CUMBERLAND
CITY COUNCIL

Ref: HBC2024/0229

26 September 2024

Cing Developments Pty Ltd
1/5 Kiora Crescent
YENNORA NSW 2161

Dear Sir/ Madam,

Building Information Certificate No: HBC2024/0229
Premises: 5 Kiora Crescent YENNORA NSW 2161

Reference is made to your Building Information Certificate Application lodged with Council on 18 July 2024. I wish to advise that your application has been approved.

Please find enclosed Building Information Certificate HBC2024/0229.

Should you have any further enquiries in this regard, please contact Desmond Raju during normal office hours, Monday to Friday on 8757 9129.

Yours sincerely,

Desmond Raju
Senior Building Surveyor

BUILDING INFORMATION CERTIFICATE APPROVAL

Under the *Environmental Planning and Assessment Act, 1979* (Division 6.7)

Building Information Certificate Application No: HBC2024/0229

Applicant: Cing Developments Pty Ltd
1/5 Kiora Crescent
YENNORA NSW 2161

Owners: Kiora One Pty Ltd

Property Description: 5 Kiora Crescent YENNORA NSW 2161
Lot 10 DP 1233715

BCA Classification: Class 5 & 8

Determination
Cumberland Council determines that, in relation to the building or part of the building identified below:

(a) There is no matter discernible by the exercise of reasonable care and skill that would entitle the Council, under the *Environmental Planning and Assessment Act, 1979* or the *Local Government Act 1993*:
  (i) to order the building to be demolished, altered, added to or rebuilt,
  (ii) to take proceedings for an order or injunction requiring the building to be demolished, altered, added to or rebuilt, or
  (iii) to take proceedings in relation to any encroachment by the building onto land vested in or under the control of the Council.

(b) There is such a matter but, in the circumstances, the Council does not propose to make any such order to take such proceedings.

Date of Determination: 26 September 2024

Particulars: Unauthorised works (16 Items) as listed in the description below associated with the construction of three (3) industrial units and a weighbridge.

works

Whole/Part of Building: Part

Description of Part:

BCA compliance assessment Report prepared by Mauricio Vera Building Surveyor Registration BDC 2854 from NCC Crown Consulting, Ref. No: NEW240918, Revision R3 dated 25/09/2024 identified the following “as Built” works for the purposes of the Building Information Certificate Application:

Unit 1, Ground Floor

1. Both transition ramps removed between units 1 and 2.
2. “As built” passenger lift in Unit 1 which connects 2 storeys with accessible features.
3. “As built” mechanical cupboard.
4. “As built” additional door (D71).
5. “As built” kitchenette in the meeting room.
6. “As built” wall in
7. “As built” sliding doors replaced with hinged doors (D06 and D07)
8. “As built “stairs leading to the above mezzanine.
9. Hinge door (D12) has been removed.

Unit 1 – Mezzanine

10. Bathrooms has been removed.
11. Walls removal and “As built” of walls.
12. “As built” kitchenette.

Unit 2 – Ground Floor

13. Transition ramp removed.

Unit 3 – Ground Floor

14. “As built” additional door (D50).
15. “As built” wider door landing.
16. “As built” ramp.

Date of Inspection of Building: 24/09/2024

Relevant plans and specification used in the determination

The following survey, plans and specification were used in the determination of this application:

Plan Number	**Prepared By**	**Rev. No.**	**Dated**
Identification Survey Report Ref; 118097	Paul William Wild from New South Surveys P/L		16/10/2023
Development Consent D2019/457/1	Cumberland Council		31/05/2020
Modification MOD2024/0063	Cumberland Council		15/07/2024
Written Direction Notice	Prepared by Joseph Hallal Registration No. BDC 0159		22/03/2023
Part Occupation Certificate	Prepared by Joseph Hallal Registration No. BDC 0159		03/05/2024
Private Certifiers Statement	Regarding the unauthorised work as part of the Written Direction Notice, Section 4.55 application and the application for the Building Information Certificate.		29/09/2024
BCA Compliance Report	Mauricio Vera Building Surveyor Registration BDC 2854 from NCC Crown Consulting, Ref. No: NEW240918		19/09/2024
New BCA Compliance Report	Mauricio Vera Building Surveyor Registration BDC 2854 from NCC Crown Consulting, Ref. No: NEW240918-r2	Revision 2	25/09/2024
New BCA Compliance Report	Mauricio Vera Building Surveyor Registration BDC 2854 from NCC Crown Consulting, Ref. No: NEW240918-r3, including statement of compliance	Revision 3	25/09/2024

Note:

1. This certificate does not include any portion of the structure that fails to comply with Development consent D2019/457/1 issued by Cumberland Council dated 31/05/2020 and MOD2024/0063 issued dated 15/07/2024.

2. This certificate excludes any portion of the structure that fails to comply with National Construction Code.

3. A Construction Certificate is required for any future building works onsite benefitting this Development Consent.

4. An Occupation Certificate is required for the occupation and use of the premises subject to this Development Consent.

Right of Appeal
Under section 8.25 an applicant may appeal to the Land and Environment Court against the refusal to issue a building information certificate within 6 months from the date of the decision or is aggrieved by Council's refusal to issue a building information certificate within 40 days.

Signature

Desmond Raju
Senior Building Surveyor

Date: 26 September 2024

Notes
This Building Information Certificate operates to prevent the Council:

(a) from making an order (or take proceedings for the making of an order or injunction) under the *Environmental Planning and Assessment Act 1979* or the *Local Government Act 1993* requiring the building to be repaired, demolished, altered, added to or rebuilt, and
(b) from taking proceedings in relation to any encroachment by the building onto land vested in or under the control of the council, in relation to matters existing or occurring before the date of issue of this Certificate.

This Building Information Certificate operates to prevent the council, for a period of seven (7) years from the date of issue of this Certificate:

(a) from making an order (or taking proceedings for the making of an order or injunction) under the *Environmental Planning and Assessment Act* 1979 or the *Local Government Act 1993* requiring the building to be repaired, demolished, altered, added to or rebuilt, and
(b) from taking proceedings in relation to any encroachment by the building onto land vested in or under the control of the council, in relation to matters arising only from the deterioration of the building as a result solely of fair wear and tear.

However, this Building Information Certificate does not operate to prevent the Council:

(a) from making Order No. 1 in Schedule 5, Part 2 – Fire Safety Orders as defined in the *Environmental Planning and Assessment Act 1979*, or
(b) a building product rectification order (within the meaning of the Building Products (Safety) Act 2017.

ABN: 59 161 675 663

325 Old Northern Road,
Castle Hill NSW 2154
(p): 9639 8808
(e): info@phoenixbuildingapprovals.com.au

Our reference: 200298

03 May 2024

The General Manager
Cumberland Council
PO Box 42
Merrylands NSW 2160

Dear Sir/Madam,

Re:	5 Kiora Crescent, Yennora NSW 2161
Part Occupation Certificate No.	200298
Development Application No.:	DA2019/457/1

Joseph Hallal, Registered Certifier has issued a **Part Occupation Certificate** for the above-mentioned project under Sections 6.9, 6.10 of the Environmental Planning and Assessment Act 1979.

Please find enclosed the following documentation:

- Part Occupancy Certificate No. 200298
- Documentation used to determine the Occupancy Certificate

Should you need to discuss any issues, please do not hesitate to contact the Registered Certifier, Joseph Hallal, on the above numbers.

Yours sincerely,

Joseph Hallal
Principal Certifying Authority/BDC 0159 (NSW Department of Fair Trading)
Phoenix Building Approvals Pty Ltd

ABN: 59 161 675 663

325 Old Northern Road,
Castle Hill NSW 2154
(p): 9639 8808
(e): info@phoenixbuildingapprovals.com.au

Our reference: 200298

03 May 2024

Kiora One Pty Ltd (Edward Hawach)
5 Kiora Crescent
Yennora NSW 2161

Dear Sir/Madam,

Re: 5 Kiora Crescent, Yennora NSW 2161

Part Occupation Certificate No.: 200298

In accordance with Sections 6.9, 6.10 of the Environmental Planning and Assessment Act 1979, we enclose a **Part Occupation Certificate** relating to the construction of the above project.

As required under the legislation copies of the same have been forwarded to Cumberland Council for their records and the Final Fire Safety Certificate, where appropriate, issued to NSW Fire Brigades. Please note that annual certification of the fire safety measures is a statutory responsibility of the building owner. Phoenix Building Approvals Pty Ltd would be pleased to offer our assistance.

We would like to take this opportunity to thank you for using our services. Should you need to discuss any issues, please do not hesitate to contact the Registered Certifier, Joseph Hallal on the above numbers.

Yours sincerely,

Joseph Hallal
Principal Certifying Authority/BDC 0159 (NSW Department of Fair Trading)
Phoenix Building Approvals Pty Ltd

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ABN: 59 161 675 663

OCCUPATION CERTIFICATE - 200298 - PART - (COMMERCIAL)

Issued under Part 6 of the Environmental Planning and Assessment Act 1979 (Occupation/Use of a New Building)

APPLICANT DETAILS

Applicant:	Kiora One Pty Ltd (Edward Hawach)
Address:	5 Kiora Crescent, Yennora NSW 2161
Phone:	0418 814 774
Email:	build@y7mail.com

OWNER DETAILS

Name of the person having benefit of the development consent:	Kiora One Pty Ltd (Melissa Hawach)
Address:	1, 5 Kiora Crescent, Yennora NSW 2161
Phone:	0418 814 774
Email:	build@y7mail.com

RELEVANT CONSENTS

Consent Authority / Local Government Area:	Cumberland Council
Development Consent Number:	DA2019/457/1
Date Issued:	25/03/2021
Construction Certificate Number:	200298/01, 200298/02

PROPOSAL

Address of Development:	5 Kiora Crescent, Yennora NSW 2161
Lot/DP:	10/1233715
Type of Occupation Certificate:	Part
Building Classification:	8
BCA/NCC Version:	NCC 2019
Scope of Building Works Covered by this Notice:	Construction of three (3) industrial units and a weighbridge including associated site works and landscaping. Stage 1 CC - Approval of excavation, footings and ground floor slab only. Stage 2 - Construction of three (3) industrial units and a weighbridge including associated site works and landscaping.
Attachments:	Schedule 1
Fire Safety Schedule:	Schedule 2
Exclusions:	**The Part OC will exclude DA conditions:** **1.Copy of registered 88E at land titles office as per DA condition 35** **2. Copy of the registered positive covenant, 88 b at land titles office as per DA condition 120** **3. Changes to Units 1, 2 as per the WDN issued which will be subject to a S4.55 application to Council and BIC application.**

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PRINCIPAL CERTIFIER

Certifying Authority:	Joseph Hallal
Accreditation Body:	BDC (NSW Department of Fair Trading) 0159

DETERMINATION

Approval Date:	03/05/2024

I, Joseph Hallal,as the certifying authority, certify that:

- *I have been appointed as the Principal Certifier under s6.5;*
- *The health and safety of the occupants of the building have been considered;*
- *A current Development Consent or Complying Development Certificate is in force with respect to the building;*
- *A Construction Certificate has been issued with respect to the plans and specifications for the building;*
- *The building is suitable for occupation or use in accordance with its Classification under the Building Code of Australia;*
- *Where required, a final Fire Safety Certificate has been issued for the building;*
- *Where required, a report from the Commissioner of Fire Brigades has been considered.*

Joseph Hallal

N.B. Right of Appeal: Under s6.5, where the Certifying Authority is Council, an applicant may appeal to the Land & Environment Court against the refusal to issue an Occupation Certificate within 12 months from the date of the decision.

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SCHEDULE 1: DOCUMENTATION REQUIRED TO ISSUE OCCUPATION CERTIFICATE 200298

Prepared by	Document Name	Reference	Date
Phoenix building approvals Pty Ltd	Part Occupation Certification Application Form	200298	12/12/2023
SGC Engineering Value	OSD and WSUD Sketch Plan	2019.0032	10/04/2024
Ocean Protect	Compliance Certificate	16408 - 5 Kiora Cr, Yennora	15/09/2023
SGC Engineering Value	WAE Forms	N/A	08/04/2024
New South Surveys	Ident Report & Sketch	118097	16/10/2023
Lawrance Crestani	Fire Safety Certificate	N/A	21/03/2024
Lawrance Crestani	Compliance Certificate Issued In Accordance With NCC 2019	N/A	19/03/2024
5 Star Extinguisher Services	Certification Of Installation (Portable Fire Extinguisher Installation)	N/A	14/03/2024
5 Star Extinguisher Services	Fire Safety Schedule	3728	14/03/2024
5 Star Extinguisher Services	Site Photo Report	N/A	14/03/2024
Angelo Hatgiantounio	Electrical Fire Wrap Compliance Certificate	N/A	20/03/2024
Holland Fire Doors & Windows P/L	Fire Door Checklist (Unit 3 NE corner)	N/A	18/03/2024
Holland Fire Doors & Windows P/L	Fire Door Checklist (Unit 1 NW corner)	N/A	18/03/2024
Anthony Khalil	Fire Hose Reel System Compliance Certificate	N/A	21/03/2024
Anthony Khalil	Fire Hydrant System Compliance Certificate	N/A	21/03/2024
Vista Access Architects Pty Ltd	Disability Access Statement of Compliance	20310-C1	14/02/2024
Hung Tien Vo	Waterproofing & Internal Wet Areas Certificate	N/A	26/04/2024
Per Alpha Engineering & Development p/l	Final Structural Certificate	N/A	05/12/2023
Per Alpha Engineering & Development p/l	Final Structural Certificate	N/A	20/12/2023
Angelo Hatgiantounio	Lighting, Electrical Installation, Emergency Lighting & Exit Signage, Detection & Alarm System, Sound System for Emergency Purposes Certificate	N/A	12/11/2023
Angelo Hatgiantounio	Exit Signs Installation Compliance Certificate	N/A	16/01/2024
Angelo Hatgiantounio	Lighting, Electrical Installation, Emergency Lighting & Exit Signage, for Emergency Purposes Certificate	N/A	19/12/2023
Angelo Hatgiantounio	Artificial Lighting, Electrical Installation, Emergency Lighting & Exit Signage Certificate	N/A	19/12/2023
Angelo Hatgiantounio	Artificial Lighting, External Lighting, Lighting, Electrical Installation, Emergency Lighting &Exit Signage, for Emergency Purposes Certificate	N/A	19/12/2023
Anthony Khalil	Plumbing & Stormwater Certificate	N/A	01/12/2023
Anthony Khalil	Stormwater Certificate	N/A	01/12/2023

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S&G Consultants Pty Ltd	Stormwater Drainage Maintenance Manual	20190032-R03_Maintenance Schedule [01].docx	10/04/2024
S&G Consultants Pty Ltd	Certificate Of Inspection	20190032-L10_inspection certificate_stw.docx	12/01/2024
Sydney Water	Subdivider/Developer Compliance Certificate	881021085	01/02/2021
Christopher Conte	Mechanical Air Handling Systems Compliance Certificate	N/A	08/01/2024
Lawrance Crestani	Mechanical Ventilation Certificate	N/A	18/12/2023
Lawrance Crestani	Mechanical Ventilation Compliance Certificate	N/A	11/10/2023
Brad Poter	Glazing & Windows Certificate	N/A	20/12/2023
Brad Poter	Internal Glazing & Windows & External Door Glazing Certificate	N/A	20/12/2023
N/A	Smoke & Fire Hazard Properties Specifications Certificate, for timber, vinyl, carpet, floor and wall materials	N/A	N/A
Ecoplus Consultants P/L	Section J Compliance Certificate	CC # 200298/02	23/03/2024
Safe Environments Pty Ltd	Slip Check to AS 4586-2013 Parksilt Tiles	R20342b.1	13/02/2020
Aussie Lifts	Lift Compliance Certificate	N/A	26/04/2024
Sika Australia Pty Limited	Product Data Sheet Sikalastic® WPU	N/A	April 2023
Cumberland City Council	Certificate of Compliance – Vehicular Crossing and Road Works	EC2024/0206	02/04/2024
NWI Group	Weighbridge System Certificate	N/A	N/A
Lawrance Crestani	Disable Access & Facilities Certificate	N/A	26/04/2024
Morrow Geotechnics Pty Ltd	Geotechnical Investigation	P2790_01	24/01/2023
ML Traffic Engineers	Carpark And Driveway Certification Of An Industrial Development	A244029N	March 2024
Greenland Design Pty Ltd	Landscape Compliance Certificate	N/A	07/03/2024
CPM Engineering	Maintenance Schedule for Stormwater, On Site Detention And Drainage	N/A	N/A
Endeavour Energy	Connection Offer – Basic Connection Service	UIL6138	12/07/2023
Vertical Tree Management & Consultancy	Tree Protection Certification	N/A	26/03/2024
Australian Government National Measurement Institute	National Trade Measurement	N/A	12/10/2023
Joseph Hallal	Fire Safety Schedule		20/01/2024

Fire Safety Schedule

Part 10 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

Please note:

- **A fire safety schedule must deal with the whole of the building not just part of the building.**
- **Please complete all sections in full using CAPITAL LETTERS.**
- **Information to assist to complete each section is provided at the end of this document.**

Section 1: Location of the building

Address (Street No., Street Name, Suburb and Postcode)

5 Kiora Crescent, Yennora

Lot No. (if known)	CP/DP/SP No. (if known)	Building name (if applicable)
LOT	PLAN TYPE & NUMBER	BUILDING NAME

Section 2: Reissue of Fire Safety Schedule (Section 80A of the Regulation)

☒ Not applicable – Fire Safety Schedule is not being re-issued.
☐ Reissued Fire Safety Schedule (please state reason below)

Reason for Reissue of Schedule
☐Original Schedule Lost or Destroyed ☐ Correction of errors or omissions.

Section 3: Reference Details (Section 78 of the Regulation)

Reference Type	Reference Number (if known)
CHOOSE AN ITEM	

Section 4: Fire Safety Measures for the building – excluding Critical Fire Safety Measures (Section 79 of the Regulation)

Item No.	Fire safety measure	Minimum standard of performance
		Current (Existing)
	ADD/DELETE ROWS AS NECESSARY	

		Proposed (New or Modified including section 84(6) of the Regulation)
1	Emergency lighting	BCA E4.2, E4.4 AS 2293.1 –2018
2	Exit Signs	BCA E4.5, E4.6, E4.8 AS 2293.1 – 2018
3	Fire doors	BCA C3.8, C3.10, C3.11, AS1905.1-2015
4	Fire hydrant systems	BCA 2019 Amndt 1, E1.3 & AS 2419.1-2021
5	Fire/smoke seals	BCA C3.12, C3.15, AS1530.4-2014 & AS4072.1-2005
6	Fire Hose reels	BCA 2019 Amndt 1, E1.4 & AS 2441-2005
7	Mechanical air handling systems	BCA 2019 Amndt 1, Clause F4.5, F4.9, J3.5 & J3.7, J5.2, J5.3, J5.4, J6.3 & AS1668.2-2012 Amdt 1 & 2
8	Portable fire extinguishers	BCA 2019 Amndt 1, Clause E1.6 and AS 2444-2001
9	Warning & operational signs	Clause 183 EP& A Regulations 2000
	ADD/DELETE ROWS AS NECESSARY	

Fire Safety Schedule

Part 10 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

Details of Fire Safety Building Code of Australia (BCA) Performance Solution Report(s)

(Ref No./Title of report/Author/Date)	BCA Performance Requirement(s)	BCA DtS Provision(s) and details of non-compliance
	ADD/DELETE ROWS AS NECESSARY	

Section 5: Critical Fire Safety Measures – where applicable to the building (Section 79 of the Regulation)

Note: A critical fire safety measure is one where the performance is verified at intervals of less than 12 months through the submission of a supplementary fire safety statement.

Item No.	Fire safety measure	Minimum standard of performance
		Current (Existing)
	ADD/DELETE ROWS AS NECESSARY	

		Proposed (New or Modified)
	ADD/DELETE ROWS AS NECESSARY	

Section 6: Details of approved exemptions from compliance with BCA standards for a relevant fire safety system (Section 74 of the Regulation)

Item No.	Relevant fire safety measure	Description of exemption
	ADD/DELETE ROWS AS NECESSARY	

Section 7: Name of authority or registered certifier issuing this schedule

Name	Organisation (Business or Council Name)
Joseph Hallal	Phoenix Building Approval Pty Ltd

Business Address (Street No., Street Name, Suburb and Postcode)

325 Old Northern Road, Castle Hill NSW 2154

Registration Number (Where Applicable)

BDC1059

Date of Issue

20/01/2024

Fire Safety Schedule

Part 10 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

Please note:

The following information is provided to help persons completing this fire safety schedule (FSS) template and does not comprise part of the form. The following pages do not have to be displayed in the building or submitted to the local Council or the Commissioner of Fire and Rescue NSW or attached to any fire safety certificate or annual fire safety statement.

General

- Please print in CAPITAL LETTERS and complete all relevant sections in full.
- A reference to 'the Regulation' is a reference to the *Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 20*21.
- The completed fire safety schedule form must be attached to the relevant application.
- An earlier fire safety schedule is superseded by a later fire safety schedule and ceases to have effect when the later fire safety schedule is issued.
- A fire safety schedule must deal with the whole of the building and not only the part of the building to which the development consent, complying development certificate, construction certificate or fire safety order relates.
- Further information about building fire safety is available on the 'Fire safety' page of the Department's website at https://www.fairtrading.nsw.gov.au/housing-and-property/reforms-to-fire-safety-regulation-2022.

Section 1: Description of the building

- The address and other property details should be provided here.

Section 2: Reissue of Fire Safety Schedule

- The purpose of this section is to specify whether the fire safety schedule is a new schedule or a schedule that has been reissued under section 80A of the Regulation.
- An initial fire safety schedule issued when a Development Consent, Complying Development Certificate, Construction Certificate, or a fire safety order is issued is not taken to be a re-issued Schedule.
- The re-issue of a fire safety schedule may occur because the original schedule was lost or destroyed or to correct errors or omissions in the fire safety schedule.
- It must be noted that a fire safety schedule **cannot** be reissued under section 80A of the Regulation if the error or omission is due to building work or a change in plans or specifications for the fire safety measures of the building.
- A private certifier **cannot** re-issue a schedule under s80A after an occupation certificate has been issued by the certifier.
- A council that reissues a fire safety schedule where the 'original' was not required to be in the approved form does not need to issue the replacement schedule on the approved form. Instead, a council may reissue the schedule in the same form as the schedule being replaced.

Section 3: Reference Details

- Provide details of the relevant reference document by selecting the relevant type from the drop-down list.
- The reference number of the relevant Development Consent, Construction Certificate, Complying Development Certificate or Fire Safety Order Reference must be listed where known.
- For ease of use only one reference to a relevant document type is necessary for filling out this part. It is unnecessary to reference multiple Development Consents, staged CCs, or CDCs that are/or were once applicable to the building over its lifetime.

Section 4: Fire Safety Measures currently implemented OR proposed to be implemented for the building

- The purpose of this section is to identify those current and proposed fire safety measures that must be implemented for the building.

Fire safety measures

- A proposed fire safety measure is taken to be either a required measure not currently installed in the building or an existing measure which is being altered.
- Fire safety measures include both statutory fire safety measures and other fire safety measures. The statutory fire measures are specified in section 79(4) of the Regulation and include portable fire extinguishers, fire hydrants, fire sprinklers, fire detection and alarm systems and lightweight construction.
- Other fire safety measures could include any measure that is specific to the building such as those required as part of a fire safety Building Code of Australia (BCA) performance solution for the building.

Minimum standard of performance

- The minimum standard of performance for a fire safety measure describes the technical specification for the design, installation and operation of the measures. The minimum standard of performance is generally
- determined by the BCA and should not be confused with the specified maintenance activities which are used for maintenance of a fire safety measure.
- Where noting the minimum standard of performance for a fire safety measure (FSM) care needs to be taken to ensure relevant details are provided. When expressing a minimum standard of performance for a FSM the following referencing sequence should be used: (the Building Code of Australia (BCA) edition applicable to the FSM, then any relevant BCA Deemed-to-Satisfy Clause(s) or Specification(s), then any relevant Reference Document(s) (such as Australian Standards) and the applicable edition (year) of that Referenced Standard.
- If an application relates only to a part of a building and the required fire safety measures and their associated minimum standard of performance varies from other parts of the building, the fire safety schedule must clearly identify the different fire safety measures and/or different standards of performance in a building.

Using the table

- If there are no existing fire safety measures specify 'Nil' in the first row under both 'Current' and 'Minimum standard of performance'. The remaining rows of the table under 'Current' can be deleted.
- If there are no proposed fire safety measures specify 'Nil' in the first row under both 'Proposed' and 'Minimum standard of performance'. The remaining rows of the table under 'Proposed' can be deleted.
- Additional rows can be added under 'Current' and 'Proposed' measures if required.

Performance solutions

- The fire safety schedule must identify all fire safety measures that are required as part of a fire safety BCA performance solution, including any reference to the BCA performance solution report document when specifying the standard of performance for each measure.
- Provide identifying details of any fire engineered BCA performance solution report(s) relevant to those corresponding fire safety measures in the table 'Details of Building Code of Australia Performance Solution Report(s)'.
- Details including the author of the report, the relevant BCA performance requirements about which the report demonstrates compliance, and a brief description of the relevant BCA deemed-to-satisfy provision(s) considered are to be provided here.

Section 5: Critical Fire Safety Measures currently implemented OR proposed to be implemented in the building

- The purpose of this section is to identify those current or proposed critical fire safety measures for the building.
- A critical fire safety measure is a measure that requires periodic assessment and certification at intervals of less than 12 months, because of its nature, the environment, or other circumstances.
- Not all buildings will be subject to critical fire safety measures and this section must only be filled out where a building has critical fire safety measures as identified by the registered certifier (council or private) or appropriate authority.
- Each critical fire safety measure and the associated minimum standard of performance must be listed.
- The intervals, of less than 12 months, at which the critical fire safety measure must be assessed and requiring the submission of a supplementary fire safety statement must also be specified.
- It is up to the registered certifier (council or private) or appropriate authority to identify what is a critical fire safety measure and the frequency in which a supplementary fire safety statement is required to be lodged to the council.
- If there are no applicable critical fire safety measures insert 'Nil' in the row under 'Current', 'Proposed' and 'Minimum standard of performance'. The remaining rows of the table under 'Current' and 'Proposed' can be deleted.
- Additional rows can be added to the table if required.

Section 6: Exemption from BCA standard for a relevant fire safety system

- The purpose of this section is to identify in accordance with section 23(3)(b) of the Regulation any exemptions from BCA standards for the fire safety building work granted under a construction certificate by a certifier resulting from an objection under section 74 of the Regulation.
- Objections made under this provision relate to the operational performance of a relevant fire safety system.
- A relevant fire safety system is defined by the Regulation and can be either a hydraulic fire system, a fire detection and alarm system, or a mechanical ducted smoke control system.
- In this section the applicant must specify the relevant fire safety measure to which an exemption applies. In addition, a detailed description of the exemption is to be provided.
- If there are no exemptions relevant to the building insert 'Nil' in the first row under both 'Relevant Fire Safety System' and 'Details of the exemption'. The remaining rows of the table can be deleted.
- Additional rows may be added to the table if required.

Section 7: Name and contact details of the person issuing the schedule

- The purpose of this section of the form is to include details of the person or authority that is issuing the schedule.
- Where the fire safety schedule is issued by a registered certifier details of the registration number of the certifier are to be provided.
- The date of issue must also be included on the fire safety schedule.

ABN: 59 161 675 663

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Written Directions Notice
Part A – Written direction

(Section 6.31 of the *Environmental Planning and Assessment Act 1979*)

		Date WDN Issued:	22/03/2024
DA No:	DA2019/457/1	**Construction Certificate No:**	200298/01, 200298/02
CDC No:			

Name: *(of person responsible for the aspect of development)*	Kiora One Pty Ltd (Edward Hawach)
Address: *(of person responsible for the aspect of development)*	14 Kiora Crescent, Yennora NSW 2161
Address: *(of development site)*	5 Kiora Crescent, Yennora NSW 2161
Name *(of the land owner on whose land the non-compliance occurred)*	
Council or consent authority name:	Cumberland Council
Description of the non-compliance:	There have been numerous changes from the DA/CC approved drawings externally and internally in all 3 units. Unit 1 Mezzanine layout has changed from the DA/CC approval, all internal changes, stair layout changes, new lift installed in unit 1, external changes in unit 3 also, new ramps and internal changes. A S4.56 and BIC application is to be applied for and only a Part OC can be issued.
Steps to be taken to remedy the non-compliance:	A S4.56 and BIC application is to be applied for and only a Part OC can be issued.

Date by which the person responsible for the aspect of development must demonstrate they have remedied the non-compliance:	19/04/2024
Date principal certifier proposes to conduct an inspection:	

Note: ***If the non-compliance is not remedied by the inspection date, a notice will be provided to the council and property owner within 2 days after inspection***

Name of principal certifier:	Joseph Hallal	**Registration number:**	0159
If the certifier is acting on behalf of council, name of council:			

ABN: 59 161 675 663

325 Old Northern Road,
Castle Hill NSW 2154
(p): 9639 8808
(e): info@phoenixbuildingapprovals.com.au

Written Directions Notice
Part A – Written direction

(Section 6.31 of the *Environmental Planning and Assessment Act 1979*)

Postal address of principal certifier:	325 Old Northern Road, Castle Hill NSW 2154	**Mobile phone number:**	
Email address:	joseph@phoenixbuildingapprovals.com.au		
Signature:			

KEEP PARTS A AND B TOGETHER

Written Directions Notice
Part B – Inspection Record

(Section 6.31 of the Environmental Planning and Assessment Act 1979)

Date of Inspection:		
Has the WDN been complied with?	☐Yes	☐No
If no, please describe the failure:		
Name of certifier conducting inspection:		
Registration number:		
Postal address of certifier:		
Email address:		
Mobile phone number:		
Signature:		
Note: ***On completion of the inspection, provide the inspection record to the Principal Certifier***		

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Note: ***If the responsible person did not comply with the WDN, the Principal Certifier will forward the WDN to the consent authority, land owner and owner's corporation, as required***

KEEP PARTS A AND B TOGETHER

ABN: 59 161 675 663

325 Old Northern Road,,
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info@phoenixbuildingapprovals.com.au

RECORD OF MISSED INSPECTION

Made under Part 8 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 – Reg 63

DEVELOPMENT DETAILS

Address of Development:	5 Kiora Crescent, Yennora NSW 2161
Lot/DP:	
Scope of Building Works:	Stage 1 CC - Approval of excavation, footings and ground floor slab only. Stage 2 - Construction of three (3) industrial units and a weighbridge including associated site works and landscaping.

CONSENT DETAILS

Consent Authority / Local Government Area:	Cumberland Council
DA Number:	DA2019/457/1
CC Number:	200298/01, 200298/02

PRINCIPAL CERTIFIER DETAILS

Certifying Authority:	Joseph Hallal
Accreditation Body:	BDC (NSW Department of Fair Trading) 0159

PRINCIPAL CONTRACTOR DETAILS

Name:	
Address:	88 William Street, Granville NSW 2142
Phone:	0433 242 424
Licence Number:	5904C

DETAILS OF MISSED INSPECTION

Date:	21/01/2022
Type of Missed Inspection:	Post excavation/Pre-footing
Unavoidable circumstances of missed inspection:	Car Broke down and was unable to visit the site. I advised the applicant that the engineer must inspect the site and provide signoff on the works
The work that would have been the subject of the missed inspection was satisfactory	Yes
Documentary evidence is attached that was relied upon to satisfy the Principal Certifier that the work that would have been the subject of the missed inspection was satisfactory:	Yes, attached

Dated: 21/01/2022

Joseph Hallal
Principal Certifying Authority

Owner Signature: _____ Dated: _____

ABN: 59 161 675 663

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(p): 9639 8808
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Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

Clause 64 Missed Progress Inspections

(1) Within 2 days after a person who is not the principal certifier becomes aware that an inspection that the person was required to carry out has been missed, the person must notify the principal certifier of the circumstances of the missed inspection.

(2) Within 2 days after becoming aware that an inspection has been missed, the principal certifier must—

(a) notify the following—

(i) the person who appointed the principal certifier,

(ii) the principal contractor, if a principal contractor was required to be appointed for the work,

(iii) the owner-builder, if the work is being done by an owner-builder, and

(b) if satisfied of the following matters, make a record of the relevant information and give a copy of the record to the person who appointed the principal certifier—

(i) the inspection was missed because of unavoidable circumstances,

(ii) the work that would have been the subject of the missed inspection is satisfactory.

(3) If the principal certifier is satisfied of the matters specified in subsection (2)(b) and complies with subsection (2), the missed inspection is taken to not be required to have been carried out for the purposes of section 61(1) or 62(2).

(4) This section does not apply if a final critical stage inspection referred to in section 61 or 62 is missed.

ABN: 59 161 675 663

325 Old Northern Road,,
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(p): 9639 8808
info@phoenixbuildingapprovals.com.au

RECORD OF MISSED INSPECTION

Made under Part 8 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 – Reg 63

DEVELOPMENT DETAILS

Address of Development:	5 Kiora Crescent, Yennora NSW 2161
Lot/DP:	
Scope of Building Works:	Stage 1 CC - Approval of excavation, footings and ground floor slab only. Stage 2 - Construction of three (3) industrial units and a weighbridge including associated site works and landscaping.

CONSENT DETAILS

Consent Authority / Local Government Area:	Cumberland Council
DA Number:	DA2019/457/1
CC Number:	200298/01, 200298/02

PRINCIPAL CERTIFIER DETAILS

Certifying Authority:	Joseph Hallal
Accreditation Body:	BDC (NSW Department of Fair Trading) 0159

PRINCIPAL CONTRACTOR DETAILS

Name:	
Address:	88 William Street, Granville NSW 2142
Phone:	0433 242 424
Licence Number:	5904C

DETAILS OF MISSED INSPECTION

Date:	22/03/2022
Type of Missed Inspection:	Stormwater Connections
Unavoidable circumstances of missed inspection:	I went home sick as the inspection was scheduled for late afternoon. I advised the applicant to get the stormwater engineer out to inspect the site and provide signoff
The work that would have been the subject of the missed inspection was satisfactory	Yes
Documentary evidence is attached that was relied upon to satisfy the Principal Certifier that the work that would have been the subject of the missed inspection was satisfactory:	Yes, attached

Dated: 22/03/2022

Joseph Hallal
Principal Certifying Authority

Owner Signature: _____ Dated: _____

ABN: 59 161 675 663

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Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

Clause 64 Missed Progress Inspections

(1) Within 2 days after a person who is not the principal certifier becomes aware that an inspection that the person was required to carry out has been missed, the person must notify the principal certifier of the circumstances of the missed inspection.

(2) Within 2 days after becoming aware that an inspection has been missed, the principal certifier must—

(a) notify the following—

(i) the person who appointed the principal certifier,

(ii) the principal contractor, if a principal contractor was required to be appointed for the work,

(iii) the owner-builder, if the work is being done by an owner-builder, and

(b) if satisfied of the following matters, make a record of the relevant information and give a copy of the record to the person who appointed the principal certifier—

(i) the inspection was missed because of unavoidable circumstances,

(ii) the work that would have been the subject of the missed inspection is satisfactory.

(3) If the principal certifier is satisfied of the matters specified in subsection (2)(b) and complies with subsection (2), the missed inspection is taken to not be required to have been carried out for the purposes of section 61(1) or 62(2).

(4) This section does not apply if a final critical stage inspection referred to in section 61 or 62 is missed.

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INSPECTION REPORT – 200298 – Final Inspection
5 Kiora Crescent, Yennora NSW 2161

APPLICANT DETAILS

Applicant:	Kiora One Pty Ltd (Edward Hawach)
Address:	5 Kiora Crescent, Yennora NSW 2161
Phone:	04188814774

RELEVANT CONSENTS

Local Government Area:	Cumberland Council
Development Applications (if applicable)	DA2019/457/1
Construction Certificate Number	200298/01, 200298/02

PROPOSAL

Address of Development:	5 Kiora Crescent, Yennora NSW 2161
Lot / DP:	10 1233715
Land Use Zoning:	E4
Scope of Building Works Covered by this Notice:	Construction of three (3) industrial units and a weighbridge including associated site works and landscaping. Stage 1 CC - Approval of excavation, footings and ground floor slab only. Stage 2 - Construction of three (3) industrial units and a weighbridge including associated site works and landscaping.

INSPECTION DETAILS

Inspector:	Joseph Hallal
Inspection date and time:	22/03/2024 07:00 AM
Accreditation No.:	0159

INSPECTION RESULTS

We have attended the above property and completed an inspection. The areas inspected and the overall outcome of the inspection are listed below, together with any specific defects noted or documents required.

Inspection Area	Inspection Outcome	Reinspections
1. Final Inspection Commercial	Satisfactory (no issues)	No re-inspections required for this inspection.

SIGNED BY:

Joseph Hallal – Inspector

ABN: 59 161 675 663

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(e): info@phoenixbuildingapprovals.com.au

22/03/2024

APPENDIX

1. Building generally in accordance with the plans

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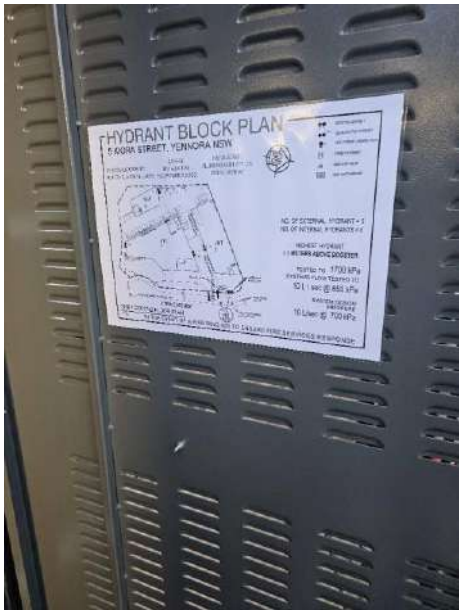

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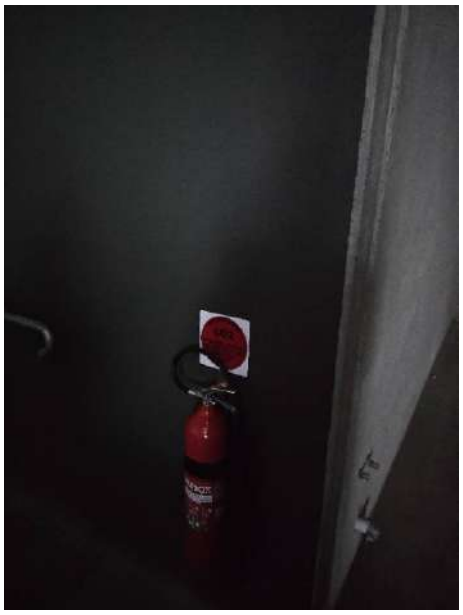

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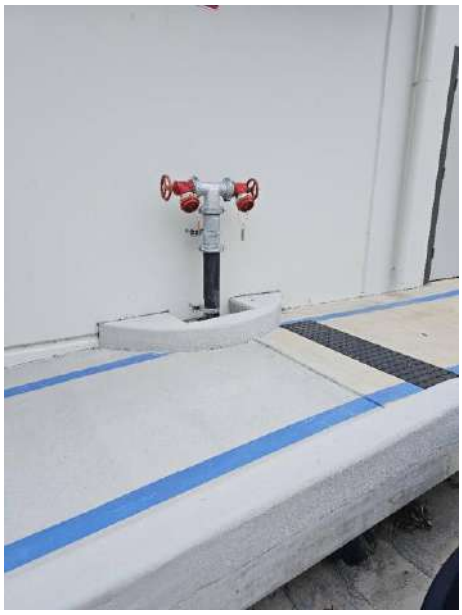

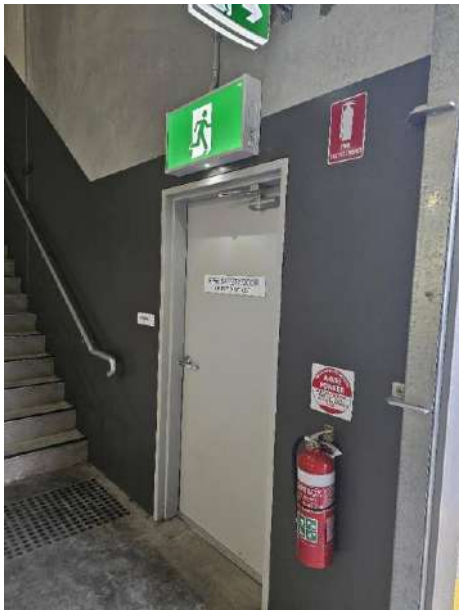

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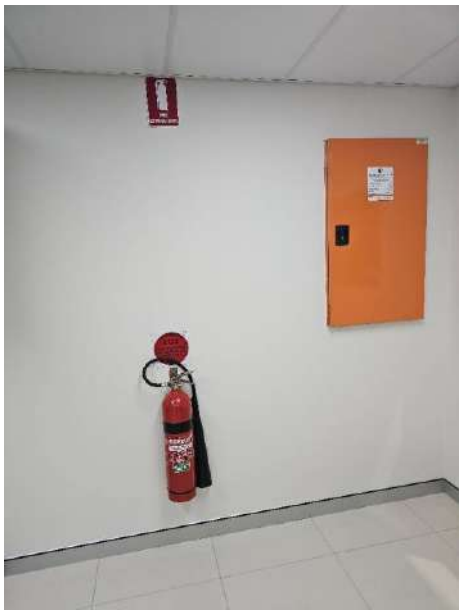


PHOENIX BUILDING APPROVALS PTY LTD

325 Old Northern Road,
Castle Hill NSW 2154

P: (02) 9639 8808
E: info@phoenixbuildingapprovals.com.au

OCCUPATION CERTIFICATE APPLICATION

Under Sections 109C (1)(c) & 109H of the Environmental Planning & Assessment Act 1979

OFFICE USE ONLY ▸ Date of Receipt of Application

This application was received on: 12.12.23

1. Occupation Certificate Type

Type of Occupation Certificate	Part ☑ Whole ☐

2. Application Details

*Please note that the applicant **cannot** be the builder unless the builder is the owner of the property*

Mr ☐ Mrs ☐ Miss ☐ Ms ☐ Other X☐	
Surname (or Company): Kiora One Pty Ltd (Edward Hawach)	
Given names:	
ABN: 85 614291182	
Address:5 Kiora Cr. YENNORA	
State: NSW	Postcode:2161
Phone:	Mobile:0418 814 774
E-mail:build@y7mail.com	

ONLY IF NOT ORIGINAL APPLICANT - BUILDING OWNERS CONSENT REQUIRED

(All owner(s)/directors must sign this document or provide a letter of authority)

Every owner of the land must sign this application and as the owner(s) of the above property, I/we all consent to this application.
Or, provide a statement signed by all owner/s of the land to the effect that the owner consents to the making of the application.
If the owner is a company, this form must be signed by an authorised director of the company.
If the property is a unit under strata title, relates to common property or a lot in a community title, this form must be signed by the chairperson or the secretary of the Body Corporate and/or Body Corporate seal or the appointed managing agent.

Owner(s) Name: Edward Hawach	
Signature(s):	Date: 12/12/2023

I/we as the owner/s of this land consent for the above applicant to apply on our behalf apply for an Occupation Certificate

3. Subject Property Identification

AutoCAD SHX Text
2022-08-23 23:46:40

Refer to your CDC or CC Approval to obtain these information

Address:5 Kiora Cr. YENNORA		
State: NSW.	Postcode:2161	
Lot:10	DP/SP:1233715	
Council Area:Cumberland City Council		

4. Description of Development

Provide a description of the works to be approved as per the Development Consent	Describe works as per the Development Consent:
	Construction of three (3) industrial units and a weighbridge including associated site works and landscaping.Stage 1 CC - Approval of excavation, footings and ground floor slab only. Stage 2 - Construction of three (3) industrial units and a weighbridge including associated site works and landscaping.
	Is the OC for Part or Whole of the Development? Part
	If Part, Describe:
	The Part OC will exclude DA conditions 1.Copy of registered 88E at land titles office as per DA condition 35 2. Copy of the registered positive covenant, 88 b at land titles office as per DA condition 120 3. Changes to Units 1, 2 as per the WDN issued which will be subject to a S4.55 application to Council and BIC application.

5. Building Classification

Tick the relevant class	1a ☐ 1b ☐ 2 ☐ 3 ☐ 4 ☐5 6 ☐ 10a ☐ 7a ☐ 7b ☐
	8 ☑ ☐ 9a ☐ 9b ☐ 9c ☐ 10b ☐ 10c ☐

6. Development Consent

	Development Consent No. DA2019/457/1
	Date of Determination: 25/03/2021
	Approval of Authority: Cumberland City Council

7. Construction Certificate

	Construction Certificate No. 200298/01, 200298/02
	Date of determination: 10/02/2021, 10/08/2021

8. Applicant Declaration

Applicant to declare items and sign declaration.	**Declaration:** • I/We declare that all the information in this application is, to the best of my knowledge, true and accurate. • I/We also understand that if the information is incomplete the application may be delayed or rejected or more information may be requested. • I/We acknowledge that if the information is misleading, any approval granted may be void. In signing this application form I/We declare the abovementioned terms and conditions.
	Signed (Applicant): 
	Date: 12.12.23

B10A OSD WAE SURVEY AND CERTIFICATION SUBMISSION[ii]

This form is to be completed and submitted to Council/Principal Certifying Authority (PCA) together with the plan/s and any necessary attachments.

PROJECTADDRESS: 5 KIORA CRESCENT, YENNORA

WAE PLAN DETAILS:

Company Name: NEW SOUTH SURVEYS P/L

Name of surveyor: PAUL W WILD **Date of WAE Plan:** 8/12/2023

Telephone No.: _____ **Fax No:** _____

Items submitted:	**Yes**	**No**	**NA**
• Signed WAE Plans	☒	☐	
• Certificate of Hydraulic Compliance (Form B11)	☒	☐	
• Certificate of Structural Compliance	☒	☐	☐
• OSD WAE Volume Calculations	☒	☐	

COUNCIL REVIEW DETAILS:

Reviewer's Name: _____ **Date:** _____

[ii] Form number changed to reflect new shorter checklist in third edition

FORM B.11
UPPER PARRAMATTA RIVER CATCHMENT TRUST

ON-SITE STORMWATER DETENTION SYSTEM

CERTIFICATE OF HYDRAULIC COMPLIANCE

BAULKHAM HILLS/BLACKTOWN CITY/HOLROYD CITY/PARRAMATTA CITY COUNCIL

(delete not applicable)

JOB NO: 2019.0032 **DA NO:** 2019/457/1 **BA NO:** _____

PROJECT: INDUSTRIAL DEVELOPMENT

LOCATION: 5 KIORA CRESCENT YENNORA

DESIGNED BY: SAMER EL HADDAD **CONSTRUCTION CERTIFIED BY:** SAMER EL HADDAD

QUALIFICATIONS: MIEAUST CPENG NER CIVIL 2247040 **TELEPHONE:** 02 88834239

1.0 WORKS CONSTRUCTED IN ACCORDANCE WITH DESIGN. (Delete if not applicable)

I SAMER EL HADDAD of S&G CONSULTANTS PTY LTD (accredited professional being competent to practice in the field of stormwater drainage design) have inspected the above on-site stormwater detention system and certify that the works have been constructed and can be maintained[1] in accordance with the approved design details for the above mentioned project.

