Proposed Residential Development for 38 Stockton and 8A Tomaree Steet, Nelson Bay

Unexpected Finds Protocol

COHO Property

Reference: 754-NTLGE368007-AD

14 October 2024

PROPOSED RESIDENTIAL DEVELOPMENT FOR 38 STOCKTON AND 8A TOMAREE STEET, NELSON BAY

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PREPARED FOR

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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
ACM	Asbestos Containing Material
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council,
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended in 2013
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
BTOC	Below Top of Casing
COC	Contaminant of Concern
COHO	COHO Property Pty Ltd.
CLM Act	Contaminated Land Management Act
CRCL	Consultants Reporting on Contaminated Land Guidelines
CSM	Conceptual Site Model
DA	Development Application
DECC	Department of Energy and Climate Change
DP	Deposited Plan
DPI	Department of Primary Industries
EIL	Ecological Investigation Level
ESL	Ecological Screening Level
ESA	Environmental Site Assessment
HIL	Health Investigation Level
HSL	Health Screening Level
LAA	Licenced Asbestos Assessor
LARC	Licenced Asbestos Removal Contractor
LGA	Local Government Area
LOR	Limit of Reporting
mAHD	Metres Australian Height Datum
mBTOC	Metres Below Top of Casing
mBGL	Metres Below Ground Level
NEPM	National Environmental Protection Measure
NSW EPA	New South Wales Environmental Protection Authority
PAH	Polycyclic Aromatic Hydrocarbons
PID	Photoionisation Detector
POEO Act	Protection of the Environment Operations Act 1997
PPE	Personal Protective Equipment
PSH	Phase Separated Hydrocarbons
QA/QC	Quality Assurance/Quality Control

Acronyms/Abbreviations	Definition
RPE	Respiratory Protective Equipment
SAC	Site Assessment Criteria
SAR	Site Audit Report
SOP	Standard Operating Procedures
SPR	Source, Pathway, Receptor
SPT	Standard Penetration Testing
TEQ	Toxicity Equivalent
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
UPSS	Underground Petroleum Storage System
UST	Underground Storage Tank
VOC	Volatile Organic Hydrocarbons

1. INTRODUCTION

Tetra Tech Coffey Pty Ltd. (Tetra Tech) was engaged by COHO Property Pty Ltd. (COHO) to undertake a contamination assessment review and prepare a Environmental Site Assessment (ESA) report which considers the suitability of land, with respect to contamination, located at 38 Stockton Street and 8A Tomaree Street, Nelson Bay NSW 2315 (Lot 781 and Lot 782 DP 802108) (the Site) for a proposed residential development. The location and current layout of the Site are shown in Figure 1-1.

Figure 1-1: Location and Current Layout of the Site (bound in red and shaded yellow) (Six Maps Imagery, September 2024)

A portion of the Site, Lot 781 DP 802108 (Petroleum Site), was historically used as a petroleum service station and mechanics workshop from the 1960s through to 2011. When operations ceased in 2011, Caltex Australia Pty Ltd. (Caltex) continued to hold the lease.

Caltex sought to relinquish their lease of the Petroleum Site in 2014 and a contaminated site audit was required to assess the suitability of the Petroleum Site for residential use. The audit was completed in compliance of a consent condition with the Development Application (DA) (16-2014-23-1) issued by the Port Stephens Council (Council) on 28 March 2014. The audit was statutory and was completed by NSW EPA Site Auditor Graeme Nyland (Site Auditor) of Ramboll Environ Australia Pty Ltd. (Ramboll). The audit was reported in *Site Audit Report, Ramboll 2015, Former Caltex Service Station, 38 Stockton Street, Nelson Bay (Audit Number GN 485, dated July 15, 2015)* (Site Audit Report).

The Site Audit Report included a summary of previous contamination assessments completed at the Petroleum Site, Remediation Action Plan and the Site Remediation and Validation Report prepared by Coffey Environments[1] and reported in *Site Remediation and Validation Report Former Caltex Nelson Bay Service Station* (22347)*, 38 Stockton Street, Nelson Bay, NSW (Reference: ENAUWARA02022AA_R04, dated 8 July 2015)*.

[1] Now Tetra Tech Coffey

The Site Audit Statement, and the related Site Audit Report, concluded that the Petroleum Site was considered "*suitable, with respect to land contamination, for possible future residential land use and for uses permissible with consent under the current site zoning*".

The Site Audit Report identified the potential for ACM fragments in fill material beneath concrete hardstand and buildings and in the southwest of the Site. The concentration of asbestos remaining on the Site was considered to be less than the residential guidelines with inspection completed during the removal of concrete slabs and buildings.

Following the remediation and validation of the Petroleum Site, Coffey observed the demolition of the remaining site structures and associated works. Coffey's scope included the preparation of a pre-demolition hazardous materials survey, removal of hazardous materials including asbestos from site structures, demolition of site structures, offsite disposal of demolition waste, removal of concrete pavement and asbestos fragments identified beneath, visual asbestos clearance of the site surface following concrete removal. The hazardous materials identified and building demolition waste was removed from the site and disposed at an appropriately licensed landfill. Asbestos clearance inspections found no visible ACM on site at the time of the inspections.

The remaining portion of the Site, Lot 782 DP 802108, 8A Tomaree Street, adjoining the Petroleum Site to the west, was subject to neither remediation nor site audit but was included partially in earlier contamination assessment reports. The *Contamination Site Suitability Assessment Report* (*Ref: 754-NTLGE368007-AB, dated 2 October 2024*) (Site Suitability Report) completed by Tetra Tech, assessed the suitability of the Site for the proposed development which was described as mixed commercial/residential 8 storey complex with lower ground parking and a dedicated basement level. Additionally, to close specific soil quality data gaps within Lot 782, two additional sample locations used for the geotechnical assessment were assessed for contaminants of potential concern (COC) with the data included in the overall assessment of site suitability.

The Site Suitability Report provided sufficient confidence to support the opinion that the contamination within soils across the Site posed a low potential risk to environmental receptors and human health. The results of this data strongly suggested general consistency with the larger dataset of soil quality data collected from the Petroleum Site. The combined soil data confirmed contaminant concentration levels across the Site were within the health investigation and screening criteria relevant for a HIL/HSL B residential setting as per the ASC NEPM. The potential for leaching from fill to groundwater was also assessed to be low. Historic groundwater data collected post-remediation suggested groundwater to be unaffected by the historic service station activities. The potential residual risk therefore presented by both soils and groundwater to the proposed future mixed use residential/commercial development was assessed to be low.

Considering the results of the Site Suitability Report and the updated CSM for the Site, Tetra Tech considered the Site to be suitable for the purposes of the proposed development and also suitable for residential occupation with minimal access to soil.

To manage the potential for undiscovered contamination finds including buried remnant infrastructure from the more recent service station operation and possibly other undiscovered historic infrastructure associated with earlier operations, Tetra Tech recommended the preparation of an Unexpected Finds Protocol (UFP) for inclusion in the Construction Environmental Management Plan (CEMP). The UFP must include provisions for the management of unexpected finds that may be encountered during bulk excavation works (including asbestos materials).

This document presents the recommended UFP for inclusion within the project CEMP.

1.1 OBJECTIVES

The objective of the UFP is to:

- Provide procedures to manage unexpected potentially contaminated materials and other unanticipated finds during excavation of the site soils undertaken during works.

It is understood this UFP will form part of the CEMP developed for the project. The UFP only addresses the management of potentially contaminated unexpected finds discovered during excavation.

1.2 REGULATORY FRAMEWORK

This report has been prepared in consideration of relevant current guidance and regulations including:

- *Contaminated Land Management Act 1997*
- *Environmental Planning and Assessment Act 1979*
- *Protection of the Environment Operations Act 1997*
- *Waste Avoidance and Resource Recovery Act 2001*
- *Chapter 4, State Environmental Planning Policy (Resilience and Hazards) 2021* (SEPP RSH).
- *National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended in 2013* (ASC NEPM).
- *New South Wales Environment Protection Authority (NSW EPA) (2020) Consultants Reporting on Contaminated Land Guidelines* (CRCL).
- *NSW EPA (2014) Waste Classification Guidelines Part 1: Classifying Waste* (Waste Classification Guidelines).
- *NSW EPA (2022) Sampling Design Part 1, Contaminated Land Guidelines* (SDG)
- *WA DoH (2021) Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites* (WA Guidelines).
- *Heritage Act 1977 (NSW).*
- *National Parks and Wildlife Act 1974 (NSW).*
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth).*
- *Coroner's Act 2009 (NSW).*
- *Unexpected Heritage Items 2015 (RMS).*

1.3 PROPOSED DEVELOPMENT

The proposed development comprises a mixed commercial/residential 8 storey complex with lower ground parking and a dedicated basement level. The ground floor, constructed above the single level basement will comprise commercial occupancies, a single residential dwelling and communal facilities including an indoor pool. The development is proposed to comprise excavation of the majority of exisiting fill at the Site to accommodate the lower ground and basement levels. The building will occupy the majority of the Site with a small portion of the perimeter boundary used for landscaping and trees.

The excavation is proposed to be completed to a depth of approximately 6-7m below ground level with much of the existing fill, barring areas with fill extending beyond the excavation depth being removed from the Site.

- The relevant architectural drawings and development plans are included in Appendix A.

2. ROLES AND RESPONSIBILITIES

Table 2-1 below outlines the roles and responsibilities for implementing this UFP.

Table 2-1: Roles and Responsibilities

Role	Contact Information	Responsibilities
Site Owner/Representative	COHO Property	• Project management and construction execution.
Site Superintendent (SS)/ Principal Contractor (PC)	To be confirmed	• Ensure that this UFP is implemented and adhered to. • Provide relevant information regarding site environmental management to contractors and subcontractors working at the Site. • Maintain records and documents produced as a result of this UFP, especially for management and movement of contaminated materials within and from the Site. • Address the management of unexpected contamination and unexpected finds, as required.
Contractors / subcontractors	To be confirmed	• Liaise with the SS/PC, other contractors and parties, and relevant authorities. • Ensure overall compliance with the UFP, applicable legislation and regulations for their contribution to site works.
Environmental Consultant	To be confirmed	• Brief the Site Owner and PC into the requirements of the UFP, as required. • Provide advice to the SS/PC and relevant parties regarding management requirements as detailed in this UFP.

3. SITE INFORMATION

3.1 SITE IDENTIFICATION

Relevant details for the Site are summarised in Table 3-1.

Table 3-1: Site Information Details

Site Address	38 Stockton Street and 8A Tomaree Steet, Nelson Bay
Site Identification	Lot 781 and Lot 782 DP 802108 2315
Approximate Site Area	2,200m^2
Zoning	E1: Local Centre
Site Owner	COHO Property
Local Government Area	Port Stephens Council
Current Land Use	Vacant lot, primarily used for parking
Previous Land Use	The Site has seen continuous use from the 1960s to 2011 as a petroleum service station and mechanical workshop on Lot 781. Generally, Lot 782 was not part of the petroleum operation nor mechanical workshop and housed a shed with no known potentially contaminating site activity observed in the aerial photos (generally vacant).
Future Land Use	Commercial and residential premises on the ground level and residential apartments above, with basement car parking
Adjoining Site Uses	• **North** – Residential dwelling and commercial town centre (supermarket (Woolworths) Shell Service Station. • **East** – Stockton Street, Mixed residential, commercial area. • **South** – Low and medium density residential and commercial. • **West** – Tomaree Street, Residential properties including apartments and a hotel (Oaks Nelson Bay) (Low to medium density accommodation) and a church (All Saints Anglican Church).
Site Co-ordinates	The southeast boundary corner is located at approximately 6379060 m S, 419667 m E.

3.2 ENVIRONMENTAL SETTING

The environmental setting of the Site is presented in Table 3-2.

Table 3-2: Site Environmental Setting

Item	Description
Topography[2]	High level dunes and sand sheets mantling bedrock. Topography range is considerable and is dependent on the shape of the underlying bedrock. On gentle headlands such as Fingal Head, a sand plain with <5% slope gradient and local relief <30 m is present. Where sand sheets have been blown up against old offshore islands (e.g., around base of Gan Gan hill), steeper slopes (>25%) are often encountered with local relief up to 60 m. Bedrock mantling dunes occur between the old offshore islands with true dune/swale landform elements. Reference to the Port Stephens 1:25,000 topographic map (Sheet 9332-4S) indicates that the Site is at an elevation of approximately 20 m Australian Height Datum (mAHD). The site surface was slopes down slightly to the northeast at approximately 1-2º slope.

[2] https://www.environment.nsw.gov.au/eSpade2Webapp/

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Surface Water / Hydrology</td><td>Surface water would be expected to drain to municipal storm drains which are reasonably expected to discharge into Port Stephens located 450m to the north of the Site. There are low areas onsite where pooling of surface water was evident.</td></tr>
<tr><td>Geology</td><td>NSW MinView geospatial data[3] shows the geology encompassing the Site as primarily Indurated marine-deposited and aeolian-reworked fine- to coarse-grained quartz-lithic sand with abundant carbonate, sporadic humic debris in stabilised dunes, Holocene aged.

Lithology was reported in Coffey 2015, and is summarised as follows:
Surface to 0.05 mBGL – Concrete
0.05 to 0.2 mBGL – Fill: Cement stabilised gravel, coarse grained, sub-angular, pale grey, some steel.
0.2 mBGL to investigation depth – Aeolian Sand: Fine to medium grained, rounded grains, grey, brown and orange, some fines.
A recent summary of geotechnical units was compiled and presented in reporting of the most recent geotechnical investigation completed by Tetra Tech in 2024, Proposed Residential Development - 38 Stockton and 8A Tomaree Street, Nelson Bay – Geotechnical Investigation Report Ref: 754-NTLGE368007-AC, dated 3 October 2024 (Geotechnical Report). The summary is presented in Table 3-3

Table 3-3: Summary of Geological Units<table><tr><th>Unit</th><th>Origin</th><th>Description</th></tr><tr><td>1a</td><td>Fill/ Road pavement</td><td>FILL: Sandy GRAVEL: fine to medium grained, grey subrounded to subangular.</td></tr><tr><td>1b</td><td>Fill</td><td>FILL: SAND: medium grained, mottled grey and dark grey, trace of rootlets, trace of fine to medium grained subangular gravel</td></tr><tr><td>1c</td><td>Fill/ reworked natural</td><td>FILL: SAND: medium grained, pale grey</td></tr><tr><td>2a</td><td>Colluvium / former Topsoil</td><td>Silty SAND: fine to medium grained, dark brown to dark grey, trace of rootlets</td></tr><tr><td>3a</td><td>Aeolian</td><td>SAND: fine to medium grained, colours range from pale brown, pale orange and pale grey</td></tr><tr><td>3b</td><td>Indurated Sand</td><td>SAND: fine to medium grained, dark brown to red and orange</td></tr><tr><td>3c</td><td>Aeolian</td><td>SAND: fine to medium grained, pale brown to orange brown.</td></tr><tr><td>4a</td><td>Residual Soil</td><td>Not observed but anticipated to be SAND: fine to coarse grained</td></tr></table></td></tr>
<tr><td>Soil Landscape</td><td>The NSW Government eSPADE V2.2[4] resource indicates the landscape of Site is described as high-level dunes and sand sheets mantling bedrock. Topography is highly variable and dependent on shape of underlying bedrock. Local relief generally <30 m but can be up to 60 m with slope gradients 0–45%. Elevation 0–70 m. Partially cleared shrubland, woodland and tall open-forest.</td></tr>
<tr><td>Acid Sulfate Soils</td><td>A search of the NSW eSPADE V2.2[6], identifies the Site as not located within an area of Acid Sulfate Soils risk. Site elevation above 20mAHD precludes the area from coastal ASS risk.</td></tr>
<tr><td>Salinity</td><td>A search of the NSW eSPADE V2.2[5] database provided no information regarding the status of salinity at the Site.</td></tr>
<tr><td>Groundwater</td><td>Regional groundwater is anticipated to be present in Aeolian sands at depths of approximately 6 to 10 mbgs. Regional groundwater is anticipated to flow to the north towards Port Stephens, located approximately 450 m to the north of the site.</td></tr>
</table>

[3] https://minview.geoscience.nsw.gov.au/#/?lon=148.5&lat=-32.5&z=7&l=
[4] https://www.environment.nsw.gov.au/eSpade2Webapp/
[5] https://www.environment.nsw.gov.au/eSpade2Webapp/

Item	Description
	A search of the WaterNSW website[6] for registered groundwater bores located within a 500 m radius of the site was undertaken. The search revealed 5 bores registered within this radius. The wells were located and described as follows: • The nearest well (GW200402) is located approximately 360m to the northeast of the Site, installed for monitoring purposes. Water bearing zones were measured between 12 to 24 mBGL. SWL was reported at 14.6 mBGL with the well installed in sand (medium yellow beach). • The second well (GW200584) is located approximately 460m north northeast of the Site and was an indicated test bore. No specific information related to SWL, water bearing zones or lithology was available. • The third well (GW080159) is approximately 480m southwest of the Site installed for monitoring purposes. Water bearing zones were measured between 2 to 3.8 mBGL. SWL was reported at 1.52 mBGL with the well installed in sand (white-medium grain (beach sand). • The fourth well (GW200397) is located approximately 480m north northeast of the Site installed for monitoring purposes. Water bearing zones were measured between 2 to 12 mBGL. SWL was reported at 3.3 mBGL with the well installed in sand (various types identified). • The fifth well (GW079262) is located approximately 500m southeast of the Site. No additional details were provided. Site specific hydrology was reported in Coffey 2015 based on measurements competed in onsite monitoring wells and also measured in recent gauging completed during the geotechnical investigation completed by Tetra Tech in 2024 and reported in the Geotechnical Report. These data are summarised in Table 3-4.

Table 3-4: Site Specific Hydrogeology

Depth to groundwater	Standing water levels (SWLs) ranged from 12.315m below top of casing (BTOC) in MW104 to 14.087mBTOC in MW110. More recent groundwater gauging in the new wells installed for the geotechnical investigations identified similar groundwater levels (MW01 – 10.74 mBGL, MW02 – 12.46 mBGL and MW03 – 11.55 mBGL)..
Phase separated hydrocarbon (PSH)	None observed
Gradient and Groundwater flow direction	Groundwater beneath the site flows in a northerly direction. The hydraulic gradient was assessed (Coffey, 2015) to be approximately 0.056 using difference in water levels between MW104 and MW109. The nearest surface water receptor for groundwater is Port Stephens which is located about 450m to the north of the Site. Port Stephens is a Marine water body.
Groundwater Occurrence	Groundwater occurs in sand, which is an unconfined aquifer.
Hydraulic conductivity	The hydraulic conductivity of the underlying sand aquifer has been estimated to be approximately 10 m/day (Heath 1983)
Porosity	The effective porosity (θ) of the underlying sand been estimated to be about 35% (McWorter and Sunada, 1977).
Groundwater velocity	Based on the effective porosity of the underlying sands, the inferred hydraulic gradient of the site and hydraulic conductivity, the estimated groundwater velocity within this water bearing formation is estimated to be about 580 m/year.

3.3 DATA GAPS

Whilst the site history research undertaken was generally comprehensive, the following data gaps have been identified:

[6] https://realtimedata.waternsw.com.au/water.stm

- Activities on-site prior to 1963 cannot be confirmed using aerial photography as this investigation used the earliest image readily available. The title history would suggest however that the property has been in constant use as a service station (within Lot 781) since the 1960s with very minimal activities observed within Lot 782 during the relevant time periods.
- There may be data gaps in the fill quality within Lot 782, given a lower sample density compared to Lot 781, but this is mitigated by two factors, the first, is the consistency of the analytical results with the Lot 781 data set. The second is that the development will be self-limiting with respect to unassessed risk as the bulk excavation will essentially remove this prior to development.

4. CONCEPTUAL SITE MODEL

4.1.1 Sources of Contamination and Associated Contaminants of Potential Concern

A summary of the contamination sources and the associated COPCs is presented in Table 4-1.

