Douglas PARTNERS

GROUNDED EXPERTISE

Remediation Action Plan

Proposed Multistorey Residential Development

5-7 Church & 42 Donald St, Nelson Bay NSW

Prepared for Fortezza Group Pty Ltd

Project 227295.01

5 February 2026

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The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

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Douglas Partners acknowledges Australia's First Peoples as the Traditional Owners of the Land and Sea on which we operate. We pay our respects to Elders past and present and to all Aboriginal and Torres Strait Islander peoples across the many communities in which we live, visit and work. We recognise and respect their ongoing cultural and spiritual connection to Country.

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Remediation Action Plan
Proposed Multistorey Residential Development
5-7 Church & 42 Donald St, Nelson Bay NSW

1. Introduction

Douglas Partners Pty Ltd (Douglas) has prepared this remediation action plan (RAP) for a proposed multistorey residential development at 5-7 Church & 42 Donald St, Nelson Bay NSW. The RAP was commissioned by Roberto Giammaria of Fortezza Group Pty Ltd and was undertaken in line with Douglas' proposal 227.295.01.P.001 dated 18/07/2025.

The following key guidelines were consulted in the preparation of this report:

- NEPC National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM] (NEPC, 2013);
- NSW EPA *Guidelines for Consultants Reporting on Contaminated Land* (NSW EPA, 2020); and
- CRC CARE Remediation Action Plan: Development - Guideline on Establishing Remediation Objectives (CRC CARE, 2019a).

The remediation objectives, devised in accordance with CRC (2019a), are to:

- Address potentially unacceptable risks to relevant environmental values from contamination; and
- Render the site suitable, from a contamination perspective, for the proposed development.

This RAP provides details of the work that will be required at the site to meet the remediation objectives.

The proposed development involves the construction of residential development, named "The Belvedere", which will comprise the construction of a ten-storey residential apartment building with two-levels of basement car park (refer to Section 2 for further details). A copy of the plans for the proposed development are included in Appendix A.

Based on available information, it is considered that the remediation works outlined in this report constitute Category 1 remediation under Clause 4.13 of SEPP (Resilience and Hazards) 2021 given development consent is required under the Industry Specific SEARs for the project.

This RAP presents the procedures and plans which provide the means by which site remediation can be achieved. The Remediation Contractor must base their detailed work methodologies around the requirements of this RAP.

The site layout is shown on Drawing 1, Appendix A. This report must be read in conjunction with all appendices including the notes provided in Appendix A.

2. Proposed development

With reference to available architectural drawings (Hayes Anderson Lynch Architects Pty Ltd (HAL) drawings TP101 to TP805 dated 17/06/2025), it is understood that the proposed residential development, named "The Belvedere", will comprise of the construction of a ten-storey residential apartment building with two-levels of basement car park. Based on supplied information, it is anticipated that cuts of up to 8 m within the site would be required to facilitate the construction of the belowground car parking area.

Based on indicative sections provided on architectural drawings (HAL drawings dated 19/8/25) the finished floor level is proposed to be at around RL17.7 at basement level 2 and deeper at the proposed lift pit. Copies of available architectural drawings are provided in Appendix A.

A typical section of the proposed development is provided in Figure 1.

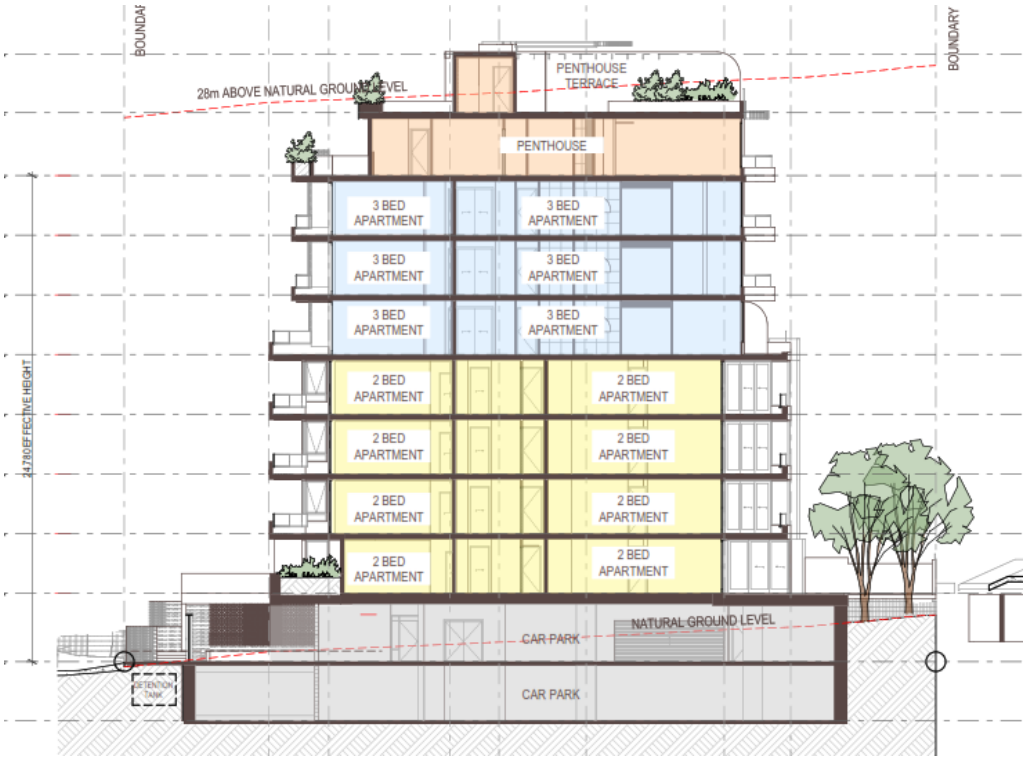


Figure 1: Section of the proposed development (figure adapted from HAL drawing 19/08/2025).

3. Scope of work

The scope of work to achieve the objective is as follows:

- Summarise the findings of previous investigations used to inform the status of contamination and contamination risk at the site;
- Present a conceptual site model (CSM) to list identified contamination source, pathway and receptor linkages to address potentially unacceptable risks to human health and relevant environmental values from contamination;

- Define the anticipated extent of remediation;
- Assess potentially suitable remediation options to render the site suitable for its proposed use, and which will minimise potentially unacceptable risk to human health and/or the environment and which includes the consideration of the principles of ecologically sustainable development;
- Discuss options with the client to confirm the remediation approach to render the site suitable, from a contamination perspective, for the proposed development;
- Establish the remediation acceptance criteria (RAC) to be adopted for validation of remediation;
- Identify how successful implementation of the RAP will be validated;
- Outline waste classification, handling and tracking requirements;
- Outline environmental safeguards required to complete the remediation works;
- Include contingency plans and an unexpected finds protocol; and
- Identify the need for, and nature of, any long-term management and/or monitoring following the completion of remediation.

4. Site description

Site address	5-7 Church & 42 Donald St, Nelson Bay NSW
Legal description	Lot A, B DP 417172 and 15 DP 5616
Approximate area	2200 m^2
Zoning	Medium density residential (R3) and Local centre (E1)
Local council area	Port Stephens Council (PSC)
Current use	Residential and commercial (hairdresser)
Surrounding uses	North – Residential (apartments) East – Commercial (clothing shop) South – Residential (house/apartments) West – School (Tomaree community college)

The site boundary is shown on Figure 2 below.



Figure 2: Site location, approximate site boundary shown in red (dated July 2025, Metromap).

5. Environmental setting

Regional topography	Reference to NSW 2 m contours indicates the regional topography in the vicinity of the site generally dips to the north-east, with the highest elevation of approximately RL 40 (m AHD) (at hilltops to the south-west) and as low as RL 0 (at Nelson Bay to the north-east).
Site topography	Reference to NSW 2 m contours indicates the site levels range from the highest point of about RL 24 in the western area of the site, down to around RL 20 in the eastern area of the site.
Soil landscape	Reference to NSW Soil Landscapes of Central NSW index indicates the site is underlain by soils typical of the Fingal Head soil landscape which typically comprises gently undulating rises to rolling low hills comprised of high-level dunes and sand sheets mantling bedrock. Typical limitations of this soil landscape include localised shallow soils, widespread poor moisture availability, widespread non-cohesive soils, localised steep slopes, localised mass movement hazard, localised foundation hazard, widespread recharge zone, widespread wind erosion hazard.
Geology	Reference to NSW Seamless Geology mapping indicates the site is underlain by Pleistocene to quaternary aged coastal deposits which typically comprise sand. Reference to the NSW NCCA Quaternary Geology mapping indicates the site is underlain by Pleistocene aged bedrock-mantling dune comprising marine sand and indurated sand which is indicated to have low pyrite, organic and carbonate content and low to moderate heavy mineral content, no shell.

Acid sulfate soils	Reference to NSW Acid Sulfate Soil risk mapping indicates the site is outside of the mapped area of acid sulfate risk. The nearest mapped area is approximately 110 m to the east which is mapped as low probability of occurrence (greater than 3 m below ground surface). Typically, acid sulfate soils occur in coastal areas at elevations of RL 5 and lower.
Surface water and Groundwater	The regional groundwater regime is generally expected to flow to the north/north east towards Nelson Bay which is approximately 250 m from the site. Nelson Bay is considered to be the nearest sensitive receptor. Groundwater is expected to flow similarly to surface topology i.e. flowing under the site to the east/north east. Search of NSW registered groundwater bores indicates the following nearby registered groundwater bores within 500 m of the site (information sourced from groundwater work summary for each bore): • GW200584 – 275 m north-east – installed in 2007 – no purpose listed on the work summary; • GW080159 – 325 m north-east – 10 m deep well installed in 2001 – monitoring purposes – standing water level of 0.48 m in sands; and • GW200402 – 375 m east – 24 m deep well installed in 2001 – monitoring purposes – standing water level of 6.40 m in sands. It should be noted that groundwater levels are affected by factors such as climatic conditions and soil permeability and therefore vary with time.

6. Summary of previous investigations

6.1 Preliminary Site Investigation (Dougas, 2024a)

Douglas have previously undertaken a preliminary site investigations (PSI) for the site (Dougas, 2024a) and a preliminary geotechnical investigation for the site (Douglas, 2024b). The previous PSI comprised a desktop site history review, site walkover and preliminary testing of soil samples from the geotechnical bores.. The preliminary geotechnical investigation comprised boreholes and cone penetration tests across the site. Pertinent results of the PSI and geotechnical investigations for this DSI are summarised as follows:

- The north eastern and north western (Lot 15) comprised several structures, with some demolished between 1963 and 1993, likely to be residential dwellings and sheds as shown in Drawing 1. At the time of the previous PSI the residential dwelling and shed in the north west portion were still present;
- Possible ACM sheeting was stored beneath the then existing residential dwelling in the north western portion;
- The south western portion (Lot A) comprised several structures since 1921 but were demolished circa 2018 and the Lot has remained vacant. Lot A was also observed to comprise a possible small incinerator located adjacent to the central northern boundary of Lot A;

- The south eastern portion was used for residential purposes from around 1921. From around 1963 the lot was acquired by New South Wales Ambulance Transport Service Board Newcastle District and developed into an ambulance depot. The lot was used as an ambulance depot until around 2011. Since 2011 the lot has been used for commercial purposes (now hairdresser). The PSI observed possible fuel infrastructure (UST) within the concrete area between the building and the retaining wall with remnants of a possible former bowser; and
- The results of the site walkover undertaken for the previous PSI indicated abundant suspected (and later confirmed) asbestos containing materials (ACM) across the site assumed to have originated from the former demolition of site structures along with building demolition waste.

Field work results

Field work comprised the drilling 5 geotechnical bores with sampling for preliminary testing. The results of previous sub surface investigations indicated the following:

Unit 1.1 – Fill (no building demolition waste): generally comprising brown silty sand with rootlets.

Unit 1.2 – Fill (with building demolition waste): generally comprising brown silty sand with brick, tile, glass and rootlets.

Unit 2 – Sand: pale brown sand. Occasionally dark brown silty sand (indurated sand) was encountered.

Subsurface summary of units encountered at each borehole location is shown in Table 1.

Table 1: Summary of subsurface units encountered

Unit	6	7	8	9	10
1.1	0 - 0.1	-	0 - 0.1	-	-
1.2	-	**0 - 0.1**	-	**0 - 0.6**	**0 – 0.1**
2	0.1 – 6.0*	0.1 – 6.0*	0.1 – 6.0*	0.6 – 6.0*	0.1 – 6.0*

Notes to table:

* Limit of investigation
Shaded cells indicate subsurface units with potential contaminant observations (presence of building materials which are indicative of the possible presence of hazardous building materials)

No visual or olfactory evidence (e.g. staining, odours, free phase product) was observed during the investigation to suggest the presence of significant contamination within the soils at the geotechnical investigation test locations.

The PID screening recorded values of less than 1 ppm suggesting the absence, or very low concentrations, of VOC in the samples tested.

No free groundwater was observed during drilling of boreholes. It should be noted that groundwater levels are affected by climatic conditions and soil permeability and will therefore vary with time.

Field screening for possible ACM fragments was also undertaken to obtain preliminary concentrations of ACM within the former test locations across the site. The results of the preliminary field screening indicated an exceedance of the residential land use site assessment criteria.

Results of preliminary laboratory testing

The limited soil testing completed as part of the PSI (Dougas, 2024a) indicated that concentrations of the primary target contaminants of potential concern (CoPC) in the soils tested from the geotechnical bores were within NEPC (2013) criteria for high density residential land use with no accessible soils with the exception of the identified asbestos impacts which were generally observed within near surface soils/fill across the majority of grassed areas of the site and likely to be associated with current/former site structures. The extent of asbestos impact was not delineated as part of the PSI.

The soils tested for the PSI were preliminarily classified as GSW (non-putrescible) (SCC1/TCLP1) with asbestos (Special Waste) based on the limited testing conducted. The report notes that this preliminary classification is not to be used for waste disposal and further work is required to confirm off-site disposal and/or re-use opportunities with reference to sampling design guidelines (NSW EPA, 2022), waste classification guidelines (NSW EPA, 2014) and appropriate resource recovery orders and exemptions (where applicable).

It is also noted that PFAS was not detected in the three soil sample tested during the PSI, which comprised two deeper soil samples in the natural and one soil sample in the near surface fill.

The results of the previous testing are included in Appendix C.

Recommendations

The PSI recommended a detailed site investigation to further assess the contamination status of the site with a focus on the following:

- Extent of asbestos contamination across the site;
- The possible former USTs in the south eastern portion;
- Small incinerator located adjacent to the central northern boundary of Lot A; and
- Other sources of potential contamination not previously assessed (i.e. data gaps) to inform remediation requirements and likely waste classification of soils required to be removed from the site.

6.2 Detailed Site Investigation (Douglas, 2025)

A detailed site investigation was recently completed and comprised a review of the previous investigations, excavation of shallow test pits, drilling of deeper bores and installation of groundwater monitoring wells. Soil and groundwater samples were analysed for the contaminants of potential concern (CoPC) and assessed against land use and waste classification guidelines.

Observations during fieldwork and subsequent laboratory testing indicated sporadic fibro fragments (confirmed ACM) across the site along with asbestos fines in the fill, likely associated with current and former buildings. All remaining analytes tested were below the site assessment criteria for the proposed residential development with minimal access to soil.

Observation during fieldwork within the vicinity of the possible former UST in the south eastern portion did not observe significant hydrocarbon odours or staining. A bore within the likely footprint of the possible UST indicated a structure / obstruction at a depth of 0.7 m, which may be the backfilled concrete anchor of the former UST.

Results of laboratory testing

Soils

The analytical results for the contaminants analysed in the soil samples tested for this DSI were below the SAC with the exception of:

- Six primary samples of zinc above EILs across the site within the upper fill;
- One primary sample, of nickel above EILs within the upper fill in the north western portion;
- One duplicate sample of copper above EILs with the upper fill located in the central portion;

The exceedances of EIL listed above are not considered to be significant due to the following:

  - The proposed development will cover the majority of the site with a new building and as such soils at the site are not considered to be ecologically significant;
  - Significant cut is anticipated to achieve design finish levels including the removal of the fill materials as part of the >4 m basement excavation;
  - Landscape areas are likely to incorporate imported fill materials within near surface soils.

Minor concentrations, above lab reporting limits, of other CoPC including metals, PAH, TRH, PFAS and OCPs were also detected as follows:

- Minor concentration of metals detected across the site within both fill and natural soils;
- Minor concentrations of PAHs were detected with several fill samples across the site;
- Minor concentration of aldrin and dieldrin were detected within the fill under the concreted area in the south east and within fill in the footprint of the former residence / sheds in Lot A;
- Minor TRH (F3 & F4) concentrations were detected within surface fill at Pits 306 and 316. All soil samples tested in the vicinity of the former UST, however, were below laboratory detection limits. In additional all soil samples analysed for VOCs were below the laboratory reporting limits.

PFAS was detected in several locations across the site, however all results were within the SAC and are outlined as follows:

- Minor concentrations were detected in the north western portion (201) within the natural sand at a depth of 1 m, a deeper sample at 4 m within this location was below laboratory reporting limits;
- Minor concentrations were detected within the fill beneath the incinerator at Bore 309 from 0 – 0.2 m and also within a natural sample in the same location at 0.6 m;

- PFAS testing located within the northern and south western portions (303, 306, 313, 315) at depths within near surface fill and natural from 0.5 m to 1 m were below laboratory reporting limits;
- Several natural samples tested within the south east portion within the vicinity of the UST area comprised trace detections at depths ranging from 0.5 m to 3 m. Several natural samples ranging from 1 m to 5 m in this area were also found to be below laboratory reporting limits.

It is also noted that three samples from the previous PSI were tested for PFAS within the northern and south western portion, ranging in depth from near surface soils to deeper natural samples at 2 m and 6 m and were also found to be below laboratory reporting limits.

It is noted that the concentrations of these additional heavy metals, PAHs, TRH, OCPs (aldrin/dieldrin) were detected above laboratory reporting limits, however, concentrations were within the adopted SAC.

The findings of the DSI when compared to land use were similar to the results of the preliminary testing in the PSI (Dougas, 2024a), which also indicated the following:

- Exceedances of zinc above EILs, which were not considered significant as per the reasoning above; and
- Concentrations of additional heavy metals, PAHs and OCPs (aldrin/dieldrin) that were detected above laboratory reporting limits within the fill samples tested, however, concentrations were within the adopted SAC.

A summary of the chemical analytical soil laboratory test results from the DSI investigation is summarised in Appendix C, Table G1 along with separate table outlining the results of the previous PSI (Appendix C) and exceedance drawings in Appendix B.

Asbestos

The field screening and analytical results regarding asbestos testing indicate the following:

- Laboratory testing confirmed the presence of asbestos in all of the eight materials samples tested for asbestos;
- Asbestos fibres were identified in four of the 16 soil samples tested (Test Pits 302, 310 and 314);
- Identified asbestos was localised to the fill materials in the northern and south western portions (Lot A and Lot 15) during the DSI.

The findings of the DSI regarding asbestos were similar to the results of the preliminary testing in the PSI (Dougas, 2024a). The findings of the PSI also indicated confirmed bonded asbestos in several locations across the site, however this also included the western portion of the south east area around the existing building as shown in the exceedance drawings in Appendix B.

A summary of the field screening results and the analytical asbestos results from the DSI and PSI are summarised in Appendix D. A summary of the asbestos findings during the PSI are also included in Appendix C.

Groundwater

All results were below the SAC, with the exception of minor PFAS concentrations exceeding the HEPA (2025) criteria for 99% level of species protection.

Based on our experience in the area, the concentrations of PFAS in groundwater are considered likely to be attributed to the background concentrations that may be associated with the surrounding area. Previous testing in an adjacent site to the east indicated PFAS concentrations in groundwater an order of magnitude higher. The presence of PFAS within the groundwater sample is not considered to be significant due to the following:

- The proposed development is unlikely to intercept the groundwater table;
- The concentrations of PFOS found are within the 95% limit of species protection criteria;
- A significant source was not identified within the site;
- Only trace PFAS was observed in the soil samples tested.

A summary of the analytical groundwater laboratory results is summarised in Appendix C, Table G4.

Recommendations

Based on the results of the DSI it is considered that the site can be made suitable for the proposed residential development subject to preparation and implementation of a remediation action plan (RAP). The RAP is to be prepared in accordance with NSW EPA (2020) to address the identified asbestos contamination within the fill materials across the site and address the potential residual impacts associated with the former UST / associated fuel infrastructure and close out data gaps which could not be assessed in this DSI due to site access (ie. additional assessment beneath the existing building post demolition).

Waste Classification

The waste classification assessment was conducted on the soils within the site, based on the current assessment and the results of the previous preliminary testing (Dougas, 2024a), the results of waste classification are as follows:

- Due to the asbestos in fill across the site the fill materials are classified as general solid waste (SCC1/TCLP1) – special waste (asbestos);
- Detection of trace PFAS and OCP within the natural soils restricts the classification of VENM in the upper portion of the natural profile and is defined as follows:
    - Due to trace PFAS In the natural soils in Lot 15 and Lot A natural soils within approximately 1 m depth of the existing ground surface is classified as general solid waste (SCC1/TCLP1) subject to appropriate excavation / segregation and validation of overlying asbestos impacted fill;
    - Due to trace PFAS and OCP in the natural soils in Lot B to a depth of approximately 3.5 m, the natural soils within approximately 3.5 m of the existing ground surface is classified as general solid waste (SCC1/TCLP1) subject to appropriate excavation / segregation and validation of overlying asbestos impacted fill;

- The natural soils greater than a depth of approximately 1 m in Lot 15 and Lot A and natural soils greater than a depth of approximately 3.5 m in Lot B are classifiable as virgin excavated natural materials (VENM) subject to appropriate excavation / segregation and validation of overlying asbestos impacted fill and PFAS / OCP impacted natural materials.

It is noted that an application for an EPA site specific exemption could be explored to possibly enable off-site reuse of the natural soils impacted with trace PFAS and OCP.

7. Conceptual site model

The data collected during previous investigations generally confirmed that for certain potential contaminant sources outlined in the CSM in Douglas (2021b), potentially complete exposure pathways to the identified receptors exist, whereas for others, they do not. No other sources of contamination have been identified as a result of the testing results to date. The source (and associated contaminants of potential concern (CoPC)), pathway and receptor linkages are summarised in Table 2, Table 3 and Table 4.

Table 2: Summary of identified and potential sources

Potential sources and associated CoPC
On site sources
S1: Existing buildings CoPC include asbestos, synthetic mineral fibres (SMF), lead (in paint) and PCB. **S2: Demolition of former structures:** associated with the demolition of former buildings / sheds / fences and landscaped areas/garden beds and associated remnant fill. CoPC include asbestos, synthetic mineral fibres (SMF), heavy metals and PCB. **S3: Fill (unknown source):** associated with landscaping, retaining wall backfill, bedding material for services and concrete slabs etc. CoPC include metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), organochlorine pesticides (OCP), organophosphorus pesticides (OPP) phenols, asbestos and per- and polyfluoroalkyl substances (PFAS) subject to the source. **S4: Former/current underground storage tank/s (UST):** including associated infrastructure (i.e. bowser, fuel and vent pipes), associated with former ambulance depot. CoPC to include lead, TRH, BTEX, PAH, phenols and volatile organic compounds (VOC). **S5: Spills and leaks:** from parked vehicles and or vehicle maintenance. CoPC include metals TRH, BTEX, PAH and phenols.

The following potential human and environmental receptors, along with relevant potential pathways, have been identified and summarised in Table 3.

Table 3: Summary of potential receptors and pathways

Potential human receptors
HR1: Current users: residential and commercial **HR2:** Construction and maintenance workers **HR3:** End users: residential **HR4**: Adjacent site users: residential and commercial
Potential environmental receptors
ER1: Surface water: Nelson Bay (marine) **ER2:** Groundwater **ER3:** Terrestrial ecosystems
Potential pathways to human receptors
HP1: Ingestion and dermal contact **HP2:** Inhalation of dust and/or vapours
Potential pathways to environmental receptors
EP1: Surface water run-off **EP2:** Leaching of contaminants and vertical migration into groundwater **EP3:** Lateral migration of groundwater providing base flow to water bodies **EP4:** Inhalation, ingestion and absorption

A summary of the potentially complete exposure pathways for the proposed land use is shown in the table below.

Table 4: Summary of potentially complete exposure pathways (proposed land use)

Source and CoPC	Exposure pathway	Receptor	Risk management action
S1: Fill: Asbestos (fragments of bonded ACM and asbestos fibres) with the upper fill across majority of the site **S2:** Demolition of former structures: associated with the demolition of former buildings / sheds / fences and landscaped areas/garden beds and associated remnant fill.	**HP2:** Inhalation of dust and/or vapours	**HR1:** Current users (residential/commercial) **HR2:** Construction and maintenance workers **HR3:** End users (residential) **HR4:** Adjacent site users (residential/commercial)	Remediation is required to render site suitable for residential land use. Controls should be in place in the event that significant quantities of ACM are disturbed during construction (relevant to HP2). Further investigation would be required to assess the soils beneath the existing building and remediation requirements (if any). It is noted that sources S1, S2, S3, S4 and S5 have not been assessed beneath the existing building, inspection post demolition and potential additional sampling / testing and remediation may be required.
S4: Possible USTs and associated pipework	-	-	Removal of the possible UST and associated infrastructure located in the south eastern portion. The results of the investigation suggest the absence of significant contamination requiring remediation; however residual impact may be present surrounding the UST infrastructure (UST and associated pipes). Therefore, removal of the UST infrastructure and any residual impact followed by appropriate validation will be required.

It is noted that Lot 15 and Lot A of the site which comprised the majority of the asbestos impact identified to date is securely fenced and therefore the risk of trespassers / general public being exposure is considered to be low. However, if the site is to be accessed by maintenance staff prior to remediation, interim management measures will be required for maintenance work and should be outlined in a separate document. Minor ACM fragments have been identified in Lot B at the surface, it is recommended that an occupational hygienist is engaged to conduct an asbestos surface clearance for Lot B to confirm suitability for ongoing use prior to redevelopment.

8. Remediation extent

The DSI identified the following areas requiring remediation / management:

- Remediation Area 1 – Asbestos Impacted Fill/Surface Soils across the entire site: Sand in all test locations to depths of generally 0.1 m to 0.4 m below ground level (bgl) across the site. Localised deeper fill was encountered to depths of 0.8 m in the south western portion (Pits 314 and 315);
    - The sand fill layer comprised inclusions of timber, brick, glass, tile and concrete fragments in all pits along with several pits comprising sporadic fibro fragments, ash and charcoal and has been confirmed to contain asbestos (both ACM and AF/FA);
- Remediation Area 2 – Former Fuel Infrastructure (UST and associated fuel/vent lines, bowser etc) and potential residual hydrocarbon impacts in the south eastern portion of the site.

In addition to the above remediation areas, further investigation will be required following the demolition of the remaining commercial building in the south eastern portion of the site (i.e. once access to this area is available) to assess subsurface conditions and the identified potential contamination sources (Douglas, 2025) and confirm remediation requirements (if any) in order to close out this data gap. Contaminant sources for this area include S2 – demolition of former building, S3 – fill, S4 former UST and associated fuel infrastructure and S5 chemical leaks and spills.

9. Remediation options assessment

The objective of the remediation options assessment and evaluation is to establish a preferred remediation strategy. The process involves canvassing various remediation options which may be viable and then ranking each option based on a number of evaluation criteria. The remediation options assessment was undertaken with reference to CRC CARE *Remediation Action Plan: Development - Guideline on Performing Remediation Options Assessment* (CRC CARE, 2019b).

The remediation options assessment is included in Appendix E.

10. Preferred remediation strategy

10.1 Rationale

The rationale for the selection of the preferred remediation strategy is outlined in Appendix E. The preferred option was selected in consultation with the client and was based technical considerations (as discussed herein).

The preferred remediation strategy for the site is:

- Remediation Area 1: Excavation and off-site disposal to a suitably licensed landfill (**Source removal**) of all asbestos impacted fill/soil;
- Remediation Area 2: Decommissioning of any remnant fuel infrastructure (where encountered) and excavation and off-site disposal to a suitably licensed landfill (**Source removal**) of any residual impacts associated with the former fuel infrastructure.

Given the proposed development requires significant cut and soil removal for the basement excavation, **Source removal** would also be the preferred remediation strategy for any additional contamination identified during post-demolition investigation and/or identified during construction as an unexpected find (refer to Section16.3 for details).

10.2 Sequence of remediation

The general sequence of remediation shall be determined by the Contractor with the aim of minimising the potential for cross contamination of 'clean' areas / soils with contaminated soils. This should include avoiding, wherever possible transporting or placing contaminated soil over 'clean' areas separating stockpiles of different origin / contamination profile and validating the complete removal of any contaminated material placed / potentially impacting 'clean' areas.

The general sequence of remediation should consider the following recommended sequence:

- Client/remediation contractor to obtain all necessary approvals and notifications to allow commencement of the works;
- Inception meeting between the client, contractor and Environmental Consultant to confirm responsibilities and procedures for remediation and construction;
- Task 1 - Additional assessment within the building footprint in the south east portion post demolition to confirm extent of contaminated fill/soil requiring off-site disposal;
- Task 2: Removal / decommissioning of possible UST/ associated infrastructure and residual hydrocarbon impacts (where present);
- Task 3: Excavation and off-site disposal of asbestos contaminated fill/soil.

It is recommended that the remediation works are completed prior to construction to minimise any cross contamination and maximise the reuse of remaining materials during bulk excavation.

Roles and responsibilities are outlined in the site management plan provided in Appendix H.

Roles and responsibilities are outlined in the site management plan (Appendix H).

10.3 Task 1: Additional Investigation

Fill materials / soils adjacent to the existing building and pavements in the south east portion of the site (Lot B) have been found to vary between 0.15 m and 0.4 m in thickness, along with deeper localised fill in the vicinity of the possible former UST also located adjacent to the existing building. Contamination testing within selected fill/soil materials beneath the pavement and fill/soil adjacent to the building did not identify significant contamination in these samples, however, there is a risk of contamination within this area based on the following:

- History of demolition of former residential structures within this area;
- Potential presence of variable fill materials (source unknown) beneath existing pavements;
- Potential spills/ leaks form parked vehicle or vehicle maintenance (including former garage now hairdresser).

The additional investigation would require a detailed inspection following demolition of the building and removal of the existing concrete slabs and excavation of test pits beneath the building footprint/pavement slabs to assess presence and extent of contamination and remediation requirements. The following testing is recommended:

  - Excavation of up to 8 test pits to depths up to 3 m or prior collapse to satisfy the (NSW EPA, 2022) minimum sampling design guidelines for the area;
  - Analysis of contaminants of concern (i.e. metals, TRH, BTEX, PAH, OCP, OPP, PCB, Phenols, PFAS and asbestos) in the fill layer and natural soils (where visual/olfactory observations or other indicators suggest potential impact) beneath the building footprint/pavement slabs and assessment against the SAC;
  - Analysis of additional analytes (i.e. TCLP) to inform waste classification.

The findings of the additional investigation would confirm the presence and extent of the contamination beneath the building slab and requirements for remediation under Task 2 / Task 3 (as detailed below) and/or requirements to update the RAP.

10.4 Task 2: Removal / Decommissioning of UST

UST decommissioning and remediation works should be conducted with reference to the following safety considerations in addition to the general requirements in Section 7 (NSW EPA, 2020a):

- Australian Standard AS 1940–2017, The Storage and Handling of Flammable and Combustible Liquids (AS 1940, 2017);
- Australian Standard AS 4976–2008, The Removal and Disposal of Underground Petroleum Storage Tanks (AS 4976, 2008);
- SafeWork NSW safety alert WC01188, Potential risks when removing underground storage tanks; and
- Australian Standard AS 1674.1, Safety in welding and allied processes - Fire precautions (AS 1674.1, 1997).

The general sequence of remediation should consider the following:

- Contractor to set up environmental controls (including area to receive impacted soils for remediation) and secure the site;

- Removal of the existing concrete hardstand (surface pavements only) within the approximate area of UST infrastructure to identify remnant fuel infrastructure and confirm the decom missioning requirements;
- Decommissioning of the UST infrastructure (UST's, fuel lines etc) by a suitably qualified contractor including:
    - Pumping out of all fluids from UST's and pipework and de-gassing. Any liquid removed are to be disposed of to an appropriately licensed receiving facility;
    - Ensure all associated pipework is disconnected and made safe so that no flammable or combustible liquids remain;
    - Removal of a second layer of concrete pavement (possible concrete tank anchors);
    - During any cutting or removal of UST infrastructure, air monitoring should be conducted to assess whether any potential flammable / explosive vapours are within or nearby the UST's/pipework (e.g., as measured by lower explosive limit (LEL) of a representative gas);
    - Before removal, infrastructure (UST's) should be checked to ensure it can withstand lifting / transport; and
    - Removal of UST's (e.g. using chains or lifting lugs) and pipework and appropriate off-site disposal.
- Excavation of impacted soils surrounding UST infrastructure (i.e. UST's, pipework, sumps etc) under full time inspection by Douglas (i.e. 'chase-out impacted soils). The excavation is to be expanded under the direction of Douglas where validation results do not meet the adopted RAC. The depth of excavation (based on the observed depth of the tanks) is anticipated to extend to natural soils (at approximately 0.5 m depth). The vertical (and lateral) extent will also be informed by field observations (staining, odours and PID screening of soils);
- Loading, transport, and disposal of contaminated materials to a licensed facility including the use of the NSW EPA Integrated Waste Tracking Solution (IWTS) tracking records for all impacted fill disposed off-site;
- Collection of validation samples required from the excavation side walls and base for laboratory analysis (as per Section 12);
- Where validation test results indicate residual impacts remain, additional stripping and validation as above would be required until validation results meet the remediation acceptance criteria (RAC);
- Survey by registered surveyor to confirm site levels and lateral extent of areas stripped.

10.5 Task 3: Excavation and off-site disposal of asbestos contaminated fill/soil

This task is for the excavation / stripping of all identified asbestos contaminated fill / soils across the site and appropriate disposal off-site to a licensed landfill. Based on our current findings and as outlined in Section 6 this will require removal of all fill/surface soils across the site such that only natural non-impacted soils remain at the surface.

The following general methodology and sequence of activities is suggested:

- Contractor to set up environmental controls and secure the site;
- Excavation/stripping of the fill/contaminated soils by the remediation contractor based on visual observations by the environmental consultant (full time inspection/supervision);
- Loading, transport, and disposal of contaminated materials to a licensed facility including the use of the NSW EPA Integrated Waste Tracking Solution (IWTS) tracking records for all asbestos impacted fill disposed off-site;
- Validate the excavation surfaces and any stockpile footprints following removal in accordance with Section 12;
- Where validation test results indicate residual impacts remain, additional stripping and validation as above would be required until validation results meet the remediation acceptance criteria (RAC);
- Survey by registered surveyor to confirm stripping has been taken to the site boundary;
- Import bulk fill materials (VENM/ENM) (if required);
- All imported fill materials used during construction should be confirmed for use by the Environmental Consultant prior to use;
- Record source and destination of excavated on-site materials (including materials disposed off-site for bulk excavation of basement construction) and imported materials on a Materials Management Plan (MMP).

Given the high frequency/extent of asbestos (ACM and AF/FA) encountered in fill/surface soils across the site based on current investigation findings, it should be assumed that all fill/surface soils are impacted by asbestos. Accordingly, all fill/surface soils across the site (i.e. to the site boundaries) is to be progressively excavated/stripped, disposed offsite to a suitably licensed landfill and validated. It is noted that this process will aid/align with the subsequent bulk excavation process for the proposed basement.