Signature: _____ **Date:** 8/4/2024

2.0 CONSTRUCTION VARIATIONS NOT AFFECTING DESIGN PERFORMANCE. (Delete if not applicable)

I _____ of _____ (accredited professional being competent to practice in the field of stormwater drainage design) have inspected the above on-site stormwater detention system and certify that the works have been constructed and can be maintained in accordance with the approved design details for the above mentioned project, except for the variations listed below which do not affect the performance of the system, subject to satisfactory maintenance.

Variations:

_____

_____

_____

Signature: _____ **Date:** _____

3.0 AUTHORITY TO RELEASE PLANS TO FUTURE OWNERS OF THE PROPERTY

As the copyright owner of the drainage plans, I hereby authorise release of the approved plans/attached sketch plan to future owners of the property to assist in the maintenance of the On-site Stormwater Detention system.

Signature: _____ **Date:** 8/4/2024

Name: SAMER EL HADDAD (Print)

[1] Maintainability added for third edition

ATTACHMENT B: OSD WAE DIMENSIONS, ETC. OSD #1

DESCRIPTION	APPROVED	WAE	CERTIFIER'S COMMENTS
DISCHARGE CONTROL PIT:			
(a) Orifice diameter (mm)	98	98	
(b) Orifice plate material	S/S	S/S	
(c) Pit width (m)	0.9	0.9	
(d) Pit breadth (m)	0.9	0.9	
WEIR:			
(a) Reduced level	15.20	15.21	
(b) Width	5.0	5.0	
(c) Height (mm)	920	921	
DCP invert level	14.17	14.17	
Access grate dimensions	0.9x0.9	0.9x0.9	
STORAGE:			
(a) Top water level	15.34	15.33	
(b) Storage volume (m^3)	75.53	78.39	
(c) Freeboard to F.F.L. (mm)			
(i) Habitable area	660	661	
(ii) Garage	N/A	N/A	
Maximum depth of water (mm)			

CERTIFIER'S NAME: SAMER EL HADDAD

SIGNATURE: .....

DATE: 8/4/2024

Form B1[1] DRAINAGE DESIGN SUMMARY SUB/DA

No. 2019/457/1

OSD #1

Project: INDUSTRIAL Location: 5 KIORA CRESCENT YENNORA

Designed by: SAMER EL HADDAD Company: S&G CONSULTANTS Phone: 88834239

SITE AREA 0.2445 ha *See Section 3.4.3 for dual occupancy

Item	DESIGNED [A]		INSTALLED [A]		Ref
Upstream catchment draining through site. See Section 4.1.3 for assessment of external flows.	= —	ha	= —	ha	[AA]
Basic storage volume 300 ~~470~~ x [A] 0.2445	= 73.35	m^3	= 73.35	m^3	[B]
Basic discharge = 0.14 ~~0.08~~ x [A] 0.2445	= 0.0342	m^3/s	= 0.0342	m^3/s	[C]
Area of site drained to storage (Must be as much as possible and not be less than 85% of the total site without written Council approval).	= 0.2445	ha	= 0.2445	ha	[D]
[D/ [A] + [ ]/[ ] x 100	= 100	%	= 100	%	[E]
Storage per ha. of contributing area = [B]/[D]	= 300		= 300		[F]
Enter *volume/PSD adjustment chart* (Fig 5.1) using [F], and Read new PSD in litres/second/ha (l/s/ha).	= 148.35	l/s/ha	= 148.35	l/s/ha	[G]
Determine PSD =[G] x [D] ____ x ____	= 36.255	l/s	= 36.255	l/s	[H]
Maximum head to orifice centre	= 1.06	m	= 1.07	m	[K]
Weir flow to storage $Q^{Weir} = CL(H^{Weir})^{1.5}$ ∴ H^{Weir}	=	m	=	m	[I]
Selected orifice diameter: $d = (0.464 \times Q / \sqrt{h})^{0.5} = (0.464 \times [H] / \sqrt{[K]})^{0.5}$	= 0.098	m	= 0.098	m	[J]
Maximum discharge	= 21.33	l/s	= 21.43	l/s	[L]
Head for high early discharge	= 0.92	m	= 0.93	m	[M]
High early discharge $\{[L] \times \sqrt{[M]/[K]}\}$ (min 75% of [L])	= 19.87	l/s	= 19.98	l/s	[N]
Approximate mean discharge = ([L]) + [N]) /2	= 20.6	l/s	= 20.7	l/s	[P]
Average discharge/ha = [P] / [D] = ____ / ____	= 84.25	l/s/ha	= 84.67	l/s/ha	[Q]
Enter *volume/P.S.D. adjustment chart* (Fig 5.1) using [Q] And read off final storage volume per hectare	= 456	m^3/ha	= 454	m^3/ha	[R]
Determine final SSR = [R] x [D] = ____ x ____	= 111.38	m^3	= 110.97	m^3	[S]
Primary storage proportion = [S] x ____%	=	m^3	=	m^3	[T]
Secondary storage proportion = [S] x ____%	=	m^3	=	m^3	[U]
Tertiary storage proportion [S] x ____%	=	m^3	=	m^3	[V]
Check [T] + [U] + [V] = [S]	=	m^3	=	m^3	

SIGNATURE: ________ DATE: 8/4/24

[1] Revised for third edition to include flow from upstream and revised by pass flows

ATTACHMENT B: OSD WAE DIMENSIONS, ETC. OSD #2

DESCRIPTION	APPROVED	WAE	CERTIFIER'S COMMENTS
DISCHARGE CONTROL PIT:			
(a) Orifice diameter (mm)	98	98	
(b) Orifice plate material	S/S	S/S	
(c) Pit width (m)	0.9	0.9	
(d) Pit breadth (m)	0.9	0.9	
WEIR:			
(a) Reduced level	16.33	16.29	
(b) Width	3.5	3.5	
(c) Height (mm)	1430	1400	
DCP invert level	14.9	14.89	
Access grate dimensions	0.9x0.9	0.7x0.9	
STORAGE:			
(a) Top water level	16.47	16.86	
(b) Storage volume (m^3)	15.5	24.01	
(c) Freeboard to F.F.L. (mm)			
(i) Habitable area	N/A	N/A	
(ii) Garage	N/A	N/A	
Maximum depth of water (mm)	1520	1960	

CERTIFIER'S NAME: SAMER EL HADDAD

SIGNATURE: .....

DATE: 8/4/2024

Form B1[1] DRAINAGE DESIGN SUMMARY SUB/DA

No. 2019/457/1

OSD #2

Project: INDUSTRIAL Location: 5 KIORA CRESCENT YENNORA

Designed by: SAMER EL HADDAD Company: S96 CONSULTANTS Phone: 88834239

SITE AREA 0.035 ha *See Section 3.4.3 for dual occupancy DESIGNED [A] ICY CONSTRUCTED [A]

Upstream catchment draining through site See Section 4.1.3 for assessment of external flows.	= / ha	[AA]	= / ha	[AA]
Basic storage volume 300 ~~470~~ x [A] 0.035	= 10.5 m^3	[B]	= 10.5 m^3	[B]
Basic discharge = 0.14 ~~0.08~~ x [A] 0.035	= 0.0049 m^3/s	[C]	= 0.0049 m^3/s	[C]
Area of site drained to storage (Must be as much as possible and not be less than 85% of the total site without written Council approval).	= 0.035 ha	[D]	= 0.035 ha	[D]
[D/ [A] + [ ][ ] x 100	= 100 %	[E]	= 100 %	[E]
Storage per ha. of contributing area = [B]/[D]	= 300	[F]	= 300	[F]
Enter *volume/PSD adjustment chart* (Fig 5.1) using [F], and Read new PSD in litres/second/ha (l/s/ha).	= 148.35 l/s/ha	[G]	= 148.35 l/s/ha	[G]
Determine PSD =[G] x [D] ____ x ____	= 5.19 l/s	[H]	= 5.19 l/s	[H]
Maximum head to orifice centre	= 1.52 m	[K]	= 1.96 m	[K]
Weir flow to storage $Q^{Weir} = CL(H^{Weir})^{1.5}$ $\therefore H^{Weir}$	= ____ m	[I]	= ____ m	[I]
Selected orifice diameter: $d = (0.464 \times Q / \sqrt{h})^{0.5} = (0.464 \times [H]/\sqrt{[K]})^{0.5}$	= 0.044 m	[J]	[$] = 0.044 m	[J]
Maximum discharge	= 5.15 l/s	[L]	= 5.85 l/s	[L]
Head for high early discharge	= 1.38 m	[M]	= 1.39 m	[M]
High early discharge ([L] x $\sqrt{[M] / [K]}$) (min 75% of [L])	= 4.91 l/s	[N]	= 4.92 l/s	[N]
Approximate mean discharge = ([L]) + [N]) /2	= 5.03 l/s	[P]	= 5.39 l/s	[P]
Average discharge/ha = [P] / [D] = ____ / ____	= 143.6 l/s/ha	[Q]	= 153.85 l/s/ha	[Q]
Enter *volume/P.S.D. adjustment chart* (Fig 5.1) using [Q] And read off final storage volume per hectare	= 308 m^3/ha	[R]	= 293 m^3/ha	[R]
Determine final SSR = [R] x [D] = ____ x ____	= 10.8 m^3	[S]	= 10.27 m^3	[S]
Primary storage proportion = [S] x ____ %	= ____ m^3	[T]	= ____ m^3	[T]
Secondary storage proportion = [S] x ____ %	= ____ m^3	[U]	= ____ m^3	[U]
Tertiary storage proportion [S] x ____ %	= ____ m^3	[V]	= ____ m^3	[V]
Check [T] + [U] + [V] = [S]	= ____ m^3		= ____ m^3	

SIGNATURE: _____ DATE: 8/4/24

[1] Revised for third edition to include flow from upstream and revised by pass flows

A1

DATE PLOTTED: 18 May 2021 7:03 PM BY: SGCEMMA28

DESIGN NOTES:

THE SITE IS LOCATED IN CUMBERLAND COUNCIL.

SITE AREA = 7216m²

THE SITE IS WITHIN A MEDIUM FLOOD RISK AREA AND IS IDENTIFIED TO BE AFFECTED BY THE 1% AEP FLOOD ACCORDING TO COUNCILS PROSPECT CREEK OVERLAND FLOOD STUDY. THEREFORE THE OSD STORAGE SYSTEM WILL BE AN ABOVE GROUND TANK TO PREVENT A DROWNED ORRIFICE AND AVOID ACCEPTANCE OF FLOOD WATERS WITHIN THE SYSTEM.

OSD WAS DESIGNED USING COUNCILS CALCULATION SPREADSHEET TO TARGET ROOF AREA ONLY AS ADVISED BY COUNCILS ENGINEER. THE RESULTS ARE SHOWN ON SW501.

A MUSIC MODEL WAS CARRIED OUT TO ACHIEVE THE BELOW STORMWATER QUALITY REDUCTION TARGETS FOR ROOF WATER ONLY AS PER COUNCIL'S ADVICE AND DCP.
TSS: 85%
TP: 60%
TN: 45%
GP: 90%

STORMWATER PLANS TO BE READ IN CONJUNCTION WITH FLOOD REPORT FOR MITIGATION WORKS, REF 20190032-R01-FLOOD STUDY [C], PREPARED BY SGC.

OSD TANK 2 (CATCHMENT 2)
TOP OF TANK:17.30 17-28
TWL:16.47 16-86
IL: 14.90 14-89
DIMENSION: Ø3.45 3.5m x 3.5m
TANK DEPTH: 2.15m 2.19m
EFFECTIVE WATER DEPTH: 1.57m 1.96m
VOLUME REQUIRED: 11.05m³
VOLUME PROVIDED: 15.58m³ 24.01m³
PSD: 3.33 L/s
ORIFICE Ø: 35mm
ORIFICE CL: 15.43 15-38
REFER TO DETAILS

STORMWATER TREATMENT PRECAST PIT (GSP 1200x1200) 4.1/B
RL:15.00
IL: 13.50
DIMENSION: 1.2m (L) x 1.2m (W)
SURFACE AREA: 1.44m²
TOTAL DEPTH: 1.50m
EFFECTIVE DEPTH: 0.92m
CONTAINS 2x690mm PSorb STORMFILTER CARTRIDGES.

REFER TO DETAILS

IMPORTANT NOTE:
ALL GSPs ARE TO BE SILT ARRESTOR PITS WITH MESH SCREEN AND RELIEF DRAINS AS REQUIRED. REFER TO TYPICAL DETAILS. INVERTS SHOWN ARE OUTLET PIPES LEVELS. ALLOW ADDITIONAL 300mm SUMP FOR SILTATION.

NOTE:
1. BOUNDARY FENCING TO BE PROVIDED WITH POOL-TYPE FENCE AT THE BASE TO 1%AEP FLOOD LEVEL IN ACCORDANCE WITH COUNCIL'S STANDARD DRAWING SD802S. FURTHER DETAILS REFER TO FLOOD STUDY REPORT PREPARED BY SGC DATED 08/09/2020.
2. ALL GUTTERS AND DOWNPIPES TO BE DESIGNED FOR 1%AEP STORM EVENTS TO FULLY CAPTURE ROOF RUN-OFF TO THE PROPOSED OSDs.
3. PROPOSED RETAINING WALLS AROUND PROPERTY TO BE LEAK PROOF, WATERTIGHT SOLID STRUCTURE. REFER TO TYPICAL DETAIL.
4. PROVIDE STEPS IRON FOR ALL PITS AND OSD ACCESS GRATES WHEREVER THE DEPTHS ARE GREATER THAN 1.0m.

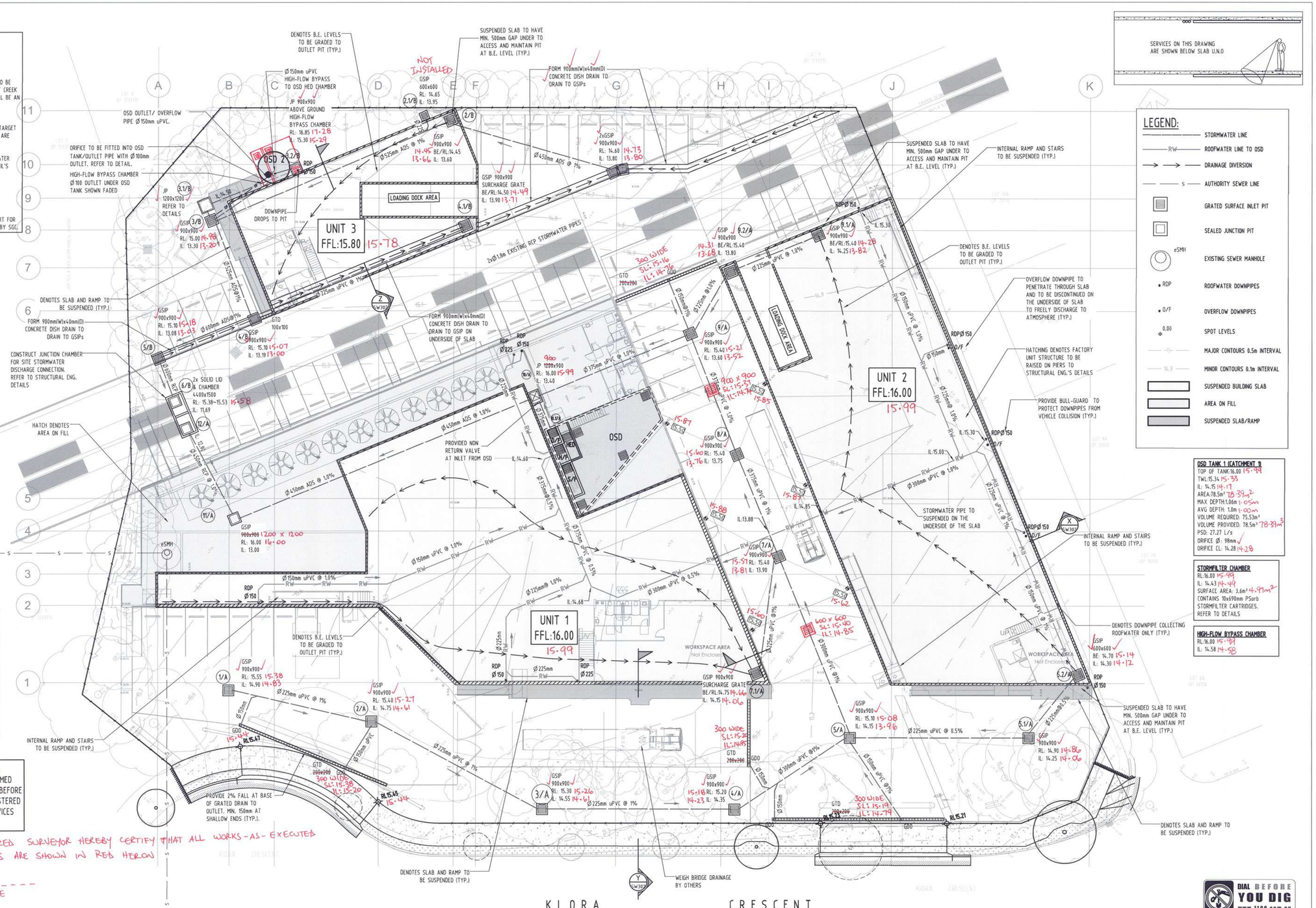
SERVICES SHOWN ON PLAN ARE INDICATIVE, EXACT DEPTH AND LOCATION TO BE CONFIRMED ONSITE. CONTRACTOR TO CARRY OUT DIAL BEFORE YOU DIG APPLICATION AND ENGAGE A REGISTERED SURVEYOR TO PEG OUT ALL EXISTING SERVICES PRIOR TO ANY WORK COMMENCING ONSITE.

I, PAUL W WILD No. 1603 REGISTERED SURVEYOR HEREBY CERTIFY THAT ALL WORKS-AS-EXECUTED LEVELS, ADDITIONS AND ALTERATIONS ARE SHOWN IN RED HEREON

SIGNATURE 8/12/2023 DATE

NEW SOUTH SURVEYS P/L
P.O. BOX 617
GRANVILLE NSW 2142

OUR REFERENCE: 118097



OSD TANK 1 (CATCHMENT 1)
TOP OF TANK:16.00 15-99
TWL:15.34 15-33
IL: 14.15 14-17
AREA:78.5m² 78.31m²
MAX. DEPTH:1.06m 1.05m
AVG DEPTH: 1.0m 1.00m
VOLUME REQUIRED: 75.53m³
VOLUME PROVIDED: 78.5m³ 78.31m³
PSD: 27.27 L/s
ORIFICE Ø: 98mm
ORIFICE CL: 14.28 14-28

STORMFILTER CHAMBER
RL:16.00 15-99
IL: 14.43 14-49
SURFACE AREA: 3.6m² 4.97m²
CONTAINS 10x690mm PSorb STORMFILTER CARTRIDGES. REFER TO DETAILS

HIGH-FLOW BYPASS CHAMBER
RL:16.00 15-99
IL: 14.58 14-58

DIAL BEFORE YOU DIG www.1100.com.au

(PAGE 1 OF 5)

Issue	Last revision title	by	Date	Status
02	PRELIMINARY	MN	18.05.21	1
01	PRELIMINARY	MN	04.05.21	1
E	ISSUE FOR DEFERRED COMMENCEMENT	MN	18.09.20	2
D	ISSUE FOR DA	AA	18.11.19	2
C	ISSUE FOR DA	AA	12.11.19	2
B	ISSUE FOR DA	AA	28.10.19	2
A	ISSUE FOR REVIEW	AA	08.07.19	2

Issuer internal sequence and revision history
1-preliminary 2-development application 3-construction certificate 4-tender 5-construction 6-other

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

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APPROVED	MN	DATE	18.05.21

Scales
0m 2 4 6 8 10
SCALE 1:200 ON ORIGINAL SIZE

CLIENT
MR. EDDIE HAWACH

ARCHITECT
bainidesign

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Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	3 OF 10	1:200 @ A1

Drawing Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Drawing Title
STORMWATER DRAINAGE DESIGN
GROUND FLOOR PLAN

Project No	Drawing No	Revision No
20190032	SW200	02

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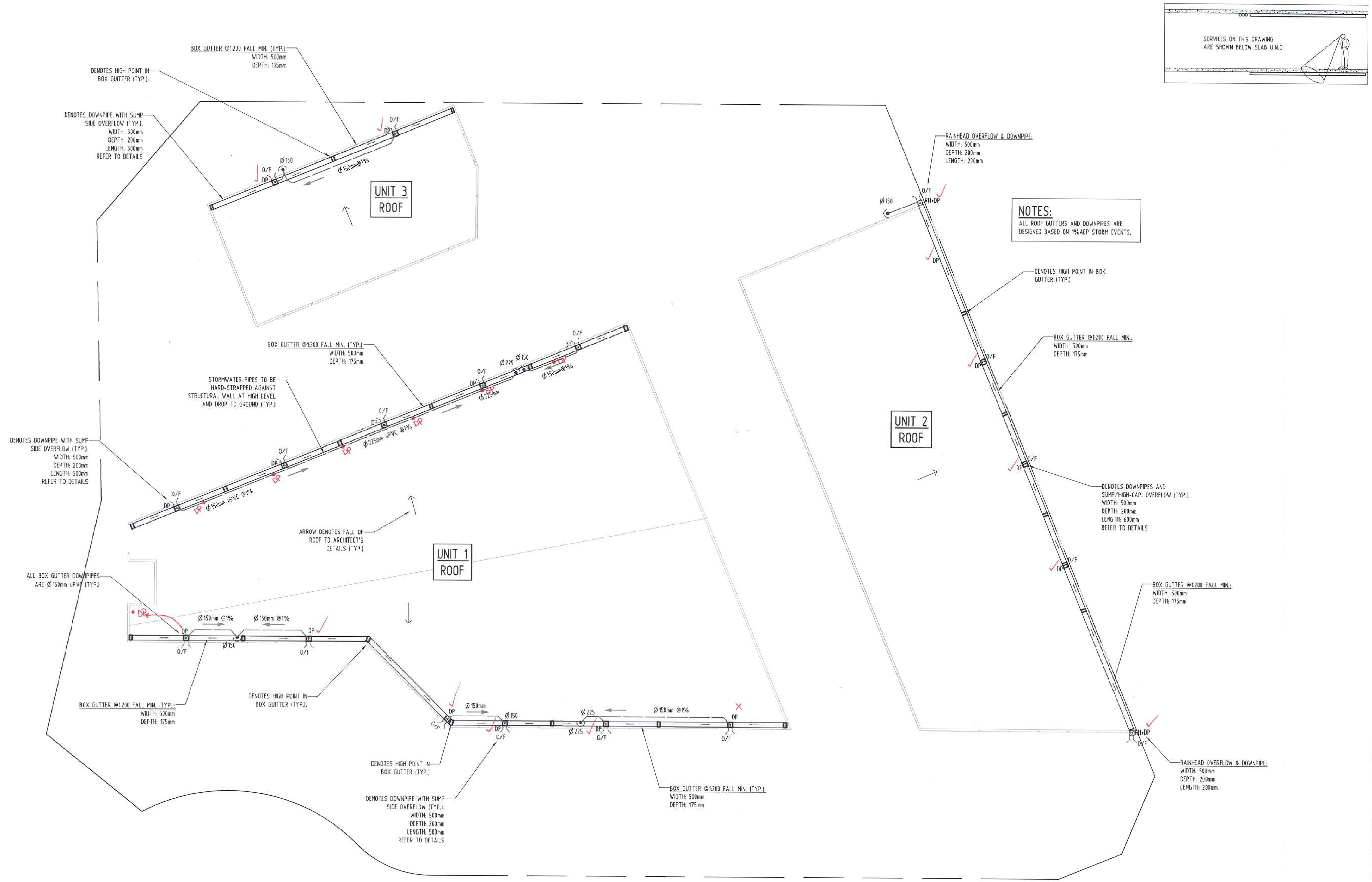

(PAGE 2 OF 5)

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ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

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APPROVED	MN	DATE	18.05.21

Scales
0m 2 4 6 8 10
SCALE 1:200 ON ORIGINAL SIZE

CLIENT
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PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

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-	A.H.D.	4 OF 10	1:200 @ A1

Drawing Status
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Drawing Title
STORMWATER DRAINAGE DESIGN
ROOF PLAN

Project No	Drawing No	Revision No
20190032	SW201	02

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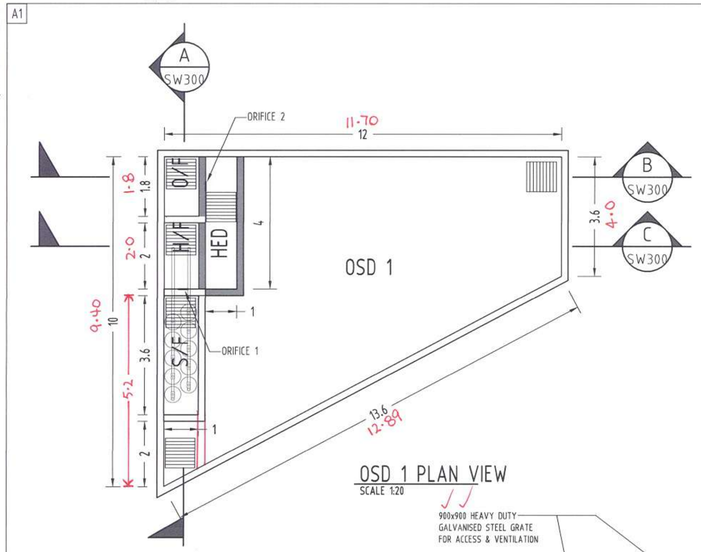
DATE PLOTTED: 18 May 2021 7:03 PM BY: SIZEMAKER



OSD 1 PLAN VIEW
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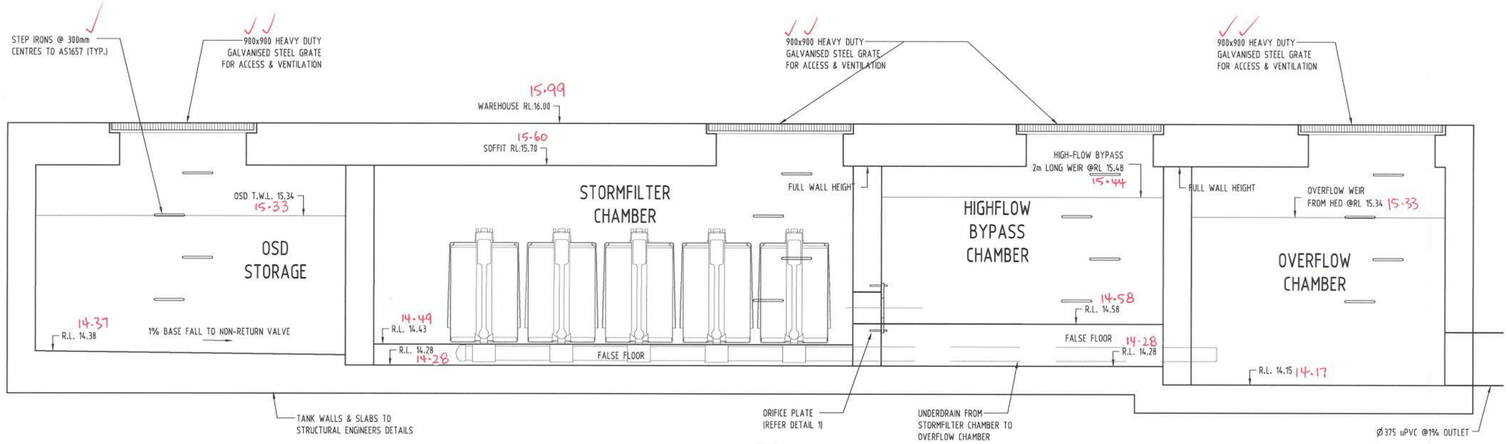

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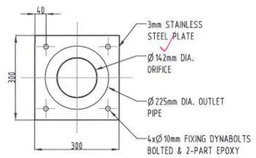

DETAIL 1
ORIFICE PLATE 1
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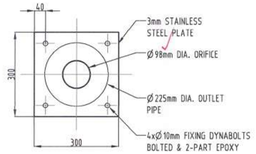

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ORIFICE PLATE 2
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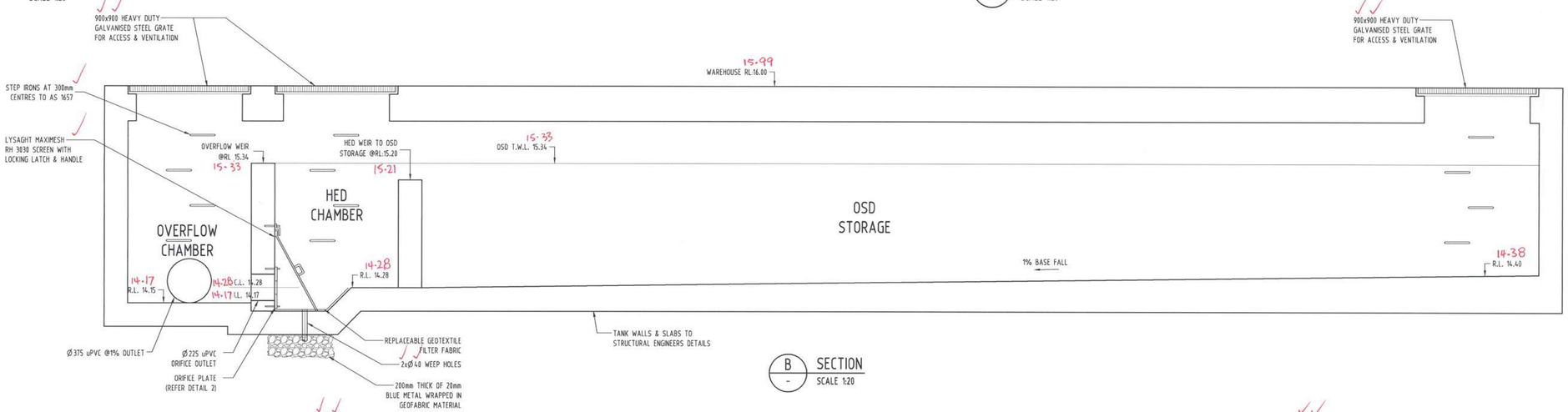

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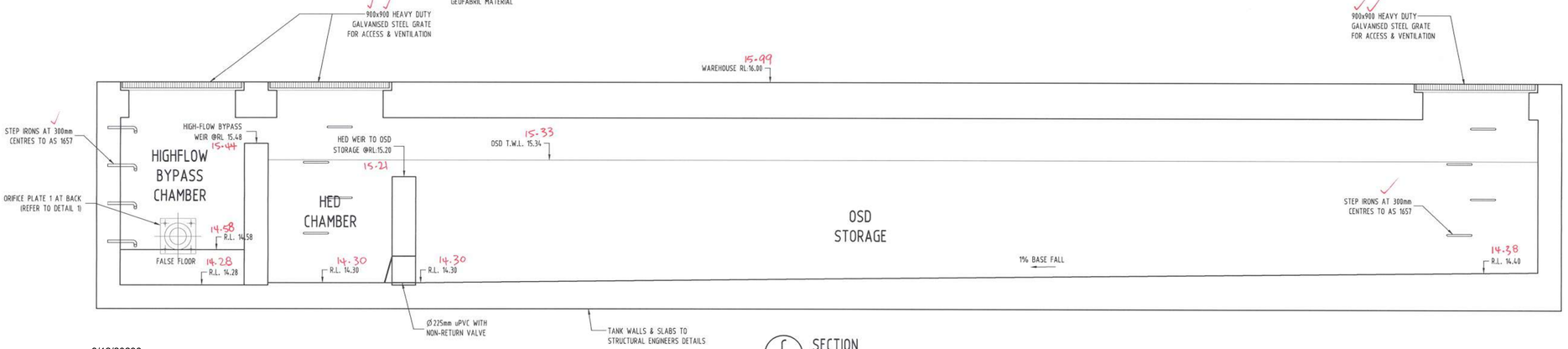

C - SECTION
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8/12/20238

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FIRE			
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CIVIL			
SURVEY			

ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

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Scales
SCALE 1:10 ON ORIGINAL SIZE
SCALE 1:25 ON ORIGINAL SIZE
SCALE 1:50 ON ORIGINAL SIZE
SCALE 1:100 ON ORIGINAL SIZE

CLIENT
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PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	6 OF 10	AS SHOWN

Drawing Status: PRELIMINARY
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Drawing Title
STORMWATER DRAINAGE DESIGN
DETAILS SHEET 1 OF 4

Project No	Drawing No	Revision No
20190032	SW300	02

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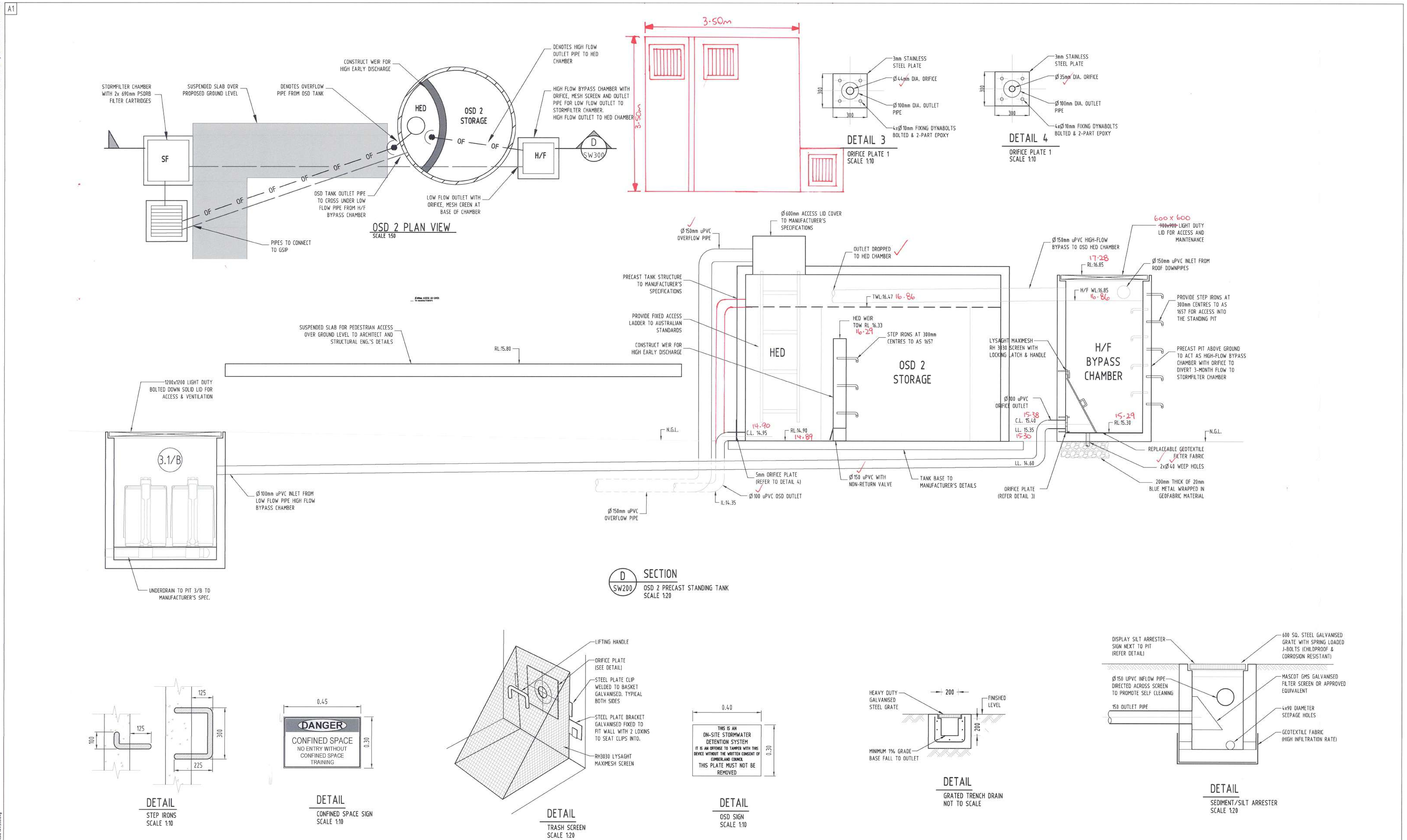

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(PAGE 4 OF 5)

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B	ISSUE FOR DA	AA	28.10.19	2
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Scales
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SCALE 1:20 ON ORIGINAL SIZE

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MR. EDDIE HAWACH

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PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT, YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	7 OF 10	AS SHOWN

Drawing Status
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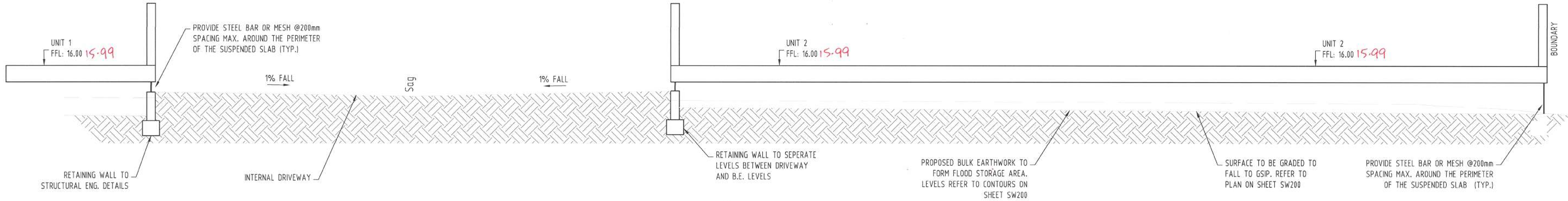
Drawing Title
STORMWATER DRAINAGE DESIGN
DETAILS SHEET 2 OF 4

Project No	Drawing No	Revision No
20190032	SW301	02

A1



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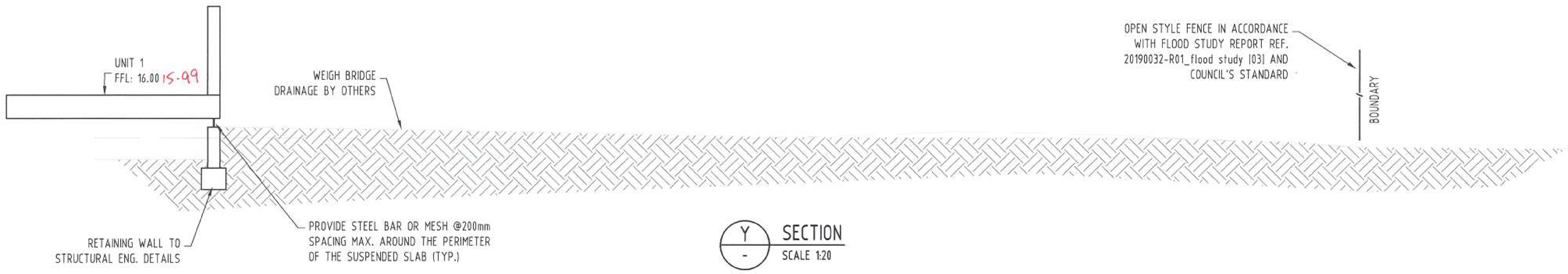

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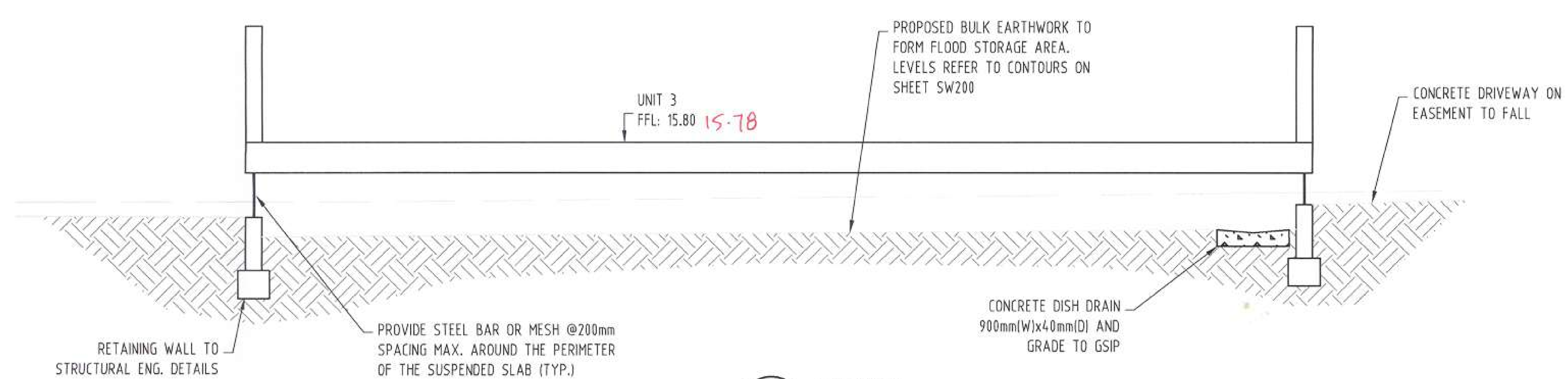

Z - SECTION
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ORIFICE 1 CALCULATION:

I-4EY/5min = 50.8mm/hr
Q-4EY = 50.8x2750/3600 = 38.81 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 38.81 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 0.79m

d = Ø142mm ✓

StormFilter Orifice Plate Design - flow Clc

The equation below defines the relationship between the diameter of the orifice plate, the flow rate through the cartridge and head.

Q = (0.111d^2.06h^0.5)/60
where d = Restrictor Disc Diameter
Δh = head

Cartridge Height (mm)	690
Cartridge Quantity	10
d(mm)	27.6
Δh (m)	0.77
Total Q at head	**15.09 L/s**

ORIFICE 2 CALCULATION:

Q-OSD = 36.29 L/s
Q-SF = 15.09 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 36.29 - 9.02 = 27.27 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 0.79m

d = Ø98mm ✓

ORIFICE 3 CALCULATION:

I-4EY/5min = 50.8mm/hr
Q-4EY = 50.8x350/3600 = 4.94 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 4.94 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 1.45m

d = Ø44mm ✓

StormFilter Flow Calculator - Psorb Media

The equation below defines the relationship between the diameter of the orifice the flow rate through the cartridge and head.