Table 4-1 Sources of Potential Contamination

Potential Sources of Contamination	Potentially Contaminating Activity	Potentially Affected Media	COPCs	Risk of Contamination	Comments
Fill of Unknown Origin (the Site)	Historic use of fill across the Site as identified in bore logs completed across both Lots 781 and 782.	• Fill/natural soils below fill. • Groundwater • Surface water	Heavy metals, TRH, BTEX, PAHs, Pesticides, Asbestos.	Low	Results of fill samples collected across the Site (including some limited samples from Lot 782) identify no significant potential impact to fill materials. Noting, most fill onsite will be bulk excavated during development; therefore, the residual risk is assessed to be low.
Former service station and mechanic workshop operation (Lot 781)	Historic use of Lot 781 as a former service station and mechanic workshop.	• Fill/natural soils below fill. • Groundwater • Surface water	Heavy metals, TRH, BTEX, VOC, PAHs, Asbestos.	Low	Site was subject to remediation and validation under an approved RAP. Remediation included removal of tanks and UPSS infrastructure followed by validation of soil and groundwater suitability. The validation was reviewed by a NSW EPA Site Auditor with the site deemed suitable for residential use with gardens and accessible soil.

Notes: This is a qualitative assessment of the probability of contamination being detected at the area affected. Total Recoverable Hydrocarbons (TRH), Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Volatile Organic Carbons (VOC), Polycyclic Aromatic Hydrocarbons (PAH), heavy metals (arsenic, cadmium, chromium, copper, lead, mercury and zinc).

4.1.2 Sources, Pathways and Receptors

A summary of the potentially affected media, key potential receptors and transport mechanisms for Site is presented in Table 4-2.

Table 4-2: Source Contamination, Transport Mechanisms and Receptors

Primary Sources	Secondary Sources	Transport Mechanisms	Exposure Routes	Exposure Receptors
Fill of Unknown Origin (the Site)	Impacted natural soil underlying the imported fill.	• Dermal contact • Leaching from fill to natural soils.	• Direct contact with soil • Potential inhalation and ingestion of soil	• Construction / maintenance workers. • Current/Future site users

		• Run off into surface water. • Leaching to groundwater	during site development.	• Ecological: flora and fauna on-site, soil biota, transitory wildlife, surface and groundwater dependent ecosystems.
Former service station and mechanic workshop operation (Lot 781)	Impacted natural soil underlying the imported fill.	• Dermal contact • Leaching from fill to natural soils. • Run off into surface water. • Leaching to groundwater	• Dermal contact of soil • Potential inhalation and ingestion of soil during site development.	• Construction / maintenance workers. • Current/Future site users • Ecological: flora and fauna on-site, soil biota, transitory wildlife, surface and groundwater dependent ecosystems.

4.1.3 Linkage between Sources, Pathways and Receptors (SPR)

A summary of the key SPR linkages is presented in Table 4-3.

Table 4-3: Key Potential Exposure Pathways

Receptor/ Media	Exposure Pathway	Comment
HUMAN		
Maintenance/ Construction Workers	Incomplete	The concentrations of COC in soils are below the relevant residential thresholds. As such, an unacceptable risk is not posed.
Future site users	Incomplete	The concentrations of COC in soils are below the relevant residential thresholds. Additionally, the Site is proposed to be developed with a two-level basement, requiring the majority of existing fill materials to be removed off site. This action will completely remove all existing materials. This plus the future sealed construction will eliminate exposure to the existing fill. From a human health perspective risk associated with groundwater use is considered low, as the relevant COC has typically been below the relevant thresholds and reticulated water will be used onsite for water supply. Given the recently observed depth to groundwater observed during the geotechnical works (10.7 mBGL (D-BH01), the proposed 6 to 7 mBGL excavation depth for basements will not intercept groundwater.
ECOLOGICAL		
Flora and fauna of on-site	Incomplete	Given the requirements of bulk excavation and the construction and development across the Site, ecological exposure routes are considered incomplete.
Soil microbiota		
Transitory wildlife		
Down-gradient Groundwater Receptors	Incomplete	Depth to groundwater is typically >10m, however the permeable sub-surface does allow for potential connection with contaminated fill via leaching. The potential for groundwater to be impacted as a result of fill quality is considered low given the low measured concentrations of contaminants in fill. The risk presented to groundwater is therefore low. This has been reflected in historic assessments completed using wells within the highest risk portion of the Site (Lot 781) previously used for service station operations. The groundwater quality demonstrated no contamination related to the previous activities.

5. UNEXPECTED FINDS PROCEDURES

5.1 PURPOSE

These procedures outline a methodology for consistent response and management of unexpected finds during development works.

5.2 SCOPE

This procedure applies to all contractors and sub-contractors conducting excavation works at the Site including support works. These include all bulk earthworks activities, and the installation of service trenches and stormwater drains.

5.3 TYPES OF UNEXPECTED FINDS

For this procedure an 'Unexpected find' is defined as an unanticipated potential contaminant or archaeological discovery not identified during previous assessments. An unexpected find may include:

- Contaminated materials (including lead slag and ash).
- Buried infrastructure (e.g. underground storage tanks, pipes, footings).
- Soil exhibiting stained or odorous appearance.
- Visible sheens on groundwater, or floating oils (LNAPL Light Non-Aqueous Phase Liquid).
- Asbestos.
- Aboriginal and Non-Aboriginal Heritage artefacts.
- Human skeletal remains.

5.4 GENERAL MANAGEMENT OF UNEXPECTED FINDS

If an unexpected find is identified during earthworks, the following general procedure shall be followed:

- Cease disturbance of the affected portion of the Site.
- Contact the Site Supervisor, and Principal Contractor to assess the find. Assess the potential immediate risk to human health posed by the unexpected find and assess if evacuation or emergency services need to be contacted. The assessment of health risk must consider site workers but also occupants of the surrounding properties, and the general public.
- Delineate an exclusion zone around the affected area using appropriate barriers and signage. Additional control measures may be required for odours and/or volatile compounds (e.g. odour suppression, no smoking signage etc.).
- Contact a suitably qualified environmental consultant / licensed asbestos assessor for advice and request a site visit to undertake an assessment of the unexpected find.
- The environmental consultant/licensed asbestos assessor shall assess the unexpected find and provide advice regarding:

    a) Preliminary assessment of the contamination, need for immediate management controls and requirements to notify the regulatory authorities (e.g. NSW EPA, SafeWork NSW etc.).

    b) What further assessment and/or remediation works are required and how such works are to be undertaken in accordance with contaminated site regulations and guidelines.

c) Provide clean up advice to mitigate risks from the unexpected find.

d) Implement remediation works required (where applicable).

e) Validation works required following remediation works (if applicable).

- Works are not to recommence in the affected area until appropriate advice has been obtained from the environmental consultant. Consideration should be made to amending the site safety plans and associated Safe Work Method Statements (as appropriate).
- If it is deemed safe to do so by the Site Supervisor, works may resume in the affected area.

5.5 MANAGEMENT OF ASBESTOS

Asbestos places worker health at risk when elevated levels of asbestos fibers are breathed into the lungs. The Safework NSW guideline for Managing Asbestos in or On Soil, 2014 states the following regarding asbestos exposure:

“The likelihood of exposure occurring depends upon the potential for the asbestos material to release fibres, whether the asbestos material is contained or covered, and any operational control measures or personal protective equipment which have been applied to limit the generation and/or inhalation of airborne fibres.

Non-friable asbestos, previously referred to as ‘bonded asbestos’, in sound condition represents a low human health risk. However, friable asbestos materials or damaged, crumbling bonded asbestos, have the potential to generate, or be associated with, free asbestos fibres and therefore must be carefully managed to minimise the release of asbestos fibres into the air.”

If in situ soil (surface/fill) or stockpiled material is suspected to contain asbestos, the Site Supervisor should be informed immediately. It should be assumed that the soil is asbestos impacted and work immediately ceased. A suitably qualified environmental consultant or LAA, should be contacted to sample the material for confirmation of asbestos presence and type (friable or bonded).

If confirmed, the Site Supervisor must ensure the implementation of asbestos management procedures as outlined in an approved project specific Asbestos Management Plan (AMP) to be prepared by the building contractor and included as a sub-plan within their CEMP. The control measures will include but not be limited to:

- Identifying contaminant boundaries as determined by an independent LAA or suitably qualified environmental consultant.
- Minimize disturbance to in situ soils or stockpiles containing potential ACM until the asbestos management procedures have been implemented.
- Isolating, securing and clearly identifying the area of potential ACM impact site using signs and barriers.
- Application of dust reduction/control measures such as spraying of water and application of wetting agents.
- Providing workers with appropriate PPE based on the suspected level of contamination and the control measures implemented.
- Sampling of the suspected contaminated materials and/ or air monitoring either by an LAA or suitably qualified environmental consultant.
- Execute a site toolbox talk focused on the provision of information to workers on hazards and safe work practices to minimise airborne dust exposure.

A LAA should be engaged, and a comprehensive assessment conducted as required. If asbestos is confirmed, asbestos-impacted material must be removed by a licensed asbestos removalist and a clearance

certificate obtained from a LAA or suitably qualified and competent person in accordance with Safework NSW requirements.

5.6 ASBESTOS CONTROL MEASURES

The required control measures to be implemented should areas be found that are impacted by asbestos are summarised below in Table 5-1.

Table 5-1: Asbestos Control Measures

Task	Details
Asbestos Awareness Training	Prior to commencement of any works within asbestos impacted soil, in line with the *How to Manage and Control Asbestos in the Workplace Code of Practice* (SafeWork NSW 2019), all relevant site personnel must have completed asbestos awareness training such that all workers are trained to recognise potential health risks and control measures associated with asbestos. The Class A/ B Supervisor or the Licenced Asbestos Assessor may provide the asbestos awareness training on site prior to commencement of excavation of asbestos impacted soil.
Barricades and Signage	Signs and barricades must be placed to clearly demarcate where earthworks and handling of asbestos impacted soil are being performed and restrict access to personnel not involved in the works. Barricades may comprise temporary fencing with wind rated mesh/ geofabric. Signs should be in accordance with AS 1319-1994 Safety Signs for the Occupational Environment for size, illumination, location and maintenance.
Personal Protective Equipment (during Asbestos Disturbance Works)	Personnel onsite within the work area, will be required to wear appropriate PPE in line with WHS requirements specific to the task while working within asbestos contaminated areas. For personnel working within asbestos exclusion zones, the following PPE/ RPE is mandatory: **Respiratory Protection** • A P2 disposable respirator. A half face respirator (i.e. Sundstrom SR900 Half Mask) with P3 particle filter shall be donned at the discretion of the occupation hygienist or Class A LARC. • Respirators must comply with AS/NZS1715–2009 Selection, use and maintenance of respiratory equipment. **Skin and Clothing Protection** • Type 5 Tyvek suits at the discretion of the occupation hygienist or Class B LARC. **Hand Protection** • Disposable nitrile gloves if handling soil. • Excavator operators or truck drivers may be exempt from asbestos PPE requirements within the cab if it can be shown that the excavator/ truck cabs can be sealed during works and reverse cycle air conditioning can be engaged. • Occupational protective gloves shall comply with AS/NZS 2161.2:1998 – Occupational Protective Gloves, Part 2 General Requirements.

Decontamination	Where asbestos is disturbed, decontamination facilities will be required for machinery, equipment, and workers carrying out remedial activities. Decontamination procedures shall include, but not be limited to:
	• Establishment of a ‘personal decontamination area’ and ’personal clean area’ adjacent to the asbestos work area using bollards, and 200 µm polythene sheeting on the ground. A trailer mounted 3 or 5 Stage Modular Decontamination Unit may be used for personal decontamination if friable asbestos is being managed in place of a dry-decontamination area.
	• When entering the asbestos exclusion area:
	  ○ Workers must enter the ‘Personal Clean Area’ and change into clean asbestos specific protective clothing.
	  ○ Any removed personal clothing must be stored in a dust-proof container.
	  ○ Move into the Site.

Task	Details

	• When leaving the asbestos exclusion area:
	  ○ Workers must enter the 'Personal Decontamination Area' and:
	  - Remove any visible asbestos dust/residue from protective clothing by wiping down with damp cloths/ wet wipes.
	  - Place cloths/ wet wipes into heavy duty polythene asbestos waste bags (1200mm long, 900mm wide, and 200 µm thick).
	  - Carefully remove disposable protective clothing and place into asbestos waste bags (PPE must still be worn).
	  - Use a footbath and/ or damp cloths/ wet wipes to wipe down footwear and place cloths/ wet wipes into asbestos waste bags.
	  - Place disposable mask into asbestos waste bags or wet wipe half face respirator.
	  - Seal all asbestos waste bags with duct tape and place each into a second plastic bag.
	  - Seal this second plastic bag and label/ mark as 'Asbestos Waste' for subsequent off-site disposal. The bags must be twisted tightly and have the neck folded over and secured with adhesive tape (referred to as goose-necking).
	  ○ Move into the 'Personal Clean Area' and put on personal clothes.
	• To reduce the risk of an asbestos waste bag tearing or splitting and to assist in manual handling, asbestos waste bags should not be filled more than half full (depending on the weight of the items) and excess air should be gently evacuated from the waste bag in a way that does not cause the release of dust.
	• The 200 µm polythene sheeting which was placed on the ground in the personal decontamination area shall be disposed of as asbestos waste at the completion of the works.
	• Machinery and reusable equipment shall be decontaminated in a designated Decontamination Area using water and/ or wet rags.

Handling of Asbestos Impacted Soil	Asbestos impacted soil shall be handled in manner to minimise the potential for cross contamination of other areas of the site by: • Placing the soil directly into trucks. • Not overloading trucks. • Keeping movements of vehicles, plant and equipment to a practical minimum and maintaining low speeds during transportation. • Using designated transportation routes/ corridors between remedial areas, designated stockpile areas and final containment location. • Tracking of soil from cradle to grave by remedial contractor. • Stockpiling soil on a reasonably robust barrier (i.e. concrete, geofabric and plywood).

Stockpile Management (Asbestos Impacted)	• Stockpiles shall be established:
	  ○ Away from adjacent properties, drainage lines and water bodies. Avoid designated drains, sumps and low-lying areas subject to flooding or runoff.
	  ○ On a reasonably robust barrier (i.e. concrete, geofabric and plywood) or on existing fill. If stockpiles are placed on natural/uncontaminated soil, then over-excavation is likely to be required to facilitate validation.
	• Dust suppression and erosion and sediment controls shall be managed by procedures contained within the CEMP.
	• Stockpiles shall:
	  ○ Not exceed the height of site boundary hoarding to minimise dust generation from the site.
	  ○ Be less than 2m in height with side slopes to be a maximum ratio of 1V:2H.
	  ○ Be appropriately labelled to minimise the risk of cross contamination.
	  ○ Be positioned and formed to minimise potential for stockpile erosion where possible.

<table>
<tr><th>Task</th><th>Details</th></tr>
<tr><td></td><td>At the end of each day, stockpiles shall be wetted down, covered with 200µm polythene sheeting or geofabric and secured to prevent the soil cover being removed by wind, or unauthorised persons.
Additional controls would be required for longer-term management of stockpiles. If stockpiles are to be kept for longer-term (i.e. greater than 3 months) then this management plan shall be updated to include additional controls.
In the event that over excavation of natural material and subsequent stockpiling is required, stockpiles should be positioned away from asbestos impacted stockpiles. Appropriate signage marking the material should be posted for each stockpile.</td></tr>
<tr><td>Asbestos Fibre Air Monitoring</td><td>Controlled monitoring using static or positional samples during excavation and handling of asbestos impacted soil is required.
A suitably trained environmental consultant, occupational hygienist or LAA shall carry out air monitoring of the work area during excavation and handling of asbestos impacted soil. Where friable asbestos is assessed, a LAA is required to complete the air monitoring.
Asbestos fibre air monitoring results shall be discussed at the following shift toolbox talk and presented on a site noticeboard to inform site workers of the results.
Air monitoring shall be conducted by a National Association of Testing Authorities (NATA) accredited laboratory in accordance the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC: 3003 (2005)] and Australian Standard AS ISO/IEC 17025 – 2005, General requirements for the competence of testing and calibration laboratories. Air Monitoring Reports are required to be issued in accordance with NATA’s accreditation requirements.
Works must be suspended if the air monitoring results are found to be above the detection limit of 0.01 fibres per millilitre of air (f/mL). The control limits/action levels are set out below.
<table>
<tr><th>Action Level (fibres/ ml</th><th>Control</th><th>Action</th></tr>
<tr><td><0.01</td><td>No new control measures necessary.</td><td>Continue with control Measures.</td></tr>
<tr><td rowspan="3">0.01 to ≤0.02</td><td>1 – Review.</td><td>Review control measures.</td></tr>
<tr><td>2 – Investigate.</td><td>Investigate the cause.</td></tr>
<tr><td>3 – Implement.</td><td>Implement controls to eliminate or minimise exposure and prevent further release.</td></tr>
<tr><td rowspan="5">>0.02</td><td>1 – Stop works.</td><td>Stop earthworks.</td></tr>
<tr><td>2 – Notify the regulator.</td><td>Notify the regulator (SafeWork NSW) by phone followed by written statement that the work has ceased and the provide the results of the air monitoring.</td></tr>
<tr><td>3 – Investigate the cause.</td><td>Conduct a thorough visual inspection of the Site in consultation with all workers involved.</td></tr>
<tr><td>4 – Implement controls to eliminate or minimise exposure and prevent further release.</td><td>Review the controls to eliminate or minimise exposure and prevent further release.</td></tr>
<tr><td>5 – Do not recommence any works until further air monitoring is conducted.</td><td>Do not recommence until fibre levels are ≤0.01.</td></tr>
</table>
</td></tr>
</table>

Task	Details
Disposal of Bonded Asbestos Materials	Handling and disposal of asbestos waste will be carried out in accordance with an approved AMP prepared by a suitably environmental consultant and executed by a Licensed Asbestos Removal Contractor (LARC). The following general procedures would be undertaken, but do not constitute an AMP. Hand-picked asbestos waste (i.e. removal of bonded asbestos fragments) removed during the construction works shall be collected and double bagged in heavy-duty, low-density polyethylene 0.2mm thick bags. A maximum bag size of 1,200mm (length) x 900mm (width) shall be used and bags shall be filled to no more than 50 per cent capacity. The bags must be labelled as containing “Asbestos Waste” and that dust inhalation must be avoided. The bags are to be ‘double-necked’ and sealed by wire ties or tape. The bags shall then be disposed to the nearest licensed facility as asbestos waste. The loaded weight of the bags shall not exceed 20kg each. Each bag or other container shall be labelled on its outermost surface with warning statements. Bags or primary containers which have held asbestos material shall not be re-used, and containers marked as above shall not be used for other purposes and shall be disposed of accordingly as per requirements for ACM. Care must be taken to ensure that the integrity of the plastic bags is not damaged during handling or transportation. Vehicles may be checked for cleanliness prior to leaving the work site. Controlled wetting of waste shall be employed, where practicable, to reduce dust emissions during bag sealing. Excessive water logging shall be avoided as the excess of contaminated water may leak out of the bags, thereby creating a future source of airborne dust. The asbestos waste shall be disposed of at a landfill licensed to receive asbestos waste in accordance with EPA requirements. Documentary evidence (waste disposal dockets) of the disposal shall be collected and provided. This will include name of the authorised waste facility, weighbridge docket and registration number of vehicles for every disposal.

Transportation and Management of Asbestos Waste	There are regulatory requirements under Part 7 of the POEO Waste Regulation that apply to the transport and management of asbestos waste, including but not limited to:
	• Requirement relating to storage of waste generally.
	  ○ Waste must be stored on the premises in an environmentally safe manner.
	• General requirements applying to transportation of asbestos waste:
	  ○ Any part of any vehicle in which the person transports the waste is covered and contained (i.e. the load is covered and contained to prevent the release of asbestos to the surrounding environment during transportation).
	  ○ Non-friable asbestos material must be securely packaged.
	  ○ Friable asbestos material must be kept in a sealed container.
	  ○ Asbestos-contaminated soil must be wetted down.
	  ○ Asbestos waste must be disposed of at a landfill site that can lawfully receive this waste.
	• Always contact the landfill beforehand to find out whether asbestos is accepted and any requirements for delivering asbestos to the landfill:
	  ○ When a person delivers asbestos waste to a landfill site, the person must inform the occupier of the landfill site that the waste contains asbestos.
	  ○ It is illegal to dispose of asbestos waste in domestic garbage bins.
	  ○ It is also illegal to re-use, recycle or dump asbestos waste.

Reporting and Tracking of Asbestos Waste	For asbestos, the POEO (Waste) Regulation 2014 requires tracking of each load of asbestos greater than 100 kilograms, or 10 square metres within NSW. The POEO (Waste) Regulation 2014 requires the transport of asbestos in NSW to be recorded from the place of generation to its final destination using the NSW EPA Integrated Waste Tracking Solution (IWTS)[7].