It is noted that both bonded asbestos and AF/FA has been detected and there is a risk of airborne fibre generation until removal/validation has been completed. Appropriate controls / monitoring will be required as part of the asbestos control plan and licensing (refer to Appendix H for details).

Further assessment of the materials beneath the existing building is required to confirm the waste classification of the material prior to off-site disposal. The remaining asbestos impacted fill/surface soils would likely be suitable for direct loading/disposal to a suitably licensed landfill as General Solid Waste (SCC1/TCLP1) / Special Waste (asbestos) based on previous testing ((Douglas, 2025) (refer to Section 13for further details).

Consideration must be given to site boundaries. The stability of adjacent features must be maintained at all times. If the field assessment or validation data indicates that contamination in the soil extends beyond a point where stability may be threatened, advice should be sought from a qualified geotechnical / structural engineer before any further excavation is undertaken in this direction. Temporary retaining structures may be recommended, however, in any event, excavation will not progress beyond the site boundary or within a reasonable proximity to existing structural elements. Validation samples will be taken at the limit of excavation notwithstanding that there may be residual contamination present.

11. Assessment Criteria

11.1 Remediation Acceptance Criteria

The overarching remediation acceptance criterion (RAC) to be adopted for the project is for 'no unacceptable risks posed by the relevant media (i.e. soils, groundwater or soil vapour) to human health or the environment'.

The remediation works are to be validated as meeting the RAC by the Environmental Consultant by means of visual inspection, field screening, recovery and analysis of samples and review of any available plans as set out in this report.

In the absence of derivation of Tier 2 site specific target levels (SSTL), the (RAC) for contaminants in soil are the same as the Tier 1 site assessment criteria (SAC) adopted for (Douglas, 2025), protective of human health and ecology. The following table provides a summary of the RAC. The following table provides a summary of the RAC.

Table 5: Remediation Acceptance Criteria

Item	Remediation Acceptance Criteria
Remediation Area 2 (Task 2): Removal / Decommissioning of UST	Samples from the base and sides (if relevant) of the excavation must have concentrations of CoPC (i.e. metals, PAH, TRH, BTEX) below the SAC (Appendix F).
Remediation Area 1 (Task 3): Excavation and off-site disposal Contaminated (ACM impacted) fill/surface soils	All fill/surface soils removed with no ACM in field screening / laboratory detected asbestos on the remaining stripped natural soil surface.

Not whilst the SAC may be suitable for remediation of the site, consideration should be given to the bulk earthwork requirements and potential reuse of the materials offsite (to meet requirements for VENM in the underlying natural soils, refer to Section 13).

11.2 Site assessment criteria

Additional area(s) of contamination encountered beyond those outlined in Section 8 during the course of the remediation and site redevelopment will be subject to a contingency plan or unexpected find protocol (refer to Appendix I) and assessed using the SAC. The SAC should be the same as the Tier 1 SAC adopted for the DSI (Douglas, 2025). This is on the provision that other considerations such as risks to groundwater are also taken into account. A broader list of contaminants and their SAC are to be included in Appendix F.

The SAC should also be used as part of the assessment framework for imported soils (i.e. contaminant concentrations in imported soils must comply with the SAC). The SAC have been included in Appendix F.

12. Validation Plan

12.1 Data Quality Objectives

The data quality objectives (DQO) for the validation plan are included in Appendix G.

12.2 Validation Assessment Requirements

The following site validation work will be required:

- Field assessment by the Environmental Consultant comprising:
  - Visual inspection, including taking photographs for record purposes;
  - Collecting validation samples from excavations resulting from the removal of contaminated soils, including contaminated soil stockpile footprints (if relevant);
  - Collecting validation / characterisation samples for materials to be re-used on site.
- Surveying by the Surveyor comprising:
  - Survey of the extent and levels of the base of the excavations for remediation.
- Laboratory analysis of validation samples at a NATA accredited laboratory for:
  - The CoPC relevant to the remediation area
    - Remediation Area 1 – asbestos (500mL)
    - Remediation Area 2 – Metals, TRH, BTEX, PAH;
  - Quality control (QC) samples in accordance with Section 15.
- Comparison by the Environmental Consultant of the laboratory results with the SAC and/or RAC as appropriate (refer to Section 11); and
- Preparation by the Environmental Consultant of a validation report detailing the methods and results of the remediation works and validation assessment.

12.3 Visual Inspections

All areas to be assessed and validated will first be subject to a visual inspection by the Environmental Consultant. Any areas of fill / ACM / staining / building waste (as appropriate for the remediation) must be removed prior to validation sampling. The inspection should confirm removal of fill to the site boundary.

12.4 Validation Sampling

The sampling frequency will depend on the volume or area to be assessed and the previous results. The following approximate sampling frequencies will be adopted but may be modified by the Environmental Consultant to take into account previous results, where applicable, and findings from the visual inspections.

Small to medium excavations (base <500 m^2), i.e. former pool excavations and associated fill removal:

- Base of excavation: one sample per 25 m^2 or part thereof, with a minimum of three samples where the base of the excavation is fill rather than natural soils; and
- Sides of excavation: one sample per 5 m to 10 m length or part thereof with a minimum of one sample per wall. Additional samples will be collected at depths of concern where there is more than one depth of concern, with a minimum of one sample per 1.5 m depth in fill.

Large excavations (base ≥500 m^2) i.e. the interface of the fill / natural material following the removal of all contaminated fill under Remediation Task 1:

- Base of excavation: sampling on a grid at a density in accordance with Table 2 in NSW EPA (2022) or a minimum of 20 samples. In sub-areas with any specific signs of concern, a higher sampling density may be required;
- Sides of excavation in fill: one sample per 5 m length or part thereof with a minimum of one sample per wall, where samples are collected in fill or at the fill/natural interface. Additional samples will be collected at depths of concern where there is more than one depth of concern, with a minimum of one sample per 1.5 m depth in filling; and
- Sides of excavation in natural: one sample per 10 m length or part thereof with a minimum of one sample per wall, where samples are collected in natural soils. Additional samples will be collected at depths of concern where there is more than one depth of concern, with a minimum of one sample per 1.5 m depth in filling.

Where contaminated soils are stored or treated on bare soils, the footprint of the stockpile will require validation following removal of the contaminated soils.

In the event that contamination extends beyond site boundaries validation samples will be taken at the limit of excavation. Notwithstanding that there may be residual contamination present.

Advice may need to be obtained from a qualified geotechnical or structural engineer regarding excavation and/or structure stability if excavations approach site boundaries and/or existing structures (i.e. retaining walls).

Validation samples will be analysed by a NATA accredited laboratory for the relevant CoPC relevant to the remediation area.

Validation sample test results will be compared to the RAC as per the DQOs (see Appendix G). Where the RAC are considered to have not been met, the remediation excavation(s) will be expanded to 'chase-out' impacted material, as instructed by the Environmental Consultant, with the validation sampling then continuing into the extended excavation. This process will continue until the impacted material has been fully chased out.

13. Waste Disposal

Disposal of waste must be to an appropriately licensed waste facility, as per *Protection of the Environment Operations Act 1997* NSW (POEO Act) and the *Protection of the Environment (Waste) Regulation 2014* NSW.

Any waste disposed off-site must be initially classified by the Environmental Consultant in accordance with:

- NSW EPA *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA, 2014);
- NSW EPA *Waste Classification Guidelines, Part 2: Immobilisation of Waste* (NSW EPA, 2014a);
- NSW EPA *Waste Classification Guidelines, Part 4: Acid Sulfate Soils* (NSW EPA, 2014b); and
- NSW EPA *Addendum to the Waste Classification Guidelines (2014) - Part 1: Classifying Waste* (NSW EPA, 2016).

If additional waste classification of materials are required, samples will be collected from stockpiles / in situ fill at various depths to characterise the full depth of the material. The frequency is to be determined by the Environmental Consultant based on the risk of contamination and heterogeneity of the material.

For stockpiles comprising similar materials and a:

- Volume up to 200 m^3: a recommended minimum frequency of one sample per 25 m^3, with a minimum of three per stockpile (NSW EPA, 2022); or
- Volume greater than 200 m^3: a recommended minimum frequency of one sample per 250 m^3, with a minimum of 10 and calculation of the 95% upper confidence limit of the arithmetic mean for all applicable analytes (NSW EPA, 2022). Note that this does not apply to stockpiles impacted, or potentially impacted, by asbestos. For stockpiles greater than 200 m^3 which are impacted, or potentially impacted, by asbestos the Environmental Consultant shall provide guidance in accordance with NSW EPA (2020).

All waste must be tracked by the Remediation Contractor from 'cradle to grave'. Copies of all consignment notes / disposal dockets (or similar) and Environment Protection Licences for receipt and disposal of the materials must be maintained by the Remediation Contractor as part of the site log and must be provided to the Environmental Consultant for inclusion in the validation report.

In addition, a record of the source location, type, quantity and final destination of excavated materials from the site should be maintained on the Materials Movement Plan (MMP) for the site. Requirements of the MMP and general soil management are outlined in Appendix H.

13.1 **Waste Classification**

The results from Douglas (2025; Dougas, 2024a) have been tabulated against the relevant waste classification criteria in Appendix C, Tables G2 and G3 and G5, indicate all contaminant concentrations for the analysed samples were below the contaminant thresholds (CT1) for Waste Classification, except for Lead. Toxicity characteristics leaching procedure (TCLP) tests were conducted for the analytes exceeding the CT1 thresholds and for soil samples with total PFAS concentrations above laboratory reporting limits. The specific contaminant concentration (SCC) and TCLP concentrations for those samples were below the contaminant thresholds SCC1 and TCLP1 for general solid waste, respectively.

AF/FA was detected in bulk soil samples collected from four test locations (Test Pits 302, 308, 310, 314 and 315). Bonded ACM fragments were also identified in fill at test locations across the site along with confirmed bonded fragments on the surface of the site during the previous investigation (Dougas, 2024a). Given the observed presence of anthropogenic and demolition waste in fill during field work at most test locations and across the surface of the site, it is assumed that asbestos (bonded ACM and AF/FA) is present throughout all the fill at the site.

Based on the available laboratory results in addition to observations of anthropogenic demolition wastes during field work, all site fill is classified as **General Solid Waste (non-putrescible) (SCC1/TCLP1) with asbestos (Special Waste)** with reference to NSW EPA (2014).

It is noted that the natural soils (Pale brown and grey sand) underlying the ACM impacted fill are also classifiable as general solid waste – GSW (SCC1/TCLP1).

The presence of trace PFAS and pesticides (OCP) within the upper natural materials restrict classification as VENM. The lower natural materials (which are not impacted with PFAS/OCP) ranging from a depth greater than approximately 1 m in Lot 15 / Lot A and a depth greater than approximately 3.5 m in Lot B would be classifiable as VENM.

Soils and rock classified as VENM are pre-classified as general solid waste (non-putrescible) under NSW EPA (2014). Furthermore, VENM may be applied to land in an off-site location without the requirement of a licence under the POEO Act.

13.1.1 Waste Classification Summary

The waste classification assessment was conducted on the soils within the site, based on the current assessment and the results of the previous preliminary testing (Dougas, 2024a), the results of waste classification are as follows:

- Due to the asbestos in fill across the site the fill materials are classified as general solid waste (SCC1/TCLP1) – special waste (asbestos);
- Detection of trace PFAS and OCP within the natural soils restricts the classification of VENM in the upper portion of the natural profile and is defined as follows:
  - Due to trace PFAS In the natural soils in Lot 15 and Lot A natural soils within approximately 1 m depth of the existing ground surface is classified as general solid waste (SCC1/TCLP1) subject to appropriate excavation / segregation and validation of overlying asbestos impacted fill;
  - Due to trace PFAS and OCP in the natural soils in Lot B to a depth of approximately 3.5 m, the natural soils within approximately 3.5 m of the existing ground surface is classified as general solid waste (SCC1/TCLP1) subject to appropriate excavation / segregation and validation of overlying asbestos impacted fill;
- The natural soils greater than a depth of approximately 1 m in Lot 15 and Lot A and natural soils greater than a depth of approximately 3.5 m in Lot B are classifiable as virgin excavated natural materials (VENM) subject to appropriate excavation / segregation and validation of overlying asbestos impacted fill and PFAS / OCP impacted natural materials.

It is noted that an application for an EPA site specific exemption could be explored to possibly enable off-site reuse of the natural soils impacted with trace PFAS and OCP.

The waste classification of the fill beneath the remaining building and pavements within Lot B would be subject to confirmation by further testing, after demolition of the existing building. This should be incorporated with the additional investigation scope outlined in Section 10.3 and should be conducted with reference to Section 13.

Fill /soil removed as part of Task 2 may require stockpiling and sampling / testing to confirm waste classification prior to off-site disposal if highly impacted soils are observed.

The environmental consultant should confirm the sampling and testing requirements for validation of VENM materials following stripping of overlying impacted (PFAS and OCP) natural materials. The methodology and validation will be similar to that described in Section 10.5.

14. Imported Material

Any soil, aggregate etc imported for the remediation works must have contaminant concentrations that meet the relevant criteria outlined in Section 11. Imported materials will only be accepted for use at the site if:

- It can legally be accepted onto the site (e.g. classified as virgin excavated natural material (VENM), accompanied by a report / certificate prepared by a qualified environmental consultant);
- Visual inspection of the imported soil confirms that the soil has no signs of concern and is consistent with those described in the supporting classification documentation;
- Have no aesthetic issues of concern; and
- The materials are validated (by inspection / sampling) by the Environmental Consultant as being suitable for use at the site.

The classification report / certificate for all material proposed for import must be reviewed and approved in writing by the Environmental Consultant prior to import. Materials to be imported may need to meet geotechnical requirements which are to be assessed by others, as required.

If permitted by the development consent and approved by the site owner, Remediation Contractor and Environmental Consultant, material classified under a NSW EPA RRO may also be accepted, provided the material can be used on site in accordance with the corresponding RRE. This could include excavated natural material (ENM), classified under NSW EPA *Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014, The excavated natural material order 2014* (NSW EPA, 2014d).

The need for check-sampling of RRO material is to be determined by the Environmental Consultant depending on the source of the material, adequacy of the supporting documentation provided and inspection(s) of material. Quarried material / VENM may need little or no check sampling.

Any imported recycled aggregates must be sampled at a frequency of sampling of one sample per 25 m^3, with a minimum of three samples per load. The recycled aggregate will not be permitted to be used on site until the results of the inspection and laboratory analysis have been approved in writing by the Environmental Consultant.

15. Quality Assurance and Quality Control

Field quality assurance and quality control (QA/QC) testing will include the following:

- 5% (10% PFAS) sample intra-laboratory analysis, analysed for the same suite as primary sample;
- 5% (10% PFAS) sample inter-laboratory analysis, analysed for the same suite as primary sample;
- Rinsate samples (where re-useable sampling equipment is used), analysed for the suite of analytes analysed by the majority of the primary samples; and
- Trip spike and trip blank samples (analysed for BTEX) (approximately one per batch of samples where volatile contaminants are CoPC).

The laboratory will undertake analysis in accordance with its NATA accreditation, including in-house QA/QC procedures.

The QC analytical results will be assessed using the following criteria:

- Sampling location rationale met the sampling objective;
- Standard operating procedures (SOP) are followed;
- Appropriate QA/QC samples are collected/prepared and analysed;
- Samples are stored under secure, temperature-controlled conditions;
- Chain of custody documentation is employed for the handling, transport and delivery of samples to the selected laboratory;
- Conformance with specified holding times;
- Accuracy of spiked samples within the laboratory's acceptable range (typically 70-130% for inorganic contaminants and greater for some organic contaminants);
- Field and laboratory duplicate and replicate samples will have a precision average of +/- 30% relative percentage difference (RPD); and
- Rinsate samples will show that the sampling equipment (if used) is free of introduced contaminants, (i.e. the analytes show that the rinsate sample is within the normal range for deionised water).

16. Management and Responsibilities

16.1 Site Management Plan

A general site management plan (SMP) for the operational phase of site remediation is included in Appendix H. The SMP includes procedures for soil, noise, dust, work health safety (WHS), remediation schedule, hours of operation and incident response. The Remediation Contractor is to implement the general SMP for the duration of remedial works by incorporating the plan into their overarching construction environmental management plan (CEMP).

16.2 Site Responsibilities

The SMP (Appendix H) provides a summary of the general program management and associated responsibilities. Contact details for key utilities are also included in the event of needing to respond to any incidents.

16.3 Contingency Plan and Unexpected Finds Protocol

Plans for contingency situations along with a UFP for dealing with unexpected finds during remediation work / earthworks, are included in Appendix I.

17. Validation Reporting

17.1 Documentation

The following documents will need to be collated and reviewed by the Environmental Consultant as part of the validation assessment (including those items that are prepared by the Environmental Consultant) and provided in the validation report:

- Any licences and approvals required for the remediation works – **Remediation Contractor**;
- Report on additional investigation report within the footprint of the building in the south east (if undertaken) to confirm the extent of contamination and remediation requirements – **Environmental Consultant**;
- Waste classification report(s) for disposal of soils to an appropriately licensed landfill, or for reuse of soils as per an appropriate resource recovery order/exemption – **Environmental Consultant**;
- Transportation Record: comprising a record of all truckloads of soil (including aggregate) entering the site, including truck identification (e.g. registration number), date, time, source site, load characteristics (e.g. type of material, i.e. quarried aggregate, etc.), approximate volume, use (e.g. general site raising, service trenches, etc.) – **Remediation Contractor**;
- Disposal dockets: for any soil disposed off-site including transportation records, spoil source, spoil disposal location, receipt provided by the receiving waste facility / site, to be provided by the **Remediation Contractor** as follows:
    - Landfill disposal dockets and associated transportation records for materials to be disposed at an appropriately licensed landfill, including procedures and documentation for removal of asbestos-impacted materials with reference to the proposed asbestos removal control plan;

- Transportation documentation for receipt sites for excavated natural material (i.e. VENM or materials classified under a NSW EPA resource recovery order);
- Transportation documentation and management of coal and carbonaceous materials with reference to the proposed carbonaceous material management plan including evidence of receipt of coal/carbonaceous materials at the appropriate receipt site;
- Note: A record of the building materials disposed off-site is also be kept and provided to the Principal, on request.

- Imported materials records: records for any soil imported onto the site, including source site, classification reports, inspection records of soil upon receipt at site and transportation records – **Remediation Contractor**;
- Records relating to any unexpected finds and contingency plans implemented – **Remediation Contractor**;
- Laboratory certificates and chain-of-custody documentation – **Environmental Consultant**;
- Inspections records from the **Environmental Consultant**;
- Photographic records by all contractors and consultants of the works undertaken within their purview of responsibilities – **Remediation Contractor**;
- Survey post excavation and validation of fill removal – **Remediation Contractor**;
- Airborne asbestos monitoring records (for asbestos works undertaken) – **Remediation Contractor**; and
- Interim / final visual and sampling clearances for any asbestos related works – **Remediation Contractor**.

17.2 **Reporting**

A validation assessment report will be prepared by the Environmental Consultant in accordance with NSW EPA (2020).

The validation report shall describe the remediation approach adopted, methodology, results and conclusion of the assessment and make a statement regarding the suitability of the site for the proposed development.

18. Conclusions

It is considered that the site can be made suitable for the proposed multi storey residential development subject to implementation of this RAP.

Prior to construction, detailed design drawings for construction (including civil, structural and landscape plans) should be updated to reflect the requirements of this RAP.

19. References

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NSW EPA. (2020). *Guidelines for Consultants Reporting on Contaminated Land*. Contaminated Land Guidelines: NSW Environment Protection Authority.

NSW EPA. (2022). *Sampling Design, Part 1: Application; Part 2: Interpretation*. NSW Environment Protection Authority.

20. Limitations

Douglas Partners Pty Ltd (Douglas) has prepared this report (or services) for this project at 5-7 Church & 42 Donald St, Nelson Bay NSW in line with Douglas' proposal dated 18/07/2025 and acceptance received from Fortezza Group Pty Ltd via Purchase Order PO-0074 dated 30 July 2025. The work was carried out under Douglas' Engagement Terms. This report is provided for the exclusive use of Fortezza Group Pty Ltd for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of Douglas, does so entirely at its own risk and without recourse to Douglas for any loss or damage. In preparing this report Douglas has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after Douglas' field testing has been completed.

Douglas' advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by Douglas in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

The assessment of atypical safety hazards arising from this advice is restricted to the (environmental) components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. Douglas cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by Douglas. This is because this report has been written as advice and opinion rather than instructions for construction.

Asbestos has been detected by observation or by laboratory analysis, on the surface of the site, and in fill materials at the test locations sampled and analysed. Building demolition materials, such as concrete, brick, tile were also observed in the fill present on site, and these are considered as indicative of the possible presence of hazardous building materials (HBM), including asbestos.

Although the sampling plan adopted for this investigation is considered appropriate to achieve the stated project objectives, there are necessarily parts of the site that have not been sampled and analysed. This is either due to undetected variations in ground conditions or to budget constraints (as discussed above), or to parts of the site being inaccessible and not available for inspection/sampling, or to vegetation preventing visual inspection and reasonable access. It is therefore considered possible that HBM, including asbestos, may be present in unobserved or untested parts of the site, between and beyond sampling locations, and hence no warranty can be given that asbestos is not present.

Appendix A

Drawings
About this Report

About this Report

October 2024

Introduction

These notes have been provided to amplify Douglas' report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

Douglas' reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

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This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Engagement Terms for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, Douglas will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, Douglas cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, Douglas will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, Douglas requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

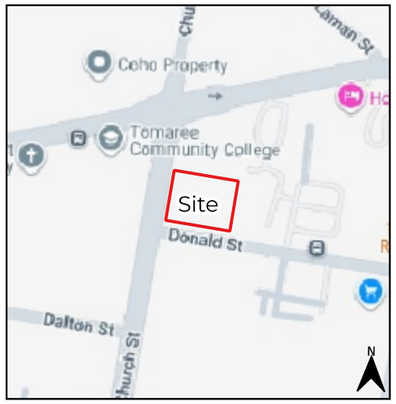
Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. Douglas would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

intentionally blank





Site Location

Legend

- Test Pit Location (current)
- Borehole Location (current)
- Confirmed Asbestos
- Borehole Location (previous)
- CPT Location (previoius)
- Material Fragment Locations (previous)
- Site Boundary & Remediation Area 1 (asbestos impacted area) (approx)
- Remediation Area 2 (possibly UST and UST infrastructure area) (approx)
- Lot Boundary
- Additional Investigation Area (approx)

0 10 20 30 m

NOTE:
1. Drawing adapted from aerial imagery from Metromap dated 30 May 2024.
2. Locations are approximate only and were located using differential GPS typically accurate to ± 0.1 m depending on satellite coverage.

Douglas PARTNERS

CLIENT:	Fortezza Group Pty Ltd		
OFFICE:	Newcastle	DRAWN BY:	PLH
SCALE:	1:400 @A3	DATE:	16.October.2025

TITLE: **Remediation Areas**
Proposed Residential Development
5-7 Church & 42 Donald Street, Nelson Bay NSW

N

Project:	227295.01
DRAWING No:	1
REVISION:	0

LEGEND

- SITE BOUNDARY
- EXISTING PROPERTY BOUNDARY
- EXISTING SURFACE CONTOURS
- EARTHWORKS CONTOURS
- EXISTING SURFACE LEVEL
- FINISHED SURFACE LEVEL
- EXISTING EDGE OF BUILDING
- EXISTING EDGE OF BUILDING EAVE
- PROPOSED NOMINAL KERB LINE
- PROPOSED ROAD CENTRE LINE
- EXISTING STORMWATER DRAINAGE
- EXISTING SEWER
- EXISTING WATER
- EXISTING OVERHEAD ELECTRICITY
- EXISTING TELECOMMUNICATIONS
- EXISTING COMMUNICATIONS
- EXISTING UNKNOWN SERVICE
- EXISTING SIGN
- ABANDONED SERVICE
- EXISTING BATTER
- EXISTING FENCE
- EXISTING RETAINING WALL
- PROPOSED RETAINING WALL
- LIMIT OF WORKS
- BUILDING OUTLINE
- PROPOSED EARTHWORKS PAD

- PROPOSED SHORING WALL
  REFER STRUCTURAL DRAWINGS FOR DETAILS
- PROPOSED EARTHWORKS CUT
- PROPOSED EARTHWORKS FILL

NOTE
FOR SITE SECTIONS REFER DRG No. DA02.

ALL DETAILS SHOWN ARE SUBJECT TO FURTHER DETAILED DESIGN

CHURCH STREET

DONALD STREET

161 D.P.531106

162 D.P.531106

13 SEC.A D.P.5616

REFER ARCHITECTS PLANS FOR FINISHED LEVELS

2.5% CROSSFALL

LIFT PIT TO LIFT MANUFACTURERS REQUIREMENTS

TEMPORARY BATTERS IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS ADVICE

TEMPORARY SHORING ANTICIPATED TO BE REQUIRED TO FACILITATE CONSTRUCTION OF STORMWATER TANK TO BE CONSTRUCTED IN ACCORDANCE WITH SPECIALIST SHORING CONSULTANT AND GEOTECHNICAL ADVICE.

STORMWATER TANK FINISHED FLOOR LEVEL 18.25

A DA02

B DA02

Rev	Date	Description	By	Chk
03	25.08.25	PRELIMINARY - ISSUED FOR INFORMATION	MD	MRB
02	13.12.24	PRELIMINARY - ISSUED FOR INFORMATION	MD	ST
01	23.08.24	PRELIMINARY - ISSUED FOR INFORMATION	MD	ST

fortezza GROUP

0 2.5 5 7.5m
SCALE 1:125
AT ORIGINAL SIZE (A1)

ADG
T:1300 657 402 E: info@adgce.com W: www.adgce.com
Quality Assurance ISO 9001:2015 | Work Health Safety ISO 45001:2018
Environmental Management ISO 14001:2015

Client: FORTEZZA GROUP
Project Name: THE BELVEDERE 5-7 CHURCH STREET & 42 DONALD STREET NELSON BAY, NSW, 2315
Discipline: CIVIL
Status: PRELIMINARY
Designed By: TS
Checked By: ML
Approved By: ML
Project No.: 27727
Drawn By: MD
Scale at A1: 1:125

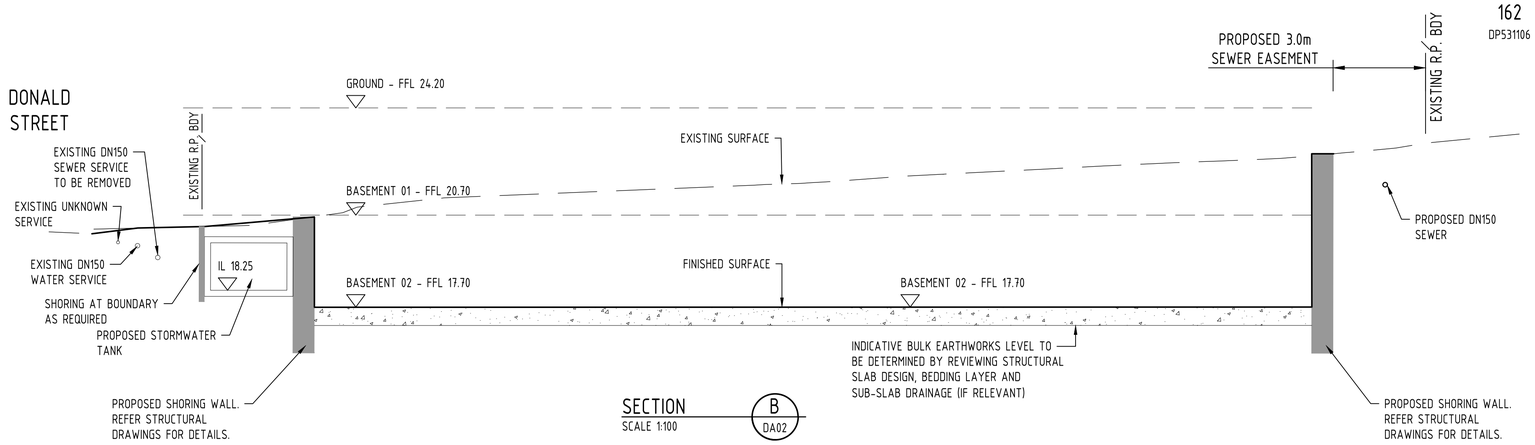
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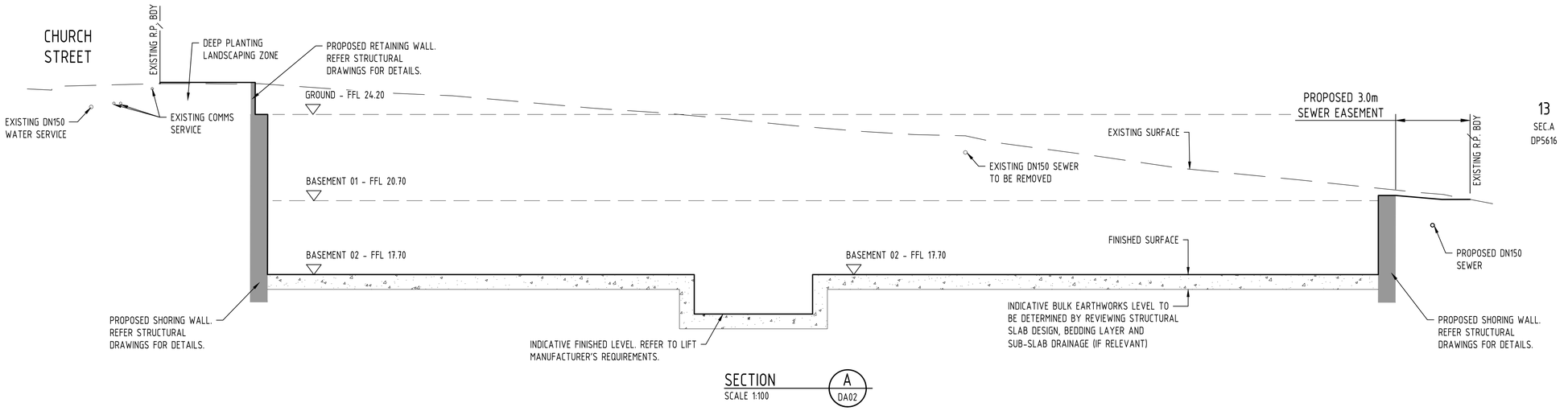
Title: PRELIMINARY EARTHWORKS LAYOUT PLAN
Drawing No.: DA02
Revision: 03

PRELIMINARY
NOT FOR CONSTRUCTION

PLOT DATE: 8/25/2025 3:09 PM FILENAME: J:\GLC\27000\27727\CVL\DWG\DA\27727_DA02_PRELIMINARY EARTHWORKS LAYOUT PLAN.DWG

FULL SIZE ON ORIGINAL 0 10 20 30 40 50 60 70 80 90 100mm





ALL DETAILS SHOWN ARE SUBJECT TO FURTHER DETAILED DESIGN

PRELIMINARY
NOT FOR CONSTRUCTION

Rev	Date	Description	By	Chk
03	25.08.25	PRELIMINARY - ISSUED FOR INFORMATION	MD	MRB
02	13.12.24	PRELIMINARY - ISSUED FOR INFORMATION	MD	ST
01	23.08.24	PRELIMINARY - ISSUED FOR INFORMATION	MD	ST

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0 1 2 3 4 5m
SCALE 1:100
AT ORIGINAL SIZE (A1)

ADG
T:1300 657 402 E: info@adgce.com W: www.adgce.com
Quality Assurance ISO 9001:2015 | Work Health Safety ISO 45001:2018
Environmental Management ISO 14001:2015

Client: FORTEZZA GROUP

Project Name: THE BELVEDERE
5-7 CHURCH STREET &
42 DONALD STREET
NELSON BAY, NSW, 2315

Discipline: CIVIL
Status: PRELIMINARY
Designed By: TS
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Approved By: ML
Project No.: 27727
Drawn By: MD
Scale at A1: 1:100

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Title: PRELIMINARY
EARTHWORKS
SITE SECTIONS

Drawing No.: DA03
Revision: 03

PLOT DATE: 8/25/2025 4:02 PM FILENAME: J:\GLC\27000\27727\CVL\DWG\DA\27727_DA03_PRELIMINARY EARTHWORKS SITE SECTIONS.DWG

FULL SIZE ON ORIGINAL 0 10 20 30 40 50 60 70 80 90 100mm

TOWN PLANNING DRAWINGS - THE BELVEDERE

BUILT FORM & URBAN DESIGN

DRAWING LIST

Page No.	Title	REV
TP100	Cover	B
TP101	Development Matrix	B
TP102	Artist's Impressions	B
TP103	Artist's Impressions	B
TP104	Artist's Impressions	B
TP105	Artist's Impressions	B
TP106	Artist's Impressions	B
TP107	Context Map	B
TP108	Site Plan	B
TP109	Site Analysis Plan	01
TP201	GA Plan - Basement 02	B
TP202	GA Plan - Basement 01	B
TP203	GA Plan - Ground	B
TP204	GA Plan- Level 01	B
TP205	GA Plan- Level 02	B
TP206	GA Plan- Level 03	B
TP207	GA Plan- Level 04	B
TP208	GA Plan- Level 05	B
TP209	GA Plan- Level 06	B
TP210	GA Plan- Level 07	B
TP211	GA Plan - Roof Terrace	B
TP212	GA Plan - Roof	B
TP401	Elevation	B
TP402	Elevation	B
TP403	Elevation	B
TP404	Elevation	B
TP501	Section A	B
TP502	Section B	B
TP601	Site Massing	A
TP602	3D Height Plane	A
TP603	Visual Privacy - Ground Level	A
TP604	Visual Privacy - Levels 01-03	A



TOWN PLANNING

fortezza GROUP

THE BELVEDERE
Developed by Fortezza Group

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Confirm all dimensions on site.
Do not scale off drawings.
All levels are approximate only and are subject to confirmation by licenced surveyor.
All workmanship, materials and construction to comply with the Queensland Building Act 1975, the Queensland Development Code, the Building Code of Australia 2019, Premises Standard and AS1428.1.
Work to be carried out in a neat and appropriate manner.
Where ambiguities or discrepancies exist, Hayes Anderson Lynch Architects Pty. Ltd. shall be contacted for clarification.

