



NSW Site Auditor Scheme

Site Audit Statement

A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

This form was approved under the *Contaminated Land Management Act 1997* on 12 October 2017.

For information about completing this form, go to Part IV.

Part I: Site audit identification

Site audit statement no. RS-117A

This site audit is a:

- ☒ statutory audit
- ☐ non-statutory audit

within the meaning of the *Contaminated Land Management Act 1997*.

Site auditor details

(As accredited under the *Contaminated Land Management Act 1997*)

Name Rowena Salmon

Company Ramboll Australia Pty Ltd

Address Level 3

100 Pacific Highway, North Sydney NSW

Postcode 2060

Phone 02 9954 8100

Email rsalmon@ramboll.com

Site details

Address: 6 Grand Avenue, Rosehill NSW (previously identified as 10 Grand Avenue, Camellia)

Postcode 2142

Property description

(Attach a separate list if several properties are included in the site audit.)

Lot 1 DP 1258587 (previously identified as Part Lot 4 DP 623497)

Local government area: Parramatta City Council

Area of site (include units, e.g. hectares): approximately 4.2 hectares

Current zoning: E5 – Heavy Industrial (Parramatta Local Environmental Plan 2023)

Regulation and notification

To the best of my knowledge:

- ☐ **the site is** the subject of a declaration, order, agreement, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*, as follows: (provide the no. if applicable)
- ☐ Declaration no. _____
- ☐ Order no. _____
- ☐ Proposal no. _____
- ☐ Notice no. _____
- ☒ **the site is not** the subject of a declaration, order, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*.

To the best of my knowledge:

- ☐ the site **has** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*
- ☒ the site **has not** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*.

Site audit commissioned by

Name: Alana Garrick

Company: HCLF Rosehill PropCo Pty Ltd as trustee for HCLF Rosehill No 1 Trust

Address: Level 14, 88 Phillip Street Sydney, NSW

Postcode 2000

Phone: 0400 071 707

Email: alana.garrick@halecp.com

Contact details for contact person (if different from above)

Name N/A

Phone

Email

Nature of statutory requirements (not applicable for non-statutory audits)

- ☐ Requirements under the *Contaminated Land Management Act 1997*
(e.g. management order; please specify, including date of issue)

- ☐ Requirements imposed by an environmental planning instrument
(please specify, including date of issue)

- ☒ Development consent requirements under the *Environmental Planning and Assessment Act 1979* (please specify consent authority and date of issue)
SSD-55522478, Minister for Planning and Public Spaces, 25 July 2024 and
modifications

- ☐ Requirements under other legislation (please specify, including date of issue)

Purpose of site audit

- ☐ **A1** To determine land use suitability

Intended uses of the land:

OR

- ☒ **A2** To determine land use suitability subject to compliance with either an active or passive environmental management plan

Intended uses of the land: Warehouse and distribution centre (commercial/industrial)

OR

(Tick all that apply)

- ☐ **B1** To determine the nature and extent of contamination
- ☐ **B2** To determine the appropriateness of:
- ☐ an investigation plan
 - ☐ a remediation plan
 - ☐ a management plan
- ☐ **B3** To determine the appropriateness of a **site testing plan** to determine if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*
- ☐ **B4** To determine the compliance with an approved:
- ☐ **voluntary management proposal** or
 - ☐ **management order** under the *Contaminated Land Management Act 1997*
- ☐ **B5** To determine if the land can be made suitable for a particular use (or uses) if the site is remediated or managed in accordance with a specified plan.
-

Information sources for site audit

Consultancies which conducted the site investigations and/or remediation:

DLA Environmental Services Pty Ltd (DLA Environmental)

Edison Environmental and Engineering Pty Ltd (Edison)

JBS&G Australia Pty Ltd (JBS&G)

KPMG SGA Property Consultancy Pty Limited (KPMG)

Sydney Environmental Group Pty Ltd (SEG)

Environmental Group Australia Pty Ltd (EGA, formerly SEG)

Titles of reports reviewed:

'RE: Amendment to Capping Layer Requirements for Site Remediation and Validation 6 Grand Avenue, Rosehill NSW', 24 September 2024, SEG

'RE: Methodology - VOC in Piling Soil, 6 Grand Avenue, Rosehill NSW', 8 January 2025, SEG

'RE: Methodology – Concrete Hardstand Removal, Crushing & Reuse, 6 Grand Avenue, Rosehill NSW (REV0), 20 November 2024, SEG

'RE: Unexpected Find of an Underground Storage Tank, Lot 1 DP1258587, 6 Grand Avenue, Rosehill NSW', 5 November 2025, EGA

'RE: Validation of Removal of an Underground Storage Tank, Lot 1 DP1258587, 6 Grand Avenue, Rosehill NSW', 12 December 2025, EGA.

'Site Validation Report, 6 Grand Avenue, Rosehill NSW', 18 August 2026, EGA

'Long-Term Environmental Management Plan, 6 Grand Avenue, Rosehill NSW', 18 August 2026, EGA

Other information reviewed, including previous site audit reports and statements relating to the site:

Section B Site Audit Statement (SAS) (RS-117B) and Site Audit Report (SAR) 'Remedial Action Plan, 6 Grand Avenue, Rosehill' by Rowena Salmon dated 14 November 2024

Section B Site Audit Statement (SAS) (RS-117) and Site Audit Report (SAR) 'Remediation Action Plan, Lot 1, 10 Grand Avenue, Camellia' by Rowena Salmon dated 27 March 2020

Section B SAS (GN-546) and SAR 'Remediation Action Plan, 10 Grand Avenue Camelia' by Graeme Nyland dated 15 April 2019

Site audit report details

Title	Site Audit Report – 6 Grand Avenue, Rosehill
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Report no.	RS-117A (Ramboll Ref: 318002146)	Date 24 August 2026
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Part II: Auditor's findings

Please complete either Section A1, Section A2 or Section B, not more than one section.
(Strike out the irrelevant sections.)

- Use **Section A1** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **without the implementation** of an environmental management plan.
- Use **Section A2** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **with the implementation** of an active or passive environmental management plan.
- Use **Section B** where the audit is to determine:
 - o (B1) the nature and extent of contamination, and/or
 - o (B2) the appropriateness of an investigation, remediation or management plan¹, and/or
 - o (B3) the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or
 - o (B4) whether the terms of the approved voluntary management proposal or management order have been complied with, and/or
 - o (B5) whether the site can be made suitable for a specified land use (or uses) if the site is remediated or managed in accordance with the implementation of a specified plan.

¹ For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

Section A1

~~I certify that, in my opinion:~~

~~The **site is suitable** for the following uses:~~

~~(Tick all appropriate uses and strike out those not applicable.)~~

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
 - ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
 - ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
 - ☐ ~~Day care centre, preschool, primary school~~
 - ☐ ~~Residential with minimal opportunity for soil access, including units~~
 - ☐ ~~Secondary school~~
 - ☐ ~~Park, recreational open space, playing field~~
 - ☐ ~~Commercial/industrial~~
 - ☐ ~~Other (please specify):~~
-

OR

☐ ~~I certify that, in my opinion, the **site is not suitable** for any use due to the risk of harm from contamination.~~

~~Overall comments:~~

Section A2

I certify that, in my opinion:

Subject to compliance with the **attached** environmental management plan² (EMP), the site is suitable for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
- ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
- ☐ ~~Residential with accessible soil, including garden (minimal home grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
- ☐ ~~Day care centre, preschool, primary school~~
- ☐ ~~Residential with minimal opportunity for soil access, including units~~
- ☐ ~~Secondary school~~
- ☐ ~~Park, recreational open space, playing field~~
- ☐ ~~Commercial/industrial~~
- ☒ Other (please specify):

Multi-level warehouse or distribution centre in accordance with SSD-55522478 approved 25 July 2024 and modifications

EMP details

Title: Long-Term Environmental Management Plan, 6 Grand Avenue, Rosehill NSW

Author: Environmental Group Australia Pty Ltd

Date: 18 August 2026

No. of pages: 47

EMP summary

This EMP (attached) is required to be implemented to address residual contamination on the site.

The EMP: (Tick appropriate box and strike out the other option.)

- ☐ requires operation and/or maintenance of **active** control systems³
- ☒ requires maintenance of **passive** control systems only³.

² Refer to Part IV for an explanation of an environmental management plan.

³ Refer to Part IV for definitions of active and passive control systems.

Purpose of the EMP:

Between November 2024 and August 2026, remedial works were undertaken at the site, whereby asbestos impacted soil materials were subject to a 'cap and contain' remedial strategy.

The EMP identifies 12 distinct capping profiles that have been installed across the site and details management strategies for the contained impacted soils.

The EMP is applicable for as long as the capped and contained materials are retained within the site.

Description of the nature of the residual contamination:

Previous investigations identified asbestos in friable and bonded forms within in-situ site soils requiring ongoing management.

Chlorinated hydrocarbon compounds at or below the groundwater table may occur as a result of an upgradient contaminant source to groundwater.

The EMP acknowledges the asbestos-impacted soils have been isolated from potential receptors as a result of the cap and containment approach.

Although an upgradient source of groundwater impacts has previously been identified, groundwater impacts requiring remediation have not been identified at the site, and direct contact pathways with groundwater are mitigated as groundwater abstraction does not occur at the site, and any future use of groundwater would require appropriate assessment and regulatory approvals from the NSW Office of Water.

The EMP identifies 12 distinct capping profiles that have been installed across the site. This information is expected to inform future intrusive works programs. The capping profiles constructed at the site includes the following key features:

- The marker layer is generally identified as: an existing concrete hardstand (at depths greater than 0.8 m); or an orange geotextile placed atop contaminated soil materials (at depths generally greater than 0.3 m).
 - In hardstand areas, the capping has a combined depth at least 0.4 m.
 - Imported validated capping sandstone material was used to raise site levels.
 - In landscaped areas, the topsoil / mulch surface covering generally has a depth of at least 0.3 m, except within tree protection zones where the mulch capping layer has been placed over a geogrid mesh product in proximity to tree bases and has a depth of 0.1 m.
 - The capping depth beneath newly planted trees is at least 0.6 m.
-

Summary of the actions required by the EMP:

Key actions required by the EMP include:

- Maintain and protect the capping layer and marker layer at all times.

- Induct all personnel undertaking subsurface works.
- Restrict intrusive works and require approval before any excavation or penetration of the capping system.
- Implement asbestos management controls where works may breach the marker layer.
- Reinstate any disturbed capping and marker layers following works, in accordance with the defined capping layers presented in the EMP.
- Manage excavated spoil, including waste classification, tracking and disposal to licensed facilities where required.
- Prohibit groundwater use unless suitability has been demonstrated.
- Follow unexpected encounter procedures if marker layers or impacted soils are exposed.
- Maintain records of inductions, inspections, incidents, repairs and soil movements.
- Audit, review and revision of the EMP.

How the EMP can reasonably be made to be legally enforceable:

The EMP is legally enforceable as it is a condition of development consent. The enforcing authority is noted to be the Department of Planning, Housing and Infrastructure.

How there will be appropriate public notification:

City of Parramatta has agreed to list the Site Audit Statement and the EMP on the Section 10.7(2) and (5) Planning Certificate, providing a public notification mechanism.

Overall comments:

At the completion of the remedial works, the contamination risks to human health from contained asbestos impacts in soil at the site are low and acceptable.

Excavations below the marker layer could expose asbestos impacted soils, however this risk is able to be managed through the implementation of the EMP.

The EMP provides details of the actions required to be taken if the contaminated soil below the marker layer is disturbed.

Groundwater should not be abstracted for beneficial use unless further assessment is undertaken to assess its suitability for the intended use.

Section B

Purpose of the plan⁴ which is the subject of this audit:

I certify that, in my opinion:

(B1)

- ☐ The nature and extent of the contamination **has** been appropriately determined
- ☐ The nature and extent of the contamination **has not** been appropriately determined

AND/OR (B2)

- ☐ The investigation, remediation or management plan **is** appropriate for the purpose stated above
- ☐ The investigation, remediation or management plan **is not** appropriate for the purpose stated above

AND/OR (B3)

- ☐ The site testing plan:
- ☐ **is** appropriate to determine
- ☐ **is not** appropriate to determine
- if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*

AND/OR (B4)

- ☐ The terms of the approved voluntary management proposal* or management order** (strike out as appropriate):

- ☐ **have** been complied with
- ☐ **have not** been complied with.

*voluntary management proposal no. _____

**management order no. _____

AND/OR (B5)

- ☐ The site **can be made suitable** for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- ☐ Residential, including substantial vegetable garden and poultry
- ☐ Residential, including substantial vegetable garden, excluding poultry

⁴ For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

- ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
- ☐ ~~Day care centre, preschool, primary school~~
- ☐ ~~Residential with minimal opportunity for soil access, including units~~
- ☐ ~~Secondary school~~
- ☐ ~~Park, recreational open space, playing field~~
- ☐ ~~Commercial/industrial~~
- ☐ ~~Other (please specify):~~

IF the site is remediated/managed* in accordance with the following plan (attached):

~~*Strike out as appropriate~~

Plan title:

Plan author:

Plan date:

No. of pages

SUBJECT to compliance with the following condition(s):

Overall comments:

Part III: Auditor's declaration

I am accredited as a site auditor by the NSW Environment Protection Authority (EPA) under the *Contaminated Land Management Act 1997*.

Accreditation no. 1002

I certify that:

- I have completed the site audit free of any conflicts of interest as defined in the *Contaminated Land Management Act 1997*, and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act 1997* for wilfully making false or misleading statements.

Signed



Date 24 August 2026

Part IV: Explanatory notes

To be complete, a site audit statement form must be issued with all four parts.

How to complete this form

Part I

Part I identifies the auditor, the site, the purpose of the audit and the information used by the auditor in making the site audit findings.

Part II

Part II contains the auditor's opinion of the suitability of the site for specified uses or of the appropriateness of an investigation, or remediation plan or management plan which may enable a particular use. It sets out succinct and definitive information to assist decision-making about the use or uses of the site or a plan or proposal to manage or remediate the site.

The auditor is to complete either Section A1 or Section A2 or Section B of Part II, **not** more than one section.

Section A1

In Section A1 the auditor may conclude that the land is *suitable* for a specified use or uses OR *not suitable* for any beneficial use due to the risk of harm from contamination.

By certifying that the site is *suitable*, an auditor declares that, at the time of completion of the site audit, no further investigation or remediation or management of the site was needed to render the site fit for the specified use(s). **Conditions must not be** imposed on a Section A1 site audit statement. Auditors may include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section A2

In Section A2 the auditor may conclude that the land is *suitable* for a specified use(s) subject to a condition for implementation of an environmental management plan (EMP).

Environmental management plan

Within the context of contaminated sites management, an EMP (sometimes also called a 'site management plan') means a plan which addresses the integration of environmental mitigation and monitoring measures for soil, groundwater and/or hazardous ground gases throughout an existing or proposed land use. An EMP succinctly describes the nature and location of contamination remaining on site and states what the objectives of the plan are, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place.

By certifying that the site is suitable subject to implementation of an EMP, an auditor declares that, at the time of completion of the site audit, there was sufficient information satisfying guidelines made or approved under the *Contaminated Land Management Act 1997* (CLM Act) to determine that implementation of the EMP was feasible and would enable the specified use(s) of the site and no further investigation or remediation of the site was needed to render the site fit for the specified use(s).