[7] https://kpmgorigins.com/iwts

Task	Details
	Transporters of asbestos waste are required to fulfil their duties with regards to tracking of asbestos and asbestos contaminated soil.
Asbestos Record Keeping	During material removal and containment at the Site the following information shall be recorded (i.e. on a Materials Tracking Plan) and maintained by remedial contractor and provided to the environmental consultant at the completion of the works: • Area asbestos found. • Extent and surveyed volumes to be placed within the containment area. • Emplacement containment area. • The environmental controls employed to mitigate health risks. • Dates where the above tasks were undertaken and completed. Where asbestos waste is selected for off-Site disposal, the Remedial Contactor will record and maintain the following and provide to the environmental consultant at the completion of the project. • Waste classification reports. • Landfill dockets and Environmental Protection Licence (EPL) numbers. • Date and time of disposal. • Name and address of landfill. • Amount of waste (volume or weighed mass). • Type of waste (waste classification). • Material description. • Transport company including Truck registrations.
Asbestos Related Licences	For the purpose of asbestos air monitoring and clearance inspections a competently, suitably qualified person (e.g. environmental scientist or occupational hygienist) may undertake these works until the event that friable asbestos is assessed, where a LAA is required to complete the monitoring and inspections. A summary of the licenses required based on the asbestos form identified is as follows: • A SafeWork NSW Class A LARC is engaged to conduct and/or oversee friable asbestos related removal works. • A Competent Person/ Occupational Hygienist/ LAA carries out asbestos-fibre air monitoring and visual clearances. • Where AF of Friable Asbestos (FA) is assessed, the asbestos air monitoring and visual clearances will be undertaken by an LAA.

Regulator Notification	Where asbestos remedial works that require disturbance of material assessed to be ACM/ asbestos contaminated, the LARC will be required to lodge the necessary SafeWork NSW notice of intent to remove asbestos prior to excavation (5 business days notification required). An Asbestos Removal Control Plan (ARCP) will be required to be prepared by the LARC and submitted with the notification. The ARCP must include:
	• Details of the asbestos which will and may be encountered, including the location, type and condition of the asbestos.
	• Details of how the earthworks will be carried out and how asbestos impacted soil will be handled, including the method to be used and the tools, equipment and personal protective equipment to be used.
	• Once the ARCP is prepared, a copy must be:
	  ○ Given to the person who commissioned the licensed asbestos removal work.
	  ○ Readily accessible on-site for the duration of the licensed asbestos removal work to a person conducting a business or undertaking at the workplace.
	  ○ Workers and their health and safety representatives.
	The ARCP must also be made available for inspection under the NSW 2011 WHS Act.

6. OTHER UNEXPECTED DISCOVERIES

In the event suspected contaminated materials (lead slag, ash, UST's, footings, pipes, flowing free phase hydrocarbons, oily wastes odorous or suspicious looking soils etc.) are discovered, steps must be taken to assess the materials and minimize potential impact on the environment. Upon discovering the items work will cease and an assessment of immediate risks carried out by the Site Supervisor and Project Manager.

Following the initial assessment, a suitably qualified environmental consultant will be engaged to assess the short and long-term risks to human health and the environment and provide options for mitigation, management and/or and disposal. Contaminated materials must be assessed for offsite disposal at a licensed facility under an appropriate waste classification in accordance with the Waste Classification Guidelines.

All contaminated materials on site to be managed with guidance from a suitably qualified person.

6.1 SKELETAL REMAINS

During the progression of excavation works bones may be unexpectedly exhumed. If the bones are clearly human in origin, work will cease, access will be prevented to the immediate area by installing barriers and contact the local police immediately. The police may take control of the site for investigative purposes. The bones are not to be touched or disturbed. The coroner will assess the bones to determine if they are under 100 years old. If the bones are assessed to be over 100 years old, they are managed, human or otherwise, as heritage items.

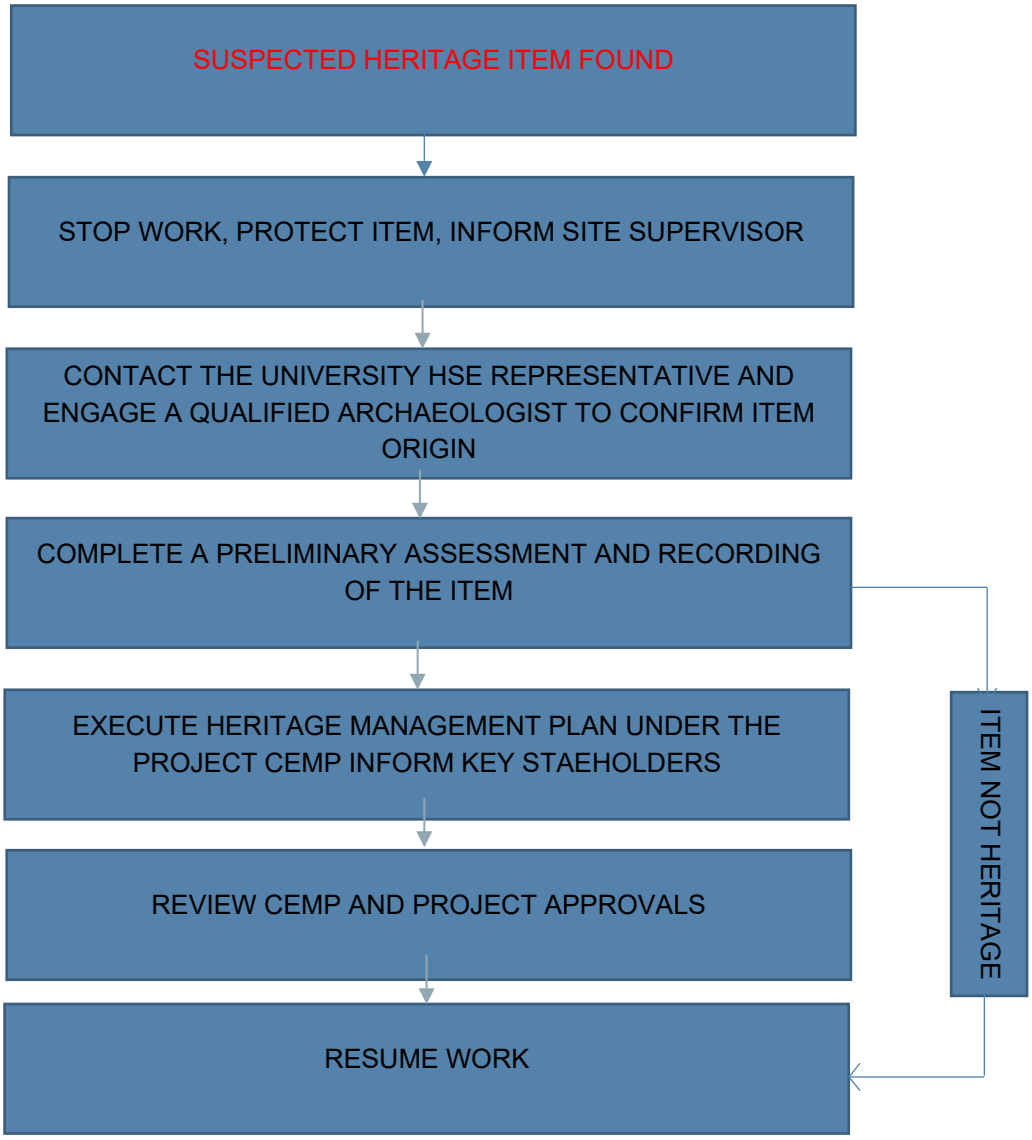
If the origin of the bones cannot be immediately identified as human, a suitably qualified Archaeologist or Anthropologist should be engaged to undertake an assessment of origin. Approval from the coroner, police, Aboriginal groups, Office of Heritage, Anthropologist or the client may be required before bones can be removed.

6.2 ABORIGINAL HERITAGE

The identification of any relic, artefact or material suspected to be of Aboriginal original triggers an immediate cessation of works. The Site Supervisor and or Project Manager shall be notified immediately, who will in turn contact the University Health and Safety (HSE) representative. A qualified archaeologist must be engaged to confirm the find.

Following this, the Site Supervisor and or Project Manager must complete a preliminary assessment and recording of the item. If the item was identified to not be of Aboriginal origin works will immediately recommence following that clearance. Should Aboriginal Heritage items be confirmed the University HSE representative will then notify NSW Police, National Parks and Wildlife Service and Local Aboriginal stakeholders. If an approved Heritage Management Plan exists as part of an approved CEMP this must be executed.

The following flowchart illustrates the required actions following the suspected identification of Aboriginal heritage objects.



The NSW Department of Climate Change, Energy, the Environment and Water – Environment and Heritage. require notification and an AHIP permit is required prior to removal of artefacts. Following suspected discovery, site inductions should include an introduction and awareness to the possible presence of Aboriginal heritage and the expectation and procedures regarding their management. Aboriginal Artefacts could include but not limited to stone tools, shell middens, axe grinding grooves, rock art, burials and scarred trees. Please refer to the included *RMS Unexpected Heritage Items Procedure 2015* included in Appendix B for further procedural and visual guidance.

LIMITATIONS

IMPORTANT INFORMATION ABOUT YOUR TETRA TECH COFFEY REPORT

As a client of Tetra Tech Coffey you should know that site subsurface conditions cause more construction problems than any other factor. These notes have been prepared by Tetra Tech Coffey to help you interpret and understand the limitations of your report.

Your report is based on project specific criteria

Your report has been developed on the basis of your unique project specific requirements as understood by Tetra Tech Coffey and applies only to the site investigated. Project criteria typically include the general nature of the project; its size and configuration; the location of any structures on the site; other site improvements; the presence of underground utilities; and the additional risk imposed by scope-of-service limitations imposed by the client. Your report should not be used if there are any changes to the project without first asking Tetra Tech Coffey to assess how factors that changed subsequent to the date of the report affect the report's recommendations. Tetra Tech Coffey cannot accept responsibility for problems that may occur due to changed factors if they are not consulted.

Subsurface conditions can change

Subsurface conditions are created by natural processes and the activity of man. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. Consult Tetra Tech Coffey to be advised how time may have impacted on the project.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and when they are taken. Data derived from literature and external data source review, sampling and subsequent laboratory testing are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, because no professional, no matter how qualified, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. For this reason, owners should retain the services of Tetra Tech Coffey through the development stage, to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Your report will only give preliminary recommendations

Your report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced and therefore your report recommendations can only be regarded as preliminary. Only Tetra Tech Coffey, who prepared the report, is fully familiar with the background information needed to assess whether or not the report's recommendations are valid and whether or not changes should be considered as the project develops. If another party undertakes the implementation of the recommendations of this report there is a risk that the report will be misinterpreted and Tetra Tech Coffey cannot be held responsible for such misinterpretation.

Your report is prepared for specific purposes and persons

To avoid misuse of the information contained in your report it is recommended that you confer with Tetra Tech Coffey before passing your report on to another party who may not be familiar with the background and the purpose of the report. Your report should not be applied to any project other than that originally specified at the time the report was issued.

Interpretation by other design professionals

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, retain Tetra Tech Coffey to work with other project design professionals who are affected by the report. Have Tetra Tech Coffey explain the report implications to design professionals affected by them and then review plans and specifications produced to see how they incorporate the report findings.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, drawings, etc. are customarily included in our reports and are developed by scientists, engineers or geologists based on their interpretation of field logs (assembled by field personnel) and laboratory evaluation of field samples. These logs etc. should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

Geoenvironmental concerns are not at issue

Your report is not likely to relate any findings, conclusions, or recommendations about the potential for hazardous materials existing at the site unless specifically required to do so by the client. Specialist equipment, techniques, and personnel are used to perform a geoenvironmental assessment. Contamination can create major health, safety and environmental risks. If you have no information about the potential for your site to be contaminated or create an environmental hazard, you are advised to contact Tetra Tech Coffey for information relating to geoenvironmental issues.

Rely on Tetra Tech Coffey for additional assistance

Tetra Tech Coffey is familiar with a variety of techniques and approaches that can be used to help reduce risks for all parties to a project, from design to construction. It is common that not all approaches will be necessarily dealt with in your site assessment report due to concepts proposed at that time. As the project progresses through design towards construction, speak with Tetra Tech Coffey to develop alternative approaches to problems that may be of genuine benefit both in time and cost.

Responsibility

Reporting relies on interpretation of factual information based on judgement and opinion and has a level of uncertainty attached to it, which is far less exact than the design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. To help prevent this problem, a number of clauses have been developed for use in contracts, reports and other documents. Responsibility clauses do not transfer appropriate liabilities from Tetra Tech Coffey to other parties but are included to identify where Tetra Tech Coffey's responsibilities begin and end. Their use is intended to help all parties involved to recognise their individual responsibilities. Read all documents from Tetra Tech Coffey closely and do not hesitate to ask any questions you may have.

APPENDIX A: DEVELOPMENT PLANS

PERSPECTIVE 1 - SOUTH-EAST 1:800

PERSPECTIVE 2 - NORTH-EAST 1:800

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS
A	14.06.2024	CLIENT ISSUE
B	03.07.2024	CLIENT & CONSULTANT ISSUE
C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION
D	16.08.2024	CLIENT ISSUE
E	23.08.2024	CLIENT ISSUE
F	29.08.2024	CLIENT & CONSULTANT ISSUE
G	06.09.2024	CLIENT & CONSULTANT ISSUE
H	15.09.2024	CLIENT & CONSULTANT ISSUE

DRN	CHKD	VRFD
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : 3D VIEWS - SHEET 1

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

DRAWN :	DATE :	SCALES :
BH	SEP 24	NTS @ A1

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A014	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN

PERSPECTIVE 3 - SOUTH AERIAL 1:800

PERSPECTIVE 4 - SOUTH-EAST 2 1:800

HOLDSWORTH DESIGN
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A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

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BH	BH	BH
BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : 3D VIEWS - SHEET 2

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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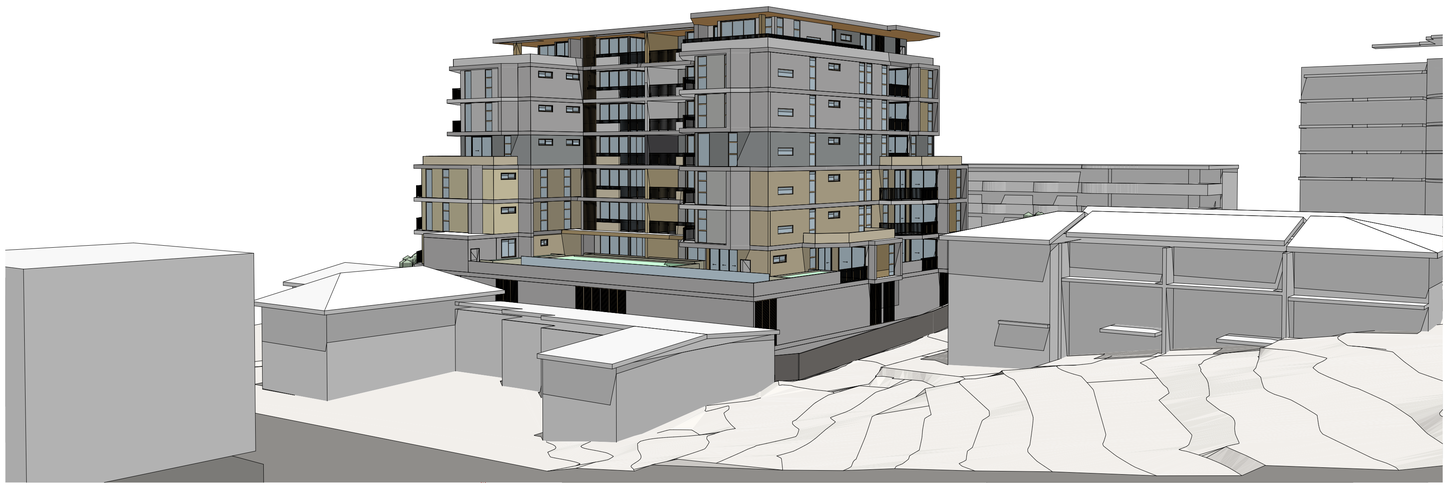
DRAWN :	DATE :	SCALES :
BH	SEP 24	NTS @ A1

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A015	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN

PERSPECTIVE 5 - SOUTH-WEST 1:800



PERSPECTIVE 6 - NORTH-WEST 1:800

HOLDSWORTH DESIGN
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Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

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DRN	CHKD	VRFD
BH	BH	BH
BH	BH	BH
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BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : 3D VIEWS - SHEET 3

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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PROJECT No :	PHASE :	DRAWING No :	REV :
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HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN

EAST ELEVATION - STOCKTON STREET 1:200

SOUTH ELEVATION 1:200

HOLDSWORTH DESIGN
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0 25mm 100mm 200mm ON ORIGINAL A1

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A	14.06.2024	CLIENT ISSUE
B	03.07.2024	CLIENT & CONSULTANT ISSUE
C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION
D	16.08.2024	CLIENT ISSUE
E	23.08.2024	CLIENT ISSUE
F	29.08.2024	CLIENT & CONSULTANT ISSUE
G	06.09.2024	CLIENT & CONSULTANT ISSUE
H	15.09.2024	CLIENT & CONSULTANT ISSUE

DRN	CHKD	VRFD
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : ELEVATIONS - SHEET 1

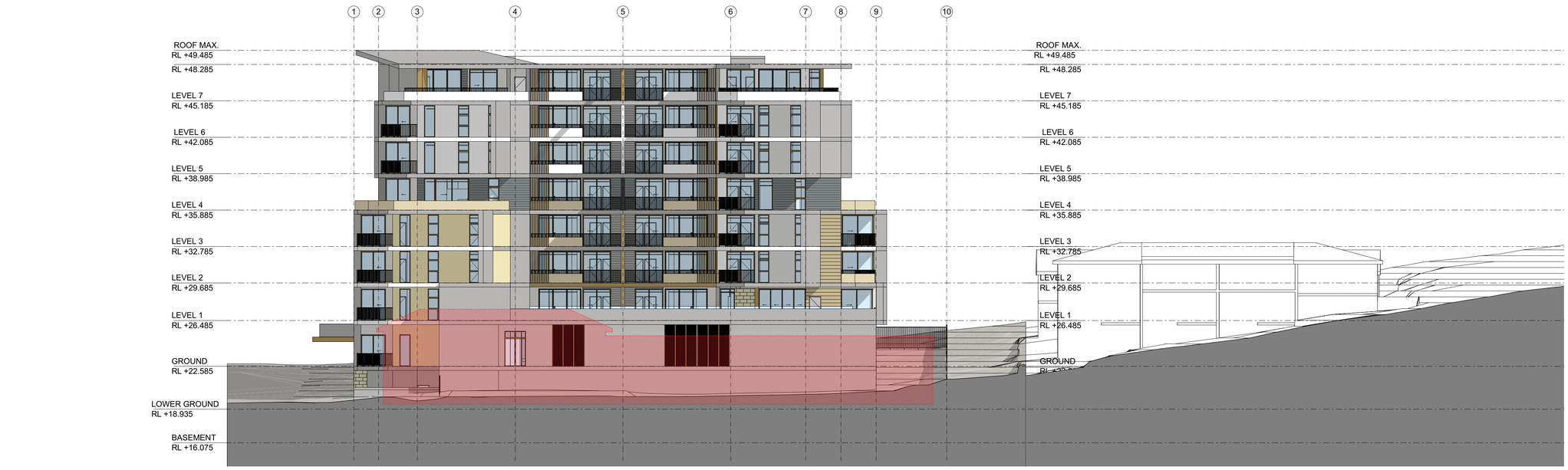
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

DRAWN :	DATE :	SCALES :
BH	**SEP 24**	**1 : 200 @ A1**

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	**DA**	**A-A501**	**H**

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



NORTH ELEVATION 1:200

WEST ELEVATION 1:200

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS
A	14.06.2024	CLIENT ISSUE
B	03.07.2024	CLIENT & CONSULTANT ISSUE
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D	16.08.2024	CLIENT ISSUE
E	23.08.2024	CLIENT ISSUE
F	29.08.2024	CLIENT & CONSULTANT ISSUE
G	06.09.2024	CLIENT & CONSULTANT ISSUE
H	15.09.2024	CLIENT & CONSULTANT ISSUE