Date	Issue	Details	Checked
19/08/25	P4	Client Review	RH
01/06/25	A	Issue for Lodgement	RH
06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

HAYES ANDERSON LYNCH ARCHITECTS PTY LTD

ARCHITECTS
TOWN PLANNERS
INTERIOR DESIGNERS

3 / 709 MAIN STREET
KANGAROO POINT QLD 4169

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E reception@halarchitects.com.au
W www.halarchitects.com.au

Member Australian Institute of Architects

Project
The Belvedere
5-7 Church st, 42 Donald st , NSW 2315

Drawing Title
Cover

Scale @ A3	Drawn:	Checked:
1:1.15, 1:1.39	MC/RH	EA

Project Number	Drawing Number	Issue
H4700DON	TP100	P4

DEVELOPMENT MATRIX

KEY PROPOSAL STATISTICS - MULTIPLE DWELLING	
Site Area:	2,202 m² (approx)
Frontage:	94.55 m (approx)
Number of Storeys:	09
Maximum Building Height :	29.7 m AHD (approx)
Car Spaces - Commercial	2
Car Spaces - Resident	78
Car Spaces - Visitor	18
Total	98

DWELLING/ OFFICE/ RETAIL SUMMARY	
2 BED	34
3 BED	22
OFFICE	1
TOTAL	57

GROSS FLOOR AREA	
TOTAL GFA	**6,164.15 m²**
TOTAL FSR	**2.8:1**

COMMUNAL OPEN SPACE SUMMARY		
GRAND LOBBY	71.22	
ROOF TERRACE	365.69	
STRETCHING LAWN	44.42	
WELLNESS	112.63	
TOTAL COMMUNAL OPEN SPACE	593.96 m²	(27%)

LANDSCAPING		
DEEP SOIL	289.82	(14%)
CONTAINERIZED PLANTING	552.52 m²	(24.9%)

Home Storey	App Number	Apartment Type	# Cars	Internal Area (m2)	POS (m2)
Ground					
	001	2 BED	1	93.70	107.35
	002	2 BED	1	89.04	80.63
	003	2 BED	1	89.08	80.94
	004	2 BED	1	89.08	80.57
	005	2 BED	1	89.08	41.22
	006	2 BED	1	93.83	52.68
	007	2 BED	1	93.34	31.67
	008	MANAGERS OFFICE	2	26.75	
Level 01					
	101	2 BED	1	93.70	19.56
	102	2 BED	1	89.04	14.74
	103	2 BED	1	89.08	16.36
	104	2 BED	1	89.08	16.34
	105	2 BED	1	89.08	14.59
	106	2 BED	1	93.83	19.53
	107	2 BED	1	94.15	31.27
	108	2 BED	1	84.79	16.03
	109	2 BED	1	97.37	32.50
Level 02					
	201	2 BED	1	93.70	19.64
	202	2 BED	1	89.04	14.60
	203	2 BED	1	89.08	16.52
	204	2 BED	1	89.08	16.78
	205	2 BED	1	89.08	15.87
	206	2 BED	1	93.83	19.44
	207	2 BED	1	94.15	32.21
	208	2 BED	1	84.79	15.53
	209	2 BED	1	97.37	32.46
Level 03					
	301	2 BED	1	93.70	19.58
	302	2 BED	1	89.04	14.62
	303	2 BED	1	89.08	16.35
	304	2 BED	1	89.08	16.36
	305	2 BED	1	89.08	14.63
	306	2 BED	1	93.83	19.51
	307	2 BED	1	94.15	31.50
	308	2 BED	1	84.79	19.81
	309	2 BED	1	97.37	32.56
Level 04					
	401	3 BED	2	123.12	19.59
	402	3 BED	2	123.84	50.47
	403	3 BED	2	123.82	50.70
	404	3 BED	2	123.99	15.84
	405	3 BED	2	126.40	43.19
	406	3 BED	2	130.94	50.96
Level 05					
	501	3 BED	2	123.12	19.51
	502	3 BED	2	123.84	26.10
	503	3 BED	2	123.82	26.42
	504	3 BED	2	123.99	15.97
	505	3 BED	2	126.40	29.92
	506	3 BED	2	130.94	33.15
Level 06					
	601	3 BED	2	123.12	19.93
	602	3 BED	2	123.84	26.34
	603	3 BED	2	123.82	25.76
	604	3 BED	2	123.99	15.81
	605	3 BED	2	126.40	29.22
	606	3 BED	2	130.94	32.91
Level 07					
	701	3 BED	2	173.37	57.52
	702	3 BED	2	142.34	22.05
	703	3 BED	2	143.19	22.07
	704	3 BED	2	172.11	56.27
Level 08- Roof Terrace					
	701	3 BED UPPER		22.37	145.81
	704	3 BED UPPER		17.55	145.44
				6,051.52 m²	**2,004.90 m²**

STORAGE PER RESIDENCE

Apartment #	Home Story Name	Volume m3 (Net)
001		
	Basement 01	3.92
	Ground	4.87
002		
	Basement 01	3.92
	Ground	5.22
003		
	Basement 01	5.82
	Ground	6.16
004		
	Basement 01	4.48
	Ground	6.16
005		
	Basement 01	4.48
	Ground	5.22
006		
	Basement 01	4.48
	Ground	4.87
007		
	Basement 01	4.48
	Ground	4.12
101		
	Basement 01	3.92
	Level 01	4.14
102		
	Basement 01	3.83
	Level 01	4.48
103		
	Basement 01	3.83
	Level 01	5.23
104		
	Basement 02	5.61

STORAGE PER RESIDENCE

Apartment #	Home Story Name	Volume m3 (Net)
	Level 01	5.23
105		
	Basement 01	7.84
	Level 01	4.48
106		
	Basement 01	7.00
	Level 01	4.00
107		
	Basement 01	7.41
	Level 01	4.02
108		
	Basement 01	3.83
	Level 01	4.68
109		
	Basement 01	6.03
	Level 01	4.73
201		
	Basement 02	3.92
	Level 02	4.07
202		
	Basement 02	3.92
	Level 02	4.48
203		
	Basement 02	4.01
	Level 02	5.23
204		
	Basement 02	3.83
	Level 02	5.23
205		
	Basement 02	6.02
	Level 02	4.48
206		

STORAGE PER RESIDENCE

Apartment #	Home Story Name	Volume m3 (Net)
	Basement 02	3.83
	Level 02	4.09
207		
	Basement 02	3.83
	Level 02	5.47
208		
	Basement 02	4.01
	Level 02	4.68
209		
	Basement 02	8.04
	Level 02	4.44
301		
	Basement 01	3.83
	Level 03	4.18
302		
	Basement 02	3.84
	Level 03	4.48
303		
	Basement 02	3.84
	Level 03	5.23
304		
	Basement 02	3.92
	Level 03	5.23
305		
	Basement 02	3.84
	Level 03	4.48
306		
	Basement 02	4.78
	Level 03	4.00
307		
	Basement 02	3.84
	Level 03	5.49

STORAGE PER RESIDENCE

Apartment #	Home Story Name	Volume m3 (Net)
308		
	Basement 02	3.84
	Level 03	4.68
309		
	Basement 02	3.83
	Level 03	4.73
401		
	Basement 02	6.37
	Level 04	5.13
402		
	Basement 02	5.35
	Level 04	5.43
403		
	Basement 02	5.88
	Level 04	5.76
404		
	Basement 02	5.51
	Level 04	5.00
405		
	Basement 02	4.64
	Level 04	5.41
406		
	Basement 02	8.15
	Level 04	5.30
501		
	Basement 01	5.60
	Level 05	5.13
502		
	Basement 02	4.64
	Level 05	5.43
503		
	Basement 01	5.51

STORAGE PER RESIDENCE

Apartment #	Home Story Name	Volume m3 (Net)
	Level 05	5.76
504		
	Basement 02	10.18
	Level 05	5.00
505		
	Basement 01	7.00
	Level 05	5.41
506		
	Basement 02	7.16
	Level 05	5.19
601		
	Basement 01	6.38
	Level 06	5.13
602		
	Basement 01	5.86
	Level 06	5.43
603		
	Basement 01	6.59
	Level 06	5.76
604		
	Basement 01	8.92
	Level 06	5.00
605		
	Basement 01	4.01
	Level 06	6.40
606		
	Basement 01	4.90
	Level 06	5.39
701		
	Basement 01	10.37
	Level 07	5.43
	Level 08- Roof Terrace	5.26

STORAGE PER RESIDENCE

Apartment #	Home Story Name	Volume m3 (Net)
702		
	Basement 01	5.77
	Level 07	6.56
703		
	Basement 01	8.04
	Level 07	5.70
704		
	Basement 01	4.01
	Level 07	2.76
	Level 08- Roof Terrace	5.24
BODY CORP		
	Basement 02	4.77

TOWN PLANNING

fortezza GROUP

THE BELVEDERE
Developed by Fortezza Group

fortezzagroup.com.au
07 3236 4188
admin@fortezzagroup.com.au

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01/06/25	A	Issue for Lodgement	RH
06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

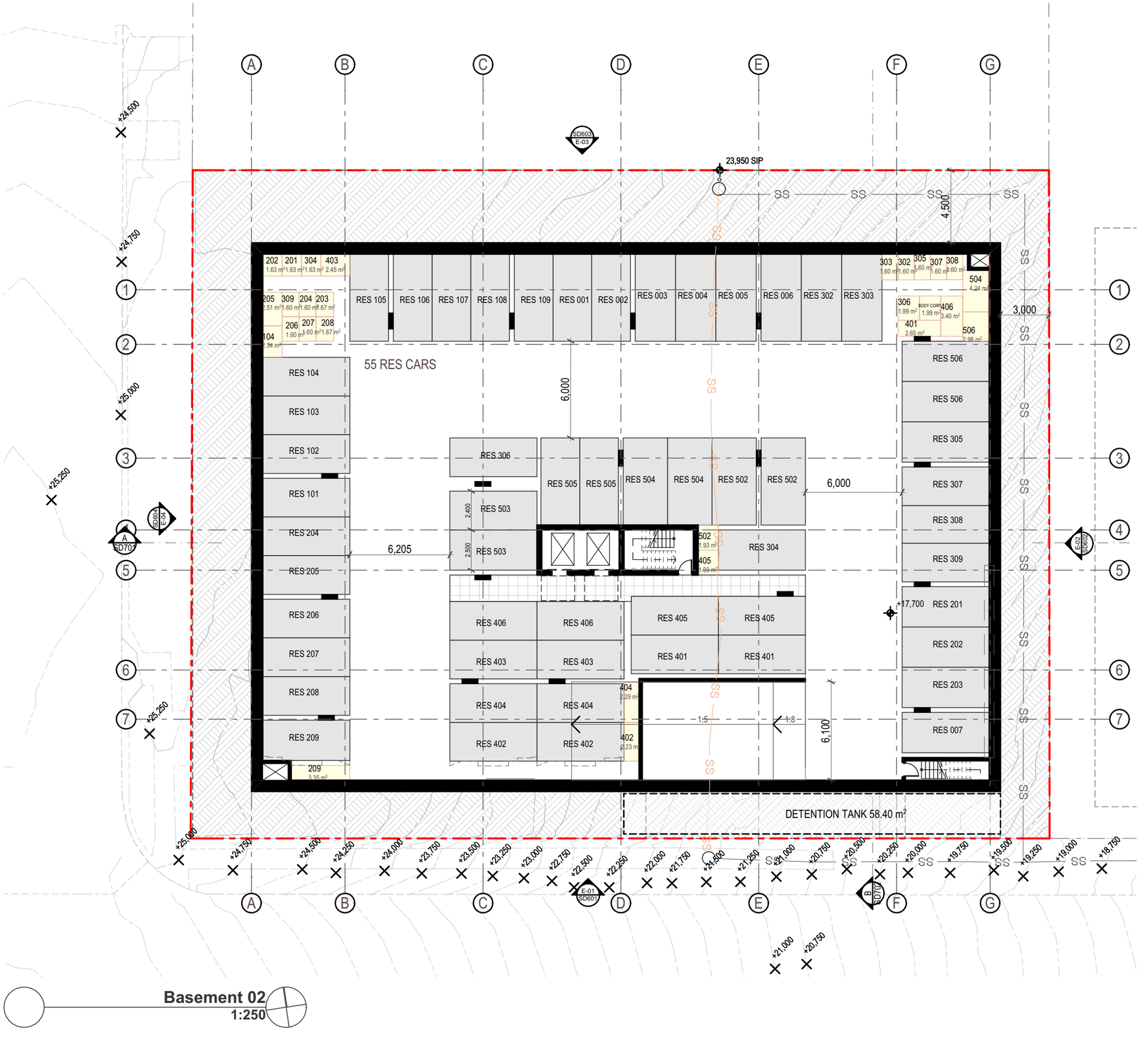
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Project
The Belvedere
5-7 Church st, 42 Donald st ,
NSW 2315

Drawing Title
Development Matrix

Scale @ A3	Drawn:	Checked:
1:1.67, 1:1, 1:2.22	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP101**	P4

STORAGE ZONES



Basement 02
1:250

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Date	Issue	Details	Checked
19/08/25	P4	Client Review	RH
01/06/25	A	Issue for Lodgement	RH
06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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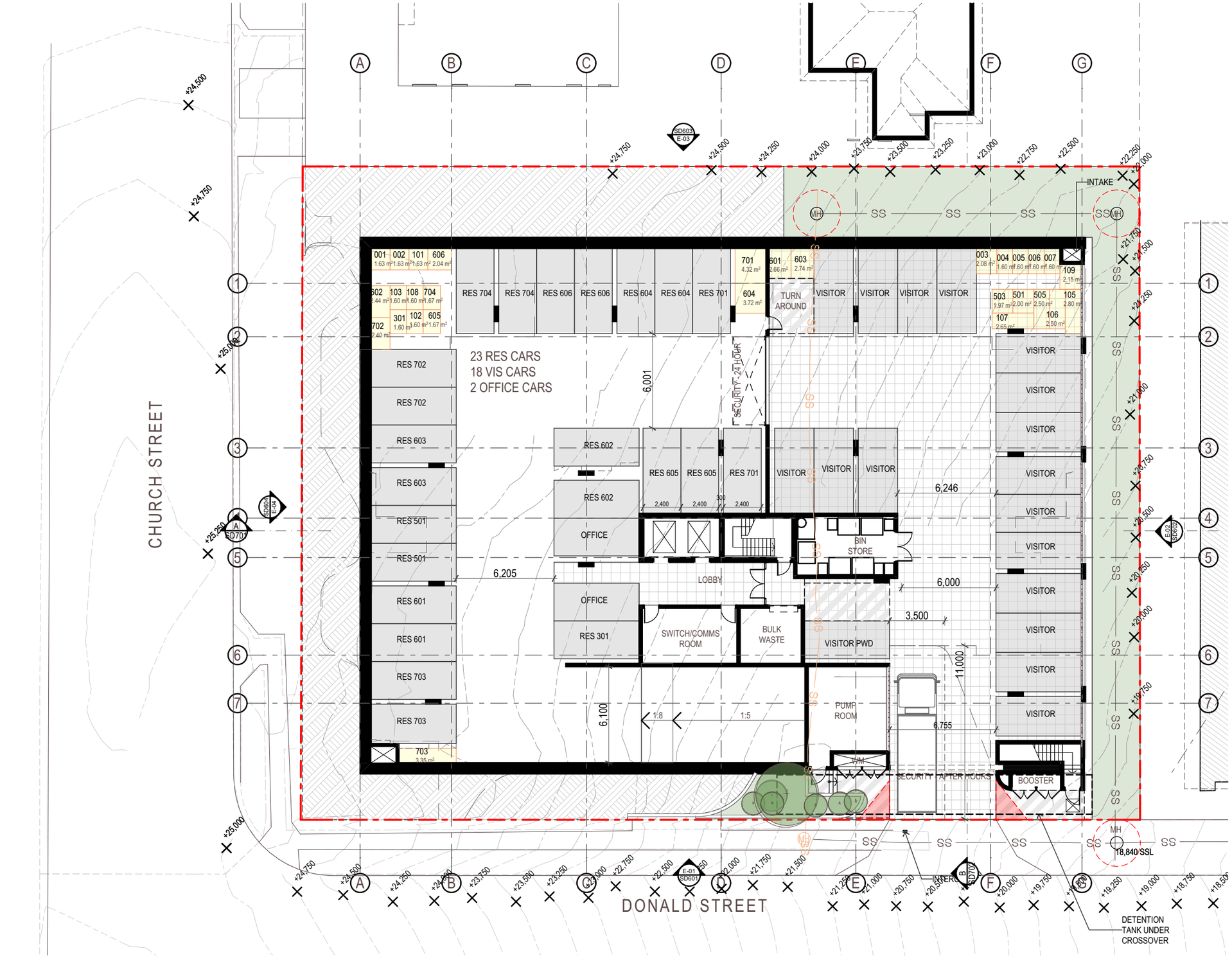
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Project
The Belvedere
5-7 Church st, 42 Donald st , NSW 2315

Drawing Title
GA Plan - Basement 02

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP201**	P4

STORAGE ZONES



Basement 01
1:250

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01/06/25	A	Issue for Lodgement	RH
06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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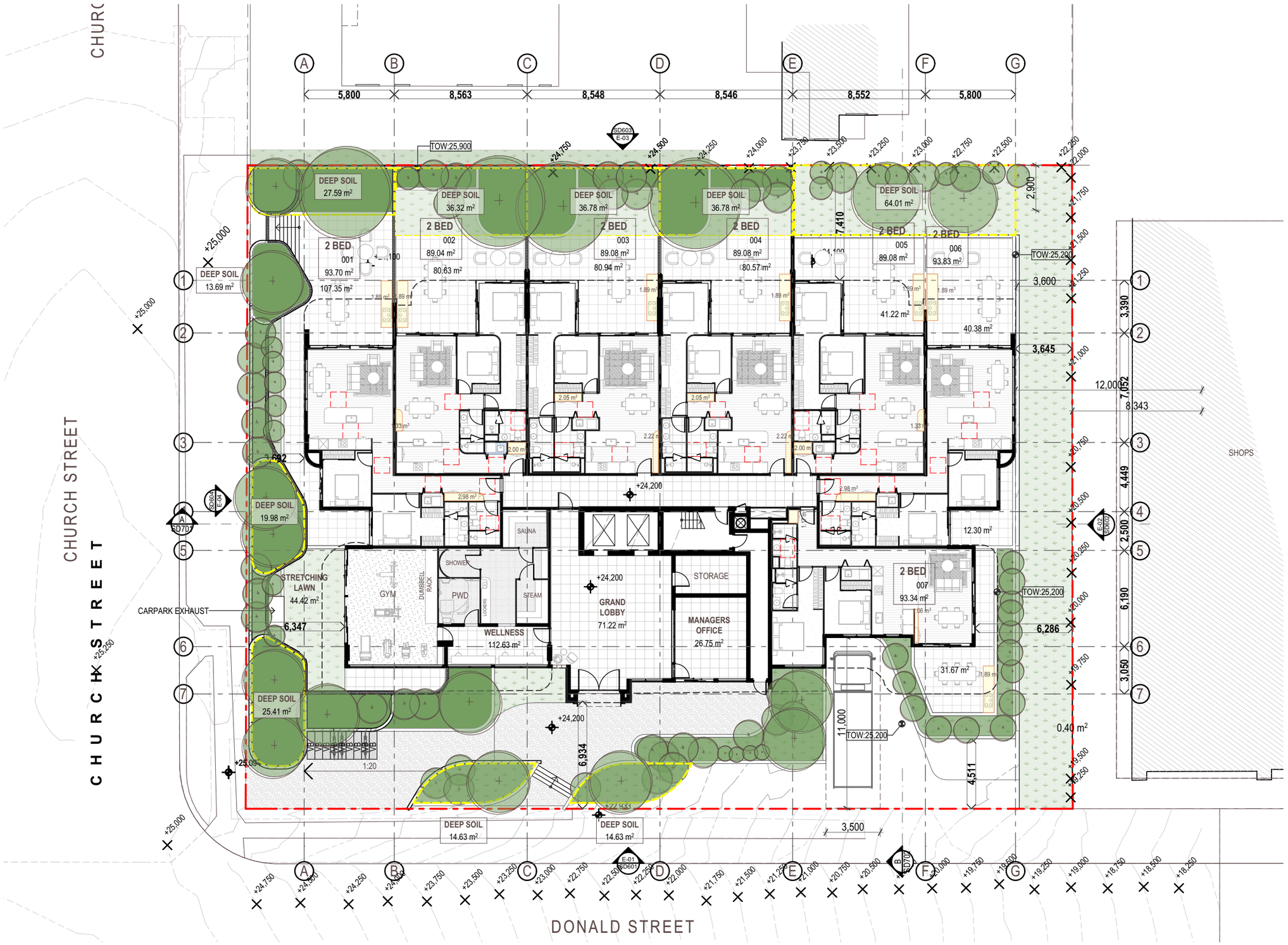
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Project
The Belvedere
5-7 Church st, 42 Donald st , NSW 2315

Drawing Title
GA Plan - Basement 01

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP202**	P4

STORAGE ZONES



Ground
1:250

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19/08/25	P4	Client Review	RH
01/06/25	A	Issue for Lodgement	RH
06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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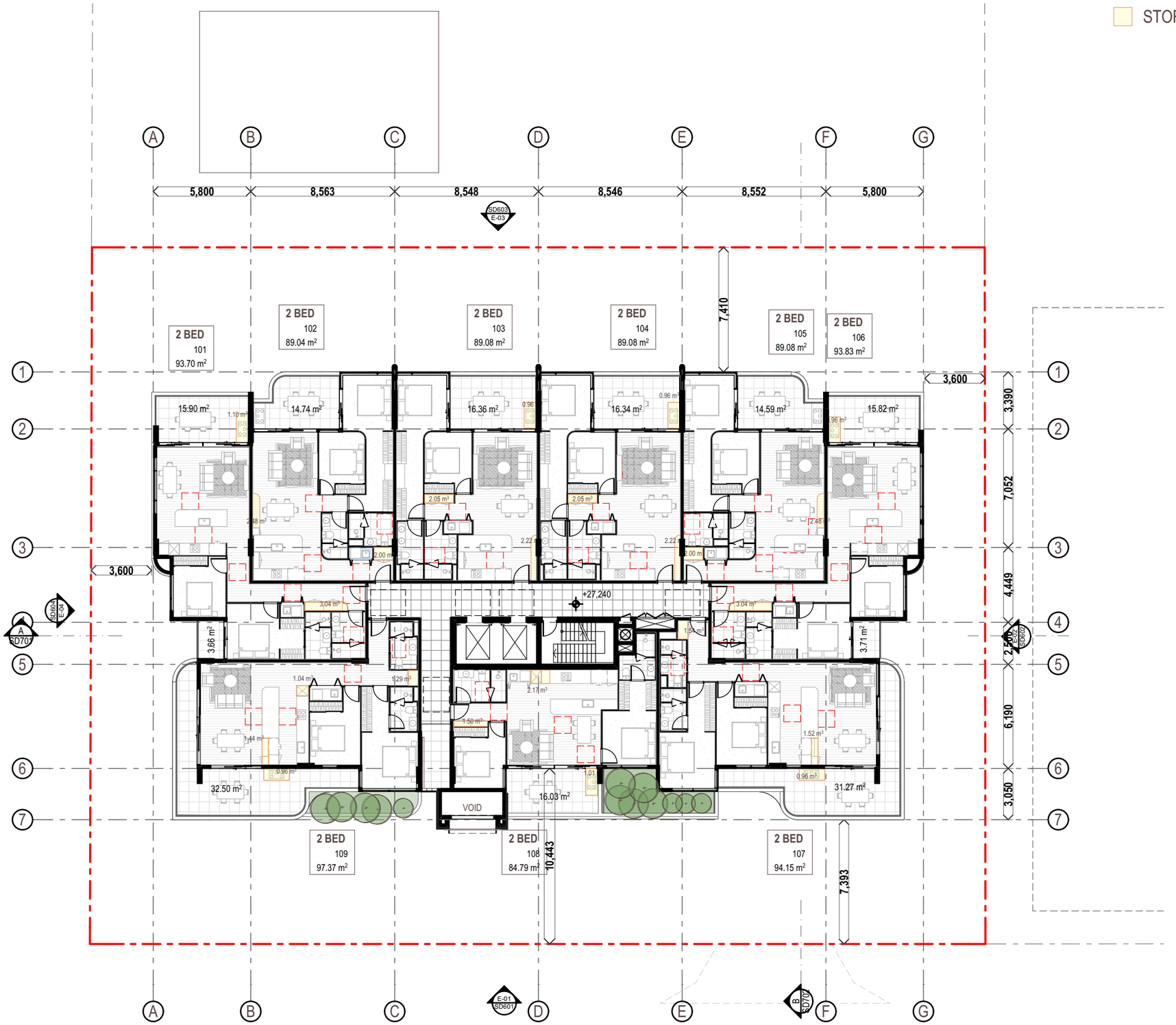
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Project
The Belvedere
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NSW 2315

Drawing Title
GA Plan - Ground

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP203**	P4

STORAGE ZONES



Level 01
1:250

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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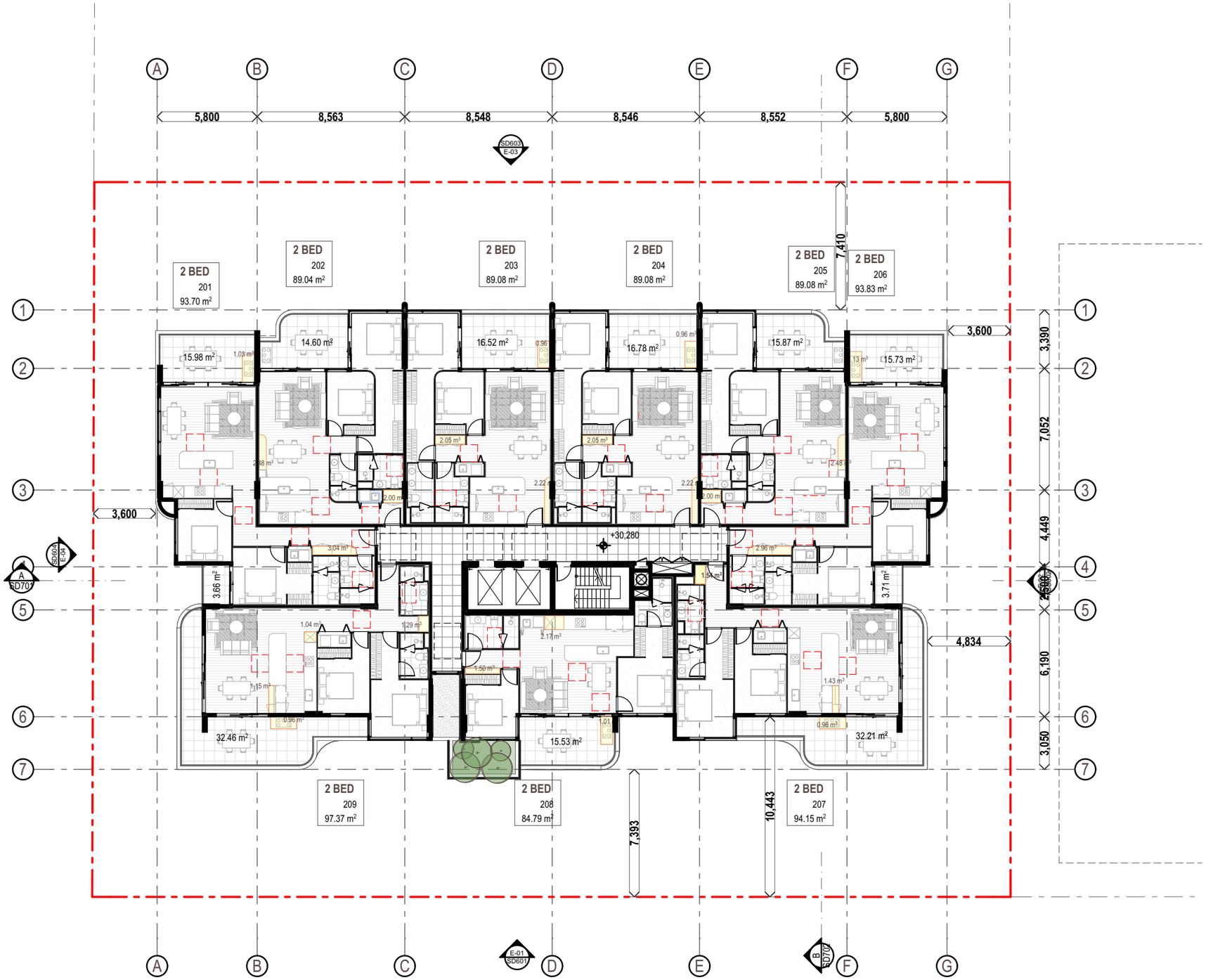
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Project
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Drawing Title
GA Plan- Level 01

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP204**	P4

STORAGE ZONES



Level 02
1:250

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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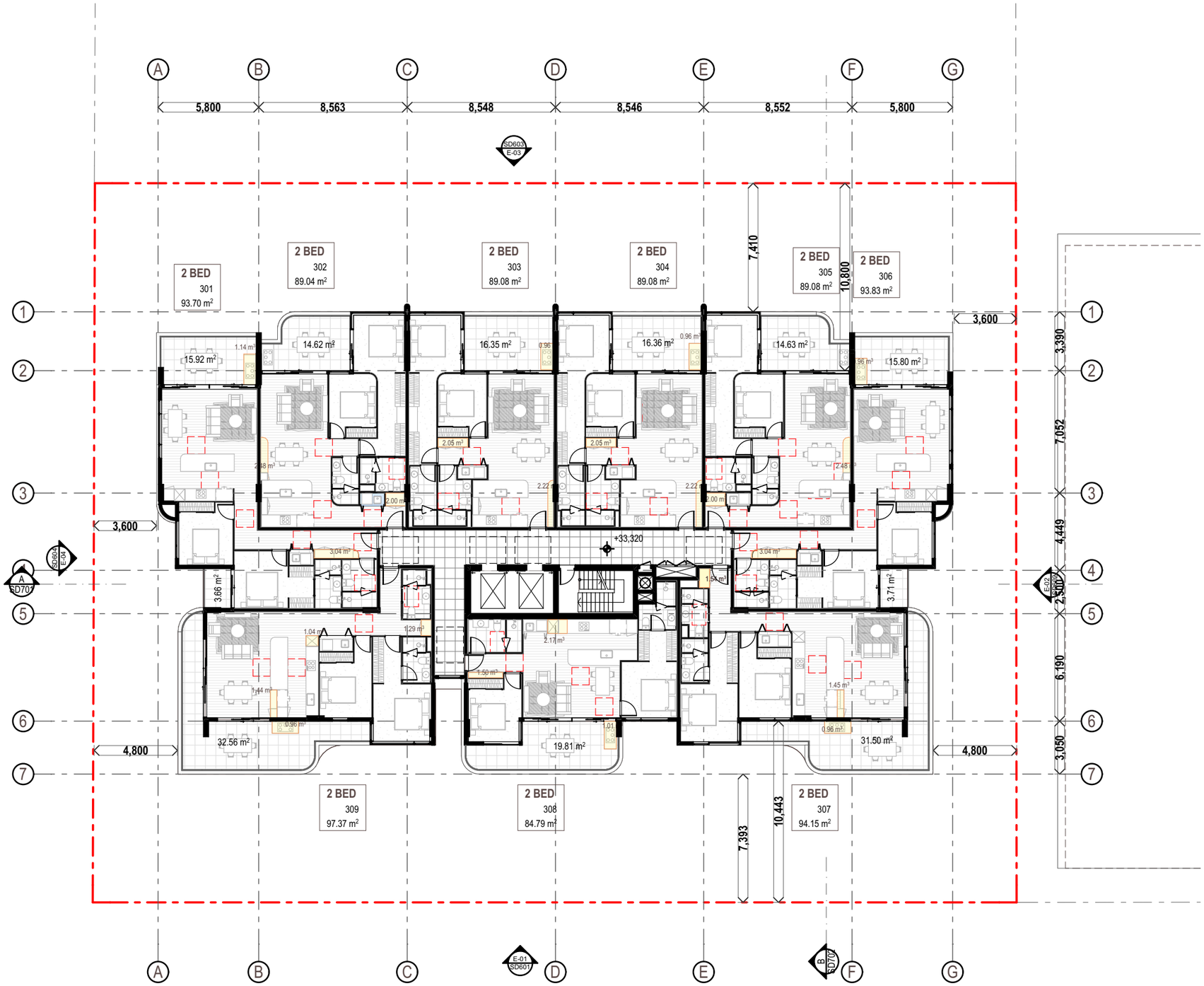
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Project
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Drawing Title
GA Plan- Level 02

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP205**	P4

STORAGE ZONES



Level 03
1:250

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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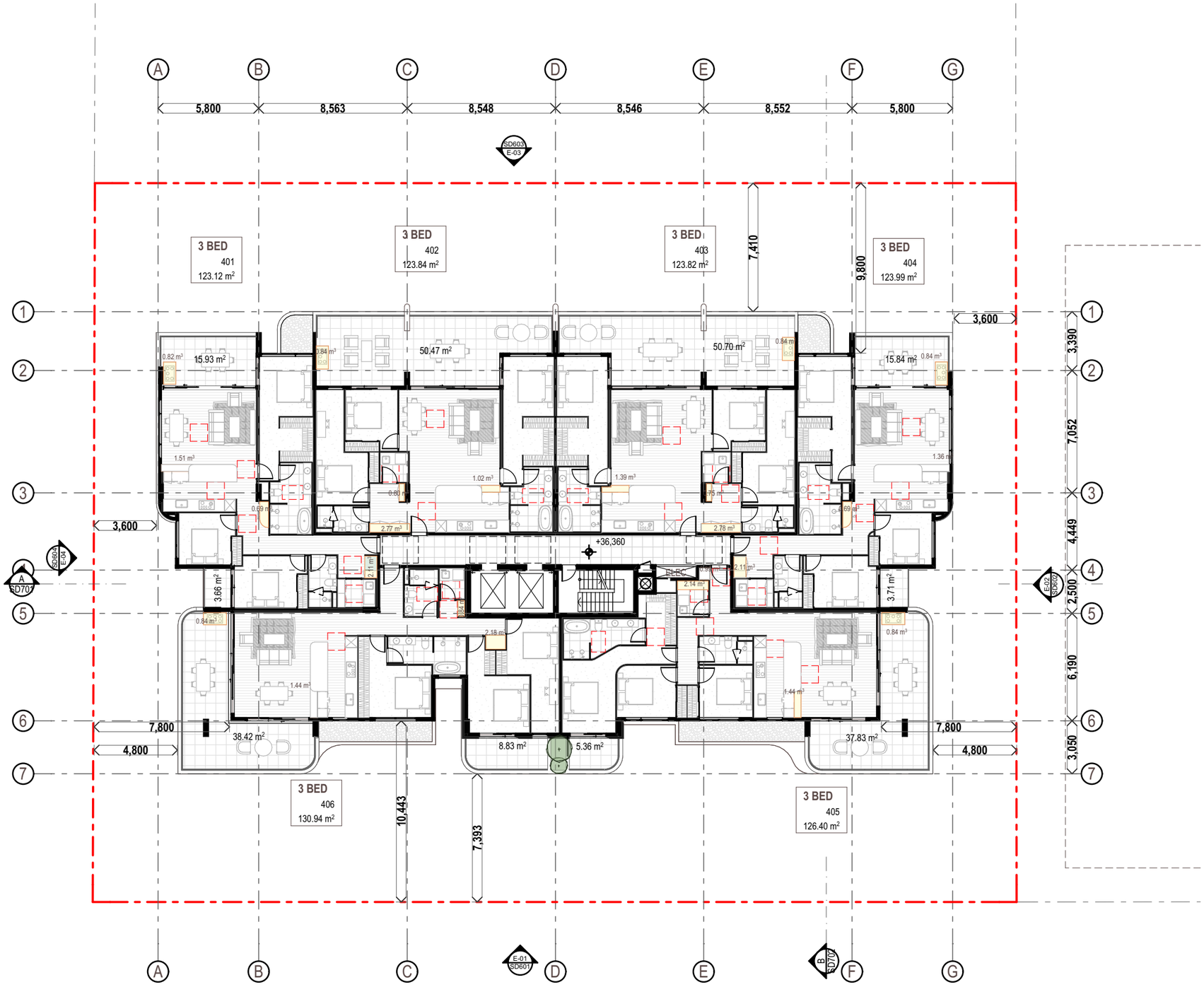
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Drawing Title
GA Plan- Level 03