Implementation of an EMP is required to ensure the site remains suitable for the specified use(s). The plan should be legally enforceable: for example, a requirement of a notice under the CLM Act or a development consent condition issued by a planning authority. There should also be appropriate public notification of the plan, e.g. on a certificate issued under s.149 of the *Environmental Planning and Assessment Act 1979*.

Active or passive control systems

Auditors must specify whether the EMP requires operation and/or maintenance of active control systems or requires maintenance of passive control systems only. Active management systems usually incorporate mechanical components and/or require monitoring and, because of this, regular maintenance and inspection are necessary. Most active management systems are applied at sites where if the systems are not implemented an unacceptable risk may occur. Passive management systems usually require minimal management and maintenance and do not usually incorporate mechanical components.

Auditor's comments

Auditors may also include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section B

In Section B the auditor draws conclusions on the nature and extent of contamination, and/or suitability of plans relating to the investigation, remediation or management of the land, and/or the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or whether the terms of an approved voluntary management proposal or management order made under the CLM Act have been complied with, and/or whether the site can be made suitable for a specified land use or uses if the site is remediated or managed in accordance with the implementation of a specified plan.

By certifying that a site *can be made suitable* for a use or uses if remediated or managed in accordance with a specified plan, the auditor declares that, at the time the audit was completed, there was sufficient information satisfying guidelines made or approved under the CLM Act to determine that implementation of the plan was feasible and would enable the specified use(s) of the site in the future.

For a site that *can be made suitable*, any **conditions** specified by the auditor in Section B should be limited to minor modifications or additions to the specified plan. However, if the auditor considers that further audits of the site (e.g. to validate remediation) are required, the auditor must note this as a condition in the site audit statement. The condition must not specify an individual auditor, only that further audits are required.

Auditors may also include **comments** which are observations in light of the audit which provide a more complete understanding of the environmental context to aid decision-making in relation to the site.

Part III

In **Part III** the auditor certifies their standing as an accredited auditor under the CLM Act and makes other relevant declarations.

Where to send completed forms

In addition to furnishing a copy of the audit statement to the person(s) who commissioned the site audit, statutory site audit statements must be sent to

- the **NSW Environment Protection Authority**:
nswauditors@epa.nsw.gov.au or as specified by the EPA

AND

- the **local council** for the land which is the subject of the audit.

Vaughan Constructions

Long-Term Environmental Management Plan

6 Grand Avenue, Rosehill NSW

Report No:

2582-LTEMP-01-020626.v3f

Report Date:

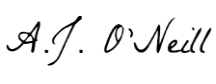
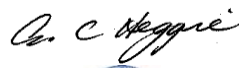
18/08/2026

 info@egau.com.au

 **NSW:** 36E Fitzroy Street, Marrickville, NSW 2204
VIC: 88 Langridge St, Collingwood VIC 3066

DOCUMENT RECORD

Revision	Date	Author	Reviewer
v1d	2 June 2026	Rachelle Conna	Andrew O'Neill
v2d	14 July 2026	Rachelle Conna	Andrew O'Neill
v3d	23 July 2026	Rachelle Conna	Andrew O'Neill
v4d	3 August 2026	Rachelle Conna	Adrian Heggie
v1f	7 August 2026	Rachelle Conna	Adrian Heggie
v2f	12 August 2026	Rachelle Conna	Adrian Heggie
v3f	18 August 2026	Rachelle Conna	Adrian Heggie

Author Signature		Reviewer Signature		 
Name	Rachelle Conna	Name	Andrew O'Neill	Adrian Heggie
Credentials	B.Sc. Zoology	Credentials	B. Sci. Earth Sci.	CEnVP (Accreditation No. SC40942), BSc Earth Sciences, Dip Env. Studies
Title	Environmental Consultant	Title	Senior Project Manager	Principal Environmental Consultant

Document Title:	Long Term Environmental Management Plan - 6 Grand Avenue, Rosehill NSW
Site Address:	6 Grand Avenue, Rosehill NSW
Client Name:	Vaughan Constructions
Site Size:	≈ 4.2 ha (irregular in shape)
Reference Number:	2582-LTEMP-01-020626.v3f
Project Type:	Long-Term Environmental Management Plan
Project Type Abbreviation:	LTEMP
Document Draft:	FINAL
Document Revision No.	v3f

Prepared by Environmental Group Australia Pty Ltd ABN: 83 671 599 143

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APPENDICES

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1. PURPOSE

1.1. Background

Environmental Group Australia Pty Ltd (EGA) was engaged by Vaughan Constructions ('the client') to prepare a Long-Term Environmental Management Plan (LTEMP) for residual asbestos that has been capped and contained within the sub-surface located at 6 Grand Avenue, Rosehill NSW (refer to **Figure 1** with the 'site' boundaries outlined in **Figure 2**).

Asbestos impacted soil materials were subject to a 'cap and contain' strategy, where remedial works were undertaken between November 2024 and July 2026. The cap and containment strategy is a passive system designed to capsule impacted soil materials. Due to design constraints, the capping profile consists of 12 distinct cap and containment strategies as outlined in **Section 3.2**. All imported materials used for capping were classified as Virgin Excavated Natural Materials (VENM) or materials subject to a suitable Resource Recovery Order (RRO) as outlined in the site-specific Remedial Action Plan (RAP).

This LTEMP describes conditions of the site and details management strategies of the contained impacted soils. The protocols outlined in this LTEMP must be considered in future works that may result in a breach of the capping layer covering the impacted soils on-site (refer to **Figures 3 & 4** and **Appendix A**).

1.2. Objectives

The key objective of this LTEMP is to outline the maintenance of the capping layers within the site and prevent any unplanned breaches of the capping layers. To achieve the objective, this LTEMP documents:

- Details of the known extent and construction of the capping areas;
- Defines the responsibilities and safe work procedures for working with the impacted soils;
- Includes incident response and reporting requirements;
- Details the roles and responsibilities of relevant stakeholders to ensure the safe, long-term management of the site; and
- Details the mechanism to make this LTEMP legally enforceable and the parties responsible for the ongoing management of the capping material within the project boundary.

1.3. Supporting Documentation

This LTEMP has been developed based on the findings of the remediation and validation works undertaken within the site, as documented within the interim site validation report:

- Environmental Group Australia Pty Ltd (2026), 'Site Validation Report, 6 Grand Avenue, Rosehill NSW', dated: 7 August 2026, report ref: 2582-SVR-01-020626.v4d.

1.4. Legal Enforceability

All operations and activities conducted on the site must fully comply with the provisions of relevant NSW environmental and WHS legislation, including but not limited to the *Contaminated Land Management Act 1997*, *Work Health and Safety Act 2011*, and *Protection of the Environment Operations Act 1997* (and their associated Regulations), as well as any other requirements of relevant authorities (e.g., NSW EPA).

In accordance with the *Practice Note: Preparing environmental management plans for contaminated land* (NSW EPA 2022), legal enforceability for this LTEMP is as follows:

- This LTEMP is enforceable as a condition of the State Significant Development (SSD) consent Condition B59. Condition B59 requires the Applicant to implement the approved LTEMP for the life of the development, prior to the commencement of operation. The enforcing authority for the implementation of this LTEMP is the Department of Planning, Housing and Infrastructure (DPHI).

These conditions are binding, and non-compliance can lead to penalties, stop-work orders, or court action.

1.5. Public Notification

The public disclosure of the impacted soils retained on-site will be via the following instruments:

- In accordance with SSD Consent Condition B59(b), public notification of this LTEMP is provided by listing the LTEMP on the planning certificate for the land issued under Section 10.7 of the Environmental Planning and Assessment Act 1979 (EP&A Act). Written agreement has been obtained from Parramatta City Council to list the LTEMP on the Section 10.7 planning certificate for the site.

1.6. Key Stakeholders and Responsibilities

The key stakeholders and their contact details are listed in **Table 1.6.1**. The responsibilities of the key stakeholders are provided in **Table 1.6.2**.

Table 1.6.1 Stakeholder Contact Details

Stakeholder	Organisation	Address	Contact Number
Council	City of Parramatta Council	5 Parramatta Square, Parramatta NSW	(02) 9806 5050
Site Owner	Hale Capital Development Management	Aurora Place Suite 14.03, Level 14, 88 Phillip Street, Sydney NSW	cosec@halecp.com

Table 1.6.2 Key Stakeholders and Responsibilities

Stakeholder	Organisation	Responsibility
Council	City of Parramatta Council	Update section 10.7 Planning Certificate to identify the land as 'Contaminated Land' and identify the existence of this LTEMP.
Site Owner	Hale Capital Development Management	Ensure the LTEMP is readily available, up to date, and relevant for those who operate the site. Ensure the LTEMP is implemented for the duration of site operation. Ensure the LTEMP is externally audited and reviewed for the duration of site operation. If there is a material change to the LTEMP (remediation) provide all relevant parties with updated LTEMP.
Property Maintenance Contractor	Various	Day to day implementation and maintenance of the LTEMP. Engage and induct sub-surface workers to LTEMP. Ensure LTEMP is on file at property and that the LTEMP remains relevant, as well as review and update the LTEMP if site conditions change (for example change of land use or there is a breach of the LTEMP). Keep records of entry & closure of the capping area. Review any proposed works and documentation from future site contractors against the requirements of this LTEMP. This includes any intrusive works which may damage the cap or the marker layer. Cap inspections must be routinely implemented by the Property Maintenance Contractor and documented.
Future Site Contractors	Various	All contractors who may breach the capping system must be provided with and review this LTEMP. Where the capping area is likely to be breached, then management strategies detailed in this LTEMP must be implemented. All future site contractors must also be inducted to the site.
Environmental Consultant	Engaged as required	An appropriately qualified Environmental Consultant may be consulted prior to any sub-surface works proposed beneath the marker layer. Update LTEMP as engaged by the Property Maintenance Contractor.
Class A Licensed Asbestos Removalist	Engaged as required	A SafeWork NSW Class A Licensed Asbestos Removalist must be engaged by the Property Maintenance Contractor to supervise any sub-surface works that require or may involve disturbing or removing asbestos contaminated materials.
Licensed Asbestos Assessor	Engaged as required	A SafeWork NSW Licensed Asbestos Assessor must be engaged by the Property Maintenance Contractor to undertake airborne asbestos monitoring during any sub-surface works that require or may involve disturbing or removing asbestos contaminated materials and issue a clearance certificate at the successful completion of those works.
Site Auditor	Engaged as required	An auditor may be engaged to review LTEMP after material change to the LTEMP which may impact the use or suitability of the land, as required.
Site Visitors	Public	Access to the capping area is limited via the concrete hardstand barriers, vegetation, capping material, and marker layer. Access beneath the concrete hardstand, the capping material, or the marker layer will be limited to maintenance works.

2. SITE IDENTIFICATION

Site details and associated information are presented in **Table 2.1**.

Table 2.1 Site Identification Information

Attribute	Description
Street Address	6 Grand Avenue, Rosehill NSW
Lot and Deposited Plan (DP)	Lot 1 DP1258587
Geographical Coordinates	33°49'18.8"S 151°02'03.2"E (approximate centre of site)
Site Area	≈ 4.2 ha (irregular in shape)
Current Owner	Hale Capital Development Management
Local Government Area (LGA)	City of Parramatta Council
Parish	St. John
County	Cumberland
Zoning	E5: Heavy Industrial <i>Parramatta Local Environmental Plan 2023</i>

2.1. Current Site Conditions

2.1.1. General Layout

The site has undergone industrial redevelopment comprising a multi-unit industrial complex, including five ground-floor warehouse compartments ('Warehouse 01' to 'Warehouse 05') with associated hardstand driveways and loading zones. The northern site boundary consists of 'Grand Avenue', commercial/industrial properties to the east and south and an easement corridor along the western boundary. Vehicle access routes, loading bays, parking areas (including EV charging spaces), and peripheral landscape buffers surround the primary warehouse footprints.

2.1.2. Building Information

The warehouse buildings are oriented along a north to south axis, positioning the main structures toward the north (facing Grand Ave). Warehouses 01 and 02 occupy the western portion of the site, while Warehouses 03, 04, and 05 occupy the eastern side. The facilities feature multi-level configurations and Level 1 mezzanine office spaces (offices 06 through 10) positioned in the first level. Structural construction consists of concrete slabs on ground with heavy duty structural frames. Key infrastructure is integrated directly adjacent to the building footprints, including an on-site Rainwater Treatment Plant, Hydrant Pump Room, Sprinkler Tank with dedicated concrete slab, and Underground Sewer Pump systems.

2.1.3. Landscaping

Around the site perimeter landscaping areas overlie the marker layer. Along the northern boundary, a 20 m wide landscape buffer has been installed and will be maintained as part of the ongoing operation of the site. The southern boundary incorporates a 4.0 m wide landscape buffer supported by engineered retaining walls, root barrier systems, and native species. The western easement boundary features an 11.5 m wide buffer zone with low-growing shrubs and groundcovers. Additional softscapes include trough planters and on-slab planter boxes built with internal waterproofing membranes, drainage cells, geotextile filter fabrics, and automated subsurface drip irrigation.

2.1.4. Access and Circulation

Vehicular ingress and egress to the complex are provided via dedicated entry corridors on Grand Avenue along the northern site boundary. Internal traffic movement is facilitated by heavy-duty concrete driveways ranging from 1.5 m to 5.5 m wide that connect internal hardstands, loading docks, and parking

areas. For emergency services, the site layout provides a 6.0 m wide fire truck set down area and a 9.5 m wide fire access route traversing the internal perimeter to allow unobstructed access around all warehouse modules.

2.1.5. Surface Water and Stormwater Controls

Stormwater management across the site combines surface swales, subsoil drainage, structural retention, and treatment systems designed to Australian Standard AS3500.3. Surface runoff from hardstands and driveways is directed into concrete swales and a network of 49 heavy-duty stormwater pits fitted with pit inserts. Overland flow from minor and major storm events (1 in 20-year and 1 in 100-year events) are conveyed to an offline cartridge tank system containing approximately forty 690 mm filter cartridges within a 6.0 m x 4.0 m tank. Treated site stormwater discharges into the existing municipal 900 mm diameter pipe infrastructure along Grand Avenue at invert level 2.60 m, flowing toward the Parramatta River catchment. Dedicated service easements, including an Easement for Drainage of Water along the western boundary and an Easement to Drain Sewage along the eastern boundary are designed to protect hydraulic discharge corridors.

3. SITE HISTORY SUMMARY

3.1. Site History Summary

The site, located at 6 Grand Avenue, Rosehill NSW, comprises approximately 4.2 hectares and was historically occupied by CSR Building Products Ltd for the manufacture of roof tiles. The adjoining property to the west (formerly known as 6 Grand Avenue, Camellia) is the former Azko manufacturing facility (a remediation site regulated under the CLM Act) which is known to be a source of groundwater contamination at the site. This industrial history left a legacy of various contaminants that required extensive assessment and remediation to facilitate the proposed commercial/industrial warehouse redevelopment.

Between 2023 and 2024, several assessments were undertaken by JBS&G Australia Pty Ltd (JBS&G) and Sydney Environmental Group Pty Ltd (SE). These findings are detailed within the Site Validation Report (SVR) prepared by EGA (2026).

3.1.1. Key Historical Findings and Management Strategies

JBS&G (2023) conducted a Hazardous Building Material Survey (HBMS) that identified Asbestos Containing Materials (ACM), Lead-based paints and Synthetic Mineral Fibres (SMF) within the existing site structures (warehouses and administration buildings) and presumed PCBs in light fittings.