DRN	CHKD	VRFD
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : ELEVATIONS - SHEET 2

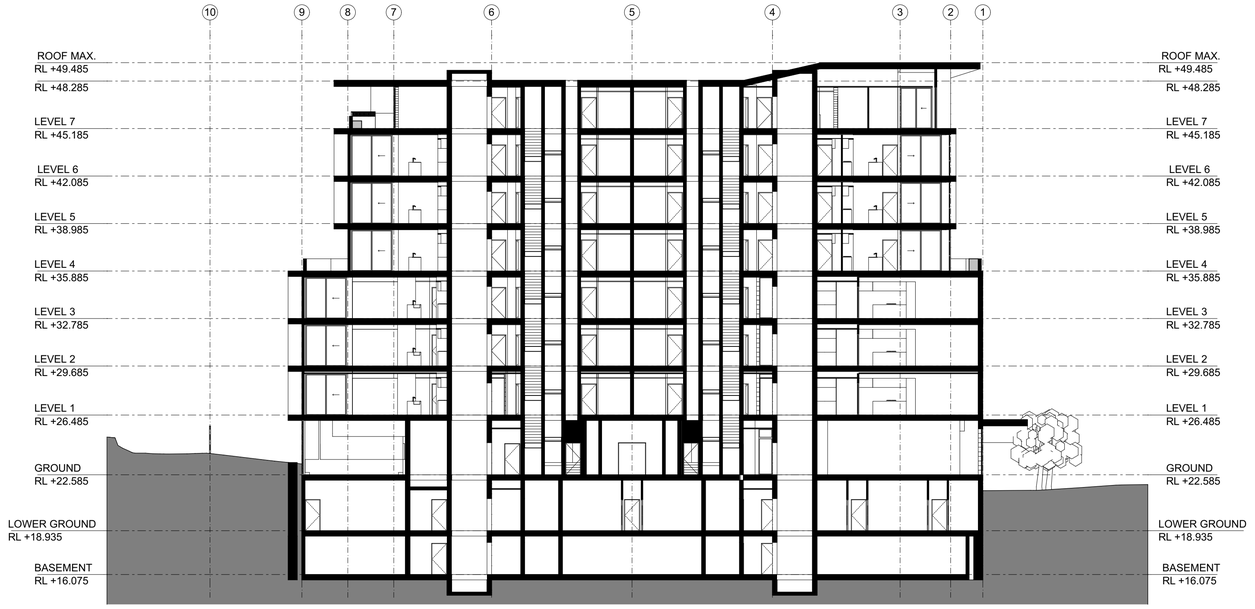
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

DRAWN :	DATE :	SCALES :
BH	SEP 24	1 : 200 @ A1

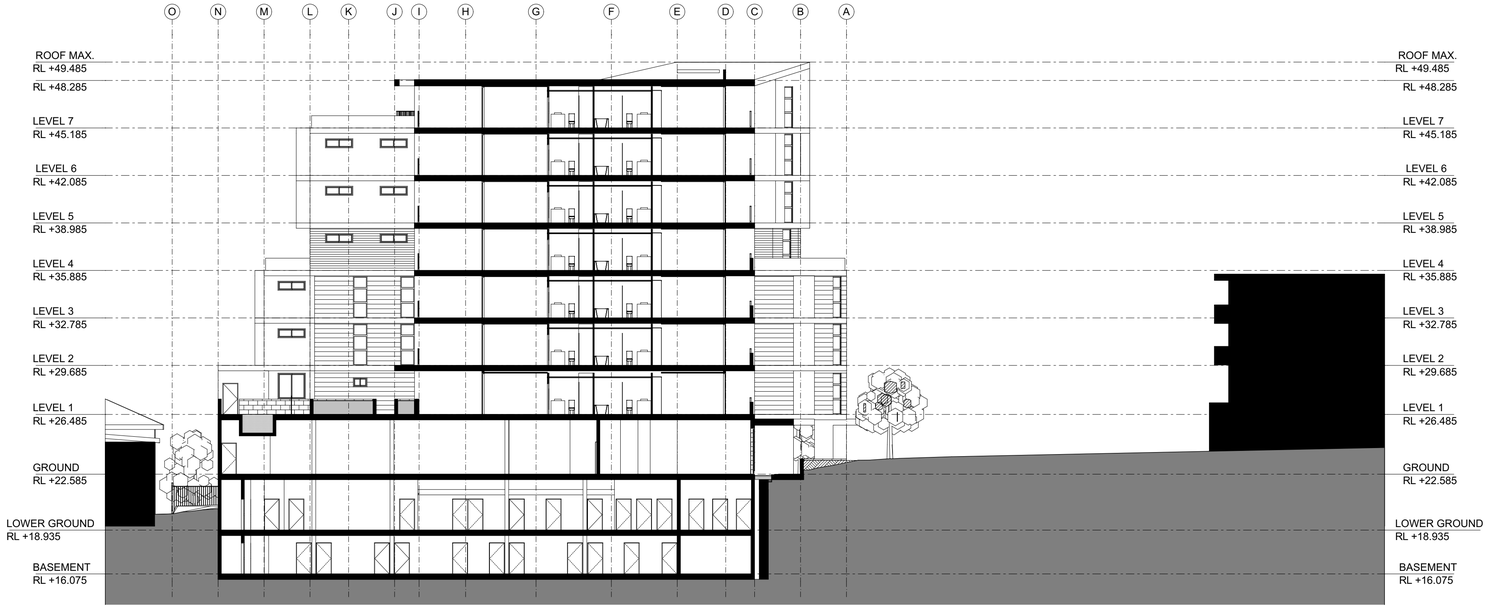
PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A502	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



SECTION XX

1:200



SECTION YY

1:200

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS
A	14.06.2024	CLIENT ISSUE
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D	16.08.2024	CLIENT ISSUE
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F	29.08.2024	CLIENT & CONSULTANT ISSUE
G	06.09.2024	CLIENT & CONSULTANT ISSUE
H	15.09.2024	CLIENT & CONSULTANT ISSUE

DRN	CHKD	VRFD
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : SECTIONS - SHEET 1

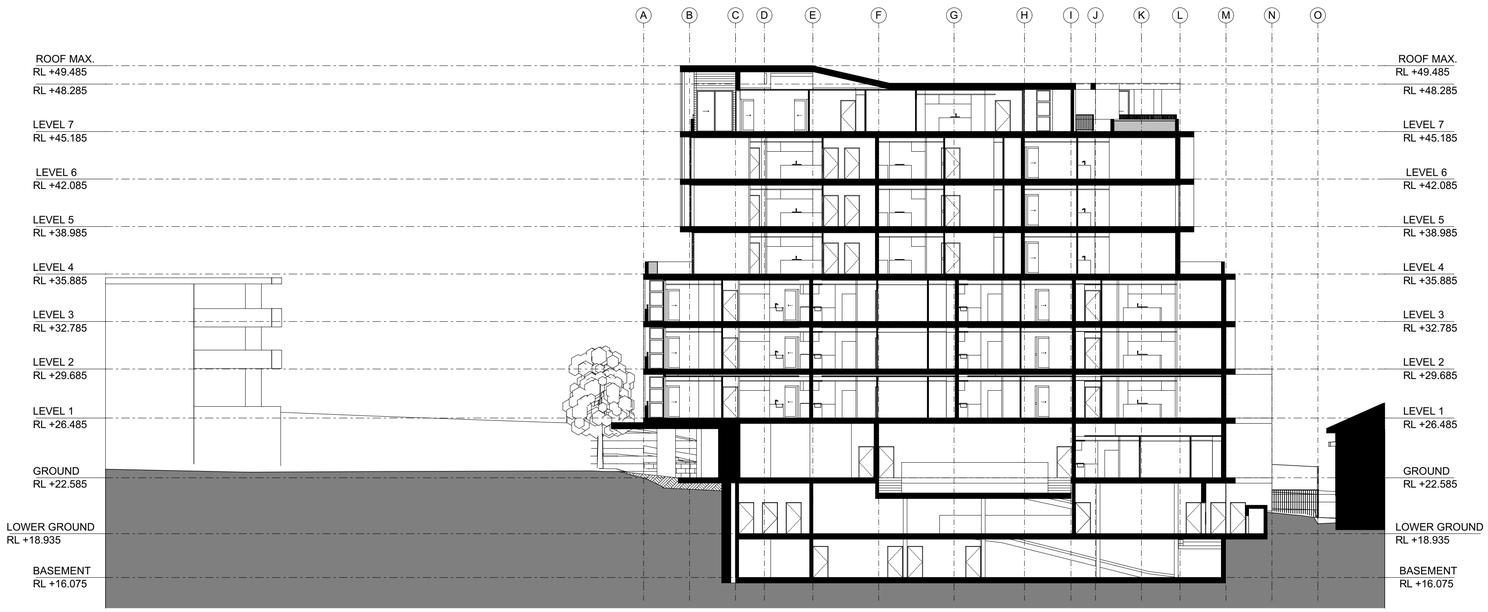
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

DRAWN :	DATE :	SCALES :
BH	SEP 24	1 : 200 @ A1

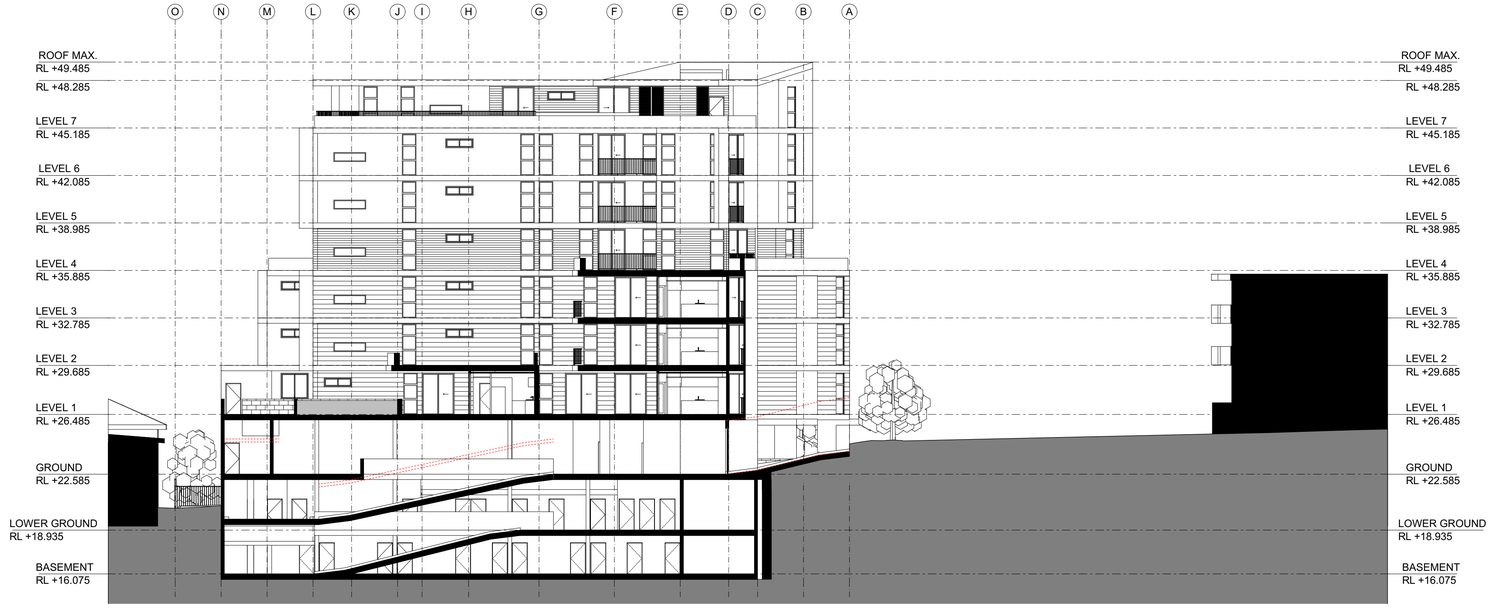
PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A503	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



SECTION ZZ

1:200



SECTION BB

1:200

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 | 25mm | 100mm | 200mm ON ORIGINAL A1

REV	DATE	COMMENTS
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H	15.09.2024	CLIENT & CONSULTANT ISSUE

DRN	CHKD	VRFD
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH
BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : SECTIONS - SHEET 2

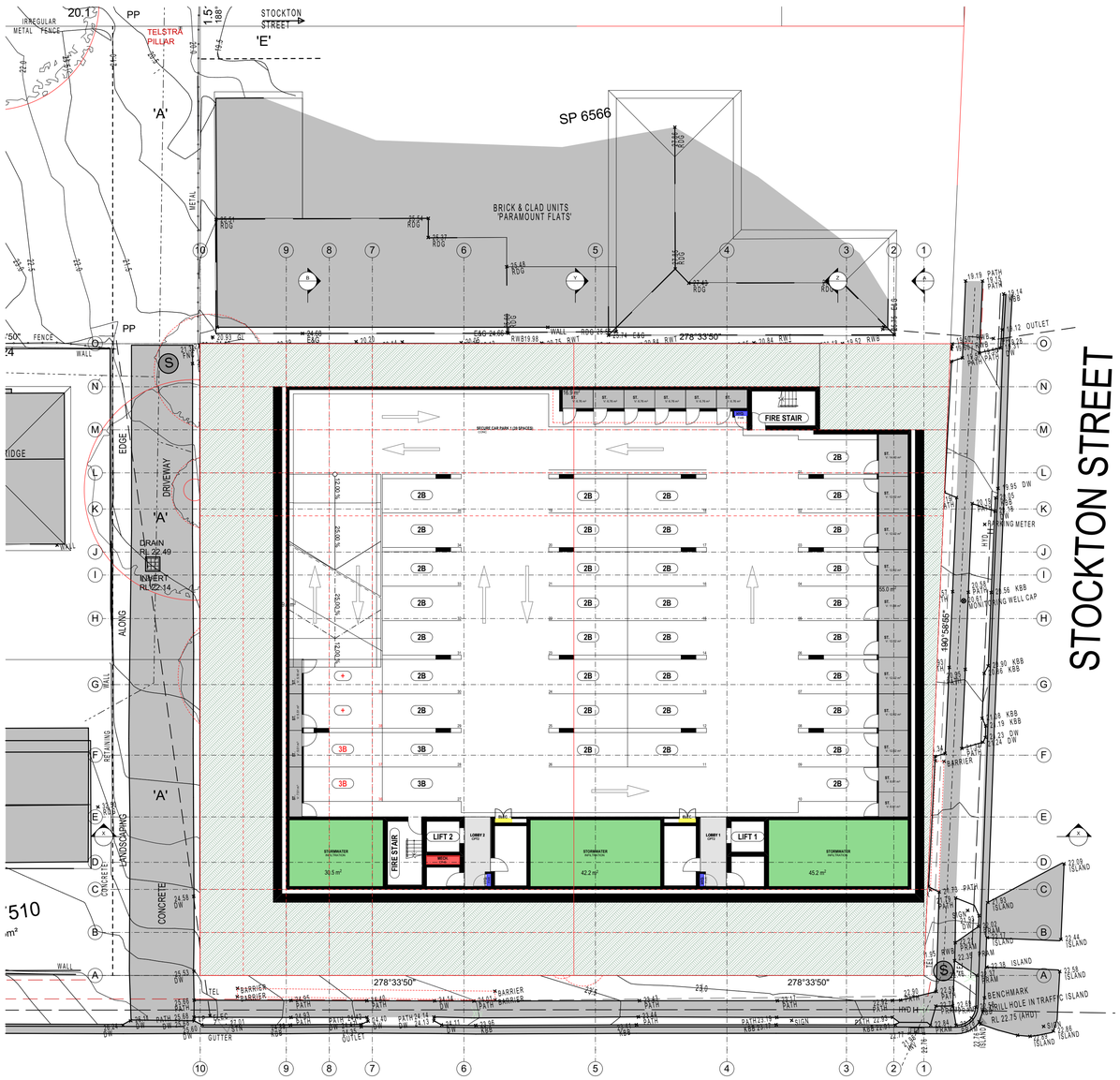
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln | DATE PRINTED : 9/16/2024

DRAWN :	DATE :	SCALES :
BH	SEP 24	1 : 200 @ A1

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A504	H

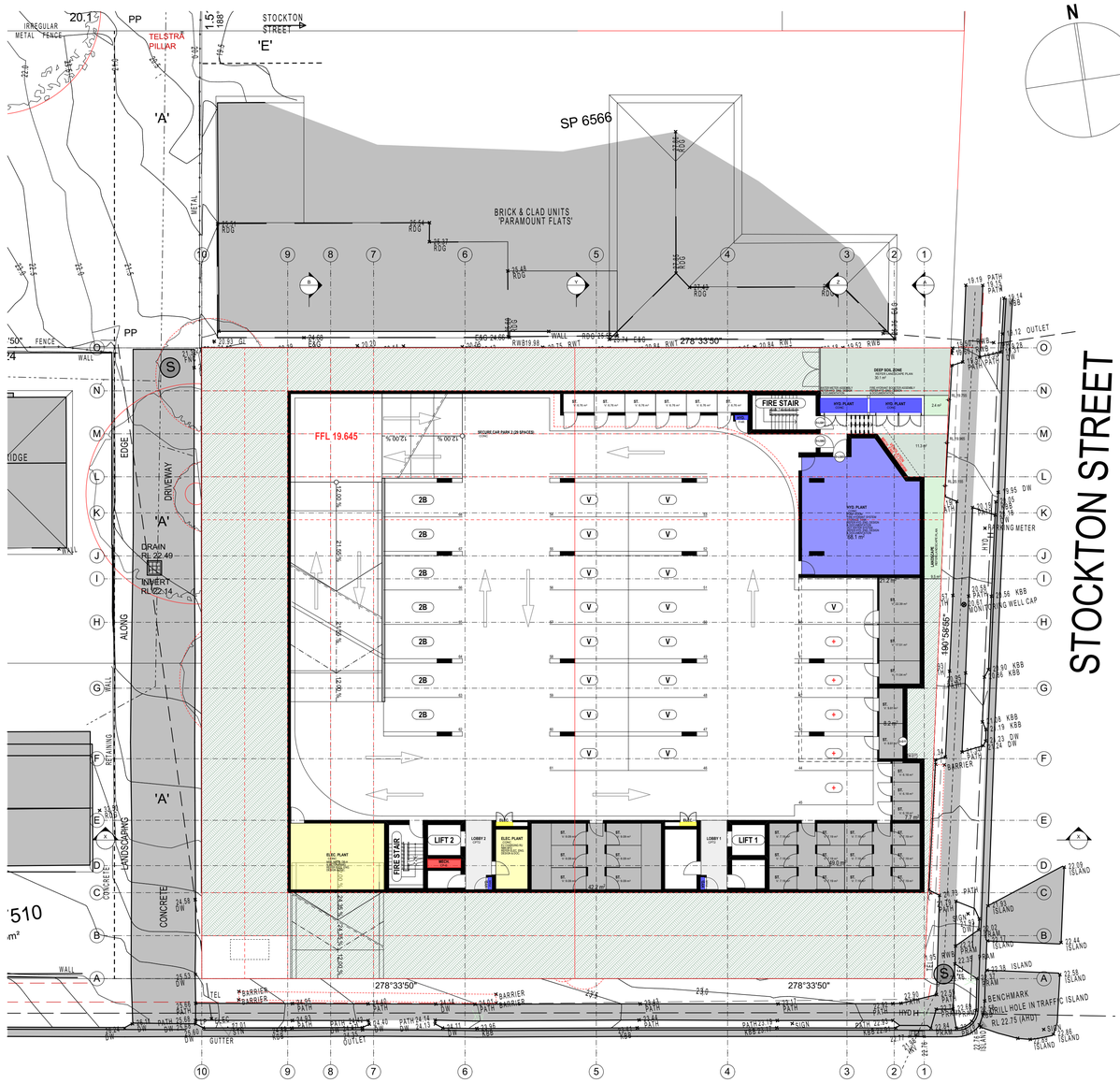
HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



TOMAREE STREET

BASEMENT: FFL 16.075

BASEMENT 1:200



TOMAREE STREET

LOWER GROUND: FFL 18.935

LOWER GROUND 1:200

HOLDSWORTH DESIGN
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Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	14.06.2024	CLIENT ISSUE	BH	BH	BH
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C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION	BH	BH	BH
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E	23.08.2024	CLIENT ISSUE	BH	BH	BH
F	29.08.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
G	06.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
H	15.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : FLOOR PLAN - BASEMENT & LOWER GROUND