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP206**	P4

STORAGE ZONES



Level 04
1:250

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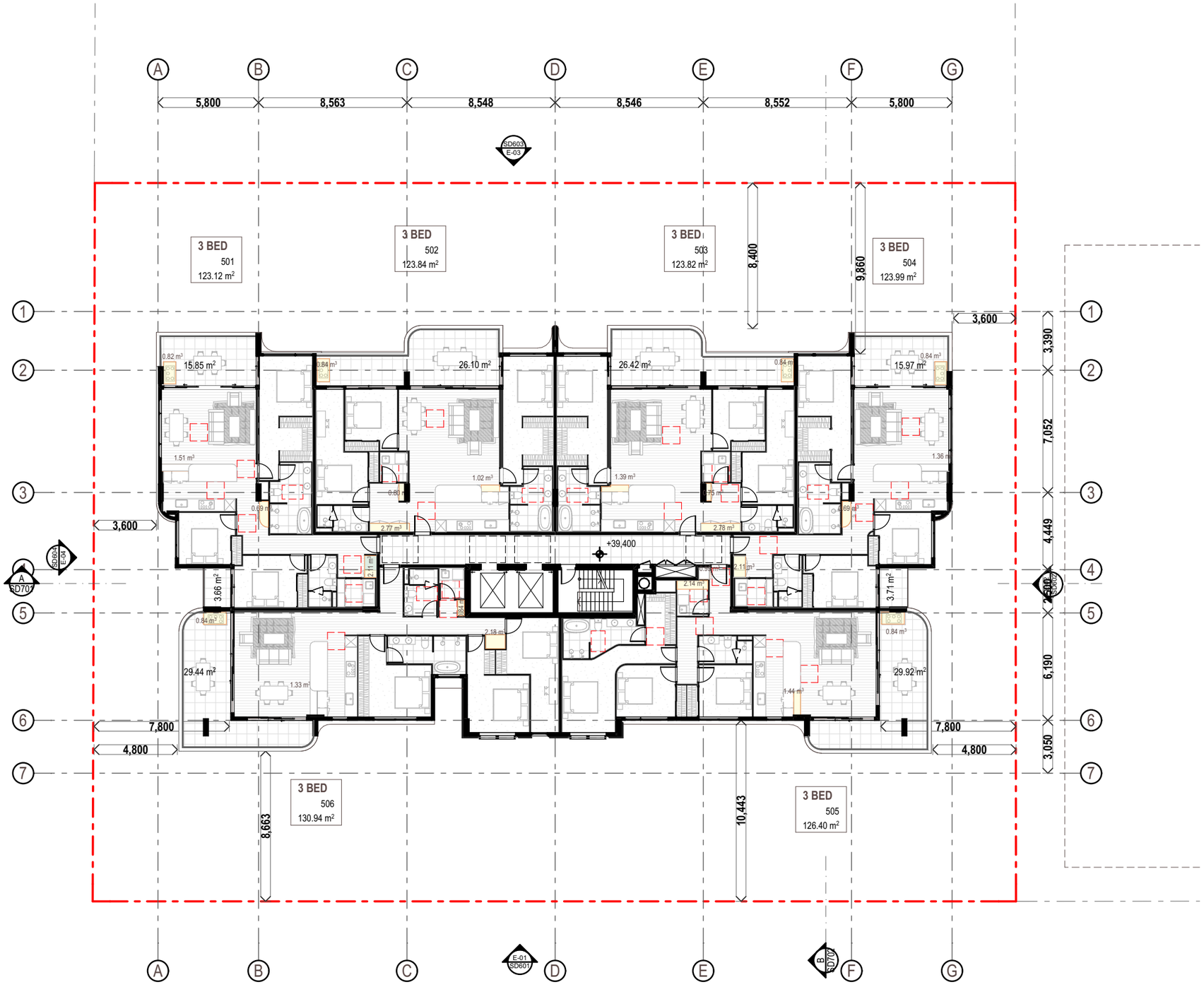
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Drawing Title
GA Plan- Level 04

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1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP207**	P4

STORAGE ZONES



Level 05
1:250

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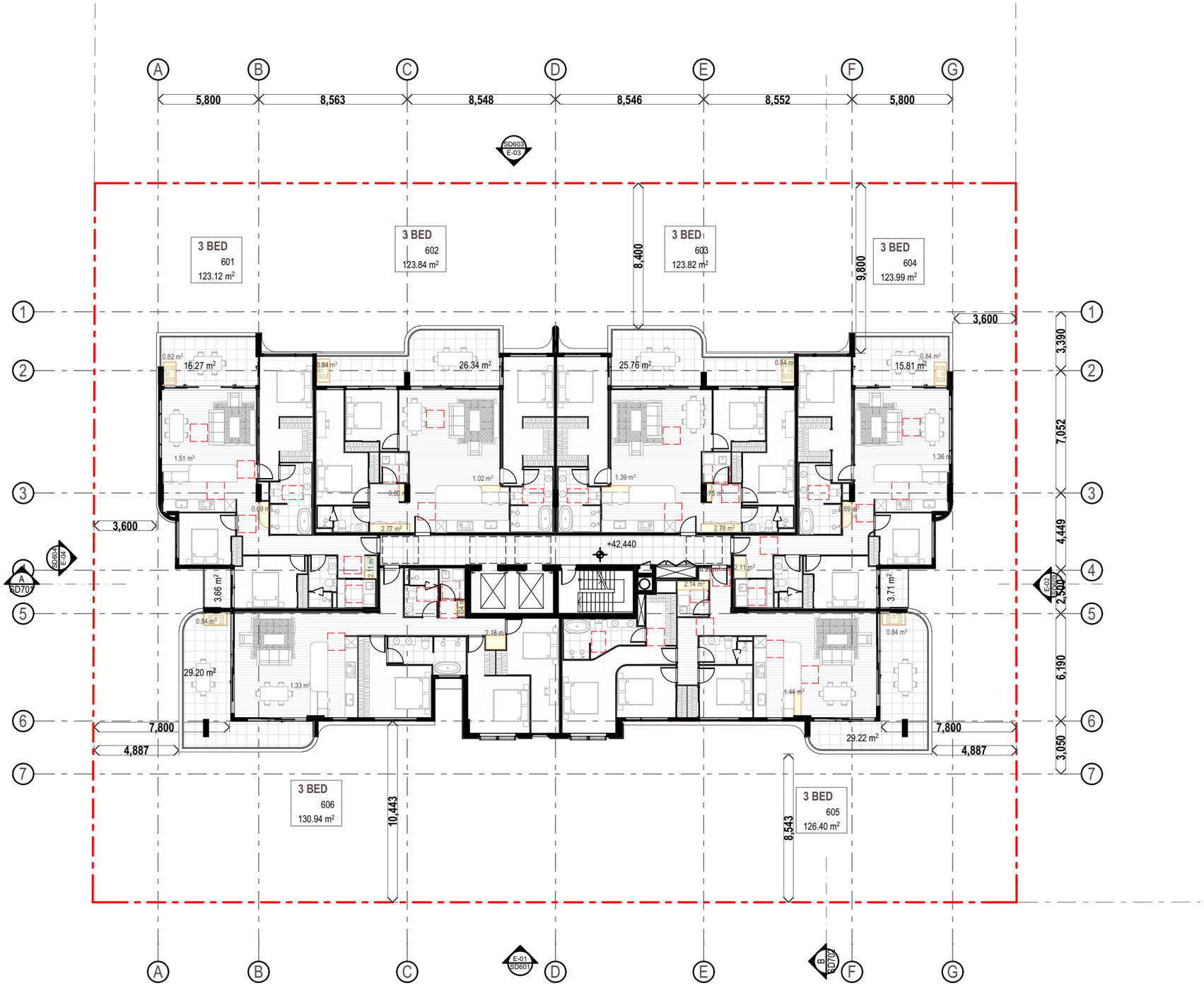
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Drawing Title
GA Plan- Level 05

Scale @ A3	Drawn:	Checked:
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Project Number	**Drawing Number**	**Issue**
H4700DON	**TP208**	P4

STORAGE ZONES



Level 06
1:250

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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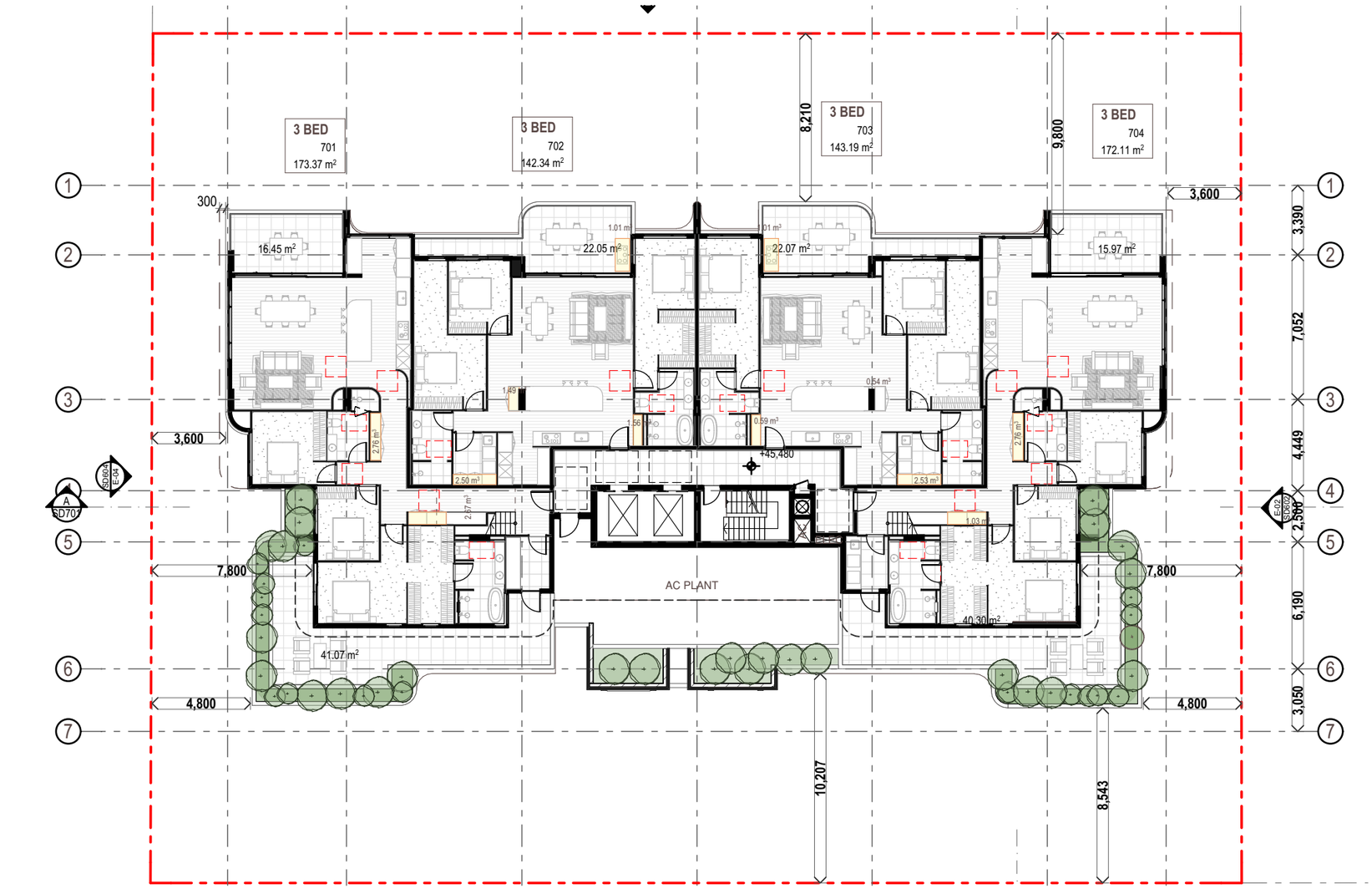
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Drawing Title
GA Plan- Level 06

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP209**	P4

STORAGE ZONES



Level 07
1:250

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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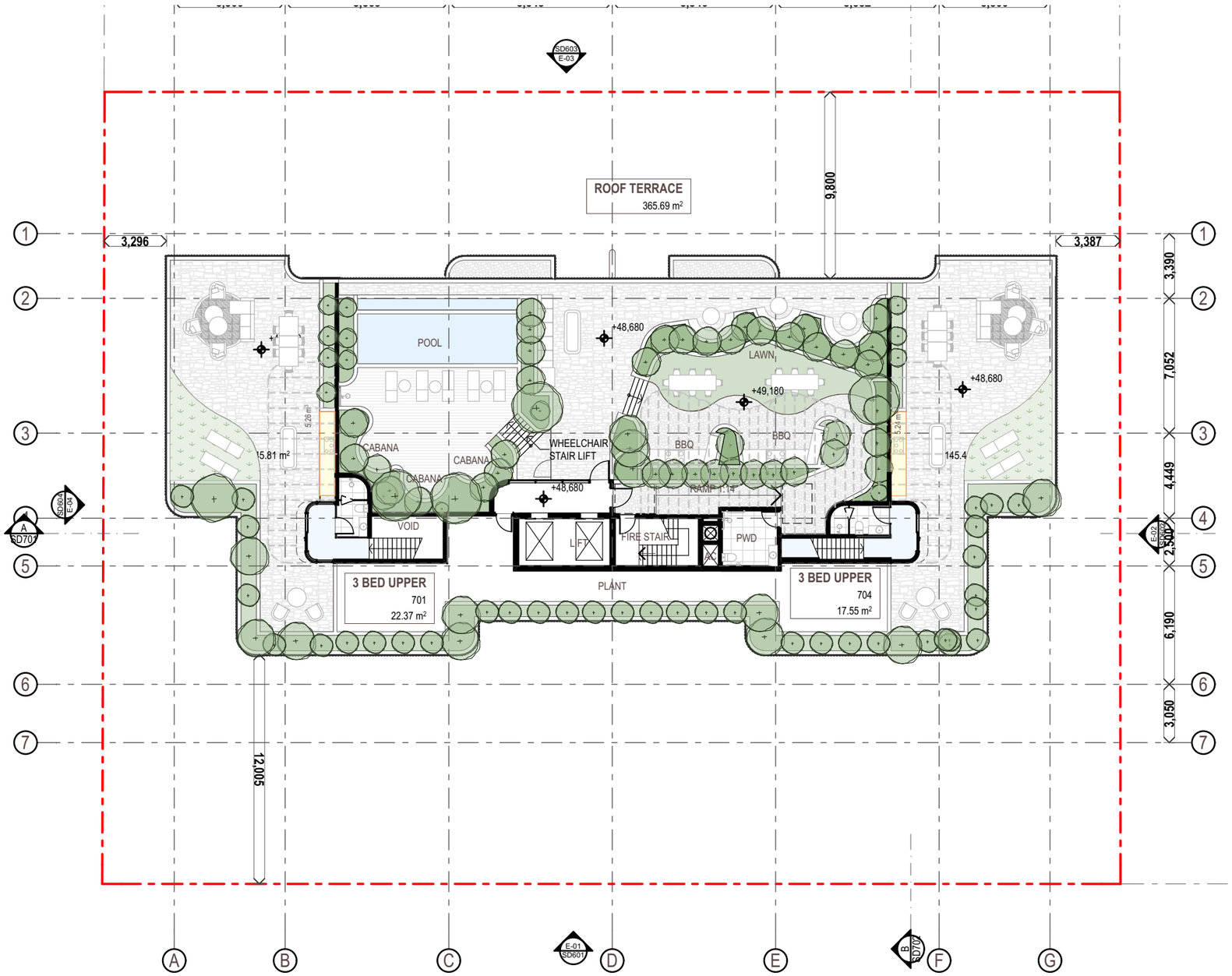
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Drawing Title
GA Plan- Level 07

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP210**	P4

STORAGE ZONES



Level 08- Roof Terrace
1:250

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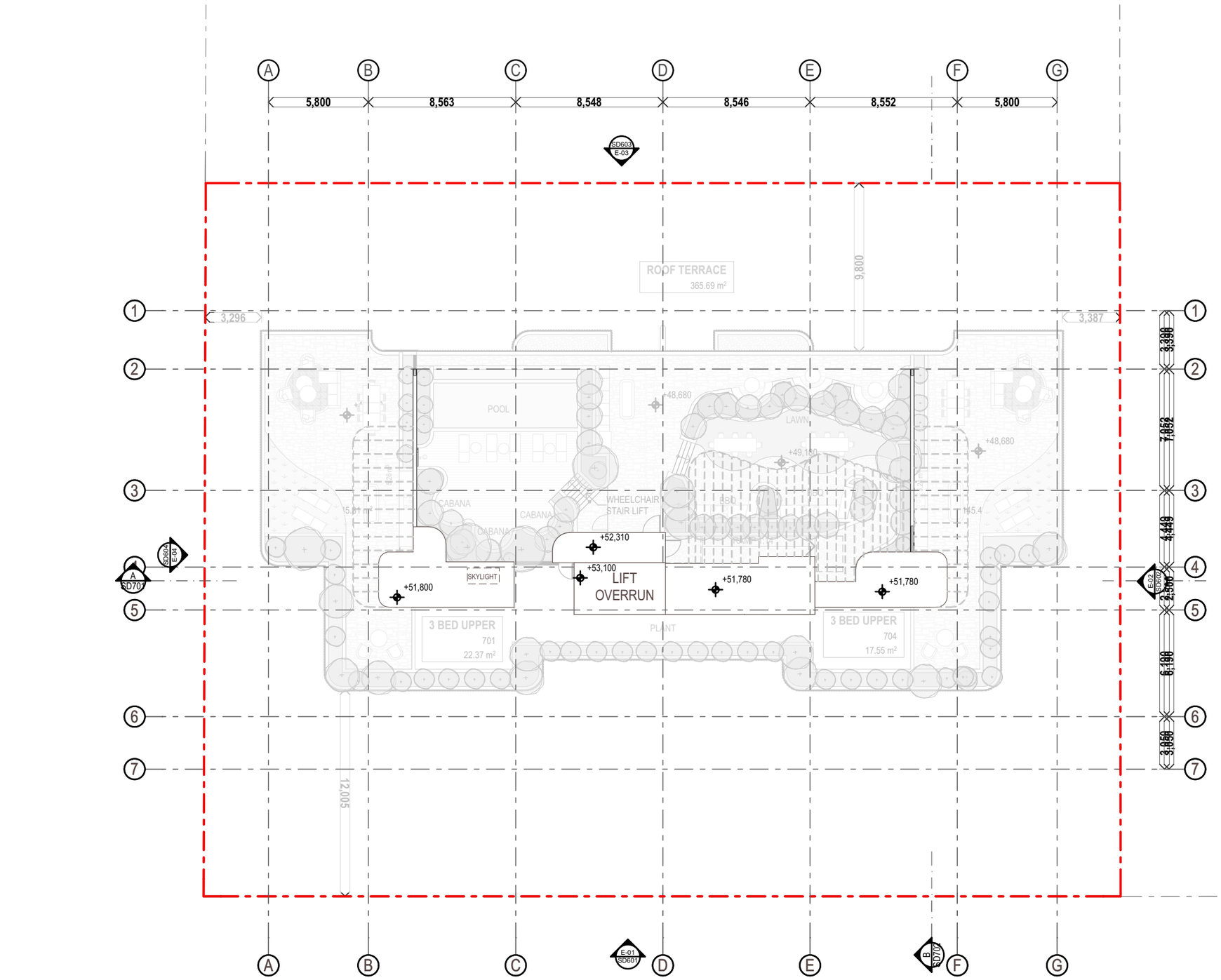
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01/06/25	A	Issue for Lodgement	RH
06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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Project
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Drawing Title
GA Plan - Roof Terrace

Scale @ A3	Drawn:	Checked:
1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP211**	P4



Roof
1:250

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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Project
The Belvedere
5-7 Church st, 42 Donald st ,
NSW 2315

Drawing Title
GA Plan - Roof

Scale @ A3	Drawn:	Checked:
1:200, 1:250	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP212**	P4



E-01 Elevation
1:200

MATERIALS & COLOURS

- XP01 — Painted Render Dulux 'Surfmist' or Similar
- XP03 — Painted Render Dulux 'Night Sky' or Similar
- XP02 — Painted Render Dulux 'Lexicon Quarter' or Similar

FENESTRATION / BALUSTRADES

- GL01 — Window Glass Light Grey Tinted Aluminium powder coated frame
- Sliding Doors Aluminium Powder Coated to Match Dulux "Monument" or Similar
- BAL-01 — Balustrade Glass Tinted Patch fixed

ARCHITECTURAL ELEMENTS

- Balcony Concrete Planters
- SC01 — Privacy screens Coated battens in feature colour
- Powder Coated Aluminium Custom Angle Gates Coated to Match Dulux White 'Lexicon' or Similar
- SC02 — Breeze blocks Colour to match "XP02" or similar

FEATURE MATERIALS

- BR01 — White brick Colour to match "XP02" or similar
- XF01 — Flutted concrete face: Colour = XP03
- CL01 — Vertical batten Colour to match "XP03" or similar
- XF02 — Splitfaced coloured blockwork wall or similar

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Date	Issue	Details	Checked
19/08/25	B	Client Review	RH
01/06/25	A	Issue for Lodgement	RH
06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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Project
The Belvedere
5-7 Church st, 42 Donald st , NSW 2315

Drawing Title
Elevation

Scale @ A3	Drawn:	Checked:
1:200	DL	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP401**	B



E-02 **Elevation** 1:200

MATERIALS & COLOURS

- XP01 — Painted Render Dulux 'Surfmist' or Similar
- XP02 — Painted Render Dulux 'Lexicon Quarter' or Similar
- XP03 — Painted Render Dulux 'Night Sky' or Similar

FENESTRATION / BALUSTRADES

- GL01 — Window Glass Light Grey Tinted Aluminium powder coated frame
- Sliding Doors Aluminium Powder Coated to Match Dulux "Monument" or Similar
- BAL-01 — Balustrade Glass Tinted Patch fixed

ARCHITECTURAL ELEMENTS

- Balcony Concrete Planters
- SC01 — Privacy screens Coated battens in feature colour
- Powder Coated Aluminium Custom Angle Gates Coated to Match Dulux White 'Lexicon' or Similar
- SC02 — Breeze blocks Colour to match "XP02" or similar

FEATURE MATERIALS

- BR01 — White brick Colour to match "XP02" or similar
- XF01 — Flutted concrete face: Colour = XP03
- CL01 — Vertical batten Colour to match "XP03" or similar
- XF02 — Splitfaced coloured blockwork wall or similar

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Elevation

Scale @ A3	Drawn:	Checked:
1:200	DL	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP402**	B



E-03 Elevation 1:200

MATERIALS & COLOURS

- XP01 — Painted Render Dulux 'Surfmist' or Similar
- XP02 — Painted Render Dulux 'Lexicon Quarter' or Similar
- XP03 — Painted Render Dulux 'Night Sky' or Similar

FENESTRATION / BALUSTRADES

- GL01 — Window Glass Light Grey Tinted Aluminium powder coated frame
- BAL-01 — Balustrade Glass Tinted Patch fixed
- Sliding Doors Aluminium Powder Coated to Match Dulux "Monument" or Similar

ARCHITECTURAL ELEMENTS

- Balcony Concrete Planters
- Powder Coated Aluminium Custom Angle Gates Coated to Match Dulux White 'Lexicon' or Similar
- SC01 — Privacy screens Coated battens in feature colour
- SC02 — Breeze blocks Colour to match "XP02" or similar

FEATURE MATERIALS

- BR01 — White brick Colour to match "XP02" or similar
- CL01 — Vertical batten Colour to match "XP03" or similar
- XF01 — Flutted concrete face: Colour = XP03
- XF02 — Splitfaced coloured blockwork wall or similar

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06/06/25	P2	Preliminary	RH
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Drawing Title
Elevation

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1:200	DL	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP403**	B



E-04 **Elevation**
1:200

MATERIALS & COLOURS

- XP01 — Painted Render Dulux 'Surfmist' or Similar
- XP02 — Painted Render Dulux 'Lexicon Quarter' or Similar
- XP03 — Painted Render Dulux 'Night Sky' or Similar

FENESTRATION / BALUSTRADES

- GL01 — Window Glass Light Grey Tinted Aluminium powder coated frame
- Sliding Doors Aluminium Powder Coated to Match Dulux "Monument" or Similar
- BAL-01 — Balustrade Glass Tinted Patch fixed

ARCHITECTURAL ELEMENTS

- Balcony Concrete Planters
- Powder Coated Aluminium Custom Angle Gates Coated to Match Dulux White 'Lexicon' or Similar
- SC01 — Privacy screens Coated battens in feature colour
- SC02 — Breeze blocks Colour to match "XP02" or similar

FEATURE MATERIALS

- BR01 — White brick Colour to match "XP02" or similar
- CL01 — Vertical batten Colour to match "XP03" or similar
- XF01 — Flutted concrete face: Colour = XP03
- XF02 — Splitfaced coloured blockwork wall or similar

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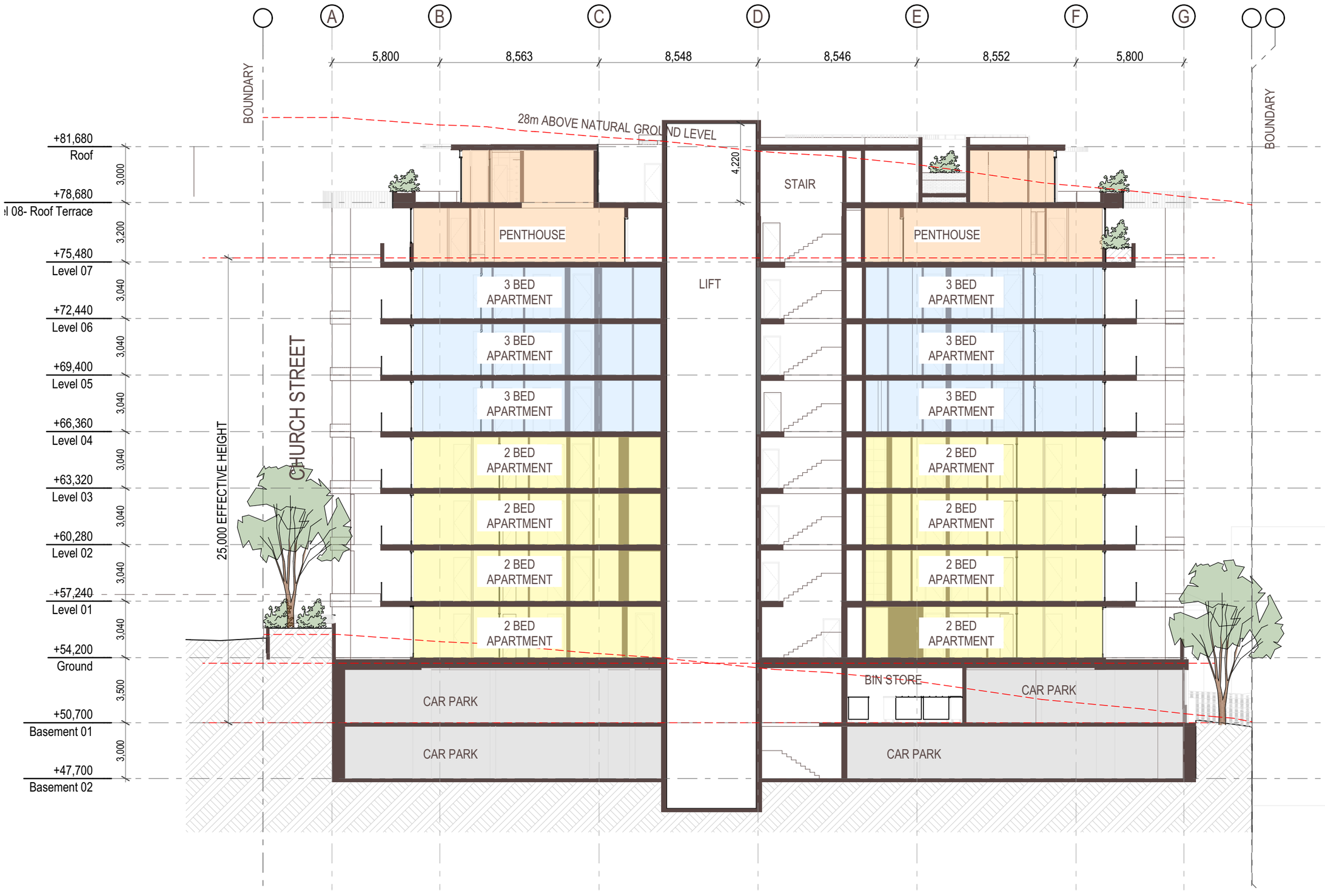
Date	Issue	Details	Checked
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01/06/25	A	Issue for Lodgement	RH
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Drawing Title
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H4700DON	**TP404**	B



A **Section A**
1:200

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

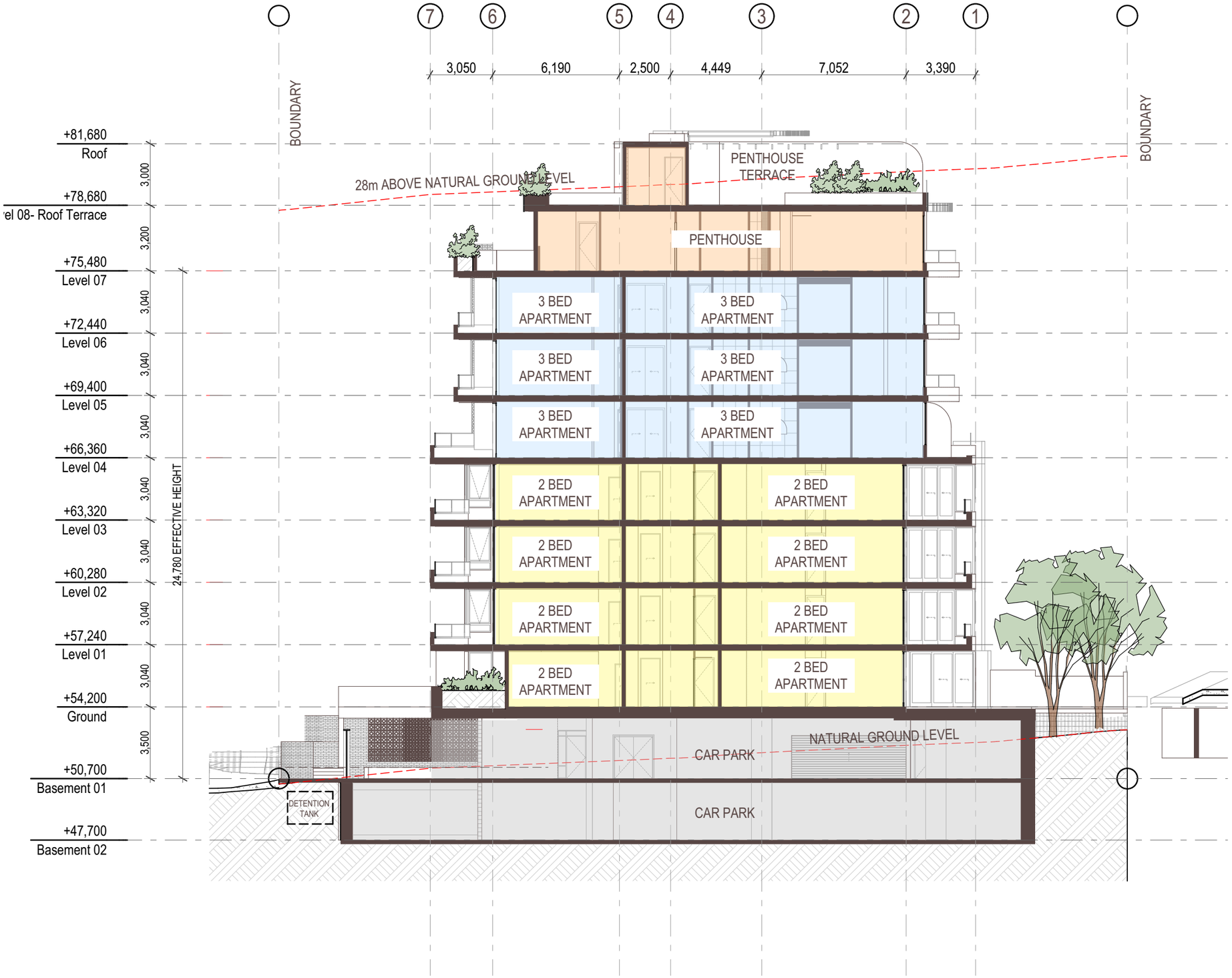
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Drawing Title
Section A

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H4700DON	**TP501**	P4



B — **Section B**
1:200

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06/06/25	P2	Preliminary	RH
16/05/25	P1	Preliminary	RH

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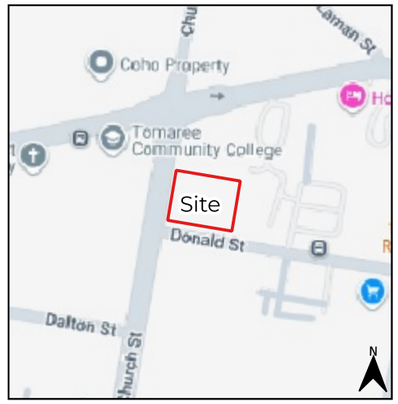
Drawing Title
Section B

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1:200	MC/RH	EA
Project Number	**Drawing Number**	**Issue**
H4700DON	**TP502**	P4

Appendix B

Selected Drawings from Previous Report(s)





Site Location

Legend

- Test Pit Location (current)
- Borehole Location (current)
- Confirmed Asbestos (current & previous testing)
- Borehole Location (previous)
- CPT Location (previous)
- Material Fragment Locations (previous)
- Approximate Site Boundary
- Lot Boundary
- Former Building Footprints
- W Groundwater Monitoring Well

0 10 20 30 m

NOTE:
1. Drawing adapted from aerial imagery from Metromap dated 30 May 2024.
2. Test locations are approximate only and were located using differential GPS typically accurate to ± 0.1 m depending on satellite coverage.

