



**ACT**  
Government

Chief Minister, Treasury and  
Economic Development

## Freedom of Information Disclosure Log Publication Coversheet

The following information is provided pursuant to section 28 of the *Freedom of Information Act 2016*.

Application Details	
Ref. No.	CMTEDDFOI 2024-048
Date of Application	14 February 2024
Date of Decision	19 April 2024
Processing time (in working days)	44
Fees	Waived
Decision on Access	Partial Release
<b>Information Requested (summary)</b>	Information relating to an accident in Strathnairn on 9 November 2022.
Publication Details	
Original application	<input checked="" type="checkbox"/> Published <input type="checkbox"/> N/A
Decision notice	<input checked="" type="checkbox"/> Published <input type="checkbox"/> N/A
Documents and schedule	<input checked="" type="checkbox"/> Published <input type="checkbox"/> N/A
Decision made by Ombudsman	N/A
Additional information identified by Ombudsman	N/A
Decision made by ACAT	N/A
Additional information identified by ACAT	N/A

**From:** [no-reply@act.gov.au](mailto:no-reply@act.gov.au)  
**To:** [CMTEDD.FOI](#)  
**Subject:** CMTEDDFOI 2024-048 - Freedom of Information request  
**Date:** Wednesday, 14 February 2024 10:10:48 AM

**Caution:** This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe. [Learn why this is important](#)

Please find online enquiry details below. Please ensure this enquiry is responded to within fourteen working days.

### Your details

**All fields are optional, however an email address OR full postal address must be provided for us to process your request. An email address and telephone contact number will assist us to contact you quickly if we need to discuss your request.**

Title:  
First Name:  
Last Name:  
Business/Organisation:  
Address:  
Suburb:  
Postcode:  
State/Territory:  
Phone/mobile:  
Email address:

A large grey rectangular area redacting the user's personal details.

### Request for information

**(Please provide as much detail as possible, for example subject matter and relevant dates, and also provide details of documents that you are not interested in.)**

We act on behalf of [redacted] with respect to an accident during the course of his employment at a construction site, Strathnairn [redacted] on Deposited Plan [redacted], deemed to have occurred on 9 November 2022. We politely request: 1. A copy of any and all photographs of Strathnairn [redacted] on Deposited Plan [redacted] on or around 9 November 2022. 2. A copy of any and all plans of Strathnairn [redacted] 1 on Deposited Plan [redacted]. 3. A copy of any and all construction/development plan requests of Strathnairn [redacted] on Deposited Plan [redacted]. 4. A copy of any certifier records for Strathnairn [redacted] on Deposited Plan [redacted]. 5. Any and all correspondence to and from [redacted] in relation to Strathnairn [redacted] on Deposited Plan [redacted].

Under the Freedom of Information Act 2016 I want to access the following document/s (\*required field):

I do not want to access the following documents in relation to my request::

Thank you.

## Freedom of Information Coordinator



## **FREEDOM OF INFORMATION REQUEST – NOTICE OF DECISION**

I refer to your application under section 30 of the *Freedom of Information Act 2016* (the Act), received by the Chief Minister, Treasury and Economic Development Directorate (CMTEDD) on 14 February 2024.

Specifically, you have sought access to the following information:

- 1. A copy of any and all photographs of Strathnairn [REDACTED] on Deposited Plan [REDACTED] on or around 9 November 2022.
- 2. A copy of any and all plans of Strathnairn [REDACTED] on Deposited Plan [REDACTED].
- 3. A copy of any and all construction/development plan requests of Strathnairn [REDACTED] on Deposited Plan [REDACTED].
- 4. A copy of any certifier records for Strathnairn [REDACTED] on Deposited Plan [REDACTED].
- 5. Any and all correspondence to and from [REDACTED] in relation to Strathnairn [REDACTED] on Deposited Plan [REDACTED].

### **Authority**

I am an Information Officer appointed by the CMTEDD Director-General under section 18 of the Act to deal with access applications made under Part 5 of the Act.

### **Timeframes**

In accordance with section 40 of the Act, CMTEDD is required to provide a decision on your access application within 30 days.

As this matter required third party consultation, the decision due date was extended by 15 working days, in accordance with section 40(2) of the Act.

Therefore, a decision is due by **22 April 2024**.

