INFORMATION REQUIRED FOR SSD 6741 COMPLIANCE

4.16.1 GROUND WATER

Groundwater level was observed between approximately 1.6m and 2.0m bgs at Lincoln Crescent (existing monitoring wells MW1 and MW2 gauged by Coffey in April and May 2016). The groundwater elevation at these locations is estimated to range between approximately 0.4m and 1.3m AHD based on available nearby survey data. Tunnels forming the Eastern Distributor Motorway (road levels between 10m and 15m AHD) effectively provide a drainage gallery for groundwater to the southwest of the site and Art Gallery Road to the west of the site is on the top of a narrow sandstone ridge running north-south (approximately RL 22m AHD) which slopes steeply to the east (to Woolloomooloo Bay) and west (Botanical Gardens). The fuel tanks are constructed in an excavation into the eastern side of this sandstone ridge, which will have resulted in a change to the local groundwater regime during and immediately after construction. The planned development includes some lateral excavation of the western wall of the northern tank, but no deepening.

Given this hydrogeological setting and the observed groundwater level at or just below the current tank floor level, Coffey (RCC’s Environmental Consultant) considers that construction should not result in penetration of the current water bearing zone (sandstone bedrock with

seepage along rock discontinuities) and seepage into the construction area is expected to be similar to that which is currently observed. Thus, measures to ensure adequate groundwater entitlement is sourced in order to account for groundwater flows into the construction excavations are not required.

The contribution of groundwater seepage to accumulated water in the construction area is expected to be a minor part, with most water occurring as precipitation. Accumulated water will be managed through a combination of on-site treatment and discharge to stormwater, sewer and/or off-site treatment facilities as appropriate.

4.17 ADDITIONAL INFORMATION REQUIRED REF COMPLIANCE

4.17.1 REF HOURS OF CONSTRUCTION

All demolition and construction associated with the REF works will be undertaken during the following our hours, RCC's site Manager will be responsible to ensure this is strictly followed.

Monday to Friday inclusive: 7:30am to 5:30pm;

Saturdays: 7:30am to 3:30pm;

Sundays and Public Holidays: No work permitted.

4.18 COUNCIL, EPA, DPI, RMS, TNSW AND OEH CONSULTATION

APPENDIX 1 - ENVIRONMENTAL POLICY, RISK MATRIX AND CONTROLS

4.1 RCC ENVIRONMENT POLICY

4.2 ENVIRONMENTAL RISK MATRIX

4.3 ENVIRONMENTAL CONTROLS

APPENDIX 2: REMEDIATION ACTION PLAN

Refer to separate Remediation Action Plan

APPENDIX 3 – ACID SULFATE SOIL MANAGEMENT PLAN

Refer to separate Acid Sulfate Soil Management Plan

APPENDIX 4 – CONSTRUCTION NOISE AND VIBRATION MANAGEMENT PLAN

Refer to separate Construction Noise and Vibration Management Plan

APPENDIX 5 - AIR QUALITY AND ODOUR MANAGEMENT PLAN

Refer to separate Air Quality and Odour Management Plan

APPENDIX 6 – WASTE MANAGEMENT PLAN

Refer to separate Waste Management Plan

APPENDIX 7 - HAZARDOUS MATERIALS MANAGEMENT PLAN

Refer to separate Hazardous Materials Management Plan

APPENDIX 8 - UNEXPECTED CONTAMINATION FINDS PROTOCOL

Refer to separate Unexpected Contamination Finds Protocol

APPENDIX 9 – ASBESTOS MANAGEMENT PLAN

Refer to separate Asbestos Management Plan

APPENDIX 10 – CONSTRUCTION PEDESTRIAN MANAGEMENT PLAN

Refer to separate Construction Pedestrian Management Plan

APPENDIX 11 – COMMUNITY ENGAGEMENT PLAN

Refer to separate Community Engagement Plan

APPENDIX 12 – HERITAGE INDUCTION

Sydney Modern—Heritage Induction

The spaces surrounding the Art Gallery of NSW have rich heritage resources. This induction will help understand what must be done on site to help protect these significant built heritage and archaeological resources.

What is Heritage?

Heritage refers to things we inherit that are of cultural significance to us and future generations. It includes built heritage like the Gallery itself, open spaces and plants such as the Royal Botanic Gardens and the Domain.

