

19 June 2020

Richard Crookes Constructions
Attn: Mr Phil Irving
Level 3, 4 Broadcast Way
Artarmon NSW 2064

Issued By Aconex

Dear Phil

RE: INTERIM AUDIT ADVICE LETTER NO. 2 - REVIEW OF RAP ADDENDUM, SYDNEY MODERN

As a NSW Environment Protection Authority (EPA) accredited Contaminated Sites Auditor, I am conducting an Audit in relation to the Art Gallery of NSW Expansion - Sydney Modern Project building located at Art Gallery Road, The Domain, Sydney.

I previously prepared and issued Section B Site Audit Statement (SAS TO-004) and supporting 'Site Audit Report, Remedial Action Plan for Art Gallery of NSW Expansion - Sydney Modern Project' dated 2 December 2016 (the SAR). The purpose of the statutory site audit was to determine if the site can be made suitable for the proposed development by implementation of a remedial action plan (RAP). The audit concluded that the site can be made suitable for 'park, recreation open space, playing field' and 'commercial/industrial' use if remediated in accordance with the following report:

- 'Art Gallery of NSW, Remedial Action Plan, Art Gallery of NSW Expansion - Sydney Modern Project, Art Gallery Road, Sydney, NSW', 14 November 2016, Coffey Geotechnics Pty Ltd (Coffey).

It is understood that the proposed extent and layout of the development have changed since the SAR and SAS were issued. The RAP was updated to reflect these changes (current version dated 15 October 2019), however the remedial strategy and extent did not change.

Conditions identified during recent construction works have necessitated changes to the remedial strategy proposed in the RAP. Coffey prepared 'Remediation Action Plan - Addendum 1, Sydney Modern Development, Art Gallery Road, Sydney NSW' (the RAP Addendum) dated 5 May 2020 to document an alternate remediation strategy for the site.

The proposed strategy comprises the following:

- Remediation of areas for building construction to continue in accordance with the current RAP, i.e. excavation and offsite disposal of fill material located to the east of the pile wall in the North of Tank and Western Wedge areas (east of the black dashed line on Attachment 1).
- Landscaped areas to the west of the pile wall (west of the black dashed line on Attachment 1) are unable to be remediated in accordance with

Ramboll Australia Pty Ltd
Level 3, 100 Pacific Highway
PO Box 560
North Sydney NSW 2060

T +61 2 9954 8100
www.ramboll.com

Ref 318000917

the RAP (i.e. excavation and offsite disposal) due to a high voltage (HV) electrical cable and tree protection zone. Fill material impacted by polycyclic aromatic hydrocarbons (PAHs) and fragments of asbestos cement material (ACM) in this area is to remain in situ with a capping layer placed on top. Some detailed excavation may be required to achieve site levels. The extent of the cover areas is shown in Attachments 2 (Western Wedge) and 3 (North of Tank).

- The composition of the proposed capping layer varies depending on the site use (new landscaping, existing trees, new hardstand or new services), however typically includes a high visibility geotextile marker layer placed over in situ fill material, then a clean cover layer of varying thickness and composition. Details are provided in the table below.
- Validation of remediation is to comprise inspections and photographs during installation of the capping layer, a topographic survey of the capping layer thickness and lateral extent, and sampling of materials to be imported to the site for construction of the capping layer (topsoil, aggregate, mulch). Site sourced material will not be used in capping layers without appropriate validation.
- Ongoing management of capped areas of the site will be required at the completion of remediation in accordance with an Environmental Management Plan (EMP). The EMP is to be implemented by Sydney Modern.