## Decision on access

Searches of CMTEDD records have identified 20 documents within the scope of your request.

I have decided to grant **partial access** to 20 documents.

The records identified as relevant to your application are listed in the schedule enclosed at **Attachment A**. This provides a description of each document that falls within the scope of your request and the access decision for each of those documents.

## Release of documents

Pursuant to section 38(6)(b) of the Act, I have decided to **defer access** to some of the information identified as of concern to an affected third party. Third parties affected may apply for review of my release decision within 20 working days, or a longer period allowed by the Ombudsman. I will write to you to advise when access is no longer deferred for this information.

## Statement of Reasons

In accordance with section 54(2) of the Act a statement of reasons outlining my decisions is below. In reaching my access decisions, I have taken the following into account:

- the Act
- the information that falls within the scope of your request
- the views of consulted third parties
- *the Human Rights Act 2004*

As a decision maker, I am required to determine whether the information within scope is in the public interest to release. To make this decision, I am required to:

- assess whether the information would be contrary to public interest to disclose as per **Schedule 1** of the Act.
- perform the public interest test as set out in section 17 of the Act by balancing the factors favouring disclosure and factors favouring non-disclosure in **Schedule 2** of the Act.

## Public Interest Test

The Act has a presumption in favour of disclosure. As a decision maker I am required to decide where, on balance, public interests lies. As part of this process, I must consider factors favouring disclosure and non-disclosure.

In *Hogan v Hinch* (2011) 243 CLR 506, [31] French CJ stated that when ‘used in a statute, the term [public interest] derives its content from “the subject matter and the scope and purpose” of the enactment in which it appears’. Section 17(1) of the Act sets out the test, to be applied to determine whether disclosure of information would be contrary to the public interest. These factors are found in subsection 17(2) and Schedule 2 of the Act.

## **Schedule 2: Factors to be considered when deciding the public interest.**

Taking into consideration the information contained in the documents found to be within the scope of your request, I have identified that the following public interest factors are

relevant to determine if release of the information contained within these documents is within the 'public interest'.

***Factors favouring disclosure (Section 2.1)***

- *Section 2.1(a)(xiii) - contribute to the administration of justice generally, including procedural fairness.*

Having considered the factors identified as relevant in this matter, I consider that release of the information contained in these documents may contribute to the administration of justice generally by allowing you to have a copy of the documents. I am satisfied that this factor favouring disclosure carries some weight. However, this factor is to be balanced against the factors favouring non-disclosure.

***Factors favouring non-disclosure (Section 2.2)***

- *Section 2.2(a)(ii) - prejudice the protection of an individual's right to privacy or any other right under the *Human Rights Act 2004*.*

Having reviewed the documents, I consider that the protection of an individual's right to privacy, especially in the course of dealings with the ACT Government is a significant factor as the parties involved have provided their personal information for the purposes of working with the ACT Government. This, in my opinion, outweighs the benefit which may be derived from releasing the personal information of the individual's involved in this matter.

Individuals are entitled to expect that the personal information they have supplied as part of this process will be dealt with in a manner that protects their privacy. Considering the type of information to be withheld from release, I am satisfied that the factors in favour of release can still be met while protecting the personal information of the individuals involved. I therefore weigh the factor for nondisclosure more highly than the factor in favour of release in this instance. As a result, I have decided that release of this information (names, phone numbers, addresses, email addresses, signatures and financial information of individuals not employed by the ACT Public Service) could prejudice their right to privacy under the *Human Rights Act 2004*.

Having applied the test outlined in section 17 of the Act and deciding that release of personal information contained in the documents is not in the public interest to release, I have chosen to redact this specific information in accordance with section 50(2). Noting the pro-disclosure intent of the Act, I am satisfied that redacting only the information that I believe is not in the public interest to release will ensure that the intent of the Act is met and will provide you with access to the majority of the information held by CMTEDD within the scope of your request.

**Charges**

Processing charges are applicable for this request because the total number of pages to be released to you exceeds the charging threshold of 50 pages. However, the charges have been waived.

**Online publishing – Disclosure Log**

Under section 28 of the Act, CMTEDD maintains an online record of access applications called a [disclosure log](#).

Your original access application and my decision will be published on the CMTEDD disclosure log. Your personal contact details will not be published.