Q = (0.111d^2.06h^0.5)/60
where d = Restrictor Disc Diameter
Δh = head

Cartridge Name	690
Cartridge Quantity	2
Δh (m)	0.82
Total Q at head	**1.86**

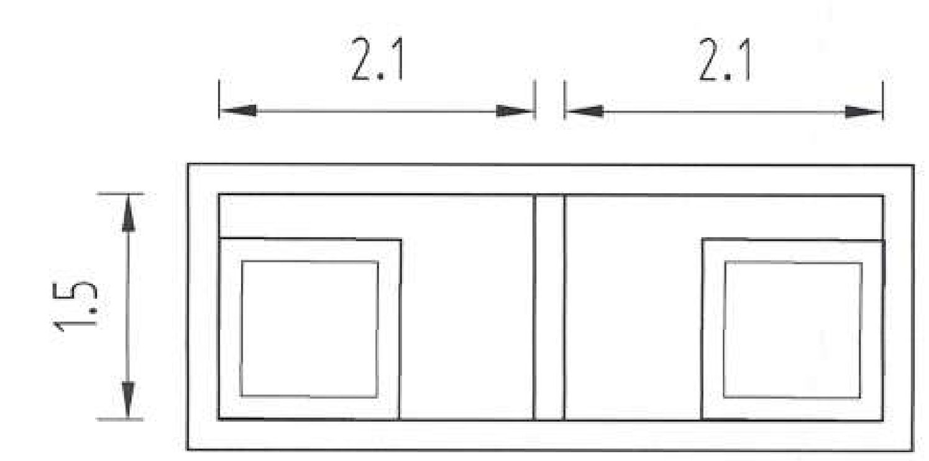
OCEAN PROTECT

ORIFICE 4 CALCULATION:

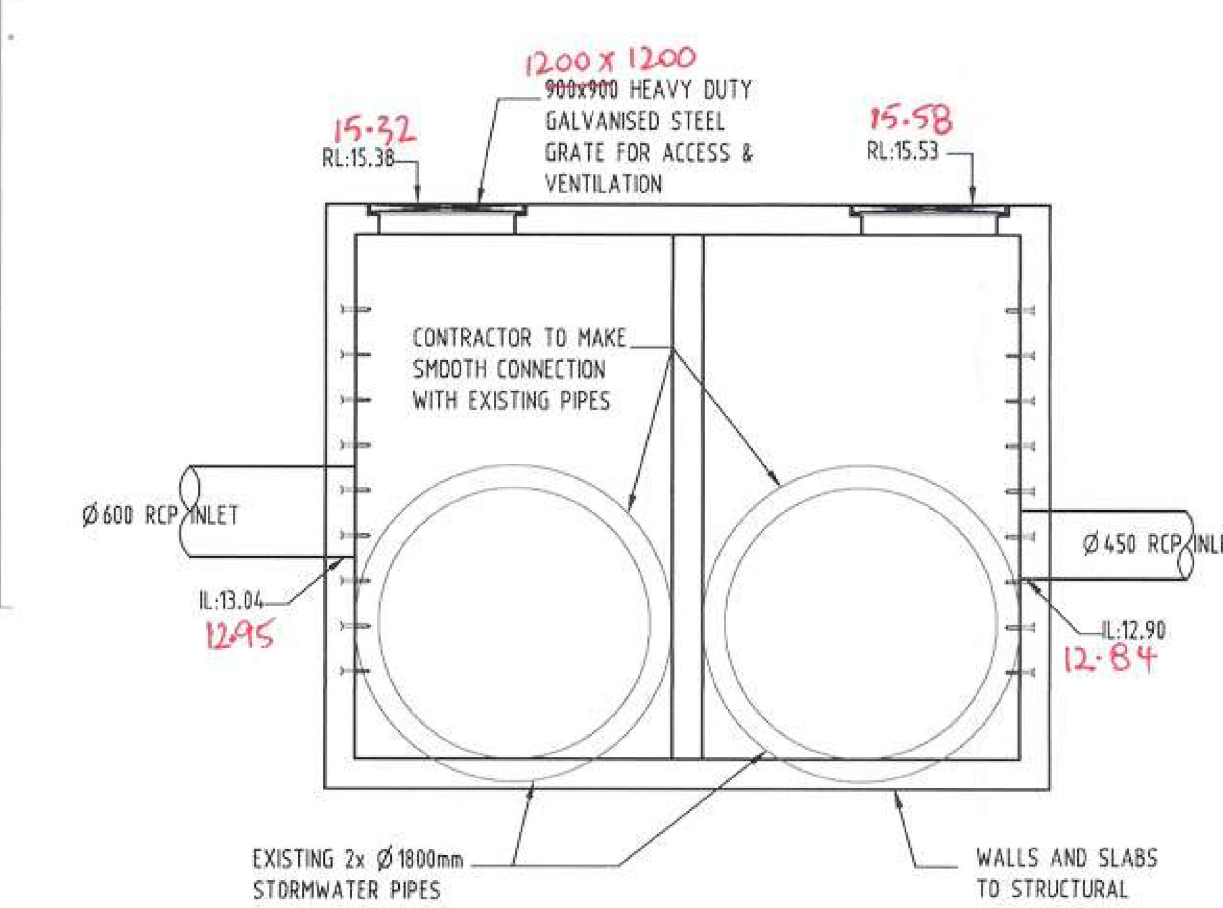
Q-OSD = 5.19 L/s
Q-SF = 1.86 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 5.19 - 1.86 = 3.33 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 1.57m

d = Ø35mm ✓



PLAN VIEW
CONNECTION CHAMBER
SCALE 1:50



SECTION
CONNECTION CHAMBER
SCALE 1:50

SIGNATURE: [signature] DATE: 8/12/2023

(PAGE 5 OF 5)

Issue	Last revision title	by	Date	Status
02	PRELIMINARY	MN	18.05.21	1
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A	ISSUE FOR REVIEW	AA	08.07.19	2

Issuer internal sequence and revision history
1-preliminary 2-development application 3-construction certificate
4-tender 5-construction 6-other

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

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DESIGNED	MN	DATE	18.05.21
VERIFIED	MN	DATE	18.05.21
APPROVED	MN	DATE	18.05.21

Scales
0m 0.1 0.2 0.3 0.4 0.5 SCALE 1:10 ON ORIGINAL SIZE
0m 0.2 0.4 0.6 0.8 1.0 SCALE 1:20 ON ORIGINAL SIZE

CLIENT
MR. EDDIE HAWACH

ARCHITECT
bainidesign

SGC Engineering Value
Suite 5.03, Level 5, 156 PACIFIC HIGHWAY ST. LEONARDS, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT, YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	8 OF 10	AS SHOWN

Drawing Status
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Drawing Title
STORMWATER DRAINAGE DESIGN
DETAILS SHEET 3 OF 4

Project No	Drawing No	Revision No
20190032	SW303	02

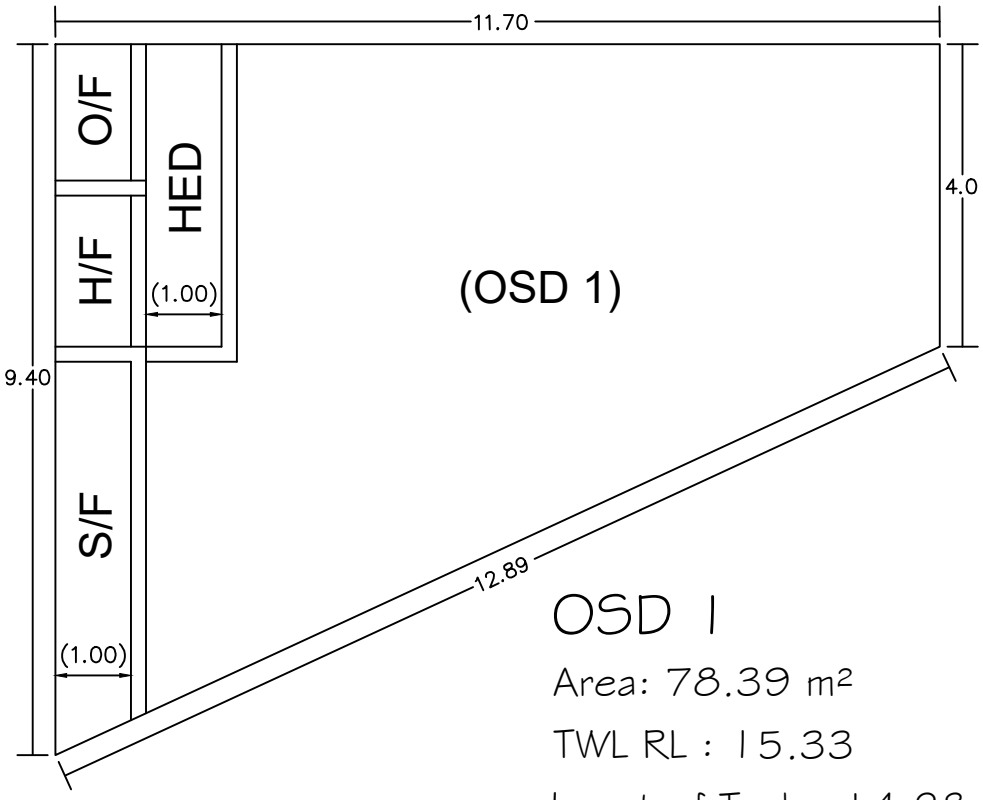
Land & Engineering Surveyors
P.O. BOX 617 Granville NSW 2142
Mobile: 0405 416 914
Email: info@ newsouthsurveys.com.au

DATE: 16/10/2023

PROJECT: 5 KIORA CRESCENT YENNORA

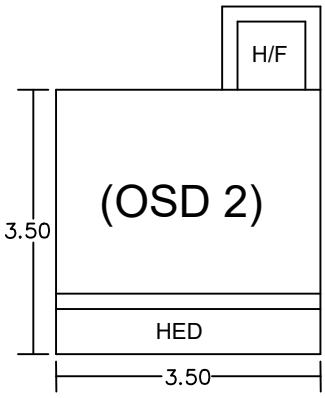
REFERENCE NO: 118097

VOLUME SKETCH



OSD 1

Area: 78.39 m²
TWL RL : 15.33
Invert of Tank : 14.28
Minimum Height: 0.95m
Maximum Height: 1.05m
Average Height: 1.00m
Volume : 78.39m² x 1.00m = 78.39m³



OSD 2

Area: 12.25m²
TWL RL : 16.86
Invert of Tank : 14.89
Average Height : 1.96m
Volume : 12.25m² x 1.96m = 24.01m³

REGISTERED SURVEYOR
PAUL WILLIAM WILD ID: 1603

A1

DESIGN NOTES:

THE SITE IS LOCATED IN CUMBERLAND COUNCIL.

SITE AREA = 7216m²

THE SITE IS WITHIN A MEDIUM FLOOD RISK AREA AND IS IDENTIFIED TO BE AFFECTED BY THE 1% AEP FLOOD ACCORDING TO COUNCILS PROSPECT CREEK OVERLAND FLOOD STUDY. THEREFORE THE OSD STORAGE SYSTEM WILL BE AN ABOVE GROUND TANK TO PREVENT A DROWNED ORRIFICE AND AVOID ACCEPTANCE OF FLOOD WATERS WITHIN THE SYSTEM.

OSD WAS DESIGNED USING COUNCILS CALCULATION SPREADSHEET TO TARGET ROOF AREA ONLY AS ADVISED BY COUNCILS ENGINEER. THE RESULTS ARE SHOWN ON SW501.

A MUSIC MODEL WAS CARRIED OUT TO ACHIEVE THE BELOW STORMWATER QUALITY REDUCTION TARGETS FOR ROOF WATER ONLY AS PER COUNCIL'S ADVICE AND DCP.

TSS: 85%
TP: 60%
TN: 45%
GP: 90%

STORMWATER PLANS TO BE READ IN CONJUNCTION WITH FLOOD REPORT FOR MITTIGATION WORKS, REF 20190032-R01-FLOOD STUDY [C], PREPARED BY SGC.

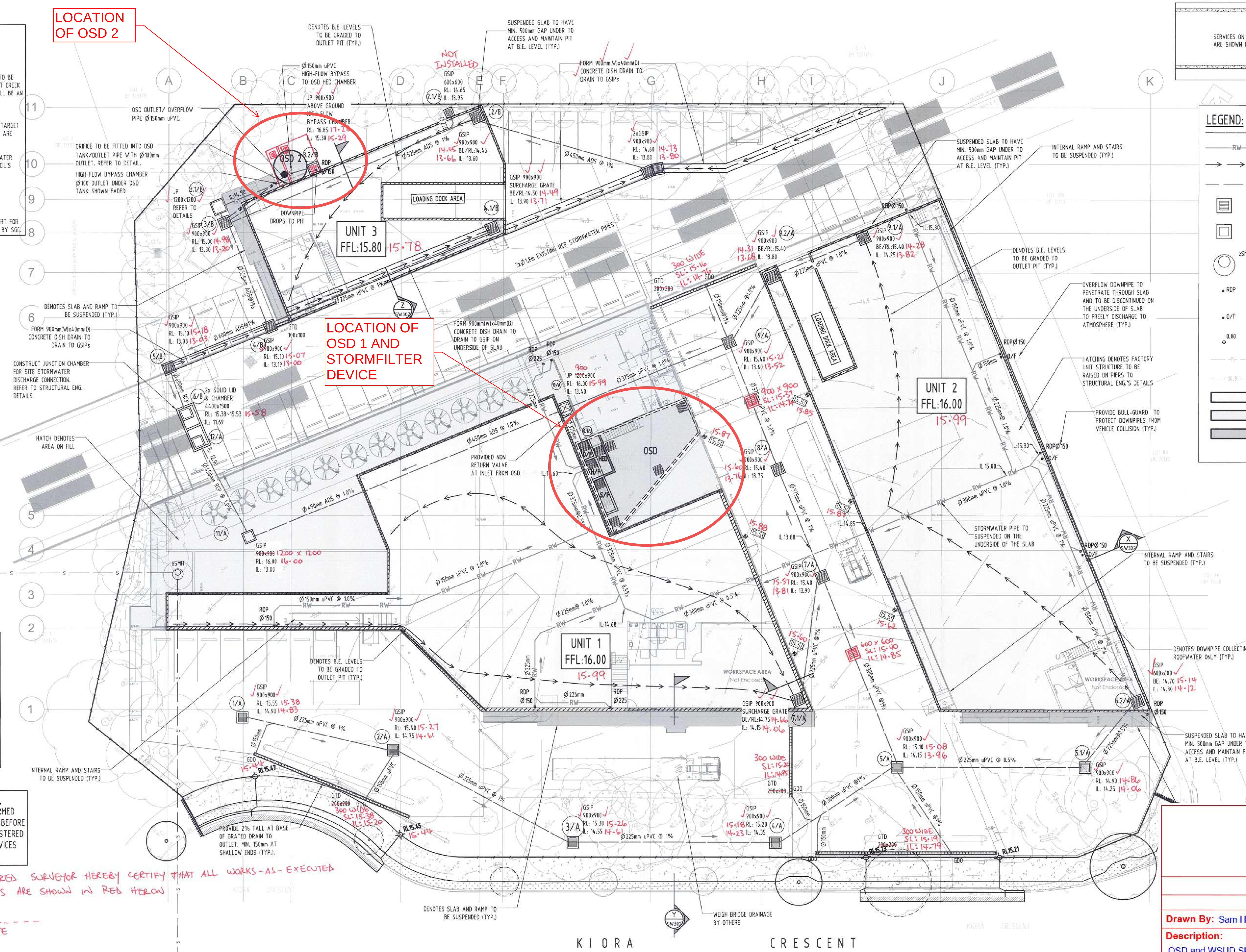
OSD TANK 2 (CATCHMENT 2)
TOP OF TANK:17.30 17·28
TWL:16.47 16·86
IL: 14.90 14·89
DIMENSION: ~~Ø3.45~~ 3·5m x 3·5m
TANK DEPTH: 2.15m 2·19m
EFFECTIVE WATER DEPTH: 1.57m 1·96m
VOLUME REQUIRED: 11.05m³
VOLUME PROVIDED: 15.50m³ 24·01m³
PSD: 3.33 L/s
ORIFICE Ø: 35mm
ORIFICE CL: 15.40 15·38
REFER TO DETAILS

STORMWATER TREATMENT PRECAST PIT (GSIP 1200x1200) (3.1/B)
RL:15.00
IL: 13.50
DIMENSION: 1.2m (L) x 1.2m (W)
SURFACE AREA: 1.44m²
TOTAL DEPTH: 1.50m
EFFECTIVE DEPTH: 0.92m
CONTAINS 2x690mm PSorb STORMFILTER CARTRIDGES.
REFER TO DETAILS

IMPORTANT NOTE:
ALL GSIPs ARE TO BE SILT ARRESTOR PITS WITH MESH SCREEN AND RELIEF DRAINS AS REQUIRED.
REFER TO TYPICAL DETAILS.
INVERTS SHOWN ARE OUTLET PIPES LEVELS.
ALLOW ADDITIONAL 300mm SUMP FOR SILTATION.

NOTE:
1. BOUNDARY FENCING TO BE PROVIDED WITH POOL-TYPE FENCE AT THE BASE TO 1%AEP FLOOD LEVEL IN ACCORDANCE WITH COUNCIL'S STANDARD DRAWING SD8025. FURTHER DETAILS REFER TO FLOOD STUDY REPORT PREPARED BY SGC DATED 08/09/2020.
2. ALL GUTTERS AND DOWNPIPES TO BE DESIGNED FOR 1%AEP STORM EVENTS TO FULLY CAPTURE ROOF RUN-OFF TO THE PROPOSED OSDs.
3. PROPOSED RETAINING WALLS AROUND PROPERTY TO BE LEAK PROOF, WATERTIGHT SOLID STRUCTURE. REFER TO TYPICAL DETAIL.
4. PROVIDE STEPS IRON FOR ALL PITS AND OSD ACCESS GRATES WHEREVER THE DEPTHS ARE GREATER THAN 1.0m.

SERVICES SHOWN ON PLAN ARE INDICATIVE, EXACT DEPTH AND LOCATION TO BE CONFIRMED ONSITE. CONTRACTOR TO CARRY OUT DIAL BEFORE YOU DIG APPLICATION AND ENGAGE A REGISTERED SURVEYOR TO PEG OUT ALL EXISTING SERVICES PRIOR TO ANY WORK COMMENCING ONSITE.



SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.N.O

LEGEND:

- STORMWATER LINE
- RW — ROOFWATER LINE TO OSD
- DRAINAGE DIVERSION
- S — AUTHORITY SEWER LINE
- GRATED SURFACE INLET PIT
- SEALED JUNCTION PIT
- eSMH — EXISTING SEWER MANHOLE
- RDP — ROOFWATER DOWNPIPES
- O/F — OVERFLOW DOWNPIPES
- 0.00 — SPOT LEVELS
- MAJOR CONTOURS 0.5m INTERVAL
- MINOR CONTOURS 0.1m INTERVAL
- SUSPENDED BUILDING SLAB
- AREA ON FILL
- SUSPENDED SLAB/RAMP

OSD TANK 1 (CATCHMENT 1)
TOP OF TANK:16.00 15·99
TWL:15.34 15·33
IL: 14.15 14·17
AREA:78.5m² 78·39m²
MAX DEPTH:1.06m 1·05m
AVG DEPTH: 1.0m 1·00m
VOLUME REQUIRED: 75.53m³
VOLUME PROVIDED: 78.5m³ 78·39m³
PSD: 27.27 L/s
ORIFICE Ø: 98mm
ORIFICE CL: 14.28 14·28

STORMFILTER CHAMBER
RL:16.00 15·99
IL: 14.43 14·49
SURFACE AREA: 3.6m² 4·97m²
CONTAINS 10x690mm PSorb STORMFILTER CARTRIDGES.
REFER TO DETAILS

HIGH-FLOW BYPASS CHAMBER
RL:16.00 15·81
IL: 14.58 14·58

I, PAUL W WILD No. 1603 REGISTERED SURVEYOR HEREBY CERTIFY THAT ALL WORKS-AS-EXECUTED LEVELS, ADDITIONS AND ALTERATIONS ARE SHOWN IN RED HERON

[signature] 8/12/2023
SIGNATURE DATE

NEW SOUTH SURVEYS P/L
P.O. BOX 617
GRANVILLE NSW 2142

OUR REFERENCE: 118097 (PAGE 1 OF 5)

SGC
DOCUMENT DRAFT SKETCH
Our Ref: 2019.0032
Drawn By: Sam Haddad **Date:** 10.04.2024
Description: OSD and WSUD Sketch Plan

Issue	Last revision title	by	Date	Status
02	PRELIMINARY	MN	18.05.21	1
01	PRELIMINARY	MN	04.05.21	1
E	ISSUE FOR DEFERRED COMMENCEMENT	MN	18.09.20	2
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B	ISSUE FOR DA	AA	28.10.19	2
A	ISSUE FOR REVIEW	AA	08.07.19	2

Issuer internal sequence and revision history
1-preliminary 2-development application 3-construction certificate 4-tender 5-construction 6-other

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
FIRE			
HYD			
LANDS			
CIVIL			
SURVEY			

ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES MAINS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR DECISION/CLARIFICATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

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APPROVED	MN	DATE	18.05.21

Scales
SCALE 1:200 ON ORIGINAL SIZE

CLIENT
MR. EDDIE HAWACH

ARCHITECT
bainidesign

SGC Engineering Value
Suite 5.03, Level 5,
156 PACIFIC HIGHWAY
ST. LEONARDS, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	3 OF 10	1:200 @ A1

Drawing Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Drawing Title: STORMWATER DRAINAGE DESIGN
GROUND FLOOR PLAN

Project No	Drawing No	Revision No
20190032	SW200	02

A1

DATE PLOTTED: 18 May 2021 7:03 PM BY: SGCEMMA28

DESIGN NOTES:

THE SITE IS LOCATED IN CUMBERLAND COUNCIL.

SITE AREA = 7216m²

THE SITE IS WITHIN A MEDIUM FLOOD RISK AREA AND IS IDENTIFIED TO BE AFFECTED BY THE 1% AEP FLOOD ACCORDING TO COUNCILS PROSPECT CREEK OVERLAND FLOOD STUDY. THEREFORE THE OSD STORAGE SYSTEM WILL BE AN ABOVE GROUND TANK TO PREVENT A DROWNED ORRIFICE AND AVOID ACCEPTANCE OF FLOOD WATERS WITHIN THE SYSTEM.

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OSD TANK 2 (CATCHMENT 2)
TOP OF TANK:17.30 17-28
TWL:16.47 16-86
IL: 14.90 14-89
DIMENSION: Ø3.95 3.5m x 3.5m
TANK DEPTH: 2.15m 2.19m
EFFECTIVE WATER DEPTH: 1.57m 1.96m
VOLUME REQUIRED: 11.05m³
VOLUME PROVIDED: 15.58m³ 24.01m³
PSD: 3.33 L/s
ORIFICE Ø: 35mm
ORIFICE CL: 15.43 15-38
REFER TO DETAILS

STORMWATER TREATMENT PRECAST PIT (GSP 1200x1200) 4.1/B
RL:15.00
IL: 13.50
DIMENSION: 1.2m (L) x 1.2m (W)
SURFACE AREA: 1.44m²
TOTAL DEPTH: 1.50m
EFFECTIVE DEPTH: 0.92m
CONTAINS 2x690mm PSorb STORMFILTER CARTRIDGES.

REFER TO DETAILS

IMPORTANT NOTE:
ALL GSPs ARE TO BE SILT ARRESTOR PITS WITH MESH SCREEN AND RELIEF DRAINS AS REQUIRED. REFER TO TYPICAL DETAILS. INVERTS SHOWN ARE OUTLET PIPES LEVELS. ALLOW ADDITIONAL 300mm SUMP FOR SILTATION.

NOTE:
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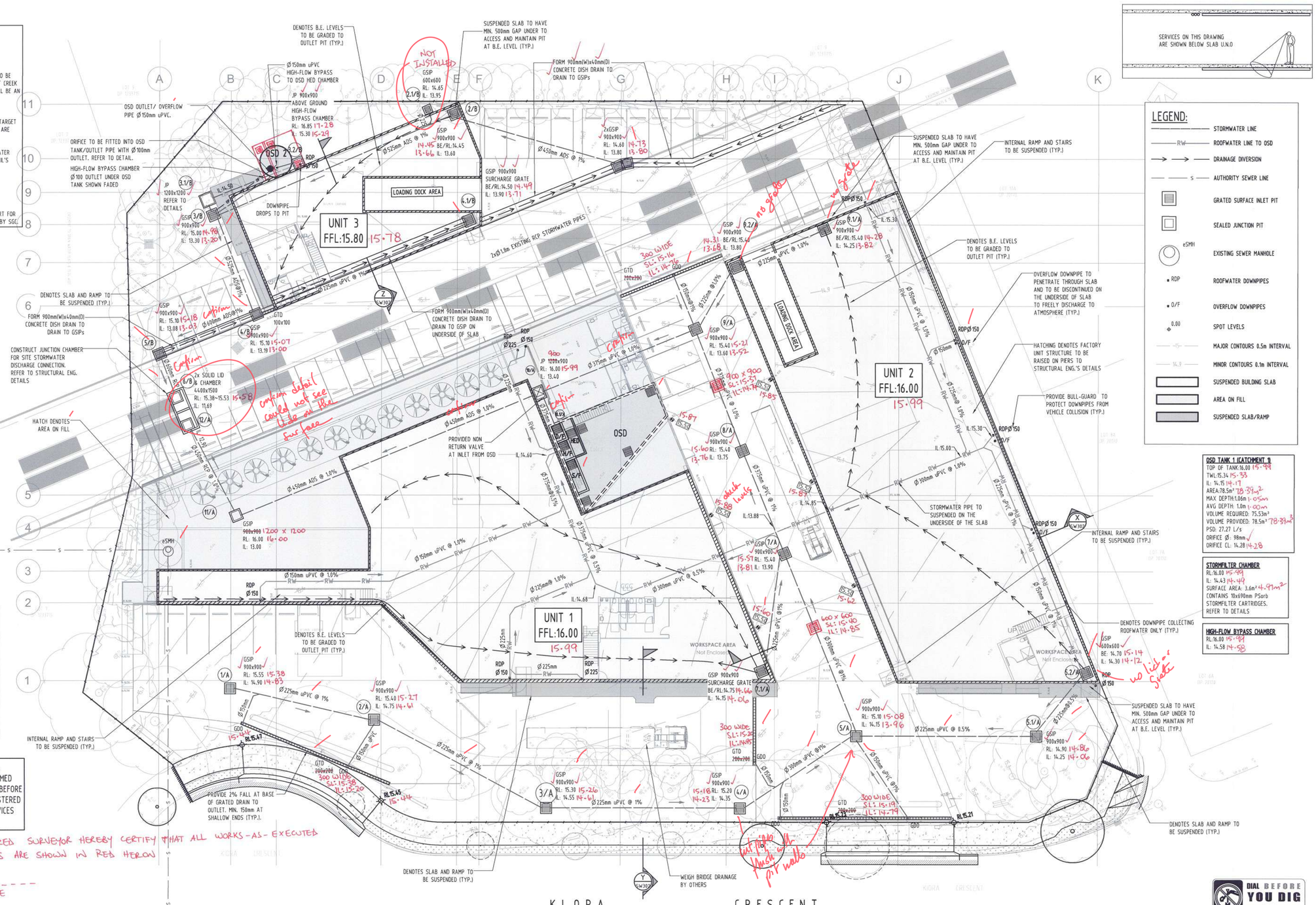

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LEGEND:

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- MAJOR CONTOURS 0.5m INTERVAL
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- AREA ON FILL
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OSD TANK 1 (CATCHMENT 1)
TOP OF TANK:16.80 15-99
TWL:15.34 15-33
IL: 14.15 14-17
AREA:78.5m² 78.39m²
MAX. DEPTH:1.06m 1.05m
AVG DEPTH: 1.0m 1.00m
VOLUME REQUIRED: 75.53m³
VOLUME PROVIDED: 78.5m³ 78.31m³
PSD: 27.27 L/s
ORIFICE Ø: 98mm
ORIFICE CL: 14.28 14-28

STORMFILTER CHAMBER
RL:16.80 15-99
IL: 14.43 14-42
SURFACE AREA: 3.6m² 4.97m²
CONTAINS 10x690mm PSorb STORMFILTER CARTRIDGES.
REFER TO DETAILS

HIGH-FLOW BYPASS CHAMBER
RL:16.80 15-99
IL: 14.58 14-58

FINAL SITE INSPECTION BY Seth on 30.1.24

I, PAUL W WILD No. 1603 REGISTERED SURVEYOR HEREBY CERTIFY THAT ALL WORKS-AS-EXECUTED LEVELS, ADDITIONS AND ALTERATIONS ARE SHOWN IN RED HEREON

SIGNATURE — 8/12/2023 DATE

NEW SOUTH SURVEYS P/L
P.O. BOX 617
GRANVILLE NSW 2142

OUR REFERENCE: 118097

DIAL BEFORE YOU DIG www.1100.com.au

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ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

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0m 2 4 6 8 10
SCALE 1:200 ON ORIGINAL SIZE

CLIENT
MR. EDDIE HAWACH

ARCHITECT
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PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	3 OF 10	1:200 @ A1

Drawing Status: PRELIMINARY
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Drawing Title
STORMWATER DRAINAGE DESIGN
GROUND FLOOR PLAN

Project No	Drawing No	Revision No
20190032	SW200	02

Z:\Projects\2019\20190032 5 Kiora Crescent Yennora\Cad\Cad\SW200.dwg

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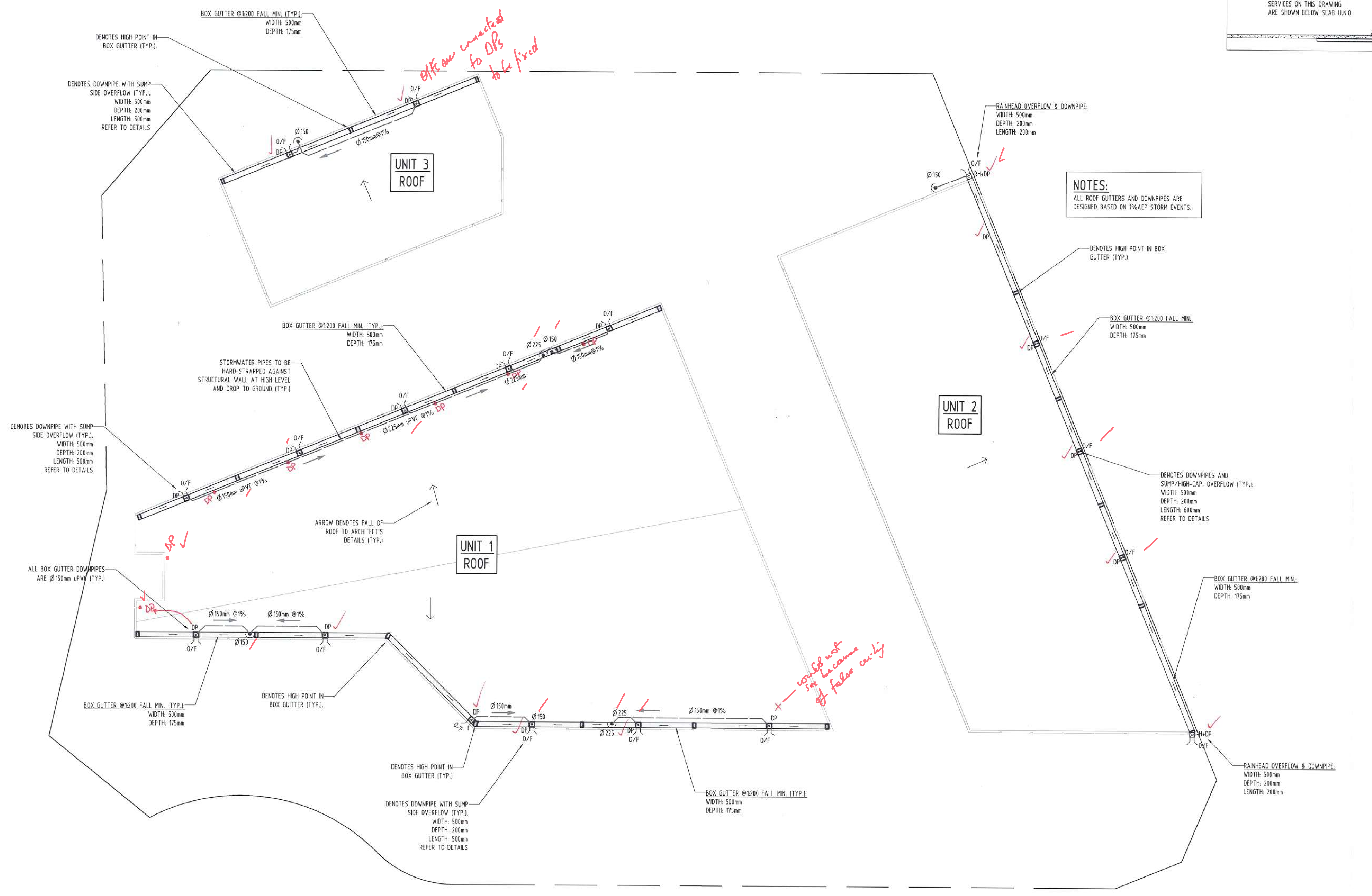

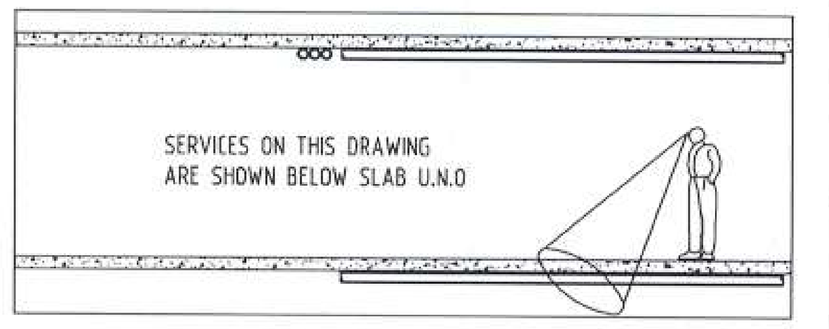

8/12/2023

SIGNATURE DATE

(PAGE 2 OF 5)

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CIVIL			
SURVEY			

ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

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APPROVED	MN	DATE	18.05.21

Scales

0m 2 4 6 8 10
SCALE 1:200 ON ORIGINAL SIZE

CLIENT
MR. EDDIE HAWACH

ARCHITECT
bainidesign

SGC Engineering Value
Suite 5.03, Level 5,
156 PACIFIC HIGHWAY
ST. LEONARDS, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	4 OF 10	1:200 @ A1

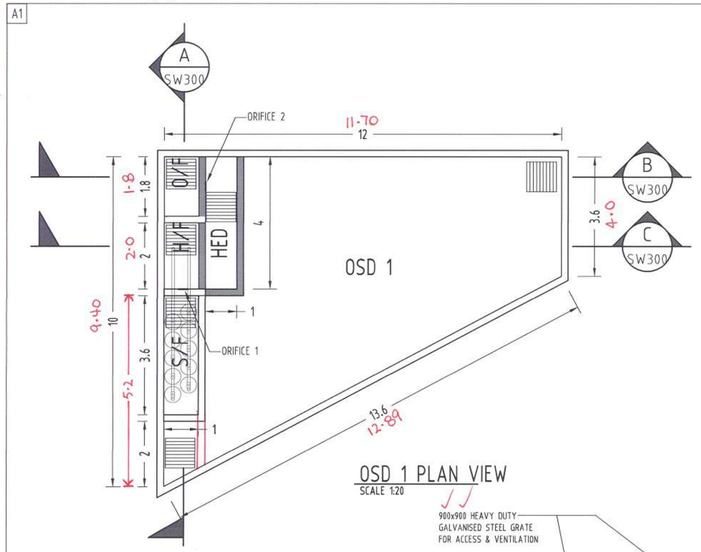
Drawing Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Drawing Title
STORMWATER DRAINAGE DESIGN
ROOF PLAN

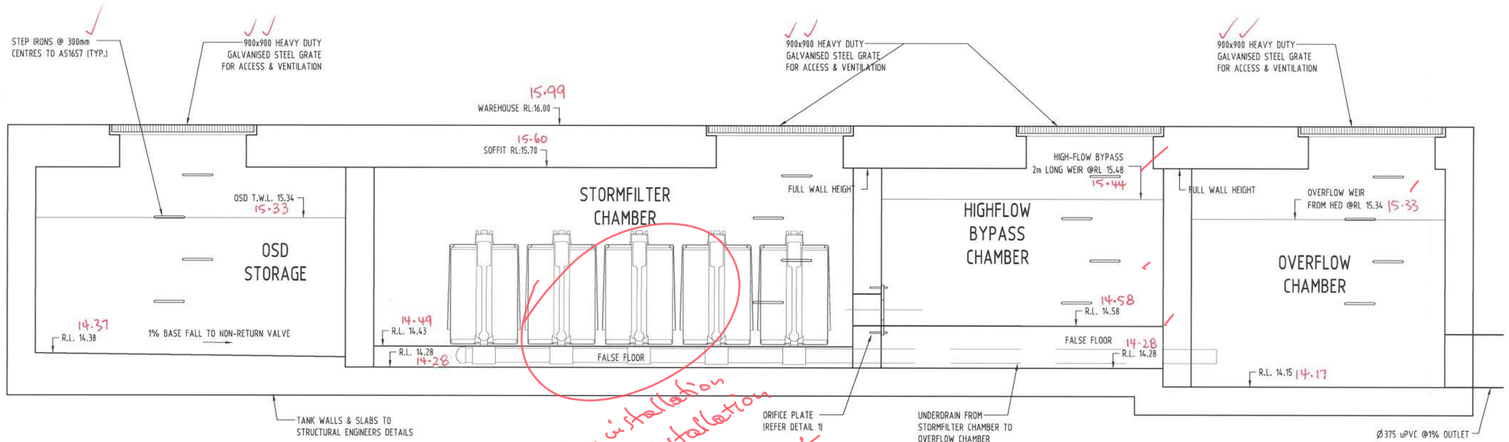
Project No	Drawing No	Revision No
20190032	SW201	02

A1

DATE PLOTTED: 18 May 2021 7:03 PM BY: SGCEMMA78

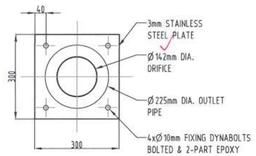


OSD 1 PLAN VIEW
SCALE 1:20

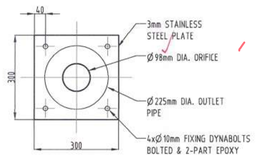


A SECTION
SCALE 1:20

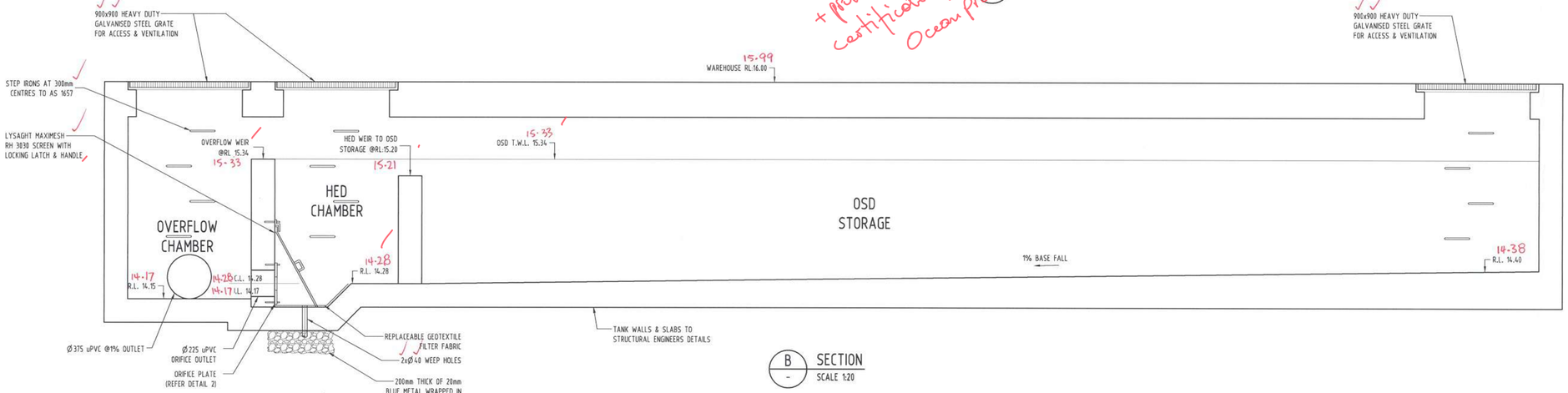
Confirm installation + provide installation certificate from Ocean Protect



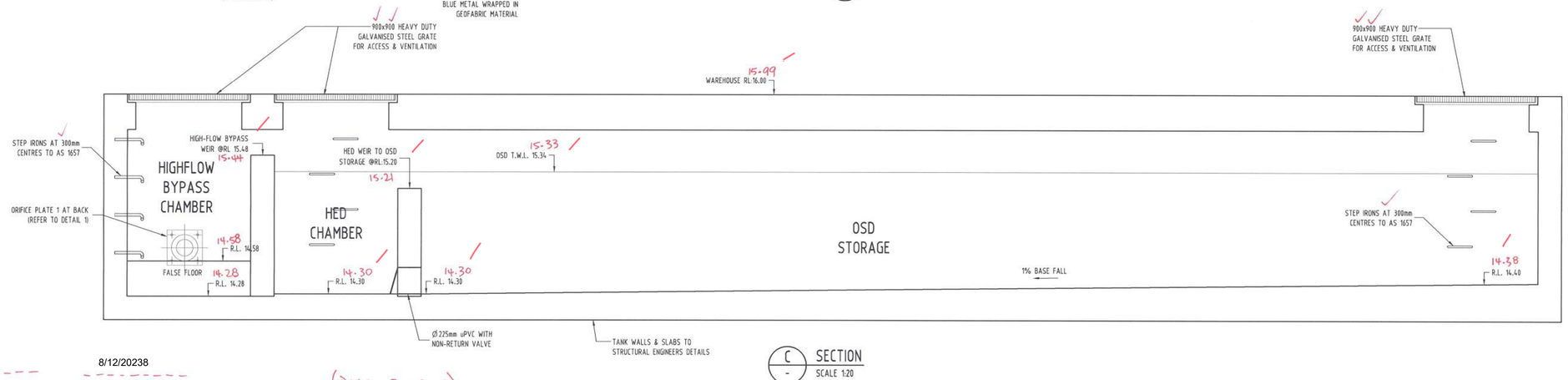
DETAIL 1
ORIFICE PLATE 1
SCALE 1:10



DETAIL 2
ORIFICE PLATE 2
SCALE 1:10



B SECTION
SCALE 1:20



C SECTION
SCALE 1:20

8/12/20238

SIGNATURE DATE

(PAGE 3 OF 5)

02	PRELIMINARY	MN	18.05.21	1
01	PRELIMINARY	MN	04.05.21	1
E	ISSUE FOR DEFERRED COMMENCEMENT	MN	18.09.20	2
D	ISSUE FOR DA	AA	18.11.19	2
C	ISSUE FOR DA	AA	12.11.19	2
B	ISSUE FOR DA	AA	26.10.19	2
A	ISSUE FOR REVIEW	AA	08.07.19	2

Issue	Last revision title	by	Date	Status

Issuer internal sequence and revision history

1-preliminary 2-development application 3-construction certificate
4-tender 5-construction 6-other

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES MAINS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR DECISION/CLARIFICATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

QUALITY CONTROL

DRAWN	MN	DATE	18.05.21
CHECKED	MN	DATE	18.05.21
DESIGNED	MN	DATE	18.05.21
VERIFIED	MN	DATE	18.05.21
APPROVED	MN	DATE	18.05.21

Scales

0m 0.1 0.2 0.3 0.4 0.5
SCALE 1:10 ON ORIGINAL SIZE
0m 0.25 0.5 0.75 1.0 1.25
SCALE 1:25 ON ORIGINAL SIZE
0m 0.5 1 1.5 2 2.5
SCALE 1:50 ON ORIGINAL SIZE
0m 1 2 3 4 5
SCALE 1:100 ON ORIGINAL SIZE

CLIENT
MR. EDDIE HAWACH

ARCHITECT
bainidesign

SGC Engineering Value
Suite 5.03, Level 5,
156 PACIFIC HIGHWAY
ST. LEONARDS, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

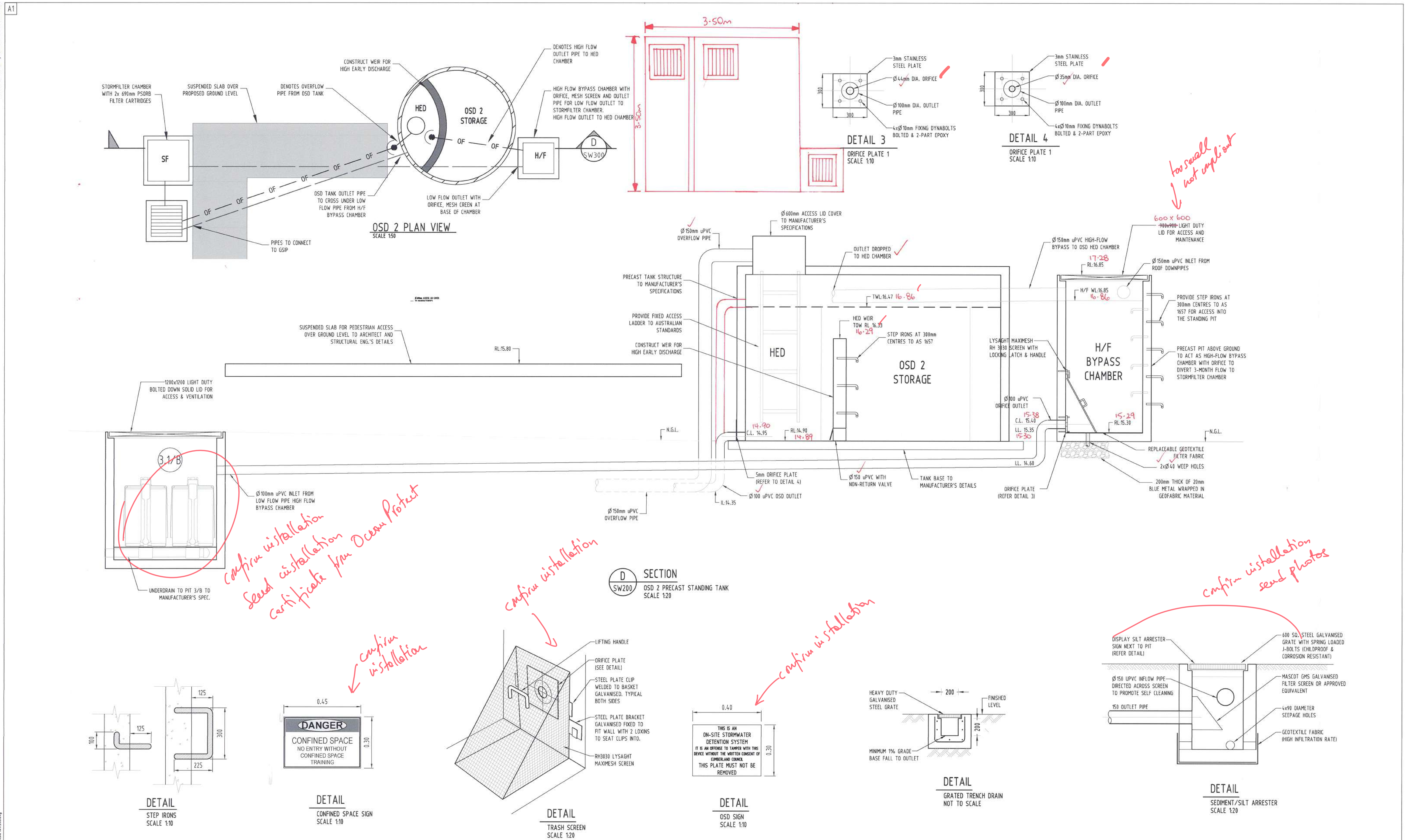
Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	6 OF 10	AS SHOWN

Drawing Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Drawing Title
STORMWATER DRAINAGE DESIGN
DETAILS SHEET 1 OF 4

Project No	Drawing No	Revision No
20190032	SW300	02

C:\Projects\2019\20190032 5 Kiora Crescent, Yennora\Cad\cad\SW300.dwg



SIGNATURE — 8/12/2023 DATE

(PAGE 4 OF 5)

Issue	Last revision title	by	Date	Status
02	PRELIMINARY	MN	18.05.21	1
01	PRELIMINARY	MN	04.05.21	1
E	ISSUE FOR DEFERRED COMMENCEMENT	MN	18.09.20	2
D	ISSUE FOR DA	AA	18.11.19	2
C	ISSUE FOR DA	AA	12.11.19	2
B	ISSUE FOR DA	AA	28.10.19	2
A	ISSUE FOR REVIEW	AA	08.07.19	2

Issuer internal sequence and revision history: 1-preliminary, 2-development application, 3-construction certificate, 4-tender, 5-construction, 6-other

Reference Coordination Drawing — Discipline: ARCH, ARCH, STRUCT, MECH, ELEC, HYD, FIRE, LANDS, CIVIL, SURVEY

QUALITY CONTROL			
DRAWN	MN	DATE	18.05.21
CHECKED	MN	DATE	18.05.21
DESIGNED	MN	DATE	18.05.21
VERIFIED	MN	DATE	18.05.21
APPROVED	MN	DATE	18.05.21

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Scales: SCALE 1:10 ON ORIGINAL SIZE; SCALE 1:20 ON ORIGINAL SIZE

CLIENT: MR. EDDIE HAWACH

ARCHITECT: bainidesign

SGC Engineering Value
Suite 5.03, Level 5, 156 PACIFIC HIGHWAY ST. LEONARDS, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT: PROPOSED INDUSTRIAL DEVELOPMENT, 5 KIORA CRESCENT, YENNORA

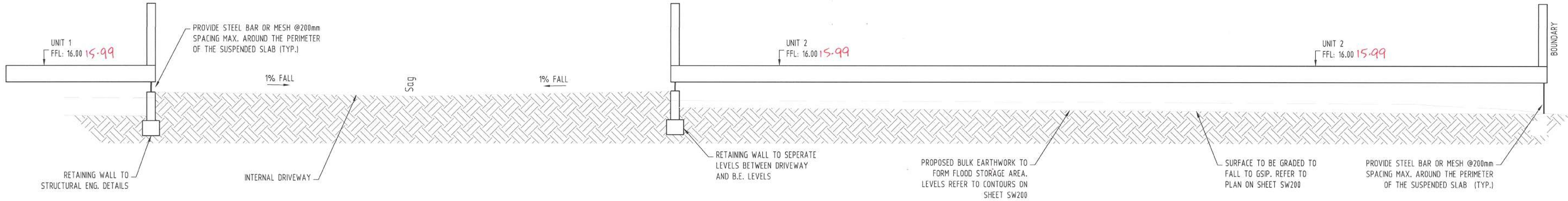
Grid: - | Datum: A.H.D. | Sheet: 7 OF 10 | Scale (at original size): AS SHOWN

Drawing Status: PRELIMINARY — NOT TO BE USED FOR CONSTRUCTION PURPOSES

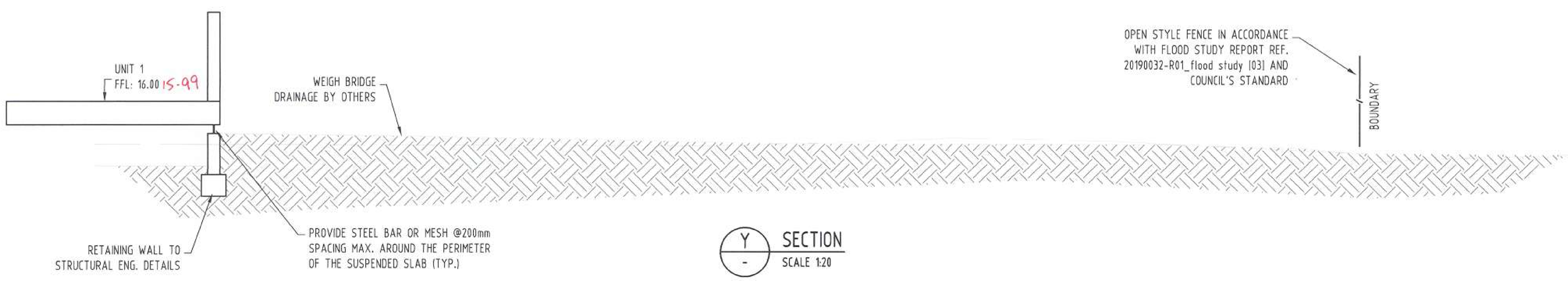
Drawing Title: STORMWATER DRAINAGE DESIGN — DETAILS SHEET 2 OF 4

Project No: 20190032 | Drawing No: SW301 | Revision No: 02

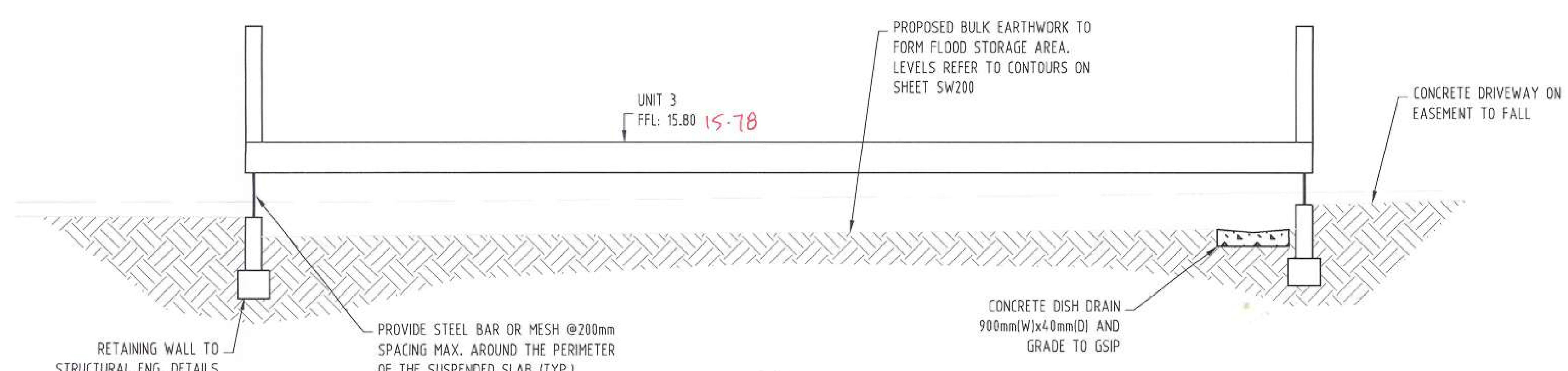
A1



X SECTION
SCALE 1:20



Y SECTION
SCALE 1:20



Z SECTION
SCALE 1:20

ORIFICE 1 CALCULATION:

I-4EY/5min = 50.8mm/hr
Q-4EY = 50.8x2750/3600 = 38.81 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 38.81 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 0.79m

d = Ø142mm ✓

StormFilter Orifice Plate Design - flow Clc

The equation below defines the relationship between the diameter of the orifice plate, the flow rate through the cartridge and head.