It also includes archaeological resources—artefacts and relics that show us how we've lived over generations.

You, Heritage and the Law

The whole project site, including the Royal Botanic Gardens and the Domain, is listed on the NSW State Heritage Register. The Art Gallery itself is also of State significance.

Built heritage, historical and Aboriginal archaeology are protected by legislation:

- *Heritage Act 1977* (NSW) protects relics (artefacts, objects or material evidence) of state and local significance.
- *National Parks and Wildlife Act 1974* (NSW) automatically protects all Aboriginal sites or objects.

Be aware of your responsibilities under law to protect heritage items and report unexpected finds.

Basic Induction 1 of 3—GML19-0281A-V3-191108 | Print in colour

ARCHAEOLOGY

The site plan below shows areas that are thought to have low or moderate potential for significant historical archaeological remains. The worksite contains areas of low potential marked purple.



Any excavation in low potential areas of the worksite requires an archaeologist on site monitoring excavations and recording any archaeological finds.



The archaeologist has the right to stop or slow excavation to complete this work.

Archaeological evidence might include historical archaeological 'relics' associated with past use of the site.



Plan showing areas with historical archaeological sensitivity.

Basic Induction 2 of 3—GML19-0281A-V3-191108 | Print in colour

Cadigal Country

Take a moment to acknowledge that this is Cadigal Country and pay respects to Elders—past, present and emerging.

BUILT HERITAGE

The Domain Oil Tanks that lie within the project site were constructed during World War II to supply heavy fuel oil to war ships docked at Garden Island.

They are listed heritage structures. Every part of the structure is important.

View inside the Oil Tanks showing the thin columns supporting the roof.



The grassed roof of the Tanks is supported by columns not designed to support heavy loads. Take care to ensure works in, near or on the Oil Tanks do not impact on them.



No heavy machinery, equipment or material should be loaded or moved onto the roof of the Oil Tanks unless approved.



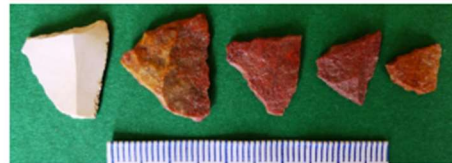
Before risking damage to the Tanks, ask the site manager who will contact GML Heritage.



Aboriginal Objects

Aboriginal archaeological remains at this site may include:

- stone tools or surfaces with evidence of modification through striking (flaking), grinding or pecking; and/or
- human or animal skeletal remains.



Aboriginal stone objects (artefacts).

Historical Archaeological Relics

Historical archaeological remains and relics at this site may include:

- remains of buildings or other infrastructure including cesspits and drains (brick or stone footings, iron elements, timber supports, post holes);
- concentrations of any artefactual material (ceramic, glass, metal, bones, bricks, shell, worked/dressed stone); or
- human or animal skeletal material.



What if you find archaeological remains when the archaeologist isn't there?

It is an offence to impact on Aboriginal 'objects' or historical archaeological 'relics' without the proper approvals and processes.

If you think you have found historical archaeological remains or Aboriginal objects during works you must:



Stop work immediately in the area of the suspected finds and ensure that no further work or disturbance occurs. Work can continue in other areas of the site.



Contact the site manager who will contact the appointed archaeologists to inspect the archaeological remains.



The archaeologist will visit the site and record the finds. **Work cannot recommence in that area until sign-off has been given by the archaeologist.**



If the suspected items are Aboriginal objects, the Department of Planning, Industry and Environment (DPIE) must be notified. The extent of any works exclusion zone would need to be determined through discussion with DPIE and Aboriginal community representatives. If the suspected items are 'relics' as defined under the Heritage Act, the Heritage Council of NSW must be notified under Section 146 of the Heritage Act 1977.



In the unlikely event that **human remains** were to be discovered at any time during the works, **works must cease immediately** in the surrounding area. The findings would need to be reported immediately to the New South Wales Coroner's Office and/or the New South Wales Police. Do not take photographs or film unless requested to do so by the site manager.



Post holes.



Brick footings.



Bottles.



Ceramic artefacts.



Butchered and burnt animal bone.

Basic Induction 3 of 3—GML19-0281A-V3-191108 | Print in colour

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