### **Ombudsman Review**

My decision on your access request is a reviewable decision as identified in Schedule 3 of the Act. You have the right to seek Ombudsman review of this outcome under section 73 of the Act within 20 working days from the day that my decision is published on the disclosure log, or a longer period allowed by the Ombudsman.

We recommend using this form [Applying for an Ombudsman Review](#) to ensure you provide all of the required information. Alternatively, you may write to the Ombudsman at:

The ACT Ombudsman  
GPO Box 442  
CANBERRA ACT 2601

Via email: [actfoi@ombudsman.gov.au](mailto:actfoi@ombudsman.gov.au)

### **ACT Civil and Administrative Tribunal (ACAT) Review**

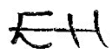
Under section 84 of the Act, if a decision is made under section 82(1) on an Ombudsman review, you may apply to the ACAT for review of the Ombudsman decision. Further information may be obtained from the ACAT at:

ACT Civil and Administrative Tribunal  
GPO Box 370  
Canberra City ACT 2601  
Telephone: (02) 6207 1740

<http://www.acat.act.gov.au/>

Should you have any queries in relation to your request please contact the Information Access Team by telephone on 6207 7754 or email [CMTEDDFOI@act.gov.au](mailto:CMTEDDFOI@act.gov.au).

Yours sincerely



Emma Hotham  
Information Officer  
Chief Minister, Treasury and Economic Development Directorate

19 April 2024



**ACT**  
Government

Chief Minister, Treasury and  
Economic Development

## FREEDOM OF INFORMATION REQUEST SCHEDULE

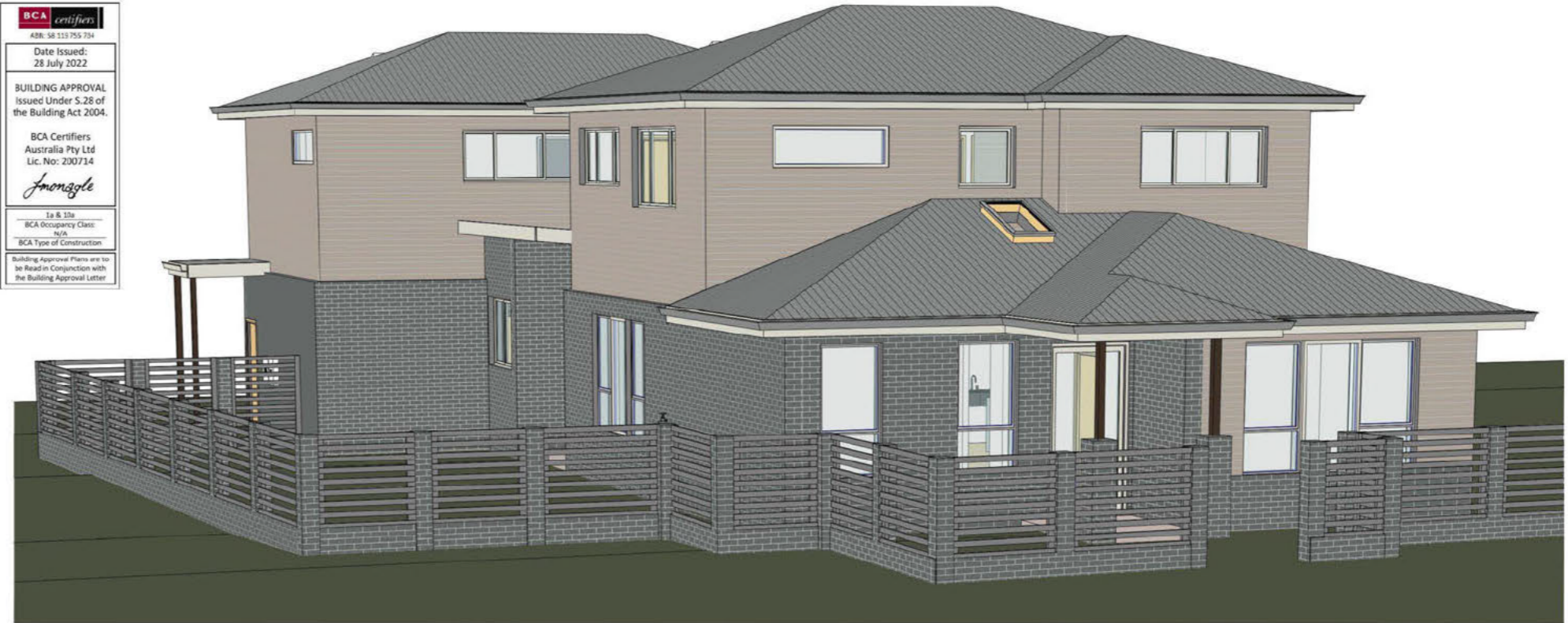
WHAT ARE THE PARAMETERS OF THE REQUEST		Reference NO.
1. A copy of any and all photographs of Strathnairn [redacted] on Deposited Plan [redacted] on or around 9 November 2022. 2. A copy of any and all plans of Strathnairn [redacted] on Deposited Plan [redacted]. 3. A copy of any and all construction/development plan requests of Strathnairn [redacted] on Deposited Plan [redacted]. 4. A copy of any certifier records for Strathnairn [redacted] on Deposited Plan [redacted]. 5. Any and all correspondence to and from Achieve Homes Pty Ltd in relation to Strathnairn [redacted] on Deposited Plan [redacted].		CMTEDDFOI 2024-048