Q = (0.111d^2.06h^0.5)/60
where d = Restrictor Disc Diameter
Δh = head

Cartridge Height (mm)	690
Cartridge Quantity	10
d(mm)	27.6
Δh (m)	0.77
Total Q at head	**15.09 L/s**

ORIFICE 2 CALCULATION:

Q-OSD = 36.29 L/s
Q-SF = 15.09 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 36.29 - 9.02 = 27.27 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 0.79m

d = Ø98mm ✓

ORIFICE 3 CALCULATION:

I-4EY/5min = 50.8mm/hr
Q-4EY = 50.8x350/3600 = 4.94 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 4.94 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 1.45m

d = Ø44mm ✓

StormFilter Flow Calculator - Psorb Media

The equation below defines the relationship between the diameter of the orifice the flow rate through the cartridge and head.

Q = (0.111d^2.06h^0.5)/60
where d = Restrictor Disc Diameter
Δh = head

Cartridge Name	690
Cartridge Quantity	2
Δh (m)	0.82
Total Q at head	**1.86**

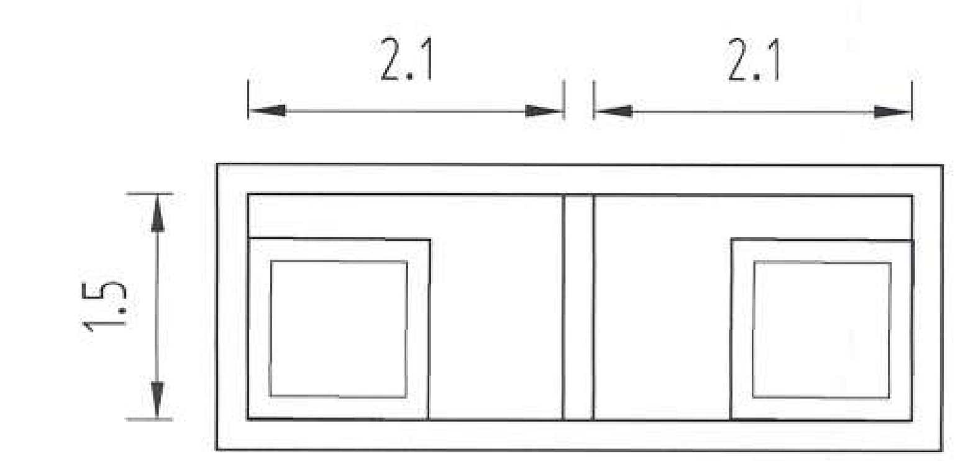
OCEAN PROTECT

ORIFICE 4 CALCULATION:

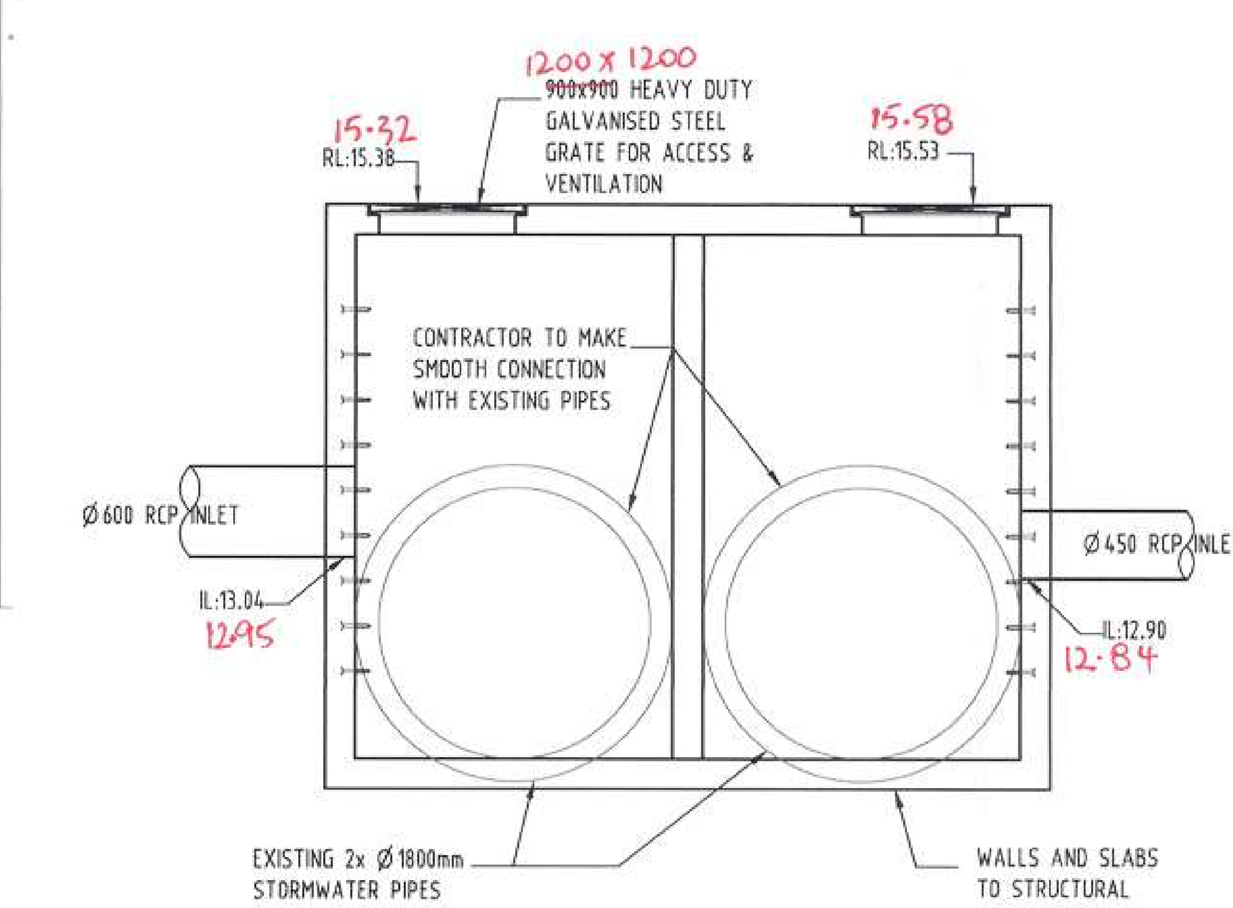
Q-OSD = 5.19 L/s
Q-SF = 1.86 L/s

FORMULA: $Q = CA(2gh)^{0.5}$ WITH
Q = 5.19 - 1.86 = 3.33 L/s
C = 0.62
$A = 3.1415xd^2/4$ (d ORIFICE DIAMETER)
$g = 9.81m^2/s$
h = 1.57m

d = Ø35mm ✓



PLAN VIEW
CONNECTION CHAMBER
SCALE 1:50



SECTION
CONNECTION CHAMBER
SCALE 1:50

SIGNATURE   8/12/2023 DATE

(PAGE 5 OF 5)

Issue	Last revision title	by	Date	Status
02	PRELIMINARY	MN	18.05.21	1
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B	ISSUE FOR DA	AA	28.10.19	2
A	ISSUE FOR REVIEW	AA	08.07.19	2

Issuer internal sequence and revision history
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4-tender 5-construction 6-other

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

ENGINEERS AUSTRALIA Chartered Professional Engineer MEMBER

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VERIFIED	MN	DATE	18.05.21
APPROVED	MN	DATE	18.05.21

Scales
SCALE 1:10 ON ORIGINAL SIZE
SCALE 1:20 ON ORIGINAL SIZE

CLIENT
MR. EDDIE HAWACH

ARCHITECT
bainidesign

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Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
5 KIORA CRESCENT,
YENNORA

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	8 OF 10	AS SHOWN

Drawing Status
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Drawing Title
STORMWATER DRAINAGE DESIGN
DETAILS SHEET 3 OF 4

Project No	Drawing No	Revision No
20190032	SW303	02

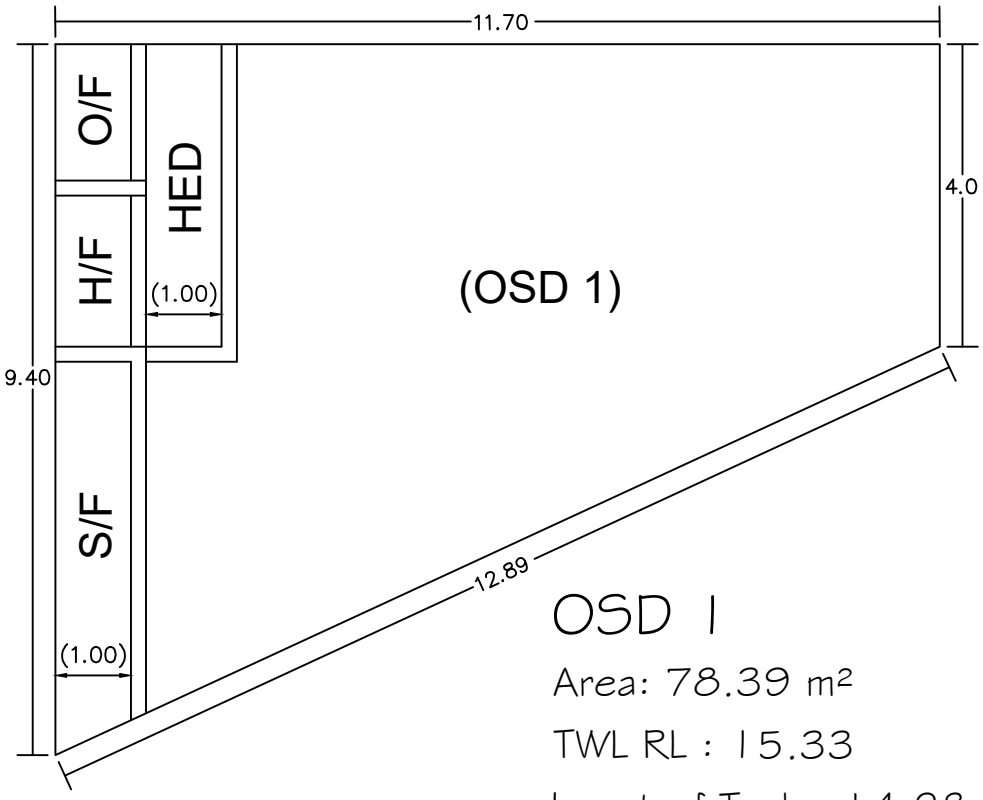
Land & Engineering Surveyors
P.O. BOX 617 Granville NSW 2142
Mobile: 0405 416 914
Email: info@ newsouthsurveys.com.au

DATE: 16/10/2023

PROJECT: 5 KIORA CRESCENT YENNORA

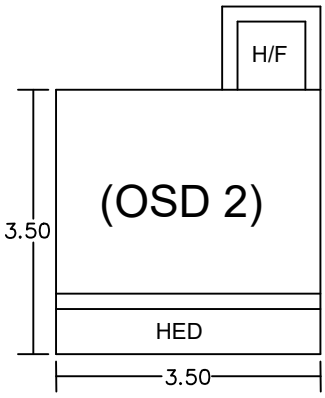
REFERENCE NO: 118097

VOLUME SKETCH



OSD 1

Area: 78.39 m²
TWL RL : 15.33
Invert of Tank : 14.28
Minimum Height: 0.95m
Maximum Height: 1.05m
Average Height: 1.00m
Volume : 78.39m² x 1.00m = 78.39m³



OSD 2

Area: 12.25m²
TWL RL : 16.86
Invert of Tank : 14.89
Average Height : 1.96m
Volume : 12.25m² x 1.96m = 24.01m³

REGISTERED SURVEYOR
PAUL WILLIAM WILD ID: 1603

Date: September 15, 2023

Client: Reece Civil

Project Reference: 16408 - 5 Kiora Cr, Yennora

In reference to the supply of goods for the above project, please find below "Work-as-executed" details for the site.

Product	Detail	Description
StormFilter SFD	10c690mm.Psorb	Underdrain pipework & 10no 690mm StormFilter cartridges including Psorb media, with a flowrate of 0.9l/s per cartridge
StormFilter SFD	2c690mm.Psorb	Underdrain pipework & 2no 690mm StormFilter cartridges including Psorb media, with a flowrate of 0.9l/s per cartridge

On behalf of Ocean Protect, I write to certify that the above goods manufactured by Ocean Protect in the above orders (only), have been supplied and installed at the aforementioned address in accordance with the manufacturer's specifications and engineer's drawings.

Ocean Protect warrants the products (in the above orders only) for a period of one (1) year, from the original date of installation. We warrant that the product(s) will be free from manufacturing defects. Any caused defects arising from misuse are not covered under this warranty.

Should you have any further queries please do not hesitate in contacting the undersigned.

Yours faithfully,

Adrian McNally

Operations Manager

Ocean Protect

NEW SOUTH SURVEYS

LAND AND ENGINEERING SURVEYORS

Date: October 16th 2023

Our Reference: 118097

Dear Sir/Madam,

RE: No. 5 Kiora Crescent, Yennora

WE HAVE SURVEYED upon your instruction the land shown on the accompanying sketch comprised in Certificate of Title registered folio 10/1233715 being lot 10 in Deposited Plan No.1233715 at Yennora, in the Local Government Area Cumberland, Parish of St John, County of Cumberland, having a frontage to Kiora Crescent .

WE REPORT THAT erected upon the above described land is a new Industrial development consisting of three free standing structures known as 5 Kiora Crescent, Yennora.

THE POSITION OF the dwellings in relation to boundaries is as shown on the accompanying sketch.

THE SURVEY OF the subject property is for identification purposes only and is restricted to those parts of structures which are visible and accessible.

NEW SOUTH SURVEYS PTY LTD

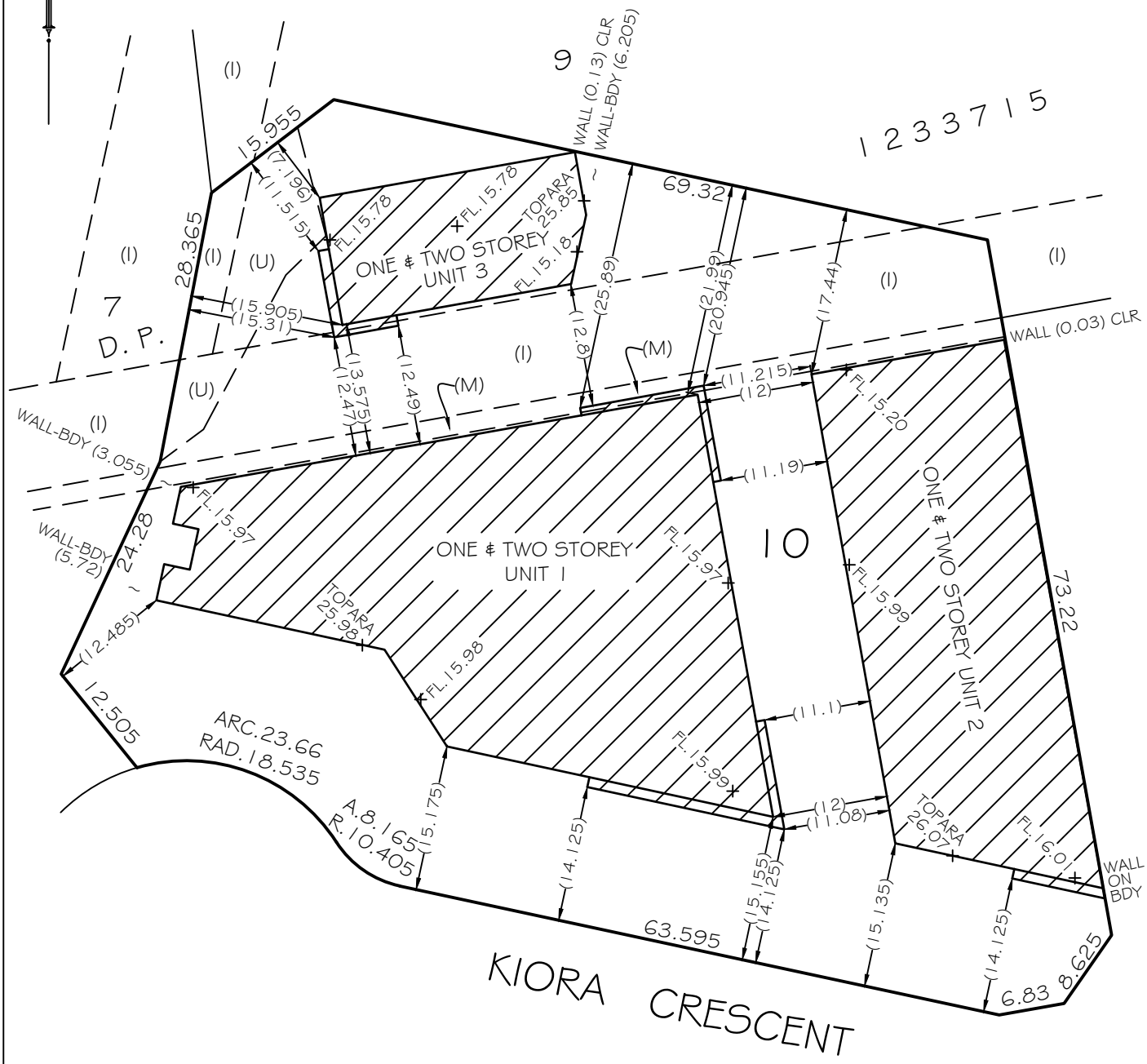
PAUL WILLIAM WILD
REGISTERED SURVEYOR ID SU001603

NEW SOUTH SURVEYS Pty. Ltd. A.C.N. 155 547 158 A.B.N 49 155 547 158
44 Elizabeth Street, Granville NSW 2142 P.O, Box 617 Granville 2142
Telephone: [02] 9729 4934 Mob: 0405 416 914 Email: info@newsouthsurveys.com.au

SKETCH

REF 118097

DATE 19-10-23



(M) - EASEMENT TO DRAIN WATER 2 WIDE (T407798)
(I) - EASEMENT TO DRAIN WATER 10.675 & 15.24 WIDE (L457224)(DP.533033)
(U) - EASEMENT TO DRAIN WATER VARIABLE WIDTH

LEGEND

BDY - BOUNDARY
CLR - CLEAR
FL. - FLOOR LEVEL

NOTE

1. SKETCH FOR IDENTIFICATION PURPOSES ONLY AND IS NOT TO BE USED TO LOCATE BOUNDARIES OR ANY OTHER PURPOSE.

NEW SOUTH SURVEYS

REGISTERED SURVEYOR

Fire Safety Certificate

Part 11 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

Please note:
Information to assist building owners to complete each section of the certificate is provided on pages 3 and 4.

Section 1: Type of certificate

This is (mark applicable box): ☒ a final fire safety certificate (complete the declaration at Section 6 of this form)
☐ an interim fire safety certificate (complete the declaration at Section 7 of this form)

Section 2: Description of the building or part of the building

Address (Street No, Street Name, Suburb and Postcode)

5 Yennora Crescent, Yennora

Lot No. (if known)	DP/SP (if known)	Building name (if applicable)

Provide a brief description of the building or part (building use, number of storeys, construction type etc).

New Industrial Units

Section 3: Name and address of the owner(s) of the building or part of the building

Full Name (Given Name/s and Family Name)*

Kiora One Pty Ltd

*Where the owner is not a person/s but an entity including a company or trust insert the full name of that entity

Address (Street No, Street Name, Suburb and Postcode)

5 Kiora Cr. Yennora

Section 4: Fire safety measures

Fire safety measure	Minimum standard of performance	Date(s) assessed	Status*
Emergency lighting	BCA 2019, E4.2, E4.4 & AS/NZS 2293.1-2018	16-1-2024	N
Exit signs	BCA 2019, E4.5, E4.6, E4.7 & E4.8, AS/NZS 2293.1-2018	16-1-2024	N
Fire doors	BCA 2019, Spec.C3.4 & AS 1905.1-2015	19-1-2024	N
Fire hydrant system	BCA 2019, E1.3 AS2419.1-2005	21-3-2024	N
Fire seals protecting openings in fire-resisting components of the building	BCA C3.12 & C3.15 AS1530.4-2014, AS 4072.1-2005	16-1-2024	N
Fire hose reel systems	BCA E1.4, AS2441-2005	21-3-2024	N
Mechanical air handling systems	BCA 2019 Amndt 1, Clause F4.5, F4.9, J3.5 & J3.7, J5.2, J5.3, J5.4, J6.3 & AS1668.2-2012 Amdt 1 & 2.	8-1-2024	N
Portable fire extinguishers	BCA 2019, E1.6 & AS2444-2001	14-3-2024	N
Warning & operational signs	Clause 183 EP& A Regulations 2000	21-3-2024	N

* Indicate whether the measure is new (N), existing (e) or modified (M)

Section 5: Name and contact details of the person making the declaration in section 6 or 7

Full name (Given Name/s and Family Name)

Lawrance Crestani

Organisation (if applicable)	Title/Position (if applicable)
Cing Developments Pty Ltd	Project Manager

Address (Street No, Street Name, Suburb and Postcode)

316 Fairlight Rd. Mulgoa, NSW, 2745

Phone	Email
0418 814 774	build@y7mail.com

.

Section 6: Final fire safety certificate declaration - for the whole of the building work

I, Lawrance Crestani(insert full name) being the: ☐ owner ☒ owner's agent

certify that each essential fire safety measure specified in the current fire safety schedule for the building has been assessed by a properly qualified person as capable of performing to at least the standard required by the current fire safety schedule.

Owner/Agent Signature	Date issued
	21.03.2024

Section 7: Interim fire safety certificate declaration

I, Click here (insert full name) being the: ☐ owner ☐ owner's agent

certify that each essential fire safety measure specified in the current fire safety schedule for the part of the building has been assessed by a properly qualified person as capable of performing to at least the standard required by the current fire safety schedule.

Owner/Agent Signature	Date issued

Note:

A fire safety certificate must not be issued unless the certificate is accompanied by a fire safety schedule for the building or part of the building in accordance with the Regulation.

Fire Safety Certificate

Information to help building owners complete the Fire Safety Certificate form

Please note:

The following information has been provided to help building owners complete the fire safety certificate template and does not comprise part of the form. The following pages do not have to be displayed in the building and need not be submitted to the Commissioner of Fire and Rescue NSW.

General

- Please print in CAPITAL LETTERS and complete all relevant sections in full.
- A reference to 'the Regulation' is a reference to the *Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021*.
- Completed fire safety certificates must be lodged with Fire and Rescue NSW by email at firesafety@fire.nsw.gov.au. For further information about this process, please visit the 'Lodge a fire safety certificate' page at www.fire.nsw.gov.au.
- As soon as practicable after issuing the fire safety certificate, the building owner must ensure a copy (together with a copy of the current fire safety schedule) is displayed in a prominent location within the building.
- Further information about building fire safety is available on the 'Fire safety in buildings' page of the Department's website at www.planning.nsw.gov.au.

Section 1: Type of certificate

- Mark the applicable box to identify if the certificate being issued is a final fire safety certificate or an interim fire safety certificate.
- Fire safety certificates are issued under Part 11 of the Regulation.
- A final fire safety certificate concerns the whole of the building work.
- An interim fire safety certificate concerns a completed part of the building work.

Section 2: Description of the building or part of the building

- In addition to the address and other property identifiers, a brief description of the building or part is to be provided. This could include the use(s) of the building (e.g. retail, offices, residential, assembly, carparking), number of storeys (above and/or below ground), construction type or other relevant information.
- If the description relates to part of a building, the location of the part should be included in the description.

Section 3: Name and address of the owner(s) of the building or part of the building

- Provide the name and address of each owner of the building or part of the building.
- The owner of the building or part of the building could include individuals, a company, or an owner's corporation.

Section 4: Fire safety measures

- The purpose of this section is to identify all of the fire safety measures that apply to a building or part of a building.
- The statutory fire safety measures are listed in section 79 of the Regulation.
- Fire safety measures include items such as portable fire extinguishers, fire hydrants, fire sprinklers, fire detection and alarm systems and lightweight construction.
- For final fire safety certificates, the table in section 4 must list each of the essential fire safety measures that apply to the building and the relevant standard of performance. The date(s) on which these measures were assessed and inspected must be within the 3 months prior to the date the final fire safety certificate is issued.
- For interim fire safety certificates, the table in section 4 must list each of the essential fire safety measures that apply to the part of the building and the relevant standard of performance. The date(s) on which these measures were assessed and inspected must be within the 3 months prior to the date the interim fire safety certificate is issued.
- The person who carries out the assessment must—
  - (a) inspect and verify the performance of each essential fire safety measure being assessed, and
  - (b) test the operation of equipment that—
    - (i) is specified in the current fire safety schedule for the building, and
    - (ii) has not previously been tested in an assessment because it is newly installed.

- A fire safety certificate deals with all essential fire safety measures in the current fire safety schedule for the building or part. However, the certificate need not deal with any measure the subject of other fire safety certificates or fire safety statements issued within the previous 6 months, except if the person who issued the relevant development consent, construction certificate or fire safety order determines that the fire safety certificate must address these measures.

Section 5: Name and contact details of the person making the declaration in section 6 or 7

- The purpose of this section of the form is to detail the name, address and contact details of the person who is making the required declaration i.e., the person who completes and signs section 6 or section 7 of the form. This could be the owner(s) of the building or a nominated agent of the owner(s).
- Where a person makes the required declaration on behalf of an organisation (as the owner of the building), the name of the organisation and the title/position of the person must be provided. The person making the required declaration as a representative of the organisation must have the appropriate authority to do so.
- Where a person makes the required declaration on behalf of the owner(s) (as the owner's agent), this person must have the appropriate authority from the building owner(s) to undertake this function.
- In the case of a building with multiple owners, one owner may make the required declaration, however each of the other owners must authorise the owner who makes the required declaration to act as their agent.

Section 6: Final fire safety certificate declaration

- The person completing this section is the person who is making the required declaration for the final fire safety certificate in accordance with section 83 and 84 of the Regulation and is the same person as detailed in section 5. The person making the required declaration must identify if they are the owner or the owner's agent.
- **In making the required declaration, the building owner or agent is <u>not</u> declaring that each fire safety measure meets the minimum standard of performance, but rather that each fire safety measure has been assessed, and was found by a properly qualified person to be capable of performing to that standard, as listed in section 4.** In performing this function, the building owner or owner's agent could obtain documentation from each properly qualified person to verify that the standard of performance has been met and that any new items of equipment have been tested, prior to completing the form.

Section 7: Interim fire safety certificate declaration

- The person completing this section is the person who is making the required declaration for the interim fire safety certificate in accordance with section 83 and 84 of the Regulation and is the same person as detailed in section 5. The person making the required declaration must identify if they are the owner or the owner's agent.
- The information provided above in relation to section 6 on what the owner is declaring also applies to an interim fire safety certificate.

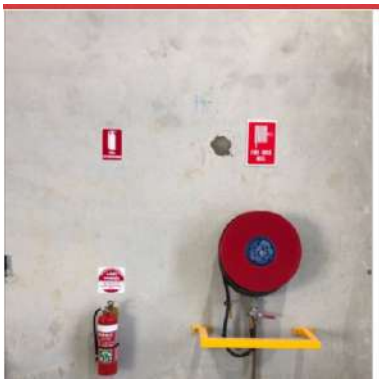
5 Star Extinguisher Services

5 KIORA CRESENT, YENNORA. NSW 2161

Thursday, 14 March 2024

Prepared For Cing Developments

38 Issues Identified

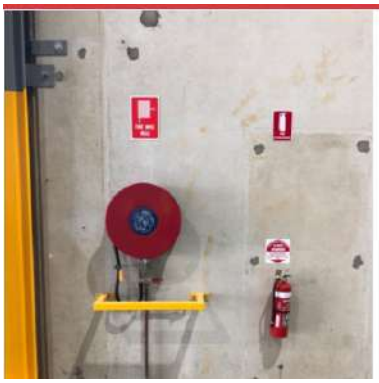


BUILDING, ONE WAREHOUSE ROLLER DOOR, ONE EXIT DOOR

4.5 kg DCP extinguisher.

Fire hose reel.

Fire hose reel sign installed by 5 Star.



BUILDING ONE WAREHOUSE ROLLER DOOR

ONE Fire hose reel.

Firehose real sign installed by 5

Star 4.5 kg DCP extinguisher.

BUILDING ONE WAREHOUSE MAIN DISTRIBUTION BOARD 5 kg CO2 extinguisher.

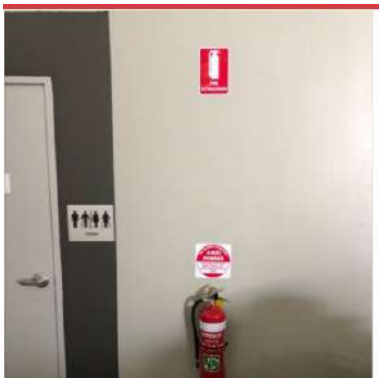
Provided by client installed by 5 Star.

Signage provided by client.

BUILDING ONE WAREHOUSE, NORTHEAST CORNER EXIT DOOR

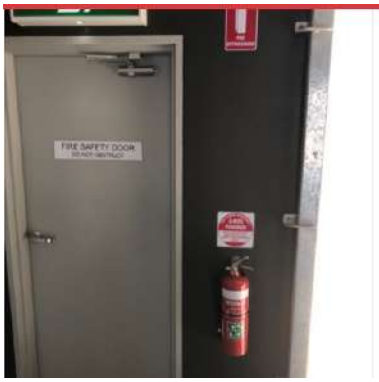
4.5 kg DCP extinguisher

BUILDING ONE WAREHOUSE EAST WALL EXIT DOOR 4.5 kg DCP extinguisher



BUILDING, ONE WAREHOUSE AMENITIES DOOR 4.5 kg DCP extinguisher

BUILDING ONE WAREHOUSE DISABLE TOILET 4.5 kg DCP extinguisher.

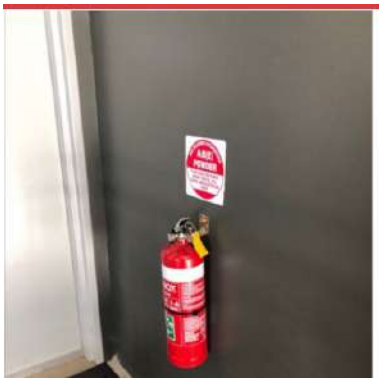


BUILDING ONE WAREHOUSE ROLLER DOOR TO EXIT DOOR ONE

4.5 kg DCP extinguisher

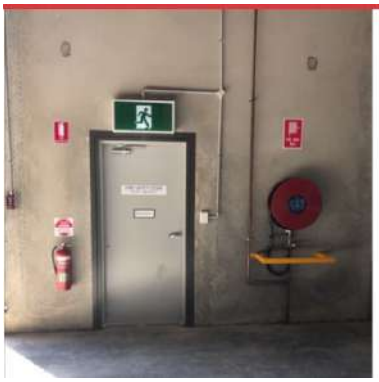
BUILDING, ONE WAREHOUSE

LUNCHROOM 4.5 kg DCP extinguisher



BUILDING, ONE WAREHOUSE LUNCHROOM

LANDING 4.5 kg DCP extinguisher



BUILDING ONE WHS ROLLER DOOR TWO EXIT DOOR TO

4.5 kg DCP extinguisher.

Fire hose reel.

Fire hose reel sign installed by 5 Star.

BUILDING, ONE OFFICE AMENITIES

HALLWAY 4.5 kg DCP

BUILDING ONE DOWNSTAIRS OFFICE

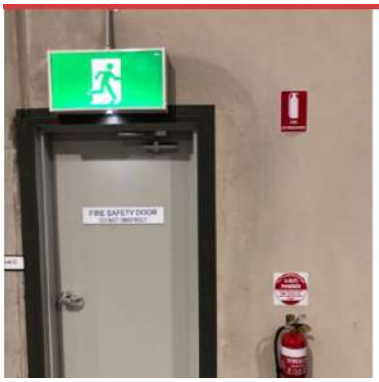
AREA 4.5 kg DCP extinguisher

BUILDING ONE UPSTAIRS OFFICE AREA SOUTH

WALL 4.5 kg DCP extinguisher

BUILDING ONE UPSTAIRS OFFICE AREA ENTRY

DOOR 4.5 kg DCP extinguisher



BUILDING TWO WAREHOUSE ROLLER DOOR, ONE

EXIT DOOR TO

4.5 kg DCP extinguisher

BUILDING TWO WAREHOUSE NORTH WEST CORNER EXIT DOOR

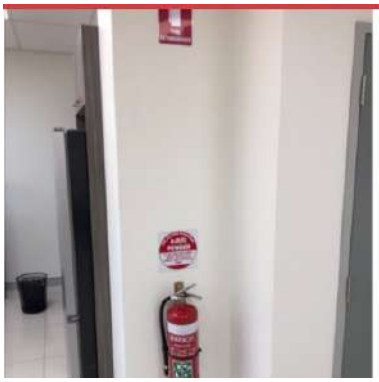
Fire hose reel.

Fire hose reel sign installed by 5

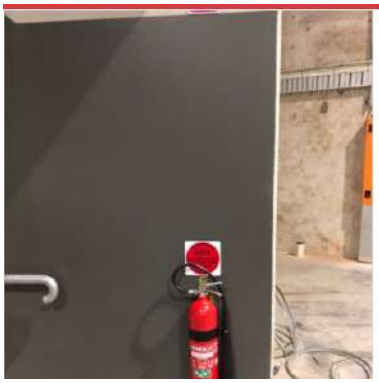
Star 4.5 kg DCP extinguisher.

BUILDING TWO WAREHOUSE NORTH EAST CORNER 4.5 kg DCP extinguisher

BUILDING TWO DOWNSTAIRS OFFICE ENTRY DOOR 4.5 kg DCP extinguisher



BUILDING TWO UPSTAIRS OFFICE MAIN AREA 4.5 kg DCP extinguisher



BUILDING TWO WAREHOUSE BASE OF STAIRS 5 kg CO2 extinguisher.
Provided by client installed by 5 Star.
Signage provided by client.

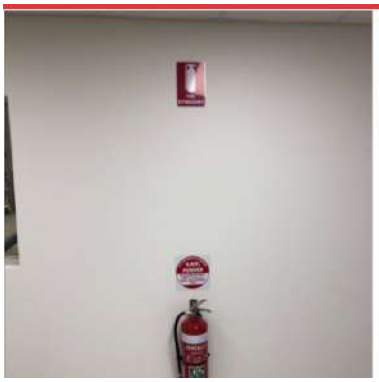
BUILDING TWO WAREHOUSE ROLLER DOOR ONE
EXIT DOOR ONE
4.5 kg DCP extinguisher.
Fire hose reel.
Firehose real signage installed by 5 Star.

BUILDING THREE WAREHOUSE RAMP EXIT DOOR
4.5 kg DCP extinguisher.
Fire hose reel.
Fire hose reel Signage installed by 5 Star.

BUILDING THREE UPSTAIRS OFFICE
MAIN 4.5 kg DCP extinguisher

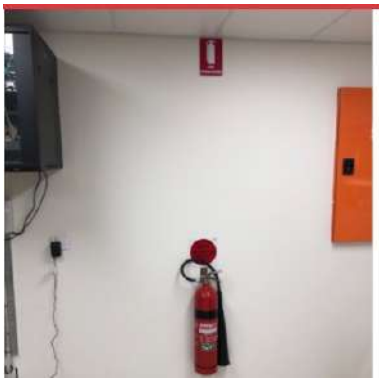
BUILDING THREE UPSTAIRS OFFICE

LANDING 4.5 kg DCP extinguisher



BUILDING THREE DOWNSTAIRS OFFICE SOUTH

WALL 4.5 kg DCP extinguisher



BUILDING THREE N. WALL DOWNSTAIRS OFFICE

5 kg CO_2 extinguisher.

Extinguisher provided by client.

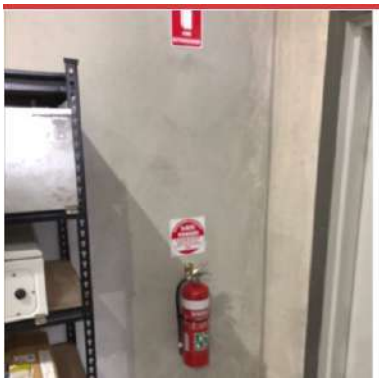
Installed by 5 Star

BUILDING THREE ENTRY DOOR NORTH

WALL Fire hose reel

BUILDING THREE EXIT DOOR, NORTHEAST CORNER

4.5 kg DCP extinguisher



BUILDING THREE S. EAST CORNER EXIT DOOR

4.5 kg DCP extinguisher

FRONT ENTRY GATE TO PROPERTY

Hydrants and hydrant booster.

Staz covers installed by 5 Star.

Signage installed by 5 Star.

003. Padlock used on wheel cover.

FRONT GATE OF PROPERTY

Hydrant booster pump.

Leather straps and padlocks installed by 5 Star.

Three long straps Used and, 2003 padlocks.

SOUTH WALL ON DRIVEWAY

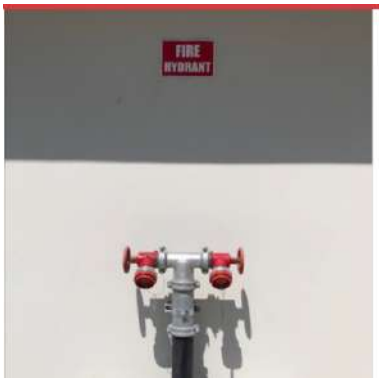
Dual hydrant.

Signs installed by 5 Star.

BUILDING ONE NORTH WALL AT REAR OF BUILDING

Dual hydrant.

Sign installed by 5 Star.



BUILDING ONE EAST WALL START OF RAMP

Dual hydrant.

Sign installed by 5 Star.

BUILDING THREE S. WALL NEAR CAR PARK

Dual hydrant.

Sign installed by 5 Star.

BUILDING TO SOUTH WALL ON DRIVEWAY

Dual hydrant.

Signage installed by 5 Star

MAIN SITE DISTRIBUTION BOARD

5 kg CO2 extinguisher.

Provided by client installed by 5 Star.

Signage provided by 5 Star.

ELECTRICAL FIRE WRAP COMPLIANCE CERTIFICATE

BUILDING ADDRESS:	**5 Kiora Cres, Yenora**
BUILDING DESCRIPTION:	3 industrial units and weigh bridge
AREA OF BUILDING (ENTIRE OR PART)	**Unit 1 – Communications Room**

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/We Angelo Hatgiantounio of Mavec Electrics hereby certify that we have completed the installation of the electrical fire wraps on 20th march 2024 for the abovementioned building in accordance with the following Performance Standards:

- BCA Clauses C3.15, C3.16, Specification C3.15
- AS1530.4-2014 and AS4072.1 -2005, Manufacturers Specifications
- Manufacturers Specifications and approved fire test reports

I/We also confirm that:

- The outcomes of the commissioning and testing of the electrical fire seals achieve a satisfactory result.
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.

Additional comments

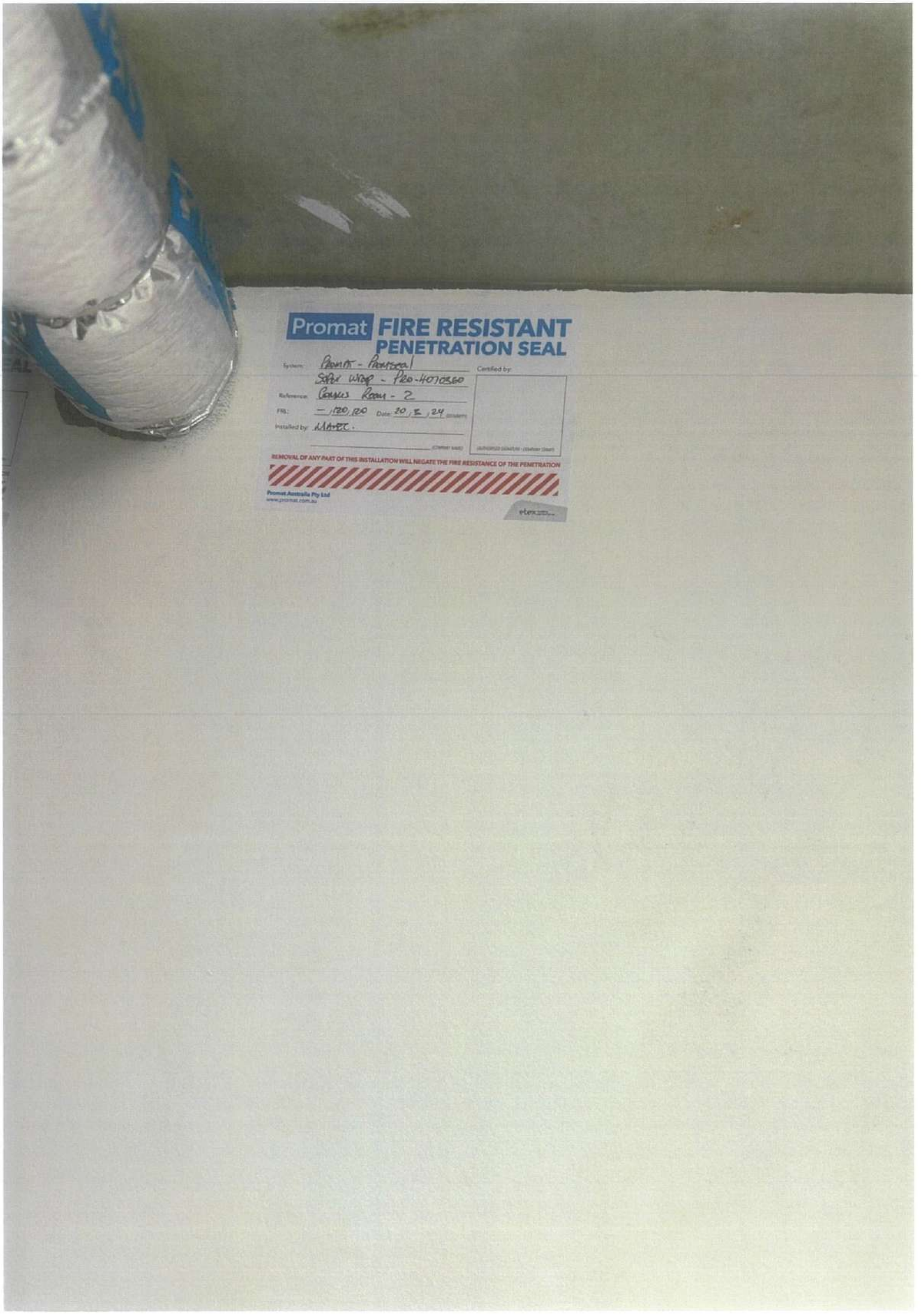
The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

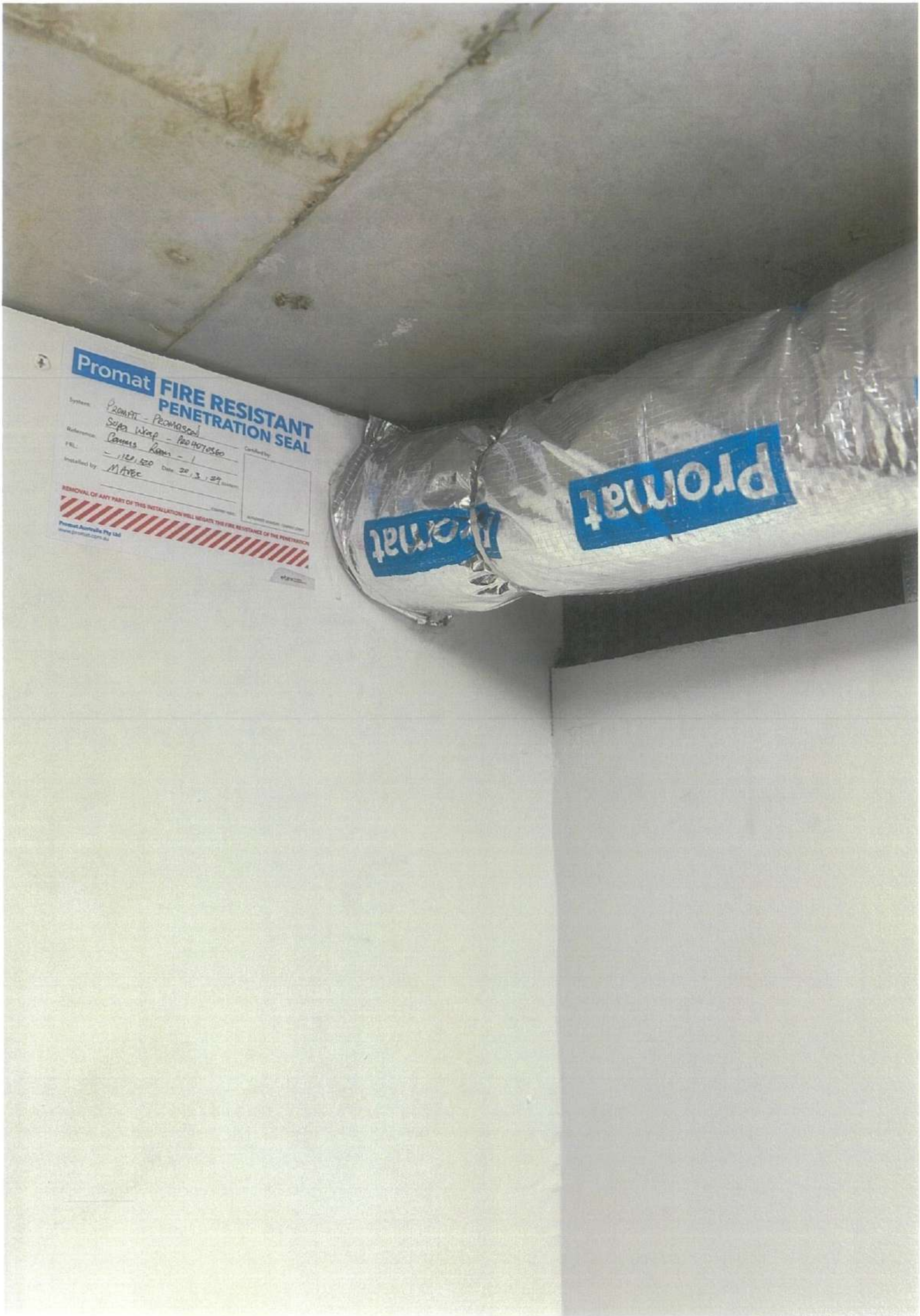
Signed:		Name:	Angelo Hatgiantounio

INSPECTION LOGBOOK – ELECTRICAL FIRE WRAP

PREMISES NAME: Enviro Waste **ADDRESS:** Unit 1 No 5 Kiora Cres, Yenora **INSPECTION DATE:** 20.3.2024

ITEM REF. NO.	FLOOR / LEVEL OF BUILDING	DESCRIPTION OF LOCATION (e.g. West Fire Stair, Main Switchroom, etc)	ELEMENT TYPE (e.g Wall, Floor, Shaft, etc)	PROTECTION METHOD (e.g Fire collar, Fire Damper, etc)	REQUIRED FRL / RATING	SYSTEM USED (Refer to system reference at end of logbook)	COMMENTS (Mark OK or Defects Should be Noted)
1	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos
2	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos
3	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos
4	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos
5	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos
6	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos
7	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos
8	Grd Floor	Communications Room	Gyprock Wall	Fire Wrap	-/120/120	Promaseal Supa wrap	See attached photos


Promat FIRE RESISTANT
PENETRATION SEAL
System: Promat - Promaseal
Reference: Comms Room - 2
FRL: - /120/120 Date: 20 / 3 / 24
Installed by:
Certified by:
REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION
Promat Australia Pty Ltd
www.promat.com.au


Promat FIRE RESISTANT PENETRATION SEAL
System:
Reference:
FRL:
Installed by:
Date:
Certified by:
REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION
Promat Australia Pty Ltd
www.promat.com.au
Promat
Promat

Promat FIRE RESISTANT PENETRATION SEAL

System: PROMAT - Promaseal Supa Wrap PRO-4070360

Reference: Comms Room - 8

FRL: -/120/120 Date: 20/3/24 (DD/MM/YY)

Installed by: MAVER

(COMPANY NAME)

Certified by:

(AUTHORISED SIGNATURE / COMPANY STAMP)

REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION

Promat Australia Pty Ltd
www.promat.com.au

etex building performance


Promat
FIRE RESISTANT
PENETRATION SEAL
System:
Reference:
FRL:
Installed by:
Date:
Certified by:
REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION
Promat Australia Pty Ltd
www.promat.com.au

Promat FIRE RESISTANT PENETRATION SEAL

System: Promat - Promaseal Supa Wrap Pro 4070360

Reference: Comms Room 6

FRL: -/120/120 Date: 20/3/24 (DD/MM/YY)

Installed by: MAHER.