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

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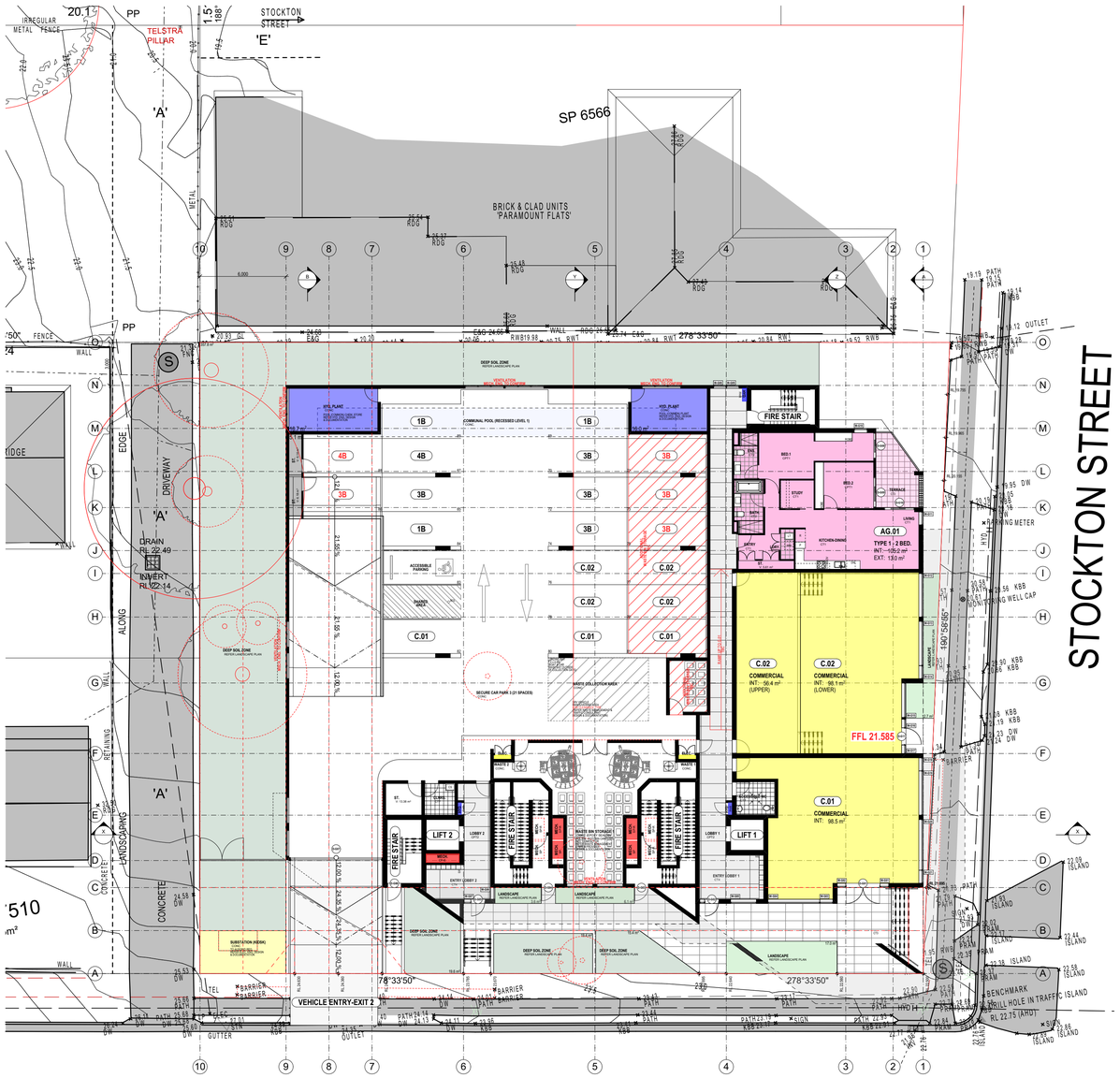
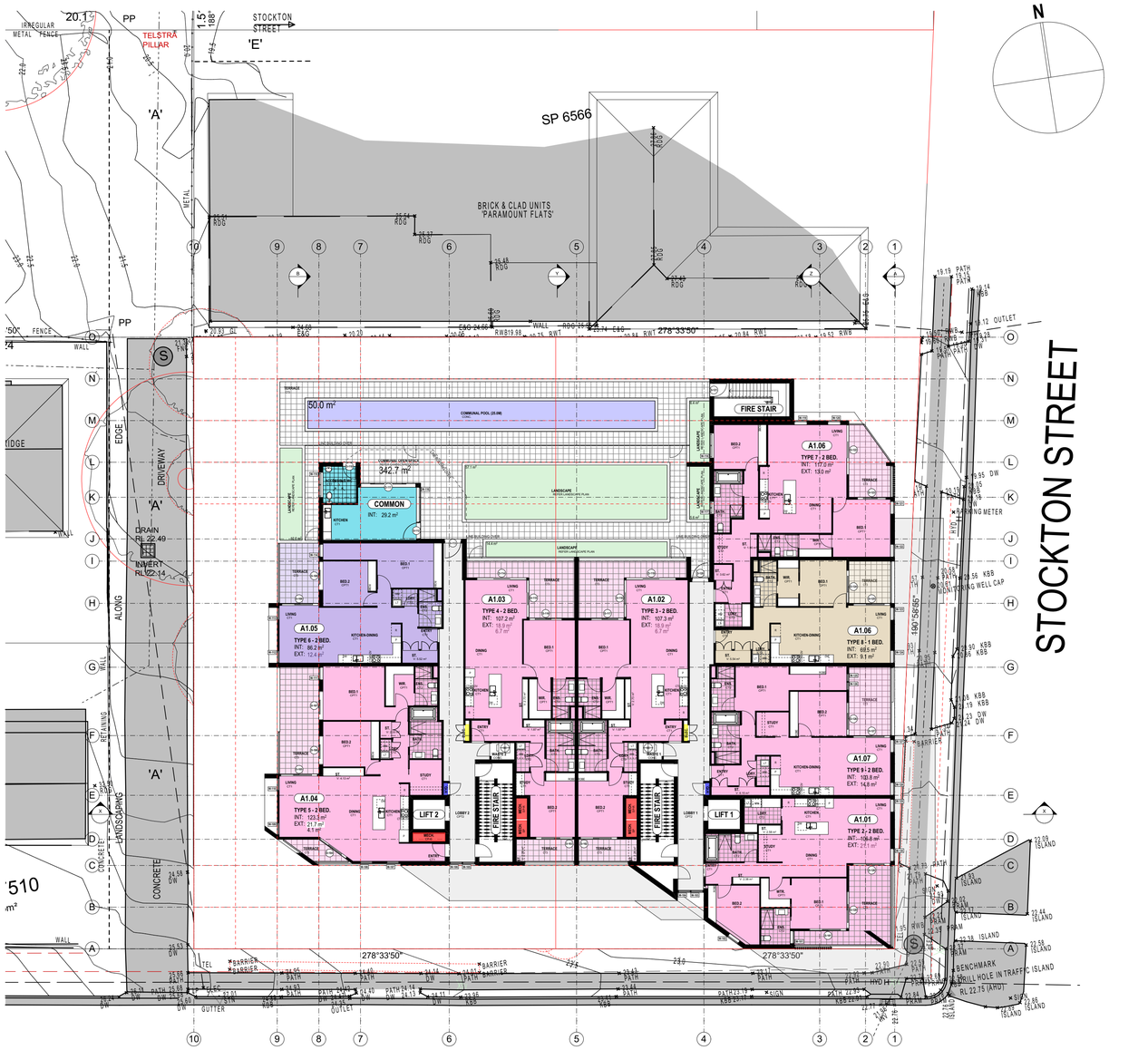
BH	SEP 24	1 : 200 @ A1

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A101	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



GROUND: FFL 22.585



LEVEL 1: FFL 26.485

GROUND 1:200

LEVEL 1 1:200

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P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
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Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	14.06.2024	CLIENT ISSUE	BH	BH	BH
B	03.07.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION	BH	BH	BH
D	16.08.2024	CLIENT ISSUE	BH	BH	BH
E	23.08.2024	CLIENT ISSUE	BH	BH	BH
F	29.08.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
G	06.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
H	15.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS
CLIENT : COHO PROPERTY PTY. LTD.
AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : FLOOR PLAN - GROUND & LEVEL 1

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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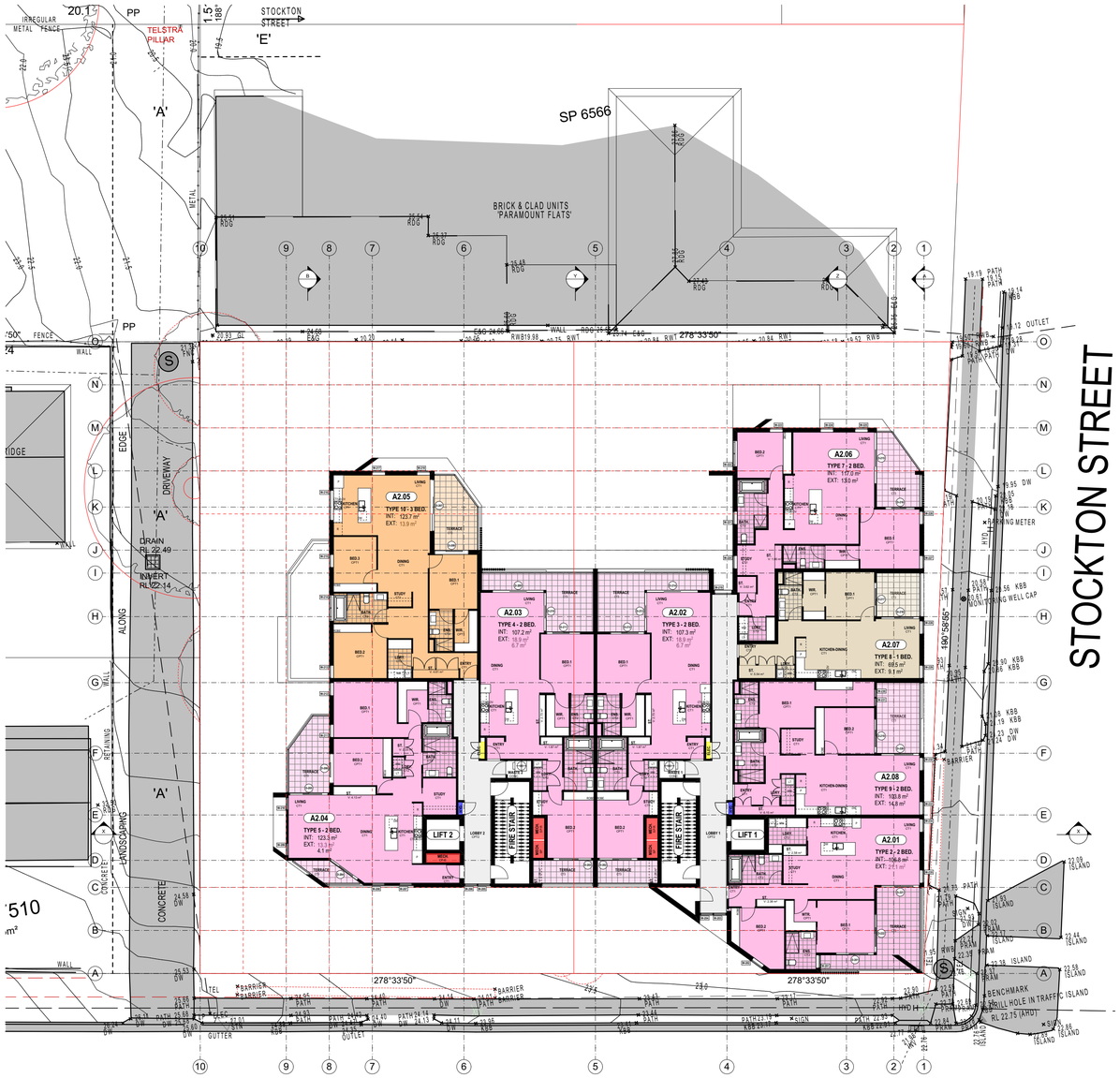
BH	SEP 24	1 : 200 @ A1

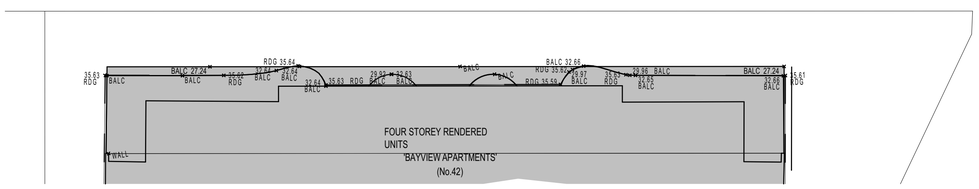
PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A102	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



TOMAREE STREET

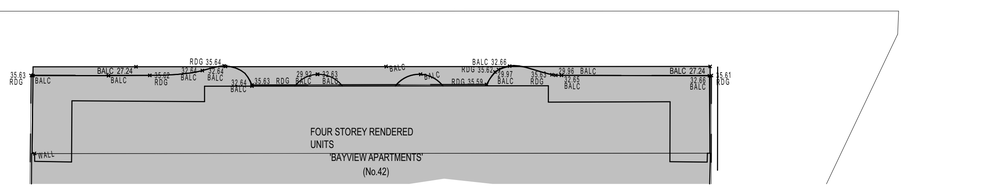
LEVEL 2: FFL 29.685



LEVEL 2 1:200

TOMAREE STREET

LEVEL 3: FFL 32.785



LEVEL 3 1:200

HOLDSWORTH DESIGN
P 0432 015 090 | E brooke@holdsworthdesign.com.au | W www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | ABN 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	14.06.2024	CLIENT ISSUE	BH	BH	BH
B	03.07.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION	BH	BH	BH
D	16.08.2024	CLIENT ISSUE	BH	BH	BH
E	23.08.2024	CLIENT ISSUE	BH	BH	BH
F	29.08.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
G	06.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
H	15.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : FLOOR PLAN - LEVEL 2 & LEVEL 3

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

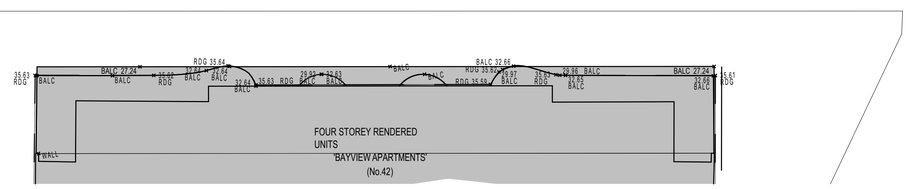
DRAWN :	DATE :	SCALES :
BH	SEP 24	1 : 200 @ A1

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A103	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN

TOMAREE STREET

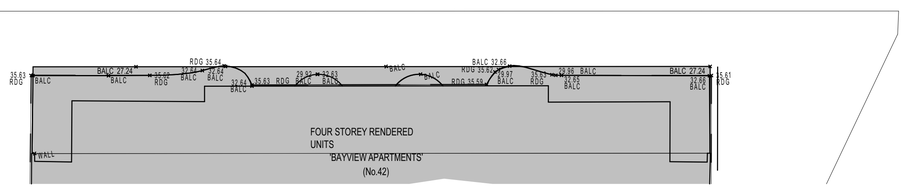
LEVEL 4: FFL 35.885



LEVEL 4 1:200

TOMAREE STREET

LEVEL 5: FFL 38.985



LEVEL 5 1:200

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	14.06.2024	CLIENT ISSUE	BH	BH	BH
B	03.07.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION	BH	BH	BH
D	16.08.2024	CLIENT ISSUE	BH	BH	BH
E	23.08.2024	CLIENT ISSUE	BH	BH	BH
F	29.08.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
G	06.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
H	15.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS
CLIENT : COHO PROPERTY PTY. LTD.
AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : FLOOR PLAN - LEVEL 4 & LEVEL 5

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

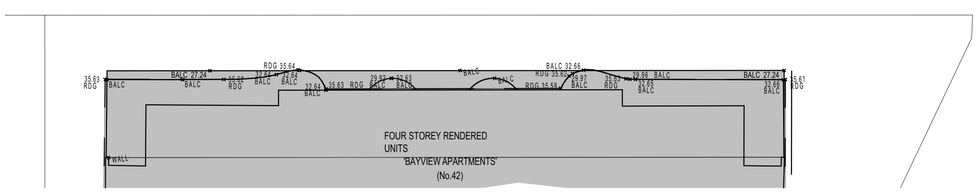
DRAWN :	DATE :	SCALES :
BH	SEP 24	1 : 200 @ A1

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A104	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN

TOMAREE STREET

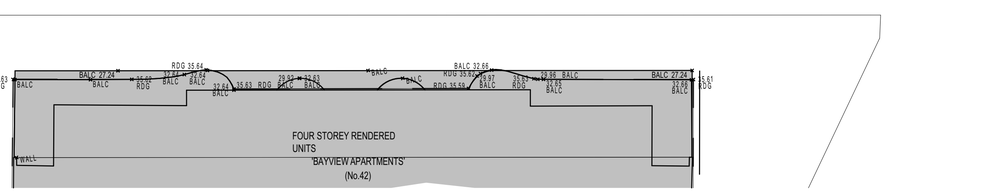
LEVEL 6: FFL 42.085



LEVEL 6 1:200

TOMAREE STREET

LEVEL 7: FFL 45.185



LEVEL 7 1:200

HOLDSWORTH DESIGN
P 0432 015 090 | E brooke@holdsworthdesign.com.au | W www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | ABN 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	14.06.2024	CLIENT ISSUE	BH	BH	BH
B	03.07.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION	BH	BH	BH
D	16.08.2024	CLIENT ISSUE	BH	BH	BH
E	23.08.2024	CLIENT ISSUE	BH	BH	BH
F	29.08.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
G	06.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
H	15.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS
CLIENT : COHO PROPERTY PTY. LTD.
AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : FLOOR PLAN - LEVEL 6 & LEVEL 7

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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DATE PRINTED : 9/16/2024

DRAWN :	DATE :	SCALES :
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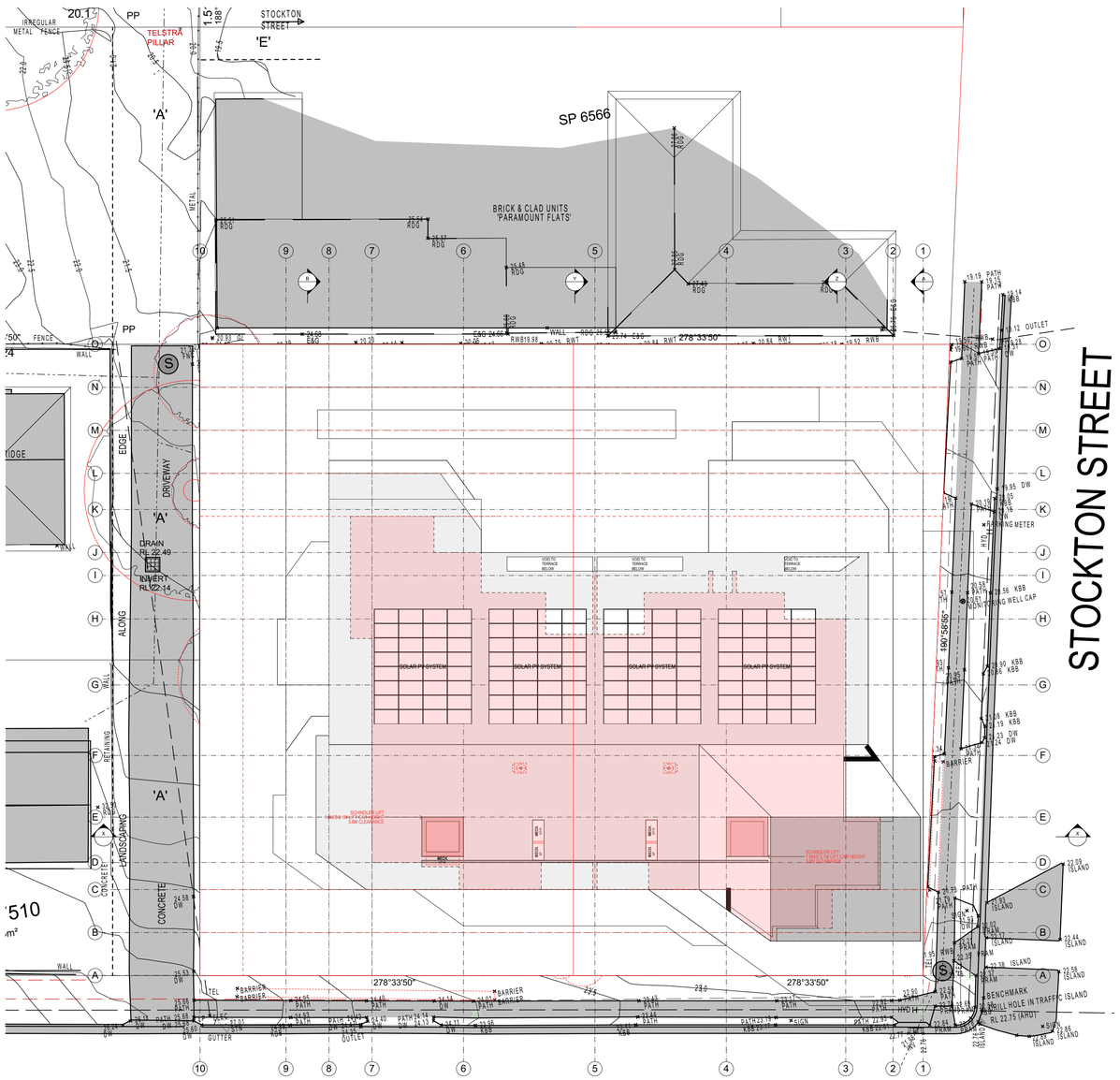
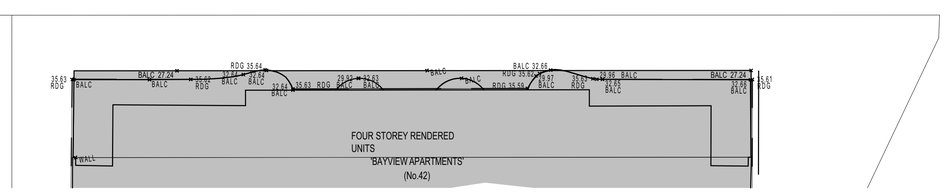
PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A105	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN





ROOF 1:200

TOMAREE STREET

ROOF1: FFL 48.335
ROOF2: FFL 49.245

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
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Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
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B	03.07.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
C	05.07.2024	DESIGN REVIEW PANEL - PRELIMINARY DISCUSSION	BH	BH	BH
D	16.08.2024	CLIENT ISSUE	BH	BH	BH
E	23.08.2024	CLIENT ISSUE	BH	BH	BH
F	29.08.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
G	06.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
H	15.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : FLOOR PLAN - ROOF LEVEL

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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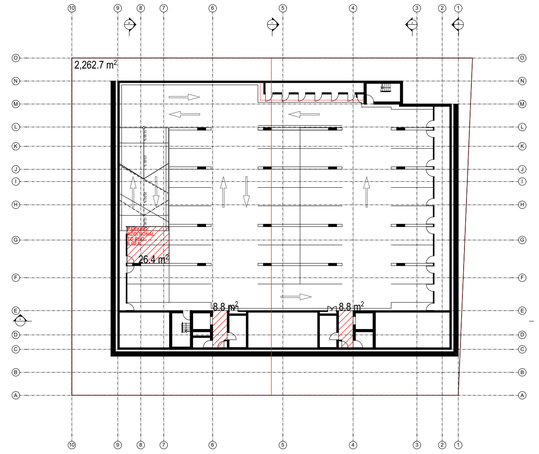
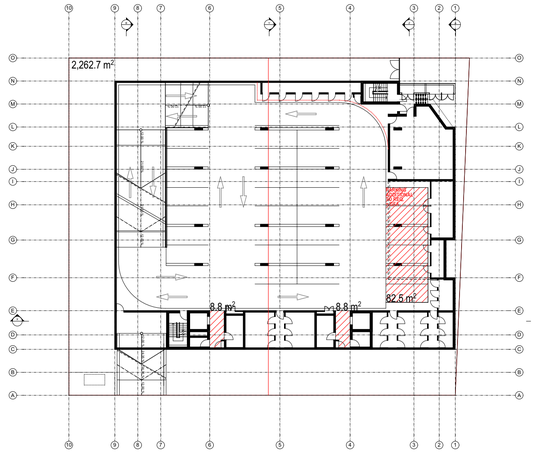
BH	SEP 24	1 : 200 @ A1

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A106	H

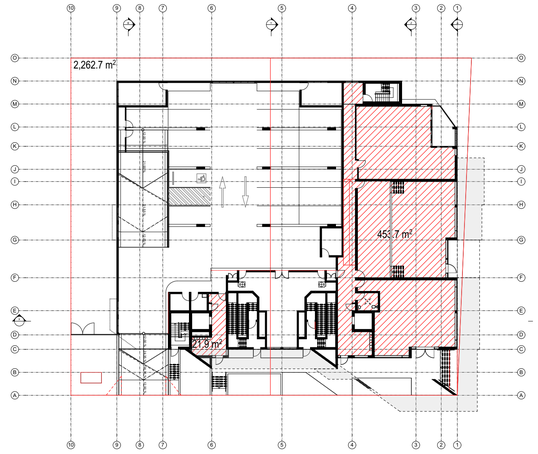
HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



GFA - BASEMENT 1:400



GFA - LOWER GROUND 1:400



GFA - GROUND 1:400

GFA - LEVEL 1 1:400

GFA - LEVEL 2 1:400

GFA - LEVEL 3 1:400

GFA - LEVEL 4 1:400

GFA - LEVEL 5 1:400

GFA - LEVEL 6 1:400

GFA - LEVEL 7 1:400

SITE AREA = 2,262.7m²
MAX. FSR = 3 : 1
MAX. GFA = 6,788.1m²

GROSS FLOOR AREA (GFA) - m²

BASEMENT	17.6 + 26.4	
LOWER GROUND	17.6 + 82.5	
GROUND	475.6 + 13.2	
LEVEL 1	956.5	
LEVEL 2	962.9	
LEVEL 3	962.9	
LEVEL 4	805.8	
LEVEL 5	805.8	**NOTE:**
LEVEL 6	805.8	**122.1m² GFA ADDITIONAL PARKING TO REQ. TBC**
LEVEL 7	575.2	**GFA = 6,507.8m²**
TOTAL GFA	6,385.7m²	**FSR 2.876 : 1**
FSR	**2.822 : 1**	

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	14.06.2024	CLIENT ISSUE	BH	BH	BH
B	03.07.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
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G	06.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH
H	15.09.2024	CLIENT & CONSULTANT ISSUE	BH	BH	BH

PROJECT : RESIDENTIAL APARTMENTS
CLIENT : COHO PROPERTY PTY. LTD.
AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108 CNR. STOCKTON & TOMAREE STREETS NELSON BAY NSW 2315

DRAWING : GROSS FLOOR AREA DIAGRAMS

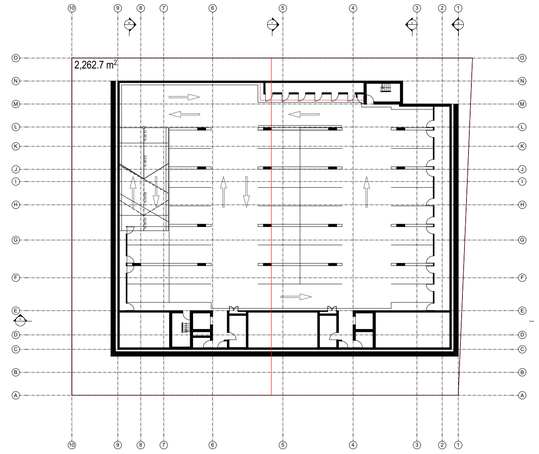
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 0159.240911_DA.pln DATE PRINTED : 9/16/2024

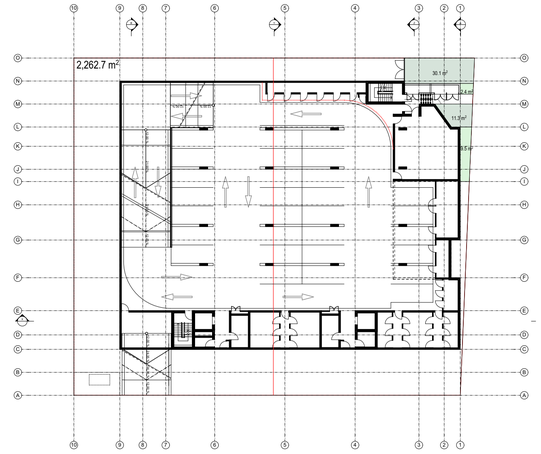
DRAWN :	DATE :	SCALES :
BH	**SEP 24**	**1 : 400 @ A1**

PROJECT No :	PHASE :	DRAWING No :	REV :
0159	**DA**	**A-A007**	**H**

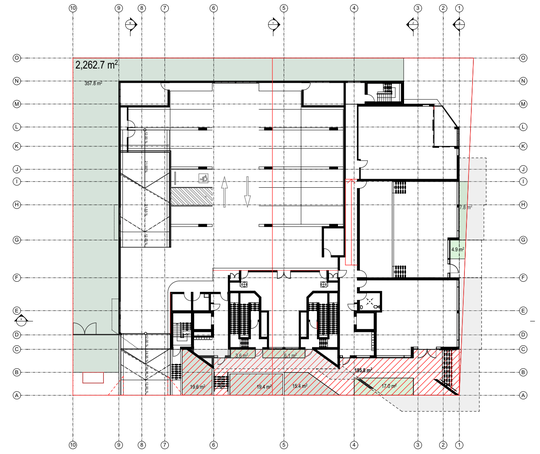
HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN



LANDSCAPE - BASEMENT 1:400



LANDSCAPE - LOWER GROUND 1:400



LANDSCAPE - GROUND 1:400

LANDSCAPE - LEVEL 1 1:400

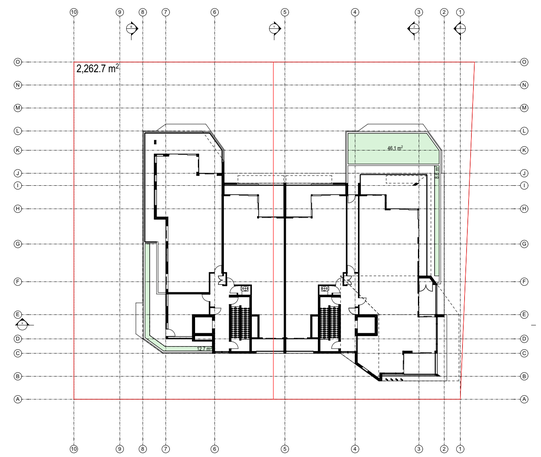
LANDSCAPE - LEVEL 2 1:400

LANDSCAPE - LEVEL 3 1:400

LANDSCAPE - LEVEL 4 1:400

LANDSCAPE - LEVEL 5 1:400

LANDSCAPE - LEVEL 6 1:400



LANDSCAPE - LEVEL 7 1:400

SITE AREA = 2,262.7m²
LA1 - LANDSCAPE AREA
LA2 - LANDSCAPE AREA (< 1.5m)
DSZ - DEEP SOIL ZONE
CA - COMMUNAL AREA

	LA1	DSZ	LA2	CA
BASEMENT	-	-	-	-
LOWER GROUND	2.4	41.4	9.5	-
GROUND	21.9	412.8	15.0	195.8
LEVEL 1	79.7	-	14.4	376.0
LEVEL 2	-	-	-	-
LEVEL 3	-	-	-	-
LEVEL 4	-	-	31.0	
LEVEL 5	-	-	-	-
LEVEL 6	-	-	-	-
LEVEL 7	46.1	-	21.3	-
SUB-TOTAL	150.1 m²	454.2m²	91.2 m²	571.8 m²
TOTAL (LANDSCAPE AREA)		604.3 m² (26.70 %)	695.5 m² (30.73 %)	(25.16 %)

HOLDSWORTH DESIGN
P 0432 015 090 | **E** brooke@holdsworthdesign.com.au | **W** www.holdsworthdesign.com.au
A NELSON BAY, NSW 2315 | **ABN** 27 230 519 450
Nominated Architect: Brooke Holdsworth Registered Architect NSW 7453

0 25mm 100mm 200mm ON ORIGINAL A1

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PROJECT : RESIDENTIAL APARTMENTS

CLIENT : COHO PROPERTY PTY. LTD.

AUTHORITY : PORT STEPHENS COUNCIL

SITE : LOTS 781 & 782 DP 802108
CNR. STOCKTON & TOMAREE STREETS
NELSON BAY NSW 2315

DRAWING : LANDSCAPE, DEEP SOIL ZONE & COMMUNAL SPACE DIAGRAMS

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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PROJECT No :	PHASE :	DRAWING No :	REV :
0159	DA	A-A008	H

HOLDSWORTH DESIGN
ARCHITECTURE URBAN DESIGN INTERIOR DESIGN

APPENDIX B: RMS UNEXPECTED HERITAGE ITEMS PROCEDURE 2015

Transport
for NSW

Unexpected heritage items procedure

July 2022

NSW GOVERNMENT

transport.nsw.gov.au

Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.

Document control

Author/s	Environment and Sustainability team
Document owner	Senior Specialist (Heritage)
Approved by	Executive Director, Environment and Sustainability
Branch	Environment and Sustainability
Division	Safety, Environment and Regulation
Review date	July 2023
Superseded documents	PN 285 P02 Unexpected heritage items

Versions

Version	Date	Amendment notes
1.0	Nov 2011	First issue
1.1	Jul 2012	Amended to reflect that (a) unexpected finds do not include items covered by a relevant approval; (b) Aboriginal people must be consulted where an unexpected find is likely to be an Aboriginal object; (c) the Department of Planning and Environment must be notified in accordance with Step 5 of this procedure for Part 3A and Part 5.1 projects.
1.2	Oct 2013	Amended to clarify that the procedure applies to all types of unexpected heritage items, not just archaeological items. The procedure introduces the term 'Historic Items' to cover both 'archaeological relics' and 'other historic items' such as works, structures, buildings and movable objects. The title of the document has been amended to better reflect this clarification.
1.3	Mar 2015	The procedure was streamlined to address all project types including maintenance works. The separate maintenance procedure (formerly Appendix B) was removed. Names and titles updated throughout.
1.4	May 2022	Rebranded from Roads and Maritime to Transport for NSW. Minor updates for example to accommodate government department name changes, legislation updates, combining contacts from appendix d with former Section 5 as the new Section 7; adjustment of roles and titles following organisational change; clarification of who the procedure applies to in section 2.

Contacts and further information

Email: environmentandsustainability@transport.nsw.gov.au

Internal Transport users: Environmental planning and assessment (sharepoint.com)

Table of contents

1. Purpose

This procedure has been developed to:

- Provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during activities undertaken by Transport for NSW (Transport) or contractors on behalf of Transport.
- Address Transport's obligations under the *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW).

2. Scope

This procedure assumes that an appropriate level of Aboriginal and non-Aboriginal heritage assessment has been completed before work commences on site. In some cases, such as exempt development, detailed heritage assessment may not be required. Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction works. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator and following Transport for NSW (Transport) internal reporting, if required.

Important: This procedure applies to all Transport construction and maintenance activities.

However, when working for Sydney Trains, Rail Delivery and Sydney Metro divisions within Transport please refer to their separate unexpected finds procedures that will apply.

This procedure applies to:

- The discovery of any unexpected heritage item (usually during construction), where Transport does not have approval to disturb the item or where safeguards for managing the disturbance (apart from this procedure) are not contained in the environmental impact assessment.
- All Transport projects that are approved or determined under, Part 4 (Division 4.7), Part 5 or Division 5.2 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act), or any development that is exempt under the Act.

This procedure applies to staff performing work for Transport. 'Staff' includes all permanent, temporary and casual staff, staff seconded from another organisation and contingent workers including labour hire, professional services contractors and consultants.

This procedure does not apply to:

- The legal discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with Heritage NSW, Department of Planning and Environment *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (2010)*; an Aboriginal Heritage Impact Permit (AHIP) issued under the *National Parks and Wildlife Act 1974* (NSW); or an approval issued under the Heritage Act[1].
- The legal discovery and disturbance of heritage items as a result of investigations (or other activities) that are required to be carried out for the purpose of complying with any environmental assessment requirements under Part 4, including Division 4.7, or Part 5, including Division 5.2 of the EP&A Act.

[1] Transport heritage obligations are incorporated into the conditions of heritage approvals

- The legal discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP[2]; an approval issued under the *Heritage Act 1977* (NSW); the Minister for Planning's conditions of project approval; or safeguards (apart from this procedure) that are contained in the relevant environmental impact assessment.

All construction environment management plans (CEMPs) must make reference to and/or include this procedure (often included as a heritage sub-plan). Where approved CEMPs exist they must be followed in the first instance. Where there is a difference between approved CEMPs and this procedure, the approved CEMP must be followed. Where an approved CEMP does not provide sufficient detail on particular issues, this procedure should be used as additional guidance. When in doubt always seek environment and legal advice on varying approved CEMPs.

[2] The Procedure for Aboriginal cultural heritage consultation and investigation (2011) recommends that applicable Part 4 and Part 5 projects that are likely to impact Aboriginal objects during construction seek a whole-of-project AHIP. This type of AHIP generally allows a project to impact known and potential Aboriginal objects within the entire project area, without the need to stop works. It should be noted that an AHIP may exclude impact to certain objects and areas, such as burials or ceremonial sites. In such cases, the project must follow this procedure.

3. Types of unexpected heritage items and their legal protection

The roles of project, field and environmental staff are critical to the early identification and protection of unexpected heritage items. Appendix A illustrates the wide range of heritage discoveries found on Transport projects and provides a useful photographic guide. Subsequent confirmation of heritage discoveries must then be identified and assessed by technical specialists (usually an archaeologist).

An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Transportdoes not have approval to disturb[3] or does not have a safeguard in place (apart from this procedure) to manage the disturbance.

These discoveries are categorised as either:

a) Aboriginal objects.

b) Historic (non-Aboriginal) heritage items.

c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

3.1 Aboriginal Objects

The *National Park and Wildlife Act 1974* (NSW) protects Aboriginal objects which are defined as:

> *"any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains"*[4].

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

Important: All Aboriginal objects, regardless of significance, are protected under law.

If any impact is expected to an Aboriginal object, an Aboriginal Heritage Impact Permit (AHIP) is usually required from Heritage NSW)[5] and when a person becomes aware of an Aboriginal object they must notify the Department of Premier and Cabinet Secretary about its location[6]. Assistance on how to do this is provided in Section 6 (step 5).

3.2 Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological 'relics'.
- Other historic items (i.e., works, structures, buildings or movable objects).

[3] Disturbance is considered to be any physical interference with the item EP&A Act that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).
[4] Section 5(1) *National Park and Wildlife Act 1974* (NSW).
[5] Except when, Division 4.7 of Part 4 or Division 5.2 of Part 5 applies.
[6] This is required under s89(A) of the *National Park and Wildlife Act 1974* (NSW) and applies to all projects assessed under Division 4.7, Part 4, and Division 5.2 Part 5 of the EP&A Act, including exempt development.

3.2.1 Archaeological relics

The *Heritage Act 1977* (NSW) protects relics which are defined as:

> *"any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance"*[7]

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

Important: All relics are subject to statutory controls and protection.

If a relic is likely to be disturbed, a heritage approval is usually required from the Heritage Council of NSW[8]. When a person discovers a relic, they must notify the Heritage Council of NSW of its location[9]. Advice on how to do this is provided in Section 6 (Step 5).

3.2.2 Other historic items

Some historic heritage items are not considered to be 'relics', but are instead referred to as works, buildings, structures or movable objects. Examples of these items that Transport may encounter include culverts, historic road formations, historic pavements, buried roads, retaining walls, tramlines, cisterns, fences, sheds, buildings and conduits. Although an approval under the *Heritage Act 1977* (NSW) (Heritage Act) may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. An archaeological excavation permit under section 140 of the Heritage Act is required to do this. In contrast, 'other historic items' either exist above the ground's surface (e.g., a shed), or they are designed to operate and exist beneath the ground's surface (e.g., a culvert).

Despite this difference, it should be remembered that relics can often be associated with 'other heritage items' such as archaeological deposits within cisterns and underfloor deposits under buildings.