Area	Western Wedge	North of Tank Area
Soft Landscaping	<ul style="list-style-type: none"> • High tensile strength biaxial geogrid with nominal aperture size of 30-40 mm anchored over historical fill material, then • A minimum 200 mm thick clean validated imported soil as planting media and mulch layer. 	<ul style="list-style-type: none"> • High tensile strength biaxial geogrid with nominal aperture size of 30-40 mm anchored over historical fill material, then • A minimum 200 mm thick clean validated imported soil as planting media.
Existing Mature Trees	<ul style="list-style-type: none"> • High tensile strength biaxial geogrid with nominal aperture size of 30-40 mm over the root zone, then • A nominal 100 mm thick layer of mulch. <p>The edge of the root zone shall be surrounded by a hard edging material.</p>	<ul style="list-style-type: none"> • High visibility geotextile marker layer (i.e. Bidim® A34 or equivalent specification) over the root zone, then • A nominal 100 mm thick layer of mulch. <p>The edge of the root zone shall be surrounded by a hard edging material.</p>
Hardstand Pavements	<ul style="list-style-type: none"> • High tensile strength biaxial geogrid with nominal aperture size of 30-40 mm placed over historical fill material, then • A 100 mm thick layer of clean validated imported pavement subbase material. 	<ul style="list-style-type: none"> • High visibility geotextile marker layer (i.e. Bidim® A34 or equivalent specification) placed over historical fill material, then • A 100 mm thick layer of clean validated imported pavement subbase material.
Underground Services (e.g. lighting)	<ul style="list-style-type: none"> • A high visibility geotextile marker layer (i.e. Bidim® A34 or equivalent specification) shall be placed to line the service trench to separate the historical fill from the imported aggregate/sand, then • Underground services to be installed within clean validated imported aggregate or sand, then • The service trench shall be covered by a minimum 200 mm thick clean validated imported soil if in soft landscaped area, or 100 mm thick pavement bedding if in a hard pavement area. <p>Service trenches would not be permitted within the easement of the HV cable without prior consultation with Ausgrid</p>	<ul style="list-style-type: none"> • A high visibility geotextile marker layer (i.e. Bidim® A34 or equivalent specification) shall be placed to line the service trench to separate the historical fill from the imported aggregate/sand, then • Underground services shall be installed within clean validated imported aggregate or sand, then • The service trench shall be covered by a minimum 200 mm thick clean validated imported soil if in soft landscaped area, or 100 mm thick pavement bedding if in a hard pavement area.

Conclusions and Recommendations

In the Auditors' opinion, the RAP Addendum is an appropriate response to the changed contamination conditions identified on the site. If adequately implemented, the RAP Addendum should be able to ensure that the site is suitable for the proposed land uses. Successful validation will be required to confirm this.

The following is noted:

1. Acceptance of the proposed onsite containment strategy by the future custodian of the land (noted to be Sydney Modern by the RAP Addendum) will be required. They will be responsible for the long-term management of the contamination in accordance with the EMP. Responsibilities will include routine monitoring/inspections of the capped area, implementation of controls to maintain the capping layer, implementation of contingency plans in the event future subsurface works breach the capping layer, periodic review of the EMP, and making the EMP available to relevant staff and contractors.
2. A mechanism to make the EMP legally enforceable will need to be identified. This may include an amendment of SSD 6471 to include a requirement to implement the EMP in Part E and/or inclusion of the EMP and its requirements in the Operational Plan of Management (OPM) required by condition D5 and E1 of SSD 6471. The RAP Addendum notes that the EMP will be included in the Facility Management Plan and the Planning Certificate issued under Section 10.7 of the *Environmental Planning & Assessment Act 1997*. These mechanisms will ensure an acceptable level of public notification, however, do not make the EMP legally enforceable.
3. The lateral extent of the capping layer in the Western Wedge does not cover the entire area west of the pile wall (Attachment 2). Limited information has been provided to date to justify exclusion of the capping layer in this area. The extent of the capped area in the Western Wedge will need to be justified in the validation report.