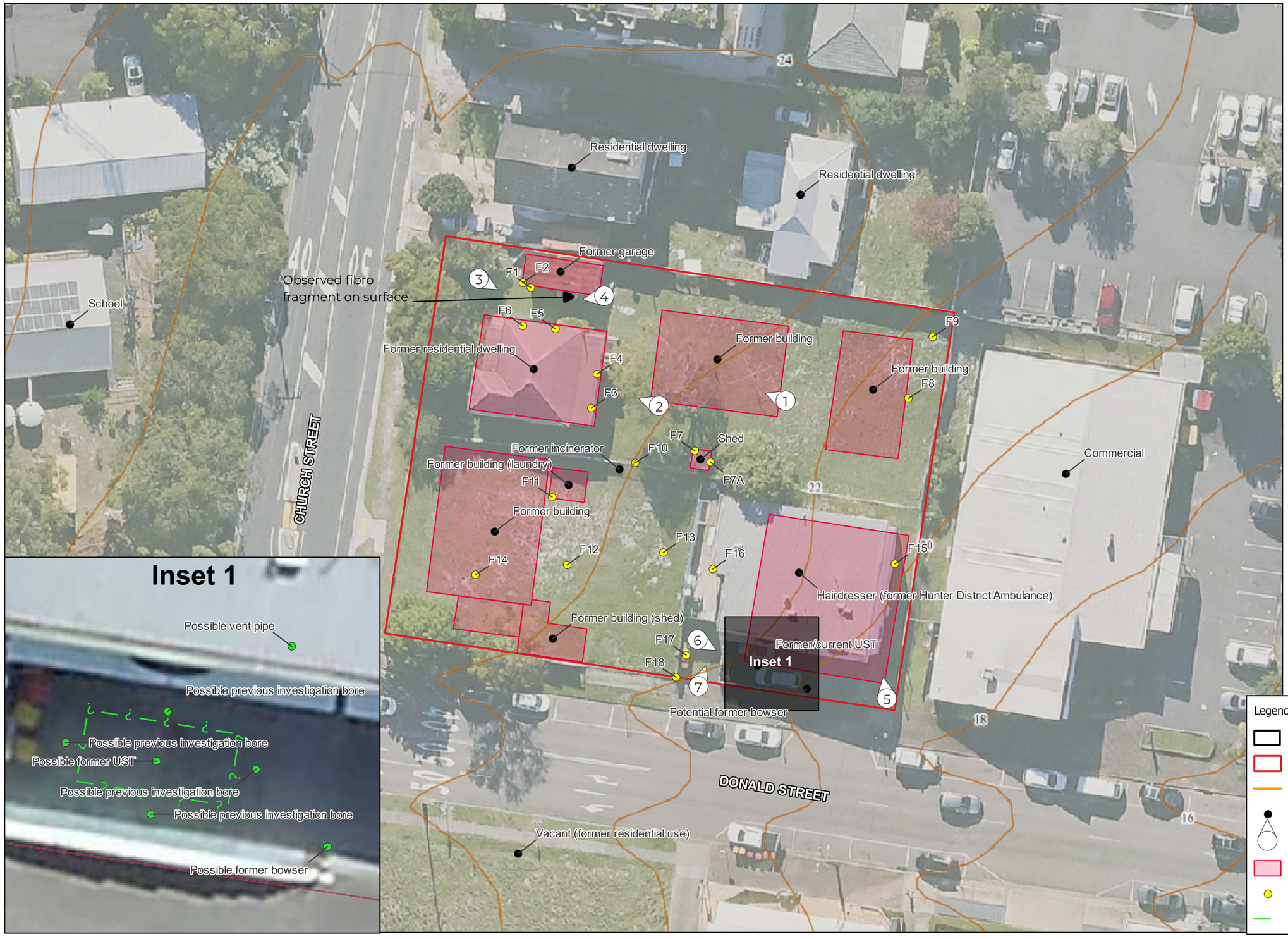
Douglas PARTNERS

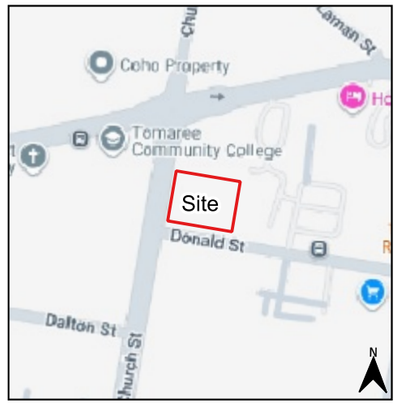
CLIENT:	Fortezza Group Pty Ltd		
OFFICE:	Newcastle	DRAWN BY:	PLH
SCALE:	1:400 @A3	DATE:	10.October.2025

TITLE: **Test Location Plan**
Proposed Residential Development
5-7 Church & 42 Donald Street, Nelson Bay NSW

N

Project:	227295.01
DRAWING No:	1
REVISION:	0





Site Location

Legend

- Approximate lot boundary
- Approximate Site Boundary
- NSW 2 m ground surface contour
- Site features
- Photo location and direction
- Former building footprints
- Approximate former material fragment locations
- Approximate fuel infrastructure location

0 10 20 30 m

NOTE:
1. Drawing adapted from aerial imagery from Metromap dated 30 May 2024.
2. Test locations are approximate only and were located using differential GPS typically accurate to ± 0.1 m depending on satellite coverage.

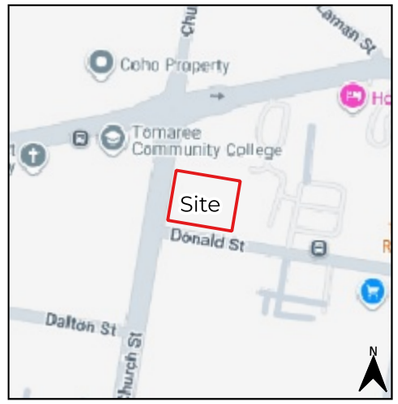
Douglas PARTNERS

CLIENT:	Fortezza Group Pty Ltd	TITLE:	**Site features and photograph locations**
OFFICE:	Newcastle	DRAWN BY:	PLH		**Proposed residential development**
SCALE:	1:400 @A3	DATE:	08.October.2025		**5-7 Church & 42 Donald Street, Nelson Bay NSW**

N

Project:	227295.01
DRAWING No:	2
REVISION:	0





Site Location

Legend

- Test Pit Location (current)
- Borehole Location (current)
- Confirmed Asbestos (current & previous testing)
- Borehole Location (previous)
- CPT Location (previous)
- Material Fragment Locations (previous)
- Approximate Site Boundary
- Lot Boundary
- Former Building Footprints
- W Groundwater Monitoring Well

0 10 20 30 m

NOTE:
1. Drawing adapted from aerial imagery from Metromap dated 30 May 2024.
2. Test locations are approximate only and were located using differential GPS typically accurate to ± 0.1 m depending on satellite coverage.

Douglas PARTNERS

CLIENT:	Fortezza Group Pty Ltd		
OFFICE:	Newcastle	DRAWN BY:	PLH
SCALE:	1:400 @A3	DATE:	09.October.2025

TITLE: **Exceedances Plan**
Proposed Residential Development
5-7 Church & 42 Donald Street, Nelson Bay NSW

N

Project:	227295.01
DRAWING No:	3
REVISION:	0

Appendix C

Tabulated Summary Results from Previous Report(s)

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Table I2 – Summary of laboratory results – Land use

| | | | Metals | | | | | | | | | | | | | | PAH | | | | | | | | | | | | | |

Table G1: Summary of Laboratory Results – Compared to Landuse SAC

					Priority metals													Priority PAH			
					Total Arsenic	Beryllium	Boron	Cadmium	Total Chromium	Cobalt	Copper	Lead	Manganese	Mercury (inorganic)	Nickel	Selenium (Total)	Zinc	Naphthalene [b]	Benzo(a)pyrene (B[a]P)	Benzo(a)pyrene TEQ (B[a]P TEQ)	Total PAH
				PQL	4	1	10	0.4	1	1	1	1	1	0.1	1	2	1	1	0.05	0.5	0.05
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	<4	<1	<10	<0.4	**2**	<1	**6**	**27**	**40**	<0.1	<1	<2	**66**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	600	10,000	1,200	1,100	4,000	120	1,200	6,000	3	170	0.7	4	300
	202	1 m	Natural	28/08/25	<4	<1	<10	<0.4	<1	<1	**2**	**2**	**3**	<0.1	<1	<2	**2**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	202	4 m	Natural	28/08/25	<4	<1	<10	<0.4	**1**	<1	<1	<1	**1**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	203	0 - 0.1 m	Fill	28/08/25	<4	<1	<10	<0.4	**3**	<1	**8**	**50**	**42**	<0.1	**1**	<2	**98**	<1	<0.05	<0.5	**0.2**
					500	100	90	10,000	150	600	10,000	1,200	1,100	4,000	120	1,200	6,000	3	170	0.7	4	300
	203	0.5 m	Natural	28/08/25	<4	<1	<10	<0.4	<1	<1	**2**	**8**	**4**	<0.1	<1	<2	**38**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	203	2 m	Natural	28/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	**1**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	203	4 m	Natural	28/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	<1	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	204	1 m	Natural	29/08/25	<4	<1	<10	<0.4	**1**	<1	<1	<1	**2**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	204	2 m	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	**1**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	T3/MJD	-	Natural	29/08/25	<5	<1	<50	<1	**2**	<2	<5	<5	<5	<0.1	<2	<5	<5	<1	<0.5	<0.5	<0.5
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	D3A/MJD	-	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	**1**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	204	5.5 m	Natural	29/08/25	<4	<1	<10	<0.4	**4**	<1	<1	**3**	**2**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	205	0.5 m	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	**1**	**6**	<0.1	<1	<2	**4**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	600	10,000	1,200	1,100	4,000	120	1,200	6,000	3	170	0.7	4	300
	205	1.5 m	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	**2**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	205	3 m	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	<1	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	206	0.5 m	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	**8**	**6**	<0.1	<1	<2	**18**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	T4/MJD	-	Natural	29/08/25	<5	<1	<50	<1	<2	<2	<5	<5	<5	<0.1	<2	<5	<5	<1	<0.5	<0.5	<0.5
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	D4/MJD	-	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	**1**	<0.1	<1	<2	**2**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	206	1.5 m	Natural	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	**1**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	206	3.5 m	Natural	29/08/25	<4	<1	<10	<0.4	**3**	<1	<1	<1	**2**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	207	0.8 m	Fill	29/08/25	<4	<1	<10	<0.4	<1	<1	<1	**4**	**7**	<0.1	<1	<2	**14**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	<4	<1	<10	<0.4	**2**	<1	**8**	**57**	**14**	<0.1	<1	<2	**70**	<1	**0.06**	<0.5	**0.3**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	201	2 m	Natural	28/08/25	<4	<1	<10	<0.4	**2**	<1	<1	<1	**3**	<0.1	<1	<2	**1**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	201	3 m	Natural	28/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	<1	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
Test Pits across the site	301	0 - 0.2 m	Fill	19/08/25	<4	<1	<10	<0.4	**1**	<1	**8**	**54**	**34**	<0.1	<1	<2	**120**	**0.1**	<0.5	<0.5	**1.5**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	302	0 - 0.1 m	Fill	19/08/25	<4	<1	<10	<0.4	**3**	<1	**14**	**60**	**360**	<0.1	**1**	<2	**1,100**	<1	**0.1**	<0.5	**1.1**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	T1	-	Fill	19/08/25	<5	<1	<50	<1	**3**	<2	**13**	**68**	**70**	<0.1	<2	<5	**1,240**	<1	<0.5	<0.5	<0.5
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	D1/MJD	-	Fill	19/08/25	<4	<1	<10	<0.4	**4**	<1	**16**	**66**	**99**	<0.1	**2**	<2	**1,300**	<1	**0.1**	<0.5	**1.3**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	303	0.5 m	Natural	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	**1**	**1**	<0.1	<1	<2	**2**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	304	0 - 0.2 m	Fill	19/08/25	**8**	<1	<10	<0.4	**4**	**2**	**15**	**52**	**39**	<0.1	**9**	<2	**41**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	305	0 - 0.25 m	Fill	19/08/25	<4	<1	<10	<0.4	<1	<1	**2**	**6**	**2**	<0.1	<1	<2	**16**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	306	0 - 0.1 m	Fill	19/08/25	<4	<1	<10	<0.4	**2**	<1	**7**	**65**	**31**	<0.1	<1	<2	**62**	<1	<0.05	<0.5	**0.1**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	306	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	<1	<0.1	<1	<2	**2**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	307	0.5 m	Natural	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	**2**	**1**	<0.1	<1	<2	**9**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	308	0 - 0.15 m	Fill	19/08/25	<4	<1	<10	<0.4	**2**	<1	**14**	**65**	**19**	<0.1	<1	<2	**140**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	308	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	**4**	**1**	<0.1	<1	<2	**2**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	309	0 - 0.2 m	Fill	19/08/25	<4	<1	<10	<0.4	**5**	<1	**14**	**79**	**28**	<0.1	**1**	<2	**250**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	T3	-	Fill	19/08/25	<5	<1	<50	<1	**5**	<2	**24**	**82**	**32**	<0.1	<2	<5	**304**	<1	<0.5	<0.5	<0.5
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	D3/MJD	-	Fill	19/08/25	<4	<1	<10	**0.4**	**7**	<1	**52**	**150**	**53**	<0.1	**2**	<2	**360**	<1	<0.05	<0.5	**0.1**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	309	0.6 m	Natural	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	**2**	**1**	<0.1	<1	<2	**46**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	310	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<10	<0.4	<1	<1	**3**	**14**	**9**	<0.1	<1	<2	**45**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	311	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<10	<0.4	<1	<1	**2**	<1	<1	<0.1	<1	<2	**2**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	312	0 - 0.25 m	Fill	19/08/25	<4	<1	<10	<0.4	**2**	<1	**5**	**60**	**23**	<0.1	<1	<2	**110**	<1	**0.07**	<0.5	**0.53**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	313	0 - 0.1 m	Fill	19/08/25	<4	<1	<10	<0.4	**1**	<1	**5**	**46**	**12**	<0.1	<1	<2	**120**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	313	0.75 m	Natural	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	<1	<0.1	<1	<2	**1**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	314	0 - 0.05 m	Fill	19/08/25	<4	<1	<10	<0.4	**4**	<1	**7**	**45**	**140**	<0.1	**2**	<2	**130**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	314	0.5 - 0.7 m	Fill	19/08/25	<4	<1	<10	<0.4	**1**	<1	**1**	**8**	**43**	<0.1	<1	<2	**17**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	314	1 m	Natural	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	<1	**31**	<0.1	<1	<2	<1	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	315	0 - 0.3 m	Fill	19/08/25	<4	<1	<10	<0.4	**9**	**2**	**5**	**38**	**58**	<0.1	**3**	<2	**76**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	316	0 - 0.1 m	Fill	19/08/25	<4	<1	<10	**0.4**	**13**	**2**	**17**	**140**	**80**	<0.1	**5**	<2	**330**	<1	**0.05**	<0.5	**0.3**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	316	0.3 m	Natural	19/08/25	<4	<1	<10	<0.4	<1	<1	**2**	**18**	**10**	<0.1	<1	<2	**52**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	317	0 - 0.1 m	Fill	19/08/25	<4	<1	<10	<0.4	**4**	<1	**9**	**42**	**60**	<0.1	**2**	<2	**69**	<1	**0.07**	<0.5	**0.4**
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300
	317	0.2 - 0.3 m	Fill	19/08/25	<4	<1	<10	<0.4	<1	<1	<1	**7**	**7**	<0.1	<1	<2	**240**	<1	<0.05	<0.5	<0.05
					500	100	90	10,000	150	500	190	600	10,000	35	1,200	1,100	6,000	120	3	170	0.7	4	300

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level

ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Depth for HSL utlises 0-1 m range as a screen due to the proposed basement

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-A/B (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table G1: Summary of Laboratory Results - Compared to Landuse SAC (continued)

					PAH												Priority TRH						TRH		BTEX			
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)h,1)perylene	Chrysene	D(ah)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	TRH C6 - C9	TRH C10-C36	Benzene	Toluene	Ethylbenzene	Total Xylenes
				PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	25	50	25	50	100	100	25	50	0.2	0.5	1	1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	202	1 m	Natural	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	202	4 m	Natural	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	203	0 - 0.1 m	Fill	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.1**	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	203	0.5 m	Natural	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	203	2 m	Natural	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	203	4 m	Natural	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	204	1 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	204	2 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	T3/MJD	-	Natural	29/08/25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	<10	<50	<100	<100	<10	<50	<0.2	<0.5	<0.5	<0.5
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	D3A/MJD	-	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	204	5.5 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	205	0.5 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	205	1.5 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	205	3 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	206	0.5 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	T4/MJD	-	Natural	29/08/25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	<10	<50	<100	<100	<10	<50	<0.2	<0.5	<0.5	<0.5
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	D4/MJD	-	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	206	1.5 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	206	3.5 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	207	0.8 m	Fill	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.1**	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	201	2 m	Natural	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	201	3 m	Natural	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
Test Pits across the site	301	0 - 0.2 m	Fill	19/08/25	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.1**	<0.1	**0.4**	<0.1	<0.1	**0.1**	**0.4**	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	302	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	**0.1**	<0.1	**0.1**	<0.1	**0.3**	<0.1	<0.1	<0.1	**0.2**	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	T1	-	Fill	19/08/25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	<10	<50	<100	<100	<10	<50	<0.2	<0.5	<0.5	<0.5
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	D1/MJD	-	Fill	19/08/25	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.1**	<0.1	**0.3**	<0.1	<0.1	<0.1	**0.2**	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	303	0.5 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	304	0 - 0.2 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	305	0 - 0.25 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	306	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	**140**	**120**	<25	**180**	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	306	0.2 - 0.4 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	307	0.5 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	308	0 - 0.15 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	308	0.2 - 0.4 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	309	0 - 0.2 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	T3	-	Fill	19/08/25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	<10	<50	<100	<100	<10	<50	<0.2	<0.5	<0.5	<0.5
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	D3/MJD	-	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	309	0.6 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	310	0.2 - 0.4 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	311	0.2 - 0.4 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	312	0 - 0.25 m	Fill	19/08/25	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	**0.2**	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	313	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	313	0.75 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	314	0 - 0.05 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	314	0.5 - 0.7 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	314	1 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	315	0 - 0.3 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	316	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.1**	<25	<50	<25	<50	**100**	**190**	<25	**210**	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	316	0.3 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	317	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.1**	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105
	317	0.2 - 0.3 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1
																		120	45	180	110	2,800			0.5	50	160	85	55	70	40	105

Lab result

HIL/HSL value ./ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Depth for HSL utlises 0-1 m range as a screen due to the proposed basement

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-A/B (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Douglas Partners

Table G1: Summary of Laboratory Results - Compared to Landuse SAC (continued)

					VOC																			
					1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-Dichloroethene	1,1-dichloropropene	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2,4-trichlorobenzene	1,2,4-trimethylbenzene	1,2-dibromo-3-chloropropane	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3,5-trimethylbenzene	1,3-dichlorobenzene	1,3-dichloropropane	1,4-dichlorobenzene
				PQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25																				
	202	1 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	202	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	203	0 - 0.1 m	Fill	28/08/25																				
	203	0.5 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	204	1 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	2 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T3/MJD	-	Natural	29/08/25																				
	D3A/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	5.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	205	0.5 m	Natural	29/08/25																				
	205	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	205	3 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	206	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T4/MJD	-	Natural	29/08/25																				
	D4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	206	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	206	3.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	207	0.8 m	Fill	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	3 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Test Pits across the site	301	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	302	0 - 0.1 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	T1	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D1/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	303	0.5 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	304	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	305	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	306	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	306	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	307	0.5 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	308	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	308	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	309	0 - 0.2 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	T3	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	309	0.6 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	310	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	311	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	312	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	313	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	313	0.75 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	314	0 - 0.05 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	314	0.5 - 0.7 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	314	1 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	315	0 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	316	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	316	0.3 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	317	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	317	0.2 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-A/B (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table G1: Summary of Laboratory Results - Compared to Landuse SAC (continued)

					VOC																	
					2,2-dichloropropane	2-chlorotoluene	4-chlorotoluene	4-isopropyl toluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	carbon tetrachloride	Monochlorobenzene	Chloroethane	Chloroform	Chloromethane	cis1,2-dichloroethene	cis1,3-dichloropropene	Cyclohexane	dibromochloromethane
				PQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	202	1 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	202	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	203	0 - 0.1 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	0.5 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	204	1 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	2 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T3/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3A/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	5.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	205	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	205	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	205	3 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	206	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	206	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	206	3.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	207	0.8 m	Fill	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	3 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Test Pits across the site	301	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	302	0 - 0.1 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	T1	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D1/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	303	0.5 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	304	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	305	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	306	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	306	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	307	0.5 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	308	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	308	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	309	0 - 0.2 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	T3	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	309	0.6 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	310	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	311	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	312	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	313	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	313	0.75 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	314	0 - 0.05 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	314	0.5 - 0.7 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	314	1 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	315	0 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	316	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	316	0.3 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	317	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	317	0.2 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

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Notes:

a QA/QC replicate of sample listed directly below the primary sample

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HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
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DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table G1: Summary of Laboratory Results - Compared to Landuse SAC (continued)

					VOC															Priority phenols	Priority OCP								
					Dibromomethane	Dichlorodifluoromethane	hexachlorobutadiene	Isopropylbenzene (cumene)	n-Butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene (vinylbenzene)	Tert-butyl benzene	tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	1,1,2-trichloroethylene	Trichlorofluoromethane	Vinyl Chloride	Total Phenolics	DDT+DDE+DDD[c]	Aldrin + Dieldrin	Total Chlordane	Total Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Mirex
				PQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	202	1 m	Natural	28/08/25																									
	202	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-
	203	0 - 0.1 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	203	0.5 m	Natural	28/08/25																									
	203	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
	203	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-
	204	1 m	Natural	29/08/25																									
	204	2 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
	T3/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3A/MJD	-	Natural	29/08/25																									
	204	5.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
	205	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	205	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1										
	205	3 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-
	206	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D4/MJD	-	Natural	29/08/25																									
	206	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-
	206	3.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
	207	0.8 m	Fill	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	201	2 m	Natural	28/08/25																									
	201	3 m	Natural	28/08/25																									
Test Pits across the site	301	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	302	0 - 0.1 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	T1	-	Fill	19/08/25																									
	D1/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	303	0.5 m	Natural	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	304	0 - 0.2 m	Fill	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	305	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	306	0 - 0.1 m	Fill	19/08/25																									
	306	0.2 - 0.4 m	Fill	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	307	0.5 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	308	0 - 0.15 m	Fill	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	308	0.2 - 0.4 m	Fill	19/08/25																									
	309	0 - 0.2 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	T3	-	Fill	19/08/25																									
	D3/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	309	0.6 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	310	0.2 - 0.4 m	Fill	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	311	0.2 - 0.4 m	Fill	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	312	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	313	0 - 0.1 m	Fill	19/08/25																<5	<0.1	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	313	0.75 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	314	0 - 0.05 m	Fill	19/08/25																<5	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	314	0.5 - 0.7 m	Fill	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	314	1 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	315	0 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	316	0 - 0.1 m	Fill	19/08/25																<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	316	0.3 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	317	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																				HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL	HIL
																				EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL	EIL
	317	0.2 - 0.3 m	Fill	19/08/25																									

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-A/B (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table G1: Summary of Laboratory Results - Compared to Landuse SAC (continued)

					OCP						Priority OPP	OPP														
					Heptachlor Epoxide	Endrin Aldehyde	alpha-BHC	beta-BHC	delta-BHC	Lindane	Chlorpyrifos	Azinphos methyl (Guthion)	Bromophos-ethyl	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Ronnel (fenchlorphos)	Fenitrothion	Fenthion	Malathion	Parathion	Parathion-methyl	Methidathion	Fenamiphos
				PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	202	1 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	202	4 m	Natural	28/08/25																						
	203	0 - 0.1 m	Fill	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	203	0.5 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	2 m	Natural	28/08/25																						
	203	4 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	1 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	2 m	Natural	29/08/25																						
	T3/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3A/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	5.5 m	Natural	29/08/25																						
	205	0.5 m	Natural	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	205	1.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	205	3 m	Natural	29/08/25																						
	206	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D4/MJD	-	Natural	29/08/25																						
	206	1.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	206	3.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	207	0.8 m	Fill	29/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	201	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	3 m	Natural	28/08/25																						
Test Pits across the site	301	0 - 0.2 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	302	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	T1	-	Fill	19/08/25																						
	D1/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	303	0.5 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	304	0 - 0.2 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	305	0 - 0.25 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	306	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	306	0.2 - 0.4 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	307	0.5 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	308	0 - 0.15 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	308	0.2 - 0.4 m	Fill	19/08/25																						
	309	0 - 0.2 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	T3	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3/MJD	-	Fill	19/08/25																						
	309	0.6 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	310	0.2 - 0.4 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	311	0.2 - 0.4 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	312	0 - 0.25 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	313	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	313	0.75 m	Natural	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	314	0 - 0.05 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	314	0.5 - 0.7 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	314	1 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	315	0 - 0.3 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	316	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	316	0.3 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	317	0 - 0.1 m	Fill	19/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	317	0.2 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-A/B (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table G1: Summary of Laboratory Results - Compared to Landuse SAC (continued)

					PCB	pH, EC and CEC			Additional PhysChem			
					Total PCB	pH 1:5 soil:water	Cation Exchange Capacity	Electrical Conductivity 1:5 soil:water	Exchangeable Ca	Exchangeable K	Exchangeable Mg	Exchangeable Na
				PQL	0.1	0.1	1	1	0.1	0.1	0.1	0.1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	pH Units	cmol/kg	µs/cm	cmol/kg	cmol/kg	cmol/kg	cmol/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	<0.1	-	-	-	-	-	-	-
	202	1 m	Natural	28/08/25	-	-	-	-	-	-	-	-
	202	4 m	Natural	28/08/25	-	**8.5**	-	**33**	-	-	-	-
	203	0 - 0.1 m	Fill	28/08/25	<0.1	-	-	-	-	-	-	-
	203	0.5 m	Natural	28/08/25	-	-	-	-	-	-	-	-
	203	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-
	203	4 m	Natural	28/08/25	-	**7.8**	-	**10**	-	-	-	-
	204	1 m	Natural	29/08/25	-	**8.5**	<1	**12**	<0.1	<0.1	<0.1	<0.1
	204	2 m	Natural	29/08/25	-	-	-	-	-	-	-	-
	T3/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-
	D3A/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-
	204	5.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-
	205	0.5 m	Natural	29/08/25	<0.1	-	-	-	-	-	-	-
	205	1.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-
	205	3 m	Natural	29/08/25	-	**7.9**	-	**6**	-	-	-	-
	206	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-
	T4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-
	D4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-
	206	1.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-
	206	3.5 m	Natural	29/08/25	-	**9.4**	-	**42**	-	-	-	-
	207	0.8 m	Fill	29/08/25	<0.1	-	-	-	-	-	-	-
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	<0.1	-	-	-	-	-	-	-
	201	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-
	201	3 m	Natural	28/08/25	-	-	-	-	-	-	-	-
Test Pits across the site	301	0 - 0.2 m	Fill	19/08/25	<0.1	-	**12**	-	**11**	<0.1	**0.3**	<0.1
	302	0 - 0.1 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	T1	-	Fill	19/08/25	-	-	-	-	-	-	-	-
	D1/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-
	303	0.5 m	Natural	19/08/25	<0.1	**7.4**	-	**5**	-	-	-	-
	304	0 - 0.2 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	305	0 - 0.25 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	306	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-
	306	0.2 - 0.4 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	307	0.5 m	Natural	19/08/25	<0.1	**6**	-	**7**	-	-	-	-
	308	0 - 0.15 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	308	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-
	309	0 - 0.2 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	T3	-	Fill	19/08/25	-	-	-	-	-	-	-	-
	D3/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-
	309	0.6 m	Natural	19/08/25	<0.1	**6.3**	-	**5**	-	-	-	-
	310	0.2 - 0.4 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	311	0.2 - 0.4 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	312	0 - 0.25 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	313	0 - 0.1 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	313	0.75 m	Natural	19/08/25	<0.1	**5.8**	<1	**3**	**0.1**	<0.1	<0.1	<0.1
	314	0 - 0.05 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	314	0.5 - 0.7 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	314	1 m	Natural	19/08/25	-	-	-	-	-	-	-	-
	315	0 - 0.3 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	316	0 - 0.1 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	316	0.3 m	Natural	19/08/25	-	**6.1**	**1.6**	**8**	**1.5**	<0.1	**0.1**	<0.1
	317	0 - 0.1 m	Fill	19/08/25	<0.1	-	-	-	-	-	-	-
	317	0.2 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-

Lab result

HIL/HSL value EIL/ESL/EGV valu

HIL/HSL exceedanc EIL/ESL exceedance HIL/HSL and EIL/ESL exceedanc ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level

EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))
HSL (vapour intrusion)	HSL-A/B (NEPC, 2013)
DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)

Table G1: Summary of Laboratory Results – PFAS - Compared to Landuse SAC

					Priority PFAS					PFAS		
					Total Positive PFAS	PFOA	PFOS + PFHxS	PFOS	PFHxS	Perfluorobutanesulfonic acid (PFBS)	6:2 FTS	8:2 FTS
				PQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	1 m	Natural	28/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	202	3 m	Natural	28/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	202	5 m	Natural	28/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	203	0.5 m	Natural	28/08/25	**0.0013**	**0.0001**	**0.0012**	**0.0012**	<0.0001	<0.0001	<0.0001	<0.0002
	203	1 m	Natural	28/08/25	**0.0007**	**0.0001**	**0.0006**	**0.0006**	<0.0001	<0.0001	<0.0001	<0.0002
	203	3 m	Natural	28/08/25	**0.0004**	<0.0001	**0.0004**	**0.0004**	<0.0001	<0.0001	<0.0001	<0.0002
	204	2 m	Natural	29/08/25	**0.0001**	**0.0001**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	204	3.5 m	Natural	29/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	205	0.5 m	Natural	29/08/25	**0.0012**	<0.0001	**0.0012**	**0.0012**	<0.0001	<0.0001	<0.0001	<0.0002
	205	3 m	Natural	29/08/25	**0.0004**	<0.0001	**0.0004**	**0.0004**	<0.0001	<0.0001	<0.0001	<0.0002
	206	3.5 m	Natural	29/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
Bore within north western portion	201	1 m	Natural	28/08/25	**0.0002**	<0.0001	**0.0002**	**0.0002**	<0.0001	<0.0001	<0.0001	<0.0002
	201	4 m	Natural	28/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
Test Pits across the site	303	0.5 m	Natural	19/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	306	0.2 - 0.4 m	Fill	19/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	309	0 - 0.2 m	Fill	19/08/25	**0.0008**	<0.0001	**0.0008**	**0.0008**	<0.0001	<0.0001	<0.0001	<0.0002
	309	0.6 m	Natural	19/08/25	**0.0007**	<0.0001	**0.0007**	**0.0007**	<0.0001	<0.0001	<0.0001	<0.0002
	313	0.75 m	Natural	19/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	315	0 - 0.3 m	Fill	19/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	315	1 m	Natural	19/08/25	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002

Lab result

HIL/HSL value EIL/ESL/EGV value

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL		EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)		ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC		ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table G2: Summary of Laboratory Results – Asbestos

				Asbestos (FA/AF)				Asbestos, Other						
				Asb_Sample_mass	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation	Trace Analysis (AS)	Asbestos ID in soil >0.1g/kg	Asbestos ID in soil <0.1g/kg	Trace Analysis (NEPC)	Total Asbestos#1	Asbestos ID in materials	Asbestos Summary
		PQL					0.001					0.1		0.1
Sample ID	Depth	Sample Date	Fill / Natural	g	g	g	%(w/w)	-	-	-	-	g/kg	-	
203	0 - 0.1 m	28/08/25	Fill	**480.94**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
207	0.8 m	29/08/25	Fill	**857.21**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
301	0 - 0.2 m	19/08/25	Fill	**852.81**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
302	0 - 0.1 m	19/08/25	Fill	**794.45**	-	**0.0262**	**0.0033**	-	NAD	**Detected**	NAD	<0.1	-	**Detected**
				- -	- -	- -	0.001 -							
304	0 - 0.2 m	19/08/25	Fill	**705.44**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
305	0 - 0.2 m	19/08/25	Fill	**705.13**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
306	0 - 0.1 m	19/08/25	Fill	**628.3**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
308	0 - 0.15 m	19/08/25	Fill	**721**	**0.059**	-	<0.001	-	NAD	**Detected**	NAD	<0.1	-	**Detected**
				- -	- -	- -	0.001 -							
309	0 - 0.2 m	19/08/25	Fill	**776.61**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
310	0 - 0.15 m	19/08/25	Fill	**851.38**	-	**0.0179**	**0.0021**	-	NAD	**Detected**	NAD	<0.1	-	**Detected**
				- -	- -	- -	0.001 -							
311	0 - 0.15 m	19/08/25	Fill	**792.93**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
314	0 - 0.05 m	19/08/25	Fill	**884.18**	-	**0.0032**	<0.001	-	NAD	**Detected**	NAD	<0.1	-	**Detected**
				- -	- -	- -	0.001 -							
314	0.5 - 0.7 m	19/08/25	Fill	**945.05**	-	**0.0118**	**0.0012**	-	NAD	**Detected**	NAD	<0.1	-	**Detected**
				- -	- -	- -	0.001 -							
315	0 - 0.3 m	19/08/25	Fill	**854.8**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
316	0 - 0.1 m	19/08/25	Fill	**771.54**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
317	0 - 0.1 m	19/08/25	Fill	**637.27**	-	-	<0.001	-	NAD	NAD	NAD	<0.1	-	-
				- -	- -	- -	0.001 -							
304/0-0.2/F1	-	19/08/25	Fill	-	-	-	-	NAD	-	-	-	-	**Detected**	**Detected**
				- -	- -	- -	- -							
305/0-0.2/F1	-	19/08/25	Fill	-	-	-	-	NAD	-	-	-	-	**Detected**	**Detected**
				- -	- -	- -	- -							
308/0-0.15/F1	-	19/08/25	Fill	-	-	-	-	NAD	-	-	-	-	**Detected**	**Detected**
				- -	- -	- -	- -							
310/0-15/F3	-	19/08/25	Fill	-	-	-	-	NAD	-	-	-	-	**Detected**	**Detected**
				- -	- -	- -	- -							
311/0-0.15/F1	-	19/08/25	Fill	-	-	-	-	NAD	-	-	-	-	**Detected**	**Detected**
				- -	- -	- -	- -							
314/0-0.05/F1	-	19/08/25	Fill	-	-	-	-	NAD	-	-	-	-	**Detected**	**Detected**
				- -	- -	- -	- -							
315/0-0.3/F1	-	19/08/25	Fill	-	-	-	-	NAD	-	-	-	-	**Detected**	**Detected**
				- -	- -	- -	- -							

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report

NAD = No Asbestos detected

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Residential B with minimal opportunities for soil access

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-B (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-A/B (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL B Residential (High density) (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table G3: Summary of Laboratory Results – Compared to Waste Classification Criteria