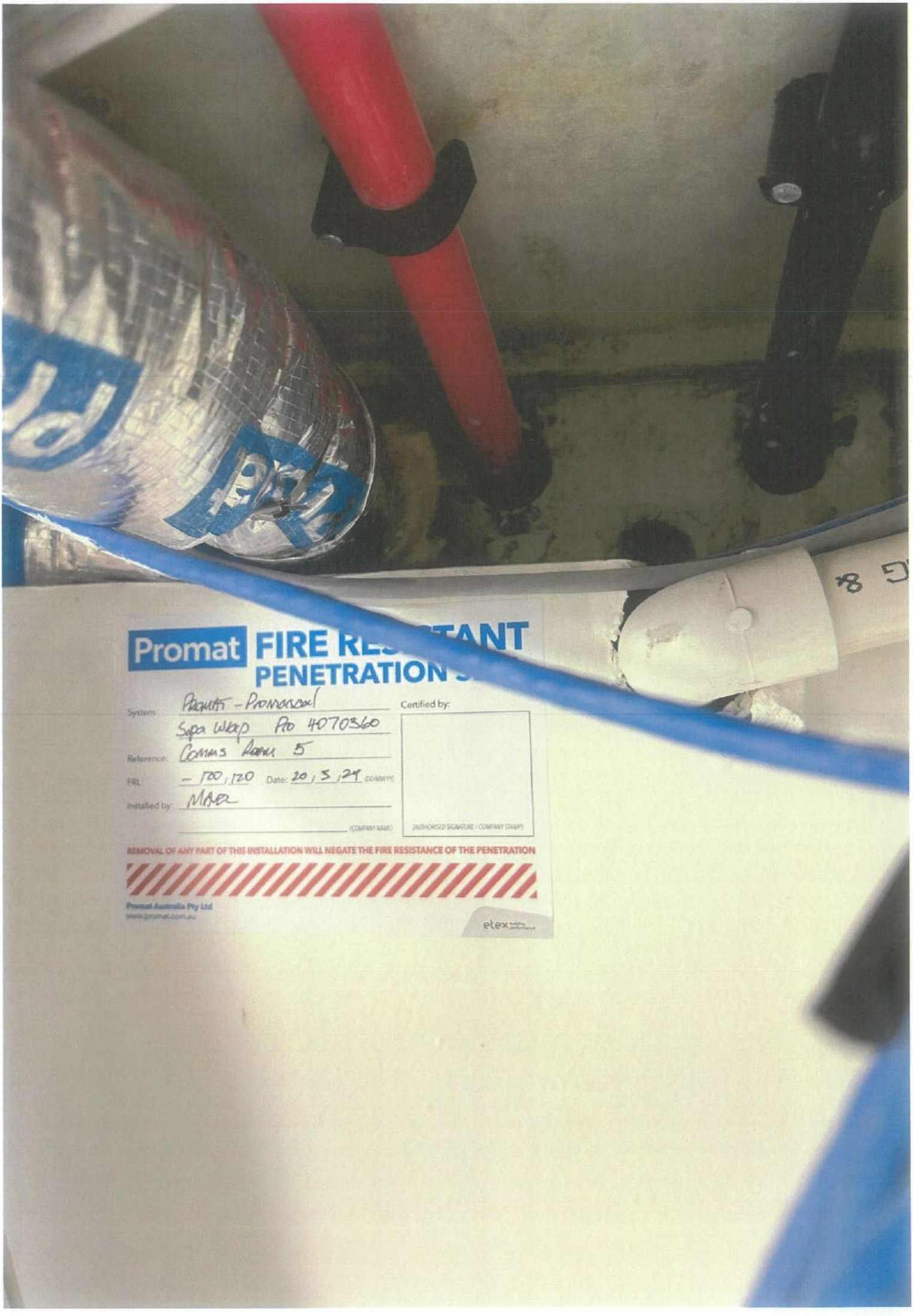
(COMPANY NAME)

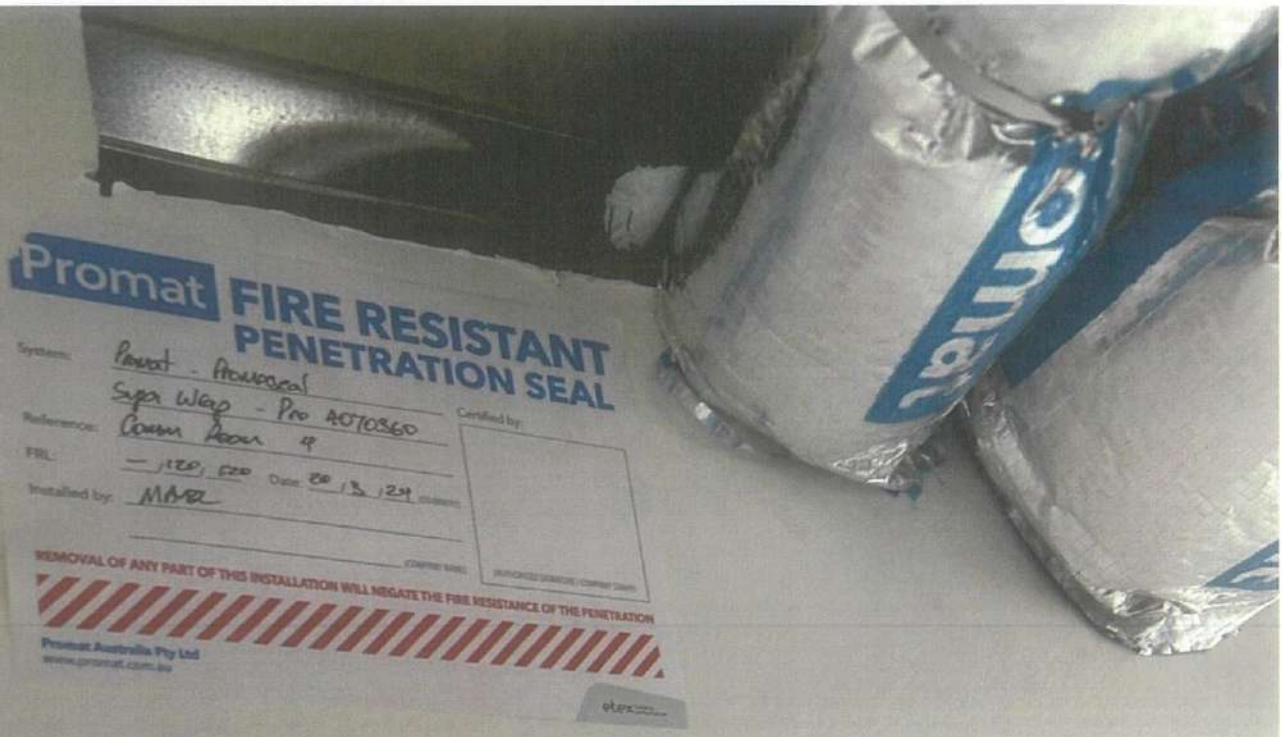
Certified by:

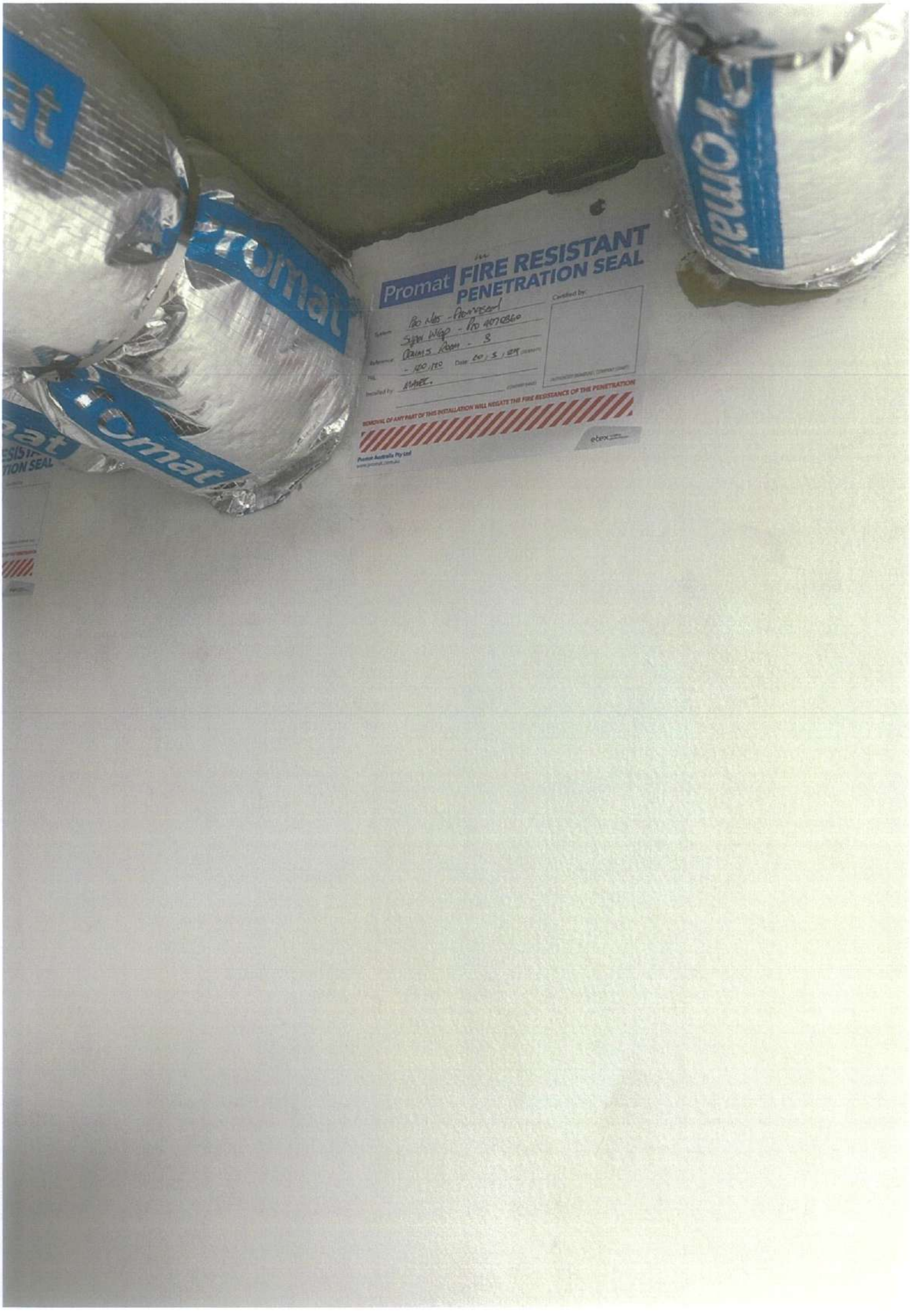
(AUTHORISED SIGNATURE / COMPANY STAMP)

REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION

Promat Australia Pty Ltd
www.promat.com.au


Promat
FIRE RE TANT
PENETRATION
System: Promat - Promaseal
Supa Wrap Pro 4070360
Reference: Comms Room 5
FRL: - 120/120 Date: 20/5/24 (DD/MM/YY)
Installed by: MAER
(COMPANY NAME)
Certified by:
(AUTHORISED SIGNATURE / COMPANY STAMP)
REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION
Promat Australia Pty Ltd
www.promat.com.au
etex


Promat
FIRE RESISTANT
PENETRATION SEAL
System: Promat - Promaseal
Super Wrap - Pro AC10360
Reference: Comm Room 4
FRL: -/120/120
Date: 20/3/24
Installed by: MARK
Certified by:
REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION
Promat Australia Pty Ltd
www.promat.com.au


Promat
FIRE RESISTANT
PENETRATION SEAL
Certified by:
REMOVAL OF ANY PART OF THIS INSTALLATION WILL NEGATE THE FIRE RESISTANCE OF THE PENETRATION
Promat Australia Pty Ltd

HOLLAND
FIRE DOORS & WINDOWS P/L
A.B.N 49 002638 128

TEL : (02) 9603 8500
FAX : (02) 9603 9625

FIRE DOOR CHECKLIST

CLIENT'S NAME Cing Developments Pty Ltd

ADDRESS 5 Kiora Cr., YENNORA

PROJECT NAME Warehouse (Door No. Unit 3 NE corner

PROJECT ADDRESS 5 Kiora Cr. YENNORA

NUMBER OF FIRE DOORSETS

	1 hr	2 hr	3 hr	4 hr
single leaf				X
double leaf				
sliding door				

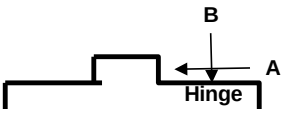
FIRE DOOR INVOICE NUMBERS _____

WALL CONSTRUCTION (tick appropriate box)

brick		block		cast in concrete	X
metal stud wall		timber stud wall			

other (specify) _____

FRAME



Stop Depth (A)	40		25	X	15	
Rebate Width (B)	50	X	45		40	
Wire Ties Used	YES	X	NO			
Fully backfilled with cement mortar or concrete	YES	X	NO			

DOORS

Maximum Clearance **TOP** 2 **mm** **SIDES** 2 **mm** **BOTTOM** 5 **mm**

HARDWARE

Make and Model Lock Fitted Brava Metro Entrance Set EL600SC

Make and Model Closer Fitted Lockwood Fire Rated Door Closer 2024BCSIL

Latch Bolt Material	Brass		S/Steel	X	Steel		Other	
Striker Plate Material	Brass		S/Steel	X	Steel		Other	
Lock Backset	60	X	70		127		Other	
Closer Back - Check Fitted	YES	X	NO					

DOUBLE DOORS

Coordination Device Fitted YES NO **Clearance Between Leafs** mm

T Bars Fitted YES NO

SLIDING FIRE DOORS

Clearance Bottom	mm	**Clearance Wall to Door**	mm
Overlap Top	mm	**Sides**	mm

Direction Arrows Fitted YES NO

Weight Fitted YES NO

Fusible Link Fitted YES NO

I (Installer's Name) Lawrance Crestani

of Company's Name & Adress Cing Developments P/L , 5 Kiora Cr.Yennora

hereby state that I have installed the above assembly(s) as per fitting instructions (either verbally or written) and as per AS/NZ 1905 Part 1.

Signed (Installer) _____ **DATE:** 18.3.24

Tags Required YES X NO **Company Name** _____

Name (Company Representative) Lawrance Crestani **Signature** _____

HOLLAND
FIRE DOORS & WINDOWS P/L
A.B.N 49 002638 128

TEL : (02) 9603 8500
FAX : (02) 9603 9625

FIRE DOOR CHECKLIST

CLIENT'S NAME Cing Developments Pty Ltd

ADDRESS 5 Kiora Cr., YENNORA

PROJECT NAME Warehouse (Door No. Unit 1 NW corner

PROJECT ADDRESS 5 Kiora Cr. YENNORA

NUMBER OF FIRE DOORSETS

	1 hr	2 hr	3 hr	4 hr
single leaf				X
double leaf				
sliding door				

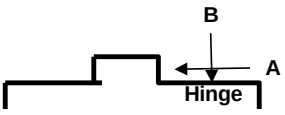
FIRE DOOR INVOICE NUMBERS _____

WALL CONSTRUCTION (tick appropriate box)

brick		block		cast in concrete	X
metal stud wall		timber stud wall			

other (specify) _____

FRAME



Stop Depth (A)	40		25	X	15	
Rebate Width (B)	50	X	45		40	
Wire Ties Used	YES	X	NO			
Fully backfilled with cement mortar or concrete	YES	X	NO			

DOORS

Maximum Clearance **TOP** 2 mm **SIDES** 2 mm **BOTTOM** 5 mm

HARDWARE

Make and Model Lock Fitted Brava Metro Entrance Set EL600SC

Make and Model Closer Fitted Lockwood Fire Rated Door Closer 2024BCSIL

Latch Bolt Material	Brass		S/Steel	X	Steel		Other	
Striker Plate Material	Brass		S/Steel	X	Steel		Other	
Lock Backset	60	X	70		127		Other	
Closer Back - Check Fitted	YES	X	NO					

DOUBLE DOORS

Coordination Device Fitted YES NO **Clearance Between Leafs** mm

T Bars Fitted YES NO

SLIDING FIRE DOORS

Clearance Bottom mm **Clearance Wall to Door** mm

Overlap Top mm **Sides** mm

Direction Arrows Fitted YES NO

Weight Fitted YES NO

Fusible Link Fitted YES NO

I (Installer's Name) Lawrance Crestani

of Company's Name & Adress Cing Developments P/L , 5 Kiora Cr.Yennora

hereby state that I have installed the above assembly(s) as per fitting instructions (either verbally or written) and as per AS/NZ 1905 Part 1.

Signed (Installer) _____ **DATE:** 18.3.24

Tags Required YES X NO **Company Name** _____

Name (Company Representative) Lawrance Crestani **Signature** _____

Project Name: **Industrial Units** Building Owner: **Kiora One Pty Ltd** Building Address: **5 Kiora Cr. YENNORA. NSW 2161**

	Door Identification & Tag No	Location	Door Type	Frame Type	Reveal Width	Reveal Height	Leaf Thickness	Facing and Edging Material Type	Lockset & Closer Type	Test ref. opinion	Inspection Date & certifier
1	H 02103	UNIT 1 NW	4HR, /240/30 redicote hardboard finish	metal	40mm	25mm	42mm	metal	Legge G2 Series Lockset & Allegion Briton 200 Series door closer	Pyropanel TECH SHEET FD-01	
2	H 02102	Unit 3 NE	4HR, /240/30 redicote hardboard finish	metal	40mm	25mm	42mm	metal	Legge G2 Series Lockset & Allegion Briton 200 Series door closer	Pyropanel TECH SHEET FD-01	

FIRE HOSE REEL SYSTEM COMPLIANCE CERTIFICATE

BUILDING ADDRESS:	**5 Kiora Cr., YENNORA**
BUILDING DESCRIPTION:	**New Industrial Units**
AREA OF BUILDING (ENTIRE OR PART)	**Entire**

Pursuant to the provisions of Clause A2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I Anthony Khalil of (Company) Plumbing Assist Lty Ltd hereby certify that we have completed the installation of a fire hose reel system on (date) 1.12.23 for the abovementioned building in accordance with the following Performance Standards:

- BCA Clause E1.4
- AS2441-2005 and AS/NZS3500.1-2013

I/We also certify that testing and commissioning of the system has been conducted on (date) 1.12.23 in accordance with Section 12 of AS2441-2005 and specifically :

- Achieves the minimum discharge rates and supply pipe sizes in accordance with Section 6 of 2441-2005;
- The fire hose reel pumpset has been installed, commissioned and tested as per the manufacturer's specifications and procedures in accordance with AS2941-2008.
- Confirm the outcomes of the commissioning and testing of the fire hose reel system achieve a satisfactory result
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

Signed:		Name:	Anthony Khalil
Licence No.	100256C	Date:	21.3.24

FIRE HYDRANT SYSTEM COMPLIANCE CERTIFICATE

BUILDING ADDRESS:	**5 Kiora Cr. YENNORA**
BUILDING DESCRIPTION:	**New Industrial Units**
AREA OF BUILDING (ENTIRE OR PART)	**entire**

Pursuant to the provisions of Clause A2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I Anthony Khalil of (Company) Plumbing Assist Pty Ltd hereby certify that we have completed the installation of a fire hydrant system on (date) 30.11.23 for the abovementioned building in accordance with the following Performance Standards:

- BCA Clause E1.3
- AS2419.1 – 2005, AS2941-2013, AS/NZS 3013-2005 and AS/NZS 3500.1-2013

Carpark Portion:

System Design (Required)	**System Commissioning Flow Test (Actual)**
Flow (L/s) : 10	Flow (L/s): 10
Pressure : 700 kPa	Pressure: 850kPa
No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005) : 5	No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005): 5

Residential Portion:

System Design (Required)	**System Commissioning Flow Test (Actual)**
Flow (L/s) :	Flow (L/s):
Pressure :	Pressure:
No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005) :	No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005):

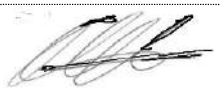
I/We also certify that testing and commissioning of the system has been conducted on (date) 30.11.23 in accordance with Section 10 of AS2419.1-2005 and specifically :

- A pre-test preparation and hydrostatic test has been conducted at the elevation of the highest hydrant outlet for a duration of not less than 2hours without loss of pressure at 1700Kpa or 1.5 times the required system pressure at that location (whichever is the greater);
- Discharge of the required number of most hydraulically disadvantaged hydrants each achieve not less than the required flow and pressure;
- The fire hydrant pumpset had been installed, commissioned and tested as per the manufacturer's specifications and procedures in accordance with AS2941-2008.
- Confirm the outcomes of the commissioning and testing of the fire hydrant system achieve a satisfactory result.
- All landing valve inlets have been installed with "Storz" fittings.
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.

  I have completed the abovementioned works in accordance the approved Construction Certificate documentation.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

Signed:		Name:	Anthony Khalil
Licence No.:	100256C	Date:	21.3.24

COMPLIANCE CERTIFICATE ISSUED IN ACCORDANCE WITH NCC 2019

Development Address	5 Kiora Cr. YENNORA, NSW 2161
Development Description	New Industrial Units

The National Construction Code Volume 1 (NCC), in Part A5.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Lawrance Crestani**
COMPANY REPRESENTED:	**Cing Developments Pty Ltd**
COMPANY ADDRESS:	**5 Kiora Cr. YENNORA**
PHONE:	**0418 814 774**
EMAIL:	**build@y7mail.com**
LICENSE NUMBER:	
QUALIFICATIONS & EXPERIENCE:	**Builder, Carpenter 35 years**
PROFESSIONAL AFFILIATIONS:	B.App.Sc. Building

… hereby certify that the following installations, materials and forms of construction for the building have been selected, installed and commissioned in accordance with the following NCC 2019 Clauses and Australian Standards (as referenced):-

Measure and/or System	**Description of works or FER Schedule of Works Item**	**BCA Clauses & Australian Standard References** (inc. number, part & year)	**Fire Engineering Report Reference**
Fire Rated Construction Having a minimum FRL of 240 minutes to walls Installing Fire Doors to Exit	Fire Rated Construction having a minimum FRL of 240 minutes (340/240/240) and a self closing (-/240/30) fire door to a wall within 3m of a boundary Unit 1 NW Exit door Unit 3 NE Exit Door	BCA 2019, Spec.C3.4 & AS 1905.1-2015	N/A

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person, as required under Part A5.2 of the NCC 2019 for the purposes of providing this professional certification of the building components, materials and forms of construction;* ***FIRE DOOR INSTALLATION***
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the NCC and all relevant, referenced and required standards;*
- ✓ *All material used within the system/element are Australian Standards compliant products; and*
- ✓ *The information provided in this certificate is true and correct to the best of my knowledge. I understand it is an offence to provide false or misleading information under Section 10.6 of the Environmental Planning and Assessment Act 1979.*

Name: Lawrance Crestani *Signature:*  *Dated:19.3.24*

CERTIFICATION OF INSTALLATION

PORTABLE FIRE EXTINGUISHER INSTALLATION

PROPERTY DETAILS	**5 KIORA CRESENT, YENNORA. NSW 2161**
PROJECT	**ENVIRO LIQUID WASTE FACILITY**
NAME OF COMETENT PERSON	**PETER BRADY**
NAME OF COMPANY	**5 STAR EXTINGUISHER SERVICES**
(If applicable)	
POSTAL ADDRESS	**2/78 OWEN STREET, GLENDENNING. NSW 2761**
REGISTRATION/LICENCE	**Certified Fire Technician Certificate No. 1271** **FPAS Assessor No. F052621A, Dip (FSD)**
QUALIFICATIONS AND EXPERIENCE	**30 years in fire service industry, certified technician & FPAS assessor**
CONTACT	**0413283150**

Task Description	Date of Testing	Result
a) Install fire extinguisher AS 2444 1851 - 2001	**14.03.2024**	**Pass**
b) Certify installed extinguisher AS 2444 1851 - 2001	**14.03.2024**	**Pass**

EXCLUSIONS:

I certify that the item/s described above, have been installed and tested in accordance with the referenced documentation and comply with the requirements of the documentation.

SIGNATURE OF COMPETENT PERSON **DATE 14.03.2024**

vista access architects

Disability Access
STATEMENT OF COMPLIANCE
OC Stage of works

Reference Number: 20310

Client: Build International Pty Ltd

Site Address: 5 Kiora Crescent, Yennora NSW

Vista Access Architects Pty. Ltd.
www.accessarchitects.com.au
admin@accessarchitects.com.au
PO Box 353, Kingswood NSW 2747
ABN: 82124411614

Site Address

5 Kiora Crescent, Yennora NSW

Stage of work

Full works

Statement of Compliance Reference number

20310– C1

Date of issue

14/02/2024

Project Description

3 x Factory/Warehouse Units with 3 x Accessible Parking Spaces

Site inspection by

Vanessa Griffin
Accredited Access Consultant and LHA Assessor
ACAA Accredited Membership number 500
Qualified- Certificate IV in Access Consulting
LHA Assessor Licence number 20035
Vista **Access Architects** Pty. Ltd.

Peer reviewed by

Farah Madon
Accredited Access Consultant and LHA Assessor
ACAA Accredited Membership number 281
Qualified- Diploma in Access Consulting
LHA Assessor Licence number 10032

Final inspection date

13/02/2024

Building Classification

☐ Class 1a- Detached house or attached dwellings, villas or townhouses

☐ Class 1b- Boarding house, guest house, hostel or similar

☐ Class 2-Building containing more than 2 sole-occupancies

☐ Class 3- Residential boarding house, hostel accommodation or similar

☒ Class 5- Office building for professional or commercial use

☐ Class 6- Shops, sale of goods and services by retail

☐ Class 7a- Car park

☐ Class 7b- Storage or the like

☒ Class 8- Laboratory, production warehouse

☐ Class 9a- Health-care building

☐ Class 9b- Assembly building, school

☐ Class 9c- Aged care building

☐ Class 10a- Non-habitable building

☐ Class 10b- Swimming Pool

Statement of compliance

I, **Farah Madon** of **Vista Access Architects** am a properly qualified person and have a good working knowledge of the relevant codes and standards related to Disability Access. Vista Access Architects carries all required insurances such as Professional Indemnity, Public Liability and Workers Compensation Insurances. I confirm that the development complies with the below listed legislations and Australian Standards

Applicable Legislative requirements

The development complies with the following legislative requirements:

☒ Disability Access to Premises (Buildings) Standards 2010

The National Construction Code (NCC) / Building Code of Australia (BCA) Volume 1 2019 (BCA) requirements relating to Access as noted in:

☒ BCA 2019 Part D3 – Access for People with Disabilities

☒ BCA 2019- Braille and Tactile Signage Specification D3.6

☒ BCA 2019 Part F2.4 Accessible Sanitary facilities

Australian Standard Clauses as referenced in the NCC/ BCA:

☒ AS1428.1-2009 Part 1: General requirements for access, including any amendments

☒ AS1428.4.1-2009 Part 4.1: TGSIs (Tactile ground surface indicators)

Accessible parking spaces that are allocated to the development comply with the functional requirements of:

☒ AS2890.6: 2009 – Parking Facilities –Off street carparking For People with Disabilities.

Any applicable Access related Performance Solutions

☒ Yes (listed below**)** ☐ No (N/A)

20310 **-PS2** Non-provision of adequate latch side spaces of airlock doorways on the mezzanine floor (490mm in lieu of 510mm) as required by AS1428.1-2009 Clause 13 and BCA 2019 Part D3.1

Appendix 1 Certifications from Builder regarding Slip resistance and other matters

Exclusions and reliance on other consultants
This statement does not assess compliance matters related to WHS, Structural design, Services design, Parts of DDA other than those related to Access to Premises Standards or Parts of BCA or Parts of Australian Standards other than those directly referenced in this Statement.

We have no ability to check for slip resistance of surfaces or ability to check for wall reinforcements once the walls have already been constructed, and we rely on Certifications provided by Builder for the same.

Lift related matters are not included and required lift certification to be provided by Lift supplier / manufacturer directly to the PCA.

All matters regard to fire-isolated stairways are to be provided by the fire safety consultant or BCA consultant.

Note Access consultants are not required to be registered and do not prepare certificates under the provisions of the Design and Building Practitioners Act 2020.

Appendix 1 - Certifications from Builder regarding Slip resistance and other matters

Build International Pty Ltd
ABN : 96 646 954 136
Ph: 0418 814 774
email: build@y7mail.com.

Construction of three (3) industrial units and a weighbridge including associated site works and landscaping

At: 5 Kiora Cresent, YENNORA

I Lawrance Crestani of Build International Pty Ltd herby certify that the above project has been constructed with the following provisions:

Common use accessible toilets

- All common use accessible toilets have been provided with backrests that are capable of withstanding a force in any direction of 1100 N
- Grabrails have been provided with fastenings and the materials and construction of grabrails shall be able to withstand a force of 1100 N applied at any position and in any direction without deformation or loosening or rotation of the fastenings or fittings.
- Slip resistant flooring as per relevant Australian Standards / HB 197 and HB has been provided

Common use accessible showers

- The shower seat in accessible showers have been provided with fastenings, materials and construction of the seat shall be able to withstand a force of 1100 N applied at any position and in any direction without failing or loosening of fastenings.
- Slip resistant flooring as per relevant Australian Standards / HB 197 and HB has been provided

Common use ambulant toilets

- Grabrails have been provided with fastenings and the materials and construction of grabrails shall be able to withstand a force of 1100 N applied at any position and in any direction without deformation or loosening or rotation of the fastenings or fittings.
- Slip resistant flooring as per relevant Australian Standards / HB 197 and HB has been provided

Common use areas

- All common use floor surfaces including but not limited to accessible parking and shared zones, ramp surfaces, stairway landings, nosing strips to all stairways and tactile ground surface indicators provided are slip-resistant as required under the BCA Table D2.14 and relevant Australian Standards / HB 197 and HB 198.

Full Name: Lawrance Crestani
Contact phone No: 0418 814 774
Email address: build@y7mail.com

Signature_____ Date_8.2.24_____

Statement of Experience

vista access architects

Vista Access Architects specialises in disability access consultancy services including, Disability Access and inclusion requirements, Access Performance Solutions under the NCC, NDIS SDA Certifications, Livable Housing Certifications and Changing Places Certifications.

Farah Madon - Director

- **ACA Accredited Access Consultant**
- **NDIS Accredited SDA Assessor**
- **Livable Housing Assessor**
- **Changing Places Assessor**

- Accredited and Fellow member of the Access Consultants Association (ACA) - 281
- NDIS Accredited SDA (Specialist Disability Accommodation) Assessor SDA00001
- Architect registered with the NSW Architect's Registration Board - Registration 6940
- Member of Australian Institute of Architects (RAIA), A+ Practice Member 49397
- Registered Assessor of Livable Housing Australia - Registration 10032
- Global Alliance on Accessible Technologies and Environments (GAATES) - BE-02-021-20
- Registered Assessor of Changing Places Australia - Registration CP006

Farah's Educational Profile and Qualifications include:

- Bachelor of Architecture Degree with Honours (B.Arch.)
- International Certification of Accessibility Consultants – Built Environment (ICAC-BE) Program, Level 2 Advanced Accessibility Consultant
- Diploma of Access Consulting

Farah has 20 years of experience of working in the field of Architecture and Access.

Farah is the lead author of the NDIS SDA Design Standard. She has been invited on multiple occasions as an expert witness for Access related matters in the NSW Land and Environment Court.

Farah currently participates on the following key committees concerning access for people with disabilities, on an honorary basis:

- President of Access Consultants Association (previously known as ACAA)
- Member of Standards Australia's ME-064 Committee responsible for the AS4299 and AS1428 suite of standards.
- Community Representative Member of the Penrith City Council's Access Committee
- Member of Australian Institute of Architect's National Enabling Architecture Committee (NEAC)
- Member of Changing Places Australia Technical Advisory Team

Some Recent Awards presented to Farah include:

- 2023 Mulgoa Local Woman of the Year
- 2022 ACAA Fellow Award
- 2021 Australian Access Awards - Winner for the Educational App of the Year - SDA Tools
- 2021 Excellence in Inclusion - Altitude Awards
- 2019 Penrith Citizen of the Year
- 2019 ACAA Access Inclusion Award

FELLOW ACA Access Consultants Association ACCREDITED MEMBER Farah Madon: 281

ndis SDA Accredited Assessor Farah Madon SDA00001

Changing Places Assessor CP006

LHA ASSESSOR NCC Livable Housing Design Standard

PENRITH IAAP CERTIFIED CPABE Advanced FARAH MADON 2019 Penrith Citizen of the Year

2021 Altitude Awards WINNER Excellence in Inclusion Award

2019 ACAA Association of Consultants in Access Australia Inc Access Inclusion Award Winner

Assessor Livable Housing Design Farah Madon

AUSTRALIAN ACCESS AWARDS WINNER 2021 CENTRE FOR ACCESSIBILITY AUSTRALIA

w www.accessarchitects.com.au
a PO Box 353, Kingswood NSW 2747
ARN 6940, ACAA 281, ABN 82124411614

Vanessa Griffin

- ACA Accredited Access Consultant
- NDIS Accredited SDA Assessor
- Livable Housing Assessor
- Changing Places Assessor

- Accredited member of ACA (previously ACAA) - 500
- NDIS Accredited SDA Assessor SDA00009
- Registered LHA Assessor - 20035
- Registed Assessor of Changing Places Australia - CP010

ACA Access Consultants Association ACCREDITED MEMBER Vanessa Griffin: 500

ndis SDA Accredited Assessor Vanessa Griffin SDA00009

Assessor

Jenny Desai

- ACA Accredited Access Consultant
- NDIS Accredited SDA Assessor
- Livable Housing Assessor

- Accredited member of ACA (previously ACAA) - 572
- NDIS Accredited SDA Assessor SDA00043
- Registered LHA Assessor - 20242
- Master's degree in Design M.Des

ACA Access Consultants Association ACCREDITED MEMBER Jhanvi Desai: 572

ndis SDA Accredited Assessor Jenny Desai SDA00043

Assessor

Art Phonsawat

- ACA Accredited Access Consultant
- NDIS Accredited SDA Assessor
- Livable Housing Assessor

- Accredited member of ACA (previously ACAA) - 695
- NDIS Accredited SDA Assessor
- Registered LHA Assessor

ACA Access Consultants Association ACCREDITED MEMBER Suwat Phonsawat: 695

ndis SDA Accredited Assessor

Assessor

Trin Woo

- ACA Affiliate Access Consultant

- Affiliate Member of ACA (previously ACAA) - 776
- Bachelor's degree in Architecture B.Arch

ACA Access Consultants Association AFFILIATE MEMBER Trin Woo: 776

Swapna Menon

- ACA Affiliate Access Consultant

- Affiliate Member of the ACA (previously ACAA) - 798
- Bachelor's degree in Architecture B.Arch

ACA Access Consultants Association AFFILIATE MEMBER Swapna Menon: 798

Rodney Shepherd

- ACA Affiliate Access Consultant

- Affiliate Member of ACA (previously ACAA) - 751
- Master's Degree in Building Surveying (Distinction)

ACA Access Consultants Association AFFILIATE MEMBER Rodney Shepherd: 751

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION

DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**Industrial Buildings & Weighbridge**

The National Construction Code & (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) 2019,Volume 1 ,Amendment 1 performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Hung Tien Vo**
COMPANY REPRESENTED:	**K&I Waterproofing & Tiling**
ABN/ACN:	**77 488 118 229**
LICENSE NUMBER:	**285723C**
COMPANY ADDRESS:	**5 Abercrombie St, Cabrammatta west, NSW 2166**
PHONE:	**0433 805 992**
EMAIL:	**tcqtiling@yahoo.com.au**
QUALIFICATIONS & EXPERIENCE:	**contractor**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Waterproofing & Internal Wet Areas

has been selected, installed and commissioned in accordance with the following BCA Clauses and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA & NCC:	**BCA 2019 & NCC 2019,Volume 1 ,Amendment 1**
3.	The relevant clauses of the BCA as follows:	• **BCA 2019 Clause F2D2, F2D3**
4.	The relevant Standards as follows (Including number, part & year):	• **AS 3740 - 2010 (incorporating amendment 1)** • **AS 4654 Part 1 & 2-2012** •
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	• **The product used and product specification in accordance with the relevant Australian Standard)** • **the waterproofing has been installed in accordance with eh detail waterproofing plans, specifications and installation manual for the tested system used. All technical data and installation manual shall be attached to the certificate.** **Sika Silastic WPU Data attached (2 coats applied to all bathrooms , disabled facility and kitchenette splashback to Unit 1, 2 & 3)**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature:  **Hung Tien Vo 26.04.24**

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION

DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**Industrial Buildings & Weighbridge**

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NAME:	**Hung Tien Vo**
COMPANY REPRESENTED:	**K&I Waterproofing & Tiling**
ABN/ACN:	**77 488 118 229**
LICENSE NUMBER:	**285723C**
COMPANY ADDRESS:	**5 Abercrombie St, Cabrammatta west, NSW 2166**
PHONE:	**0433 805 992**
EMAIL:	**tcqtiling@yahoo.com.au**
QUALIFICATIONS & EXPERIENCE:	**contractor**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

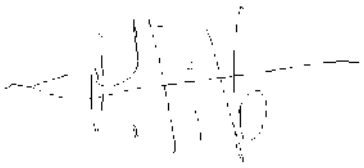
Waterproofing & Internal Wet Areas

has been selected, installed and commissioned in accordance with the following BCA Clauses and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA & NCC:	**BCA 2019 & NCC 2019,Volume 1 ,Amendment 1**
3.	The relevant clauses of the BCA as follows:	BCA 2019 Clause F1.7, F1.6
4.	The relevant Standards as follows (Including number, part & year):	• **AS 3740 - 2010 (incorporating amendment 1)** • **AS 4654 Part 1 & 2-2012**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	• **The product used and product specification in accordance with the relevant Australian Standard)** • **the waterproofing has been installed in accordance with eh detail waterproofing plans, specifications and installation manual for the tested system used. All technical data and installation manual shall be attached to the certificate.** **Sika Silastic WPU Data attached (2 coats applied to all bathrooms , disabled facility and kitchenette splashback to Unit 1, 2 & 3)**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature:  **Hung Tien Vo 26.04.24**

ALPHA
ENGINEERING & DEVELOPMENT

20 DECEMBER 2023

FINAL STRUCTURAL CERTIFICATE

5 KIORA CRESCENT, YENNORA

I certify that we have carried out Structural Inspections in accordance with accepted engineering practice and principles during the construction of the project and that at the time of the inspection the work inspected conformed with the intent of the design as conveyed by the approved Structural Engineering drawings.

During the course of construction of the above works, our firm inspected the following prior to placing concrete as per our field inspection reports:

- Crane Piers and Pads
- Concrete Piers
- Footings
- Pad footings
- Ground floor Slab
- Concrete Columns
- Steel Columns
- OSD and Rainwater tank footings, tank Walls, tank Slab
- External Ramp Slabs
- Concrete Stairs
- Concrete Wall Panels
- Mezzanine Slabs
- Roof Steel Frame

The design has been in our opinion carried out to conform to the relevant SAA Codes, in particular the following:

- AS 1170.0 Structural Design Actions (2002) incorporating amendment 1, 3, and 4

ABN 67162177451 **E** info@alphaengineering.com.au **W** www.alphaengineering.com.au
A 4.03 16 Railway Parade, Burwood **PO BOX** 178 BELFIELD NSW 2191
PH (02) 97455202 **FAX** (02) 80047461

- AS 1170.1 Structural Design Actions (2002) incorporating amendment 1 and 2
- AS 1170.2 Structural Design Actions (2002) incorporating amendment 1, 2, 3, 4 and 5
- AS 2159 Piling Code (2009)
- AS 2870 Residential Slabs and Footings (2011)
- AS 3600 Concrete Structures (2018)
- AS 4100 Steel Structures (2020)
- BCA 2019

This certification shall not be construed as relieving any other part of their responsibilities, liabilities, or contractual obligations.

The pouring of concrete and maintaining of covers to reinforcement has not been supervised, however, provided that the work is completed in accordance with the design documentation and site instructions, we are satisfied that the work, when completed on accordance with good workmanship, will be structurally adequate.

Signed,

Jean Jose Mauad | **Managing Director**
Senior Structural & Civil Engineer
BE Civil, Dip Eng Prac, MIE Aust 3290998
FIEAust, CPENG, NER (Civil & Structural)
EngExec, APEC Engineer IntPE(Aus)
Accredited Certifier BPB 3122 (Civil & Structural)
Certificate IV Building & Construction
Licensed Builder
Per Alpha Engineering & Development p/l

ALPHA
ENGINEERING & DEVELOPMENT

5 DECEMBER 2023

FINAL STRUCTURAL CERTIFICATE

5 KIORA CRESCENT, YENNORA

I certify that we have carried out Structural Inspections in accordance with accepted engineering practice and principles during the construction of the project and that at the time of the inspection the work inspected conformed with the intent of the design as conveyed by the approved Structural Engineering drawings.

During the course of construction of the above works, our firm inspected the following prior to placing concrete as per our field inspection reports:

- Crane Piers and Pads
- Concrete Piers
- Footings
- Pad footings
- Ground floor Slab
- Concrete Columns
- Steel Columns
- OSD and Rainwater tank footings, tank Walls, tank Slab
- External Ramp Slabs
- Concrete Stairs
- Concrete Wall Panels
- Mezzanine Slabs
- Roof Steel Frame

The design has been in our opinion carried out to conform to the relevant SAA Codes, in particular the following:

- AS 1170.0 Structural Design Actions (2002) incorporating amendment 1, 3, and 4

ABN 67162177451 **E** info@alphaengineering.com.au **W** www.alphaengineering.com.au
A 4.03 16 Railway Parade, Burwood **PO BOX** 178 BELFIELD NSW 2191
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- AS 1170.1 Structural Design Actions (2002) incorporating amendment 1 and 2
- AS 1170.2 Structural Design Actions (2002) incorporating amendment 1, 2, 3, 4 and 5
- AS 2159 Piling Code (2009)
- AS 2870 Residential Slabs and Footings (2011)
- AS 3600 Concrete Structures (2018)
- AS 4100 Steel Structures (2020)
- National Construction Code (2022) – Section B1 and Specification 5

This certification shall not be construed as relieving any other part of their responsibilities, liabilities, or contractual obligations.

The pouring of concrete and maintaining of covers to reinforcement has not been supervised, however, provided that the work is completed in accordance with the design documentation and site instructions, we are satisfied that the work, when completed on accordance with good workmanship, will be structurally adequate.