Ref No	Page number	Description	Date	Status	Reason for Exemption	Online Release Status
1	1-18	Building plans		Partial release	Sch 2 s2.2 (a)(ii)	Yes
2	20-40	Ginninderry Neighbourhood 1 – Overarching Noise Management Plan	Jun 2021	Partial release	Sch 2 s2.2 (a)(ii)	Yes
3	42-49	Building Approval – BCA Certifiers	28 Jul 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
4	51-52	Building Approval form	28 Jul 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
5	54-68	Building plans – Project Details	5 Sep 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
6	70-71	Site work notice	28 Jul 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
7	73-74	Building commencement notice form	28 Jul 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
8	76-78	Appointment of Builder and application for commencement notice	30 Mar 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
9	80-81	Appointment of a certifier and application for building approval	30 Mar 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
10	83-84	Appointment of a certifier and application for building approval	18 Dec 2023	Partial release	Sch 2 s2.2 (a)(ii)	Yes
11	86-101	Exempt Declaration Form 1N – Submission confirmation and plans	29 Jun 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
12	103	Confirmation of Staged Inspection	23 Jun 2023	Partial release	Sch 2 s2.2 (a)(ii)	Yes
13	105	Confirmation of Staged Inspection	28 Aug 2023	Partial release	Sch 2 s2.2 (a)(ii)	Yes

14	107	Confirmation of Staged Inspection	13 Sep 2023	Partial release	Sch 2 s2.2 (a)(ii)	Yes
15	109	Confirmation of Staged Inspection	14 Nov 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
16	111-119	Evo Energy Electricity Networks Statement of Conditional Compliance and plans	3 May 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
17	121-133	Evo Energy Gas Networks Statement of Conditional Compliance and plans	3 Apr 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
18	135-143	ICON Water Statement of Conditional Acceptance and plans	19 Apr 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
19	145-148	Email with attachments	15 Dec 2022	Deferred release	Sch 2 s2.2 (a)(ii)	Yes
20	150-162	WorkSafe ACT Photos	undated	Partial release	Sch 2 s2.2 (a)(ii)	Yes
<b>Total No of Docs</b>						
20						

# PROJECT DETAILS

CLIENT: Sch 2.2(a)(ii)  
 PROJECT NAME: RESIDENCE  
 BLOCK:   
 SECTION:   
 SUBURB: STRATHNAIRN  
 PROJECT ADDRESS:   
 PROJECT NO: 211201  
 DATE: 2/6/22  
 VERSION: FOR APPROVAL



## IMPORTANT BLOCK INFORMATION

BLOCK SIZE: 567 m<sup>2</sup> (RZ3)  
 OPEN SPACE MIN: 290.2 m<sup>2</sup>  
 (60% - 50.0m<sup>2</sup>)  
 MAX GFA (50%): 283.5 m<sup>2</sup>  
 PPOS: 24 m<sup>2</sup>  
 POS: 56.7m<sup>2</sup> (6m FOR AN AREA NOT LESS THAN 10% OF THE BLOCK AREA AND TOTAL AREA OF HARD LANDSCAPE NOT TO EXCEED 50% AREA OF P.O.S.)