					Metals									Additional Metals					TRH		BTEX			
					Total Arsenic	Beryllium	Cadmium	Total Chromium	Lead	TCLP Lead	Mercury (inorganic)	Nickel	Selenium (total)	Boron	Copper	Cobalt	Manganese	Zinc	TRH C6 - C9	TRH C10 - C36	Benzene	Toluene	Ethylbenzene	Total Xylenes
				PQL	4	1	0.4	1	1	0.03	0.1	1	2	10	1	1	1	1	25	50	0.2	0.5	1	1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	<4	<1	<0.4	**2**	**27**	-	<0.1	<1	<2	<10	**6**	<1	**40**	**66**	<25	<50	<0.2	<0.5	<1	<1
	202	1 m	Natural	28/08/25	<4	<1	<0.4	<1	**2**	-	<0.1	<1	<2	<10	**2**	<1	**3**	**2**	<25	<50	<0.2	<0.5	<1	<1
	202	4 m	Natural	28/08/25	<4	<1	<0.4	**1**	<1	-	<0.1	<1	<2	<10	<1	<1	**1**	<1	<25	<50	<0.2	<0.5	<1	<1
	203	0 - 0.1 m	Fill	28/08/25	<4	<1	<0.4	**3**	**50**	-	<0.1	**1**	<2	<10	**8**	<1	**42**	**98**	<25	<50	<0.2	<0.5	<1	<1
	203	0.5 m	Natural	28/08/25	<4	<1	<0.4	<1	**8**	-	<0.1	<1	<2	<10	**2**	<1	**4**	**38**	<25	<50	<0.2	<0.5	<1	<1
	203	2 m	Natural	28/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	**1**	<1	<25	<50	<0.2	<0.5	<1	<1
	203	4 m	Natural	28/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	<1	<1	<25	<50	<0.2	<0.5	<1	<1
	204	1 m	Natural	29/08/25	<4	<1	<0.4	**1**	<1	-	<0.1	<1	<2	<10	<1	<1	**2**	<1	<25	<50	<0.2	<0.5	<1	<1
	204	2 m	Natural	29/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	**1**	<1	<25	<50	<0.2	<0.5	<1	<1
	T3/MJD	-	Natural	29/08/25	<5	<1	<1	**2**	<5	-	<0.1	<2	<5	<50	<5	<2	<5	<5	<10	<50	<0.2	<0.5	<0.5	<0.5
	D3A/MJD	-	Natural	29/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	**1**	<1	<25	<50	<0.2	<0.5	<1	<1
	204	5.5 m	Natural	29/08/25	<4	<1	<0.4	**4**	**3**	-	<0.1	<1	<2	<10	<1	<1	**2**	<1	<25	<50	<0.2	<0.5	<1	<1
	205	0.5 m	Natural	29/08/25	<4	<1	<0.4	<1	**1**	-	<0.1	<1	<2	<10	<1	<1	**6**	**4**	<25	<50	<0.2	<0.5	<1	<1
	205	1.5 m	Natural	29/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	**2**	<1	<25	<50	<0.2	<0.5	<1	<1
	205	3 m	Natural	29/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	<1	<1	<25	<50	<0.2	<0.5	<1	<1
	206	0.5 m	Natural	29/08/25	<4	<1	<0.4	<1	**8**	-	<0.1	<1	<2	<10	<1	<1	**6**	**18**	<25	<50	<0.2	<0.5	<1	<1
	T4/MJD	-	Natural	29/08/25	<5	<1	<1	<2	<5	-	<0.1	<2	<5	<50	<5	<2	<5	<5	<10	<50	<0.2	<0.5	<0.5	<0.5
	D4/MJD	-	Natural	29/08/25	<4	<1	<0.4	<1	**2**	-	<0.1	<1	<2	<10	<1	<1	**1**	**2**	<25	<50	<0.2	<0.5	<1	<1
	206	1.5 m	Natural	29/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	**1**	<1	<25	<50	<0.2	<0.5	<1	<1
	206	3.5 m	Natural	29/08/25	<4	<1	<0.4	**3**	<1	-	<0.1	<1	<2	<10	<1	<1	**2**	<1	<25	<50	<0.2	<0.5	<1	<1
	207	0.8 m	Fill	29/08/25	<4	<1	<0.4	<1	**4**	-	<0.1	<1	<2	<10	<1	<1	**7**	**14**	<25	<50	<0.2	<0.5	<1	<1
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	<4	<1	<0.4	**2**	**57**	-	<0.1	<1	<2	<10	**8**	<1	**14**	**70**	<25	<50	<0.2	<0.5	<1	<1
	201	2 m	Natural	28/08/25	<4	<1	<0.4	**2**	<1	-	<0.1	<1	<2	<10	<1	<1	**3**	**1**	<25	<50	<0.2	<0.5	<1	<1
	201	3 m	Natural	28/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	<1	<1	<25	<50	<0.2	<0.5	<1	<1
	201	4 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	6 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	8 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	10 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Test locations across the site	301	0 - 0.2 m	Fill	19/08/25	<4	<1	<0.4	**1**	**54**	-	<0.1	<1	<2	<10	**8**	<1	**34**	**120**	<25	<50	<0.2	<0.5	<1	<1
	302	0 - 0.1 m	Fill	19/08/25	<4	<1	<0.4	**3**	**60**	-	<0.1	**1**	<2	<10	**14**	<1	**360**	**1,100**	<25	<50	<0.2	<0.5	<1	<1
	T1	-	Fill	19/08/25	<5	<1	<1	**3**	**68**	-	<0.1	<2	<5	<50	**13**	<2	**70**	**1,240**	<10	<50	<0.2	<0.5	<0.5	<0.5
	D1/MJD	-	Fill	19/08/25	<4	<1	<0.4	**4**	**66**	-	<0.1	**2**	<2	<10	**16**	<1	**99**	**1,300**	<25	<50	<0.2	<0.5	<1	<1
	303	0.5 m	Natural	19/08/25	<4	<1	<0.4	<1	**1**	-	<0.1	<1	<2	<10	<1	<1	**1**	**2**	<25	<50	<0.2	<0.5	<1	<1
	304	0 - 0.2 m	Fill	19/08/25	**8**	<1	<0.4	**4**	**52**	-	<0.1	**9**	<2	<10	**15**	**2**	**39**	**41**	<25	<50	<0.2	<0.5	<1	<1
	305	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	305	0 - 0.25 m	Fill	19/08/25	<4	<1	<0.4	<1	**6**	-	<0.1	<1	<2	<10	**2**	<1	**2**	**16**	<25	<50	<0.2	<0.5	<1	<1
	306	0 - 0.1 m	Fill	19/08/25	<4	<1	<0.4	**2**	**65**	-	<0.1	<1	<2	<10	**7**	<1	**31**	**62**	<25	**180**	<0.2	<0.5	<1	<1
	306	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	<1	**2**	<25	<50	<0.2	<0.5	<1	<1
	307	0.5 m	Natural	19/08/25	<4	<1	<0.4	<1	**2**	-	<0.1	<1	<2	<10	<1	<1	**1**	**9**	<25	<50	<0.2	<0.5	<1	<1
	308	0 - 0.15 m	Fill	19/08/25	<4	<1	<0.4	**2**	**65**	-	<0.1	<1	<2	<10	**14**	<1	**19**	**140**	<25	<50	<0.2	<0.5	<1	<1
	308	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<0.4	<1	**4**	-	<0.1	<1	<2	<10	<1	<1	**1**	**2**	<25	<50	<0.2	<0.5	<1	<1
	309	0 - 0.2 m	Fill	19/08/25	<4	<1	<0.4	**5**	**79**	-	<0.1	**1**	<2	<10	**14**	<1	**28**	**250**	<25	<50	<0.2	<0.5	<1	<1
	T3	-	Fill	19/08/25	<5	<1	<1	**5**	**82**	-	<0.1	<2	<5	<50	**24**	<2	**32**	**304**	<10	<50	<0.2	<0.5	<0.5	<0.5
	D3/MJD		Fill	19/08/25	<4	<1	**0.4**	**7**	**150**	**0.03**	<0.1	**2**	<2	<10	**52**	<1	**53**	**360**	<25	<50	<0.2	<0.5	<1	<1
	309	0.6 m	Natural	19/08/25	<4	<1	<0.4	<1	**2**	-	<0.1	<1	<2	<10	<1	<1	**1**	**46**	<25	<50	<0.2	<0.5	<1	<1
	310	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	310	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<0.4	<1	**14**	-	<0.1	<1	<2	<10	**3**	<1	**9**	**45**	<25	<50	<0.2	<0.5	<1	<1
	311	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	311	0.2 - 0.4 m	Fill	19/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	**2**	<1	<1	**2**	<25	<50	<0.2	<0.5	<1	<1
	312	0 - 0.25 m	Fill	19/08/25	<4	<1	<0.4	**2**	**60**	-	<0.1	<1	<2	<10	**5**	<1	**23**	**110**	<25	<50	<0.2	<0.5	<1	<1
	313	0 - 0.1 m	Fill	19/08/25	<4	<1	<0.4	**1**	**46**	-	<0.1	<1	<2	<10	**5**	<1	**12**	**120**	<25	<50	<0.2	<0.5	<1	<1
	313	0.75 m	Natural	19/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	<1	**1**	<25	<50	<0.2	<0.5	<1	<1
	314	0 - 0.05 m	Fill	19/08/25	<4	<1	<0.4	**4**	**45**	-	<0.1	**2**	<2	<10	**7**	<1	**140**	**130**	<25	<50	<0.2	<0.5	<1	<1
	314	0.5 - 0.7 m	Fill	19/08/25	<4	<1	<0.4	**1**	**8**	-	<0.1	<1	<2	<10	**1**	<1	**43**	**17**	<25	<50	<0.2	<0.5	<1	<1
	314	1 m	Natural	19/08/25	<4	<1	<0.4	<1	<1	-	<0.1	<1	<2	<10	<1	<1	**31**	<1	<25	<50	<0.2	<0.5	<1	<1
	315	0 - 0.3 m	Fill	19/08/25	<4	<1	<0.4	**9**	**38**	-	<0.1	**3**	<2	<10	**5**	**2**	**58**	**76**	<25	<50	<0.2	<0.5	<1	<1
	316	0 - 0.1 m	Fill	19/08/25	<4	<1	**0.4**	**13**	**140**	**0.05**	<0.1	**5**	<2	<10	**17**	**2**	**80**	**330**	<25	**210**	<0.2	<0.5	<1	<1
	316	0.3 m	Natural	19/08/25	<4	<1	<0.4	<1	**18**	-	<0.1	<1	<2	<10	**2**	<1	**10**	**52**	<25	<50	<0.2	<0.5	<1	<1
	317	0 - 0.1 m	Fill	19/08/25	<4	<1	<0.4	**4**	**42**	-	<0.1	**2**	<2	<10	**9**	<1	**60**	**69**	<25	<50	<0.2	<0.5	<1	<1
	317	0.2 - 0.3 m	Fill	19/08/25	<4	<1	<0.4	<1	**7**	-	<0.1	<1	<2	<10	<1	<1	**7**	**240**	<25	<50	<0.2	<0.5	<1	<1
	203	6 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	7 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	9 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Classification Criteria[f]																								
CT1					100	20	20	100	100	-	4	40	20	-	-	-	-	-	650	10,000	10	288	600	1000
SCC1					500	100	100	1,900	1,500	-	50	1,050	50	-	-	-	-	-	650	10,000	18	518	1,080	1,800
TCLP1					-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT2					400	80	80	400	400	-	16	160	80	-	-	-	-	-	2,600	40,000	40	1,152	2,400	4,000
SCC2					2,000	400	400	7,600	6,000	-	200	4,200	200	-	-	-	-	-	2,600	40,000	72	2,073	4,320	7,200
TCLP2					-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Total chromium used as initial screen for chromium(VI).

c Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)

d Criteria for scheduled chemicals used as an initial screen

e Criteria for Chlorpyrifos used as initial screen

f NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste

PQL Practical quantitation limit

CT1 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste

SCC1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

TCLP1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

CT2 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste

SCC2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

TCLP2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Table G3: Summary of Laboratory Results – Compared to Waste Classification Criteria (continued)

					PAH		Phenols	OCP				OPP	PCB	VOC						
					Benzo(a)pyrene (BaP)	Total PAH	Total Phenolics	Scheduled Chemical Waste (standard)	Total Endosulfan	Total Analysed OCP	Mirex	Total Analysed OPP	Total PCB	carbon tetrachloride	Monochlorobenzene	Chloroform	1,2-dichlorobenzene	1,4-dichlorobenzene	1,2-dichloroethane	1,1-Dichloroethene
				PQL	0.05	0.05	5	0.1	0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	202	1 m	Natural	28/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	202	4 m	Natural	28/08/25	<0.05	<0.05	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1
	203	0 - 0.1 m	Fill	28/08/25	<0.05	**0.2**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	203	0.5 m	Natural	28/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	2 m	Natural	28/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	4 m	Natural	28/08/25	<0.05	<0.05	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1
	204	1 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	2 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T3/MJD	-	Natural	29/08/25	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3A/MJD	-	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	204	5.5 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	205	0.5 m	Natural	29/08/25	<0.05	<0.05	<5	**0.3**	<0.1	**0.3**	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	205	1.5 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1
	205	3 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1
	206	0.5 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	T4/MJD	-	Natural	29/08/25	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D4/MJD	-	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	206	1.5 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1
	206	3.5 m	Natural	29/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	207	0.8 m	Fill	29/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	**0.06**	**0.3**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	201	2 m	Natural	28/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	3 m	Natural	28/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	4 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	6 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	8 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	10 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Test locations across the site	301	0 - 0.2 m	Fill	19/08/25	**0.1**	**1.5**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	302	0 - 0.1 m	Fill	19/08/25	**0.1**	**1.1**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1
	T1	-	Fill	19/08/25	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D1/MJD	-	Fill	19/08/25	**0.1**	**1.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	303	0.5 m	Natural	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	304	0 - 0.2 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	305	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	305	0 - 0.25 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	306	0 - 0.1 m	Fill	19/08/25	<0.05	**0.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	306	0.2 - 0.4 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	307	0.5 m	Natural	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	308	0 - 0.15 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	308	0.2 - 0.4 m	Fill	19/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	309	0 - 0.2 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1
	T3	-	Fill	19/08/25	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D3/MJD	-	Fill	19/08/25	<0.05	**0.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	309	0.6 m	Natural	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	310	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	310	0.2 - 0.4 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	311	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	311	0.2 - 0.4 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	312	0 - 0.25 m	Fill	19/08/25	**0.07**	**0.53**	<5	**0.3**	<0.1	**0.3**	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	313	0 - 0.1 m	Fill	19/08/25	<0.05	<0.05	<5	**0.4**	<0.1	**0.4**	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	313	0.75 m	Natural	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	314	0 - 0.05 m	Fill	19/08/25	<0.05	<0.05	<5	**0.2**	<0.1	**0.2**	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	314	0.5 - 0.7 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	314	1 m	Natural	19/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	315	0 - 0.3 m	Fill	19/08/25	<0.05	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	316	0 - 0.1 m	Fill	19/08/25	**0.05**	**0.3**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	316	0.3 m	Natural	19/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	317	0 - 0.1 m	Fill	19/08/25	**0.07**	**0.4**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
	317	0.2 - 0.3 m	Fill	19/08/25	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	6 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	7 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	9 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Waste Classification Criteria [f]

CT1	0.8	200	288	<50	60	-	-	4	<50	10	2,000	120	86	150	10	14
SCC1	10	200	518	<50	108	-	-	7.5	<50	18	3,600	126	155	270	18	25
TCLP1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT2	3.2	800	1,152	<50	240	-	-	16	<50	40	8,000	480	344	600	40	56
SCC2	23	800	2,073	<50	432	-	-	30	<50	72	14,400	864	620	1,080	72	100
TCLP2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Total chromium used as initial screen for chromium(VI).

c Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)

d Criteria for scheduled chemicals used as an initial screen

e Criteria for Chlorpyrifos used as initial screen

f NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste

PQL Practical quantitation limit

CT1 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste

SCC1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

TCLP1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

CT2 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste

SCC2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

TCLP2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Table G3: Summary of Laboratory Results – Compared to Waste Classification Criteria (continued)

					VOC								pH and EC	
					Styrene (vinylbenzene)	1,1,1,2-tetrachloroethane	1,1,2,2-tetrachloroethane	tetrachloroethene	1,1,1-trichloroethane	1,1,2-trichloroethane	1,1,2-trichloroethylene	Vinyl Chloride	pH 1:5 soil:water	Electrical Conductivity 1:5 soil:water
				PQL	1	1	1	1	1	1	1	1		1
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	µs/cm
Bores in south eastern portion adjacent to possible UST	202	0 - 0.05 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-
	202	1 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-
	202	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	**8.5**	**33**
	203	0 - 0.1 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-
	203	0.5 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-
	203	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-
	203	4 m	Natural	28/08/25	<1	<1	<1	<1	<1	<1	<1	<1	**7.8**	**10**
	204	1 m	Natural	29/08/25	-	-	-	-	-	-	-	-	**8.5**	**12**
	204	2 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	T3/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	D3A/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	204	5.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	205	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	205	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	-	-
	205	3 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	**7.9**	**6**
	206	0.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	T4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	D4/MJD	-	Natural	29/08/25	-	-	-	-	-	-	-	-	-	-
	206	1.5 m	Natural	29/08/25	<1	<1	<1	<1	<1	<1	<1	<1	-	-
	206	3.5 m	Natural	29/08/25	-	-	-	-	-	-	-	-	**9.4**	**42**
	207	0.8 m	Fill	29/08/25	-	-	-	-	-	-	-	-	-	-
Bore within north western portion	201	0 - 0.1 m	Fill	28/08/25	-	-	-	-	-	-	-	-	-	-
	201	2 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-
	201	3 m	Natural	28/08/25	-	-	-	-	-	-	-	-	-	-
	201	4 m	Natural	28/08/25	-	-	-	-	-	-	-	-	**5.5**	**6**
	201	6 m	Natural	28/08/25	-	-	-	-	-	-	-	-	**5.8**	**3**
	201	8 m	Natural	28/08/25	-	-	-	-	-	-	-	-	**5**	**15**
	201	10 m	Natural	28/08/25	-	-	-	-	-	-	-	-	**5.1**	**13**
Test locations across the site	301	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	302	0 - 0.1 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	-	-
	T1	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	D1/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	303	0.5 m	Natural	19/08/25	-	-	-	-	-	-	-	-	**7.4**	**5**
	304	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	305	0 - 0.2 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	305	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	306	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	306	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	307	0.5 m	Natural	19/08/25	-	-	-	-	-	-	-	-	**6**	**7**
	308	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	308	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	309	0 - 0.2 m	Fill	19/08/25	<1	<1	<1	<1	<1	<1	<1	<1	-	-
	T3	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	D3/MJD	-	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	309	0.6 m	Natural	19/08/25	-	-	-	-	-	-	-	-	**6.3**	**5**
	310	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	310	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	311	0 - 0.15 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	311	0.2 - 0.4 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	312	0 - 0.25 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	313	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	313	0.75 m	Natural	19/08/25	-	-	-	-	-	-	-	-	**5.8**	**3**
	314	0 - 0.05 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	314	0.5 - 0.7 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	314	1 m	Natural	19/08/25	-	-	-	-	-	-	-	-	-	-
	315	0 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	316	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	316	0.3 m	Natural	19/08/25	-	-	-	-	-	-	-	-	**6.1**	**8**
	317	0 - 0.1 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	317	0.2 - 0.3 m	Fill	19/08/25	-	-	-	-	-	-	-	-	-	-
	203	6 m	Natural	28/08/25	-	-	-	-	-	-	-	-	**6.1**	**4**
	203	7 m	Natural	28/08/25	-	-	-	-	-	-	-	-	**6.6**	**8**
	203	9 m	Natural	28/08/25	-	-	-	-	-	-	-	-	**6.5**	**14**
Waste Classification Criteria [f]														
CT1					60	200	26	14	600	24	10	4	-	-
SCC1					108	360	46.8	25.2	1,080	43.2	18	7.2	-	-
TCLP1					-	-	-	-	-	-	-	-	-	-
CT2					240	800	104	56	2,400	96	40	16	-	-
SCC2					432	1,440	187.2	100.8	4,320	172.8	72	28.8	-	-
TCLP2					-	-	-	-	-	-	-	-	-	-

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a	QA/QC replicate of sample listed directly below the primary sample
b	Total chromium used as initial screen for chromium(VI).
c	Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)
d	Criteria for scheduled chemicals used as an initial screen
e	Criteria for Chlorpyrifos used as initial screen
f	NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste
PQL	Practical quantitation limit
CT1	Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste
SCC1	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste
TCLP1	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste
CT2	Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste
SCC2	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste
TCLP2	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Table G3: Summary of Laboratory Results – Compared to Waste Classification Criteria (continued)

					PFAS			
					PFOA	TCLP PFOA	PFOS + PFHxS	TCLP PFOS + PFHxS
				PQL	0.0001	0.00001	0.0001	0.00001
Sample Location	Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/L	mg/kg	mg/L
Bores in south eastern portion adjacent to possible UST	202	1 m	Natural	28/08/25	<0.0001	-	<0.0001	-
	202	3 m	Natural	28/08/25	<0.0001	-	<0.0001	-
	202	5 m	Natural	28/08/25	<0.0001	-	<0.0001	-
	203	0.5 m	Natural	28/08/25	**0.0001**	<0.00001	**0.0012**	**0.00004**
	203	1 m	Natural	28/08/25	**0.0001**	-	**0.0006**	-
	203	3 m	Natural	28/08/25	<0.0001	-	**0.0004**	-
	204	2 m	Natural	29/08/25	**0.0001**	<0.00001	<0.0001	<0.00001
	204	3.5 m	Natural	29/08/25	<0.0001	-	<0.0001	-
	205	0.5 m	Natural	29/08/25	<0.0001	<0.00001	**0.0012**	<0.00001
	205	3 m	Natural	29/08/25	<0.0001	-	**0.0004**	-
	206	3.5 m	Natural	29/08/25	<0.0001	-	<0.0001	-
Bore within north western portion	201	1 m	Natural	28/08/25	<0.0001	-	**0.0002**	-
	201	4 m	Natural	28/08/25	<0.0001	-	<0.0001	-
Test Pits across the site	303	0.5 m	Natural	19/08/25	<0.0001	-	<0.0001	-
	306	0.2 - 0.4 m	Fill	19/08/25	<0.0001	-	<0.0001	-
	309	0 - 0.2 m	Fill	19/08/25	<0.0001	<0.00001	**0.0008**	<0.00001
	309	0.6 m	Natural	19/08/25	<0.0001	-	**0.0007**	-
	313	0.75 m	Natural	19/08/25	<0.0001	-	<0.0001	-
	315	0 - 0.3 m	Fill	19/08/25	<0.0001	-	<0.0001	-
	315	1 m	Natural	19/08/25	<0.0001	-	<0.0001	-
Waste Classification Criteria[f]								
CT1					-	-	-	-
SCC1					18	-	1.8	-
TCLP1					-	0.5	-	0.05
CT2					-	-	-	-
SCC2					72	-	7.2	-
TCLP2					-	2	-	0.2

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a	QA/QC replicate of sample listed directly below the primary sample
b	Total chromium used as initial screen for chromium(VI).
c	Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)
d	Criteria for scheduled chemicals used as an initial screen
e	Criteria for Chlorpyrifos used as initial screen
f	NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste
PQL	Practical quantitation limit
CT1	Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste
SCC1	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste
TCLP1	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste
CT2	Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste
SCC2	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste
TCLP2	Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Table G4: Summary of Laboratory Results – Groundwater

				NEPC (2013)	ANZG (2018)	HEPA (2018)	HEPA (2018)	NHMRC (2012)		
Sample ID				HSL	95%	99%	95%	Recreation	203	D1/SBK
Sample Date		PQL	Units	2<4m	LOR	LOR	LOR		04/09/25	04/09/25
Metals - Dissolved	Total Arsenic	1	µg/L					100	<1	<1
	Beryllium	0.5	µg/L					600	<0.5	<0.5
	Boron	20	µg/L		940*			40,000	<20	<20
	Cadmium	0.1	µg/L		5.5			20	<0.1	<0.1
	Total Chromium	1	µg/L		4.4				<1	<1
	Cobalt	1	µg/L		1				<1	<1
	Copper	1	µg/L		1.3			20,000	<1	<1
	Lead	1	µg/L		4.4			50	<1	<1
	Manganese	5	µg/L		80			5,000	**7**	**6**
	Mercury (inorganic)	0.05	µg/L		0.1			10	<0.05	<0.05
	Nickel	1	µg/L		70			200	<1	<1
	Selenium (Total)	1	µg/L			5*		100	<1	<1
	Zinc	1	µg/L		8				**2**	**2**
TRH	F1 ((C6-C10)-BTEX)	10	µg/L	1000					<10	<10
	F2 (>C10-C16 less Naphthalene)	50	µg/L	1000					<50	<50
	F3 (>C16-C34)	100	µg/L						**100**	**120**
	F4 (>C34-C40)	100	µg/L						<100	<100
BTEX	Benzene	1	µg/L	800	700			10	<10	<10
	Toluene	1	µg/L	NL	180			8,000	<10	<10
	Ethylbenzene	1	µg/L	NL	80			3,000	<10	<10
	o-Xylene	1	µg/L		350*				<10	<10
	m+p-Xylene	2	µg/L		75				<20	<20
	Total Xylenes	1	µg/L	NL				6,000	<10	<10
PAH	Acenaphthene	0.1	µg/L						<0.1	<0.1
	Acenaphthylene	0.1	µg/L						<0.1	<0.1
	Anthracene	0.1	µg/L		0.01				<0.1	<0.1
	Benzo(a)anthracene	0.1	µg/L						<0.1	<0.1
	Naphthalene	1	µg/L	NL	70				<10	<10
	Benzo(a)pyrene (B(a)P)	0.1	µg/L		0.1			0.1	<0.1	<0.1
	Benzo(b,j+k)fluoranthene	0.2	µg/L						<0.2	<0.2
	Benzo(g,h,i)perylene	0.1	µg/L						<0.1	<0.1
	Chrysene	0.1	µg/L						<0.1	<0.1
	Dibenzo(a,h)anthracene	0.1	µg/L						<0.1	<0.1
	Fluoranthene	0.1	µg/L		1				<0.1	<0.1
	Fluorene	0.1	µg/L						<0.1	<0.1
	Indeno(1,2,3-c,d)pyrene	0.1	µg/L						<0.1	<0.1
	Phenanthrene	0.1	µg/L		0.6				<0.1	<0.1
	Pyrene	0.1	µg/L						<0.1	<0.1
	Sum of detected PAH	0.1	µg/L						<0.1	<0.1
VOC (excluding BTEX)	1,1,1,2-tetrachloroethane	1	µg/L						<10	<10
	1,1,1-trichloroethane	1	µg/L		270				<10	<10
	1,1,2,2-tetrachloroethane	1	µg/L		400				<10	<10
	tetrachloroethene	1	µg/L		70			500	<10	<10
	1,1,2-trichloroethane	1	µg/L		1,900				<10	<10
	1,1,2-trichloroethylene	1	µg/L		330				<10	<10
	1,1-dichloroethane	1	µg/L						<10	<10
	1,1-Dichloroethene	1	µg/L		700			300	<10	<10
	1,1-dichloropropene	1	µg/L						<10	<10
	1,2,3-trichlorobenzene	1	µg/L						<10	<10
	1,2,3-trichloropropane	1	µg/L						<10	<10
	1,2,4-trichlorobenzene	1	µg/L		20				<10	<10
	1,2,4-trimethyl benzene	1	µg/L						<10	<10
	1,2-dibromo-3-chloropropane	1	µg/L						<10	<10
	1,2-dichlorobenzene	1	µg/L					15,000	<10	<10
	1,2-dichloroethane	1	µg/L		1,900			30	<10	<10
	1,2-dichloropropane	1	µg/L		900				<10	<10
	1,3,5-trimethyl benzene	1	µg/L						<10	<10
	1,3-dichlorobenzene	1	µg/L						<10	<10
	1,3-dichloropropane	1	µg/L		1,100				<10	<10
	1,4-dichlorobenzene	1	µg/L					400	<10	<10
	2,2-dichloropropane	1	µg/L						<10	<10
	2-chlorotoluene	1	µg/L						<10	<10
	4-chlorotoluene	1	µg/L						<10	<10
	4-isopropyl toluene	1	µg/L						<10	<10
	Bromobenzene	1	µg/L						<10	<10

Table G4: Summary of Laboratory Results – Groundwater

				NEPC (2013) HSL 2<4m	ANZG (2018) 95% LOR	HEPA (2018) 99% LOR	HEPA (2018) 95% LOR	NHMRC (2012) Recreation		
Sample ID									203	D1/SBK
Sample Date		PQL	Units						04/09/25	04/09/25
VOC (excluding BTEX)	Bromochloromethane	1	µg/L						<10	<10
	Bromodichloromethane	1	µg/L						<10	<10
	Bromoform	1	µg/L						<10	<10
	carbon tetrachloride	1	µg/L		240			30	<10	<10
	Chloroethane	10	µg/L						<100	<100
	Vinyl Chloride	10	µg/L		100			3	<100	<100
	Chloroform	1	µg/L		770				<10	<10
	Chloromethane	10	µg/L						<100	<100
	cis-1,2-dichloroethene	1	µg/L						<10	<10
	cis-1,3-dichloropropene	1	µg/L						<10	<10
	Isopropylbenzene (cumene)	1	µg/L		30				<10	<10
	Cyclohexane	1	µg/L						<10	<10
	dibromochloromethane	1	µg/L						<10	<10
	Dibromomethane	1	µg/L						<10	<10
	Dichlorodifluoromethane	10	µg/L						<100	<100
	1,2-dibromoethane	1	µg/L					10	<10	<10
	hexachlorobutadiene	1	µg/L					7	<10	<10
	Bromomethane	10	µg/L					10	<100	<100
	Monochlorobenzene	1	µg/L		55			3,000	<10	<10
	n-butyl benzene	1	µg/L						<10	<10
	n-propyl benzene	1	µg/L						<10	<10
	sec-butyl benzene	1	µg/L						<10	<10
	Styrene (vinylbenzene)	1	µg/L					300	<10	<10
	Tert-butyl benzene	1	µg/L						<10	<10
	trans-1,2-dichloroethene	1	µg/L						<10	<10
	trans-1,3-dichloropropene	1	µg/L						<10	<10
	Trichlorofluoromethane	10	µg/L						<100	<100
	Sum of detected VOC	1	µg/L						<10	<10
PFAS	PFOS	0.001	µg/L			0.00023	0.13		**0.049**	**0.044**
	PFOA	0.001	µg/L			19	220	10	**0.009**	**0.009**
	PFHxS	0.001	µg/L						<0.001	<0.001
	Perfluorobutanesulfonic acid (PFBS)	0.001	µg/L						**0.001**	**0.001**
	6:2 FTS	0.001	µg/L						<0.001	<0.001
	8:2 FTS	0.002	µg/L						<0.002	<0.002
	Sum of detected PFAS	0.001	µg/L						**0.059**	**0.054**

Notes:

-	No criterion / not defined / not tested / not applicable
*	QA/QC replicate of sample listed directly below the primary sample
NL	Not limiting
PQL	Practical quantitation limit

Shaded cell is exceedance of guideline value

Where one or more guideline value is exceeded, the cell is shaded to the colour of the highest guideline value exceeded

NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013), health screening level Sand 4-8m

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 95% level of protection of species for Marine aquatic ecosystems [NB: 99% level of protection adopted for bioaccumulative chemicals]

HEPA (2025) PFAS National Environmental Management Plan, Version 3.0 99% level of protection for Marine water aquatic ecosystems

NHMRC (2008) Guidelines for Managing Risk in Recreational Water

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, orange text is 'unknown' level of protection

Underlining of ANZG (2018) criteria indicates a criteria with an 'unknown' level of protection.

ANZG (2018) DGV adopted for most conservative species of following analytes: DGV for xylene (m) adopted for xylene (m+p); DGV for CrVI adopted for total chromium; DGV for AsV adopted for total arsenic

ANZG (2018) DGV adopted for aluminium in freshwater is for receiving waters with pH >6.5. For receiving waters with pH <6.5 suitability of the more conservative, low reliability DGV of unknown LOP should be considered

ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

*Adopted from freshwater criteria for in absence of marine criteria

The assumed depth of groundwater from the finished floor level of the proposed basement is anticipated to be greater than 2 m and as such the groundwater HSL for vapour intrusion adopts the 2 m to <4 m criteria as an initial screen.

Table G5 - Summary of laboratory Results – Waste classification (Previous Testing (PSI, 2024)

				Metals										TRH		BTEX				PAH		OCP				OPP	PCB	PFAS								
				Total Arsenic	Beryllium	Cadmium	Total Chromium	Lead	Lead in TCLP	Mercury (inorganic)	Molybdenum	Nickel	Selenium (Total)	TRH C6 - C9	TRH C10 - C36	Benzene	Toluene	Ethylbenzene	Total Xylenes	Benzo(a)pyrene (BaP)	Total PAH	Scheduled Chemical Waste (standard)	Total Endosulfan	Total Analysed OCP	Mirex	Total Analysed OPP	Total PCB	PFOA	PFOS + PFHxS	Asbestos ID in soil >0.1g/kg	Asbestos ID in soil <0.1g/kg	Trace Analysis (NEPC)	ACM >7mm Estimation	FA and AF Estimation	Total Asbestos	Asbestos Comment	Asbestos Summary
			PQL	4	1	0.4	1	1	0.1	0.1	1	1	2	25	50	0.2	0.5	1	1	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.0001					0.001	0.1		0.001
Sample ID	Depth	Fill / Natural	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	g	%(w/w)	g/kg	-	-
6	0 - 0.1 m	Fill	16/07/24	<4	<1	<0.4	<1	**6**	-	<0.1	<1	**2**	<2	<25	<50	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	NAD	NAD	NAD	-	<0.001	<0.1	Nil	-
6	2 m	Natural	16/07/24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	-	-	-	-	-	-	-	-
7	0 - 0.1 m	Fill	16/07/24	<4	<1	<0.4	<1	**2**	-	<0.1	<1	<1	<2	<25	<50	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	NAD	NAD	NAD	–	<0.001	<0.1	Nil	-
8	0 - 0.1 m	Fill	16/07/24	<4	<1	<0.4	**1**	**21**	-	<0.1	<1	<1	<2	<25	<50	<0.2	<0.5	<1	<1	**0.07**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	NAD	NAD	NAD	–	<0.001	<0.1	Nil	-
8	6 m	Natural	16/07/24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	-	-	-	-	-	-	-	-
9	0 - 0.1 m	Fill	16/07/24	<4	<1	<0.4	**1**	**53**	-	<0.1	<1	<1	<2	<25	<50	<0.2	<0.5	<1	<1	<0.05	<0.05	**0.4**	<0.1	**0.4**	<0.1	<0.1	<0.1	<0.0001	<0.0001	NAD	NAD	NAD	–	<0.001	<0.1	Nil	-
9	0.5 m	Fill	16/07/24	<4	<1	<0.4	<1	**9**	-	<0.1	<1	<1	<2	<25	<50	<0.2	<0.5	<1	<1	<0.05	<0.05	**1.3**	<0.1	**1.3**	<0.1	<0.1	<0.1			Detected	NAD	NAD	0.6526	<0.001	1.0637	YES	Detected
10	0 - 0.1 m	Fill	16/07/24	<4	<1	<0.4	**5**	**160**	**0.2**	<0.1	<1	**1**	<2	<25	<50	<0.2	<0.5	<1	<1	**0.09**	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	NAD	NAD	NAD	–	<0.001	<0.1	Nil	-
D/DCL		Fill	16/07/24	<4	<1	<0.4	**4**	**120**	-	<0.1	<1	**1**	<2	<25	<50	<0.2	<0.5	<1	<1	**0.1**	**1.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1										
Waste Classification Criteria																																					
CT1				100	20	20	100	100	-	4	-	40	20	-	10,000	10	288	600	1000	0.8	200	<50	60	-	-	4	<50	-	-	-	-	-	-	-	-	-	-
SCC1				500	100	100	1,900	1,500	-	50	-	1,050	50	-	10,000	18	518	1,080	1,800	10	200	<50	108	-	-	7.5	<50	18	1.8	-	-	-	-	-	-	-	-
TCLP1				-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT2				400	80	80	400	400		16	-	160	80		40,000	40	1,152	2,400	4,000	3.2	800	<50	240			16	<50										
SCC2				2,000	400	400	7,600	6,000	-	200	-	4,200	200	-	40,000	72	2,073	4,320	7,200	23	800	<50	432	-	-	30	<50	72	7.2	-	-	-	-	-	-	-	-
TCLP2				-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance Asbestos detection

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Total chromium used as initial screen for chromium(VI).

c Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)

d Criteria for scheduled chemicals used as an initial screen

e Criteria for Chlorpyrifos used as initial screen

f NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste

PQL Practical quantitation limit

CT1 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste

SCC1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

TCLP1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

CT2 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste

SCC2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

TCLP2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Appendix D

Borehole and Test Pit Logs from Previous Report(s)

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 25.3 AHD
COORDINATE: E:419549.2, N:6379286.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 201
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 1 of 3

CONDITIONS ENCOUNTERED								SAMPLE			TESTING AND REMARKS			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) / DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL / WELL PIPE
28/08/25 No free groundwater observed	25	0.15	FILL / Silty SAND (SM): grey; fine to medium; with organics (rootlets); inclusions of brick, charcoal.		FILL	NA	M		D/ES		0.10	PID	<1ppm	Concrete
			SAND (SP): pale brown; fine to medium.						D/ES		0.50	PID	1ppm	
	24	1							D/ES		1.00	PID	<1ppm	Bentonite
			From 2.20m: brown		AEO	ND	M							50mm Class 18 PVC Casing
	23	2							D/ES		2.00	PID	<1ppm	
	22	3							D/ES		3.00	PID	<1ppm	Gravel
	21	4							D/ES		4.00	PID	<1ppm	

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 7.0m, Hollow Flight Auger to 12.0m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 25.3 AHD
COORDINATE: E:419549.2, N:6379286.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 201
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 2 of 3

CONDITIONS ENCOUNTERED								SAMPLE			TESTING AND REMARKS			
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	20 / 0	[CONT] SAND (SP): pale brown; fine to medium.		AEO	ND	M		D/ES		5.00	PID	<1ppm	Gravel	
								D/ES		5.50	PID	<1ppm		
	19 / 6							D/ES		6.00	PID	<1ppm		
								D/ES		6.50	PID	<1ppm		
	18 / 6.70	Silty SAND (SM): brown dark brown; fine to medium, (indurated sand).												50mm Class 18 Machine Slotted PVC Screen
	7							D/ES		7.00	PID	<1ppm		
	17 / 8			AEO possibly ALV	ND	M		D/ES		8.00	PID	<1ppm		
	16 / 9									9				

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 7.0m, Hollow Flight Auger to 12.0m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 25.3 AHD
COORDINATE: E:419549.2, N:6379286.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 201
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 3 of 3

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^] / DENSITY.[^]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	15		[CONT] Silty SAND (SM): brown dark brown; fine to medium, (indurated sand).						D/ES		10.00	PID	<1ppm	Gravel	
		11			AEO possibly ALV	ND	M				11				
	14								D/ES		11.50	PID	<1ppm		
		12	Borehole discontinued at 12.00m depth. Limit of investigation.												
	13														
		13													
	12														
		14													
	11														

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 7.0m, Hollow Flight Auger to 12.0m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 21.7 AHD
COORDINATE: E:419573.5, N:6379254.5
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 202
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 1 of 2

CONDITIONS ENCOUNTERED								SAMPLE			TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
28/08/25 No free groundwater observed	21.7 / 0.00	FILL / Silty SAND (SM) trace gravel: dark brown; fine to medium; rounded, natural gravel; with organics.		FILL	NA	M		D/ES		0.05	PID	3ppm
	21.6 / 0.10	FILL / SAND (SP) trace gravel: brown; fine to medium; sub-angular, natural gravel.		FILL	NA	M		D/ES		0.15	PID	1ppm
	21.5 / 0.20	FILL / SAND (SP): pale brown; fine to coarse; cemented sand material.		FILL	NA	M		D		0.25	PID	<1ppm
	21.4 / 0.30	SAND (SP): grey; fine to coarse.						D/ES		0.50	PID	4ppm
	21											
	1							D/ES		1.00	PID	2ppm
		1.20m:										
	20							D/ES		1.50	PID	1ppm
	2							D/ES		2.00	PID	<1ppm
	19			AEO	ND	M						
	3							D/ES		3.00	PID	<1ppm
	18											
	4							D/ES		4.00	PID	2ppm
	17											
	4.80 / 16.9	SAND (SP): brown; fine to coarse, (indurated sand).		AEO	ND							

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date

METHOD: Push Tube to 6.1m
CASING: Uncased

REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 21.7 AHD
COORDINATE: E:419573.5, N:6379254.5
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 202
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 2 of 2

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
	6	[CONT] SAND (SP): brown; fine to coarse, (indurated sand).		AEO	ND			D/ES		5.00	PID	1ppm
								D/ES		6.00	PID	2ppm
		Borehole discontinued at 6.10m depth. Limit of investigation.										