Signed,

Jean Jose Mauad | **Managing Director**
Senior Structural & Civil Engineer
BE Civil, Dip Eng Prac, MIE Aust 3290998
FIEAust, CPENG, NER (Civil & Structural)
EngExec, APEC Engineer IntPE(Aus)
Accredited Certifier BPB 3122 (Civil & Structural)
Certificate IV Building & Construction
Licensed Builder
Per Alpha Engineering & Development p/l

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**: Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Angelo Hatgiantounio**
COMPANY REPRESENTED:	**Mavec Electrics Pty Ltd**
ABN/ACN:	**67 0800 843 13**
LICENSE NUMBER:	**188584C, F039740A**
COMPANY ADDRESS:	**121 Bringelly Rd**
PHONE:	**4774 9228**
EMAIL:	**Angelo@Mavec.com.au**
QUALIFICATIONS & EXPERIENCE:	**Licenced Electrician**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Lighting, Electrical Installation, Emergency Lighting & Exit Signage, Detection & Alarm System, Sound System for Emergency Purposes

has been selected, installed and commissioned in accordance with the following BCA Clauses and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2022**
3.	The relevant clauses of the BCA as follows:	**F6D5, Part J7, E4D2, E4D4, E4D5,E4D6, E4D8, Part E2, Specification 20, E4D9**
4.	The relevant Standards as follows (Including number, part & year):	**AS3000-2007, AS3786-2014, AS1670.1-2018, AS170.4-2018, AS2293.1-2018, AS3000-2018, AS1680.0-2009, AS1680-2009**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**Viscona-Essential Electrical Services E1, E2,E3, E4, E5, E6, E7, E8, E9**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature:

Name: Angelo Hatgiantounio **Date: 12.11.23**

EXIT SIGNS INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	.UNIT 1
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that exit in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.5, NSW E4.6, E4.8
- AS 2293.1 – 2018 and AS 2293.3-2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with exit signs;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all exit signs has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all exit signs can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All exit signs are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

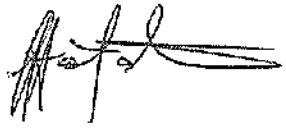
Signed:		Name:	Angelo Hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EXIT SIGNS LOGBOOK

PROPERTY (NAME): Unit 1
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
E1	WareHouse (West) LHS roller shutter	EJELED-40-LM	MainDB-CB/4	P	
E2	WareHouse (West) RHS roller shutter	EJELED-40-LM	MainDB-CB/4	P	
E3	WareHouse (NorthWest) Fire door	EJELED-40-LM	MainDB-CB/4	P	
E4	WareHouse (NorthEast) Fire door	EJELED-40-LM	MainDB-CB/4	P	
E5	WareHouse (East) LHS roller shutter	EJELED-40-LM	MainDB-CB/4	P	
E6	WareHouse (East) LHS roller shutter	ECFLED-LI	MainDB-CB/4	P	
E7	Small office 1st Floor door	ECFLED-LI	officeDB-CB/25	P	
E8	WareHouse (East) RHS roller shutter	EJELED-40-LM	officeDB-CB/3	P	
E9	large office Grd Floor Glass door	ECFLED-LI	officeDB-CB/3	P	
E10	large office Grd Floor Glass door	ECFLED-LI	officeDB-CB/3	P	
E11	Large office Grd Floor meeting Room	ECFLED-LI	officeDB-CB/3	P	
E12	large office Grd Floor main door	ECFLED-LI	officeDB-CB/3	P	
E13	large Office 1st Floor main door	ECFLED-LI	officeDB-CB/3	P	
E14	Small office Grd Floor toilet hallway	ECFLED-LI	officeDB-CB/25	P	
E15	Small office Grd Floor toilet hallway	ECFLED-LI	officeDB-CB/25	P	
E16	Large office Grd Floor toilet hallway	ECFLED-LI	officeDB-CB/3	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed:  Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

EXIT SIGNS INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	.UNIT 2
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that exit in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.5, NSW E4.6, E4.8
- AS 2293.1 – 2018 and AS 2293.3-2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with exit signs;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all exit signs has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all exit signs can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All exit signs are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

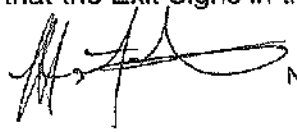
Signed:		Name:	Angelo Hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EXIT SIGNS LOGBOOK

PROPERTY (NAME): Unit 2
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
E1	WareHouse (West) LHS roller shutter	EJELED-40-LM	Unit2DB-CB/4	P	
E2	WareHouse (West) RHS roller shutter	EJELED-40-LM	Unit2DB-CB/4	P	
E3	WareHouse (North) Fire door	EJELED-40-LM	Unit2DB-CB/4	P	
E4	WareHouse office Fire door	EJELED-40-LM	Unit2DB-CB/4	P	
E5	Office 1st Floor door	ECFLED-LI	Unit2DB-CB/4	P	
E6	Office Grd Floor glass door	ECFLED-LI	Unit2DB-CB/4	P	
E7	Office Grd Floor main door	ECFLED-LI	Unit2DB-CB/4	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed:  Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

EXIT SIGNS INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	.UNIT 3
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that exit in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.5, NSW E4.6, E4.8
- AS 2293.1 – 2018 and AS 2293.3-2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with exit signs;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all exit signs has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all exit signs can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All exit signs are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

Signed:		Name:	Angelo Hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EXIT SIGNS LOGBOOK

PROPERTY (NAME): Unit 3
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
E1	WareHouse (South) Fire door	EJELED-40-LM	Unit3DB-CB/4	P	
E2	WareHouse (North) Fire door	EJELED-40-LM	Unit3DB-CB/4	P	
E3	WareHouse (North) Fire door	EJELED-40-LM	Unit3DB-CB/4	P	
E4	Office Grd floor Meeting Room	ECFLED-LI	Unit3DB-CB/4	P	
E5	Office 1st Floor Main door	ECFLED-LI	Unit3DB-CB/4	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed: Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**: Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Angelo Hatgiantounio**
COMPANY REPRESENTED:	**Mavec Electrics Pty Ltd**
ABN/ACN:	**67 0800 843 13**
LICENSE NUMBER:	**188584C, F039740A**
COMPANY ADDRESS:	**121 Bringelly Rd**
PHONE:	**4774 9228**
EMAIL:	**Angelo@Mavec.com.au**
QUALIFICATIONS & EXPERIENCE:	**Licenced Electrician**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Lighting, Electrical Installation, Emergency Lighting & Exit Signage, Detection & Alarm System, Sound System for Emergency Purposes

has been selected, installed and commissioned in accordance with the following BCA Clauses and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2022**
3.	The relevant clauses of the BCA as follows:	**F6D5, Part J7, E4D2, E4D4, E4D5,E4D6, E4D8, Part E2, Specification 20, E4D9**
4.	The relevant Standards as follows (Including number, part & year):	**AS3000-2007, AS3786-2014, AS1670.1-2018, AS170.4-2018, AS2293.1-2018, AS3000-2018, AS1680.0-2009, AS1680-2009**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**Viscona-Essential Electrical Services E1, E2,E3, E4, E5, E6, E7, E8, E9**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature:

Name: Angelo Hatgiantounio **Date: 12.11.23**

EMERGENCY LIGHTING INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	UNIT 1
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that the emergency lighting in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.2, E4.4
- AS 2293.1 –2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with emergency lighting;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all emergency lights has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all emergency escape luminaires can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All emergency lighting fixtures are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

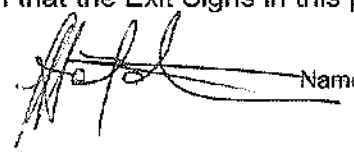
Signed:		Name:	Angelo hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EMERGENCY LIGHTING LOGBOOK

PROPERTY (NAME): Unit 1
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
EM1	Small office 1st floor	ELIFE-LI	OfficeDB-CB/25	P	
EM2	Small office 1st floor	ELIFE-LI	OfficeDB-CB/25	P	
EM3	Large office 1st Floor	ELIFE-LI	OfficeDB-CB/3	P	
EM4	Large office 1st Floor	ELIFE-LI	OfficeDB-CB3	P	
EM5	Large office 1st Floor	ELIFE-LI	OfficeDB-CB/3	P	
EM6	Large office 1st Floor	ELIFE-LI	OfficeDB-CB3	P	
EM7	Large office 1st Floor	ELIFE-LI	OfficeDB-CB/3	P	
EM8	Large office Grd floor male toilet	ELIFE-LI	OfficeDB-CB3	P	
EM9	Large office Grd floor toilet Hallway	ELIFE-LI	OfficeDB-CB/3	P	
EM10	Large office Grd floor female toilet	ELIFE-LI	OfficeDB-CB3	P	
EM11	Large office Grd floor toilet Hallway	ELIFE-LI	OfficeDB-CB/3	P	
EM12	Large office Grd floor meeting Room	ELIFE-LI	OfficeDB-CB3	P	
EM13	Large office Grd floor main area	ELIFE-LI	OfficeDB-CB/3	P	
EM14	Small office Grd floor toilet hallway	ELIFE-LI	OfficeDB-CB25	P	
EM15	Small office Grd floor Male toilet	ELIFE-LI	OfficeDB-CB/25	P	
EM16	Small office Grd floor female toilet	ELIFE-LI	OfficeDB-CB25	P	
EM17	Small office Grd floor Disabled toilet	ELIFE-LI	OfficeDB-CB/25	P	
EM18	WareHouse main area (nrth)	CLIFE-PRO-SM	MainDB-CB4	P	
EM19	WareHouse main area (west)	CLIFE-PRO-SM	MainDB-CB4	P	
EM20	WareHouse main area (South)	CLIFE-PRO-SM	MainDB-CB4	P	
EM21	WareHouse main area (East)	CLIFE-PRO-SM	MainDB-CB4	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed:  Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

EMERGENCY LIGHTING INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	UNIT 2
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that the emergency lighting in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.2, E4.4
- AS 2293.1 –2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with emergency lighting;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all emergency lights has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all emergency escape luminaires can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All emergency lighting fixtures are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

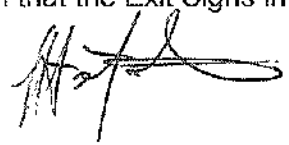
Signed:		Name:	Angelo hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EMERGENCY LIGHTING LOGBOOK

PROPERTY (NAME): Unit 2
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
EM1	WareHouse main area (South)	CLIFE-PRO-SM	Unit2DB-CB/4	P	
EM2	WareHouse main area (West)	CLIFE-PRO-SM	Unit2DB-CB/4	P	
EM3	WareHouse main area (Northh)	CLIFE-PRO-SM	Unit2DB-CB/4	P	
EM4	WareHouse main area (East)	CLIFE-PRO-SM	Unit2DB-CB/4	P	
EM5	Ground Floor office	ELIFE-LI	Unit2DB-CB/4	P	
EM6	Ground Floor Data room	ELIFE-LI	Unit2DB-CB/4	P	
EM7	Ground Floor Toilet	ELIFE-LI	Unit2DB-CB/4	P	
EM8	1st Floor Office	ELIFE-LI	Unit2DB-CB/4	P	
EM9	1st Floor Toilet hallway	ELIFE-LI	Unit2DB-CB/4	P	
EM10	1st Floor Toilet	ELIFE-LI	Unit2DB-CB/4	P	
EM11	2nd Floor Toilet	ELIFE-LI	Unit2DB-CB/4	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed:  Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

EMERGENCY LIGHTING INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	UNIT 3
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that the emergency lighting in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.2, E4.4
- AS 2293.1 –2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with emergency lighting;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all emergency lights has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all emergency escape luminaires can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All emergency lighting fixtures are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

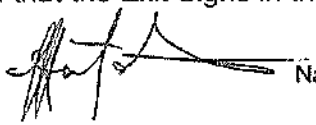
Signed:		Name:	Angelo hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EMERGENCY LIGHTING LOGBOOK

PROPERTY (NAME): Unit 3
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
EM1	WareHouse main area (South)	CLIFE-PRO-SM	Unit3DB-CB/4	P	
EM2	WareHouse main area (West)	CLIFE-PRO-SM	Unit3DB-CB/4	P	
EM3	1st Floor Office	ELIFE-LI	Unit3DB-CB/4	P	
EM4	1st Floor Office	ELIFE-LI	Unit3DB-CB/4	P	
EM5	1st Floor Office Hallway	ELIFE-LI	Unit3DB-CB/4	P	
EM6	1st Floor Office Toilet	ELIFE-LI	Unit3DB-CB/4	P	
EM7	1st Floor Office Toilet	ELIFE-LI	Unit3DB-CB/4	P	
EM8	Ground Floor Meeting room	ELIFE-LI	Unit3DB-CB/4	P	
EM9	Ground Floor Hallway	ELIFE-LI	Unit3DB-CB/4	P	
EM10	Ground Floor Toilet	ELIFE-LI	Unit3DB-CB/4	P	
EM11	Ground Floor Toilet	ELIFE-LI	Unit3DB-CB/4	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed:  Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**: Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Angelo Hatgiantounio**
COMPANY REPRESENTED:	**Mavec Electrics Pty Ltd**
ABN/ACN:	**67 0800 843 13**
LICENSE NUMBER:	**188584C, F039740A**
COMPANY ADDRESS:	**121 Bringelly Rd**
PHONE:	**4774 9228**
EMAIL:	**Angelo@Mavec.com.au**
QUALIFICATIONS & EXPERIENCE:	**Licenced Electrician**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Artificial Lighting, External Lighting, Lighting, Electrical Installation, Emergency Lighting & Exit Signage, for Emergency Purposes

has been selected, installed and commissioned in accordance with the following BCA Clauses ,NCC 2019 and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2019**
3.	The relevant clauses of the BCA as follows:	**F4,4, Part J6, E4.2, E4.4, E4.5,E4.6, E4.8, Part E2, Specification E2.2a, E4.9**
4.	The relevant Standards as follows (Including number, part & year):	**AS3000-2007, AS3786-2014, AS1670.1-2018, AS170.4-2018, AS2293.1-2018, AS3000-2018, AS1680.0-2009, AS1680-2009, AS4282-2019**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**Viscona-Essential Electrical Services E1, E2,E3, E4, E5, E6, E7, E8, E9**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature: 

Name: Angelo Hatgiantounio **Date: 19.12.23**

EXIT SIGNS INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	.UNIT 1
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that exit in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.5, NSW E4.6, E4.8
- AS 2293.1 – 2018 and AS 2293.3-2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with exit signs;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all exit signs has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all exit signs can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All exit signs are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

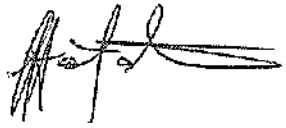
Signed:		Name:	Angelo Hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EXIT SIGNS LOGBOOK

PROPERTY (NAME): Unit 1
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
E1	WareHouse (West) LHS roller shutter	EJELED-40-LM	MainDB-CB/4	P	
E2	WareHouse (West) RHS roller shutter	EJELED-40-LM	MainDB-CB/4	P	
E3	WareHouse (NorthWest) Fire door	EJELED-40-LM	MainDB-CB/4	P	
E4	WareHouse (NorthEast) Fire door	EJELED-40-LM	MainDB-CB/4	P	
E5	WareHouse (East) LHS roller shutter	EJELED-40-LM	MainDB-CB/4	P	
E6	WareHouse (East) LHS roller shutter	ECFLED-LI	MainDB-CB/4	P	
E7	Small office 1st Floor door	ECFLED-LI	officeDB-CB/25	P	
E8	WareHouse (East) RHS roller shutter	EJELED-40-LM	officeDB-CB/3	P	
E9	large office Grd Floor Glass door	ECFLED-LI	officeDB-CB/3	P	
E10	large office Grd Floor Glass door	ECFLED-LI	officeDB-CB/3	P	
E11	Large office Grd Floor meeting Room	ECFLED-LI	officeDB-CB/3	P	
E12	large office Grd Floor main door	ECFLED-LI	officeDB-CB/3	P	
E13	large Office 1st Floor main door	ECFLED-LI	officeDB-CB/3	P	
E14	Small office Grd Floor toilet hallway	ECFLED-LI	officeDB-CB/25	P	
E15	Small office Grd Floor toilet hallway	ECFLED-LI	officeDB-CB/25	P	
E16	Large office Grd Floor toilet hallway	ECFLED-LI	officeDB-CB/3	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed:  Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

EXIT SIGNS INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	.UNIT 2
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that exit in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.5, NSW E4.6, E4.8
- AS 2293.1 – 2018 and AS 2293.3-2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with exit signs;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all exit signs has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all exit signs can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All exit signs are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

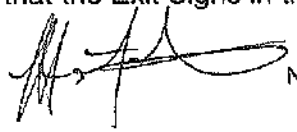
Signed:		Name:	Angelo Hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EXIT SIGNS LOGBOOK

PROPERTY (NAME): Unit 2
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
E1	WareHouse (West) LHS roller shutter	EJELED-40-LM	Unit2DB-CB/4	P	
E2	WareHouse (West) RHS roller shutter	EJELED-40-LM	Unit2DB-CB/4	P	
E3	WareHouse (North) Fire door	EJELED-40-LM	Unit2DB-CB/4	P	
E4	WareHouse office Fire door	EJELED-40-LM	Unit2DB-CB/4	P	
E5	Office 1st Floor door	ECFLED-LI	Unit2DB-CB/4	P	
E6	Office Grd Floor glass door	ECFLED-LI	Unit2DB-CB/4	P	
E7	Office Grd Floor main door	ECFLED-LI	Unit2DB-CB/4	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed:  Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

EXIT SIGNS INSTALLATION COMPLIANCE CERTIFICATE

BUILDING NAME:	.UNIT 3
BUILDING ADDRESS:	5 KIORA CRES, YENNORA
AREA OF BUILDING (ENTIRE OR PART):	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I/ We (name of installer) certify that exit in the abovementioned area(s) has been installed to the following Performance Standards

- BCA Clauses E4.5, NSW E4.6, E4.8
- AS 2293.1 – 2018 and AS 2293.3-2018

I/We also certify that testing and commissioning of the system has been conducted on (date) 1-12-2023 in accordance with AS 2293.1 – 2018 and specifically:

- All areas (as required by the BCA) are equipped with exit signs;
- All luminaires are connected to a labelled, un-switched circuit or sub-circuit from the electrical / distribution board;
- A test switch serving all exit signs has been installed, and this switch provides circuit failure sensing of all adjacent 'normal' lighting circuits;
- The test switch is labelled and installed such that a discharge test on all exit signs can be undertaken without necessitating disconnection of supply to the normal lighting.
- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- All exit signs are individually labelled and correspond to the logbooks provided to the client.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

Signed:		Name:	Angelo Hatgiantounio
Licence No.:	188584C	Date:	16.1.2024

EXIT SIGNS LOGBOOK

PROPERTY (NAME): Unit 3
ADDRESS 5 Kiora Cres, Yennora
INSPECTION DATE 1.December 2023

FITTING ID.	LOCATION	MAKE / MODEL / TYPE	D/B and CIRCUIT ID	TEST RESULT Pass/Fail	COMMENTS
E1	WareHouse (South) Fire door	EJELED-40-LM	Unit3DB-CB/4	P	
E2	WareHouse (North) Fire door	EJELED-40-LM	Unit3DB-CB/4	P	
E3	WareHouse (North) Fire door	EJELED-40-LM	Unit3DB-CB/4	P	
E4	Office Grd floor Meeting Room	ECFLED-LI	Unit3DB-CB/4	P	
E5	Office 1st Floor Main door	ECFLED-LI	Unit3DB-CB/4	P	

I confirm that the Exit Signs in this premises is installed, tested, and compliant with BCA Part E4 and AS 2293.1 : 2005

Signed: Name: Angelo Hatgiantounio Licence No.: 188584C Date: 1st December 2023

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**: Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) 2019, Amendment 1 performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Angelo Hatgiantounio**
COMPANY REPRESENTED:	**Mavec Electrics Pty Ltd**
ABN/ACN:	**67 0800 843 13**
LICENSE NUMBER:	**188584C, F039740A**
COMPANY ADDRESS:	**121 Bringelly Rd**
PHONE:	**4774 9228**
EMAIL:	**Angelo@Mavec.com.au**
QUALIFICATIONS & EXPERIENCE:	**Licenced Electrician**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Lighting, Electrical Installation, Emergency Lighting & Exit Signage, for Emergency Purposes

has been selected, installed and commissioned in accordance with the following BCA Clauses and Australian Standards (as referenced) & NCC 2019 , Amendment 1:-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2019**
3.	The relevant clauses of the BCA as follows:	**F4,4, Part J6, E4.2, E4.4, E4.5,E4.6, E4.8, Part E2, Specification E2.2a, E4.9**
4.	The relevant Standards as follows (Including number, part & year):	**AS3000-2007, AS3786-2014, AS1670.1-2018, AS170.4-2018, AS2293.1-2018, AS3000-2018, AS1680.0-2009, AS1680-2009**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**Viscona-Essential Electrical Services E1, E2,E3, E4, E5, E6, E7, E8, E9**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature: 

Name: Angelo Hatgiantounio **Date: 19.12.23**

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**: Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) 2019, Ammendment 1 performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Angelo Hatgiantounio**
COMPANY REPRESENTED:	**Mavec Electrics Pty Ltd**
ABN/ACN:	**67 0800 843 13**
LICENSE NUMBER:	**188584C, F039740A**
COMPANY ADDRESS:	**121 Bringelly Rd**
PHONE:	**4774 9228**
EMAIL:	**Angelo@Mavec.com.au**
QUALIFICATIONS & EXPERIENCE:	**Licenced Electrician**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Artificial Lighting, Electrical Installation, Emergency Lighting & Exit Signage,

has been selected, installed and commissioned in accordance with the following BCA Clauses, NCC 2019,Amendment 1, and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2019**
3.	The relevant clauses of the BCA as follows:	**F4.4, Part F5, E4.2, E4.4, E4.5,E4.6, E4.8., Part E2, Specification E2.2a, E4.9**
4.	The relevant Standards as follows (Including number, part & year):	**AS3000-2007, AS3786-2014, AS1670.1-2018, AS170.4-2018, AS2293.1-2018, AS3000-2018, AS1680.0-2009, AS1680-2009 , AS 4282-2019**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**Viscona-Essential Electrical Services E1, E2,E3, E4, E5, E6, E7, E8, E9**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature: 

Name: Angelo Hatgiantounio **Date: 19.12.23**

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**: Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Anthony Khalil**
COMPANY REPRESENTED:	**Plumbing Assist Pty Ltd**
ABN/ACN:	**75 519 860 811**
LICENSE NUMBER:	**100256C**
COMPANY ADDRESS:	**Ermington NSW**
PHONE:	**9057 1144**
EMAIL:	**anthony@plumbingassist.com.au**
QUALIFICATIONS & EXPERIENCE:	**Plumber and Drainer**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Stormwater

has been selected, installed and commissioned in accordance with the following BCA Clauses, NCC 2019 and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2019**
3.	The relevant clauses of the BCA as follows:	
4.	The relevant Standards as follows (Including number, part & year):	**Plumbing Code of Australia,AS3500 part 3-2015, AS3500.0-2003, AS3500.1-2018, As3500.2-2018, AS3500.3-2018, AS3500.4-2018 (incorporating amendment 1)**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**SGC Storwater Design Drg.SW100, SW200, SW 201, SW300, SW301, SW302, SW303**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature

Anthony Khalil

1.12.23

Stormwater Drainage Maintenance Manual

5 Kiora Crescent, Yennora

Issue 02

Prepared For Mr. Lawrance Crestani

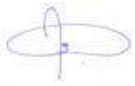
Date: Wednesday, 10 April 24

File Ref: 20190032-R03_Maintenance Schedule [01].docx

P: 02 8883 4239
A: Suite 311, Level 3, 480 Pacific Highway, St Leonards NSW 2065

W: www.sgce.com.au
Postal: PO Box 7855, Baulkham Hills, NSW 2153

REVISION TABLE

Revision	Date	Issue Description	Issued by	Approved by	Signed
01	08.04.2024	Final Issue	SELH	SELH	
02	10.04.2024	Sketch added	SELH	SELH	

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P: 02 8883 4239 W: www.sgce.com.au

1 Introduction

S&G Consultants Pty Ltd (SGC) have been engaged by Mr. Lawrance Crestani to prepare an On-Site Detention (OSD) maintenance schedule as required by Cumberland City Council.

1.1 Reference Documents

The following documents are referenced in this report:

- Cumberland DCP – Part G – Miscellaneous Development Controls – Item 2.7 'Water Sensitive Urban Design, Water Quality and Water Re-Use';
- WorkCover Authority of NSW Occupational Health & Safety Act 1983 and Confined Spaces Regulation;
- Occupational Health & Safety Act 2000;
- Occupational Health & Safety Regulation 2001; and
- Workers Compensation Act 1987.

1.2 Site Description

The site is located at the end of a cul-de-sac on Kiora Crescent in Yennora.

Figure 1.1 shows the location of the site.

Figure 1.1 Locality Plan

2 Maintenance Schedule

The Stormwater system is designed to collect and dispose stormwater in a safe manner during and after rainfall events. Ponding of water within pits may temporarily occur but should not last after rain subsides. If ponding persists, it is likely that maintenance attention is required.

Most components of the Stormwater system should be checked for blockages after each significant storm to ensure that they continue to function effectively. The build-up of sludge and debris depends on the individual site and more frequent maintenance may be required where there are many trees, especially after windy conditions.

In general, owners could often maintain Stormwater systems where the depth of pits is less than 1.2 m. For deeper pits or where there are other confined spaces, such as tanks, experienced personnel should be used to ensure that the system is safely maintained. The maintenance schedule should include appropriate notes of the hazard of confined space entry where this is required.

The following schedule (Table 2.1) provides a guide to the timing of typical maintenance actions for a Rainwater tank as well as defining the person responsible and describing the actions required.

2.1 On-Site Detention Tanks

The On-Site Stormwater Detention (OSD) system is designed to temporarily store water during significant rainfall events so that stormwater runoff from this property does not worsen flooding downstream. Ponding of water will occur but should not last for more than two hours in most storms. If ponding persists, it is likely that maintenance attention is required.

The following schedule (Table 2.1) provides a guide to the timing of typical maintenance actions for an On-Site Stormwater Detention (OSD) System as well as defining the person responsible and describing the actions required.

Most components of the system should be checked for blockages after each significant storm to ensure that they continue to function effectively. The build-up of sludge and debris depends on the individual site and more frequent maintenance may be required where there are many trees, especially after windy conditions.

In general, owners could often maintain OSD systems where the depth of pits is less than 1.2 m. For deeper pits or where there are other confined spaces, such as tanks, experienced personnel should be used to ensure that the system is safely maintained. The maintenance schedule should include appropriate notes of the hazard of confined space entry where this is required.

Table 2.1 OSD Maintenance Schedule

Maintenance Action	Frequency	Responsibility	Procedure
Discharge Control Pit (DCP)			
Inspect & remove any blockage on orifice	Six monthly	Owner	Remove grate & screen to inspect orifice. See plan for location of DCP.
Check attachment of orifice plate to wall of pit (gaps less than 5mm)	Annually	Maintenance Contractor	Remove grate and screen. Ensure plate mounted securely, tighten fixings if required. Seal gaps as required.
Check orifice diameter correct and retains sharp edge.	Five yearly	Maintenance Contractor	Compare diameter to design (see Work-as-Executed) and ensure edge is not pitted or damaged.
Inspect screen and clean.	Six monthly	Owner	Remove grate and screen if required to clean it.
Check attachment of screen to wall of pit.	Annually	Maintenance Contractor	Remove grate and screen. Ensure screen fixings secure. Repair as required.
Check screen for corrosion.	Annually	Maintenance Contractor	Remove grate and examine screen for rust or corrosion, especially at corners or welds.
Inspect flap valve & remove any blockage.	Six monthly	Owner	Remove grate. Ensure flap valve moves freely and remove any blockages or debris.
Check attachment of flap valve to wall of pit.	Annually	Maintenance Contractor	Remove grate. Ensure fixings of valve are secure.
Check flap valve seals against wall of pit.	Annually	Maintenance Contractor	Remove grate. Fill pit with water and check that flap seals against side of pit with minimal leakage.
Check any hinges of flap valve move freely.	Six monthly	Maintenance Contractor	Remove grate. Test valve hinge by moving flap to full extent.

Maintenance Action	Frequency	Responsibility	Procedure
Inspect overflow weir & remove any blockage.	Six monthly	Maintenance Contractor	Remove grate and open cover to ventilate underground storage if present. Ensure weir clear of blockages.
Empty basket at overflow weir (if present).	Six monthly	Maintenance Contractor	Remove grate and ventilate underground storage chamber if present. Empty basket, check fixings secure and not corroded.
Inspect DCP walls (internal and external if appropriate) for cracks or spalling.	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect DCP sump & remove any sediment/sludge.	Six monthly	Owner	Remove grate and screen. Remove sediment/sludge build-up and check orifice and flap valve clear.
Inspect grate for damage or blockage.	Six monthly	Owner	Check both sides of grate for corrosion, (especially corners and welds) damage or blockage.
Inspect return pipe from storage & remove any blockage.	Six monthly	Owner	Remove grate and screen. Ventilate underground storage if present. Open flap valve and remove any blockages in return line. Check for sludge/debris on upstream side of return line.
Inspect outlet pipe & remove any blockage	Six monthly	Maintenance Contractor	Remove grate and screen. Ventilate underground storage if present. Check orifice and remove any blockages in outlet pipe. Flush outlet pipe to confirm it drains freely. Check for sludge/debris on upstream side of return line.

Maintenance Action	Frequency	Responsibility	Procedure
Check step irons for corrosion.	Annually	Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage.
Check fixing of step irons is secure.	Six monthly	Maintenance Contractor	Remove grate and ensure fixings secure prior to placing weight on step iron.
Storage			
Inspect return pit & remove any sediment/sludge in pit.	Six monthly	Owner	Remove grate and screen. Remove sediment/sludge build-up.
Inspect internal walls of return pit (and external, if appropriate) for cracks or spalling.	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect & remove any debris/litter/mulch etc blocking grates of return pit.	Six monthly	Owner	Remove blockages from grate and check if pit blocked.
Inspect storage areas & remove debris/mulch/litter etc likely to block screens/grates.	Six monthly	Owner	Remove debris and floatable material likely to be carried to grates.
Compare storage volume to volume approved. (Rectify if loss > 5%).	Annually	Maintenance Contractor	Compare actual storage available with Work-as-Executed plans. If volume loss is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Inspect storages for subsidence near pits.	Annually	Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

2.2 WSUD Treatment Measures

2.2.1 StormFilter

The primary purpose of stormwater treatment devices is to capture and prevent pollutants from entering waterways, maintenance is a critical component of ensuring the ongoing effectiveness of this process. The specific requirements and frequency for maintenance depends on the treatment device and pollutant load characteristics of each site.

The StormFilter is designed and sized to meet stringent regulatory requirements. It removes the most challenging target pollutants (including fine solids, soluble heavy metals, oil and soluble nutrients) using a variety of media.

Adhering to the inspection and maintenance schedules of each stormwater treatment device is essential to ensuring that it functions properly throughout its design life.

During each inspect and clean, details of the mass, volume and type of material that has been collected by the device should be recorded. This data will assist with the revision of future management plans and help determine maintenance interval frequency. It is also essential that qualified and experienced personnel carry out all maintenance (including inspections, recording and reporting) in a systematic manner.

Maintenance of your stormwater management system is essential to ensuring ongoing at-source control of stormwater pollution. Maintenance also helps prevent structural failures (e.g. prevents blocked outlets) and aesthetic failures (e.g. debris build up), but most of all ensures the long-term effective operation of the StormFilter.

The following schedule (Table 2.2) provides a guide to the timing of typical maintenance actions for a StormFilter system as well as defining the person responsible and describing the actions required.

Table 2.2 StormFilter Maintenance Schedule

ITEM	PERIOD	RESPONSIBILITY	MAINTENANCE PROCEDURE
Inspection	Six Monthly	Owner	Visual inspection of cartridges and chamber. Remove larger gross pollutants. Perform minimal rectification works (if required).
Minor Service	Annually	Maintenance Contractor	Evaluation of cartridges and media. Removal of accumulated sediment (if required). Wash-down of StormFilter chamber (if required).
Major Service	As Required	Maintenance Contractor	Replacement of StormFilter cartridge media.

A1 Appendix 1

Cumberland Council DCP Extract

P: 02 8883 4239 W: www.sgce.com.au

C3. Council shall require a development application for all new solid (non-porous) and continuous fences in the high and medium risk FRPs, unless otherwise stated by exempt and complying development provisions.

2.7 Water Sensitive Urban Design, water quality and water re-use

Objectives

O1. To ensure development contributes to the protection and rehabilitation of waterways in order to improve waterway health and to develop and maintain ecologically sustainable waterways.

O2. To retain and reuse rainwater for non-potable uses including toilet flushing, laundry, garden watering and external cleaning, car washing.

O3. To recharged groundwater where possible while still protecting and/or enhancing groundwater quality.

O4. To reduce sediment and pollution to downstream areas and receiving waters.

Controls

Water Sensitive Urban Design (WSUD)

C1. All development applications for sites of 2,500m², or more in area must be supported by a Water Sensitive Urban Design Strategy, prepared by a qualified civil engineer with suitable experience.

C2. Development for the subdivision of sites of 2,500m² or more in area must achieve the stormwater flow targets in the Water Sensitive Urban Design Strategy, unless public water quality and flow structures downstream of the site allow these targets to be met. Details of compliance must be included in the Water Sensitive Urban Design Strategy supporting the development application.

C3. All other developments shall provide appropriate water sensitive treatments.

Water quality

C4. Water quality devices are required to prevent pollutants from commercial, industrial developments and car parking areas entering the waterways in order to improve waterway health and to develop and maintain ecologically sustainable waterways.

Water reuse

C5. For all developments (excluding single dwellings and dual occupancies), rainwater tanks or a water reuse device shall be incorporated into the stormwater drainage system with a minimum storage size of 5,000 litres (for site area less than 1500m²) and 10,000 litres (for site area greater than 1500m²).

C6. For dwelling houses (includes alterations and additions) exceeding 65% impervious area, a minimum capacity of 4,000 litres shall be provided, or that amount required by BASIX.

Erosion and sediment control

Controls

Figure A 1.1 WSUD, Water Quality & Water Reuse – DCP – Part G – Extract

C7. All runoff from surrounding land is diverted away from the area disturbed and polluted runoff is retained on-site.

C8. All disturbed areas are stabilised with vegetation immediately after site works are completed.

C9. Water discharging from site shall comply with standard guidelines

C10. The ESCP shall be in accordance with the standards outlined in *Managing Urban Stormwater: Soils and Construction* by the NSW Department of Housing.

C11. Soil and water management plans are prepared for larger development sites including residential flat buildings.

P: 02 8883 4239 W: www.sgce.com.au

A2 Appendix 2

Ocean Protect StormFilter – Operations & Maintenance Manual

P: 02 8883 4239 W: www.sgce.com.au

Maintenance requirements and frequencies are dependent on the pollutant load characteristics of each site. The frequencies provided in this document represent what the manufacturer considers to be best practice to ensure the continuing operation of the device is in line with the original design specification.

Inspection

The purpose of the inspecting the StormFilter system is to assess the condition of the StormFilter chamber and cartridges. When inspecting the chamber, particular attention should be taken to ensure all cartridges are firmly connected to the connectors. It is also an optimal opportunity to remove larger gross pollutants and inspect the outlet side of the StormFilter weir.

Minor Service

This service is designed to ensure the ongoing operational effectiveness of the StormFilter system, whilst assessing the condition of the cartridge media.

1. Establish a safe working area around the access point(s)
2. Remove access cover(s)
3. Evaluate StormFilter cartridge media (if exhausted schedule major service within 6 months)
4. Measure and record the level of accumulated sediment in the chamber
   (if sediment depth is less than 100 mm skip to step 9)
5. Remove StormFilter cartridges from the chamber
6. Use vacuum unit to removed accumulated sediment and pollutants in the chamber
7. Use high pressure water to clean StormFilter chamber
8. Re-install StormFilter cartridges
9. Replace access cover(s)

Major Service (Filter Cartridge Replacement)

For the StormFilter system a major service is reactionary process based on the outcomes from the minor service, specifically the evaluation of the cartridge media.

Trigger Event	Maintenance Action
Cartridge media is exhausted[1]	Replace StormFilter cartridge media[2]

[1] Multiple assessment methods are available, contact Ocean Protect for assistance
[2] Replacement filter media and components are available for purchase from Ocean Protect.

This service is designed to return the StormFilter device back to optimal operating performance

1. Establish a safe working area around the access point(s)
2. Remove access cover(s)
3. By first removing the head cap, remove each individual cartridge hood to allow access to the exhausted media.
4. Utilise a vacuum unit to remove exhausted media from each cartridge
5. Use vacuum unit to remove accumulated sediment and pollutants in the chamber
6. Use high pressure water to clean StormFilter chamber
7. Inspect each empty StormFilter cartridges for any damage, rectify damage as required
8. Re-fill each cartridge with media in line with project specifications
9. Re-install replenished StormFilter cartridges
10. Replace access cover(s)

Additional Types of Maintenance

Occasionally, events on site can make it necessary to perform additional maintenance to ensure the continuing performance of the device.

Hazardous Material Spill

If there is a spill event on site, the StormFilter unit should be inspected and cleaned. Specifically, all captured pollutants and liquids from within the unit should be removed and disposed in accordance with any additional requirements that may relate to the type of spill event. Additionally, it will be necessary to inspect the filter cartridges and assess them for contamination, depending on the type of spill event it may be necessary to replace the filtration media.

Blockages

In the unlikely event that flooding occurs upstream of the StormFilter system the following steps should be undertaken to assist in diagnosing the issue and determining the appropriate response.

1. Inspect the upstream diversion structure (if applicable) ensuring that it is free of debris and pollutants
2. Inspect the StormFilter unit checking the underdrain manifold as well as both the inlet and outlet pipes for obstructions (e.g. pollutant build-up, blockage), which if present, should be removed.

Major Storms and Flooding

In addition to the scheduled activities, it is important to inspect the condition of the StormFilter after a major storm event. The focus is to inspect for damage and higher than normal sediment accumulation that may result from localised erosion. Where necessary damaged components should be replaced and accumulated pollutants should be removed and disposed.

Disposal of Waste Materials

The accumulated pollutants found in the StormFilter must be handled and disposed of in a manner that is in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. If the filter media has been contaminated with any unusual substance, there may be additional special handling and disposal methods required to comply with relevant government/authority/industry regulations.

Maintenance Services

With over a decade and a half of maintenance experience Ocean Protect has developed a systematic approach to inspecting, cleaning and maintaining a wide variety of stormwater treatment devices. Our fully trained and professional staff are familiar with the characteristics of each type of system, and the processes required to ensure its optimal performance.

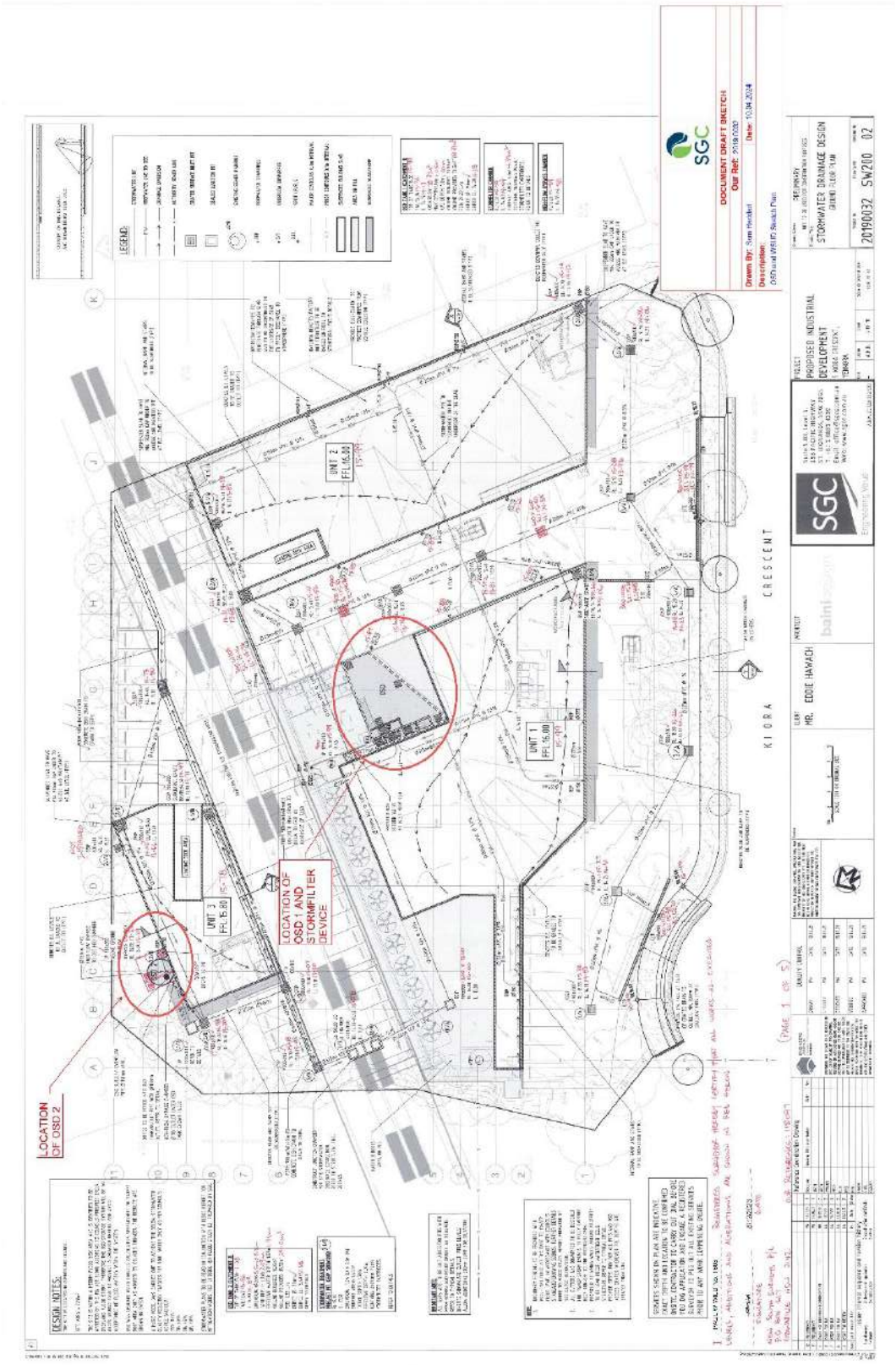
Ocean Protect has several stormwater maintenance service options available to help ensure that your stormwater device functions properly throughout its design life. In the case of our StormFilter system we offer long term pay-as-you-go contracts, pre-paid once off servicing and replacement media for cartridges.

For more information please visit www.OceanProtect.com.au

A3 Appendix 3

Sketch Plan showing OSD & WSUD Location

P: 02 8883 4239 W: www.sgce.com.au



P: 02 8883 4239 W: www.sgce.com.au

P: 02 8883 4239

W: www.sgce.com.au

A: Suite 311, Level 3,
480 Pacific Highway,
St Leonards, NSW 2065

Reference: **20190032-L10_inspection certificate_stw.docx**

Date: January 12, 2024

Attn: Lawrance Crestani

Dear Sir,

RE: 5 KIORA CRESCENT, YENNORA
CERTIFICATE OF INSPECTION

S&G Consultants have inspected the stormwater connection works top the trunk mains at the above-mentioned address on 22nd of March 2022 and have found the workmanship on site to be acceptable and in accordance with the design intent. Refer to attached photographic records taken during inspection.

Phone: 02 8883 4239
Address: Suite 311, Level 3,
480 Pacific Highway St Leonards NSW 2065

Web: www.sgce.com.au
Postal: PO Box 7855,
Baulkham Hills, NSW 2153

Yours faithfully,
For & on behalf of S&G Consultants Pty Ltd

Sam Haddad
Director (Civil)
MIEAust CPEng NER

P: 02 8883 4239 W: www.sgce.com.au

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**: Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Anthony Khalil**
COMPANY REPRESENTED:	**Plumbing Assist Pty Ltd**
ABN/ACN:	**75 519 860 811**
LICENSE NUMBER:	**100256C**
COMPANY ADDRESS:	**Ermington NSW**
PHONE:	**9057 1144**
EMAIL:	**anthony@plumbingassist.com.au**
QUALIFICATIONS & EXPERIENCE:	**Plumber and Drainer**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Plumbing & Stormwater

has been selected, installed and commissioned in accordance with the following BCA Clauses , NCC 2019 and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2019**
3.	The relevant clauses of the BCA as follows:	
4.	The relevant Standards as follows (Including number, part & year):	**Plumbing Code of Australia,AS3500 part 3-2015, AS3500.0-2003, AS3500.1-2018, As3500.2-2018, AS3500.3-2018, AS3500.4-2018 (incorporating amendment 1)**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**SGC Storwater Design Drg.SW100, SW200, SW 201, SW300, SW301, SW302, SW303**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature

Anthony Khalil

1.12.23

Sydney WATER

Case No. 881021085

SUBDIVIDER/DEVELOPER COMPLIANCE CERTIFICATE

(A certificate under Division 9 Section 73 of the Sydney Water Act, 1994)

DESCRIPTION OF SUBDIVISION/DEVELOPMENT		
Council	**Holroyd**	
Street	**5 Kiora Crescent YENNORA NSW 2161**	
Lot No	**Lot 10 DP 1233715**	
Development **Construction of three (3) industrial units and a weighbridge including associated site works and landscaping**		
Name of applicant	**Charlie Boulos**	
Applicant's address	**PO Box 2402** **NORTH PARRAMATTA NSW 2124**	

Sydney Water Corporation certifies that the above-named applicant has complied with the requirements, relating to the plan of Subdivision/Development described above, of Division 9 of the Sydney Water Act, 1994.

THE FOLLOWING ITEMS **2 AND 5** APPLY TO **LOT 10 IN THE DEVELOPMENT**:

~~1. Water facilities are to be provided as a result of the subdivider/developer's compliance with Sydney Water's requirements.~~
2. **Water facilities are available.**
~~3. Water facilities cannot be provided within a reasonable time from the date of this certificate.~~
~~4. Sewerage facilities are to be provided as a result of the subdivider/developer's compliance with Sydney Water's requirements.~~
5. **Sewerage facilities are available.**
~~6. Sewerage facilities are under the control of the local council.~~
~~7. Sewerage facilities cannot be provided within a reasonable time from the date of this certificate.~~
~~8. Sydney Water's requirements for future subdivision of this dual occupancy development have NOT been met. On subdivision an additional certificate will be required.~~

Tap in Reference No. **1021085**

Council Reference No. **DA2019/457/1**
Approval date: **31/05/2020**

Name **Sudip Paul**

Signature .....

(Approving Officer for and on behalf of Sydney Water)

Name **Debbie Sheedy**

Signature .....

(Approving Officer for and on behalf of Sydney Water)

Liveable City Solutions **Head Office**

Dated: **1/02/2021**

THIS CERTIFICATE IS ONLY VALID WHEN SIGNED BY TWO AUTHORISED SYDNEY WATER OFFICERS
A signed copy is held by Sydney Water

The original of this certificate must be presented to the appropriate consent authority, usually Council, with which the plan of subdivision/development was lodged so that you can satisfy the relevant condition of consent.