3.3 Human skeletal remains

Human skeletal remains can be classed as:

- Reportable deaths.
- Aboriginal objects.
- Relics.

Where it is suspected that less than 100 years has elapsed since death, human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Under s 35(2) of that Act, a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old[10] regardless of ancestry. Public health controls may also apply.

Where remains are suspected of being more than 100 years old, they are considered to be either Aboriginal objects or non-Aboriginal relics depending on the ancestry of the individual. Aboriginal human remains are

[7] Section 4(1) *Heritage Act 1977* (NSW).
[8] Except when Division 4.7 of Part 4 or Division 5.2 of Part 5 of the *EP&A Act* applies.
[9] This is required under s146 of the Heritage Act and applies to all projects assessed under, Part 4, including Division 4.7, Part 5 and including Division 5.2 of the EP&A Act, including exempt development.
[10] Under s 19 of the Coroners Act 2009, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

protected under the *National Parks and Wildlife Act 1974*, while non-Aboriginal remains are protected under the *Heritage Act 1977* (NSW).

The approval and notification requirements of these Acts are described above in Sections 3.1 and 3.2. Additionally, the discovery of Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under s 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

Important: All human skeletal remains are subject to statutory controls and protections.

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

Guidance on what to do when suspected human remains are found is in Appendix E.

4. Procedure overview

On discovering something that could be an unexpected heritage item ('the item'), the following procedure must be followed. There are eight steps in the procedure. These steps are summarised in Figure 1 below and explained in detail in Section 6.

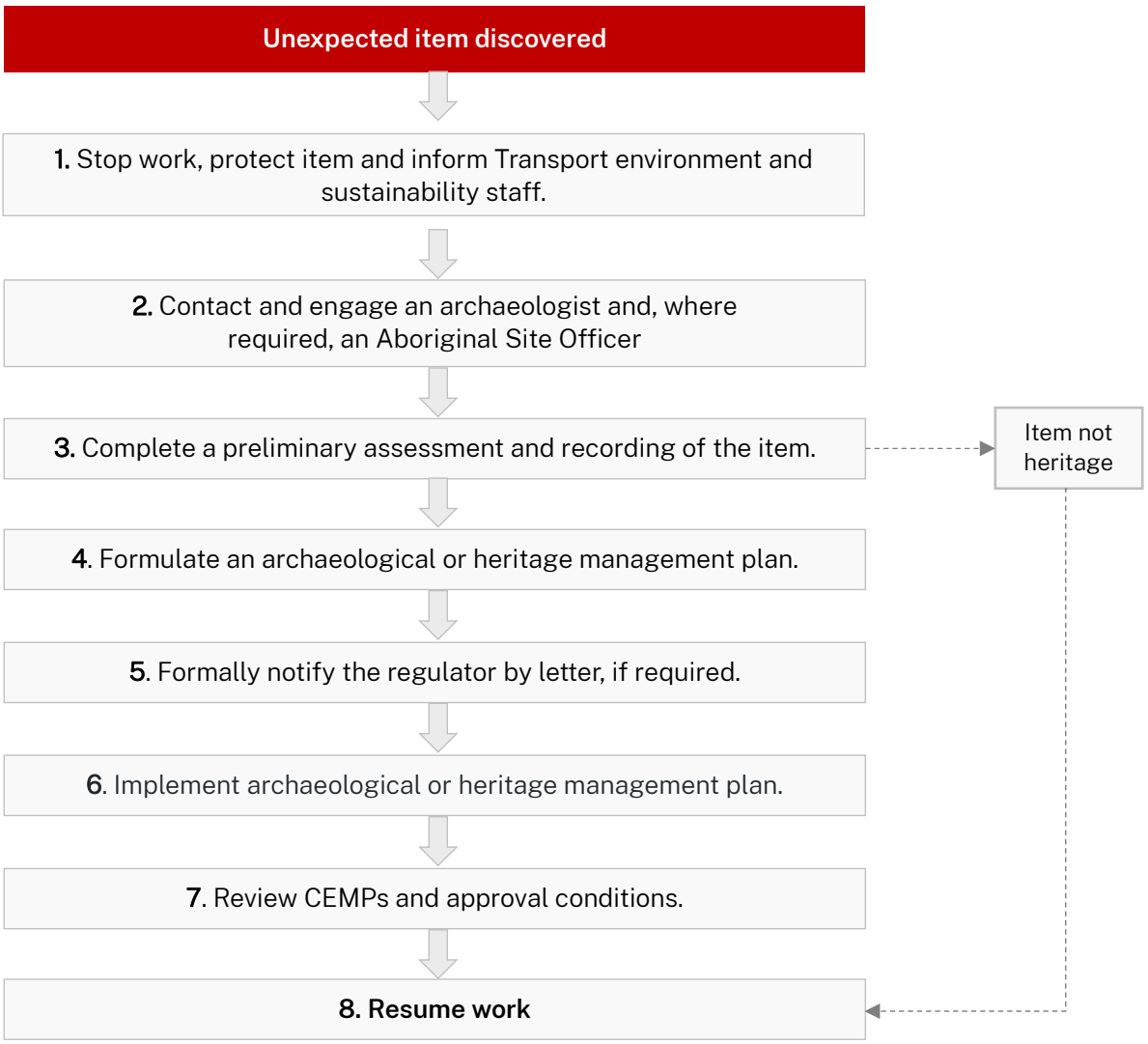


Figure 1: Overview of steps to be undertaken on the discovery of an unexpected heritage item.

Important:

Transport may have approval or specific safeguards in place (apart from this procedure) to impact on certain heritage items during construction. If you discover a heritage item and you are unsure whether an approval or safeguard is in place, **STOP** works and follow this procedure.

5. Related information

5.1 Related Transport policies and framework

- Transport Environment and Sustainability Policy
- Environment & Sustainability Management Framework
- Cultural heritage policy

5.2 This procedure should be read in conjunction with:

- Procedure for Aboriginal Cultural Heritage Consultation and Investigation
- EMF-HE-GD-0077 Cultural heritage guidelines
- Environmental Impact Assessment Procedure for Routine and Minor Works EMF-PA-PR-0081
- Environmental Impact Assessment Procedure for Bushfire Hazard Reduction - EIA-P06
- Environmental Impact Assessment Procedure for Review of Environmental Factors EMF-PA-PR-0070
- Environmental Impact Assessment Procedure for State Significant Infrastructure EMF-PA-PR-0072
- EMF-EM-PR-0001 Environmental Incident Procedure

Important:

If you are working under a contract that predates 19 July 2021 under legacy Roads and Maritime work, please contact the Assurance and performance improvement team via nevops@transport.nsw.gov.au

5.3 Other relevant reading material

- NSW Heritage Office (1998), Skeletal remains: guidelines for the management of human skeletal remains.
- Department of Environment and Conservation NSW (2006), Manual for the identification of Aboriginal remains.

6. Unexpected heritage items procedure

6.1 Specific tasks to be implemented following discovery of an unexpected heritage item.

Aboriginal Cultural Heritage Officer (ACHO); Aboriginal Sites Officer (ASO); Archaeologist (A); Project Manager (PM); Environment and sustainability Staff (RS); Registered Aboriginal Parties (RAPs); Senior Specialist (Heritage) (SS(H)); Team leader – Roads and Maintenance or equivalent (TL - RM); Works supervisor – Roads and Maintenance (WS - RM).

Step	Task	Responsibility	Guidance and tools
1	**Stop work, protect item and inform Transport environment and sustainability staff**		
1.1	Stop all work in the immediate area of the item and notify the Project Manager or Team Leader-RM. (For maintenance activities, the Team Leader is to also notify the Works Supervisor-RM).	All	**Appendix A** (Identifying unexpected heritage items)
1.2	Establish a 'no-go zone' around the item. Use high-visibility fencing where practical.	PM or TL-RM	
1.3	Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.	PM or TL-RM	
1.4	Inspect, document and photograph the item using 'Unexpected Heritage Item Recording Form (Appendix B).	PM or TL-RM	**Appendix B** (Unexpected Heritage Item Recording Form) **Appendix C** (Photographing Unexpected Heritage items)
1.5	Is the item likely to be bone? If **yes**, follow the steps in Appendix E. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. If **no**, continue to next step.		**Appendix E** (Uncovering bones)
1.6	Is the item likely to be: a) A relic? (A relic is evidence of past human activity which has local or state heritage significance. It may include items such as bottles, utensils, remnants of clothing, rockery, personal effects, tools, machinery and domestic or industrial refuse) and/or b) An Aboriginal object? (An Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree).		**Appendix A** (Identifying heritage items)

	If **yes**, proceed directly to Step 1.8 If **no**, proceed to next step.		
1.7	Is the item likely to be a 'work', building or standing structure? (This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations). If **yes**, can works avoid further disturbance to the item? (E.g., if historic road base/tram tracks have been exposed, can they be left in place?) If yes, works may proceed without further disturbance to the item. Complete Step 1.8 within 24 hours. If works cannot avoid further disturbance to the item, works must not recommence at this time. Complete the remaining steps in this procedure.		**Appendix A** (Identifying heritage items)
1.8	Inform relevant Transport Environment and Sustainability staff of item by providing them with the completed Appendix B.	PM or WS-RM (ES)	**Section 7** (Seeking advice)
1.9	Environment and Sustainability staff to advise Project Manager or Works Supervisor whether Transport has an approval or safeguard in place (apart from this procedure) to impact on the 'item'. (An approval may include an approval under the Heritage Act, the National Parks and Wildlife Act or the Environmental Planning and Assessment Act). Does Transport have an approval, permit or appropriate safeguard in place to impact on the item? If **yes**, work may recommence in accordance with the approval, permit or safeguard. There is no further requirement to follow this procedure. If **no**, continue to next step.		
1.10	Liaise with Traffic Management Centre where the delay is likely to affect traffic flow.	PM or WS-RM	
1.11	Report the item as a 'Reportable Event' in accordance with the Transport *Environmental Incident Procedure (EMF-EM-PR-0001)*. Implement any additional reporting requirements related to the project's approval and CEMP, where relevant.	PM or WS-RM	Environmental Incident Procedure EMF-EM-PR-0001

Step	Task	Responsibility	Guidance and tools
2	**Contact and engage an archaeologist and, where required, an Aboriginal site officer**		
2.1	Contact the project (on-call) archaeologist to discuss the location and extent of the item and to arrange a site inspection, if required. The project CEMP may contain contact details of the project archaeologist. OR Where there is no project archaeologist engaged for the works, engage a suitably-qualified and experienced archaeological consultant to assess the find. A list of heritage consultants is available on the Transport contractor panels on the Buy NSW (NSW government) homepage. Environment and sustainability staff and Transport heritage staff can also advise on appropriate consultants.	PM or WS-RM (A; ES; SS(H))	**Section 7** (Seeking advice) Buy NSW (NSW government)
2.2	Where the item is likely to be an Aboriginal object, speak with your Aboriginal Cultural Heritage Officer to arrange for an Aboriginal Sites Officer to assess the find. Generally, an Aboriginal Sites Officer would be from the relevant local Aboriginal land council. If an alternative contact person (i.e., a RAP) has been nominated as a result of previous consultation, then that person is to be contacted.	PM or WS-RM (ACHO; ASO)	
2.3	If requested, provide photographs of the item taken at Step 1.4 to the archaeologist, and Aboriginal Sites Officer if relevant.	PM or WS-RM (ES)	**Appendix C** (Photographing Unexpected Heritage items)
3	**Preliminary assessment and recording of the find**		
3.1	In a minority of cases, the archaeologist (and Aboriginal Sites Officer, if relevant) may determine from the photographs that no site inspection is required because no archaeological constraint exists for the project (e.g., the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'). Any such advice should be provided in writing (e.g., via email) and confirmed by the Project Manager or Works Supervisor - RM.	A/PM/ASO/ WS-RM	Proceed to Step 8
3.2	Arrange site access for the archaeologist (and Aboriginal Sites Officer, if relevant) to inspect the item as soon as practicable. In most cases, a site inspection is required to conduct a preliminary assessment.	PM or WS-RM	
3.3	Subject to the archaeologist's assessment (and the Aboriginal Sites Officer's assessment, if relevant), work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which has not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established.	A/PM/ASO/ WS-RM	
3.4	The archaeologist (and Aboriginal Sites Officer, if relevant) may provide advice after the site inspection and preliminary assessment that no archaeological constraint exists for the project (e.g., the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'). Any such advice should be provided in writing (e.g., via email) and confirmed by the Project Manager or Works Supervisor - RM.	A/PM/ASO/ WS-RM	Proceed to Step 8

3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). Environment and sustainability staff and/or Transport heritage staff can provide contacts for such specialist consultants.	ES/SS(H)	**Appendix D** (Key environmental contacts)
3.6	Where the item has been identified as a 'relic', 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	A	
3.7	The regulator can be notified informally by telephone at this stage by the archaeologist, Project Manager (or delegate) or Works Supervisor - RM. Any verbal conversations with regulators must be noted on the project file for future reference.	PM/A/WS-RM	
4	**Prepare an archaeological or heritage management plan**		
4.1	The archaeologist must prepare an archaeological or heritage management plan (with input from the Aboriginal Sites Officer, where relevant) shortly after the site inspection. This plan is a brief overview of the following: (a) description of the feature (b) historic context if data is easily accessible (c) likely significance (d) heritage approval and regulatory notification requirements (e) heritage reporting requirements (f) stakeholder consultation requirements (g) relevance to other project approvals and management plans etc.	A/ASO	**Appendix F** (Archaeological/Heritage Advice Checklist)
4.2	In preparing the plan, the archaeologist with the assistance of environment and sustainability staff must review the CEMP, any heritage sub-plans, any conditions of heritage approvals, conditions of project approval (and or Minister's Conditions of Approval) and heritage assessment documentation (e.g., Aboriginal Cultural Heritage Assessment Report). This will outline if the unexpected item is consistent with previous heritage/project approval(s) and/or previously agreed management strategies. The Project Manager and environment and sustainability staff must provide all relevant documents to the archaeologist to assist with this. Discussions should occur with design engineers to consider if re-design options exist and are appropriate.	A/ES/PM	**Appendix F** (Archaeological/Heritage Advice Checklist)
4.3	The archaeologist must submit this plan as a letter, brief report or email to the Project Manager outlining all relevant archaeological or heritage issues. This plan should be submitted to the Project Manager as soon as practicable. Given that the archaeological management plan is an overview of all the necessary requirements (and the urgency of the situation), it should take no longer than two working days to submit to the Project Manager.	A	
4.4	The Project Manager or Works Supervisor must review the archaeological or heritage management plan to ensure all requirements can reasonably be implemented. Seek additional advice from environment and sustainability staff and Transport heritage staff, if required.	PM/ES/SS(H)/ WS-RM	

Step	Task	Responsibility	Guidance and tools
5	**Notify the regulator, if required.**		
5.1	Review the archaeological or heritage management plan to confirm if regulator notification is required. Is notification required? If **no**, proceed directly to Step 6 If **yes**, proceed to next step.	PM/ES/SS(H)/ WS-RM	
5.2	If notification is required, complete the template notification letter.	PM or WS-RM	**Appendix G** (Letter notification template)
5.3	Forward the draft notification letter, archaeological or heritage management plan and the site recording form to r environment and sustainability staff and Senior Specialist (Heritage) for review, and consider any suggested amendments.	PM/ES/SS(H)/ WS-RM	
5.4	Forward the signed notification letter to the relevant regulator (i.e., notification of relics must be given to the Heritage NSW,) while notification for Aboriginal objects must be given to the relevant Aboriginal section of Heritage NSW. Informal notification (via a phone call or email) to the regulator prior to sending the letter is appropriate. The archaeological management plan and the completed site recording form must be submitted with the notification letter. For Division 4.7 (SSD) and Division 5.2 (SSI) EP&A Act projects, the Department of Planning and Environment must also be notified.	PM or WS-RM	**Appendix D** (Key environmental contacts)
5.5	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form should be kept on file by the Project Manager or Works Supervisor-RMD and a copy sent to the Senior Environmental Specialist (Heritage).	PM or WS-RM	
6			
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with the regulator.	A/PM or WS-RM (ES)	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this would include such things as a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with registered Aboriginal parties, obtaining heritage approvals etc., if required.	PM or WS-RM (RAPs and ES)	PACHCI Stage 3
6.3	Where heritage approval is required contact environment and sustainability staff for further advice and support material. Please note time constraints associated with heritage approval preparation and processing. Project scheduling may need to be revised where extensive delays are expected.	PM/ES/WS-RM	
6.4	For Division 4.7 (SSD) and Division 5.2 (SSI) EP&A Act projects, assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment. Seek advice from environment and sustainability staff and Environment and Sustainability specialist staff if unsure.	PM/ES	

6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	PM or WS-RM	
6.6	Where statutory approval (or Division 4.7 (SSD)/ Division 5.2 (SSI) of the EP&A Act project modification) is not required and where recording is recommended by the archaeologist, sufficient time must be allowed for this to occur.	PM or WS-RM	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material is removed from site, where required. Interested third parties (e.g., museums or local councils) should be consulted on this issue. Contact environment and sustainability staff and Senior Specialist (Heritage) for advice on this matter, if required.	PM or WS-RM	
7	**Review CEMPs and approval conditions**		
7.1	Check whether written notification is required to be sent to the regulator before recommencing work. Where this is not explicit in heritage approval conditions, expectations should be clarified directly with the regulator	PM	
7.2	Update the CEMP, site mapping and project delivery program as appropriate with any project changes resulting from final heritage management (e.g., retention of heritage item, salvage of item). Updated CEMPs must incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant. Include any changes to CEMP in site induction material and update site workers during toolbox talks.	PM	
8	**To resume work**		
8.1	Seek written clearance to resume project work from environment and sustainability staff and the archaeologist (and regulator, if required). Clearance would only be given once all archaeological excavation and/or heritage recommendations (where required) are complete. Resumption of project work must be in accordance with all relevant project/heritage approvals/determinations.	ES/A/PM/WS-RM	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.	PM/A/WS-RM	
8.3	Forward all heritage/archaeological assessments, heritage location data and its ownership status to the Senior Specialist (Heritage). They will ensure all heritage items in Transport's ownership and/or control are considered for the Transport S170 Heritage and Conservation Register.	PM/SS(H)/ WS-RM	
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	PM/TL-RM	

7. Seeking advice

Advice on this procedure should be sought from Transport's Environment and Sustainability heritage staff (see contact details below). Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Environment and sustainability staff can assist non-Transport project environment managers with enquires concerning this procedure.

Important: Transport staff and contractors must not seek advice on this procedure directly from Heritage NSW without first seeking advice from Environment and Sustainability heritage staff or environment and sustainability staff.

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from the contracted archaeologist. Technical specialist advice can also be sought from heritage staff within Environment and Sustainability to assist with the preliminary archaeological identification and technical reviews of heritage/archaeological reports.