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
METHOD: Push Tube to 6.1m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Tuck Environmental

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 19.7 AHD
COORDINATE: E:419591.2, N:6379250.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 203
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 1 of 3

CONDITIONS ENCOUNTERED								SAMPLE			TESTING AND REMARKS			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL / WELL PIPE
	19	0.20	FILL / Silty SAND (SM) trace gravel: dark grey; fine to medium; sub-angular, natural gravel; inclusions of concrete, brick.		FILL	NA	M		D/ES		0.10	PID	6ppm	Concrete
			SAND (SP) with silt: grey; fine to medium; silt content decreases with depth; no hydrocarbon odour.						D/ES		0.50	PID	3ppm	Bentonite
	18	1			AEO	ND	M		D/ES		1.00	PID	<1ppm	50mm Class 18 PVC Casing
		1.70	SAND (SP): pale grey; fine to medium; no hydrocarbon odour.						D/ES		1.50	PID	2ppm	
		2							D/ES		2.00	PID	2ppm	
	17								D/ES		2.50	PID	2ppm	
		3			AEO	ND	M		D/ES		3.00	PID	<1ppm	Gravel
	16													
		4							D/ES		4.00	PID	2ppm	
	15								D/ES		4.50	PID	<1ppm	

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 6.1m, Hollow Flight Auger to 10.1m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 19.7 AHD
COORDINATE: E:419591.2, N:6379250.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 203
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 2 of 3

CONDITIONS ENCOUNTERED								SAMPLE			TESTING AND REMARKS			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL / WELL PIPE
	14		[CONT] SAND (SP): pale grey; fine to medium; no hydrocarbon odour.						D/ES		5.00	PID	3ppm	Gravel / 50mm Class 18 Machine Slotted PVC Screen
		6							D/ES		6.00	PID	2ppm	
	13		From 6.50m: grey		AEO	ND	M							
		7							D/ES		7.00	PID	1ppm	
▼ 28/08/25 Free groundwater observed at 8.0m	12	8							D/ES		8.00	PID	5ppm	
							W							
	11	8.50	Silty SAND (SP): dark brown; fine to medium, (indurated sand); no hydrocarbon odour.		AEO possibly ALV	ND	W							
		9							D/ES		9.00	PID	2ppm	
	10													

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 6.1m, Hollow Flight Auger to 10.1m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 19.7 AHD
COORDINATE: E:419591.2, N:6379250.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 203
PROJECT No: 227295.01
DATE: 28/08/25
SHEET: 3 of 3

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS			
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^] / DENSITY.[^]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	10	[CONT] Silty SAND (SP): dark brown; fine to medium, (indurated sand); no hydrocarbon odour.		AEO possibly ALV	ND	W		D/ES		10.00	PID	2ppm		
		Borehole discontinued at 10.10m depth. Limit of investigation.												

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 6.1m, Hollow Flight Auger to 10.1m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.2 AHD
COORDINATE: E:419578.5, N:6379255.2
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 204
PROJECT No: 227295.01
DATE: 29/08/25
SHEET: 1 of 2

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
29/08/25 No free groundwater observed		0.12	CONCRETE: grey.			NA	NA						
	20		FILL / SAND (SP) with silt: grey; fine to medium; inclusions of charcoal; no hydrocarbon odour observed.		FILL	NA	M		D/ES		0.25	PID	4ppm
		0.40	SAND (SP): pale grey; fine to medium; no hydrocarbon odour observed.						D/ES		0.50	PID	<1ppm
		1							D/ES		1.00	PID	<1ppm
	19								D/ES		1.50	PID	1ppm
		2							D/ES		2.00	PID	<1ppm
	18				AEO possibly FILL	ND	M		D/ES		2.50	PID	<1ppm
		3							D/ES		3.00	PID	<1ppm
	17								D/ES		3.50	PID	<1ppm
		4							D/ES		4.00	PID	<1ppm
	16								D/ES		4.50	PID	<1ppm
		4.60	SAND (SP): brown; fine to medium; no hydrocarbon odour observed.		AEO	ND	M						

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date

METHOD: Push Tube to 6.0m
CASING: Uncased

REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.2 AHD
COORDINATE: E:419578.5, N:6379255.2
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 204
PROJECT No: 227295.01
DATE: 29/08/25
SHEET: 2 of 2

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
	5	[CONT] SAND (SP): brown; fine to medium; no hydrocarbon odour observed.		AEO	ND	M		D/ES		5.00		
	5.40	Silty SAND (SM): brown; fine to medium; (indurated sand); no hydrocarbon odour observed.						D/ES		5.50	PID	<1ppm
		5.50m-5.60m: dark brown		AEO	ND	M						
	6	5.90m-6.00m: dark brown						D/ES		6.00	PID	<1ppm
		Borehole discontinued at 6.00m depth. Limit of investigation.										
	14											
	7											
	13											
	8											
	12											
	9											
	11											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
METHOD: Push Tube to 6.0m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Tuck Environmental

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.2 AHD
COORDINATE: E:419578.6, N:6379252.5
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 205
PROJECT No: 227295.01
DATE: 29/08/25
SHEET: 1 of 2

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
29/08/25 No free groundwater observed		0.13	CONCRETE: grey.			NA	NA						
	20	0.23	FILL / SAND (SP) trace gravel: brown; fine to medium; sub-angular, natural gravel; no hydrocarbon odour observed.		FILL	NA	M		D/ES		0.20	PID	<1ppm
			SAND (SP): pale grey; fine to medium; no hydrocarbon odour observed.						D/ES		0.50	PID	2ppm
		1							D/ES		1.00	PID	<1ppm
	19								D/ES		1.50	PID	<1ppm
		2			AEO	ND	M		D/ES		2.00	PID	<1ppm
	18								D/ES		2.50	PID	<1ppm
		3							D/ES		3.00	PID	<1ppm
	17								D/ES		3.50	PID	<1ppm
		4							D/ES		4.00	PID	<1ppm
		4.10	SAND (SP) with silt: brown; fine to medium; no hydrocarbon odour observed.										
	16				AEO	ND	M		D/ES		4.50	PID	<1ppm

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 6.1m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.2 AHD
COORDINATE: E:419578.6, N:6379252.5
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 205
PROJECT No: 227295.01
DATE: 29/08/25
SHEET: 2 of 2

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
	5	[CONT] SAND (SP) with silt: brown; fine to medium; no hydrocarbon odour observed.		AEO	ND	M		D/ES		5.00	PID	<1ppm
								D/ES		5.50	PID	<1ppm
	5.80	Silty SAND (SM): dark brown; fine to medium, (indurated sand).		AEO	ND	M		D/ES		6.00	PID	<1ppm
	6	Borehole discontinued at 6.10m depth. Limit of investigation.										
	14											
	7											
	13											
	8											
	12											
	9											
	11											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 6.1m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.2 AHD
COORDINATE: E:419582.1, N:6379254.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 206
PROJECT No: 227295.01
DATE: 29/08/25
SHEET: 1 of 2

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
29/08/25 No free groundwater observed		0.14	CONCRETE: grey.			NA	NA						
	20	0.30	FILL / SAND (SP) trace gravel: grey brown; fine to medium; sub-angular, natural gravel; no hydrocarbon odour observed.		FILL	NA	M		D/ES		0.20	PID	<1ppm
			SAND (SP): pale grey; fine to medium; no hydrocarbon odour observed.						D/ES		0.50	PID	<1ppm
	19	1							D/ES		1.00	PID	<1ppm
									D/ES		1.50	PID	<1ppm
	18	2			AEO	ND	M		D/ES		2.00	PID	<1ppm
									D/ES		2.50	PID	<1ppm
	17	3							D/ES		3.00	PID	<1ppm
									D/ES		3.50	PID	<1ppm
		4							D/ES		4.00	PID	<1ppm
	16	4.10	Silty SAND (SM): dark brown; fine to medium, (indurated sand); no hydrocarbon odour.		AEO	ND	M		D/ES		4.50	PID	<1ppm
			From 4.90m: brown										

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date

METHOD: Push Tube to 6.1m
CASING: Uncased

REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.2 AHD
COORDINATE: E:419582.1, N:6379254.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 206
PROJECT No: 227295.01
DATE: 29/08/25
SHEET: 2 of 2

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
	15 / 5	[CONT] Silty SAND (SM): dark brown; fine to medium, (indurated sand); no hydrocarbon odour.		AEO	ND	M		D/ES		5.00	PID	<1ppm
								D/ES		5.50	PID	<1ppm
	14 / 6							D/ES		6.00	PID	<1ppm
		Borehole discontinued at 6.10m depth. Limit of investigation.										
	13 / 7											
	12 / 8											
	11 / 9											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
OPERATOR: Tuck Environmental
LOGGED: Date
METHOD: Push Tube to 6.1m
CASING: Uncased
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.3 AHD
COORDINATE: E:419577.5, N:6379253.7
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 207
PROJECT No: 227295.01
DATE: 29/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
29/08/25 No free groundwater observed	0.15	CONCRETE: grey.			NA	NA						
	20	FILL / SAND (SP) trace gravel: brown; fine to medium; sub-angular, natural gravel; no hydrocarbon odour observed.		FILL	NA	M		D/ES		0.25	PID	<1ppm
	0.70	FILL / SAND (SP): pale grey; fine to medium; no hydrocarbon odour observed. 0.80m: concrete fragment observed		FILL	NA	M		D/ES		0.80	PID	<1ppm
	1	Borehole discontinued at 0.90m depth. Refusal on hard flat surface, possibly concrete.										
	19											
	2											
	18											
	3											
	17											
	4											
	16											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Auger
METHOD: Hand Auger to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Hand Tools (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 25.0 AHD
COORDINATE: E:419554.9, N:6379293.5
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 301
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	0.20	FILL / Silty SAND (SM): grey; fine to medium; trace organics; inclusions of brick fragments, concrete, tiles.		FILL	NA	M		B/D/ES		0.20	PID	2ppm
		SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.30	PID	<1ppm
								D/ES		0.50	PID	<1ppm
		Borehole discontinued at 0.60m depth. Limit of investigation.										

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.6m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 24.7 AHD
COORDINATE: E:419563.2, N:6379292.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 302
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	24.7 / 0.10	FILL / Silty SAND (SM): grey; fine to medium; trace organics; inclusions of brick, glass, tile, concrete, timber.		FILL	NA	M		B/D/ES		0.10	PID	<1ppm
		SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.25	PID	<1ppm
								D/ES		0.50	PID	<1ppm
	24.2 / 0.60	Borehole discontinued at 0.60m depth. Limit of investigation.										
	24 / 1											
	23 / 2											
	22 / 3											
	21 / 4											
	20											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.6m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 23.7 AHD
COORDINATE: E:419572.9, N:6379283.7
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 303
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) / DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	0.10	FILL / Silty SAND (SM): grey; fine to medium; abundant organics (rootlets); inclusions of glass, metal (bracket).		FILL	NA	M		B/D/ES		0.10	PID	5ppm
		SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.25	PID	1ppm
								D/ES		0.50	PID	<1ppm
	23	Borehole discontinued at 0.60m depth. Limit of investigation.										
	1											
	22											
	2											
	21											
	3											
	20											
	4											
	19											

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.6m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 23.1 AHD
COORDINATE: E:419579.1, N:6379283.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 304
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	23	0.20	FILL / SAND (SP) with silt: brown; fine to medium; with organics (rootlets); inclusions of tile (roof tile), charcoal; fibro fragment F1 found at surface.		FILL	NA	M		B/D/ES		0.20	PID	<1ppm
			SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.25	PID	<1ppm
									D/ES		0.50	PID	<1ppm
			Borehole discontinued at 0.70m depth. Limit of investigation.										
	22	1											
	21	2											
	20	3											
	19	4											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.7m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 22.1 AHD
COORDINATE: E:419590.7, N:6379284.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 305
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	22 / 0.20	FILL / Silty SAND (SM): grey; fine to medium; inclusions of roof tiles, porcelain, metal, fibro.		FILL	NA	M		B/D/ES		0.20	PID	<1ppm
		SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.25	PID	<1ppm
								D/ES		0.50	PID	<1ppm
		Borehole discontinued at 0.70m depth. Limit of investigation.										
	1 / 21											
	2 / 20											
	3 / 19											
	4 / 18											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.7m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 21.4 AHD
COORDINATE: E:419591.6, N:6379277.1
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 306
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) / DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	21 / 0.10	FILL / Silty SAND (SM): grey; fine to medium; abundant organics; inclusions of coal, charcoal, ash; soil matrix includes possible bottom ash material.		FILL	NA	M		B/D/ES		0.10	PID	<1ppm
										0.20		
	0.45	FILL / SAND (SP) with silt: pale grey; fine to medium; inclusions of charcoal, bottom ash material.		FILL	NA	M		B/D/ES		0.40	PID	<1ppm
		SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.75	PID	<1ppm
	1 / 20 / 0.90	Borehole discontinued at 0.90m depth. Limit of investigation.										
	2 / 19											
	3 / 18											
	4 / 17											

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 25.2 AHD
COORDINATE: E:419549.3, N:6379281.5
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 307
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	25 / 0.10	FILL / Silty SAND (SM): grey; fine to medium; abundant organics (rootlets); inclusions of concrete.		FILL	NA	M		B/D/ES		0.10	PID	<1ppm
		SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.25	PID	<1ppm
								D/ES		0.50	PID	<1ppm
	24 / 1	Borehole discontinued at 0.60m depth. Limit of investigation.										
	23 / 2											
	22 / 3											
	21 / 4											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.6m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 24.5 AHD
COORDINATE: E:419562.3, N:6379282.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 308
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	24.5	0.15	FILL / Silty SAND (SM): dark grey; fine to medium; trace organics; inclusions of brick, roof tile, porcelain tile, fibro, concrete, glass, charcoal / ash; includes possible bottom ash material.		FILL	NA	M		B/D/ES		0.15	PID	6ppm
					FILL	NA	M		B/D/ES		0.20	PID	<1ppm
	24	0.40	FILL / SAND (SP) with silt: grey; fine to medium; inclusions of charcoal / ash.								0.40		
			SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.75	PID	<1ppm
		1	Borehole discontinued at 0.90m depth. Limit of investigation.										
	23												
		2											
	22												
		3											
	21												
		4											
	20												

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 23.8 AHD
COORDINATE: E:419563.2, N:6379273.2
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 309
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	23.8 / 0.00	FILL / Silty SAND (SM): dark grey; fine to medium; with organics; inclusions of brick, charcoal / ash, tiles, glass; soil matrix includes possible bottom ash material; abundant brick in surface soils.		FILL	NA	M		B/D/ES		0.20	PID	<1ppm
	23.6 / 0.20	SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.30	PID	<1ppm
								D/ES		0.60	PID	<1ppm
	23 / 1	Borehole discontinued at 0.70m depth. Limit of investigation.										
	22 / 2											
	21 / 3											
	20 / 4											
	19											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.7m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 24.1 AHD
COORDINATE: E:419559.2, N:6379272.4
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 310
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	24	0.20	FILL / Silty SAND (SM): dark grey; fine to medium; with organics; inclusions of brick, tile, fibro, charcoal / ash; (bottom ash material).		FILL	NA	M		B/D/ES		0.15	PID	<1ppm
		0.40	FILL / SAND (SP) with silt: grey; fine to medium; inclusions of charcoal / ash, plastic peg.		FILL	NA	M		B/D/ES		0.20	PID	<1ppm
	23	1	SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.40	PID	<1ppm
			Borehole discontinued at 0.90m depth. Limit of investigation.								0.75		
	22	2											
	21	3											
	20	4											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 24.9 AHD
COORDINATE: E:419550.5, N:6379275.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 311
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	24 / 0.00	FILL / Silty SAND (SM): grey; fine to medium; inclusions of tiles, fibro, brick, charcoal / ash.		FILL	NA	M		B/D/ES		0.15	PID	4ppm
	0.20	FILL / SAND (SP) with silt: pale grey; fine to medium; inclusions of charcoal / ash.		FILL	NA	M		B/D/ES		0.20	PID	1ppm
	0.40	SAND (SP): pale grey to brown; fine to medium.		AEO	ND	M		D/ES		0.40	PID	1ppm
	23 / 1	Borehole discontinued at 0.90m depth. Limit of investigation.								0.75		
	22 / 2											
	21 / 3											
	20 / 4											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 24.8 AHD
COORDINATE: E:419545.0, N:6379262.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 312
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
No free groundwater observed 19/08/25	24 / 0.00	FILL / Silty SAND (SM): grey; fine to medium; with organics; inclusions of brick, glass, charcoal / ash, roof tile.		FILL	NA	M		B/D/ES		0.25	PID	<1ppm
	0.30	SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.40	PID	<1ppm
								D/ES		0.75	PID	<1ppm
	24 / 0.80	Borehole discontinued at 0.80m depth. Limit of investigation.										

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.8m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 24.3 AHD
COORDINATE: E:419553.3, N:6379264.4
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 313
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^] / DENSITY.[^]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	24	0.15	FILL / SAND (SP) with silt: grey; fine to medium; with organics; inclusions of brick, concrete, painted timber, charcoal / ash, glass, iron nails.		FILL	NA	M		B/D/ES		0.10	PID	<1ppm
											0.20		
		0.40	FILL / SAND (SP): grey; fine to medium; inclusions of charcoal / ash.		FILL	NA	M		B/D/ES		0.40	PID	3ppm
			SAND (SP): pale grey; fine to medium; trace decomposed organics (tree root).		AEO	ND	M		D/ES		0.75	PID	<1ppm
		1	Borehole discontinued at 0.90m depth. Limit of investigation.										
	23												
		2											
	22												
		3											
	21												
		4											
	20												

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 24.3 AHD
COORDINATE: E:419553.4, N:6379258.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 314
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) / DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	24 / 0.08	FILL / Silty SAND (SM): grey; fine to medium; with organics (rootlets); inclusions of concrete, brick, fibro.		FILL	NA	M		B/D/ES		0.05	PID	<1ppm
								B/D/ES		0.10		
	0.40	FILL / Sandy GRAVEL (GP): brown, some grey; fine to medium, sub-angular to sub-rounded, natural gravels; fine to medium sand; Inclusions of charcoal / ash, concrete.		FILL	NA	M				0.30	PID	<1ppm
		FILL / SAND (SP) with silt: grey; fine to medium; inclusions of charcoal / ash.		FILL	NA	M		B/D/ES		0.50	PID	<1ppm
	0.80 / 1	SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		0.70	PID	<1ppm
		Borehole discontinued at 1.10m depth. Limit of investigation / pit collapsing.								1.00		

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 1.1m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 23.8 AHD
COORDINATE: E:419558.8, N:6379258.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 315
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) / DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	23	0.35	FILL / Sandy CLAY (CL) with gravel: brown; low plasticity; fine to coarse sand; fine to coarse, sub-angular to sub-rounded gravel; gravels comprising natural gravels, brick, concrete; abundant organics to 0.05m, fibro fragment.		FILL	NA	w<PL to w=PL		B/D/ES		0.30	PID	5ppm
		0.60	FILL / Silty SAND (SM): dark grey; fine to medium; inclusions of charcoal / ash; soil matrix resembles bottom ash material.		FILL	NA	M		B/D/ES		0.40 0.60	PID	1ppm
		0.80	FILL / SAND (SP) with silt: grey; fine to medium; inclusions of charcoal / ash.		FILL	NA	M		B/D/ES		0.70 0.80	PID	<1ppm
	22	1	SAND (SP): pale grey; fine to medium.		AEO	ND	M		D/ES		1.00	PID	<1ppm
			Borehole discontinued at 1.10m depth. Limit of investigation.										
	21	2											
	20	3											
	19	4											

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 1.1m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 20.6 AHD
COORDINATE: E:419594.1, N:6379267.5
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 316
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	20	0.15	FILL / Silty SAND (SM): dark grey; fine to medium; inclusions of tile, coal, charcoal / ash.		FILL	NA	M		B/D/ES		0.10	PID	<1ppm
			SAND (SP) with silt: grey; fine to medium.						D/ES		0.30	PID	<1ppm
			0.15m-0.70m: possibly FILL		AEO	ND	M						
			From 0.70m: grey, no silt						D/ES		0.80	PID	<1ppm
	19	1	Borehole discontinued at 0.90m depth. Limit of investigation.										
	18	2											
	17	3											
	16	4											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Fortezza Group Pty Ltd
PROJECT: Proposed Multistorey Residential Development
LOCATION: 5-7 Church & 42 Donald St, Nelson Bay, NSW

SURFACE LEVEL: 19.8 AHD
COORDINATE: E:419592.8, N:6379256.7
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 317
PROJECT No: 227295.01
DATE: 19/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
19/08/25 No free groundwater observed	0.15	FILL / Silty SAND (SM): dark grey; fine to medium; abundant organics; inclusions of brick, glass, charcoal.		FILL	NA	M		B/D/ES		0.10	PID	<1ppm
		FILL / SAND (SP) with silt: grey brown; fine to medium; inclusions of charcoal.		FILL	NA	M		B/D/ES		0.20 0.30	PID	<1ppm
	0.40	SAND (SP) with silt: grey; fine to medium.		AEO	ND	M		D/ES		0.50	PID	<1ppm
		From 0.70m: pale grey, no silt						D/ES		0.80	PID	<1ppm
	1	Borehole discontinued at 0.90m depth. Limit of investigation.										

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: Shovel to 0.9m
REMARKS: Coordinates and elevations measured by dGPS with typical accuracy of +/- 0.1 m, depending on satellite coverage and site condition.

OPERATOR: Douglas (Date)

LOGGED: Date
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

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Bonded ACM in Soil v1.0.1

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Calculation of Bonded ACM in Soil [Asbestos % w/w]

Project:	Proposed Multistorey Residential Development	**ACM Asbestos Content % (w/w):**	15
Project No:	227295.01	**Land Use:**	**HSL-B Residential with minimal access to soil**
Location:	5-7 Church & 42 Donald St, Nelson Bay NSW	**Criterion:**	**0.04**

Table 1: Summary Results for Bonded Asbestos-Containing Material (ACM) in Soil

Sample ID / Test Location ID	Sample Depth Range (m bgl)	Weight of 10L Bulk Sample (g)	Approx. No. Fragments > 7mm	Condition of Fragments (good/poor)	Approx. Size of Largest Fragment (mm)	Weight of Screened ACM (g)	Concentration of Asbestos in Soil (% w/w)
301	0-0.15	14500	0				-
302	0-0.1	14000	0				-
303	0-0.1	12500	0				-
304	0-0.2	13000	1	good	60	19.2	**0.02**
305	0-0.2	13000	2	good	80	45.5	**0.05**
306	0-0.1	12000	0				-
306	0.2-0.4	11500	0				-
307	0-0.1	12500	0				-
308	0-0.15	12000	5	good	100	271	**0.34**
308	0.2-0.4	11000	0				-
309	0-0.15	12000	0				-
310	0-0.15	12000	4	good	70	195.5	**0.24**
310	0.2-0.4	10500	0				-
311	0-0.15	12000	1	good	60	15.5	**0.02**
311	0.2-0.4	11000	0				-
312	0-0.25	12500	0				-
313	0-0.1	13500	0				-
313	0.2-0.4	12500	0				-
314	0-0.05	11500	1	good	50	14.5	**0.02**
314	0.1-0.3	12500	0				-
314	0.5-0.7	11000	0				-
315	0-0.3	13000	1	good	60	15.1	**0.02**
315	0.4-0.6	12500	0				-
315	0.7-0.8	11000	0				-
316	0-0.1	10500	0				-
317	0-0.1	11000	0				-
317	0.2-0.3	12000	0				-
6 (from PSI)	0-0.1	9000	0				-
7 (from PSI)	0-0.1	10000	0				-
8 (from PSI)	0-0.1	11000	0				-
9 (from PSI)	0-0.6	11000	3	good	80	39	**0.05**
10 (from PSI)	0-0.1	9000	0				-

Appendix E

Remediation Options Assessment and Evaluation

1. Introduction

The following key guidelines and technical reports were consulted in the preparation of this remediation options assessment:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM])* (NEPC, 2013); and
- CRC CARE *Remediation Action Plan: Development - Guideline on Performing Remediation Options Assessment* (CRC CARE, 2019a).

The first stage of developing a remediation strategy is to establish clear and measurable remediation objectives and remediation criteria (clean-up levels). These will form the requirements against which remediation options are assessed.

The next stage of the remediation options assessment is to select technology and management options, or combinations of options, that have the potential to reduce contaminant concentrations and/or apply management controls as necessary so that the remediation objectives are achieved and no unacceptable risk is posed by the contamination in the context of the current and proposed site use. Where several viable options have been identified, an assessment of each of the options will be required to determine which option will most adequately and sustainably meet the remediation objectives (CRC CARE, 2019a).

The remediation objectives are to:

- Address potentially unacceptable risks to relevant environmental values from contamination (refer to the CSM in Section 7); and
- Render the site suitable, from a contamination perspective, for the proposed development (refer to Section 1).

2. Hierarchy of remediation options

NEPC (2013) stipulates the preferred hierarchy of options for site clean-up (remediation) and/or management which is outlined as follows:

- On-site treatment of the contamination so that it is destroyed, or the associated risk is reduced to an acceptable level; and
- Off-site treatment of excavated soil, so that the contamination is destroyed, or the associated risk is reduced to an acceptable level, after which soil is returned to the site;

or, if these two options are not practicable;

- Consolidation and isolation of the soil on site by containment with a properly designed barrier; and
- Removal of contaminated material to an approved site or facility, followed, where necessary, by replacement with appropriate material;

or,

- Where the assessment indicates remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy.

3. Remediation options assessment

3.1 Introduction

The following issues have been identified at the site which require remediation:

- Asbestos-impacted fill; and
- Removal / decommissioning of the possible UST and associated infrastructure located in the south eastern portion of the site.

3.2 Remediation options assessment

Given the straightforward nature of the contamination issues at the site and the necessary earthworks (final landform) as part of the proposed development, only three options for the soil contamination have been considered, as follows:

- Do nothing;
- On-site management / cap and contain (consolidation and isolation by containment); and
- Excavation and off-site disposal.

Due to asbestos being present on the ground surface (i.e potential pathway for exposure to receptors) it is considered that it is not an option to do nothing.

The following key guidelines have therefore been consulted:

- CRC CARE *Technology Guide: Soil - Containment* (CRC CARE, 2019c);
- CRC CARE *Technology Guide: Soil - Excavation* (CRC CARE, 2019b);
- WA DoH *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (WA DoH, 2021); and
- WorkCover NSW *Managing Asbestos in or on Soil* (WorkCover NSW, 2014).

Relevant technical considerations include:

- Asbestos cannot be physically destroyed; and
- Excavation is proposed at the site resulting in a net deficit of soil such that some material requires off-site disposal, irrespective of the contamination issues.

In consultation with the client, Douglas understand that the proposed development requires bulk excavation of materials across the entire site. Given the depth of proposed excavations, space needed for stockpiling of impacted materials and further means to place impacted materials at depth, the option to onsite manage / cap and contain asbestos impacted soils is not considered feasible. On-site management of hydrocarbon impacts soils associated with remnant fuel infrastructure (if present) may also not meet remediation requirements (i.e. remove pathway for exposure to receptors) due to ongoing risk or soil vapour or groundwater impact.

Accordingly, the preferred remediation strategy is excavation and off-site disposal (source removal).

4. Preferred remediation strategy

The preferred option selected in consultation with the client, taking in to account technical considerations (as discussed herein), and other project specific considerations (such as proposed bulk excavation) is excavation and off-site disposal (source removal).

5. References

CRC CARE. (2019a). *Remediation Action Plan: Development - Guideline on Performing Remediation Options Assessment*. National Remediation Framework: CRC for Contamination Assessment and Remediation of the Environment.

CRC CARE. (2019b). *Technology Guide: Soil - Excavation*. National Remediation Framework: CRC for Contamination Assessment and Remediation of the Environment.

CRC CARE. (2019c). *Technology Guide: Soil - Containment*. National Remediation Framework: CRC for Contamination Assessment and Remediation of the Environment.

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

WA DoH. (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. WA Department of Health.

WorkCover NSW. (2014). *Managing Asbestos in or on Soil*. March 2014: WorkCover NSW, NSW Government.

Appendix F

Site Assessment Criteria

1. Introduction

1.1 Guidelines

The following key guidelines were consulted for deriving the site assessment criteria (SAC):

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).
- CRC CARE *Health screening levels for petroleum hydrocarbons in soil and groundwater* (CRC CARE, 2011).
- HEPA *PFAS National Environmental Management Plan (NEMP)* (HEPA, 2025).

1.2 General

The SAC applied in the current investigation are informed by the CSM which identified human and environmental receptors to potential contamination at the site. Analytical results are assessed (as a Tier 1 assessment) against the SAC comprising primarily the investigation and screening levels of Schedule B1 of NEPC (2013).

The following inputs are relevant to the selection and/or derivation of the SAC:

- Land use: residential.
    - Corresponding to land use category 'B', residential with minimal opportunities for soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats.
- Soil type: sand.

2. Soils

2.1 Health investigation and screening levels

The generic health investigation levels (HIL) and health screening levels (HSL) are considered to be appropriate for the assessment of human health risk via all relevant pathways of exposure associated with contamination at the site. The adopted soil HIL and HSL for the contaminants of concern are in Table 1 and Table 2.

Table 1: Health investigation levels (mg/kg)

Contaminant	HIL-B
Metals	
Arsenic	500
Beryllium	90
Boron	40 000
Cadmium	150
Chromium (VI)	500
Cobalt	600
Copper	30 000
Lead	1200
Manganese	14 000
Mercury (inorganic)	120
Methyl mercury	30
Nickel	1200
Selenium	1400
Zinc	60 000
PAH	
B(a)P TEQ	4
Total PAH	400
Phenols	
Phenol	45 000
Pentachlorophenol	130
OCP	
DDT+DDE+DDD	600
Aldrin and dieldrin	10
Chlordane	90
Endosulfan	400
Endrin	20
Heptachlor	10
HCB	15
Methoxychlor	500
OPP	
Chlorpyrifos	340
PCB	
PCB	1
VOC (various analytes)	-

Table 2: Health screening levels (mg/kg)

Contaminant	HSL-A&B	HSL-A&B	HSL-A&B	HSL-A&B
SAND	**0 m to <1 m**	**1 m to <2 m**	**2 m to <4 m**	**4 m+**
Benzene	0.5	0.5	0.5	0.5
Toluene	160	220	310	540
Ethylbenzene	55	NL	NL	NL
Xylenes	40	60	95	170
Naphthalene	3	NL	NL	NL
TRH F1	45	70	110	200
TRH F2	110	240	440	NL

Notes:
TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} minus naphthalene
The soil saturation concentration (Csat) is defined as the soil concentration at which the porewater phase cannot dissolve any more of an individual chemical. The soil vapour that is in equilibrium with the porewater will be at its maximum. If the derived soil HSL exceeds Csat, a soil vapour source concentration for a petroleum mixture could not exceed a level that would results in the maximum allowable vapour risk for the given scenario. For these scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or 'NL'

The HSL for direct contact derived from CRC CARE (2011) are in Table 3.