* * *

Consistent with the NSW EPA requirement for staged 'signoff' of sites that are the subject of progressive assessment, remediation and validation, I advise that:

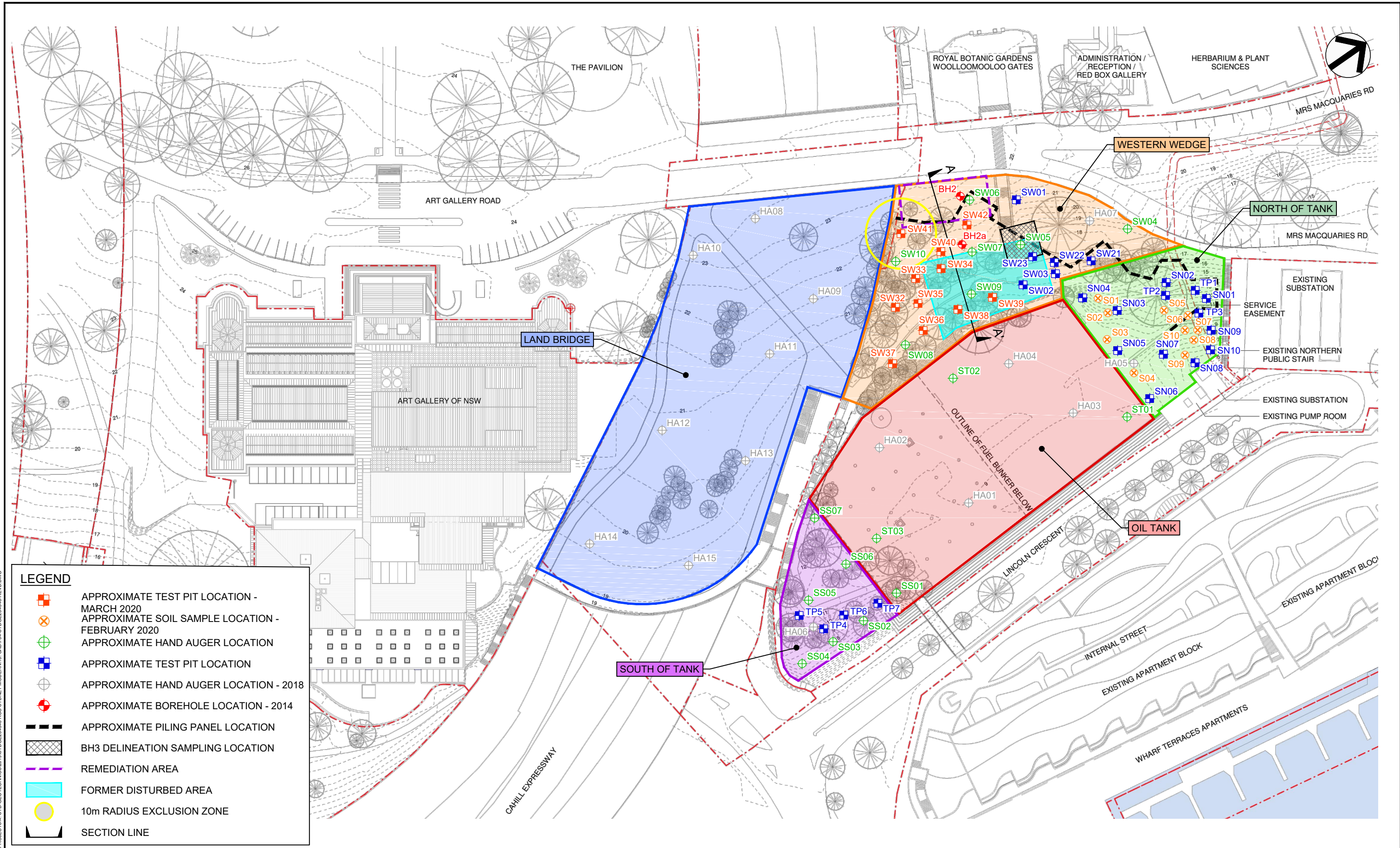
- This advice letter does not constitute a Site Audit Report or Site Audit Statement.
- At the completion of the remediation and validation I will provide a Site Audit Statement and supporting documentation.
- This interim advice will be documented in the Site Audit Report.