Key environmental contacts

Region	Role	Phone
Northern region (including the Hunter)	David Nalder - Snr Manager, Aboriginal Engagement (North)	0447 717 866
South and West region	Bobbi Brodie - Snr Manager, Aboriginal Engagement South & West	0429 684 583
Sydney region	Jodie Towney - Snr Aboriginal Engagement Specialist (Sydney)	0476 823 146
Environment and Sustainability	Denis Gojak - Senior Specialist (Heritage) Denis.gojak@transport.nsw.gov.au Please cc the following email: es_heritage@transport.nsw.gov.au	8843 3053 0400 474 405

Heritage regulators

Department/Office	Contact	Phone
Heritage NSW, Department of Planning and Environment	Heritage NSW	(02) 9873 8500
Department of Agriculture, Water and the Environment (DAWE) (Commonwealth)	DAWE	(02) 6272 3933

Project-specific contacts

Position	Name	Phone
Project Manager		
Site/Alliance Environment Manager		
Environmental Officer		
Aboriginal Cultural Heritage Officer		
Consultant Archaeologist		
Local Police Station		
Environment Line		131 555

8. Definitions

<INSTRUCTION: Do not include words or terms that have a commonly understood meaning - delete message.>

Term	Definition
Archaeologist	Archaeologist
ACHO	Aboriginal Cultural Heritage Officer
AHIP	Aboriginal Heritage Impact Permit
ASO	Aboriginal Site Officer
CEMP	Construction Environment Management Plan
HNSW	Heritage NSW, Department of Planning and Environment
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
PM	Project Manager
RAP	Registered Aboriginal Parties
E&S	Environment and Sustainability (branch)
SS(H)	Senior Specialist (Heritage)
TL-RM	Team Leader – Roads and Maintenance or equivalent role
Transport	Transport for NSW
WS-RM	Works Supervisor – Roads and Maintenance or equivalent role

9. Accountabilities

Role	Responsibility
Aboriginal Cultural Heritage Officer (ACHO)	Provides Aboriginal cultural heritage advice to project teams. Acts as Aboriginal community liaison for projects on cultural heritage matters. Engages and consults with the Aboriginal community as per the Transport *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.
Aboriginal Sites Officer (ASO)	Is an appropriately trained and skilled Aboriginal person whose role is to identify and assess Aboriginal objects and cultural values. For details on engaging Aboriginal Sites Officers, refer to Transport *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.
Archaeologist (A)	Professional consultant, contracted on a case-by-case basis to provide heritage and archaeological advice and technical services (such as reports, heritage approval documentation, etc.). Major projects with complex heritage issues often have an on-call project archaeologist.
Project Management (PM)	Ensures all aspects of this procedure are implemented. The PM can delegate specific tasks to a construction environment manager, Transport site representatives or environment and sustainability staff, where appropriate.
Environment and sustainability staff (ES)	Provide advice on this procedure to project teams. Ensuring this procedure is implemented consistently by supporting the PM. Supporting project teams during the uncovering of unexpected finds. Reviewing archaeological management plans and liaising with heritage staff and archaeological consultants as needed.
Registered Aboriginal Parties (RAPs)	RAPs are Aboriginal people who have registered with Transport to be consulted about a proposed project or activity in accordance with OEH's Aboriginal cultural heritage consultation requirements for proponents (2010).
Senior Specialist (Heritage)	Provides technical assistance on this procedure and archaeological technical matters, as required. Reviewing the archaeological management plans and facilitating heritage approval applications, where required. Assists with regulator engagement, where required.
Team Leader - Roads and Maintenance (TL-RM)	Ensures Maintenance staff stop work in the vicinity of an unexpected heritage item. Completes *Unexpected Heritage Item Recording Form in Appendix B* and notifies WS-RM.
Technical Specialist	Professional consultant contracted to provide specific technical advice that relates to the specific type of unexpected heritage find (for example a forensic or physical anthropologist who can identify and analyse human skeletal remains).
Works Supervisor - Roads and Maintenance (WS-M)	Ensures Roads and Maintenance staff are aware of this procedure. Supports the Team Leader - Roads and Maintenance during the implementation of this procedure and ensures reporting of unexpected heritage items through environment management systems.

Appendix A: Identifying unexpected heritage items

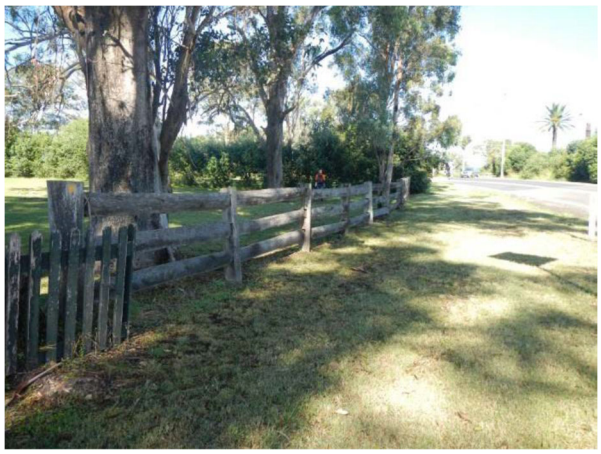
The following images can be used to assist in the preliminary identification of potential unexpected items (both Aboriginal and non-Aboriginal) during construction and maintenance works. Please note this is not a comprehensive typology.

Figures: Top left hand picture continuing clockwise: stock camp remnants (Hume Highway Bypass at Tarcutta); linear archaeological feature with post holes (Hume Highway Duplication), animal bones (Hume Highway Bypass at Woomargama); cut wooden stake; glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area).

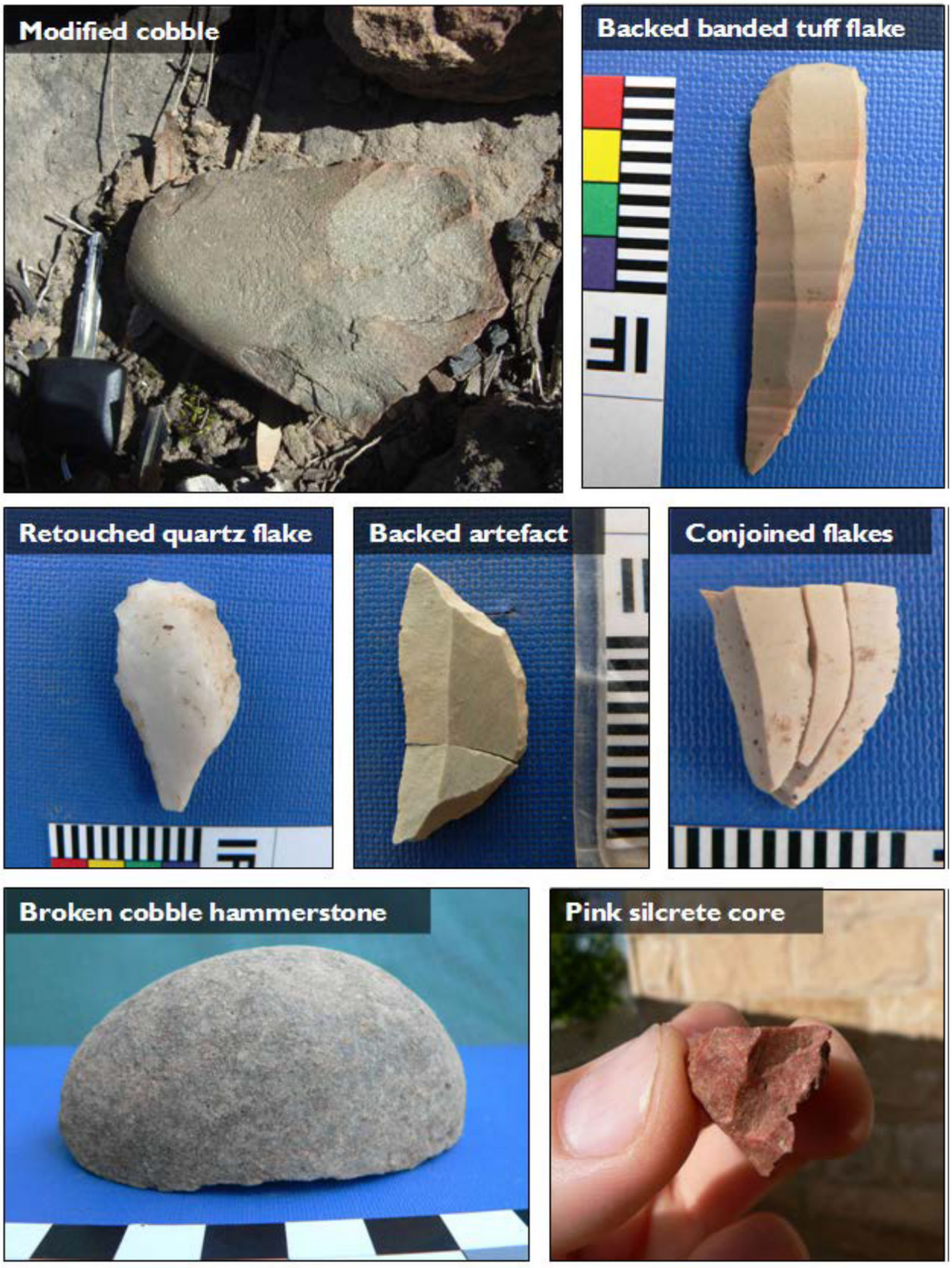
Figures: Top left hand picture continuing clockwise: woodstave water pipe with tar and wire sealing (Horsley drive); tram tracks (Sydney); brick lined cistern (Clyde); retaining wall (Great Western Highway, Leura).

Figures: Top left-hand picture continuing clockwise: road pavement (Great Western Highway, Lawson); sandstone kerbing (Parramatta Road, Mays Hill); Telford sandstone road base (Great Western Highway, Leura); ceramic conduit and sandstone culvert headwall (Blue Mountains, NSW); corduroy timber road base (Entrance Road, Wamberal).

Figures: Top left-hand corner continuing clockwise: alignment pin (Great Western Highway, Wentworth Falls); survey tree (MR7, Albury); survey tree (Kidman Way, Darlington Point, Murrumbidgee); survey tree (Cobb Highway, Deniliquin); milestone (Great Western Highway, Kingswood, Penrith); alignment stone (near Guntawong Road, Riverstone). Please note survey marks may have additional statutory protection under the *Surveying and Spatial Information Act 2002*.



Figures: Top left-hand corner continuing clockwise: remnant bridge piers (Putty Road, Bulga); wooden boundary fence (Campbelltown Road, Denham Court); dairy shed (Ballina); *Golden Arrow Mine Shaft Act 2002*.



Figures: Top left-hand corner: culturally-modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The remaining images show a selection of stone artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010

Appendix B: Unexpected heritage item recording form

Unexpected heritage item recording form

TRANSPORT FOR NSW - UNEXPECTED HERITAGE ITEM				
Date		Recorded by	Name	
			Position	
Project name				
Description of works being undertaken (e.g., removal of failed pavement by excavation and pouring concrete slabs in 1m x 1m replacement sections).				
Description of exact location of item (e.g., Within the road formation on Parramatta Road, east bound lane, at the corner of Johnston Street, Annandale, Sydney)				

Description of item found (What type of item is it likely to be? Tick the relevant boxes)		
A. Relic	☐	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottles, utensils, plates, cups, household items, tools, implements, and similar items.
B. 'Work, building or structure'	☐	'Work' can generally be defined as a form of infrastructure such as tram tracks, a culvert, road base, a bridge pier, kerbing, and similar items.
C. An Aboriginal object	☐	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones.
D. Bone	☐	Bones can either be human or animal remains. **Remember that you must contact the local police immediately by telephone if you are certain that the bone(s) are human remains**
E. Other	☐	
Provide a short description of item (e.g., Metal tram tracks running parallel to road alignment. Good condition. Tracks set in concrete, approximately 10cms (100 mm) below the current ground surface).		

Unexpected heritage item recording form

Sketch (Provide a sketch map of item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken).

Action taken (tick either A or B)	
A. Unexpected item **would not** be further impacted by works ☐	
Describe how works would avoid impact on the item (e.g., the tram tracks will be left in situ, and recovered with road paving).	
B. Unexpected item **would** be further impacted by works ☐	
Describe how works would impact on the item (e.g., milling is required to be continued to 200 mm depth to ensure road pavement requirements are met. Tram tracks will need to be removed).	
Project manager / works supervisor signature	

Appendix C: Photographing unexpected heritage items

Photographs of unexpected items in their current context (in situ) may assist heritage staff and archaeologists to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin) and a note describing the direction of the photograph.

Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add much value to the subsequent detailed photographs also required (Figure 2).

Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008.

Figure 4: Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

Photographing distinguishing features

Where unexpected items have a distinguishing feature, close-up detailed photographs must be taken of this, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 as examples.

Figure 3: Ceramic bottle artefact with stamp.

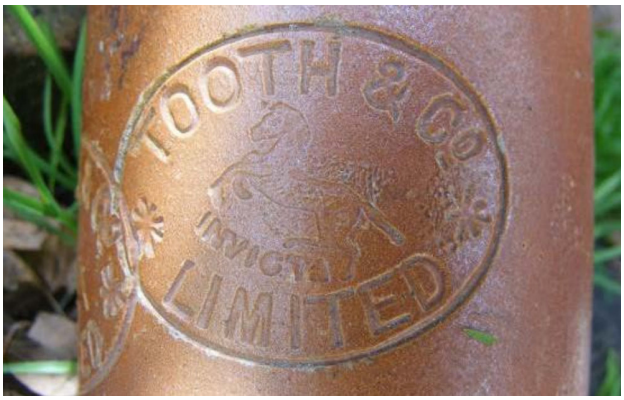


Figure 4: Detail of the stamp allows 'Tooth & Co Limited' to be made out. This is helpful to a specialist in gauging the artefact's origin,

Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, Transport must contact the police immediately (see Appendix F for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. Heritage staff in Environment and Sustainability Branch can confirm if bones are human or non-human if provided with appropriate photographs.

Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed. Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.

Figure 5: Bone concealed by foliage.

Figure 6: Bone covered in sediment.

Ensure that all close-up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the epiphysis, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.

Figure 7: Photograph showing complete bone.

Figure 8: Close up of a long bone's epiphysis.

Appendix E: Uncovering bones

This appendix provides project managers with:

(1) advice on what to do when bones are discovered.

(2) guidance on the notification pathways.

(3) additional considerations and requirements when managing the discovery of human remains.

1. First uncovering bones

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. Therefore, they must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist. These specialist consultants can be sought by contacting environment and sustainability staff and/or Environment and Sustainability heritage staff.

On the very rare occasion where it is instantly obvious from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and clothing are present.

Figure 1: Schematic of complete skeleton that is obviously human[11].

Figure 2: Disarticulated bones that require assessment to determine species.

This preliminary phone call is to let the police know that Transport is undertaking a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not 'obvious' that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix C. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly

[11] After Department of Environment and Conservation NSW (2006), Manual for the identification of Aboriginal Remains:

always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur. Preliminary telephone or verbal notification by the Project Manager or environment an d sustainability staff is considered appropriate. This must be followed up later by Transport's formal letter notification as per Appendix G when a management plan has been developed and agreed to by the relevant parties.

2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

a) **Human bones are from a recently-deceased person (less than 100 years old).**

Action

A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the Coroners Act 2009 (NSW). It should be assumed the police will then take command of the site until otherwise directed.

b) **Human bones are archaeological in nature (more than 100 years old) and are likely to be Aboriginal remains.**

Action

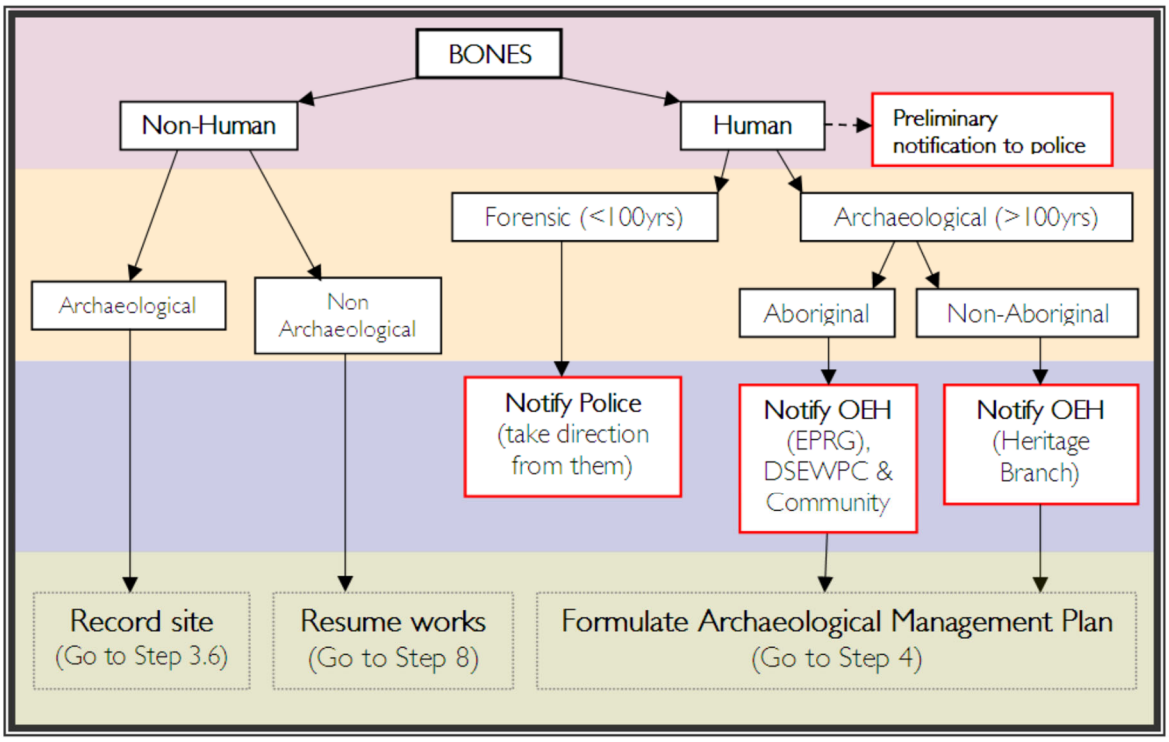
The Heritage NSW and the Transport Aboriginal Cultural Heritage Officer (ACHO) must be notified immediately. The ACHO must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. Relevant stakeholders are determined by Transport's Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI).

c) **Human bones are archaeological in nature (more than 100 years old) and likely to be non-Aboriginal remains.**

Action

Heritage NSW must be notified immediately.

The diagram below summarises the notification pathways on finding bones.



After the appropriate verbal notifications (as described in B and C), the Project Manager must proceed through the Unexpected Heritage Items Procedure to formulate an archaeological management plan (Step 4). Note no archaeological management plan is required for forensic cases (A), as all future management is a police matter.

Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to recording the find as per Step 3.6.

3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Transport's 's ACHO can provide advice on this and how to engage with the relevant Aboriginal community. Project Managers, more generally, may also need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains. Project

Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 2010* (NSW). Specifically, Transport is required to apply to the Director General of NSW Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health Regulation 2012* (NSW)[12].

Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at NSW Health.

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

[12] This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

Appendix F: Archaeological Heritage Advice Checklist

The following checklist can be used by the Project Manager and the archaeologist to ensure all relevant archaeological issues are considered when developing the management plan required at Step 4 of this procedure.

An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance.

Assessment and Investigation	Required	Outcomes/notes
Assessment of significance.	Yes/No	
Assessment of heritage impact.	Yes/No	
Archaeological excavation.	Yes/No	
Archival photographic recording.	Yes/No	
Heritage approvals and notifications.		
AHIPs, s 140, s 139 exceptions, s 60, etc.	Yes/No	
Regulator relics/objects notification.	Yes/No	
Transport's S170 Heritage and Conservation Register listing requirements.	Yes/No	
Compliance with CEMP or other project heritage approvals.	Yes/No	
Stakeholder consultation.		
Aboriginal stakeholder consultation requirements and how it relates to Transport's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI).	Yes/No	
Advice from Environment and sustainability staff, Aboriginal Cultural Heritage Advisor, Transport heritage team.	Yes/No	
Artefact/heritage item management.		
Retention or conservation strategy (e.g., items may be subject to long conservation and interpretation) Disposal strategy (e.g., former road pavement) Short-term and permanent storage locations (interested third parties to be consulted on this issue).	Yes/No	
Control Agreement for Aboriginal objects.	Yes/No	
Program and budget.		
Time estimate associated with archaeological or heritage conservation work.		
Total cost of archaeological heritage work.		

Appendix G: Notification letter template

Drafting guidance: Paste the details below into a Transport for NSW letter template.

[Insert date]

[Insert reference number]

[Insert file number]

[Insert recipient's name and address, see Appendix D]

[Insert salutation and name],

Re: Unexpected heritage item discovered during Transport for NSW (Transport) works.

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Transport works at [insert location] on [insert date]. [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

This letter is in accordance with the notification requirement under [select: section 146 of the *Heritage Act 1977* (NSW) or section 89(A) of the *National Parks and Wildlife Act 1974* (NSW).

NB: There may be not be statutory requirement to notify of the discovery of a 'heritage Item that is not a relic or Aboriginal object].

Drafting guidance

On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for the Department of Agriculture, Water and the Environment (DAWE) in accordance with notification requirements under section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

[Provide a brief overview of the project or maintenance works background and area. Provide a summary of the description and location of the item, including a map and image where possible. Include how the works were assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (e.g., Part 5). Include any project approval number, if available].

Transport [or contractor on behalf of Transport] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Resulting from these preliminary findings, Transport [or contractor on behalf of Transport] is proposing [provide a summary of the proposed archaeological/heritage approach (eg develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Please contact me if you have any input on this approach or if you require any further information.

Yours sincerely

[Sender name and position]

[Attach the archaeological/heritage management plan and site recording form].

NSW GOVERNMENT