## SITE AREA

OPEN SPACE	404.38 m <sup>2</sup>
Footprint	133.25 m <sup>2</sup>
Total	537.63 m <sup>2</sup>

## GFA

Number	Name	Area
1	Sch 2.2(a)(ii)	132.87 m <sup>2</sup>
2		62.12 m <sup>2</sup>
3		58.57 m <sup>2</sup>
4		29.74 m <sup>2</sup>
Grand total		283.31 m <sup>2</sup>

## Construction Area

Number	Name	Area
1	Sch 2.2(a)(ii)	132.87 m <sup>2</sup>
2		62.12 m <sup>2</sup>
3		58.57 m <sup>2</sup>
4		29.74 m <sup>2</sup>
5		36.01 m <sup>2</sup>
6		13.38 m <sup>2</sup>
7		4.05 m <sup>2</sup>
8		2.80 m <sup>2</sup>
9		4.40 m <sup>2</sup>
10		6.10 m <sup>2</sup>
Grand total		350.04 m <sup>2</sup>

## Drawing List

Sheet No	Sheet Name	Drawn By	Checked By
A000	COVER PAGE	B.Virk	Client
A100	SITE PLAN	B.Virk	Client
A103	EROSION&SEDIMENT PLAN	B.Virk	Client
A105	FENCING PLAN	B.Virk	Client
A106	GF ELECTRICAL PLAN	B.Virk	Client
A107	UF ELECTRICAL PLAN	B.Virk	Client
A200	GROUND FLOOR PLAN	B.Virk	Client
A201	UPPER FLOOR PLAN	B.Virk	Client
A300	ELEVATION 1&2	B.Virk	Client
A301	ELEVATION 3&4	B.Virk	Client
A400	SECTION A	B.Virk	Client
A500	ROOF PLAN	B.Virk	Client
A700	3D VIEWS	B.Virk	Client
A800	SAFE DESIGN CODE		

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Virk Building Design Services

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**NOTE:** Final selection of materials is the responsibility of client and/or builder, including but not limited to proper installation of materials, nailing, gluing, caulking, insulating, flashing, roofing, weatherproofing and other items and details not indicated on the Plans, and over which the Designer has no control or responsibility.

**NOTE:** The drawings are indicative only and are required to be verified / confirmed by the owner and/or builder and engineer and/or certifier in accordance with the relevant Building Legislation/Regulations, Housing Development Codes, NCC, Australian Standards, etc. Virk BDS will not be held liable / responsible in any form by any party whatsoever for any design or structural component, notation or accuracy of documentation herein. Client / Builder accepts Plans and responsibility once plans are accepted for approvals.

**Virk Building Design Services**

Email: virk.bds@gmail.com

Mob: 0425677755

Sch 2.2(a)(ii)

RESIDENCE

SUBURB: STRATHNAIRN

COVER PAGE

FOR APPROVAL

Project number	211201	A000	
Drawn Date	2/6/22		
Drawn by	B.Virk	Checked by	Client
Version	FOR APPROVAL	Print Date:	2/06/2022 1:54:37 PM
		Scale:	on A3