Intrusive investigations identified friable asbestos and Polycyclic Aromatic Hydrocarbons (PAHs), specifically Benzo(a)pyrene, within in-situ site soils.

The ACM present within the site posed human health risks via inhalation and aesthetic concerns. The other identified PAHs posed unacceptable ecological risks and potential human health risks, primarily through ingestion or dermal contact.

JBS&G (2023a) developed an Acid Sulfate Soil Management Plan (ASSMP) to manage the risk of disturbing potential acid sulfate soils (PASS) during deep excavation and piling works as risk mapping indicated the site is located in an area of "disturbed terrain".

Due to potential Volatile Organic Compound (VOC) impacts at or below the groundwater table, a specific methodology was implemented for piling works (SE 2024). This included Photoionisation Detector (PID) screening and strict Personal Protective Equipment (PPE) requirements for workers to manage vapor risks.

3.1.2. Remediation and Current Site Status

A Remedial Action Plan (RAP) was prepared by JBS&G (2024) to address these impacts, primarily utilising a cap and containment methodology. This strategy focused on managing asbestos-impacted soils and other contaminants by isolating them from potential receptors. EGA supervised remediation works and prepared a Site Validation Report at the completion of remedial works, outlining the works undertaken.

As part of the remediation undertaken at the site, the existing concrete hardstand footprint resulting from the former land use activities was retained onsite across majority of the site footprint (where possible). This existing concrete hardstand footprint comprises a portion of the marker layer identified at the site. In locations where site-won asbestos impacted fill was relocated atop the existing concrete hardstand, a high-visibility geotextile marker layer was installed across the surface prior to installation of the capping materials.

All services and OSD tanks installed within the site, have been installed within validated capping materials, atop a geotextile marker layer. As such, any future maintenance works on existing services, will be undertaken within clean materials.

This LTEMP details the final, post-remediation site conditions and sets out the ongoing operational, inspection, and maintenance controls required to manage the contained impacts across the site. Future works involving excavation or disturbance below the marker layer or within the capping materials may

recreate a risk pathway. To manage this residual risk, the site must be managed in perpetuity under this Long-Term Environmental Management Plan (LTEMP).

3.2. Cap and Containment Details

Due to design constraints, the capping profile located within trenching or excavations, beneath the warehouse structures, within landscaping areas and, the retained in-situ hardstand offer distinct cap and containment strategies. Two marker layer strategies were adopted across the site and consist of the existing concrete hardstand layer, and an orange geotextile marker layer placed atop contaminated soil materials, per the 'cap and containment' strategy outlined within the RAP JBS&G (2024) and RAP addendum prepared by Sydney Environmental Group (SE)¹.

A summary of the capping details and depths are provided below in **Table 3.2.1** through to **Table 3.2.12**, and are presented in **Figure 3** and **Figure 4**.

As the asbestos impacted soils beneath the existing concrete hardstand layer were not assessed as part of the remedial works, the depth of the impacted fill materials is expected to be approximately 1.2 m thick based on the findings of the Environmental Site Assessment undertaken by JBS&G².

Refer to **Appendix A** for containment area surveys and service trenching locations.

Table 3.2.1 Capping Layer Construction Profile – Capping System 1

Layer	Average Thickness (m)	Description
Hardstand	0.2	Concrete hardstand barrier followed by crushed concrete or imported RRO material (aggregate, dark grey/black, dry to moist, no foreign materials).
Validated Capping Materials	0.6	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials.
Existing Hardstand (Marker Layer)	0.15	Existing concrete hardstand barrier.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

¹ SE 2024, 'Amendment to Capping Layer Requirements for Site Remediation and Validation, 6 Grand Avenue, Rosehill NSW', dated 24 September 2024, report ref: 2482-LTR-01-240924.v1f.

² JBS&G 2022, 'Environmental Site Assessment, 6-8 Grand Avenue, Rosehill NSW', dated 29 April 2022, report ref: 61873/141436 Rev 0.

Table 3.2.2 Capping Layer Construction Details – Capping System 2

Layer	Average Thickness (m)	Description
Hardstand	0.2	Concrete hardstand barrier followed by site-won crushed concrete or imported RRO material (aggregate, dark grey/black, dry to moist, no foreign materials).
Validated Capping Materials	0.33	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	0.5	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.
Existing Hardstand	0.15	Existing concrete hardstand barrier.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 2 was utilised beneath the constructed warehouse footprints.

Table 3.2.3 Capping Layer Construction Details – Capping System 3a

Layer	Average Thickness (m)	Description
Mulch & topsoil	0.3	Mulch underlain by topsoil comprising a medium brown, low plasticity, dry-moist organic and sand mixture.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	Unknown	Silty CLAY, medium plasticity, dark brown, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 3a was utilised within landscaping areas to the north.

Table 3.2.4 Capping Layer Construction Details – Capping System 3b

Layer	Average Thickness (m)	Description
Mulch & topsoil	0.6	Mulch underlain by topsoil comprising a medium brown, low plasticity, dry-moist organic and sand mixture.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	Unknown	Silty CLAY, medium plasticity, dark brown, dry to moist. Contains friable and non-friable asbestos impacted soil materials..

EGA notes that capping system 3b was utilised within landscaping areas to the west.

Table 3.2.5 Capping Layer Construction Details – Capping System 3c

Layer	Average Thickness (m)	Description
Mulch & topsoil	0.6	Mulch underlain by topsoil comprising a medium brown, low plasticity, dry-moist organic and sand mixture.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	Unknown	Silty CLAY, medium plasticity, dark brown, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 3c was utilised within tree zones within the landscaping areas.

Table 3.2.6 Capping Layer Construction Details – Capping System 3d

Layer	Average Thickness (m)	Description
Mulch & topsoil	0.1	Mulch underlain by topsoil comprising a medium brown, low plasticity, dry-moist organic and sand mixture.
Geogrid (Marker Layer)	0.05	Black geogrid mesh material.
Impacted Soil Materials	Unknown	Silty CLAY, medium plasticity, dark brown, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 3d was utilised within the tree protection zones within the landscaping areas, where existing trees were retained in the north.

Table 3.2.7 Capping Layer Construction Details – Capping System 3e

Layer	Average Thickness (m)	Description
Mulch & topsoil	0.2	Mulch underlain by topsoil comprising a medium brown, low plasticity, dry-moist organic and sand mixture.
Validated Capping Materials	0.59	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials.
Existing Hardstand (Marker Layer)	0.15	Existing concrete hardstand barrier.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 3e was utilised for garden bedding areas located within the breezeway.

Table 3.2.8 Capping Layer Construction Details – Capping System 3f

Layer	Average Thickness (m)	Description
Mulch & topsoil	0.6	Mulch underlain by topsoil comprising a medium brown, low plasticity, dry-moist organic and sand mixture.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	0.47	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.
Existing Hardstand	0.15	Existing concrete hardstand barrier.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 3f was utilised within landscaping areas to the east.

Table 3.2.9 Capping Layer Construction Details – Capping System 3g

Layer	Average Thickness (m)	Description
Mulch & topsoil	0.6	Mulch underlain by topsoil comprising a medium brown, low plasticity, dry-moist organic and sand mixture.
Validated Capping Materials	0.7	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials.
Existing Hardstand	0.15	Existing concrete hardstand barrier.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 3g was utilised within landscaping areas to the south.

Table 3.2.10 Capping Layer Construction Details – Capping System 4

Layer	Average Thickness (m)	Description
Hardstand	0.2	Concrete hardstand barrier followed by site-won crushed concrete or imported RRO material (aggregate, dark grey/black, dry to moist, no foreign materials).
Validated Capping Materials	0.36	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	0.76	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.
Existing Hardstand	0.15	Existing concrete hardstand barrier.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 4 was utilised within driveway areas to the north, east and southeast of the site.

Table 3.2.11 Capping Layer Construction Details – Capping System 5

Layer	Average Thickness (m)	Description
Hardstand	0.2	Concrete hardstand barrier followed by site-won crushed concrete or imported RRO material (aggregate, dark grey/black, dry to moist, no foreign materials).
Validated Capping Materials	2.85	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials or re-used site won CLAY, low plasticity, red to orange, dry.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 5 was utilised in areas containing OSD tanks and associated infrastructure.

Table 3.2.12 Capping Layer Construction Details – Capping System 6

Layer	Average Thickness (m)	Description
Hardstand and Aggregate	0.2	Concrete hardstand barrier followed by site-won crushed concrete or imported RRO material (aggregate, dark grey/black, dry to moist, no foreign materials).
Validated Capping Materials	0.2	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Imported Validated Soil Materials (Capping)	1.22	SANDSTONE, light grey/white/yellow, dry to moist, no foreign materials or re-used site won CLAY, low plasticity, red to orange, dry.
Orange Geotextile (Marker Layer)	0.05	Orange geotextile marker layer.
Impacted Soil Materials	Unknown	CLAY, medium plasticity, medium to dark brown, red and orange, dry to moist. Contains friable and non-friable asbestos impacted soil materials.

EGA notes that capping system 6 was utilised within service trench footprints that breached the existing hardstand (marker layer).

3.3. Asbestos Health Risks

Asbestos is the generic term for a number of fibrous silicate minerals. There are two major groups of asbestos: the serpentine group (i.e. chrysotile) and the amphibole group (i.e. amosite, crocidolite, tremolite, actinolite and anthophyllite). Asbestos has widely been used in building products due to its insulation and fire-resistant properties. The toxic effects of asbestos are well recognised and primarily result from the inhalation of free fibres. If fibres are inhaled into the lungs, they can initiate diseases that take many years to produce major health effects. These effects include asbestosis, lung cancer and mesothelioma.

The National Environmental Protection Council (NEPC) recognises the following forms of asbestos contamination:

- Asbestos-containing material (ACM) which is in sound condition and the asbestos is bound in a matrix (cement sheeting, tiles). This is also restricted to ACM that cannot pass through a 7 mm x 7 mm sieve. ACM represents a low human health risk;
- Fibrous Asbestos (FA) encompasses asbestos in the form of loose fibrous material such as insulation and severely weathered ACM defined by its crumbly nature under hand pressure; and
- Asbestos Fines (AF) includes free fibres of asbestos, small fibre bundles and ACM fragments that pass through a 7 mm x 7 mm sieve.

Both FA and AF have the potential to generate airborne fibres and can pose a considerable inhalation risk if made airborne.

Asbestos presents a hazard only if fibres of respirable size become airborne, and there is a potential for site users to inhale them. The release of asbestos fibres from materials and substrates is dependent on the amount of disturbance impacted upon by these materials. The danger of the airborne asbestos is that fibres are not visible to the naked eye, and the long duration required between exposure to asbestos and the onset of the disease associated.

The cap and contain methodology removes the pathway between the asbestos source (contained asbestos impacted fill soils) and receptors (on-site users, maintenance and construction workers, and persons off-site). If the capping is removed or penetrated, then a pathway may be generated, leading to a complete source – pathway – receptor link.

The presence of asbestos beneath the capping layer at the site does not affect the present safe use of the site under the current land use scenario whilst the existing surface coverings are undisturbed. If however these surface coverings are disturbed, a risk of exposure may result. In order to develop appropriate measures to control this potential exposure, it is necessary to understand the potential exposure pathways.

3.4. Residual Source-Pathway-Receptor Assessment

Based on the remediation and validation works undertaken and summarised in EGA (2026), the identified remaining areas of environmental concern and associated contaminants of potential concern are summarised in **Table 3.4.1**.

Table 3.4.1 Revised Areas of Environmental Concern and Contaminants of Potential Concern

Area of Environmental Concern	Land Use Activity	Contaminants of Potential Concern	Affected mediums	Exposure risk
In-situ Asbestos Contaminated Fill Materials Across the Site	‘Cap & Contain’ Strategy	Asbestos (Friable and Non-Friable)	Soil	Human Health

The potential contamination pathways were considered to be via inhalation of contaminants released in dust during future development and maintenance works, if the marker layer were to be breached.

Following the remediation works undertaken within EGA (2026), the potential contamination pathways are now considered to be incomplete. The following future works at the site may result in completion of the pathways:

- Excavation and subsequent exposure to soil materials retained beneath the site wide marker layer; and
- Under-boring for utilities or similar infrastructure.

Groundwater beneath the site has been identified to contain chlorinated hydrocarbons and heavy metals at concentrations that preclude its relevant beneficial use. Accordingly, groundwater beneath the site is not considered a suitable beneficial resource.

4. MANAGEMENT PROCEDURES

The cap and containment strategy present across the site consists of a marker layer (orange geotextile or the existing concrete hardstand) and a minimum 300 mm of validated Virgin Excavated Natural Material (VENM) or Resource Recovery Order/Exemption (RRO/RRE). The surface layer atop the capping layer comprises of either concrete hardstand or landscaping. As such, the underlying contaminated materials are considered inaccessible to human and ecological receptors.

All operations and activities conducted on the site must fully comply with the provisions of relevant NSW environmental legislation and WHS legislation, as well as any further requirements imposed by the relevant authorities, e.g. NSW EPA under the *Contaminated Land Management Act, 1997*, *Work Health and Safety Act, 2011*, and the *Protection of the Environment Operations Act, 1997* and associated Regulations.

The capping material should be inspected annually and following any breaches, to ensure its condition remains suitable. These inspections should be undertaken as required by the Property Maintenance Contractor. This LTEMP is applicable for as long as the capped and contained materials are retained within the site.

4.1. Induction

Subsurface works are not anticipated to be undertaken at the site unless significant redevelopment works are proposed. Any subsurface works should be prevented and minimised as far as is reasonably practicable. Should significant redevelopment be proposed, Council, an LAA, a SafeWork NSW Class A licensed asbestos removalist, and environmental consultant will need to be notified and engaged.

The Property Maintenance Contractor is to ensure all contractors undertaking subsurface works on the site have completed a site-specific induction in relation to the on-site contaminated soils.

The induction program is to include the following:

- Information about the nature of the hazards arising from exposure to the relevant contaminants of concern;
- Identification of the location of contained impacted soils;
- Composition of capping materials for visual reference, including the marker layer;
- Procedures to be followed if subsurface works are planned within the capped and contained areas;
- Procedures to be followed for accidental breach of the marker layer;
- Exposure monitoring that may be required for working with asbestos;
- Personal Protective Equipment (PPE) required for excavation works below the capping material; and
- Incident reporting.

An induction record should be kept as outlined in **Appendix D**. The Property Owner must keep records of all inductions for 5 years after the day the worker stops carrying out the subsurface works. These records must also be made available for inspection by SafeWork NSW as required.

4.2. Requirements for Intrusive Works

Where intrusive works are proposed at the site, the following management measures must be followed:

- Prior to any intrusive works commencing within the site, approval for the works must be sought from the person responsible for the management of the LTEMP (Property Maintenance Contractor);
- Site personnel, contractors or maintenance personnel involved in the works must be inducted per **Section 4.1**, undertake asbestos awareness training and be aware of their responsibilities with regards to health and safety and the protection of the environment; and

- All repairs to cover layers must be documented by the Property Maintenance Contractor and any changes must be detailed and kept on record, refer to **Appendix B** for documentation pertaining to capping inspection following repair.