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) 2019 performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Lawrance Crestani**
COMPANY REPRESENTED:	**Cing Developments Pty Ltd**
ABN/ACN:	
LICENSE NUMBER:	
COMPANY ADDRESS:	
PHONE:	
EMAIL:	
QUALIFICATIONS & EXPERIENCE:	**B.App.Sc. (Building)**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Mechanical Ventilation

has been selected, installed and commissioned in accordance with the following NCC, BCA Clauses and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**NCC 2019, BCA 2019**
3.	The relevant clauses of the BCA as follows:	**Part F4 & Part J3 & J5**
4.	The relevant Standards as follows (Including number, part & year):	**AS1668.1-2012, AS1668.2-2015**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**DA Cond. 14 DAGcD06**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Lawrance Crestani

18.12.23

MECHANICAL VENTILATION COMPLIANCE CERTIFICATE

BUILDING NAME:	Industrial Buildings & Weighbridge
BUILDING ADDRESS:	5 Kiora Cr. Yennora, NSW 2161
AREA OF BUILDING (ENTIRE OR PART):	**Gross Floor Area 2645 sq.m**

Pursuant to the provisions of Part 1.2 Clause 1.2.2 (a) (iii) of the NCC 2019 ;

I, Lawrance Crestani of Cing Developments Pty Ltd certify that the mechanical ventilation systems have been inspected during construction and have been installed to the following Performance Standards

- NCC 2019
- Australian Standards AS 1668 Part 1 and 2 2015; and
- Basix Certificate and commitments forming part of the Construction Certificate approval.

I/We also confirm that:

- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the Construction Certificate approval documentation.
- Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

Signed:		Name:	Lawrance Crestani
Qualifications/ Licence No.	B.App.Sc. (Building)	Date:	11.10.23

MECHANICAL AIR HANDLING SYSTEMS
COMPLIANCE CERTIFICATE

BUILDING ADDRESS:	5 Kiora Crescent, Yennora
BUILDING DESCRIPTION:	Factory
AREA OF BUILDING (ENTIRE OR PART):	Entire

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;& NCC 20l9

I Christopher Conte of O2 Air Conditioning Services PTY LTD certify that the mechanical ventilation in the abovementioned area(s) has been installed to the following Performance Standards

- NCC 20l9
- BCA 2019, Clause E2.2, NSW Table E2.2a, Clause 5 of Specification E2.2a
- AS/NZS1668.1 – 2015, AS/NZS1668.2-2012, AS4254.1-2012, AS4254.2-2012 and AS/NZS 3013-2005

I also certify that testing and commissioning of the system has been conducted on 12/12/23 in accordance and specifically:

- The system has been tested at completion and reinstated to full operating condition;
- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate documentation.
- Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

Signed:		Name:	Christopher Conte
Licence No:	284616 C	Date:	8/1/24

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) 2019 performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**G&K Commercial Windows P/L**
COMPANY REPRESENTED:	**Brad porter**
ABN/ACN:	**26 153 959 034**
LICENSE NUMBER:	**196564C**
COMPANY ADDRESS:	**3 / 2 Railway St. EMU PLAINS**
PHONE:	**02 4735 2327**
EMAIL:	**brad@gkwindows.com.au**
QUALIFICATIONS & EXPERIENCE:	**contractor**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Internal Glazing & Windows & External Door Glazing

Installation Certificate from window manufacturer/ Installer certifying that all external glazed assemblies have been installed and comply with
has been selected, installed and commissioned in accordance with the following BCA Clauses, NCC 2019 and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2019**
3.	The relevant clauses of the BCA as follows:	**BCA 2019 Clause B1.4** • **BCA 2019 Clause B1.4, F1.13** • **BCA Part J0**
4.	The relevant Standards as follows (Including number, part & year):	• **AS 2047 - 2014** • **AS 1288 – 2006 (incorporating amendment 1, 2 and 3)**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	• **Energy Efficiency report Section J Report - Report No. BC20/199 REVC, Prepared by Building & Energy Consultants Australia dated 13 Jul 21**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature: ……BPorter……Brad Porter 20.12.23

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION	
DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**Industrial Buildings & Weighbridge**

The National Construction Code Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) 2019 performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**G&K Commercial Windows P/L**
COMPANY REPRESENTED:	**Brad porter**
ABN/ACN:	**26 153 959 034**
LICENSE NUMBER:	**196564C**
COMPANY ADDRESS:	**3 / 2 Railway St. EMU PLAINS**
PHONE:	**02 4735 2327**
EMAIL:	**brad@gkwindows.com.au**
QUALIFICATIONS & EXPERIENCE:	**contractor**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Glazing & Windows

Installation Certificate from window manufacturer/ Installer certifying that all external glazed assemblies have been installed and comply with
has been selected, installed and commissioned in accordance with the following BCA Clauses, NCC 2019 and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**BCA 2019**
3.	The relevant clauses of the BCA as follows:	**BCA 2019 Clause B1.4** • **BCA 2019 Clause B1.4, F1.13** • **BCA Part J0**
4.	The relevant Standards as follows (Including number, part & year):	• **AS 2047 - 2014** • **AS 1288 – 2006 (incorporating amendment 1, 2 and 3)**
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	• **Energy Efficiency report Section J Report - Report No. BC20/199 REVC, Prepared by Building & Energy Consultants Australia dated 13 Jul 21**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Signature: ……BPorter……Brad Porter 20.12.23

Smoke & Fire Hazard Properties Specifications Certificate, for timber, vinyl, carpet, floor and wall materials

		Specification E1.5	
	CLASS	Class 5	Class 8
Flooring			
Required	**Critical radiant flux (CHF in kW/m$^{2)}$ of floor linings and floor coverings**	2.2 kW/m2	2.2 kW/m2
Achieved	**Porcelain/Ceramic Tiles Floor tiles** Test not required for tiles. These are assigned a Critical Radiant Flux of **4.5kW/m2**.	4.5kW/m2	4.5kW/m2
Wall Material			
	Light Steel Framed **Plasterboard**	DTS	DTS

The full list of materials that are regarded as non-combustible under NCC 2019 Part C1.9 (e) are:

1. Plasterboard
2. Perforated gypsum lath with a normal paper finish.
3. Fibrous-plaster sheet.
4. Fibre-reinforced cement sheeting.
5. Pre-finished metal sheeting having a *combustible* surface finish not exceeding 1 mm thickness and where the *Spread-of-Flame Index* of the product is not greater than 0.
6. *Sarking-type materials* that do not exceed 1 mm in thickness and have a *Flammability Index* not greater than 5.
7. Bonded laminated materials where—
    1. each lamina, including any core, is *non-combustible* ; and
    2. each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and
    3. the *Spread-of-Flame Index* and the *Smoke-Developed Index* of the bonded laminated material as a whole do not exceed 0 and 3 respectively.

Some of these materials may still have combustible components, e.g. the liner paper of plasterboard, but the materials are well known in terms of their performance in fires and are not considered hazardous and exempt from testing to AS1530.1.

Industrial Development

5 Kiora Cres Yennora plans NSW 2161

(Lot 10/-/ DP1233715)

LGA: CUMBERLAND COUNCIL

Section-J report by: Outsource Ideas p/l

Rev: A, Date:15/10/2022

Architectural drawings by: Baini Design

Issue: A, Date:06/07/2017 Project Ref # 18117

DA # DA2019/457/1

CC # 200298/02

SECTION J COMPLIANCE CERTIFICATE

We hereby certify that, in our opinion, the as-built works is deemed to satisfy to Section J PROVIDED the PCA is satisfied that the outstanding measures outlined in the following pages have been addressed.

23/03/2024

Ved Baheti B.Arch.,M.Arch (UNSW), Cert IV (NatHERS) JP

Ecoplus Consultants P/L ***ABN 166 451 790 13***

Norwest Business Park
30B, 1 Maitland Place, Norwest NSW 2153

ASSESSOR VERIFICATION

Forms of evidence requested & received

1	Site photos / visit conducted	✓
2	Electrical & mechanical installation certificates	✓
3	Insulation installation certificates	✓
4	Window installation certificates	✓
5	Completed Windows Calculator	✓
6	External building photos	✓

		Assessor opinion	PCA action
J1.1	Insulation installation method	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy
J1.2	Thermal break	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy
J1.3	Insulation between ceiling and roofing	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy
J1.4	Roof lights	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy.
J1.5	External wall insulation	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy
J1.5	Internal wall insulation	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy
J1.6	Floor insulation	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy
J2	Windows	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy.
J3	Building sealing	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy.
J4	Not used	Note	Note
J5	Air conditioning	Complies Deemed to satisfy.	Certify that the installation as deemed to satisfy.

		Assessor opinion	PCA action
J6	Artificial lighting and power	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy
J7	Swimming pool and spa	Not applicable	Note
J8	Access for maintenance	Complies. Deemed to satisfy.	Certify that the installation as deemed to satisfy

END OF DOCUMENT

END OF FILE

Slip Check to AS 4586-2013

Parksilt Tiles

Report Number: R20342b.1
This report replaces report R20342b
Report Date: 13 February 2020
Total Number of Pages 2

Accredited for compliance with ISO/IEC 17025 – Testing

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports

Issued by

Safe Environments Pty Ltd
Unit 4, 40 Bessemer Street
Blacktown NSW 2148

Prepared for

Stoneworx Marble and Granite
96 Victoria Road
Parramatta NSW 2150

Approved by

Dale Rowell
Authorised Signatory

SlipCheck
CREATING SAFE ENVIRONMENTS
www.FloorSlipTest.com.au

Unit 4/40 Bessemer St
Blacktown NSW 2148
Phone 02 9621 3706
info@SafeEnvironments.com.au

5 March 2024

Test Report No. R20342b.1

Slip Resistance Classification of New Pedestrian Surface Materials

AS 4586-2013 Appendix A (Wet Pendulum Test)

The slip resistance classification has been determined for unused surfaces using specific conditions. Factors such as usage, cleaning systems, applied coatings and patterns of wear may affect the characteristics of the surface after classification. Standards Australia Handbook 198:2014 *Guide to the specification and testing of slip resistance of pedestrian surfaces* provides guidance for the selection of slip resistant pedestrian surfaces classified in accordance with AS 4586-2013. It is recommended that this test report be read in conjunction with AS 4586 and HB 198.

Requested by:	Stoneworx Marble and Granite
Client Address:	96 Victoria Road Parramatta NSW 2150
Product Manufacturer:	China
Product Description:	Parksilt Tiles
Test conducted according to:	AS 4586:2013 Appendix A
Location:	4/40 Bessemer Street, Blacktown NSW 2148
Conducted by:	Brooke Wright

Date:	13 February 2020	Temperature:	26°C
Sample:	Unfixed	Cleaning:	None
Rubber slider used:	Slider 96	Conditioned:	Grade P 400 paper dry followed by wet lapping film
Slope of specimen:	Tested on a flat level surface		
Direction of Test:	NA		

	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
Mean BPN of last 3 swings:	45	40	40	44	41

Reported SRV of Sample:	**42**
Class:	**P3**

aussielifts
Stay in the home you love

26th April 2024

RE: Lift Installed at 5 Kiora Crescent Yennora 2161

To whom it may concern

The Aussie Lifts, Orion model lift installed at 5 Kiora Crescent Yennora 2161 has been manufactured and installed to comply with the following standards.

- AS1735.16 –1999 – Lifts for persons with limited mobility restricted use, automatically controlled.
- AS1735.12 –1999 – Facilities for persons with disabilities.
- BCA/NCC 2019 (National Construction Code) E3.6 Passenger Lifts.
- AS/NZS 3000:2018

Regards

Nick Benson

Operations Manager

NOTES

ELECTRONIC SUB SURFACE UTILITY ENGINEERING (SUE) DETECTION TECHNIQUES SUCH AS EM & GPR ARE INFLUENCED BY SSU TYPE & GROUND CONDITIONS. BEST PRACTICE DETECTION RATES ARE 80–90% AND DEPTH ACCURACY RANGES BETWEEN +/– 250MM FOR 90% OF READINGS WITH SIGNIFICANT OUTLIERS FOR THE REMAINDER.

POTHOLING IS RECOMMENDED TO CONFIRM THE DEPTH POSITION OF ALL SSU'S LOCATED.

NO ALLOWANCE HAS BEEN MADE FOR CONFINED SPACE ENTRY TO PITS/MANHOLES UNLESS OTHERWISE NOTED. ANY MEASUREMENTS RELATED TO DEPTH, PIPE/DUCT DIAMETERS ARE MADE FROM THE SURFACE AND WILL BE APPROXIMATE ONLY.

SUB SURFACE UTILITY ASSETS WILL BE MARKED ON THE GROUND IN COLOUR COORDINATED PEGS OR PAINT AS FOLLOWS; WATER – BLUE, GAS – YELLOW, ELECTRICITY – RED, TELECOMMUNICATIONS – WHITE, STORM WATER, SEWER & UNKNOWNS – GREEN.

THIS UTILITY MAP HAS BEEN DESIGNED FOR PRINTING IN COLOUR AND AT A SPECIFIC PAGE SIZE NOTED IN THE TOP LEFT OF THE PAGE. FAILURE TO DO THIS WILL VOID ALL INFORMATION INDICATED.

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THE POSITION OF SERVICES MARKED CLASS D OR DBYD HAS BEEN OBTAINED BY SCALING AND TRACING DESIGN OR DBYD DRAWINGS. ON POINT DOES NOT GIVE ANY GUARANTEES REGARDING ACCURACY.

BOUNDARIES AND SCALE ARE APPROXIMATE AND ARE PROVIDED FOR VISUAL PURPOSES ONLY.

EOT	END OF TRACE	1D 5C	1 DUCT 5 CABLES
INV	INVERT LEVEL	AR	ASSUMED ROUTE
SW	STORM WATER	ACP	ASSUMED CONNECTION POINT
TFR	TAKEN FROM RECORDS	Ø	PIPE DIAMETER
UTL	UNABLE TO LIFT	DTB	DEPTH TO BASE (Millimeters)
UTS	UNABLE TO SURVEY	DTI	DEPTH TO PIPE INVERT (Millimeters)
UTT	UNABLE TO TRACE	H	HYDRANT
SV	STOP VALVE	LOG	LIP OF GUTTER
CH	CHAINAGE	FOK	FACE OF KERB
BOK	BACK OF KERB	HN	HOUSE NO
OBV	OBVERT LEVEL	PH	POT HOLE
O/S	OFFSET	BL	BUILDING LINE
		⊏	END OF TRACE

SCALES 1:500 0 5 10 15 20 25

A3

LEVEL DATUM AHD
SHEET SIZE A3
LOCATATED B.C
DRAWN C.F
SURVEYED C.F

DATE OF SURVEY 10/07/2020
PLAN COMPLETION DATE 15/07/2020
GRID MGA

CLIENT
BAINI

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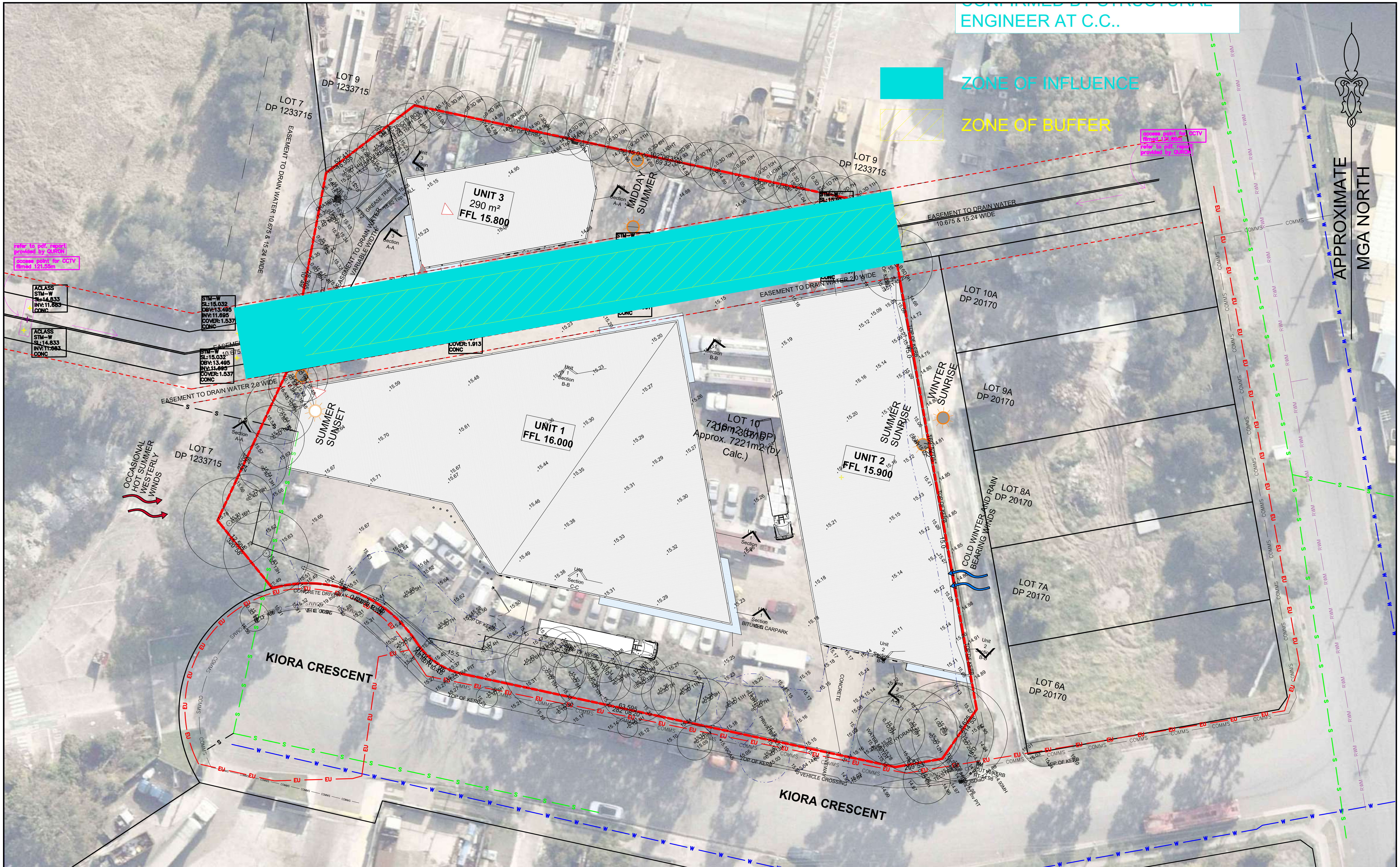
ON POINT UTILITY LOCATING PTY LTD

PLAN SHOWING THE APPROXIMATE LOCATION OF INVESTIGATED SERVICES AT 5 KIORA AVE, YENNORA

SHEET 2 OF 3 SHEETS

CAD FILE/PLAN No: 5KIROA.dwg
SURVEY REFERENCE 5KIORA
ISSUE 3



EOT	END OF TRACE	1D 5C	1 DUCT 5 CABLES
INV	INVERT LEVEL	AR	ASSUMED ROUTE
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SV	STOP VALVE	LOG	LIP OF GUTTER
CH	CHAINAGE	FOK	FACE OF KERB
BOK	BACK OF KERB	HN	HOUSE NO
OBV	OBVERT LEVEL	PH	POT HOLE
O/S	OFFSET	BL	BUILDING LINE
		C	END OF TRACE

SCALES 1:500 0 5 10 15 20 25

A3

LEVEL DATUM AHD
SHEET SIZE A3
LOCATATED B.C
DRAWN C.E
SURVEYED C.E

DATE OF SURVEY 10/07/2020
PLAN COMPLETION DATE 15/07/2020
GRID MGA
CLIENT BAINI

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ON POINT UTILITY LOCATING PTY LTD

PLAN SHOWING THE APPROXIMATE
LOCATION OF INVESTIGATED SERVICES
AT 5 KIORA AVE, YENNORA

SHEET 3 OF 3 SHEETS

CAD FILE/PLAN No: 5KIROA.dwg
SURVEY REFERENCE 5KIORA
ISSUE 3

Geotechnical Investigation Report

GEOTECHNICAL INVESTIGATION

5 KIORA CRESCENT, YENNORA NSW

Prepared for:

CING DEVELOPMENTS PTY LTD

Reference: P2790_01

24 January 2023

Morrow Geotechnics Pty Ltd | ABN 42 605 892 126
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P: 0405 843 933 | E: info@morrowgeo.com.au

1 PROJECT BACKGROUND

This report presents the results of a Geotechnical Investigation undertaken by Morrow Geotechnics Pty Ltd to provide geotechnical advice and recommendations for the proposed development of a weigh bridge and crane base at 5 Kiora Crescent, Yennora NSW (the site).

1.1 Proposed Development

Drawings for the proposed weighbridge have been prepared by Triaxial Consulting Pty Ltd for Project TX10281.03-S92_R19 dated October 2021. Weighbridge drawings indicate that footings have been designed for an allowable bearing capacity of 150 kPa.

A Crane Plan has been provided for the Unit 3 panel lift showing that maximum crane outrigger loading of 117 t is expected over a 2.5 x 1.8 m pad resulting in an applied pressure of 255 kPa. The crane outriggers are over a stormwater pipe easement

1.2 Investigation Intent

The intent of the investigation is to provide geotechnical advice and recommendations specific to the ground conditions observed at site for the proposed development. These recommendations include:

- Foundation advice along with relevant geotechnical design parameters;
- Other relevant geotechnical issues which may impact construction; and
- Recommendations for further geotechnical input during construction.

2 SITE DESCRIPTION

2.1 Published Geological Mapping

The Department of Mineral Resources Geological Map Penrith 1:100,000 Geological Series Sheet 9030 (DMR 1991) indicates the site to be underlain by Bringelly Shale of the Wianamatta Group which comprises shale, carbonaceous claystone, claystone, laminite, fine to medium grained lithic sandstone, rare coal and tuff.

2.2 Published Soil Landscape Mapping

The Soil Conservation Service of NSW Penrith 1:100,000 Soil Landscapes Series Sheet 9030 (1st Edition) indicates that the landscape at the site likely comprises the Blacktown Landscape. This landscape type typically includes gently undulating rises on Wianamatta Group shales with slopes up to 5 %. It generally comprises shallow to moderately deep (> 1.0 m) red and brown podzolic on crests grading to yellow podzolic soils on lower slopes and in drainage lines. These soils are noted to present localised seasonal waterlogging, localised water erosion hazard, moderately reactive highly plastic subsoil, and localised surface movement potential.

3 OBSERVATIONS

3.1 Investigation Methods

Fieldwork for the geotechnical investigation was carried out on 16 January 2023 and comprised the drilling of eight boreholes (BH1 to BH8). The borehole locations were measured relative to existing site features and approximate borehole locations are shown on **Figure 1**.

The boreholes were drilled using a 4WD ute-mounted drilling rig and were advanced in soil and rock using solid flight augers with a Tungsten Carbide (TC) drill bit. Dynamic Cone Penetrometer (DCP) test were carried out within the boreholes to assess soil strength.

An Experienced Geotechnical Engineer was present throughout the drilling operations to undertake testing, record test results and log the materials encountered.

3.2 Subsurface Conditions

The ground conditions at the site are characterised by fill and residual soil overlying shale bedrock. Detailed borehole logs are presented in **Appendix A.** A summary of the subsurface conditions across the site is presented in **Table 1** below.

TABLE 1 GROUND CONDITIONS

Unit	Material	Comments
1	**Topsoil / Fill**	Generally a Silty to gravelly CLAY. Unit 1 it is inferred to be uncontrolled and poorly compacted.
2	**Stiff Clay**	Generally medium to high plasticity silty clay with some sand and some fine to medium ironstone gravel. Unit 2 is generally of stiff consistency.
3	**Very Stiff to Hard Clay**	Generally medium to high plasticity silty clay with some sand and some fine to medium ironstone gravel. Unit 3 is generally of Very Stiff to Hard consistency.
4	**Class V Shale**	Generally extremely weathered, with some clay bandings. Inferred very low to low strength grading stronger with depth
5	**Class IV Shale**	Generally highly to moderately weathered. Inferred low to medium strength shale Strength grading with depth.

TABLE 2 **ENCOUNTERED GEOTECHNICAL CONDITIONS**

	Approx. Depth Range of Unit [1] mBGL (RL mAHD)				
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	Topsoil / Fill	Stiff Clay	Very Stiff to Hard Clay	Class V Shale	Class IV Shale
BH01	0.0 to 0.9 (15.38 to 14.48)	0.9 to 1.6 (14.38 to 13.78)	1.6 to 5.7 (13.78 to 9.68)	5.7+ (9.68+)	-
BH02	0.0 to 0.8 (15.38 to 14.58)	0.8 to 1.5 (14.58 to 13.88)	1.5 to 5.0 (13.88 to 10.38)	-	-
BH03	0.0 to 0.9 (15.38 to 14.48)	0.9 to 1.5 (14.38 to 13.88)	1.5 to 5.0 (13.88 to 10.38)	-	-
BH04	0.0 to 0.8 (15.38 to 14.58)	0.8 to 2.3 (14.58 to 13.08)	2.3 to 6.0 (13.08 to 9.38)	6.0+ (9.38+)	-
BH05	0.0 to 2.1 (15.34 to 13.24)	2.1 to 3.5 (13.24 to 11.84)	3.5 to 6.8 (11.84 to 8.54)	6.8+ (8.54+)	-
BH06	0.0 to 3.5 (15.34 to 11.84)	3.5 to 4.5 (11.84 to 10.84	4.5 to 6.4 (10.84 to 8.84)	6.4+ (8.84+)	-
BH07	0.0 to 3.8 (15.34 to 11.54)	3.8 to 4.7 (11.54 to 10.64)	4.7 to 6.8 (10.64 to 8.54)	6.8 to 7.3 (8.54 to 8.04)	7.3+ (8.04+)
BH08	0.0 to 2.5 (15.34 to 12.84)	2.5 to 3.6 (12.84 to 11.74)	3.6 to 6.6 (11.74 to 8.74)	6.6 to 7.3 (8.74 to 8.04)	7.3+ (8.04+)

Notes:

1 Depth ranges shown are based on material observed within test locations and will vary across the site.

2 BH1 to BH4 refers to Weigh bridge and BH5 to BH8 refers to crane base.

3.3 Groundwater Observations

Groundwater levels within boreholes were taken immediately on completion of drilling. These levels are not stabilized levels and are subject to variation due to the high permeability of the soil. Water levels provided in **Table 3** are indicative only.

TABLE 3 **GROUNDWATER MEASUREMENTS**

Borehole	Water Depth Below Ground Surface (mBGL)
BH1	2.7
BH2	4.6
BH3	4.7
BH4	6.4
BH5	4.8
BH6	3.2
BH7	4.1
BH8	7.1

4 DISCUSSIONS AND RECOMMENDATIONS

4.1 Foundations

All proposed footings must found below Unit 1 material to prevent differential settlement on variable uncontrolled and poorly compacted fill material. Selection of footing types and founding depth will need to consider the risk of adverse differential ground movements within the foundation footprint and between high level and deeper footings. Unless an allowance for such movement is included in the design of the proposed development we recommend that all new structures found on natural materials with comparable end bearing capacities and elastic moduli.

It is not recommended that shallow footings for the crane outrigger loading found above the stormwater pipe level. Applied loading of up to 255 kPa within the fill profile above the stormwater pipes has a high likelihood of causing damage to the stormwater pipes. It is recommended that piled foundations to Unit 4 and 5 are adopted for support of crane outrigger loading.

The parameters given in **Table 4** may be used for the design of pad footings and bored pile

TABLE 4 FOUNDATION DESIGN PARAMETERS

Material		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
		Fill	Stiff Clay	Very Stiff to Hard Clay	Class V Shale	Class IV Shale
Allowable Bearing Pressure (kPa)		0	150	250	700	1000
Ultimate Vertical End Bearing Pressure (kPa)		0	450	750	2100	3000
Elastic Modulus (MPa)		3	15	20	75	120
Allowable Shaft Adhesion (kPa)	In Compression	0	20	25	70	100
	In Tension	0	10	12.5	35	50

The bases of all foundation excavations must be cleaned of loose debris and water and inspected by a suitably qualified Geotechnical Engineer prior to pile construction to verify that ground conditions meet design assumptions. Side adhesion values provided in **Table 2** assume there is intimate contact between the pile and foundation material as specified in Pells (2004). Design engineer to check both 'piston' pull-out and 'cone' pull-out mechanics in accordance with AS4678:2002 Earth Retaining Structures.

4.2 Excavation Retention

Temporary batters up to 4 m height may be adopted for all units provided that batter angles do not exceed 45^{o} above the horizontal and surcharge loading is not present within a zone designed by a line drawn at 2H:1V from the base of the excavation. Where excavations extend beneath the zone of influence of nearby structures, services or pavements, or where site constraints do not allow the construction of temporary batters, basement retention will be required.

Earth pressure parameters for retention design have been provided in **Table 5** below.

TABLE 5 EARTH PRESSURE PARAMETERS

Material		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
		Fill	Stiff Clay	Very Stiff to Hard Clay	Class V Shale	Class IV Shale
Bulk Unit Weight (kN/m^3)		16	19	19	20	23
Earth Pressure Coefficients	At rest, K_o	0.55	0.5	0.46	0.3	0.2
	Passive, K_p	2.66	3.025	3.39	4	5
	Active, K_a	0.38	0.33	0.29	0.2	0.1

In addition, design of retaining walls should consider the following:

- Appropriate surcharge loading from construction equipment, vehicular traffic and neighbouring structures at finished surface level should be taken into account in the retention design. Surcharge loads on retention structures may be calculated using a rectangular stress block with an earth pressure coefficient of 0.5 applied to surcharge loads at ground surface level.
- Anchor design should ignore the contribution of any bonded length within a wedge which extends upwards at 45^o from the base of the excavation to account for a failure wedge forming behind the shoring system.

4.3 Soil and Rock Excavatability

The expected ability of equipment to excavate the soil and rock encountered at the site is summarised in **Table 6**. This assessment is based on available site investigation data and guidance on the assessment of excavatability of rock by Pettifer and Fookes (1994). The presence of medium to high strength bands in lower strength rock and the discontinuity spacing may influence the excavatability of the rock mass.

TABLE 6 SOIL AND ROCK EXCAVATABILITY

Unit	Material	Excavatability
1	**Fill/Topsoil**	Easy digging by 20t Excavator
2	**Stiff Clay**	
3	**Very Stiff to Hard Clay**	
4	**Class V Shale**	Moderate to hard digging by 20t Excavator
5	**Class IV Shale**	Hydraulic hammering may be required where medium strength bands are encountered within Unit 5

The excavation methodology may also be affected by the following factors:

- Scale and geometry of the excavation;
- Availability of suitable construction equipment;
- Potential reuse of material on site; and

Acceptable excavation methods, noise, ground vibration and other environmental criteria

4.4 AS1170 Earthquake Site Risk Classification

Assessment of the material encountered during the investigation in accordance with the guidelines provided in AS1170.4-2007 indicates an earthquake subsoil class of Class C_e – Shallow Soil for the site.

5 ADDITIONAL GEOTECHNICAL INPUT

Further input from a geotechnical professional during design and construction is advised in order to ensure a cost-effective design which can be constructed safely and efficiently. Areas for geotechnical input should include:

- Geotechnical inspection of piling works to verify pile socket conditions and confirm the geotechnical site model.
- Geotechnical inspections of foundation of foundation material to confirm allowable bearing pressures.
- Regular inspections of battered and unsupported excavations, where proposed, to assess excavation conditions and confirm the suitability of the proposed methodology.

6 STATEMENT OF LIMITATIONS

The adopted investigation scope was limited by site access restrictions due to presence of structures at the site at the time of our investigation and by the investigation intent. Further geotechnical inspections should be carried out during construction to confirm the geotechnical model provided in this report.

Your attention is drawn to the document “Important Information”, which is included in **Appendix B** of this report. The statements presented in this document are intended to advise you of what your realistic expectations of this report should be. The document is not intended to reduce the level of responsibility accepted by Morrow Geotechnics, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.

7 REFERENCES

AS1726:1993, *Geotechnical Site Investigations*, Standards Australia.

AS2159:2009, *Piling – Design and Installation*, Standards Australia.

Chapman, G.A. and Murphy, C.L. (1989), Soil Landscapes of the Sydney 1:100,000 sheet. Soil Conservation Services of NSW, Sydney.

NSW Department of Mineral Resources (1985) Sydney 1:100,000 Geological Series Sheet 9130 (Edition 1). Geological Survey of New South Wales, Department of Mineral Resources.

Pells (2004) Substance and Mass Properties for the Design of Engineering Structures in the Hawkesbury Sandstone, Australian Geomechanics Journal, Vol 39 No 3

8 CLOSURE

Please do not hesitate to contact Morrow Geotechnics if you have any questions about the contents of this report.

For and on behalf of Morrow Geotechnics Pty Ltd,

Feby Markose
Geotechnical Engineer

Alan Morrow
Principal Geotechnical Engineer

morrow
0405 843 933
Bellambi, NSW
info@morrowgeo.com.au

Map description	P2790 - Borehole Location Plan		
Site location	5 Kiora Crescent, Yennora NSW		
Client	CING Developments Pty Ltd		
Project name	Yennora		
Project No	P2790	**Scale**	Not to scale

Appendix A

BOREHOLE LOGS AND EXPLANATORY NOTES

Morrow Geotechnics
Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH1

UTM	: 56H	Driller Rig	: Ute mounted ADT - Damien	Job Number	: P2790
Easting	: 312068.9	Driller Supplier	: HartGeo	Client	: CING Developments Pty Ltd
Northing	: 6251180.6	Logged By	: Mark Peach	Project	: Yennora
RL	: N/A	Reviewed By	: Rhiannon McKeon	Location	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 7.5m	Date	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT	Water seepage	2, 1, 2, 4, 2, 2, 2, 2, 2	Fill		CL-CI	0.9		Silty to gravelly CLAY (CL-CI) : very soft, low to medium plasticity, brown orange grey red, fine to medium sized gravel, trace fine to medium grained sand, w < pl, (low resistance) .	VS	w < PL	
		2, 2, 2, 4, 3, 3, 4	Residual		CI-CH	1.6		Silty CLAY (CI-CH) : stiff, medium to high plasticity, grey red orange, with fine to medium sized gravel, w < pl, (low resistance) .	St	w < PL	
		8, 15, 15, 20	Residual		CI-CH	3		AS ABOVE:very stiff to hard, orange grey, w > pl, (low resistance with ironstone gravels) .	VSt-H	w > PL	
			Residual		CI-CH	5.7		AS ABOVE:trace fine to medium grained sand, (ironstone gravels, low resistance) .	VSt-H	w > PL	
			Rock		SHA	7.5		SHALE: distinctly weathered, very low to low strength, grey, fine grained, (low resistance, clay bands at 6.8m to 7.1m) .	VLS-LS		
						0		**BH1 Terminated at 7.5m (Target depth reached)**			

Morrow Geotechnics
Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH2

UTM	: 56H	**Driller Rig**	: Ute mounted ADT - Damien	**Job Number**	: P2790
Easting	: 312067.5	**Driller Supplier**	: HartGeo	**Client**	: CING Developments Pty Ltd
Northing	: 6251178.2	**Logged By**	: Mark Peach	**Project**	: Yennora
RL	: N/A	**Reviewed By**	: Rhiannon McKeon	**Location**	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 5m	**Date**	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT	30 min post drill	1	Fill		GC	0.8		Clayey to silty GRAVEL (GC) : loose, low plasticity, grey brown, fine to medium sized, trace fine to medium grained sand, dry, (low resistance) .	L	D	
		1 2 2 2 3 3 4	Residual		CI-CH	1.5		Silty CLAY (CI-CH) : firm to stiff, medium to high plasticity, orange red grey, trace fine grained sand, w < pl, (low resistance) .	F-St	w < PL	
		8 7 13 18 20 23	Residual		CI-CH	3		AS ABOVE:very stiff to hard,	VSt-H	w < PL	
			Residual		CI-CH	3.8		AS ABOVE: (ironstone gravels, low resistance) .	VSt-H	w < PL	
			Residual		CI-CH	5		AS ABOVE: (ironstone bands, low resistance) .	VSt-H	w < PL	
								BH2 Terminated at 5m (Target depth reached)			

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Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH3

UTM	: 56H	Driller Rig	: Ute mounted ADT - Damien	Job Number	: P2790
Easting	: 312069.2	Driller Supplier	: HartGeo	Client	: CING Developments Pty Ltd
Northing	: 6251174.7	Logged By	: Mark Peach	Project	: Yennora
RL	: N/A	Reviewed By	: Rhiannon McKeon	Location	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 5m	Date	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT			Fill		SC	0.6		Clayey to gravelly SAND (SC) : very loose to loose, low plasticity, grey brown, fine to medium grained, fine to medium sized gravel, dry, (low resistance) .	VL-L	D	
		1	Fill		SC	0.9		AS ABOVE:wet/moist,	VL-L	W-M	
		2	Residual		Cl	1		Silty CLAY (Cl) : stiff, medium plasticity, orange grey red, trace fine to medium grained sand, w ≈ pl, (low resistance) .	St	w ≈ PL	
		2									
		2									
		2									
		3									
		4				1.5					
		8	Residual		Cl			AS ABOVE:very stiff to hard, w < pl,	VSt-H	w < PL	
		8									
		9									
		13									
		15				2					
		18									
		20									
						2.5					
						3					
			Residual		Cl			AS ABOVE:very stiff, light grey orange, with fine to medium sized gravel, (ironstone gravels, low resistance) .	VSt	w < PL	
						3.5					
						4					
						4.5					
	30mins post drill		Residual		Cl	4.7		AS ABOVE: (ironstone bands, low resistance) .	VSt	w < PL	
						5		**BH3 Terminated at 5m (Target depth reached)**			
						5.5					
						6					
						6.5					
						7					
						7.5					
						8					

Morrow Geotechnics
Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH4

UTM	: 56H	Driller Rig	: Ute mounted ADT - Damien	Job Number	: P2790
Easting	: 312068.6	Driller Supplier	: HartGeo	Client	: CING Developments Pty Ltd
Northing	: 6251174.8	Logged By	: Mark Peach	Project	: Yennora
RL	: N/A	Reviewed By	: Rhiannon McKeon	Location	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 7.5m	Date	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT		2 1 1 2 1 2 2 2	Fill		CL-CI	0.8		Sandy to gravelly CLAY (CL-CI) : soft to firm, low to medium plasticity, brown grey orange, fine to medium sized gravel, fine to medium grained sand, w ≈ pl, (low resistance) .	S-F	w ≈ PL	
		3 2 2 2 2 2 2 3 3	Residual		CI-CH	1.7		Silty CLAY (CI-CH) : firm to stiff, medium to high plasticity, orange grey, trace fine to medium grained sand, w ≈ pl, (low resistance) .	F-St	w ≈ PL	
		4 4 3 3 3 8	Residual		CI-CH	2.3		AS ABOVE:stiff,	St	w ≈ PL	
		10 15 16 23	Residual		CI-CH	3.3		AS ABOVE:very stiff, orange grey red, (ironstone gravels, low resistance) .	VSt	w ≈ PL	
			Residual		CI-CH	5.7		AS ABOVE:hard, (ironstone bands, low resistance) .	H	w ≈ PL	
			Residual		CI-CH	6		AS ABOVE: (ironstone bands, low to medium resistance, extremely weathered shale fragments) .	H	w ≈ PL	
	30mins Post Drill		Rock		ARG	7		SHALE: distinctly weathered, very low to low strength, orange grey, fine grained, (low to medium resistance) .	VLS-LS		
			Rock		SHA	7.5		AS ABOVE: grey,	VLS-LS		
						0		**BH4 Terminated at 7.5m (Target depth reached)**			

Morrow Geotechnics
Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH5

UTM	: 56H	Driller Rig	: Ute mounted ADT - Damien	Job Number	: P2790
Easting	: 312091.8	Driller Supplier	: HartGeo	Client	: CING Developments Pty Ltd
Northing	: 6251307.3	Logged By	: Mark Peach	Project	: Yennora
RL	: N/A	Reviewed By	: Rhiannon McKeon	Location	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 7.5m	Date	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT	30mins post drill	2	Fill		CL-CI	0.5		Sandy to gravelly CLAY (CL-CI) : very soft, low to medium plasticity, orange brown, fine to medium sized gravel, fine to medium grained sand, w < pl, (low resistance) .	VS	w < PL	
		2				1					
		2				1.5					
		2				2					
		3	Residual		CI-CH	2.1		Silty CLAY (CI-CH) : stiff, medium to high plasticity, orange grey red, trace fine to medium grained sand, w ≈ pl, (low resistance) .	St	w ≈ PL	
		3				2.5					
		3				2.6					
		3	Residual		CI			Silty CLAY (CI) : stiff, medium plasticity, orange grey, trace fine to medium sized gravel, trace fine grained sand, w < pl, (ironstone gravels, low resistance) .	St	w < PL	
		3				3					
		2				3.5					
		3	Residual		CL			AS ABOVE:silty to sandy (CL) : very stiff to hard, low plasticity, fine to medium grained sand, w ≈ pl,	VSt-H	w ≈ PL	
		4				4					
		4				4.5					
		5	Residual		CL			AS ABOVE:firm, (ironstone bands, low resistance) .	F	w ≈ PL	
		5				5					
		6				5.5					
		8				6					
		8				6.5					
		10				6.8					
		13	Rock		SHA	7		SHALE: distinctly weathered, very low to low strength, grey, fine grained, (medium resistance) .	VLS-LS		
		15				7.5					
		18									
								BH5 Terminated at 7.5m (Target depth reached)			

Morrow Geotechnics
Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH6

UTM	: 56H	Driller Rig	: Ute mounted ADT - Damien	Job Number	: P2790
Easting	: 312127.3	Driller Supplier	: HartGeo	Client	: CING Developments Pty Ltd
Northing	: 6251293.3	Logged By	: Mark Peach	Project	: Yennora
RL	: N/A	Reviewed By	: Rhiannon McKeon	Location	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 7.5m	Date	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT	30mins post drill		Fill		CL-CI	1		Sandy to gravelly CLAY (CL-CI) : very soft, low to medium plasticity, orange brown, fine to medium sized gravel, fine to medium grained sand, w < pl, (low resistance) .	VS	w < PL	Inferred easement
			Fill		SW	3.5		SAND (SW) : very loose, grey yellow, fine to medium grained, moist, (poorly graded, low resistance) .	VL	M	
			Alluvial		CL-CI	4.5		Sandy CLAY (CL-CI) : stiff, low to medium plasticity, orange grey, fine to medium grained sand, w < pl, (low resistance) .	St	w < PL	
			Residual		CL-CI	6.4		Sandy CLAY (CL-CI) : very stiff to hard, low to medium plasticity, orange grey, fine to medium grained sand, w < pl, (ironstone gravels, low resistance) .	VSt-H	w < PL	
			Rock		SHA	6.5		SHALE: distinctly weathered, very low to low strength, grey, fine grained, (low to medium resistance) .	VLS-LS		
						7.5		**BH6 Terminated at 7.5m (Target depth reached)**			

Morrow Geotechnics
Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH7

UTM	: 56H	Driller Rig	: Ute mounted ADT - Damien	Job Number	: P2790
Easting	: 312036.3	Driller Supplier	: HartGeo	Client	: CING Developments Pty Ltd
Northing	: 6251248.4	Logged By	: Mark Peach	Project	: Yennora
RL	: N/A	Reviewed By	: Rhiannon McKeon	Location	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 7.5m	Date	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT	30mins post drill		Fill		CL	1.7		Sandy to gravelly CLAY (CL) : very soft to soft, low plasticity, grey brown, fine to medium sized gravel, fine to medium grained sand, w < pl, (low resistance) .	VS-S	w < PL	Inferred Easement
			Fill		SW	3.8		SAND (SW) : very loose, grey, fine to medium grained, trace fine sized gravel, moist, (low resistance , poorly graded) .	VL	M	
			Residual		CL-CI	4.7		Silty CLAY (CL-CI) : stiff, low to medium plasticity, orange grey, with fine to medium grained sand, w ≈ pl, (low resistance) .	St	w ≈ PL	
			Residual		CL-CI	6.8		AS ABOVE:very stiff to hard, (ironstone gravels, low resistance) .	VSt-H	w ≈ PL	
			Rock		ARG	7.3		SHALE: distinctly weathered, very low to low strength, grey, fine grained, (thick clay bands, low resistance) .	VLS-LS		
			Rock		SHA	7.5		SHALE: distinctly weathered, low strength, grey, fine grained, (low to medium resistance) .	LS		
						0		**BH7 Terminated at 7.5m (Target depth reached)**			

Morrow Geotechnics
Bellambi, NSW
Phone: 0405 843 933

Engineering Log - Borehole

Borehole No: BH8

UTM	: 56H	Driller Rig	: Ute mounted ADT - Damien	Job Number	: P2790
Easting	: 312069.6	Driller Supplier	: HartGeo	Client	: CING Developments Pty Ltd
Northing	: 6251176.8	Logged By	: Mark Peach	Project	: Yennora
RL	: N/A	Reviewed By	: Rhiannon McKeon	Location	: 5 Kiora Crescent, Yennora NSW
Total Depth	: 7.5m	Date	: 16/01/2023		

Drilling Method	Water	DCP	Soil Origin	Graphic Log	Classification Code	Depth (m)	Elevation (m)	Material Description	Consistency	Moisture	Observations
ADT	5mins post drill	3	Fill		CL-CI	0.5		Sandy to gravelly CLAY (CL-CI) : very soft to soft, low to medium plasticity, grey brown, fine to medium sized gravel, fine to medium grained sand, w < pl, (low resistance) .	VS-S	w < PL	
		3				1					
		3				1.5					
		3				2					
		3				2.5					
		3	Residual		CI-CH			Sandy CLAY (CI-CH) : stiff, medium to high plasticity, grey orange, fine grained sand, w < pl, (low resistance) .	St	w < PL	
		3				3					
		4				3.5					
		4				3.6					
		5	Residual		CI-CH			AS ABOVE:very stiff to hard,	VSt-H	w < PL	
		7				4					
		5				4.5					
		10				4.9					
		14	Residual		CI-CH	5		AS ABOVE: (ironstone bands, low resistance) .	VSt-H	w < PL	
		15				5.5					
		20				6					
						6.5					
						6.6					
			Rock		SHA	7		SHALE: distinctly weathered, very low to low strength, grey, fine grained, (low resistance) .	VLS-LS		
						7.3					
			Rock		SHA	7.5		AS ABOVE: low strength, greyblack, (low to medium resistance) .	LS	D	
								BH8 Terminated at 7.5m (Target depth reached)			

Soil and Rock Logging Explanatory Notes

GENERAL

Information obtained from site investigations is recorded on log sheets. The "Cored Drill Hole Log" presents data from an operation where a core barrel has been used to recover material - commonly rock. The "Non-Core Drill Hole - Geological Log" presents data from an operation where coring has not been used and information is based on a combination of regular sampling and insitu testing. The material penetrated in non-core drilling is commonly soil but may include rock. The "Excavation - Geological Log" presents data and drawings from exposures of soil and rock resulting from excavation of pits, trenches, etc.

The heading of the log sheets contains information on Project Identification, Hole or Pit Identification, Location and Elevation. The main section of the logs contains information on methods and conditions, material substance description and structure presented as a series of columns in relation to depth below the ground surface which is plotted on the left side of the log sheet. The common depth scale is 8m per drill log sheet and about 3-5m for excavation logs sheets.

As far as is practicable the data contained on the log sheets is factual. Some interpretation is inevitable in the identification of material boundaries in areas of partial sampling, the location of areas of core loss, description and classification of material, estimation of strength and identification of drilling induced fractures. Material description and classifications are based on SAA Site Investigation Code AS 1726 - 1993 with some modifications as defined below.

These notes contain an explanation of the terms and abbreviations commonly used on the log sheets.

DRILLING

Drilling & Casing

ADV	Auger Drilling with V-Bit
ADT	Auger Drilling with TC Bit
WB	Wash-bore drilling
RR	Rock Roller
NMLC	NMLC core barrel
NQ	NQ core barrel
HMLC	HMLC core barrel
HQ	HQ core barrel

Drilling Fluid/Water

The drilling fluid used is identified and loss of return to the surface estimated as a percentage.