**IMPORTANT NOTES:**  
 \*THE REQUIREMENT OF REGULATIONS TAKES PRECEDENCE OVER THE DRAWINGS. DETAIL DRAWINGS TAKE PRECEDENCE OVER GENERAL DRAWINGS.  
 \*DO NOT SCALE DRAWINGS - ALL DIMENSIONS IN "mm".  
 \*BUILDER TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS, PRODUCING SHOP DRAWINGS OR FABRICATING COMPONENTS.  
 \*BUILDER TO CHECK DOORS/WINDOWS DIMENSIONS BEFORE ORDERING ON FLOOR PLAN AND ELEVATIONS.  
 \*ALUMINIUM FRAMED DOORS/WINDOWS WITH OPENING STYLES IN ACCORDANCE WITH ELEVATIONS AND FROM APPROVED MANUFACTURER UNO.  
 \*LINTELS TO TRUSS MANUFACTURERS TABLES, ROOF TRUSSES TO MANUFACTURER'S SPECIFICATION.  
 \*ALL CONSTRUCTION WORK TO BE DONE IN ACCORDANCE WITH BCA AND RELEVANT AUSTRALIAN STANDARDS AND DEVELOPMENT CODES.  
 \*TERMITE PROTECTION TO COMPLY WITH AS1694 'PHYSICAL BARRIERS' & AS3660 'APPENDIX D' AND TO ACT BUILDING CONTROL BUILDING NOTE NO3, FRAMING TO AS1684 'NATIONAL TIMBER FRAMING CODE' AND SUPPLIMENTS, HARDWOOD TO AS.2796, ELECTRICAL TO AS.3000, PLUMBING TO AS3500, CONCRETE TO AS.3600, BRICKWORK TO AS.3700, 'SAA MASONRY CODE' AND AS.1640 'SAA BRICKWORK CODE', STRUCTURAL STEEL TO AS.1170 & AS.4100, WET SEAL TO AS.3740 AND .  
 \*SMOKE ALARMS CONNECTED TO MAINS POWER SUPPLY, WITH BATTERY BACKUP, ARE TO BE INSTALLED IN ACCORDANCE WITH AS3786.

\*BLOCK BOUNDARIES, CONTOURS, SERVICES AND EASEMENTS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.  
 \*CONFIRM ALL LEVELS AND CONTOURS ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION. BUILDER IS RESPONSIBLE TO ENSURE ALL INFORMATION SHOWN HERE REGARDING LEVELS ARE ACCURATE AND REPRESENTS EXISTING ON SITE LEVELS.  
 \*THE FFLs ARE SUBJECT TO CHANGE AND ARE UP TO BUILDERS DISCRETION TO BE VERIFIED ON SITE, MAXIMUM CHANGE UNDER 340 mm, TO BE CONFIRMED BY CERTIFIER.  
 \*LOCATION OF CUTS ARE INDICATIVE ONLY AND TO BE VERIFIED ON SITE. THEREFORE, ALL CUTS & FFL TO BE VERIFIED ON SITE BY A REGISTERED SURVEYOR.  
 \*0.3 M CUT APPROX AT LINE OF HOUSE - SITE TO BE LEVELED / GRADED TO ALLOW FOR SURFACE DRAINAGE AS PER BCA.  
 \*RETAINING WALL TO BE BUILT ENSURING DRAINAGE AS PER RELEVANT CODES/BCA V2. HEIGHTS AND ALL LEVELS TO SUIT SITE CONDITIONS. FINAL HEIGHTS TO BE CONFIRMED BY BUILDER ON SITE.  
 \*SEDIMENT & EROSION CONTROL TO COMPLY WITHIN THE BEST PRACTICE GUIDELINES - PREVENT SOULTION FOR RESIDENTIAL BUILDING SITES MARCH 2006 AND ENVIRONMENT PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT, MARCH 2011.  
 \*BUILDER TO PROVIDE CRUSHED GRANITE OR AGGREGATES AT ACCESS POINT TO SITE DURING CONSTRUCTION

AC UNITS MUST BE INSTALLED AS PER PART 5 OF THE HOUSING DEVELOPMENT REQUIREMENTS. AC UNITS MUST BE ONE (OR MORE) OF THE FOLLOWING:  
 \* Reverse cycle air conditioning that achieves a minimum Energy Efficiency Ratio (EER) of 3.5 for the cooling cycle  
 \* Coefficient of Performance (COP) of 3.5 for the heating cycle  
 \* Air conditioning with a cooling cycle only that achieves a minimum Energy Efficiency Ratio (EER) of 3.5  
 \* ducted evaporative cooling with a self-closing damper  
 \* ground source heat pump