Table 3: Health screening levels for direct contact (mg/kg)

Contaminant	DC HSL-B	DC HSL-IMW
Benzene	140	1100
Toluene	21 000	120 000
Ethylbenzene	5900	85 000
Xylenes	17 000	130 000
Naphthalene	2200	29 000
TRH F1	5600	82 000
TRH F2	4200	62 000
TRH F3	5800	85 000
TRH F4	8100	120 000

Notes:
TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} minus naphthalene, IMW intrusive maintenance worker

2.2 Health investigation levels for per- and poly-fluoroalkyl substances in soil

The laboratory analytical results for per- and poly-fluoroalkyl substances (PFAS) in soil have been assessed against HIL published in HEPA (2025). The HIL represent a nationally-agreed suite that should be used to inform site investigations. The HIL are intentionally conservative, and an exceedance of these criteria may not constitute a risk if other exposure pathways are controlled. An exceedance of the HIL should trigger further investigations, such as a site-specific risk assessment. At the time of this investigation, screening values were available only for perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS).

The HIL derived from Table 5 of HEPA (2025) are in Table 4.

Table 4: Health investigation levels (mg/kg)

Contaminant	HIL-B
PFOS and PFHxS *	2
PFOA	20

Notes:
* Includes PFOS only, PFHxS only and the sum of the two.

2.3 Asbestos in soil

The HSL for asbestos in soil are based on likely exposure levels for different scenarios published in NEPC (2013) for the following forms of asbestos:

- Bonded asbestos containing material (ACM); and
- Fibrous asbestos and asbestos fines (FA and AF).

The HSL are in Table 5.

Table 5: Health screening levels for asbestos

Form of asbestos	HSL-B
ACM	0.04%
FA and AF	0.001%
FA and AF and ACM	No visible asbestos for surface soil *

Notes:
Surface soils defined as top 10 cm.
* Based on site observations at the sampling points and the analytical results of surface samples.

2.4 Ecological investigation levels

Ecological investigation levels (EIL) and added contaminant limits (ACL), where appropriate, have been derived in NEPC (2013) for arsenic, copper, chromium (III), nickel, lead, zinc, DDT and naphthalene. The adopted EIL, derived using the interactive (excel) calculation spreadsheet on the NEPM toolbox website are shown in Table 6with inputs into their derivation shown in Table 6.

Table 6: Inputs to the derivation of the ecological investigation levels

Variable	Input	Rationale
Age of contaminants	"Aged" (>2 years)	
pH	5	Lowest measured pH
CEC	1 $cmol_c/kg$	Lowest measured CEC
Clay content	1 %	Sand soil
Traffic volumes	low	
State / Territory	NSW	

Table 7: Ecological investigation levels (mg/kg)

Contaminant	EIL-A-B-C
Metals	
Arsenic	100
Copper	35
Nickel	6
Chromium III	190
Lead	1100
Zinc	120
PAH	
Naphthalene	170
OCP	
DDT	180

Notes:
EIL-A-B-C urban residential and public open space

2.5 Ecological screening levels

Ecological screening levels (ESL) are used to assess the risk of selected petroleum hydrocarbon compounds, BTEX and benzo(a)pyrene to terrestrial ecosystems. The adopted ESL are shown in Table 8.

Table 8: Ecological screening levels (mg/kg)

Contaminant	Soil type	ESL-A-B-C
Benzene	Coarse	50
Toluene	Coarse	85
Ethylbenzene	Coarse	70
Xylenes	Coarse	105
TRH F1	Coarse/ Fine	180*
TRH F2	Coarse/ Fine	120*
TRH F3	Coarse	300
TRH F4	Coarse	2800
B(a)P	Coarse	0.7

Notes:
ESL are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability
TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} including naphthalene
ESL-A-B-C urban residential and public open space

2.6 Ecological soil guideline values

The interim ecological soil guideline values (EGV) derived from Table 6 of HEPA (2025) are in Table 9.

Table 9: Ecological soil guideline values (mg/kg) – all land uses

Contaminant	Direct exposure	Indirect exposure
PFOS	1	0.003
PFOA	10 / 0.005	0.003
PFHxS	NC	NC

Notes:
NC no criterion
*For intensely developed sites with no secondary consumers and minimal potential for indirect ecological exposure, a higher criterion of up to 0.14 mg/kg PFOS may be appropriate.

2.7 Management limits

In addition to appropriate consideration and application of the HSL and ESL, there are additional considerations which reflect the nature and properties of petroleum hydrocarbons, including:

- Formation of observable light non-aqueous phase liquids (LNAPL);
- Fire and explosion hazards;
- Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services.

The adopted management limits are in Table 10.

Table 10: Management limits (mg/kg)

Contaminant	Soil type	ML-A-B-C
TRH F1	Coarse	700
TRH F2	Coarse	1000
TRH F3	Coarse	2500
TRH F4	Coarse	10 000

Notes:
TRH F1 is TRH C_6-C_{10} including BTEX
TRH F2 is TRH >C_{10}-C_{16} including naphthalene
ML-A-B-C residential, parkland and public open space

3. References

CRC CARE. (2011). *Health screening levels for petroleum hydrocarbons in soil and groundwater.* Parts 1 to 3, Technical Report No. 10: Cooperative Research Centre for Contamination Assessment and Remediation of the Environment.

HEPA. (2025). *PFAS National Environmental Management Plan (NEMP).* Version 3.0: Heads of EPAs Australia and New Zealand.

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM].* Australian Government Publishing Services Canberra: National Environment Protection Council.

Appendix G

Data Quality Objectives

1. Data quality objectives

The objective of the validation plan is to assess the results of validation testing against the remediation acceptance criteria (RAC) stated within Section 11.1, assess the resultant suitability of the site for the intended land use, and to provide information on any environmental impacts which may have resulted from the works.

The validation assessment will be conducted with reference to the seven step data quality objectives process (DQO) as outlined in NEPC (2013), described below.

Table 1: Data quality objectives

Step	Summary
1: State the problem	The site requires remediation and validation of remediation in order to render it suitable for residential land use. The objective of the validation plan is to confirm the successful implementation of this remediation action plan. A conceptual site model (CSM) for the proposed development has been prepared (Section 7).
2: Identify the decisions / goal of the study	The CSM identifies the contaminants of potential concern (CoPC) and the likely impacted media. The key CoPC impacting the site are: • Asbestos; and • Potential residual hydrocarbon impacts (TRH, BTEX, PAH, metals) associated with former fuel infrastructure. The validation sampling results will be compared against the RAC. The preferred remediation strategy as outlined in the RAP is the excavation and disposal of contaminated soils (source removal). The success of the remediation and subsequent validation will be based on a comparison of the analytical results for all CoPC to the adopted RAC and, if necessary, compared to the 95% upper confidence limit (UCL) of the arithmetic mean (95% UCL) concentrations.
3: Identify the information inputs	Relevant inputs to the decision include: • The CSM, identifying the CoPC and affected media; • Analysis for the relevant CoPC using NATA accredited laboratories and methods, where possible; • Field and laboratory QA/QC data to assess the suitability of the environmental data for the validation assessment; • Results compared with the RAC; • Assessments of aggregates, soil, etc imported as part of the permanent remediation works; and • A photoionisation detector (PID) to screen soils on site for VOC. PID readings will be used to inform sample selection for laboratory analysis.

Step	Summary
4: Define the study boundaries	The lateral boundaries of the site are shown on Drawing 1, Appendix A. The vertical boundaries are to the extent of contamination impact as determined from the site history assessment, site observations and previous investigations used to inform the RAP.
5: Develop the analytical approach (or decision rule)	The decision rule is to compare all analytical results with the RAC. Initial comparisons will be with individual results then, where appropriate, summary statistics (including mean, standard deviation and 95% UCL), to further assess potential risks posed by the site contamination (where appropriate). Quality control results are to be assessed according to their relative percent difference (RPD) values. For field and laboratory duplicate results, RPDs should generally be below 30%; for field blanks, results should be at or less than the limits of reporting (NEPC, 2013). The field and laboratory quality assurance assessment is included in Section 15.
6: Specify the performance or acceptance criteria	Baseline condition: Contaminants at the site and/or statistical analysis of data exceed the RAC and pose a potentially unacceptable risk to receptors (null hypothesis). Alternative condition: Contaminants at the site and statistical analysis of data complies with the RAC and therefore, do not pose a potentially unacceptable risk to receptors (alternative hypothesis). Unless conclusive information from the collected data is sufficient to reject the null hypothesis, it will be assumed that the baseline condition is true.
7: Optimise the design for obtaining data	Sampling design and procedures to be implemented to optimise data collection for achieving the DQO include the following: • Sampling frequencies in accordance with Section 12.4; • Analysis for the CoPC at NATA accredited laboratories using NATA endorsed methods where possible; and • Adequately experienced environmental scientists/engineers conducting field work and sample analysis interpretation.

2. Reference

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM].* Australian Government Publishing Services Canberra: National Environment Protection Council.

Appendix H

Site Management Plan

1. Introduction

This general site management plan (SMP) has been developed to minimise potentially adverse impacts on the environment, and worker and public health as a result of the proposed remediation works.

The Remediation Contractor must have in place a construction environmental management plan (CEMP) (or similar) which is specific to the equipment used for the remediation and the proposed methods to be adopted by the Remediation Contractor. This SMP has been prepared to augment the Remediation Contractor's CEMP and contains general details for aspects of the work, as per reporting requirements for a remediation action plan (RAP) under NSW EPA *Guidelines for Consultants Reporting on Contaminated Land* (NSW EPA, 2020).

Apart from the management principles outlined in this SMP, the Remediation Contractor must also ensure compliance with all relevant environmental legislation and regulations, including (but not limited to) the following:

- Contaminated Land Management Act 1997 NSW (CLM Act);
- Protection of the Environment Operations Act 1997 NSW (POEO Act);
- Protection of the Environment Legislation Amendment Act 2011 NSW;
- Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2008 NSW.
- Environmentally Hazardous Chemicals Act 1985 NSW;
- Environmental Offences and Penalties Act 1989 NSW;
- Pesticide Act 1999 NSW and Pesticides Regulation 2017; and
- Work Health and Safety Act 2017 NSW (WHS Act) and Work Health and Safety Regulations 2017 NSW.

2. Roles and responsibilities

2.1 Principal

The Principal is responsible for the environmental performance of the proposed remediation works, including implementation of acceptable environmental controls during remediation works. The Principal will retain the overall responsibility for ensuring this RAP is appropriately implemented. The Principal is to nominate a representative (the Principal's Representative), who is responsible for overseeing the implementation of this RAP. The actual implementation of the RAP will, however, be conducted by the Remediation Contractor on behalf of the Principal.

The Principal is responsible for providing appropriate information to the Remediation Contractor to allow them to safely plan the required works. This includes the asbestos register for the site and this RAP.

The Principal is also responsible for implementing an appropriate communications plan.

2.2 Remediation Contractor

The Remediation Contractor will be the party responsible for daily implementation of this RAP and shall fulfil the responsibilities of the Remediation Contractor as defined by SafeWork NSW. It is noted that the Remediation Contractor may appoint appropriately qualified sub-contractors or sub-consultants to assist in fulfilling the requirements of the procedures. The Remediation Contractor will appoint a Site Manager.

In addition to the implementation of the RAP it will be the Remediation Contractors responsibility to:

- Obtain/ensure relevant sub-contractors obtain specific related approvals as necessary to implement the earthworks including permits for removal of asbestos-containing material, SafeWork NSW notification etc.;
- Develop or request and review any site plans to manage the works to be conducted;
- Ensure that all remediation works and other related activities are undertaken in accordance with this RAP;
- Maintain all site records related to the implementation of this RAP including but not limited to;
    - Tracking of all movement of soil within the site, on to site and off-site from cradle to grave;
    - Transportation Record: comprising a record of all truckloads of soil (including aggregate) entering the site, including truck identification (e.g. registration number), date, time, source site, load characteristics (e.g. type of material, i.e. quarried aggregate, etc.), approximate volume, use (e.g., general site raising, service trenches, etc.);
    - Disposal dockets: for any soil disposed off-site including transportation records, spoil source, spoil disposal location, receipt provided by the receiving waste facility / site;
    - Imported materials records: records for any soil imported onto the site, including source site, classification reports, inspection records of soil upon receipt at site and transportation records;
    - Records relating to any unexpected finds and contingency plans implemented;
    - Photographic records by all contractors and consultants of the works undertaken within their purview of responsibilities;
    - Airborne asbestos monitoring records (in the event that asbestos works are undertaken);
    - Interim / final visual and sampling clearances for any asbestos related works (in the event that asbestos works are undertaken).
- Ensure sufficient information is provided to engage or direct all required parties, including sub-contractors, to implement the requirements of the RAP other than those that are the direct responsibility of the Remediation Contractor;
- Manage the implementation of any recommendation made by those parties in relation to work undertaken in accordance with the RAP;
- Inform, if appropriate, the relevant regulatory authorities of any non-conformances with the procedures and requirements of the RAP in accordance with the procedures outlined in this document;
- Retain records of any contingency actions;

- On completion of the project, to review the RAP records for completeness and update as necessary; and
- Recommend any modification to general documentation which would further improve the environmental outcomes of this RAP.

2.3 Surveyor

The project surveyor will be a registered surveyor engaged by the Remediation Contractor to undertake surveying works as required by this RAP.

2.4 Asbestos Contractor

The Asbestos Contractor will be responsible for undertaking all asbestos work involving any asbestos impacted fill/soil and will hold a Class A licence for the removal of asbestos (issued by SafeWork NSW), on the basis that the asbestos identified at the site to date has included both friable and bonded asbestos.

The Asbestos Contractor can be the same entity as the Remediation Contractor.

2.5 Sub-contractors

All sub-contractors will be inducted onto the site, informed of their responsibilities in relation to this RAP and sign their agreement to abide by the RAP requirements. Where necessary, sub-contractors will also be trained in accordance with the requirements of this document. All sub-contractors must conduct their operations in accordance with the RAP as well as all applicable regulatory requirements.

2.6 Environmental Consultant

The Environmental Consultant will provide advice on implementing the RAP. The Environmental Consultant will be responsible for:

- Undertake any required assessments where applicable (e.g. waste classification, validation);
- Provide advice and recommendations arising from monitoring and/or inspections, including unexpected finds; and
- Notify the Client with any results of assessments, and any observed non-conformances.

2.7 Licenced Asbestos Assessor

A Licenced Asbestos Assessor will be required to be engaged independently of the Asbestos Contractor to undertake the following:

- Review and approve documentation prepared by the Asbestos Contractor;
- Review of previous asbestos testing in soil and advise SafeWork NSW requirements;
- Prepare any WHS plans and advice required by the Remediation Contractor;
- Undertake airborne asbestos monitoring;
- Undertake clearance inspections;

- Provide advice and recommendations arising from monitoring and/or inspections; and
- Notify the client with the results of any assessments and any observed non-conformances.

2.8 Site workers

All workers on the site are responsible for observing the requirements of this RAP and other management plans. These responsibilities include the following:

- Being inducted on the site and advised of the general nature of the remediation/environmental issues at the site;
- Being aware of the requirements of this plan;
- Wearing appropriate personal protective equipment (PPE) as required by this plan;
- Only entering restricted areas when permitted; and
- Requesting clarification when unclear of requirements of this or any other plans (e.g. safe work method statements (SWMS)).

3. Water management

3.1 Stormwater

Stormwater must be managed during the remediation works such that potential adverse impacts from surface runoff (e.g. cross contamination, mobilisation of contaminants in soil particles, etc.) are appropriately mitigated. Accordingly, the Remediation Contractor will take appropriate measures which may include:

- Construction, where necessary, of stormwater diversion channels, bunding and linear drainage sumps with catch pits in and around the remediation areas to divert stormwater from the contaminated areas;
- Provision of appropriately located sediment traps including geotextiles; and
- Discharge of excess water in excavations / low points on a regular basis to limit the potential for flooding.

3.2 Dewatering of excavations

Any runoff or seepage water accumulated in site excavations that requires removal must initially be sampled and tested for suspended solids, pH and any contaminants of potential concern (CoPC) as identified by the Environmental Consultant. The options for management of excavation pump-out water, dependent upon the test results, are for disposal of the water as follows:

- Discharge to stormwater with prior approval from Council. Provided the test results comply with relevant ANZG *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG, 2018), or any other compliance requirements stipulated by Council. The Environmental Consultant must consider the most appropriate criteria to be used; or
- Discharge to sewer, as industrial trade wastewater, with prior approval from Hunter Water. This option would require the analysis of a larger list of analytes, and compliance with the Hunter Water acceptance standards; or

- Pumping by a liquid waste contractor for removal of the water off-site, in accordance with regulatory requirements.

Note that, depending on the type and scale of the dewatering required, a permit (water use approval) may need to be obtained through NSW Water.

It is noted, based on the depth of groundwater encountered during the previous investigation and groundwater level monitoring the interception of groundwater is not anticipated during the remediation works. If dewatering is required, refer to the groundwater testing results in the DSI treatment requirements to facilitate disposal.

4. Soil management plan

The Remediation Contractor will develop a plan to mitigate cross contamination as part of the CEMP to be implemented throughout the works.

4.1 Stockpiling of contaminated material

Contaminated material shall be excavated and stockpiled at a suitably segregated location(s) away from sensitive areas (e.g. water bodies, drainage lines, stormwater pits, etc.) and ongoing excavations, and in a manner that will not cause nuisance to the neighbouring properties. Soil stockpiles are to be managed as follows:

- An impermeable membrane such as plastic sheeting should be provided at the surface by the Remediation Contractor prior to stockpiling. Plastic sheeting should be taped at joins, as necessary;
- All stockpiles of contaminated material shall be surrounded by star pickets and marking tape or other suitable material to clearly delineate their boundaries;
- Stockpiles shall be lightly conditioned by sprinkler or covered by geotextile or similar cover to prevent dust generation (if remaining overnight);
- Stockpiles impacted, or potentially impacted, with asbestos must be covered by geotextile or similar cover to prevent dust generation;
- Measures should be taken by the Remediation Contractor to prevent the migration of stockpile materials (i.e. perimeter bunds, hay bales, silt fences, etc.); and
- A record of stockpile locations (stockpile register), dimensions, descriptions, environmental controls, etc. should be maintained by the Remediation Contractor.

All movement of soil within the site is to be tracked by the Remediation Contractor, from cradle to grave. Copies of tracking records must be provided to the Environmental Consultant.

4.2 Stockpiling imported material

Imported material shall be stockpiled at a suitably segregated location(s) away from sensitive areas (e.g. water bodies, drainage lines, stormwater pits, etc.) and ongoing excavations, and in a manner that will not cause nuisance to the neighbouring properties. Soil stockpiles are to be managed as follows:

- Imported material should not be stockpiled within un-remediated areas of the site. If this is unavoidable an impermeable membrane such as plastic sheeting should be provided at the surface by the Remediation Contractor prior to stockpiling. Plastic sheeting should be taped at joins, as necessary;
- All stockpiles shall be surrounded by star pickets and marking tape or other suitable material to clearly delineate their boundaries;
- Stockpiles shall be lightly conditioned by sprinkler or covered by geotextile or similar cover to prevent dust generation (if remaining overnight); and
- A record of stockpile locations (stockpile register), dimensions, descriptions, environmental controls, etc. should be maintained by the Remediation Contractor.

All movement of soil within the site is to be tracked by the Remediation Contractor, from cradle to grave. Copies of tracking records must be provided to the Environmental Consultant.

4.3 Transport of material off-site and on to site

Transport of contaminated material from the site and imported material to the site shall be via a clearly delineated haul route(s) and this route shall be used exclusively for entry and egress of vehicles used to transport contaminated materials within and away from the site, and onto and within the site. The proposed transport route(s) (to be determined by the Remediation Contractor) will be notified to Council and truck dispatch shall be logged and recorded by the Remediation Contractor for each load leaving or arriving the site. A record of the truck dispatch will be provided to the Environmental Consultant.

All haulage routes for trucks transporting soil, materials, equipment or machinery to and from the site should be selected to meet the following objectives:

- Comply with all road traffic rules;
- Minimise noise, vibration and dust to adjacent premises; and
- Use State roads and minimise use of local roads as far as practicable.

The remediation work will be conducted such that all vehicles:

- Conduct deliveries of soil, materials, equipment or machinery only during the specified hours of remediation;
- Have securely covered loads to prevent any dust or odour emissions during transportation; and
- Exit the site in a forward direction.

In addition, measures will be implemented to ensure no contaminated material is spilled onto public roadways or tracked off-site on vehicle wheels. Roadways will be kept clean throughout the remediation works and will be broomed, if necessary, to achieve a clean environment.

All loads will be securely covered and may be lightly wetted, if required, to ensure that no materials or dust are dropped or deposited outside or within the site. Prior to exiting the site each truck should be inspected by Remediation Contractor personnel and either noted as clean (wheels and chassis) or broomed prior to leaving the site. Any soil spilled onto surrounding streets will be cleaned by mechanical or hand methods, on a daily basis.

Removal of waste materials from the site shall only be carried out contractors holding the appropriate license(s), consent or approvals to dispose the waste materials according to the waste classification and with the appropriate approvals obtained from the EPA, were required.

Materials imported onto the site shall only be carried out contractors holding the appropriate license(s), consent or approvals to transport the materials with the appropriate approvals obtained from the EPA, were required.

All movement of soil within the site is to be tracked by the Remediation Contractor, from cradle to grave. Copies of tracking records must be provided to the Environmental Consultant.

5. Noise and vibration control plan

All equipment and machinery should be operated in an efficient manner to minimise the emission of noise. The use of any plant and/or machinery should not cause unacceptable vibrations to nearby properties and should meet Council requirements.

6. Dust control plan

Dust emissions must be confined within the site boundary as far as is practicable. The following example dust control procedures could be employed to comply with this requirement, as necessary:

- Erection of dust screens around the perimeter of the site (as applicable);
- Securely covering all loads entering or exiting the site;
- Use of water sprays across the site to suppress dust;
- Stockpiles shall be lightly conditioned by sprinkler or covered by geotextile or similar cover to prevent dust generation (if remaining overnight);
- Stockpiles impacted, or potentially impacted, with asbestos must be covered by geotextile or similar cover to prevent dust generation;
- Include wheel wash (if applicable); and
- Keeping excavation and stockpile surfaces moist.

Regular checking of the fugitive dust issues is to be undertaken. Remedial measures are to be undertaken to rectify any cases of excessive dust.

7. Odour control plan

No odours should be detected at any boundary of the site during remediation works by an authorised Council Officer relying solely on sense of smell. The following example procedures could be employed to comply with this requirement as necessary:

- Use of appropriate covering techniques such as plastic sheeting, polythene or geotextile membranes to cover excavation faces or stockpiles;

- Fine spray of water and/or hydrocarbon mitigating agent on impacted areas/stockpiles or loads to lightly condition the material;
- If required, restrict uncovered stockpiles to appropriate sizes to minimise odour generation;
- Ceasing works during periods of inclement weather such as high winds or heavy rain;
- Regular checking of the fugitive dust and odour issues to ensure compliance. Undertake immediate remediation measures to rectify any cases of excessive dust or odour (e.g. use of misting sprays or odour masking agent); and
- Adequate maintenance of equipment and machinery to minimise exhaust emissions.

8. Work health and safety plan

8.1 General

It is the Remediation Contractor's responsibility to devise a SWMS[1] (or series thereof, for various respective tasks) and to implement proper controls that enable the personnel undertaking the remediation to work in a safe environment. This RAP and SMP does not relieve the Remediation Contractor or other contractors of their ultimate responsibility for occupational health and safety of their workforce and to prevent contamination of areas outside the 'remediation' workspace. This RAP and SMP sets out general procedures and the minimum standards and guidelines for remediation that will need to be used in preparing the safe work method statement.

This work health safety plan (WHSP) has been prepared with refence to CRC CARE *Remediation Action Plan: Implementation - Guideline on Health and Safety* (CRC CARE, 2019). The requirements of this WHSP must be incorporated into the Remediation Contractor's SWMS.

All site work must be undertaken in a controlled and safe manner with due regard to potential hazards, training and safe work practices. To attain this the SWMS developed by the Remediation Contractor must comply with policies specified in the Work Health and Safety Regulation 2011.

All appropriate permits, licences and notifications required for the remediation activities must be obtained prior to the commencement of remediation works.

8.2 Site access

Appropriate fencing and signage must be installed around and within the site to prevent unauthorised access and restrict access to remediation areas and/or deep excavations. Access restrictions and administrative arrangements for management of entry of workers or related personnel on site is the responsibility of the Remediation Contractor.

Any existing pits or unstable areas on site that may generate potential safety, or operational risk should be demarcated and taped off, with appropriate rectification action undertaken (e.g. backfilling of pits).

[1] Either a SWMS or construction environmental management plan (CEMP), or other equivalent document incorporating health and safety aspects of the proposed remedial works.

8.3 Personnel and responsibilities

Before undertaking works on site, all personnel will be made aware of the officer responsible for implementing WHS procedures. All personnel must read and understand this WHSP and over-arching SWMS prior to commencing site works and sign a statement to that effect. Contractors employed at the site will be responsible for ensuring that their employees are aware of, and comply with, the requirements of this WHSP and Remediation Contractor's SWMS.

8.4 Chemical contamination hazards

Chemical compounds or substances that may be present in the soils at the site include the key CoPC asbestos and potentially TRH, BTEX, PAH and metals. There is also a lower probability of other contaminants being present.

The risks associated with the identified contaminants to site personnel and workers involved in the remediation are generally considered to be low due to the concentrations within groundwater and soil vapour and limited exposure durations. These risks are associated with:

- Ingestion of contaminated soil and/or water;
- Dermal contact with contaminated soil and/or water; and
- Inhalation of dusts or vapours of the CoPC.

If significant ACM or asbestos fines/friable asbestos are identified in the soil during the works, this risk evaluation may require re-evaluation, to be confirmed with the OH/LAA in accordance with SafeWork NSW requirements. Additional controls and mitigation measures may be required by the LAA.

It is noted that asbestos materials have been associated with various human respiratory diseases. The risk of contracting these diseases from contact with asbestos depends entirely on the fibres becoming airborne. It is important during disturbance of potential asbestos impacted soils that the potential for generating airborne asbestos fibres should be minimised. Moreover, levels of airborne asbestos fibres immediately outside the works area should be maintained to within the acceptable background level (i.e. <0.01 fibre/mL). As the asbestos material identified during previous investigations was generally in the form of fragments there is a low risk of asbestos fibres becoming airborne. Appropriate air monitoring should be conducted by the OH during disturbance / remediation of asbestos impacted fill/soil.

The contractor should develop a CEMP for the remediation works and the proposed development. The contractor's CEMP is to include:

- Contingency plans to respond to incidents;
- Site management plan (SMP) for the operation phase of remedial works;
- A remedial schedule and hours of operation (which will be subject to development consent conditions);
- Details of relevant contacts;
- Requirements outlined in Port Stephens Council relevant planning documents;
- Procedure(s) for dealing with deleterious materials that may affect containment of materials and/or use as fill (as per Section 10.7);

- Incident management/emergency response procedures; and
- Any community consultation requirements.

At commencement of remediation works, interim measures must be adopted to manage possible human-health and environmental impacts where asbestos is observed at the surface (i.e. prior to full scale construction). Such measures could include use of spray / sprinklers to prevent dust blow or temporary covers. Requirements for interim control measures should be confirmed with the OH.

Personnel will endeavour, wherever possible, to avoid direct contact with potentially contaminated material. Workers must avoid the potential exposures listed above as far as is practicable. Appropriate personal protective equipment (PPE) must be used to mitigate potential risks.

8.5 **Physical hazards**

The following physical hazards are associated with conditions that may be created during remediation works:

- Heat exposure;
- Excavations;
- Buried services;
- Noise;
- Dust;
- Electrical equipment;
- Heavy equipment and truck operation; and
- Asbestos.

Safe work practices must be employed to manage the physical risks identified above. For the most part these risks can be managed through appropriate demarcation, access controls and the use of appropriate PPE.

8.6 **Safe work practices**

The appropriate safe work practices should be clearly defined by the Remediation Contractor in their SWMS. As a minimum, all personnel on site will be required to wear the following PPE:

- Steel-capped boots (mandatory);
- High visibility clothing / vest (mandatory);
- Safety glasses or safety goggles with side shields requirements (as necessary);
- Hard hat (as necessary);
- Appropriate respiratory and protective equipment for any works involving asbestos (as necessary); and
- Hearing protection when working in the vicinity of machinery or plant equipment if noise levels exceed exposure standards (as necessary).

Each item of PPE should meet the corresponding relevant Australian Standard(s).

Specific safe work practices will be adopted when working with asbestos, in accordance with (but not limited to) the following codes of practice:

- SafeWork NSW *Code of Practice, How to Manage and Control Asbestos in the Workplace* (SafeWork NSW, 2019a);
- SafeWork *NSW Code of Practice, How to Safely Remove Asbestos* (SafeWork NSW, 2019b);
- WorkCover *NSW Managing Asbestos in or on Soil* (WorkCover NSW, 2014); and
- NOHSC *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Ed* (NOHSC, 2005).

9. Remediation schedule and hours of operation

The remediation works will be conducted within the days and hours specified in the development consent.

10. Response to incidents

The key to effective management of incidents is the timely action taken before any situation reaches a reportable or critical level. Therefore, surveillance activities are extremely important and should be conducted for the measures prescribed herein and any other measures prescribed in any additional environmental management plan developed subsequently. During construction activities on the site, the following inspection or preventative actions should be performed by the Remediation Contractor:

- Regular inspection of works;
- Completion of routine environmental checklists and follow-up of non-compliance situations;
- Maintenance and supervision on-site; and
- An induction process for site personnel involved in the remediation works that includes relevant information on the contamination status of the site, the remediation works being undertaken, worker health and environmental protection requirements and ensures that all site personnel are familiar with the site emergency procedures.

An emergency response plan will be in place for all aspects of site works. Any emergency will be reported immediately to the site office and/or the Site Manager (and Safety Officer), and the appropriate emergency assistance should be sought. The Site Manager should be responsible for initiating an immediate emergency response using the resources available on the site. Where external assistance is required, the relevant emergency services should be contacted. A table such as that below, containing contact details for key personnel who may be involved in an environmental emergency response should be completed and be readily available to personnel at all times. The table should be completed, and thereafter amended, as required.

The Remediation Contractor will be responsible for ensuring that site personnel are aware of the emergency services available and the appropriate contact details. A site Safety Officer should be contactable, or available, on-site during remediation and development works.

Contact details for key utilities are included in the event of needing to respond to incidents. Blank cells are 'to be confirmed' and should be completed prior to works commencing when all entities are confirmed.

Table 1: Summary of roles and contact details

Role	Personnel / contact	Phone contact details
Principal	Fortezza Group Pty Ltd	
Principal's Representative	TBC	
Site Manager	TBC	
Remediation Contractor and Builder	TBC	
Site Office	TBC	
Environmental Consultant	TBC	
Consent Authority	TBC	
Regulator	NSW EPA (pollution line and general enquiries)	131 555
Utility Provider	Water (Hunter Water Corporation)	1300 657 657
Utility Provider	Power (Ausgrid)	13 13 88
Utility Provider	Gas (Jemena Limited)	131 909
Utility Provider	Telecommunications (Telstra Corporation Limited)	13 22 03
Utility Provider	Telecommunications (Optus)	1800 505 777
Utility Provider	Telecommunications (NBN Co Limited)	1800 687 626

11. References

ANZG. (2018). *Australian and New Zealand Guidelines for Fresh and Marine Water Quality.* Canberra, ACT: Australian and New Zealand Governments and Australian state and territory governments.

CRC CARE. (2019). *Remediation Action Plan: Implementation - Guideline on Health and Safety.* National Remediation Framework: CRC for Contamination Assessment and Remediation of the Environment.

NOHSC. (2005). *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Ed.* Canberra, April 2005, NOHSC:3003: National Occupational Health and Safety Commission, Commonwealth of Australia.

NSW EPA. (2020). *Guidelines for Consultants Reporting on Contaminated Land.* Contaminated Land Guidelines: NSW Environment Protection Authority.

SafeWork NSW. (2019a). *Code of Practice, How to Manage and Control Asbestos in the Workplace*. August 2019.

SafeWork NSW. (2019b). *Code of Practice, How to Safely Remove Asbestos.* August 2019: SafeWork NSW, NSW Government.

WorkCover NSW. (2014). *Managing Asbestos in or on Soil.* March 2014: WorkCover NSW, NSW Government.

Appendix I

Contingency Plan and Unexpected Finds Protocol

1. General

Where the site conditions are found to be different than that anticipated during the remediation works, the proposed remediation approach may not be appropriate for the contamination encountered. In such cases the Environmental Consultant is to re-assess the contamination and remediation approach and inform the Consent Authority. Where necessary the Environmental Consultant will prepare an addendum to, or revision of, this RAP. Any addendum or revision is to be reviewed and agreed by the Consent Authority before its implementation.

2. Contingency plan

This contingency plan has been developed to provide guidance on processes to follow if contamination (or indicators of contamination), other than that included in the remediation strategy, (Section 10) is encountered during the remediation works. Any such finds shall be surveyed and the location documented.

Although the site has been subject to previous investigation(s), there remains a potential for soil contamination to be present between sampled locations. In the event that signs of soil contamination, other than that included in the remediation strategy, are encountered during remediation e.g. evidence of asbestos containing material (ACM), petroleum, or other chemical odours which weren't previously identified the following protocols will apply:

- The Site Manager is to be notified and the affected area closed off by the use of barrier tape and warning signs;
- The Environmental Consultant is to be notified to inspect the area and assess the significance of the potential contamination and determine extent of remediation works (if deemed necessary) to be undertaken. An assessment report and management plan detailing this information will be compiled by the Environmental Consultant and provided to the Principal's Representative;
- The assessment results together with a suitable management plan shall be provided by the Principal's Representative to the Consent Authority (if required by the development consent) and Site Auditor (if involved with project);
- The agreed management / remedial strategy, based on the RAP and relevant guidelines (e.g. WA DoH (2021), for asbestos issues), shall be implemented; and
- All details of the assessment and remedial works are to be included in the site validation report.

3. Unexpected finds protocol

This unexpected finds protocol (UFP) has been developed to provide guidance on processes to follow if any unexpected find is encountered during the remediation or future civil and construction works. Any unexpected finds should be surveyed and the location documented.

All site personnel are to be inducted into their responsibilities under this (UFP), which should be included or referenced in the Remediation Contractors Environmental Management Plan.

All site personnel are required to report unexpected signs of environmental concern to the Site Manager if observed during the course of their works e.g. presence of potential unexploded ordinance, unnatural staining, potential contamination sources (such as buried drums or tanks) or chemical spills.

Should signs of concern be observed, the Site Manager, as soon as practical, will:

- Stop work in the affected area and ensure the area is barricaded to prevent unauthorised access;
- Notify authorities needed to obtain emergency response for any health or environmental concerns (e.g. fire brigade);
- Notify the Principal's Representative of the occurrence;
- Notify any of the authorities that the Remediation Contractor is legally / contractually required to notify (e.g. EPA, Council); and
- Notify the Environmental Consultant.

The Principal's Representative is to notify any of the authorities which the Principal is legally / contractually required to notify (e.g. EPA, Council). Where appropriate the Principals Representative will also implement appropriate community consultation.

The Environmental Consultant will assess the extent and significance of the find and develop an investigation, remediation or management approach using (where possible) the principles and procedures already outlined in the RAP. Where a Site Auditor is involved, the proposed approach will be discussed and agreed with the Site Auditor prior to implementation.

4. References

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

WA DoH. (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. WA Department of Health.