Yours faithfully
Ramboll Australia Pty Ltd



Tom Onus
EPA Accredited Site Auditor 1505

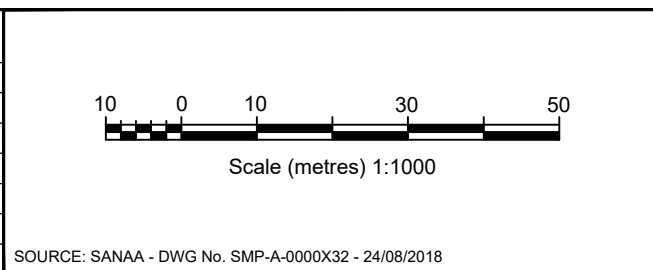
- Attachments:
- 1 Site Layout Plan
 - 2 Cover Layer - Western Wedge Area
 - 3 Cover Layer - North Tank Area



LEGEND

- APPROXIMATE TEST PIT LOCATION - MARCH 2020
- ⊗ APPROXIMATE SOIL SAMPLE LOCATION - FEBRUARY 2020
- ⊕ APPROXIMATE HAND AUGER LOCATION
- APPROXIMATE TEST PIT LOCATION
- ⊕ APPROXIMATE HAND AUGER LOCATION - 2018
- ⊕ APPROXIMATE BOREHOLE LOCATION - 2014
- APPROXIMATE PILING PANEL LOCATION
- BH3 DELINEATION SAMPLING LOCATION
- REMEDIATION AREA
- FORMER DISTURBED AREA
- 10m RADIUS EXCLUSION ZONE
- SECTION LINE

no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AW	MD	5/02/20
B	ADDITIONAL TEST PITS	AW	ML	23/03/20