As part of the approval for works to occur, the Property Maintenance Contractor must make an assessment of the likelihood of capping layer breach by considering the proposed depth of works compared to the depth of capping in the proposed works location. If works are proposed below the capping layer at the site, asbestos management measures are to be applied and the relevant approvals obtained prior to works starting as described herein.

4.2.1. Licensing

A SafeWork NSW Licensed Asbestos Assessor must be engaged prior to any subsurface works involving the breach of capping materials. All asbestos related works proposed for underneath the marker layer must be supervised by:

- A SafeWork NSW Licensed Asbestos Assessor; and
- A SafeWork Class A Asbestos Removalist.

A notification to SafeWork NSW must be submitted and approved prior to any asbestos related works commencing on-site.

4.2.2. Preparation of Management Documentation Related to Asbestos

As asbestos-impacted soils remain beneath the capping layer, an overarching Asbestos Management Plan (AMP) shall be prepared and maintained for the site. The site AMP will document the location and extent of the asbestos-impacted materials, identify the engineering controls and management measures implemented to prevent exposure, and establish the procedures for the ongoing management of asbestos during future works that have the potential to disturb asbestos. The AMP should be read in conjunction with this LTEMP, which establishes the long-term management requirements for the engineered capping system and associated environmental controls.

Where intrusive works are proposed that will penetrate the capping layer and disturb the underlying asbestos-impacted soils, project-specific asbestos management documentation shall be prepared prior to commencement of works. Depending on the scope of the proposed activities, this may include an Asbestos Removal Control Plan (ARCP), the site AMP, and other documentation required under the Work Health and Safety Act and associated Work Health and Safety Regulation. This documentation shall outline the proposed asbestos handling procedures, control measures, air monitoring requirements, decontamination procedures, emergency response procedures, waste management requirements and the minimum personal protective equipment (PPE) required for the works.

For all works involving disturbance of asbestos-impacted soils, the project-specific asbestos management documentation shall act as the primary document governing asbestos handling and worker health and safety. This LTEMP shall act as the overarching environmental management document for such works, providing the framework for site access, identification of the capping boundaries, protection of the engineering control and the mandatory requirements for reinstatement of the capping layer following completion of the works.

All works below the capping layer within asbestos-impacted soils shall be undertaken by an appropriately licensed contractor in accordance with the current requirements of the Work Health and Safety Act 2011, the Work Health and Safety Regulation 2025, and applicable SafeWork NSW guidance. Contractors shall prepare all documentation required by the relevant legislation, including a Site Safety Management Plan, Safe Work Method Statements and any project-specific asbestos management documentation required for the proposed works.

The following details the minimum PPE required to be worn in addition to standard construction site PPE requirements:

- Disposable coveralls;
- Disposable gloves;
- Disposable boot covers; and
- P3 class respirator or higher.

All work shall be undertaken with due regard to the minimisation of environmental effects and to meet all statutory requirements and as such that work on the site complies with all relevant legislation and guidelines.

4.2.3. Spoil Management

Where temporary stockpiling of contaminated soils is required, additional measures such as stockpiling atop a plastic or geofabric layer, wetting down soils, and covering stockpiles will be required to prevent cross-contamination and risk to receptors.

Appropriate dust, sediment and erosion controls must be implemented and maintained for the duration of the soil management works, consistent with Landcom (2004) Managing Urban Stormwater: Soils and Construction guide and other relevant guidelines and standards.

All materials excavated from below the capped and contained materials must either be returned beneath capping layer prior to closing or be removed off-site to a licensed waste receiving facility. No materials from below the marker layer are to be retained above the site wide marker layer. All materials excavated from below the marker layer must be tracked with the Material Tracking Sheet presented in **Appendix E**.

Contaminated soil materials from below the marker layer proposed for removal from the site to a licensed waste receiving facility, will require classification as **Special Waste**, and further chemical characterisation in accordance with NSW EPA Waste Classification Guidelines: Part 1: Classifying waste, November 2014 (NSW EPA 2014).

Should capping materials above the marker layer be proposed for offsite disposal, waste classification will be required, in accordance with NSW EPA Waste Classification Guidelines: Part 1: Classifying waste, November 2014 (NSW EPA 2014).

4.3. Sub-Surface Works Beneath the Marker Layer

Prior to any works that may breach the capping layers, a SafeWork NSW Licensed Asbestos Assessor must be engaged to review the proposed scope of works and provide a specific works methodology. As the asbestos contained beneath the marker layer is classified as friable, a SafeWork NSW Licensed Asbestos Assessor must undertake airborne asbestos monitoring and issue clearance reports. Additionally, a SafeWork Class A licensed asbestos removalist must be engaged to supervise asbestos handling works.

Contaminants of Potential Concern (CoPC) in soils are known to remain beneath the capped and contained surfaces at the site and may be encountered if the capping layer is breached. Requirements outlined in **Section 4.2** must be followed if disturbing materials beneath the capping layers. Following completion of any intrusive works into the capping layer, the capping layer must be re-instated in accordance with the requirements of this LTEMP, as outlined in **Table 4.4.1**.

4.4. Groundwater Management

Groundwater beneath the site has historically been impacted by chlorinated hydrocarbons and heavy metals. Groundwater must not be abstracted or used for potable, irrigation, stock watering, industrial, construction or any other beneficial purpose unless an assessment has first been undertaken to demonstrate that the groundwater is suitable for the intended use.

Any proposed groundwater abstraction must also be undertaken in accordance with applicable legislative requirements. Where groundwater abstraction is proposed as part of future development or construction activities (e.g. dewatering), the potential risks associated with groundwater quality must be assessed and appropriate management measures implemented to ensure protection of human health and the environment.

4.5. Ongoing Maintenance and Ground Disturbance Controls

To maintain the integrity of the installed capping layer and ensure the continued protection of underlying materials, the following requirements shall apply to all maintenance and minor works across the site.

4.5.1. General Requirements

All activities involving ground disturbance or penetration (including but not limited to excavation, installation of stakes or star pickets, gardening, and service adjustments) shall be undertaken in a manner that avoids compromising the capping layer. The depth of any such works must not exceed the capping layers outlined in **Section 3.2**.

Refer to **Table 4.5.1** for when planned works are proposed to breach the on-site capping layer.

Table 4.5.1 Planned Works Beneath the Marker Layer

Actions	Due to the potential risk of interacting with impacted soils, when conducting sub-surface works beneath the marker layer, the following procedures must be adopted prior to works commencing: 1. Notify the Owner and the Property Maintenance Contractor prior to undertaking any disturbance within 0.3 m of the marker layer; 2. Engage a Licenced Asbestos Assessor (LAA) or environmental consultant prior to commencement of works below the capping layer; 3. Engage a SafeWork NSW Class A licensed asbestos removalist to undertake and supervise asbestos handling works; 4. The NSW Class A licensed asbestos removalist must submit a notification to SafeWork NSW; 5. Prior to commencement of soil disturbance, the work area is to be barricaded to restrict entry of unauthorised personnel and to minimise the potential for tracking impacted soil beyond the work area; 6. Placement of an adequate number of indelibly labelled warning signs at the boundary of the area of asbestos removal works, which comply with AS 1319 Safety Signs for Occupational Environment; and 7. Prohibit access to all personnel unless wearing PPE that is appropriate for protection against airborne asbestos fibres. The following procedure must be adopted for handling asbestos impacted soils: • A NSW Licensed Asbestos Assessor (LAA) or appropriately experienced occupational hygienist and Class A licensed asbestos removalist will be present onsite to manage and supervise works. • Keep potentially asbestos impacted soils lightly wetted at all times (without generating free water); • If asbestos contaminated soils are to be stockpiled on site, stockpiles should be placed on plastic lining or hard stand surfaces (i.e. bitumen/concrete) to avoid cross contamination of underlying soils; • Disposal (if required) of asbestos impacted soil will require assessment, in accordance with the appropriate guidelines, prior to disposal; • During transport, all asbestos impacted wastes must be placed in a sealed truck, with appropriate cover, then transported to an appropriately licensed waste receiving facility; • Cover stockpiled soils with plastic sheeting or geofabric, during dry and windy conditions whilst awaiting disposal; and At the completion of any works, the marker layer and capping layer must be physically re-instated to their original condition and surveyed levels using the following process:
-----------------------	--

	• Ensure the base of the excavation is graded and free of sharp debris that could puncture the marker layer; • Lay a new, highly visible orange geotextile marker layer across the extent of the disturbed area. The new marker layer must overlap the existing, undisturbed marker layer by a minimum of 0.5 metres on all sides to ensure a continuous visual barrier; • Backfill the area above the marker layer with certified clean imported materials (VENM, ENM, or approved RRO materials) in lifts not exceeding 150mm; • Compact each lift to match the density of the surrounding undisturbed capping material, ensuring a minimum capping thickness of 0.3 m is achieved; and • Re-instate the final surface covering (concrete hardstand or landscaping profile) to match the surrounding finish and original surveyed levels. Any deviation from this process requires written input and approval from the appointed Environmental Consultant.
Frequency	• As required
Responsibility	• Environmental Consultant; • Licensed Asbestos Assessor; • Class A Licensed Asbestos Removalist; • Appointed contractor; • Property Maintenance Contractor; and • The Owner (if required).

4.5.2. Subsurface Services

Services installed across the site have been completed within the capping layer or in a manner where they were excavated, lined with a geofabric marker layer and backfilled with validated site-won clay or validated imported RRO or VENM as outlined in the SVR (EGA 2026). Refer to **Figure 2, Appendix A, Appendix F** and **Section 3.2** for depths to service trenches.

Any modifications, repairs, or adjustments to services must consider the surrounding capping layer thickness and must not result in penetration beyond the approved depths. Where deeper works are required, specific environmental approval and controls must be implemented.

A detailed plan of service and trench alignments in relation to the capping extents is provided in **Appendix F**. The structural integrity of the cap must be maintained during any service works by strictly adhering to the reinstatement process detailed in **Table 4.4.1**.

4.5.3. Airborne Asbestos Monitoring

A SafeWork NSW Licensed Asbestos Assessor (LAA) must be engaged to carry out air monitoring during all earthworks that extend below the marker layer. Air monitoring involves sampling airborne asbestos fibres to assist in assessing exposure to asbestos and the effectiveness of implemented control measures. It must be conducted in accordance with the *Guidance Note on the Membrane filter [NOHSC3003:2005]*.

4.5.4. Mowing Activities

Routine mowing activities may be undertaken without restriction, provided they do not disturb subsurface materials. If, during mowing, any orange geofabric (geotextile marker layer) becomes visible or exposed, works must cease immediately in the affected area. The area shall be secured, and appropriate environmental/site management personnel notified for further assessment and direction.

4.5.5. Gardening and Landscaping Works

All gardening and landscaping activities must be restricted to shallow surface works and must not extend beyond the marker layers outlined in **Section 3.2**. If orange geofabric is encountered at any time, all works in the immediate area must stop immediately. The location should be clearly marked, and advice sought prior to recommencing any activities.

4.5.6. Unexpected Encounters Protocol

During any maintenance or ground-penetrating activity, personnel must remain vigilant for signs of exposed orange geotextile or hardstand marker layers as outlined in **Section 3.2**. If encountered:

- Stop work immediately in the vicinity;
- Prevent further disturbance of the area;
- Clearly delineate and secure the location; and
- Notify the site manager or the environmental manager for assessment and instruction.

No works are to recommence in the affected area until appropriate management measures have been implemented and approval has been provided.

4.6. Record Keeping

All planned or unexpected works involving a breach of the capping layer must be documented and records kept by the Property Maintenance Contractor. Refer to **Appendix B** for the inspection forms to be completed if damage is observed to the capping layer and following re-instatement of the capping layer. Records are also required to be kept for incidents (**Appendix C**), inductions (**Appendix D**) and general inspections (**Appendix B**).

4.7. Reporting of Complaints and Incidents

If a complaint is made by a member of the public or by any other person with respect to any environmental management or control issue, appropriate corrective action is required to be undertaken as soon as practicable. The Property Maintenance Contractor is responsible for ensuring the corrective action is undertaken.

Similarly, if an environmental incident occurs that has given or may give rise to pollution of soil, air or waters, appropriate corrective action is required to be undertaken as soon as practicable.

In addition to the above, complaints and environmental incidents are required to be notified to the Property Maintenance Contractor as soon as practicable after a complaint has been made or an environmental incident has occurred. If appropriate, and following the Property Maintenance Contractor's instructions, notification may need to be made to the applicable regulatory authority.

Records of complaints and incidents are required to be entered into a register to be developed for the Site, but only after corrective action has been taken and The Site Owner has been notified. Refer to **Appendix C** for the environmental incident report form to be completed or where possible.

4.8. Routine Inspection

A routine inspection of the capping layer at the site must be undertaken annually by The Site Owner, to ensure capping materials at the site are maintained and upkept. The annual inspections must be recorded in the Capping Inspection Record provided in **Appendix B** and retained on file. In addition, the Property Maintenance Contractor shall undertake routine inspections on a quarterly basis to identify any damage, erosion or other defects requiring maintenance. Inspections must also be undertaken as required following any intrusive site works by the Property Maintenance Contractor or Licensed Asbestos Assessor or Environmental Consultant.

In the event that the capping layer has been compromised, the Property Maintenance Contractor must ensure the capping layer is re-instated in strict accordance with the restoration process outlined in **Table 4.5.1** and document the observation in the Capping Inspection Record form provided in **Appendix B**.

4.9. Emergency Response and Reporting

All unplanned events, irrespective of how minor the event, shall at the first opportunity be reported to The Site Owner and relevant stakeholders and government agencies as necessary. All unplanned events shall

be investigated. The degree and level of investigation shall depend on the outcome of the actual event and outcome of a similar event if not assessed and controlled.

Any release of contamination to the land, surface, groundwater or air must be reported immediately to The Site Owner. Any occurrence which does or may result in exposure to site users or the public should be reported immediately to The Site Owner and to emergency services if necessary.

If an occurrence is deemed to be reportable to the NSW EPA, it should be reported at the earliest opportunity.

4.10. Audit, Review and Revision of the Long-Term LTEMP

Where significant or material changes to the LTEMP are presented in the future, review by an NSW EPA Site Auditor will be required.

Annual audit of the LTEMP implementation must be undertaken by the Site Owner to check that records are being kept, including if the capping layers are damaged, or if the marker layer has been breached. A check of changes to site conditions that may impact on the relevance of the LTEMP should also be undertaken.

Every 10 years, The Site Owner must engage a suitably qualified environmental consultant to undertake an independent audit of the LTEMP implementation.

Revisions to this LTEMP may be necessary from time to time to ensure the document is relevant and up to date with regards to changes in legislation, changes to site conditions, if further controls are required and when there are improvements in technologies or knowledge.

In the event that a change to land use activities or redevelopment works are proposed for the site, the LTEMP will require revision immediately following these changes to ensure that the new site conditions are captured within the revised document and to address aspects of the development that may not be reflected in this existing version of the LTEMP.

Any revisions of the LTEMP must be prepared by an appropriately qualified and experienced environmental consultant. It is advised that the updated LTEMP be reviewed and approved by an environmental consultant with CEnvP Contamination Specialist (SC) certification, or equivalent. Any revisions of the LTEMP must be provided to Parramatta City Council.

This LTEMP has been developed to address the management of site-specific environmental concerns associated with t contamination remaining beneath the marker layer.