Drilling Penetration/Drill Depth

Core lifts are identified by a line and depth with core loss per run as a percentage. Ease of penetration in non-core drilling is abbreviated as follows:

VE	Very Easy
E	Easy
M	Medium
H	High
VH	Very High

Groundwater Levels

Date of measurement is shown.

Standing water level measured in completed borehole

Level taken during or immediately after drilling

D	Disturbed
B	Bulk
U	Undisturbed
SPT	Standard Penetration Test
N	Result of SPT (sample taken)
PBT	Plate Bearing Test
PZ	Piezometer Installation
HP	Hand Penetrometer Test

EXCAVATION LOGS

Explanatory notes are provided at the bottom of drill log sheets. Information about the origin, geology and pedology may be entered in the "Structure and other Observations" column. The depth of the base of excavation (for the logged section) at the appropriate depth in the "Material Description" column. Refusal of excavation plant is noted should it occur. A sketch of the exposure may be added.

MATERIAL DESCRIPTION - SOIL

Classification Symbol - In accordance with the Unified Classification System (AS 1726-1993, Appendix A, Table A1)

Material Description - In accordance with AS 1726-1993, Appendix A2.3

Moisture Condition

D	Dry, looks and feels dry
M	Moist, No free water on remoulding
W	Wet, free water on remoulding

Consistency - In accordance with AS 1726-1993, Appendix A2.5

VS	Very Soft	< 12.5 kPa
S	Soft	12.5 – 25 kPa
F	Firm	25 – 50 kPa
St	Stiff	50 – 100 kPa
VSt	Very Stiff	100 – 200 kPa
H	Hard	> 200 kPa

Strength figures quoted are the approximate range of undrained shear strength for each class.

Density Index. (%) is estimated or is based on SPT results.

VL	Very Loose	< 15 %
L	Loose	15 – 35 %
MD	Medium Dense	35 – 65 %
D	Dense	65 – 85 %
VD	Very Dense	> 85 %

MATERIAL DESCRIPTION -ROCK

Material Description

Identification of rock type, composition and texture based on visual features in accordance with AS 1726-1993, Appendix A3.1-A3.3 and Tables A6a, A6b and A7.

Core Loss

Is shown at the bottom of the run unless otherwise indicated.

Bedding

Thinly Laminated	< 6 mm
Laminated	6 - 20
Very Thinly Bedded	20 - 60
Thinly Bedded	60 - 200
Medium Bedded	200 – 600
Thickly Bedded	600 – 2000
Very Thickly Bedded	> 2000

Weathering - No distinction is made between weathering and alteration. Weathering classification assists in identification but does not imply engineering properties.

Fresh (F)	Rock substance unaffected by weathering
Slightly Weathered (SW)	Rock substance partly stained or discoloured. Colour and texture of fresh rock recognisable.
Moderately Weathered (MW)	Staining or discolouration extends throughout rock substance. Fresh rock colour not recognisable.
Highly Weathered (HW)	Stained or discoloured throughout. Signs of chemical or physical alteration. Rock texture retained.
Extremely Weathered (EW)	Rock texture evident but material has soil properties and can be remoulded.

Strength - The following terms are used to described rock strength:

Rock Strength Class	Abbreviation	Point Load Strength Index, Is(50) (MPa)
Extremely Low	EL	< 0.03
Very Low	VL	0.03 to 0.1
Low	L	0.1 to 0.3
Medium	M	0.3 to 1
High	H	1 to 3
Very High	VH	3 to 10
Extremely High	EH	≥ 10

Strengths are estimated and where possible supported by Point Load Index Testing of representative samples. Test results are plotted on the graphical estimated strength by using:

° Diametral Point Load Test

Axial Point Load Test

Where the estimated strength log covers more than one range it indicates the rock strength varies between the limits shown.

MATERIALS STRUCTURE/FRACTURES

ROCK

Natural Fracture Spacing - A plot of average fracture spacing excluding defects known or suspected to be due to drilling, core boxing or testing. Closed or cemented joints, drilling breaks and handling breaks are not included in the Natural Fracture Spacing.

Visual Log - A diagrammatic plot of defects showing type, spacing and orientation in relation to core axis.

Defects	———	Defects open in-situu or clay sealed
	– – – – –	Defects closed in-situ
	.....	Breaks through rock substance

Additional Data - Description of individual defects by type, orientation, in-filling, shape and roughness in accordance with AS 1726-1993, Appendix A Table A10, notes and Figure A2.

Orientation - angle relative to the plane normal to the core axis.

Type	BP	Bedding Parting
	JT	Joint
	SM	Seam
	FZ	Fracture Zone
	SZ	Shear Zone
	VN	Vein
	FL	Foliation
	CL	Cleavage
	DL	Drill Lift
	HB	Handling Break
	DB	Drilling Break
Infilling	CN	Clean
	X	Carbonaceous
	Clay	Clay
	KT	Chlorite
	CA	Calcite
	Fe	Iron Oxide
	Qz	Quartz
	MS	Secondary Mineral
	MU	Unidentified Mineral
Shape	PR	Planar
	CU	Curved
	UN	Undulose
	ST	Stepped
	IR	Irregular
	DIS	Discontinuous
Rougness	POL	Polished
	SL	Slickensided
	S	Smooth
	RF	Rough
	VR	Very Rough

SOIL

Structures - Fissuring and other defects are described in accordance with AS 1726-1993, Appendix A2.6, using the terminology for rock defects.

Origin - Where practicable an assessment is provided of the probable origin of the soil, eg fill, topsoil, alluvium, colluvium, residual soil.

Appendix B

IMPORTANT INFORMATION

Important Information

This Document has been provided by Morrow Geotechnics Pty Ltd subject to the following limitations:

This Document has been prepared for the particular purpose outlined in Morrow Geotechnics' proposal and no responsibility is accepted for the use of this Document, in whole or in part, in other contexts or for any other purpose.

The scope and the period of Morrow Geotechnics' Services are as described in Morrow Geotechnics' proposal, and are subject to restrictions and limitations. Morrow Geotechnics did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Document. The scope of services may have been limited by such factors as time, budget, site access or other site conditions. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Morrow Geotechnics in regards to it. Any advice given within this document is limited to geotechnical considerations only. Other constraints particular to the project, including but not limited to architectural, environment, heritage and planning matters may apply and should be assessed independently of this advice.

Conditions may exist which were undetectable given the limited nature of the enquiry Morrow Geotechnics was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Document. Accordingly, additional studies and actions may be required. No geotechnical investigation can provide a full understanding of all possible subsurface details and anomalies at a site.

In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. Morrow Geotechnics' opinions are based upon information that existed at the time of the production of the Document. It is understood that the Services provided allowed Morrow Geotechnics to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

Any assessments made in this Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this Document.

Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Morrow Geotechnics for incomplete or inaccurate data supplied by others.

Where ground conditions encountered at the site differ significantly from those anticipated in the report, either due to natural variability of subsurface conditions or construction activities, it is a condition of the report that Morrow Geotechnics be notified of any variations and be provided with an opportunity to review the recommendations of this report.

This Document is provided for sole use by the Client and is confidential to it and its professional advisers. No responsibility whatsoever for the contents of this Document will be accepted to any person other than the Client. Any use which a third party makes of this Document, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. Morrow Geotechnics accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Document.

To Cumberland Council

Re: 5 Kiora Cr. Yennora

In accordance with DA Condition 112 of DA2019/457/1

DAOCA09 - Boundary Fencing Flood Affected Areas
The development site has been identified as a flood affected site in the 1% Annual Exceedance Probability (AEP) storm event. In this regard, all boundary fencing within the flood affected area(s) a identified in the flood report shall be constructed in accordance with Council's standard detail SD8025. The pool type fencing shall be provided at the base of the boundary fence to the extent of the post-developed 1% AEP flood. The fencing shall be constructed in consultation with adjoining affected property owner(s) at full cost to the developer. In this regard, photographic evidence of the construction of the fence in accordance with this requirement shall be provided to Council for approval prior to the issue of any Occupation Certificate.

(Reason: Safety and security)

The Boundary Fence situated within the overland Stormwater overflow path has been constructed in accordance with the above DA condition and details.

Photos attached

Regards

Lawrance Crestani B.App.Sc. (Building)


HYUNDAI
HYUNDAI

GREENLAND DESIGN
Landscape Architects

Date: 07/03/2024

LANDSCAPE COMPLIANCE CERTIFICATE

PROJECT: **PROPOSED INDUSTRIAL ESTATE**
Address: NO. 5 KIORA CRESCENT YENNORA

This letter outlines Greenland Design Pty Ltd's landscape inspection for the completed landscape works at No.5 Kiora Crescent Yennora.

A site inspection was carried out on Thursday March 07, 2024 and the proposed landscape works have been completed in accordance with the approved landscape plans L-01 and L-02 (dated 04/11/2020, Issue E) prepared by Outside Design Group Pty Ltd.

We trust that this information meets with your requirements. Should you have any queries or wish to discuss the completed works please do not hesitate to contact the undersigned.

Yours faithfully,

Chau Bao Ly

Registered Landscape Architect

GREENLAND DESIGN PTY LTD
Cecil Hills NSW 2171
Ph: 0403 164 198
E: gd@greenlanddesign.com.au
W: greenlanddesign.com.au

Australian Institute of Landscape Architects

MAINTENANCE SCHEDULE FOR STORMWATER, ON SITE DETENTION AND DRAINAGE AT: 15 Kiora Crescent YENNORA, NSW 2161			
Maintenance Action	**Frequency**	**Performed by**	**Procedure**
Inspect and remove any blockage of outlet	Six Monthly*	Owner	Remove grate and screen to inspect outlet. See plan for location of discharge outlet pit.
Inspect screen and clean	Six Monthly*	Owner	Remove grate and screen if required to clean it.
Inspect pit sump and remove any sediment/sludge	Six Monthly*	Owner	Remove grate and screen. Remove sediment/sludge build-up and check orifice and flap valve is clear.
Inspect grate for damage or blockage	Six Monthly*	Owner	Check both sides of grate for corrosion (especially corners and welds) damage or blockage.
Weed removal and plant re-establishment	Six Monthly*	Maintenance Contractor	Remove weeds from Bio-Retention (and OSD) area(s). Replace and re-establish plants as needed
Monitor for scour and erosion, and sediment or litter build up	Six Monthly*	Owner	Remove blockages from grate and check if pit blocked.
Inspect storage areas and remove debris/mulch/litter etc likely to block screens/grates	Six Monthly*	Owner	Remove debris and floatable material likely to be carried to grates.

* and after every major storm event

MAINTENANCE SCHEDULE FOR STORMWATER, ON SITE DETENTION AND DRAINAGE AT: 5 Kiora Crescent, YENNORA NSW 2161.			
Maintenance Action	**Frequency**	**Performed by**	**Procedure**
Check attachment of screen to wall of pit	Annually*	Maintenance Contractor	Remove grate and screen. Ensure screen fixings secure. Repair as required.
Check screen for corrosion	Annually	Maintenance Contractor	Remove grate and examine screen for rust or corrosion, especially at corners or welds.
Inspect overflow weir and remove any blockage	Six Monthly*	Maintenance Contractor	Remove grate and open cover to ventilate underground storage if present. Ensure weir clear of blockages.
Inspect pit walls (internal and external, if appropriate) for cracks, spalling and integrity	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Check step irons for corrosion	Annually	Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage.
Check fixing of step irons is secure	Six Monthly	Maintenance Contractor	Remove grate and ensure fixings secure prior to placing weight on step iron.
Inspect internal walls of return pit (and external, if appropriate) for cracks or spalling	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Compare storage volume to volume approved. (Rectify if loss > 5%)	Annually	Maintenance Contractor	Compare actual storage available with Work as Executed plans. If volume loss is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Inspect storage areas for subsidence near pits	Annually	Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

12 July 2023

Endeavour Energy Ref: UIL6138

GAF Tech Pty Ltd
PO BOX 737
TOONGABBIE NSW 2146

CONNECTION OFFER – BASIC CONNECTION SERVICE

Dear Sir/Madam

UIL6138 – LOT 10, DP 1233715, 5 KIORA CRESCENT, YENNORA

Thank you for your application providing information for the proposed new connection of load at the above location.

The attached Permission to Connect letter gives approval for connection of the total approved load of **420 amps per phase** to Endeavour Energy's low voltage network in accordance with the Terms and Conditions of the published Model Standing Offer for a LV Basic Connection Service.

This Permission to Connect is effective from **12 July 2023** and is valid for a period of twelve months.

You or your electrician will need to contact a Level 2 Accredited Service Provider (ASP) to install a service and connect your installation to our network.

A list of Level 2 ASPs is available at the Energy NSW website*:*
https://energysaver.nsw.gov.au/households/you-and-energy-providers/installing-or-altering-your-electricity-service or can be obtained via phone (02) 8275 1960.

When the service work is undertaken by the appointed ASP, they must submit Notification of Service Works (NOSW) and the Certificate of Compliance for Electrical Works (CCEW) within 2 days. An audit fee is applicable as detailed in the Network Price List. This fee will be charged to your ASP in accordance with the terms and conditions relevant to the connection offer.

Please contact your retailer to arrange for the installation of metering and establish an appropriate electricity tariff.

Please note that this letter does not allow release of plans from the Constituent Council or from your Private Certifier.

Endeavour Energy will pass the basic connection offer fee as detailed in our Price List to your retailer who may invoice you directly.

Should you have any enquiries regarding your application please contact the undersigned.

Yours faithfully,

Ravi Lal| Customer Network Engineer: 02 9853 5626
Email: CWTech@endeavourenergy.com.au

PERMISSION TO CONNECT

New Connection

Date: 12 July 2023
Ref: UIL6138
NMI: House Power – 43113040437
Unit 1 - 4311380444
Unit 2 – 4311380445
Unit 3 – 4311379500

Applicant (Name) GAF Tech Pty Ltd

Proposed Location: Lot 10, DP 1233715, 5 Kiora Crescent
YENNORA

Connection Requirements:

Permission to Connect to the Endeavour Energy network is given for the address shown above.

The Permission to Connect is for the load applied for by the Applicant subject to the following conditions:

- Total approved load of **420 amps per phase**
- Connection of **three phase**

The nominated Endeavour Energy asset connection point/s:

☒ **Substation nos.54640**

Changes to any of the above conditions will require specific approval from Endeavour Energy.

Date issued: 12 July 2023

This Permission to Connect is for the single point of connection included in your application.

This Permission to Connect must be returned to Endeavour Energy by your ASP with the Notice of Service Work (NOSW) and all other required documents within 2 days of connecting the installation.

Ravi Lal
Customer Network Engineer
Ph: 02 9853 5626
Email: CWTech@endeavourenergy.com.au

Vertical
Tree Management & Consultancy

Tree Protection Certification

Commissioned by: Enviro Waste Services Group Pty Ltd

Site: 5 Kiora Crescent, Yennora, NSW 2161

Date of Inspection: 6 September 2021, 8 March 2024

Version: 2

Issue 1 of 3

Prepared by

Vertical Tree Management & Consultancy

Level 5 Consulting Arborist, Derek Arnaiz.

http://verticaltreemanagement.com.au/

Email: **derek@verticaltreemanagement.com.au** ***ABN:*** **48244687913** ***Telephone:*** **0434 486 322**

This Tree Protection certification issue one (1) of three (3) has been prepared by Vertical Tree Management and Consultancy, Derek Arnaiz for the client, Enviro Waste Services Group Pty Ltd.

The certification shall verify that the tree protection at the site, Allotment 10 DP20170, 5 Kiora Crescent, Yennora, NSW 2161 has been erected in accordance with the Development Conditions and the Australian Standard AS4970 “Protection of Trees on Development Sites”.

A Site inspection was undertaken by the author on the 6 September 2021 and 8 March 2024. For the purposes of tree protection certification.

Recommendations for the tree protection devices is based on Vertical Tree Management Impact assessment and tree protection plan 2021, Development Conditions and the Australian Standards for AS 4970 - 2009 “Protection of Trees on Development Sites”.

Allowable incursions to Tree Protection Zones were based on Australian Standards for AS 4970 2009 “Protection of Trees on Development Sites” and the author’s extensive experience with trees on development sites.

Tree Protection

It is the responsibility of the contractor to ensure all staff and sub-contractors associated with the development at site do not alter or move the Tree Protection devices without the approval of the site arborist.

The Site Arborist (Vertical Tree Management & Consultancy): will record tree health at the various stages of development.

Certification of works, The site arborist will provide certification for the compliance of tree protection measures. Changes to the tree protection will also be recorded as required.

The Site Arborist: will oversee work and provide advice for tree work within the tree protection zone and Structural Root Zone. A report will be required for pruning tree roots greater than 40mm in diameter.

Breaches tree protection measures that may lead to adverse impact to the health or condition of tree are to be recorded and reported. The site arborist will also provide remedial measures where possible.

Tree Protection Zone (TPZ) - The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable. The TPZ is calculated using the Australian standard AS4970- “Protection of Trees on Development Sites” formula. Alterations to the TPZs requires the site arborist approval.

Structural Root Zone (SRZ) –. The SRZ is the area required for tree stability. The SRZ only needs to be calculated when major encroachment into a TPZ is proposed. A larger area is required to maintain a viable tree. The SRZ is calculated using the Australian standard AS4970- “Protection of Trees on Development Sites” formula.

The following tree protection assessment and recommendation has been completed in accordance with Australian Standard AS4970-2009 “Protection of Trees on Development Sites” (The Standard). The recommendations are to be implemented prior to commencement of demolition, remain during construction and post construction phases to ensure adequate protection for the retained trees on site. Any recommended adjustment or amendments are to be undertaken within 7 days.

Hold points

Trigger	Timing	Reporting	Site arborist
Installation of tree protection devices and signage.	Site set up week 1	Certification of Tree protection to AS4970	Vertical Tree Management & Consultancy (VTM)
Excavation within TPZ/SRZ	When notified	Recorded	VTM
Various unforeseen changes in the field.	When notified	Recorded	VTM
Mid construction certification	When notified	Certification of Tree protection to AS4970	VTM
Completion of construction works	When notified	Completion Report	VTM

Figure 1: Aerial photo, 5 Kiora Cres, Yennora, NSW 2161, Sixmaps.

Final Inspection - 8 March 2024

During the final inspection on the 8 March 2024, it was observed, the trees on site were found to be in good health and vigour. However, verification of works conducted near the trees and within Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) was inconclusive. Adherence to the Australian standard AS4970 regarding TPZ and SRZ is crucial for preserving tree health and structural stability, particularly in preventing issues such as fungal decay. Failure to adhere to these standards can result in root damage, destabilization of trees, and potential tree failure, exacerbating the risk of pathogens such as fungal decay. Therefore, it is recommended that a detailed tree assessment be undertaken for various trees that have had works undertaken within the TPZ and/or SRZ. Vertical Tree management has attended the site on two occasions as stated and have not observed any works within the TPZ for any tree. It is therefore inconclusive if poor root pruning was undertaken. However, several areas have been noted for further investigation as poor root pruning can have several detrimental effects on trees:

1. **Reduced Stability**: Improper root pruning can destabilize trees by compromising their anchorage in the soil. This increases the risk of tree failure, especially during storms or high winds.
2. **Increased Susceptibility to Disease and Pests**: Damaged roots are more susceptible to invasion by pathogens and pests. Fungal diseases and pests can enter through wounds created during pruning, further weakening the tree and potentially leading to its demise.
3. **Structural Weakness**: Improper root pruning can lead to changes in the distribution of weight within the tree, causing structural weaknesses. This can result in leaning, cracking, or even uprooting of the tree over time.
4. **Nutrient and Water Uptake Issues**: Roots are essential for absorbing water and nutrients from the soil. Poor pruning can damage or remove critical roots, leading to reduced uptake of water and nutrients. This can result in stunted growth, wilting, and overall decline in tree health.
5. **Environmental Stress**: Trees with poorly pruned roots may experience increased environmental stress, such as drought susceptibility or sensitivity to temperature extremes. This can further weaken the tree and make it less resilient to environmental challenges.
6. **Decline and Death**: Over time, the cumulative effects of poor root pruning can lead to overall decline in tree health and eventual death. Without a healthy root system, trees are unable to sustain themselves and are more likely to succumb to various stressors.

In summary, poor root pruning can have serious consequences for tree health, stability, and longevity. It is essential to investigate pruning techniques and adhere to industry standard as set out in the Australian standard AS4973 “Protection of trees on development sites”. Conducting a detailed tree assessment for trees affected by works within Tree Protection Zones (TPZ) and Structural Root Zones (SRZ), proper tree management strategies should be implemented to mitigate the potential effects of root damage:

1. **Root mapping**: By mapping the root system, arborists can identify any areas of root damage or disturbance that may be contributing to the tree's destabilization. This information is crucial for determining the extent of the problem and developing appropriate remediation strategies.
2. **Monitoring and Observation**: Regular monitoring of trees can help identify any signs of stress or decline resulting from root damage. This includes observing changes in foliage colour, leaf wilting, and canopy dieback.
3. **Mulching**: Applying mulch around the base of trees can help conserve moisture, regulate soil temperature, and reduce competition from weeds. Mulching also promotes root growth and aids in the recovery of trees following root damage.
4. **Watering**: Adequate watering is essential for trees affected by root damage to ensure they receive sufficient moisture, especially during periods of drought or dry spells. Deep watering techniques should be employed to encourage root development and penetration into the soil.
5. **Fertilisation**: Supplemental fertilisation may be necessary for trees with compromised root systems to replenish nutrients lost due to root damage. However, fertilization should be performed judiciously and in accordance with soil nutrient requirements and tree species preferences.
6. **Pruning and Canopy Management**: Proper pruning of tree canopies can help reduce stress on trees with compromised root systems by optimizing their physiological balance. Removing dead, diseased, or structurally weak branches can also improve overall tree health and vigour.
7. **Professional Consultation**: Consulting with certified arborists or tree care professionals can provide valuable insights and recommendations for managing trees affected by root damage. They can assess the extent of damage, prescribe appropriate treatments, and develop long-term management plans to promote tree recovery and resilience.

By implementing these tree management strategies, the potential adverse effects of root damage can be mitigated, and the health and stability of affected trees can be preserved.

Root mapping is a process used to visualise and understand the distribution and structure of a tree's root system within the soil. It involves techniques such as excavation, Air spade, hydro vacuum to assess the size, depth, and spread of roots.

Root mapping can be particularly helpful for destabilized trees in the following ways:

1. **Identifying Root Damage**: By mapping the root system, arborists can identify any areas of root damage or disturbance that may be contributing to the tree's destabilisation. This information is crucial for determining the extent of the problem and developing appropriate remediation strategies.
2. **Assessing Root Distribution**: Understanding the distribution of roots within the soil helps arborists assess the overall health and stability of the tree. It provides insights into whether the root system is evenly distributed or if there are areas of deficiency or congestion that may be affecting stability.
3. **Predicting Future Stability**: Root mapping can help predict the future stability of a tree by identifying potential risks or vulnerabilities within the root system. This information allows arborists to implement proactive measures to mitigate risks and prevent future destabilization.
4. **Planning Remediation**: Root mapping enables arborists to develop targeted remediation plans to address specific issues identified within the root system. This may include techniques such as root pruning, root zone aeration, or installation of structural support systems to improve stability.
5. **Monitoring Tree Health**: Regular root mapping allows for ongoing monitoring of the tree's root system and overall health. By tracking changes in root density, growth patterns, or presence of pathogens, arborists can assess the effectiveness of remediation efforts and adjust management strategies as needed.

Overall, root mapping provides valuable insights into the condition and structure of a tree's root system, enabling targeted interventions to improve stability and prolong the tree's health.

If the owner or foreman suspects that certain trees may have incurred damage, it is essential to proceed with the aforementioned tree management protocol. Providing notification via email will enable us to assess the situation thoroughly and offer a detailed cost estimate for the necessary works. This proactive approach ensures that any potential issues with the trees are addressed promptly and effectively, safeguarding their health and stability while also maintaining safety on the property.

Site Photos

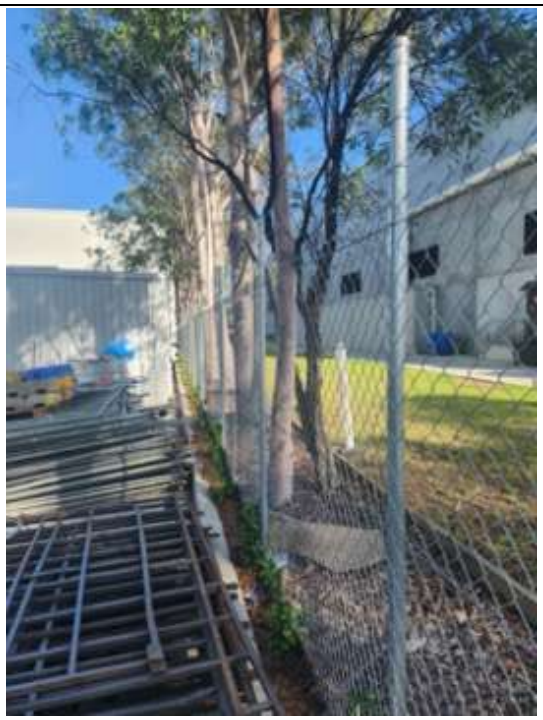

Figure 2 - Photo showing Rear neighbouring property trees adjacent to 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 3 - Photo showing the completed works at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

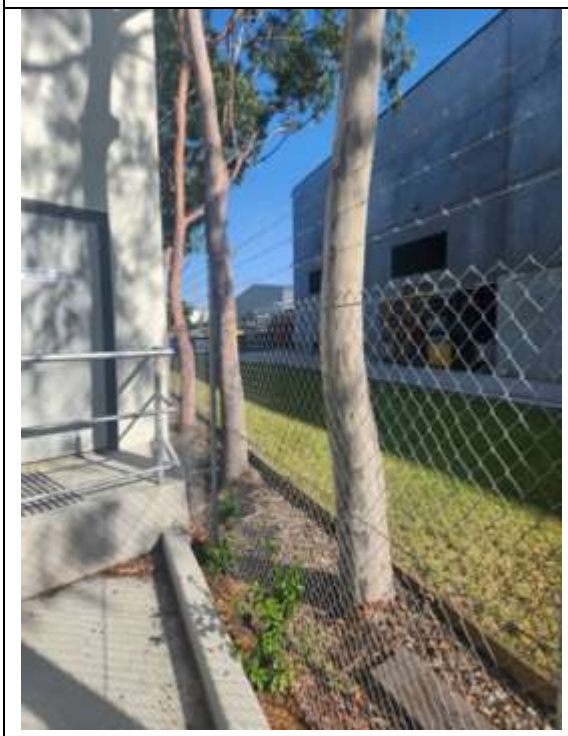

Figure 4 - Photo showing the completed works at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 5 - Photo showing the completed works at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 6 - Photo showing the works at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 7 - Photo showing completed works at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

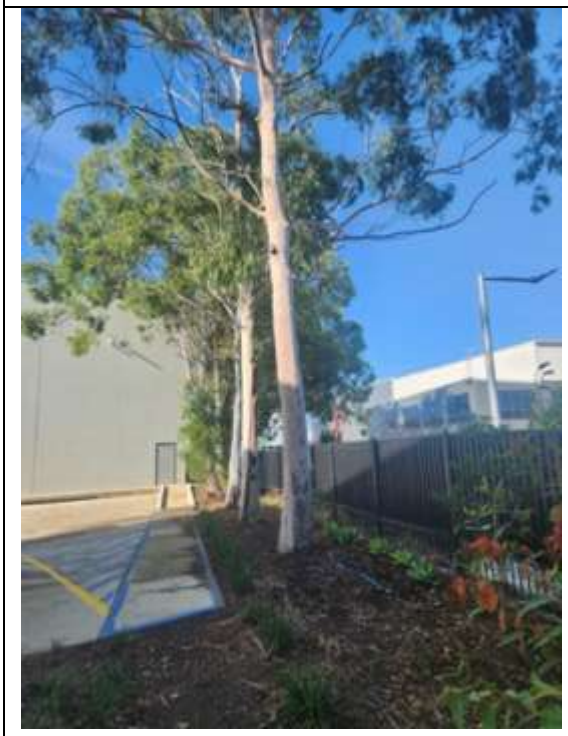

Figure 8 - Photo showing completed works at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 9 - Photo showing curb & gutter completed works at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 10 - Photo showing tree that requires pruning at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 11 - Photo showing completed works occurred at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

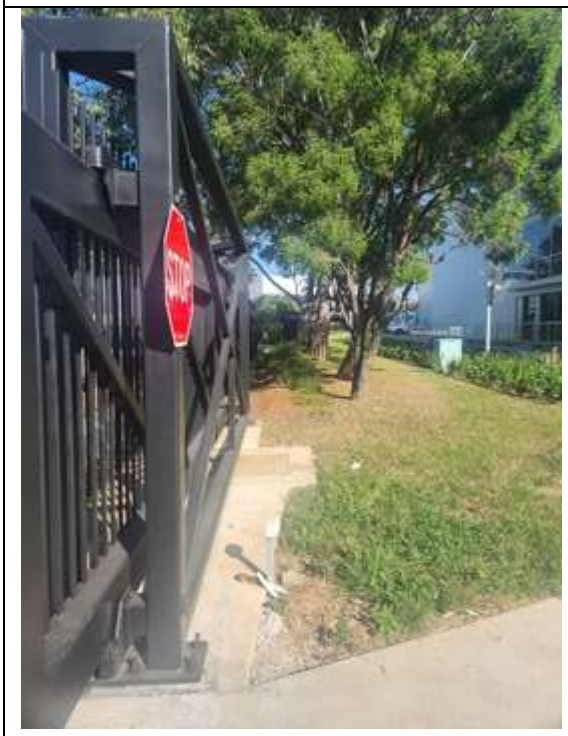

Figure 12 - Photo showing completed works for the front of the sliding gate at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 13 - Photo showing the works located at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Figure 14 - Photo showing the works located at 5 Kiora Cres, Yennora, NSW 2161. Image was taken on the 8 March 2024.

Date	Version	Prepared By Principal	Checked by
6 September 2021	1	Derek Arnaiz	Derek Arnaiz
26 March 2024	1	Derek Arnaiz	Derek Arnaiz

Derek Arnaiz
Vertical Tree Management & Consultancy
Diploma of Arboriculture, Level 5 consultant,
Diploma of Horticulture,
Quantified Tree Risk Assessment (QTRA) Registered user 5597
Professional Indemnity & Public Liability Insurance H

EMAIL ADDRESS:/ derek@verticaltreemanagement.com.au /
ABN:/48244687913
PHONE: 0434 486 322

TREE CONSULTANCY / LANDSCAPE ARCHITECT / TREE SERVICES
ALL TREE REPORTS/ GPS SURVEYING /TREE PROTECTION / PEST & DISEASE/ TREE INJECTION / ROOT MAPPING / STUMP GRINDING /GARDEN DESIGN/ /TREE SUPPLY AND PLANTING
WEB SITE: HTTPS:// verticaltreemanagement.com.au/

Disclaimer statement. The response of a living tree to its immediate environment is dynamic throughout its entire life cycle due to external influences giving each tree a unique natural variability. A visual tree assessment addresses the external symptoms presented by a tree. This cannot exclude a tree from the potential for failure due to unforeseen circumstances. This report cannot provide a conclusive recommendation regarding any part of a tree root system that is not exposed for visual inspection. Additionally, it cannot not be assumed, that a tree will be safe in all conditions in the future. Appropriate management, assessment, and maintenance aim to mitigate risks to an acceptable level. This report is the opinion, advise or recommendation based on the information supplied by the client or observation of the author.

FORM 6

Department of Industry, Innovation and Science

Australian Government
National Measurement Institute

NATIONAL TRADE MEASUREMENT

CERTIFICATE OF VERIFICATION OR NOTICE OF NON VERIFICATION OF A MEASURING INSTRUMENT

Note: * denotes mandatory field and must contain data

Instrument Owner/User details Please use the trading name of the business, national chains such as supermarkets and service staions shoud be recorded as the brand and suburb (and site number if available) e.g. BP Bendigo 1234 or Woolworths Cairns 7894	**Traders Name (see notes at right for guidance)**					**Business type (drop down list***	**ABN Number**	**Verifiers Declaration** The measuring instruments listed below **(unless marked with an Instrument Performance Code "H")** have been tested in accordance with National Test Procedures and found suitable for use for trade and marked in accordance with the *National Measurement Act 1960* . Instrument(s) marked with a "H" Code in the Instrument Performance Code column is or are unverified and are not to be used for trade.
	Enviro Waste Services Group					Recycling	66 613 987 438	
Instrument location details If a street number and name are not available record GPS Coorinates in the Street Name cell. Suburb and Postcode are manadatory under all circumstances.	**Street Number****	**Street Name****	**Suburb/Locality****	**Postcode****	**GPS Coordinates ^**	**Is this a weighbridge* Y for Yes or N for No**	**Public Weighbridge No. (if a public weighbridge)***	
	5	Kiora Crecent	Yennora	2161		y		
Servicing Licensee details	**Licence Number***	**Licensees Business Name***	**ABN Number***					
	SL-0089	National Weighing & Instruments Pty Ltd	22071682445					
Verifier details	**Verifiers Registration No***	**Name of Verifier***	**Verifiers Mark***					
	VR-03328	Limuel Ebona	NWI3328					

Instrument details	**Date of verification***	**Make***	**Model***	**Serial Number***	**NMI Pattern Approval Number ***	**Capacity (Litres) (eg 60t or 30 l/m)**	**Instrument Performance Code* (drop down list)**	***If Verification Code is "H", please provide reasons-eg non payment by owner, parts to repair not available, replaced with new instrument etc.**
	12/10/2023	Bilanciai	SBP/C Titan	319298	6/10B/86	60t	A=new instrument	

Job No.	J01720

NATIONAL WEIGHING & INSTRUMENTS

1300 669 162

Test Report for Non- Automatic Weighing Instrument

Owner/User Details	Test Report No	F62310-9352	Test Date	12/10/2023

Name	Enviro Waste Services Group					
	NUMBER	STREET NAME	SUBURB	STATE	POSTCODE	GPS COORDINATES
Address	5	Kiora Crecent	Yennora	NSW	2161	
Instrument Address	5	Kiora Crecent	Yennora	NSW	2161	
Contact Name	Anthony Katrib		Contact Phone No.	0467 777 645		

Instrument Details	Accuracy Class	III	Min	0.4	Max	60	/		t	VSI (e)	0.02	/		t	6B/0 No	6B/239
Manufacturer	BILANCIAI	Model	SBP/C Titan	Instrument Serial No	319298											
Description	WEIGHBRIDGE			Aux Device Serial No	-											
Units	t															

NMI Approval No	Basework	6/10B/86	Indicator/s	S666	Load Cell/s	S490
Model No's.	Basework	Bilanciai SBP/C Titan	Indicator/s	Bilanciai DD2060	Load Cell/s	Eurocell CPD-MC3

Test Details	Available Standard masses	20	t	MPE Change Points	10t / 40t

Makeup of Substitution Load(s)	SUB 1	Truck 1	SUB 2	Truck 2	SUB 3		SUB 4		SUB 5	

Method A	x	Method B		N/A		Eccentricity - clause 5.2	No of Supports	8	Load	9.00	t

Repeatability - clause 5.1			P1	9.00 t	P8	9.00 t
Load	39.94	t	P2	9.00 t	P9	t
1st reading	39.94	t	P3	9.00 t	P10	t
2nd reading	39.94	t	P4	9.00 t	P11	t
3rd reading	39.94	t	P5	9.00 t	P12	t
Difference	<1.0e	t	P6	9.00 t	PASS	
	PASS		P7	9.00 t		

P1 P3 P2 P3

P8 P4 P7 P6

INDICATOR

Weighing Performance - clause 5.4

UP	Make up of load t	Load Applied t	Indication t	1/2 e t	Δ L t	Error t	MPE t	Value of L_{sub} t	Rounding t	L_{sub} (rounded) t	Result (P/F)
A	MASSES	0.4	0.40	0.01	0.01	0.000	0.01				P
B	MASSES	10	10.00	0.01	0.01	0.000	0.01				P
C	MASSES	20	20.00	0.01	0.01	0.000	0.02				P
D	SUB 1	Truck 1	19.92	0.01	-	-	0.02	19.930	0.01	19.94	
E	SUB1+20t	39.94	39.94	0.01	0.014	-0.004	0.02				P
F	SUB 2	Truck 2	39.86	0.01	-	-	0.02	39.874	0.006	39.88	
G	SUB2+20t	59.88	59.88	0.01	0.004	0.006	0.03				P
H											
I											
J											
K											
L											
M											
N											
Down		59.88	59.88	0.01	0.004	0.006	0.03				P
		39.94	39.94	0.01	0.014	-0.004	0.02				P
		20	20.00	0.01	0.01	0	0.02				P
		10	10.00	0.01	0.01	0	0.01				P
		0.4	0.40	0.01	0.01	0	0.01				P

Visual Inspection (cl 3)	PASS	Sensitivity (cl 5.6)	PASS	$E = I + {}^1/_2e - \Delta L - L$
Over Range Blanking (cl 5.4)	PASS	Accuracy of Tare Setting (cl 5.7)	NA	$L_{sub} = I_{sub} + {}^1/_2e - E$
Zero Setting (cl 5.3)	PASS	Price Computation (cl 5.8)	NA	Overall Result
Discrimination (cl 5.5)	PASS	Auxiliary Devices (cl 3.2.19)	PASS	PASS

Certifier Name	Limuel Ebona	ID #	NWI3328	Signature
Comments:				

THE ABOVE MENTIONED RESULTS ARE DEEMED TO BE TRUE AND ACCURATE AT THE TIME OF TESTING ONLY

BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic® WPU

Elastomeric, single component, fibre reinforced, water based polyurethane membrane

DESCRIPTION

Sikalastic® WPU is a premixed, single component, water based polyurethane waterproofing membrane. Sikalastic® WPU is a Class III membrane with high extensibility and forms an elastomeric, seamless waterproofing membrane for use in internal and external applications for under tiled finishes including shower recesses, bathrooms, laundries, decks, balconies, podiums and rooftops. Sikalastic® WPU has low VOC and adheres to a wide variety of substrates. Sikalastic® WPU contains micro fibre reinforcement for improved tensile strength and crack bridging capabilities.

USES

- Concrete
- Sand/cement screeds
- Cement Render
- Fibrous cement sheeting
- Compressed fibrous cement sheeting
- Water resistant plasterboard

CHARACTERISTICS / ADVANTAGES

- High Extensibility >300% (Class III)
- UV Stable
- Micro fibre enhanced reinforcement
- Internal and external applications
- Single component- no mixing, ready to use
- Water based- Low VOC, Non-hazardous
- Compatible with Sika® tile adhesives

APPROVALS / CERTIFICATES

AS 4858-2004: Wet Area Membranes
BRANZ Appraisal- Interior applications
BRANZ Appraisal- Exterior applications

PRODUCT INFORMATION

Packaging	15 Litre Pail	
Shelf life	12 months from date of manufacture in original, sealed containers, if the storage conditions are met.	
Storage conditions	Store in dry, weatherproof environment, protected from direct sunlight at temperatures between +5˚C and +25˚C	
Colour	Grey	
Volatile organic compound (VOC) content	43Grams/Litre- Low VOC	(SCAQMD method 304-91)
Tensile strength	2.52 MPa	
Permeability to water vapour	~ 3.29g/m2/24hr	

APPLICATION INFORMATION

Consumption	10m2 per drum (1mm DFT)
Layer thickness	2x coats of 750 Micron (Wet film) to acheive a DFT of 1mm
Waiting time to overcoating	Allow Sikalastic® WPU 2-3 hours to dry between coats. Allow longer in adverse weather conditions.
Drying time	Allow a minimum of 10 hours curing prior to applying finished covering, and a minimum of 3 days to cure before flood testing. Flood testing is dependent on site specific conditions and may require longer cure times than 3 days, please ensure material is well cured before proceeding.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

LIMITATIONS

- Sikalastic® WPU is not suitable for negative hydrostatic head of water pressure.
- Sikalastic® WPU must not be applied over damp or wet substrates.
- Sikalastic® WPU must not be applied in rain or if bad weather is imminent.
- Sikalastic® WPU must not be applied over coatings or contaminations.
- Sikalastic® WPU must be applied at the recommended coverage rate.
- Sikalastic® WPU must not be used in submerged applications.
- Sikalastic® WPU must not be used as a trafficable coating.
- Do not apply Sikalastic® WPU when the temperature is below 5˚C or greater than 35˚C.
- Do not allow Sikalastic® WPU to freeze.
- To eliminate contamination or damage, the finished covering must be applied as soon as Sikalastic® WPU has cured.
- Timber floors must be overlaid with suitable cement sheeting prior to waterproofing.
- Contact Sika® Technical Services for advice if further information is required

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All surfaces to be waterproofed must be firm, clean, dry, structurally sound and smooth. All grease, oil, wax, curing compounds, dust, loose material, laitance and other contaminants must be removed. All projections and rough spots should be dressed off to achieve a level surface. The substrate surface must be continuous and provide falls to waste as per AS3740-2010 and AS4654.2-2012.

Priming

Substrate	Primer
Porous substrates	Eco Prime WB Davco Ultraprime
Dense Concrete	Davco PrimeX
Early aged screed	Sikalastic Moisture Seal
Metal & PVC flanges	Sika Prep n Prime

Concrete

Allow at least 28 days for the concrete to cure. Concrete should be left with an open surface. All traces of curing compounds or sealers should be removed prior to application. Old concrete must be thoroughly cleaned and washed and allowed to dry. The surface should be even unless falls are incorporated where required, imperfections to be repaired with a suitable Sika® MonoTop repair mortar.

Sand / Cement Screeds and Renders

The screeds and / or renders must conform to the appropriate standard and should be left with a wood float finish and left to cure for at least 7 days. Moisture content should be below 4% before membrane application.

Building Boards

Water resistant plasterboard and fibrous cement sheeting must be solidly fixed in accordance with the manufacturer's instructions specifically for tiling.

Non Porous Substrates

It may be necessary to mechanically prepare the area. Any existing tiles must be well bonded and be free from any sealers or coatings. Dense, low absorbent and impervious surfaces must be primed with ECO SYSTEMS® Prep 'N' Prime. Confirm adhesion and compatibility of the primer to the substrate before proceeding with membrane application.

Static Crack & Sheet Joint Treatment

For static cracks 0.5 – 3mm wide rout out and clean thoroughly before filling with Sika® Neutral Cure silicone to form a Bond Breaker, for all sheet joints and seams clean thoroughly and fill with Sika® Neutral Cure silicone to form a Bond Breaker. For dynamic cracks, expansion joints and control joints contact Sika ® technical service for advice.

Bond Breaker / Connector sealant

Suitable bond breaker: Any Sika neutral cure silicone sealant

Suitable connector sealant: SikaFlex Fillet or SikaFlex Construction AP

Sikalastic® WPU is a Class III membrane with high extensibility and is designed for use with a 12mm annu-

lus bond breaker at floor/wall and wall/wall junctions. A bond breaker must be installed at areas subject to movement, wall/wall junction, wall/floor junction, sheet joints and seams, penetrations and where there is a change in the direction or substrate type.

CLEANING OF EQUIPMENT

Clean tools and equipment with clean water while the material is still wet. Cured coating can only be removed mechanically.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

Sika Australia Pty Limited
ABN 12 001 342 329
aus.sika.com
Tel: 1300 22 33 48

CUMBERLAND
CITY COUNCIL

Ref: EC2024/0206

02 April 2024

Cing Developments Pty Ltd
1/5 Kiora Crescent
YENNORA NSW 2161

Dear Sir/Madam,

Subject:	**Certificate of Compliance – Vehicular Crossing and Road Works**
Application No:	**EC2024/0206**
Property:	**5 Kiora Crescent YENNORA NSW 2161,**
Proposal:	**Engineering Certificates - Compliance Certificate - 5 KIORA CRES YENNORA 2161**

Council hereby confirms that both of the vehicular crossings, the footpath, kerb ramp, kerb and gutter constructed at the above mentioned property have been generally found satisfactory to Council requirements.

Should you have any enquiries regarding this matter, please contact Council's Engineer, Osman Keskin on 8757 9848 during normal business hours, Monday to Friday.

Yours faithfully,

Rajan Rajarajan
EXECUTIVE ENGINEER STORMWATER & INFRASTRUCTURE DESIGN

NWI GROUP
Weighing
Instrumentation
Systems
Fabrication
Calibration
World-class precision, locally delivered.

NWI Group
1300 669 169
info@nwigroup.com.au
nwigroup.com.au
nationalweighbridges.com.au
Sydney | Melbourne | Adelaide | Brisbane | Perth

Cing Developments Pty Ltd
5 Kiora Crescent
Yennora, NSW, 2161

Dear Mr Lawrance Crestani,

I am writing this letter to confirm that National Weighing & Instruments Pty Ltd (T/A NWI Group), (ABN 22 071 6882 445) have completed the supply, installation, and commissioning of the weighbridge system in accordance with the following documentation and Australian standards:

- Build International Titan Concrete Infill Weighbridge Proposal 08092022
- Civil and Weighbridge Design Document 221103 TX10281.03 S100-Structural
- AS1554 Welding Standards
- AS3000 Wiring Standard

If you require further information on these items, please do not hesitate to reach out.

Kind regards

Jonathon Moraitis
General Manager
NWI Group

BUILDING MATERIAL, COMPONENT & FORM OF CONSTRUCTION INSTALLATION & COMMSSIONING CERTIFICATION

DEVELOPMENT ADDRESS	**5 Kiora Cr. YENNORA**
DEVELOPMENT DESCRIPTION	**Industrial Buildings & Weighbridge**

The National Construction Code 2019 Volume 1 (BCA), in Part A2.2, establishes the evidence certifying authorities need to support that the use of a material, design or form of service/component installation meets a National Construction Code (NCC) performance requirement or a deemed-to-satisfy provision. This Certification provides such evidence.

Accordingly, I (details below):

NAME:	**Lawrance Crestani**
COMPANY REPRESENTED:	**Cing Developments Pty Ltd**
ABN/ACN:	
LICENSE NUMBER:	
COMPANY ADDRESS:	
PHONE:	
EMAIL:	
QUALIFICATIONS & EXPERIENCE:	**B.App.Sc. (Building)**
PROFESIONAL INDEMNITY POLICY NO.:	

… hereby certify that the following building component and form of construction, as installed within the building:

Disable Access & Facilities

has been selected, installed and commissioned in accordance with the following BCA Clauses , NCC 2019 and Australian Standards (as referenced):-

1.	The design plans and specifications as referenced by the development consent.	
2.	The relevant version of the BCA:	**NCC 2019, BCA 2019**
3.	The relevant clauses of the BCA as follows:	
4.	The relevant Standards as follows (Including number, part & year):	Disability (Access to Premises - Building) Standards 2010
5.	Basis on which certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon:	**DA Cond. 20 DACCA03**

By signing this certificate, I declare that:

- ✓ *I am an appropriately qualified person for the purposes of providing this professional evidence of suitability for building components, materials and forms of construction, and*
- ✓ *The noted installations, materials and forms of construction comply fully with the requirements of the BCA,*
- ✓ *I understand that it is an offence to provide false and/or misleading information in relation to a planning matter, pursuant to Clause 10.6 of the EP&A Act 1979.*

Lawrance Crestani

26.4.24