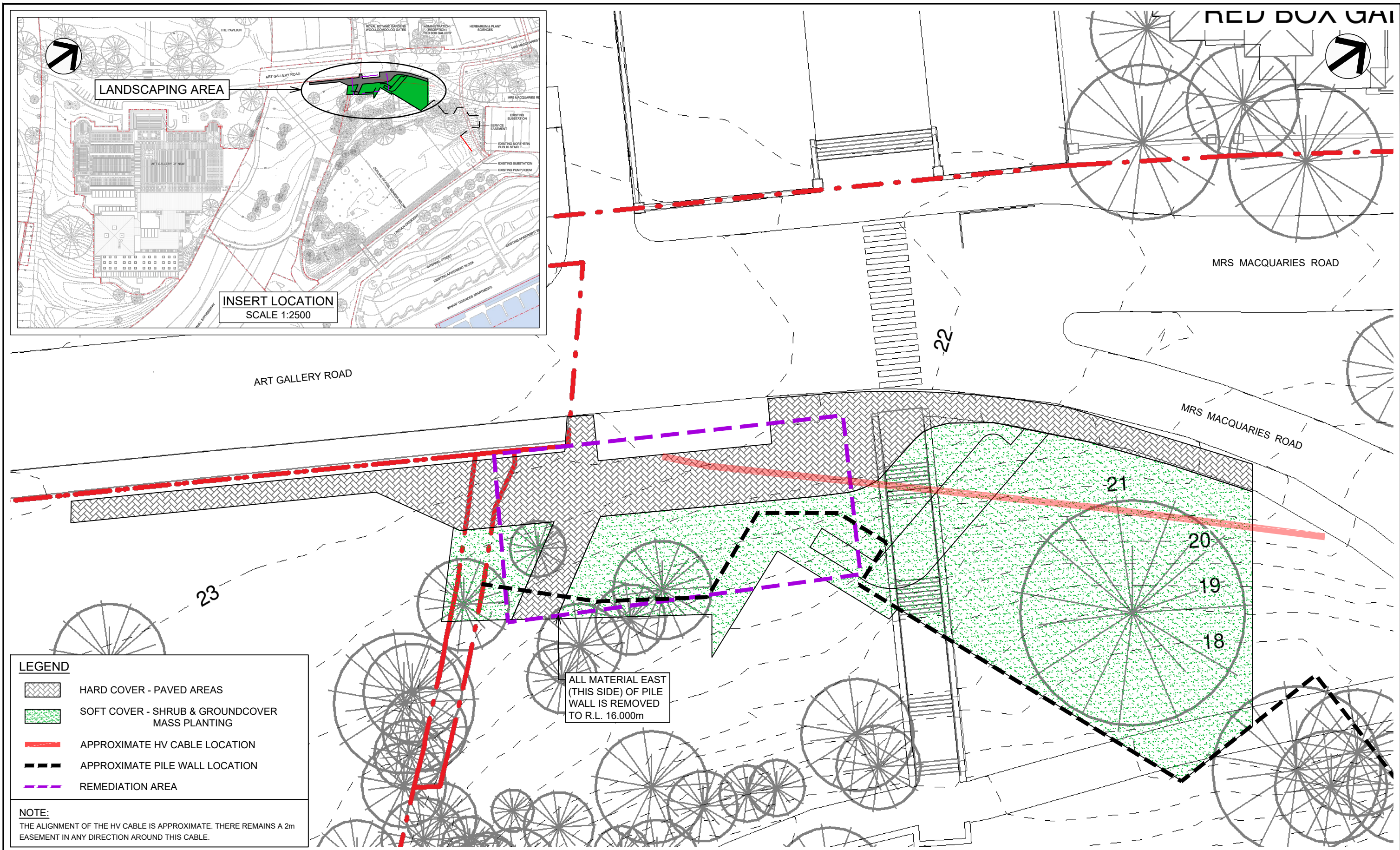


drawn	MD / AW
approved	-
date	23/03/2020
scale	AS SHOWN
original size	A3



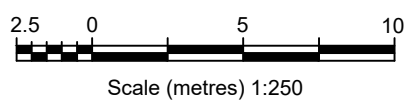
client:	RICHARD CROOKES CONSTRUCTIONS		
project:	ENVIRONMENTAL MANAGEMENT PLAN SYDNEY MODERN PROJECT WOOLLOOMOOLOO, NSW		
title:	SITE LAYOUT PLAN		
project no:	754-SYDGE234348	figure no:	FIGURE 1
rev:	B		

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no.	description	drawn	approved	date
A	ORIGINAL ISSUE			