5. REFERENCES

CLM Act, 1997	Contaminated Lands Management Act 1997.
POEO Act, 1997	Protection of Environment Operations Act 1997.
WHS Act, 2011	NSW Work Health and Safety Act 2011.
NOHSC, 2005	Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition, (NOHSC: 3003 (2005)).
NEPC, 2013	<i>National Environmental Protection (Assessment of Site Contamination) Measure, 1999, Volume 3: Schedule B2, Guidelines on Site Characterisation</i> , as amended May 2013, National Environment Protection Council (NEPC).
WHS Reg, 2025	NSW Work Health and Safety Regulation 2025.
NSW EPA, 2022	<i>Sampling Design Guidelines</i> , September 2020, NSW Environmental Protection Authority (EPA).
NSW EPA, 2020	<i>Guidelines for Consultants Reporting on Contaminated Sites</i> , 2020, NSW EPA
SafeWork, 2022a	SafeWork NSW Code of Practice: <i>How to Safely Remove Asbestos</i> , 2022.
SafeWork, 2022b	SafeWork NSW Code of Practice: <i>How to Manage and Control Asbestos in the Workplace</i> , 2022.
WA DOH, 2021	Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia, 2021.
EGA, 2026	'Site Validation Report, 6 Grand Avenue, Rosehill NSW', dated 5 August 2026, report ref: 2582-SVR-01-020626.v4d.
JBS&G, 2022	'Environmental Site Assessment, 6-8 Grand Avenue, Rosehill NSW', dated 29 April 2022, report ref: 61873/141436 Rev 0.
SE, 2024	'Amendment to Capping Layer Requirements for Site Remediation and Validation, 6 Grand Avenue, Rosehill NSW', dated 24 September 2024, report ref: 2482-LTR-01-240924.v1f
WA DOH, 2021	Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia, 2021.

Amendment to Capping Layer Requirements for Site Remediation and Validation, 6 Grand Avenue, Rosehill NSW', dated 24 September 2024, report ref: 2482-LTR-01-240924.v1f

6. STATEMENT OF LIMITATIONS

The findings presented in this report are based on specific searches of relevant, government historical databases and anecdotal information that were made available during the course of this investigation. To the best of our knowledge, these observations represent a reasonable interpretation of the general condition of the site at the time of report completion.

This report has been prepared solely for the use of the client to whom it is addressed, and no other party is entitled to rely on its findings.

No warranties are made as to the information provided in this report. All conclusions and recommendations made in this report are of the professional opinions of personnel involved with the project and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report or which are not made known to personnel and which may impact on those opinions is not the responsibility of Environmental Group Australia Pty Ltd. Should information become available regarding conditions at the site including previously unknown sources of contamination, EGA reserves the right to review the report in the context of the additional information.

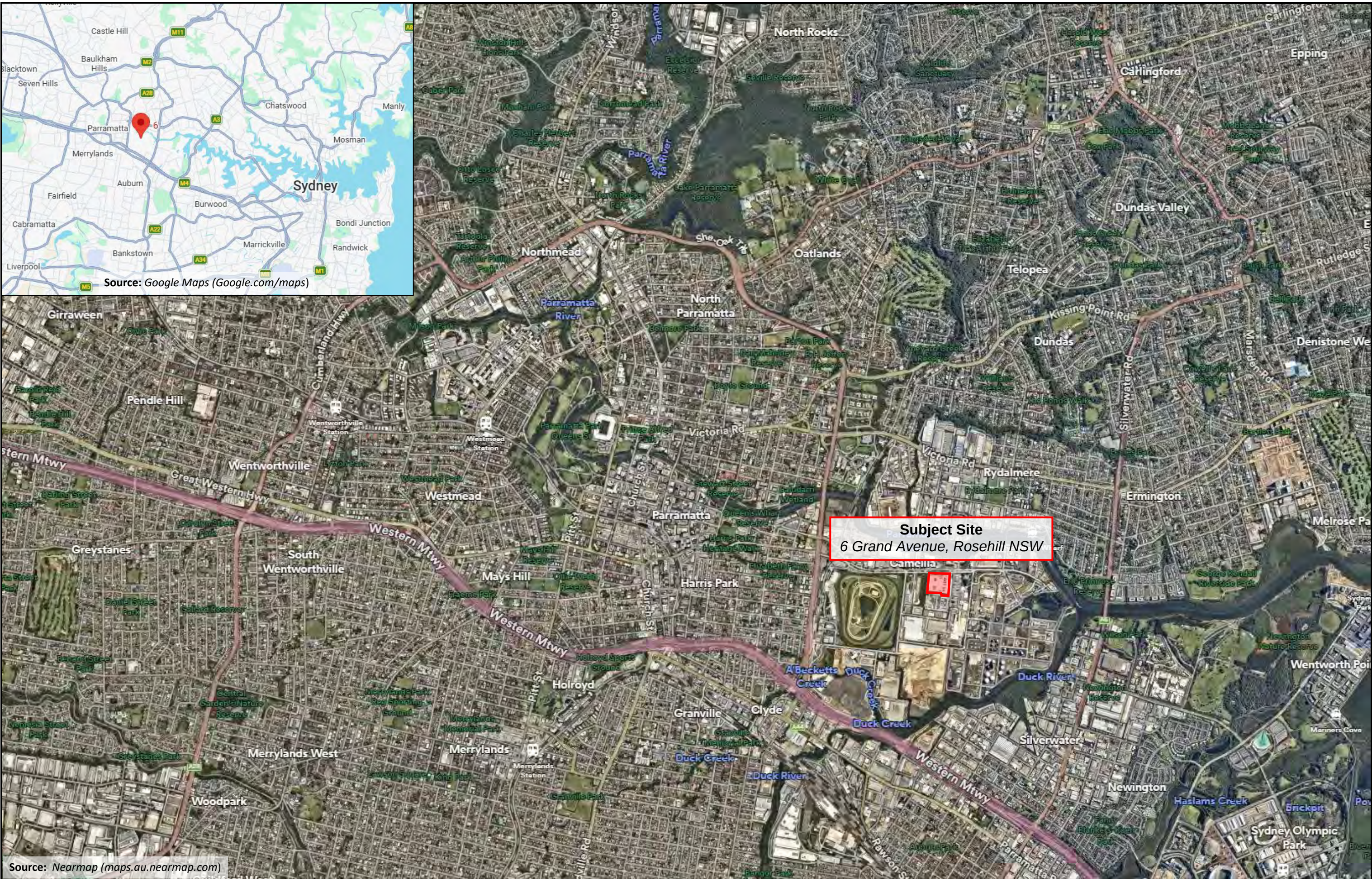
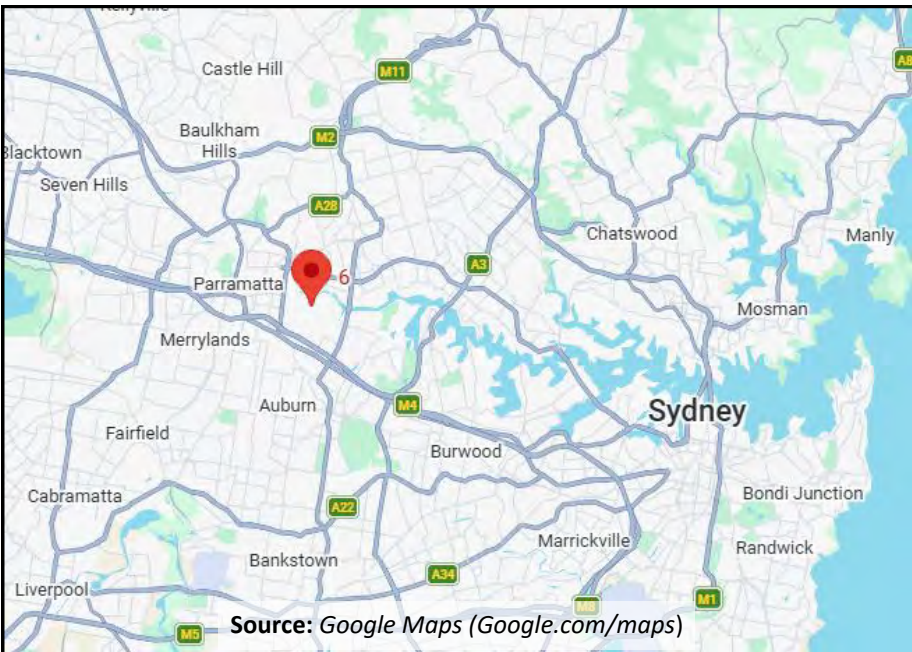
This report must be reviewed in its entirety and in conjunction with the objectives, scope and terms applicable to EGA's engagement. The report must not be used for any purpose other than the purpose specified at the time EGA was engaged to prepare the report.

Logs, figures, and drawings are generated for this report based on individual EGA consultant interpretations of nominated data, as well as observations made at the time site walkover/s were completed.

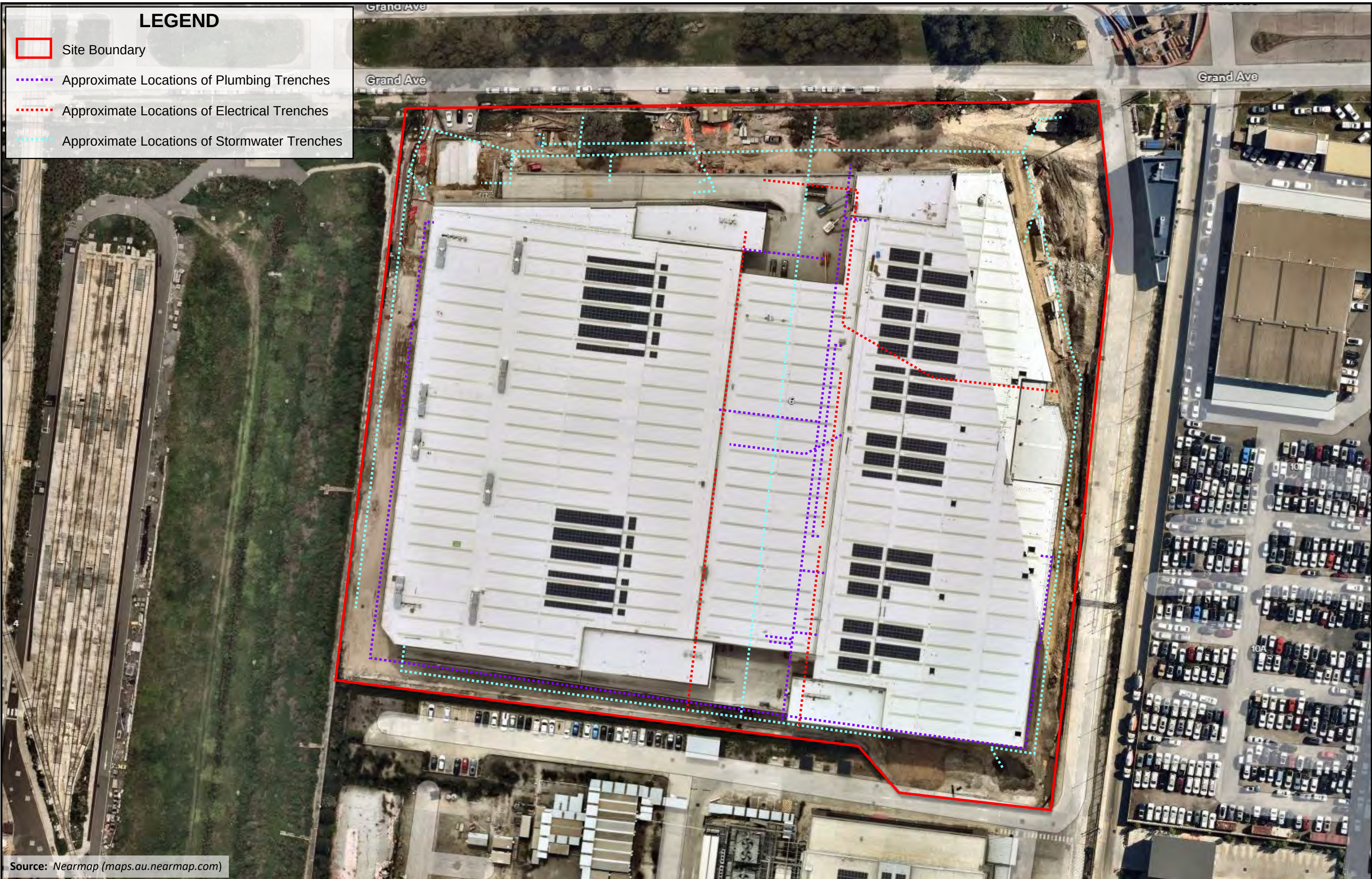
Data and/or information presented in this report must not be redrawn for its inclusion in other reports, plans or documents, nor should that data and/or information be separated from this report in any way.

Should additional information that may impact on the findings of this report be encountered or site conditions change, EGA reserves the right to review and amend this report.

FIGURES



	Scale:				Site Locality		
	Client Name:	Vaughans Construction Pty Ltd				Figure Number:	1
	Project Name:	Long-Term Environmental Management Plan				Figure Date:	16 April 2026
	Project Location:	6 Grand Avenue, Rosehill NSW				Report Number:	2582-LTEMP-01-020626.v2f





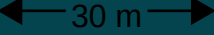
LEGEND

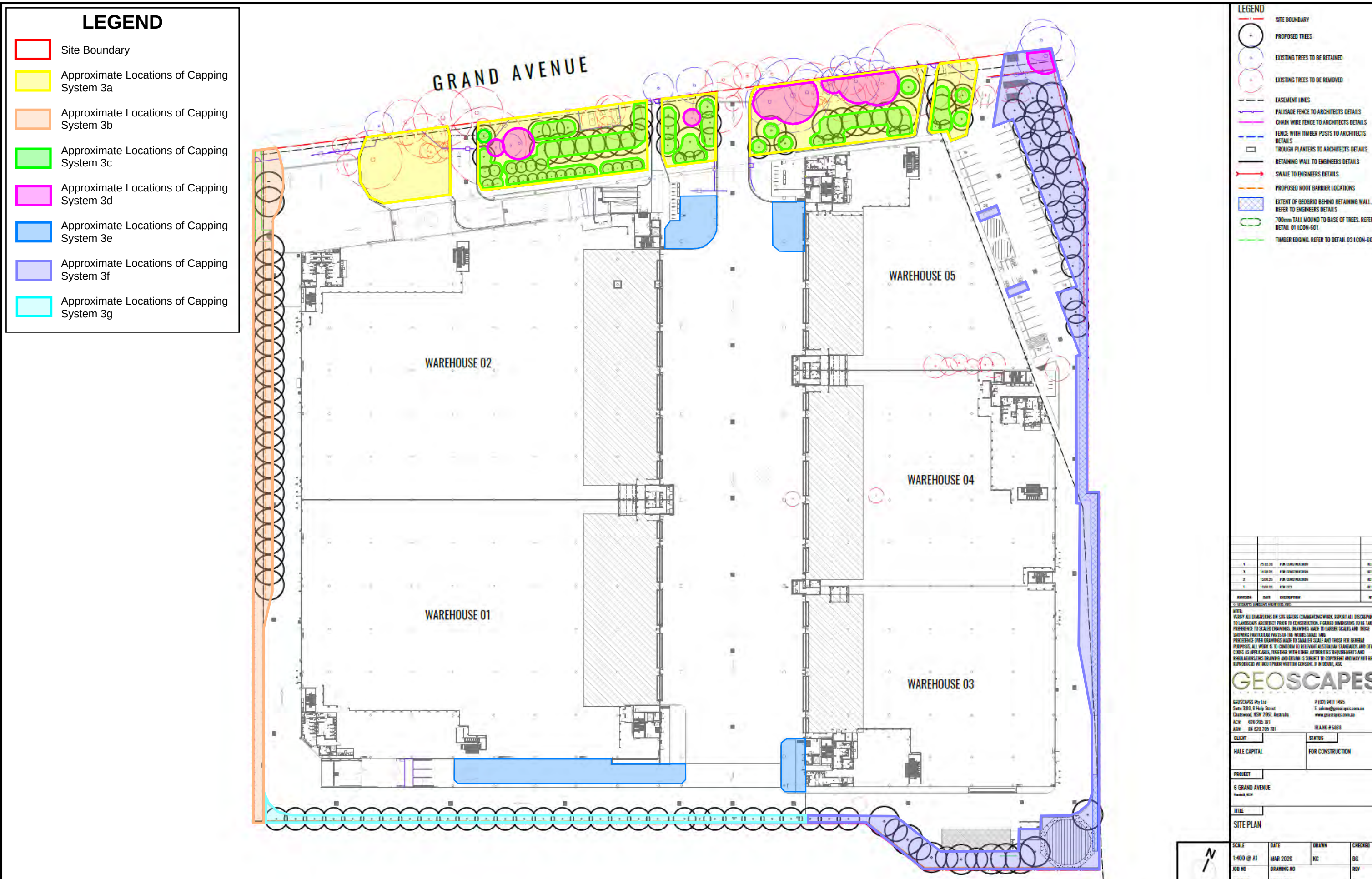
- Site Boundary
- Approximate Locations of Capping System 1
- Approximate Locations of Capping System 2
- Approximate Locations of Capping System 3*
- Approximate Locations of Capping System 4
- Approximate Locations of Capping System 5
- Approximate Locations of Capping System 6

*Capping system 3 is further detailed in Figure 4

Source: Nearmap (maps.au.nearmap.com)



Scale: 		Capping Layer Construction	
Client Name:	Vaughans Construction Pty Ltd		Figure Number: 3
Project Name:	Long-Term Environmental Management Plan		Figure Date: 16 April 2026
Project Location:	6 Grand Avenue, Rosehill NSW		Report Number: 2582-LTEMP-01-020626.v2f





Client Name:	Vaughans Construction Pty Ltd
Project Name:	Long-Term Environmental Management Plan
Project Location:	6 Grand Avenue, Rosehill NSW

Landscaping Design Construction

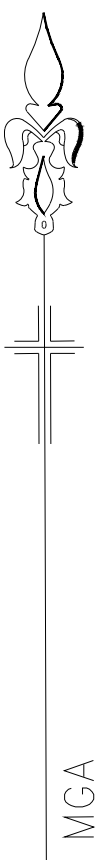


Figure Number:	2
Figure Date:	7 August 2026
Report Number:	2582-LTEMP-01-020626.v2f

APPENDIX A

SURVEYS

Pre-Construction Survey



SKETCH FOR ASBUILT DATA AT:
6 GRAND AVENUE, ROSEHILL

CLIENT: VAUGHAN CONSTRUCTION

LOT1 DP1258587TITLE AREA: 4.239 Ha

LOCAL GOVERNMENT: CITY OF PARRAMATTA

HEIGHT DATUM: SSM59227 RL6.083 (AHD)

REF: 241001 - ASBDATE: 10.10.24 (REV1)

SCALE: 1:500 (A1)SHEET: 1 OF 1

3

SURVEY

SETOUT • ESTABLISH • LOCATE

GRAND AVENUE



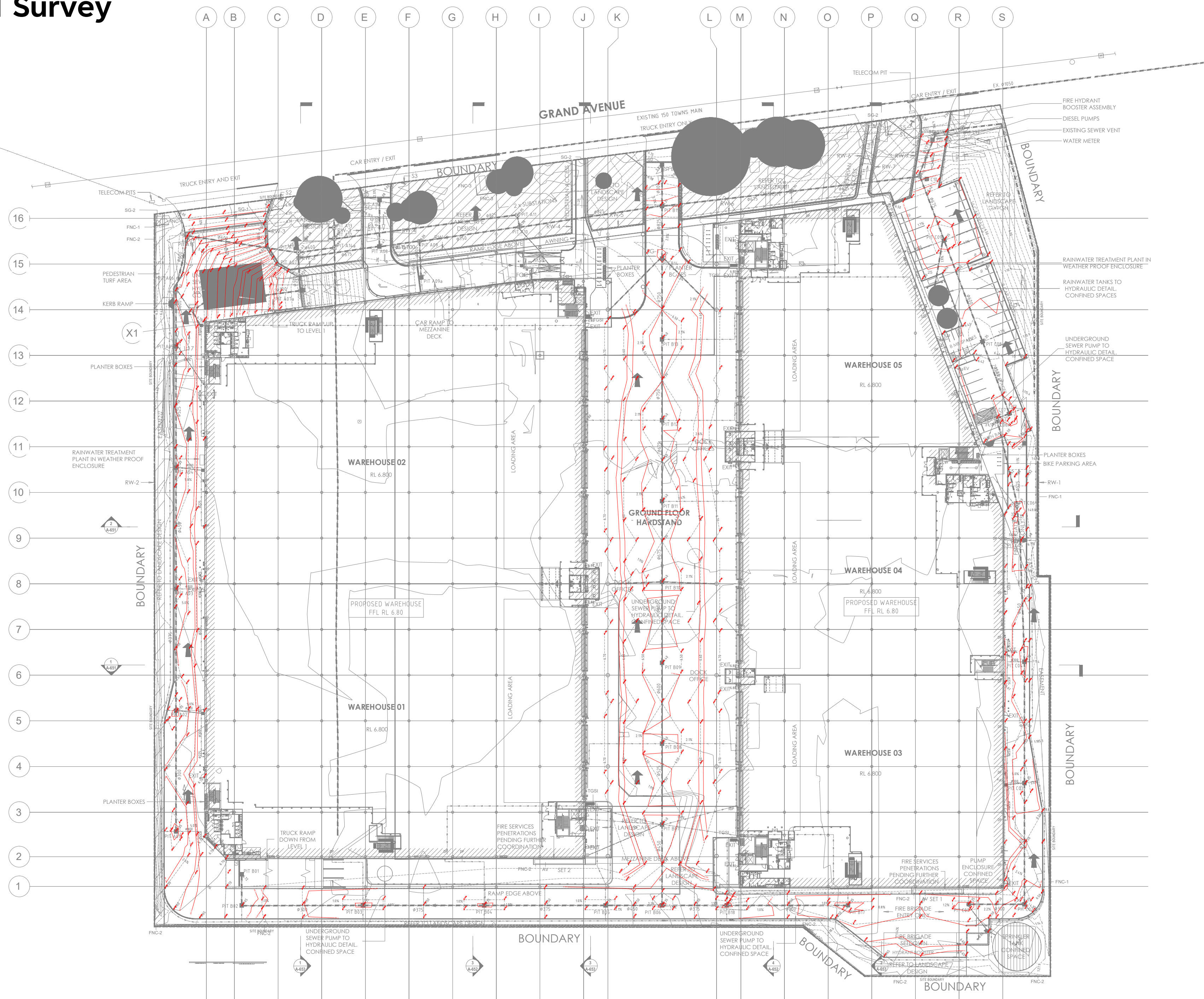
PLANS USED FOR SETOUT:

PLANS USED FOR GRID ESTABLISHMENT:

ARCHITECTURAL SITE SETOUT PLAN
VIA SIMPEL BY PACE ARCHITECTS JOB 24432
DRAWING NO. 24432-A-100 ISSUE C1

- NOTE:
- BOUNDARIES OBTAINED USING PLANS FROM PUBLIC RECORD
 - BOUNDARY BY ARCHITECTURAL PLANS SHOWN IN BLUE. ASSOCIATED EASEMENTS SHOWN IN CYAN.
 - MARKS PLACED ARE TRUE AND ACCURATE AT THE TIME OF SURVEY
 - NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THESE MARKS AFTER ANY SIGNIFICANT WORKS SUCH AS EXCAVATION OR DEMOLITION IS UNDERTAKEN
 - IT IS THE NOTED CLIENTS RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF THESE MARKS AND HOW THEY ARE USED BY SUBCONTRACTORS
 - THIS SURVEY IS FOR SETOUT PURPOSES AND IS NOT TO BE USED FOR ANY OTHER REASONS OTHER THEN THE SPECIFIED DESCRIPTION
 - DENOTES PEG PLACED UNLESS OTHERWISE NOTED
 - DENOTES DIMENSIONS (RED-SETOUT, GREEN-DESIGN BUILDING OUTLINE, GREY-BUILDING DIMENSION, BLUE-BOUNDARY)
 - ANNOTATION DESCRIPTIONS: TMP-TEXTA MARK PLACED, NLP-NAIL PLACED

Final Hardstand Survey



3 SURVEY
SETOUT • ESTABLISH • LOCATE

GROUND FLOOR - REDLINE
6 GRAND AVENUE, ROSEHILL
REF 241001
DATE 29.07.2026

FINISHED SURFACE 'REDLINE' SURVEY

NOTE
ALL FIGURES SHOWN RED
OVERLAID OVER ORIGINAL DESIGN PLANS SHOWN GREY

MARKER LAYER TO FINISHED SURFACE

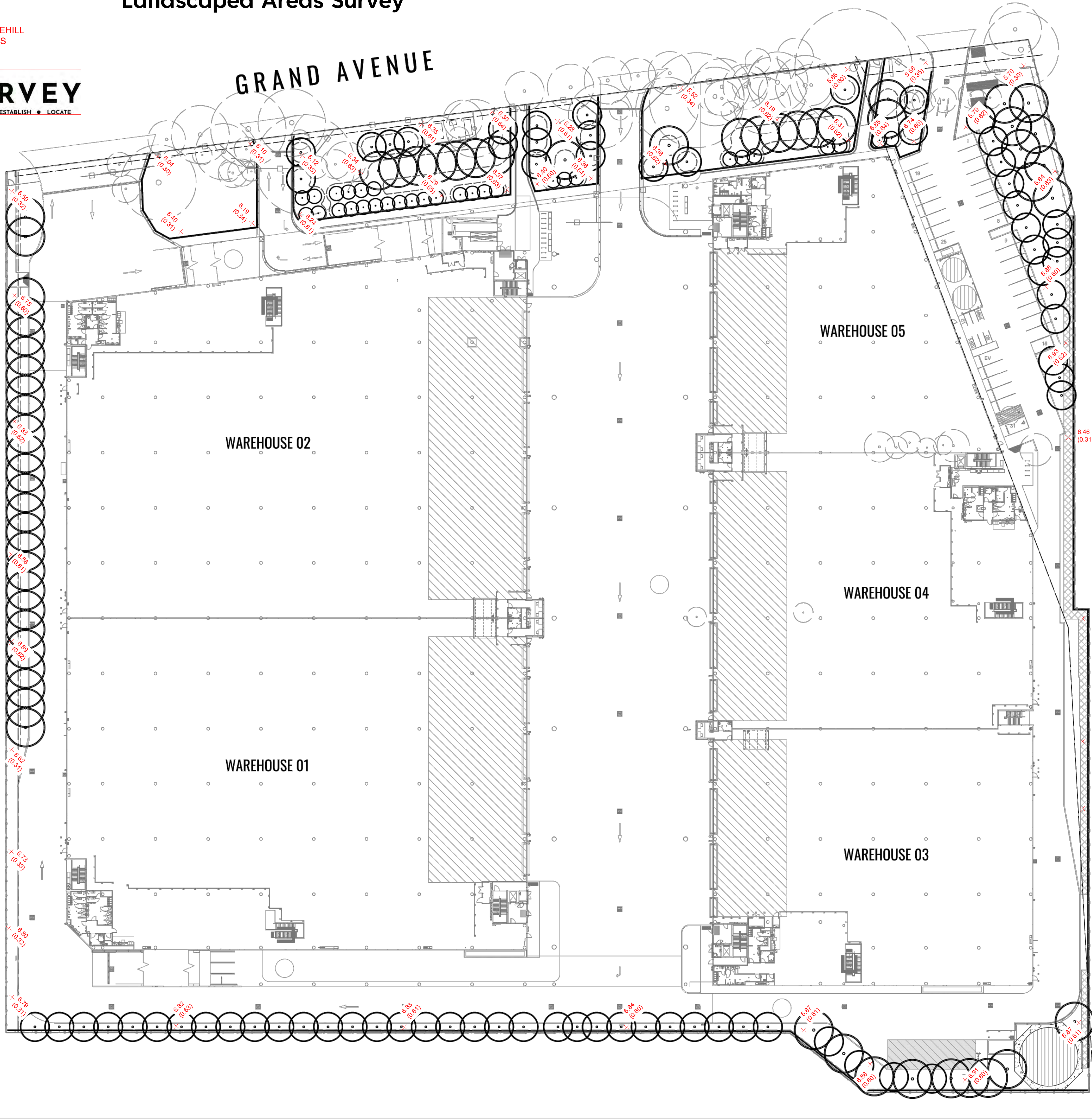
FIGURES SHOWN IN RED

ADDRESS: 6 GRAND AVENUE, ROSEHILL
CLIENT: VAUGHAN CONSTRUCTONS

DATE: 27.7.26
REVISION: 1



Landscaped Areas Survey



LEGEND

- SITE BOUNDARY
- PROPOSED TREES
- EXISTING TREES TO BE RETAINED
- EXISTING TREES TO BE REMOVED
- EASEMENT LINES
- PALISADE FENCE TO ARCHITECTS DETAILS
- CHAIN WIRE FENCE TO ARCHITECTS DETAILS
- FENCE WITH TIMBER POSTS TO ARCHITECTS DETAILS
- TROUGH PLANTERS TO ARCHITECTS DETAILS
- RETAINING WALL TO ENGINEERS DETAILS
- SWALE TO ENGINEERS DETAILS
- PROPOSED ROOT BARRIER LOCATIONS
- EXTENT OF GEOGRID BEHIND RETAINING WALL. REFER TO ENGINEERS DETAILS
- 700mm TALL MOUND TO BASE OF TREES. REFER DETAIL 01 LCON-601
- TIMBER EDGING. REFER TO DETAIL 03 LCON-601

REVISION	DATE	DESCRIPTION	BY
4	25.03.26	FOR CONSTRUCTION	KC
3	14.08.25	FOR CONSTRUCTION	KC
2	13.08.25	FOR CONSTRUCTION	KC
1	12.08.25	FOR GC3	KC

NOTE:
VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK. REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DRAWINGS. DRAWINGS MADE TO LARGER SCALES AND THOSE SHOWING PARTICULAR PARTS OF THE WORKS SHALL TAKE PRECEDENCE OVER DRAWINGS MADE TO SMALLER SCALE AND THOSE FOR GENERAL PURPOSES. ALL WORK IS TO CONFORM TO RELEVANT AUSTRALIAN STANDARDS AND OTHER CODES AS APPLICABLE, TOGETHER WITH OTHER AUTHORITIES' REQUIREMENTS AND REGULATIONS. THIS DRAWING AND DESIGN IS SUBJECT TO COPYRIGHT AND MAY NOT BE REPRODUCED WITHOUT PRIOR WRITTEN CONSENT. IF IN DOUBT, ASK.