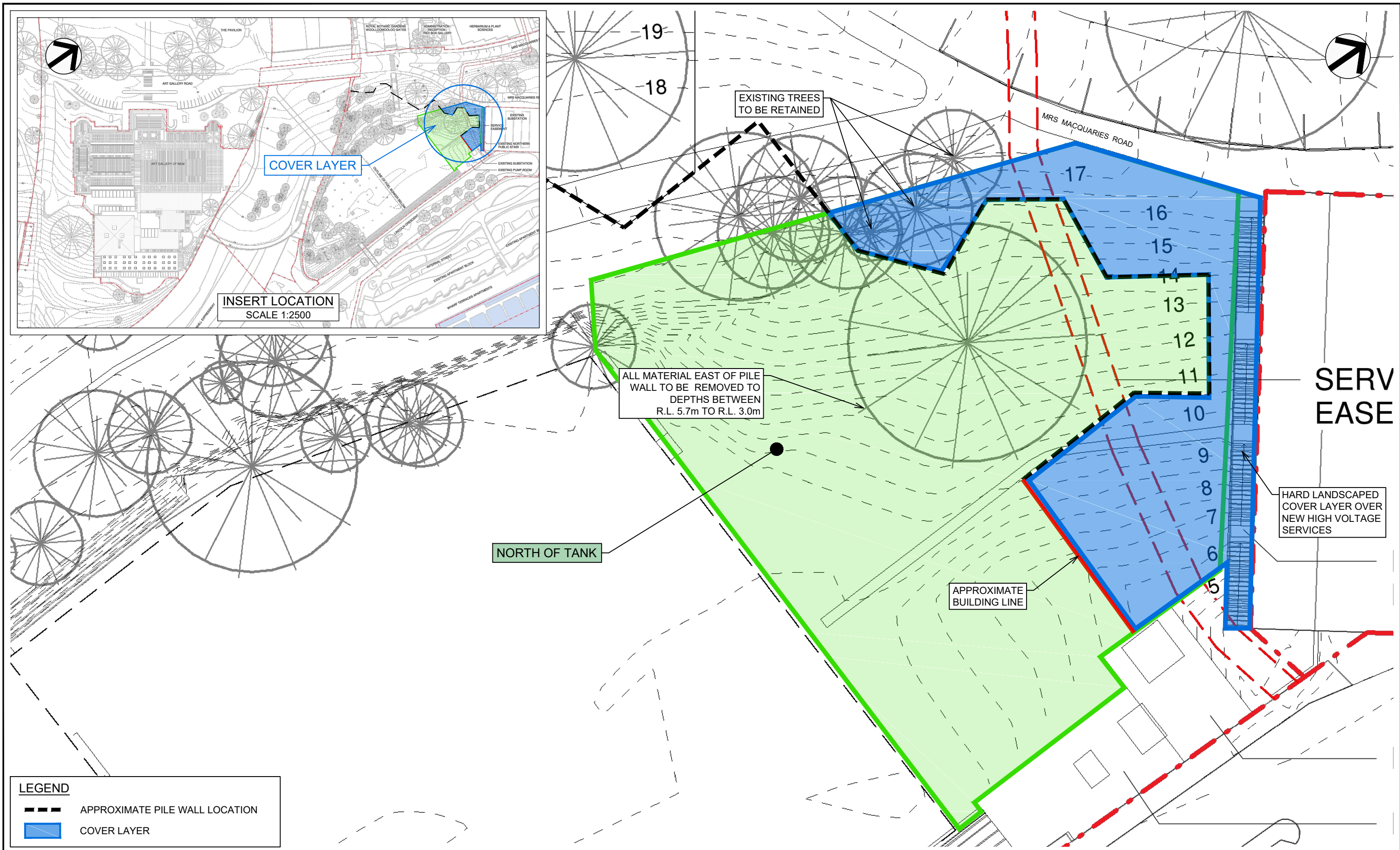


SOURCE: SANAA - DWG No. SMP-A-0000X32 - 24/08/2018

drawn	ML / AW
approved	-
date	17/04/2020
scale	AS SHOWN
original size	A3



client:	RICHARD CROOKES CONSTRUCTIONS		
project:	SYDNEY MODERN PROJECT WOOLLOOMOOLOO, NSW		
title:	COVER LAYER - WESTERN WEDGE AREA		
project no:	754-SYDGE234348-EH	figure no:	FIGURE 2
rev:	A		



LEGEND

- APPROXIMATE PILE WALL LOCATION
- COVER LAYER

no.	description	drawn	approved	date
A	ORIGINAL ISSUE			

Scale (metres) 1:250

SOURCE: SANAA - DWG No. SMP-A-0000X32 - 24/08/2018

drawn	ML / AW
approved	-
date	05/05/2020
scale	AS SHOWN
original size	A3



client:	RICHARD CROOKES CONSTRUCTIONS		
project:	SYDNEY MODERN PROJECT WOOLLOOMOOLOO, NSW		
title:	COVER LAYER - NORTH TANK AREA		
project no:	754-SYDGE234348-EH	figure no:	FIGURE 3
rev:	A		

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