GEOSCAPES
LANDSCAPE ARCHITECTS

GEOSCAPES Pty Ltd
Suite 3.03, 8 Help Street
Chatswood, NSW 2067, Australia
ACN: 620 205 781
ABN: 84 620 205 781
P (02) 9411 1485
E. admin@geoscapes.com.au
www.geoscapes.com.au
RLA NO # 5868

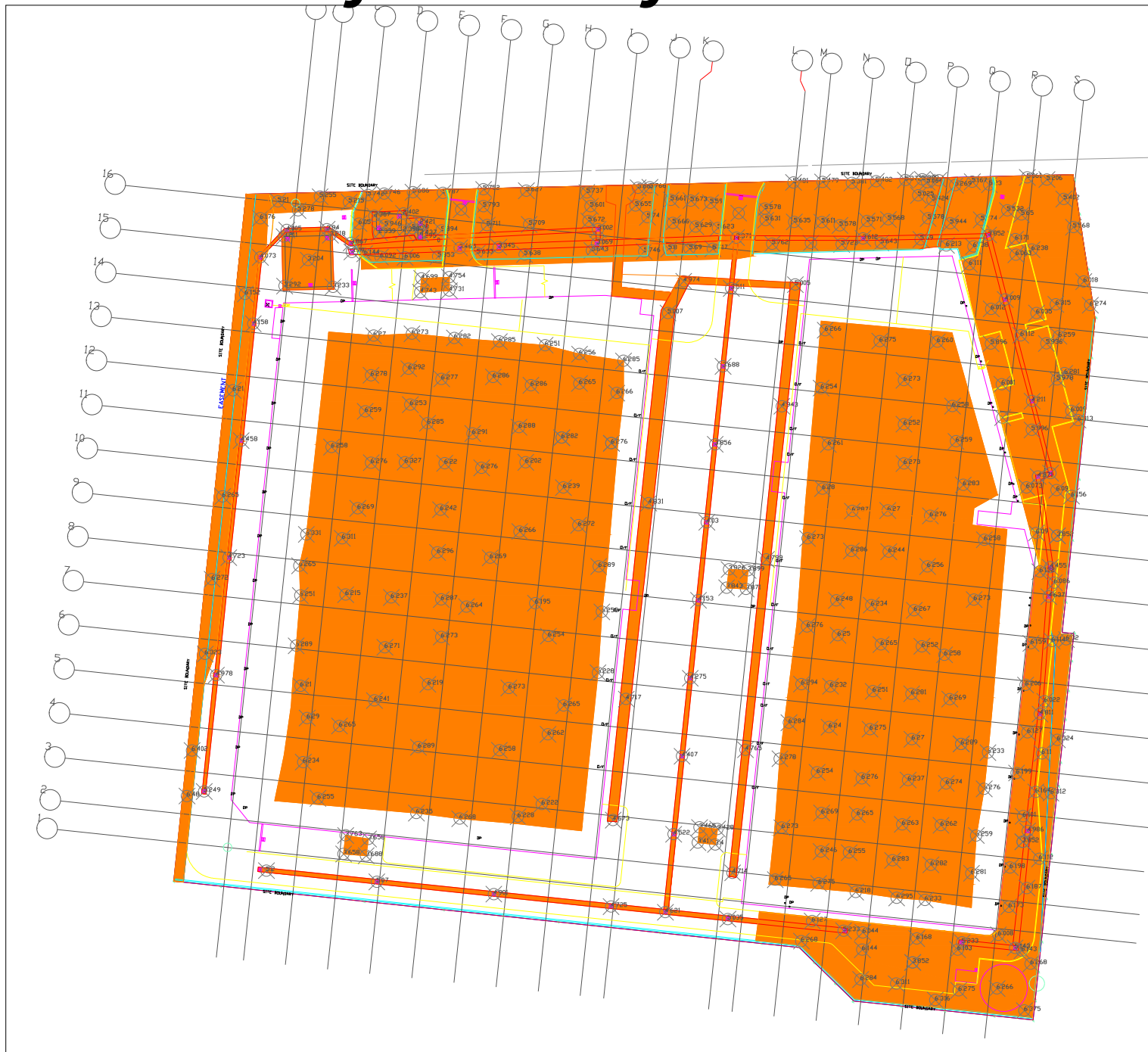
CLIENT	STATUS
HALE CAPITAL	FOR CONSTRUCTION

PROJECT
6 GRAND AVENUE
Rosehill, NSW

TITLE
SITE PLAN

SCALE	DATE	DRAWN	CHECKED
1:400 @ A1	MAR 2026	KC	BG
JOB NO	DRAWING NO	REV	
240528	LCON-001		4

Marker Layer Survey



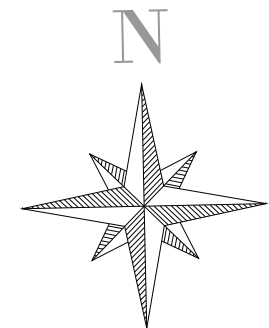
Organization Name



LEGEND

XXXX MARKER LAYER LEVELS

KEY MAP



SCALE

NTS

PLOT DATE

19/07/2026

FILE NAME

ROSEHILL SURVEY

SHEET NUMBER

1

APPENDIX B

CAPPING INSPECTION RECORD FORM

Capping Inspection Record

6 Grand Avenue, Rosehill NSW	
Is there any evidence of damage to the capping?	
If yes, describe the location and depth of the damage of the capping.	
Have photographs of damage of the capping been collected?	
Is there any disturbance / erosion of soil in the capping area?	
If yes, describe the location and depth of the disturbance.	
Have photographs of the disturbance in the capping area been collected?	
Are there any areas of exposed marker layer?	
If yes, have the steps in Table 4.4.1 of the LTEMP (EGA 2026) been implemented?	
Have photographs of the exposed areas been collected?	

Person Completing Inspection: _____

Date Submitted to Site Owner: _____

APPENDIX C

INCIDENT REPORTING FORM

Environmental Incident Report Form

6 Grand Avenue, Rosehill NSW	
Date:	
Time:	
Reported by:	
Persons involved or in the vicinity:	
Type of Incident:	
Severity of Incident:	
Description & Cause of Incident:	
Remedial Actions Required:	

Approved By: _____

Date Submitted to Site Owner: _____

APPENDIX D

INDUCTION RECORD

Induction Record

[illegible]

APPENDIX E

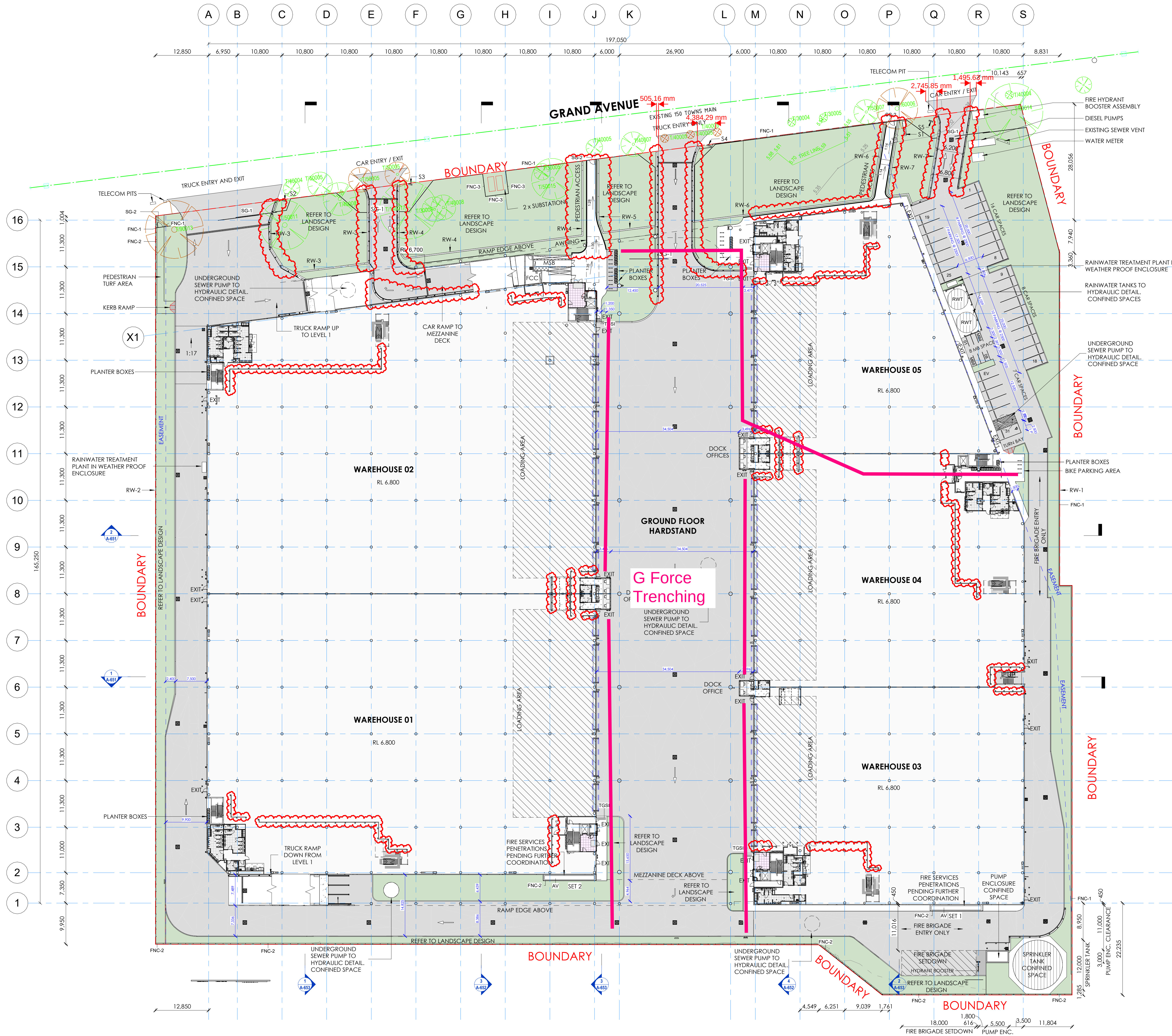
MATERIAL TRACKING SHEET

6 Grand Avenue, Rosehill NSW

[illegible]

APPENDIX F

SERVICE FIGURES



1 SITE PLAN
1 : 400 A-251

LEGEND

- RAISED PLANTING PLANTER BOXES
- PROPOSED ON GRADE GRAVEL AREA
- SOFT LANDSCAPING TO LANDSCAPE ARCHITECT'S DETAILS
- SOFT LANDSCAPING EXTERNAL TO SITE
- BUILDING - REFER TO FLOOR PLANS
- KEEP CLEAR
- HARDSTAND CONCRETE
- FNC - # FENCING
- S# SIGNAGE REFER TO SIGNAGE SCHEDULE
- SG# SLIDING GATE
- BOUNDARY LINE

GENERAL LEGEND	
AV	ALARM VALVE SET
FNC-1	BLACK POWDER COATED "PALISADE STYLE PRESSED METAL FENCE WITH SPEAR TOP @ 1800mm"
FNC-2	BLACK CHAINWIRE MESH FENCING WITH AN OVERALL HEIGHT OF 2100MM, INCLUDING THREE ROWS OF BARBED WIRE."
FNC-3	FENCE WITH TIMBER POSTS AT SUBSTATION AREA
SG-1	SLIDING GATE 1 TO MATCH "DIPLOMAT STYLE PRESSED METAL FENCE BLACK POWDER COATED FINISH OR EQUAL APPROVED"
SG-2	SWING GATE TO MATCH "DIPLOMAT STYLE PRESSED METAL FENCE - GATE DOOR OPENABLE FROM THE INSIDE OF THE PROPERTY AT ALL TIMES - GATES TO BE PROVIDED WITH 003 KEYS OR TO UNLOCK AUTOMATICALLY UPON GENERAL FIRE ALARM"
TGSI	TACTILE INDICATORS WARNING TGSI STAINLESS CLASSIC

LANDSCAPE SCHEDULE - GF	
SITE AREA	42387 m ²
LANDSCAPE - GF	5967 m ²
LANDSCAPE PERCENTAGE	14.11 %

FACEARCHITECTS		
	A.B.N. 72 159 246 530 space@pacearchitects.com.au P: 02 9452 1400 M: 0404 450 517 W: www.pacearchitects.com.au Level 1, Suite 5-6, Alexander Street, Crows Nest, NSW 2065	
REV	DESCRIPTION	DATE
P8	ISSUED FOR COORDINATION	22.01.25
C3	ISSUED FOR CC2	21.02.25
C4	REISSUED FOR CC2	25.02.25
C5	MSB ROOM UPDATE	03.03.25
C6	REISSUED FOR CC2	05.03.25
C7	GENERAL UPDATES	07.05.25
C8	ISSUED FOR CC3	22.07.25
C9	UPDATED FOR CC3	30.07.25
C10	PEDESTRIAN PATH UPDATE	01.09.25
C11	DRIVEWAY AMENDMENTS	12.09.25
C12	FENCING AMENDMENTS	16.09.25
C13	SITE PLAN UPDATED	21.11.25
C14	PARKING UPDATE	19.01.26
C15	METALWORKS, ELECTRICAL CUPBOARDS, DIMENSIONS & DOOR SCHEDULE UPDATES	22.01.26

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NOTE: THE LOCATION OF PROPERTY ALIGNMENTS IS DETERMINED FROM SURVEY INFORMATION PROVIDED BY SURVEYOR.

FOR CONSTRUCTION

CLIENT

Hale

BUILDER / PROJECT MANAGER

VAUGHAN
CONSTRUCTIONS

ARCHITECT

PACE
ARCHITECTS

PROJECT

MULTI-LEVEL WAREHOUSES

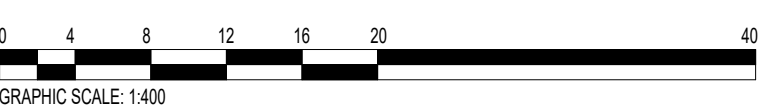
ADDRESS

6 GRAND AVENUE,
ROSEHILL NSW 2142

DRAWING TITLE

SITE PLAN

PURPOSE FOR CONSTRUCTION



SCALE As indicated B1

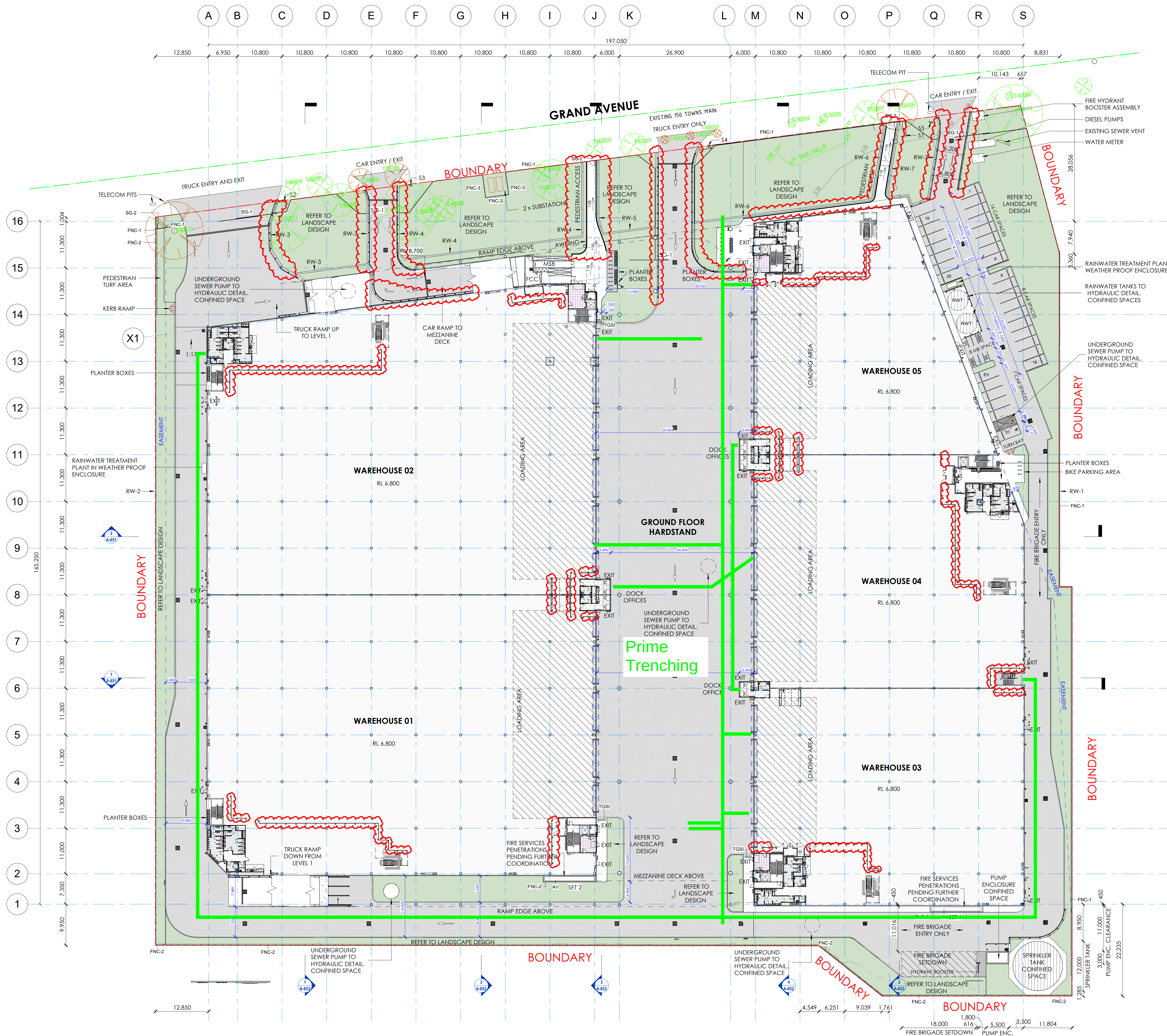
PROJECT NO 24432

DATE 22.01.26

DWN DWG NO SP 24432 - A-100

ISSUE

C15



1 SITE PLAN
1 : 400 A-251

LEGEND

- RAISED PLANTING PLANTER BOXES
- PROPOSED ON GRADE GRAVEL AREA
- SOFT LANDSCAPING TO LANDSCAPE ARCHITECT'S DETAILS
- SOFT LANDSCAPING EXTERNAL TO SITE
- BUILDING - REFER TO FLOOR PLANS
- KEEP CLEAR
- HARDSTAND CONCRETE
- FNC - # FENCING
- S# SIGNAGE REFER TO SIGNAGE SCHEDULE
- SG# SLIDING GATE
- BOUNDARY LINE

GENERAL LEGEND	
AV	ALARM VALVE SET
FNC-1	BLACK POWDER COATED "PALISADE STYLE PRESSED METAL FENCE WITH SPEAR TOP @ 1800mm"
FNC-2	BLACK CHAINWIRE MESH FENCING WITH AN OVERALL HEIGHT OF 2100MM, INCLUDING THREE ROWS OF BARBED WIRE."
FNC-3	FENCE WITH TIMBER POSTS AT SUBSTATION AREA
SG-1	SLIDING GATE 1 TO MATCH "DIPLOMAT STYLE PRESSED METAL FENCE BLACK POWDER COATED FINISH OR EQUAL APPROVED"
SG-2	SWING GATE TO MATCH "DIPLOMAT STYLE PRESSED METAL FENCE - GATE DOOR OPENABLE FROM THE INSIDE OF THE PROPERTY AT ALL TIMES - GATES TO BE PROVIDED WITH 003 KEYS OR TO UNLOCK AUTOMATICALLY UPON GENERAL FIRE ALARM"
TGSI	TACTILE INDICATORS WARNING TGSI STAINLESS CLASSIC

LANDSCAPE SCHEDULE - GF	
SITE AREA	42387 m ²
LANDSCAPE - GF	5967 m ²
LANDSCAPE PERCENTAGE	14.11 %

FACEARCHITECTS		A.B.N. 72 159 246 530 space@pacearchitects.com.au P: 02 9452 1400 M: 0404 450 517 W: www.pacearchitects.com.au A: Level 1, Suite 5-6, Alexander Street, Crows Nest, NSW 2065
REV	DESCRIPTION	DATE
P8	ISSUED FOR COORDINATION	22.01.25
C3	ISSUED FOR CC2	21.02.25
C4	REISSUED FOR CC2	25.02.25
C5	MSB ROOM UPDATE	03.03.25
C6	REISSUED FOR CC2	05.03.25
C7	GENERAL UPDATES	07.05.25
C8	ISSUED FOR CC3	22.07.25
C9	UPDATED FOR CC3	30.07.25
C10	PEDESTRIAN PATH UPDATE	01.09.25
C11	DRIVEWAY AMENDMENTS	12.09.25
C12	FENCING AMENDMENTS	16.09.25
C13	SITE PLAN UPDATED	21.11.25
C14	PARKING UPDATE	19.01.26
C15	METALWORKS, ELECTRICAL CUPBOARDS, DIMENSIONS & DOOR SCHEDULE UPDATES	22.01.26

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NOTE: THE LOCATION OF PROPERTY ALIGNMENTS IS DETERMINED FROM SURVEY INFORMATION PROVIDED BY SURVEYOR.

FOR CONSTRUCTION

CLIENT

Hale

BUILDER / PROJECT MANAGER

VAUGHAN CONSTRUCTIONS

ARCHITECT

PACE ARCHITECTS

PROJECT

MULTI-LEVEL WAREHOUSES

ADDRESS

6 GRAND AVENUE, ROSEHILL NSW 2142

DRAWING TITLE

SITE PLAN

PURPOSE

FOR CONSTRUCTION

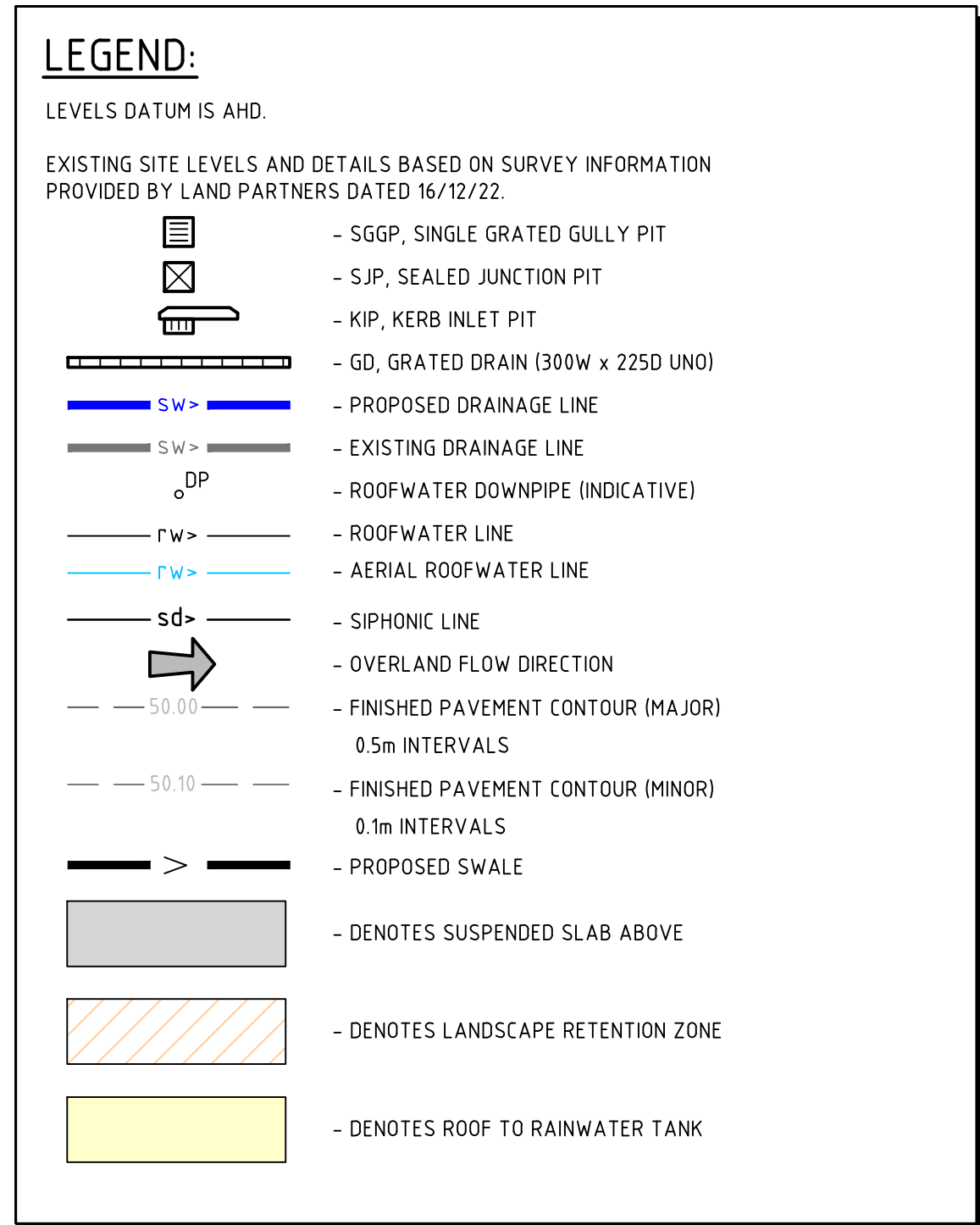
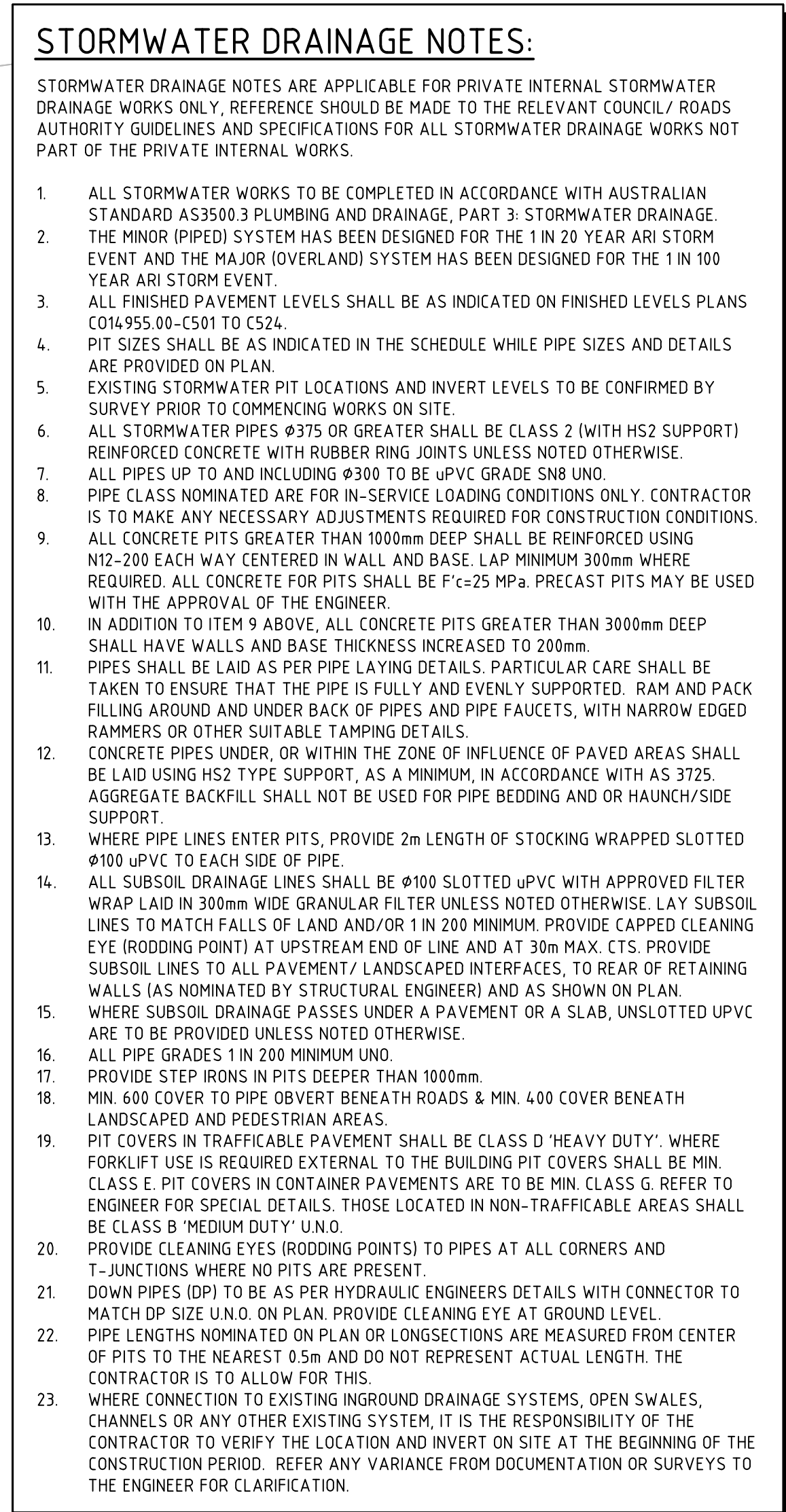
SCALE As indicated **B1**

PROJECT NO **24432**

DATE **22.01.26**

DWN DWG NO **24432 - A-100**

ISSUE **C15**



NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT OCEANGUARD OG200
PIT INSERTS SHOWN THUS  49
TOTAL NUMBER OF PIT INSERTS = 49

5m 0 10 20 30 40 50m
SCALE 1:500 AT A1 SIZE SHEET

REVISED AS CLOUDED	25.11.25	6	ARCHITECT  ARCHITECTS	CLIENT  VAUGHAN CONSTRUCTIONS	PROJECT PROPOSED DEVELOPMENT 6 GRAND AVE ROSEHILL, NSW, 2142	 CONSULT AUSTRALIA	Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 t: +61 2 9241 3731 e: mail@costinroe.com.au w: costinroe.com.au	 CIVIL & STRUCTURAL ENGINEERS	DRAWING TITLE	STORMWATER DRAINAGE KEY PLAN
REVISED AS CLOUDED	14.11.25	5								
REVISED AS CLOUDED	12.11.24	4								
ISSUED FOR CONSTRUCTION	30.10.25	3								
ISSUED FOR CONSTRUCTION	11.02.25	2								
ISSUED FOR CONSTRUCTION	16.12.24	1								
AMENDMENTS	DATE	ISSUE							DRAWING No	C014.955.01-C 400