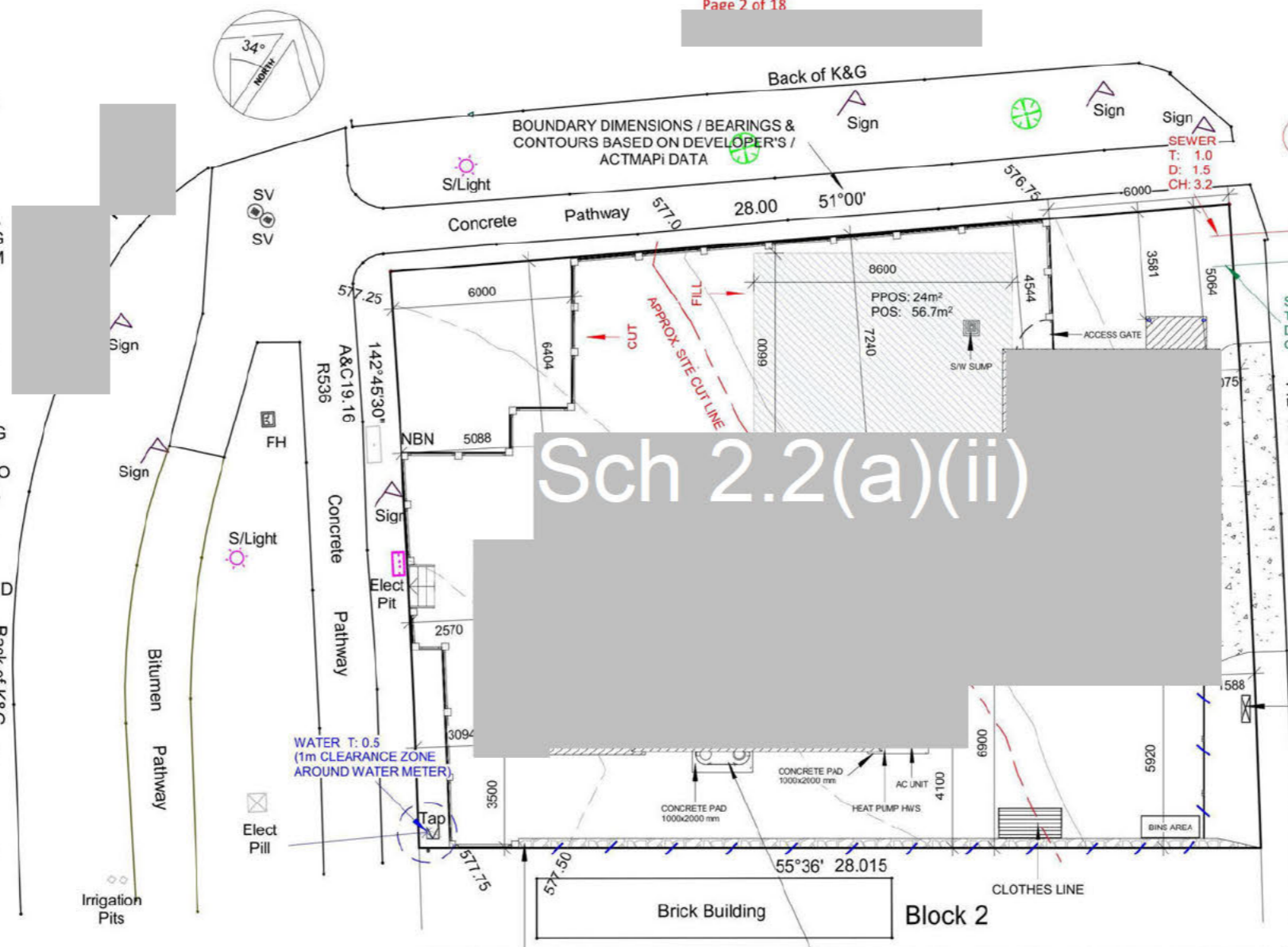
**NOISE AFFECTED BLOCK - TO COMPLY WITH:**  
 \* AS/NZS 2107:2000 - Acoustics - Recommended design sound levels and reverberation times for building interiors (the relevant satisfactory recommended interior design sound level)  
 \* AS/NZS 3671 - Acoustics - Road Traffic Noise Intrusion Building Siting and Design and Ginninderry Noise Management Plan

**NOTE:** The drawings are indicative only and are required to be verified / confirmed by the owner and/or builder and engineer and/or certifier in accordance with the relevant Building Legislation/Regulations, Housing Development Codes, NCC, Australian Standards, etc.  
 Virk BDS will not be held liable / responsible in any form by any party whatsoever for any design or structural component, notation or accuracy of documentation herein. Client / Builder accepts Plans and responsibility once plans are accepted for approvals.

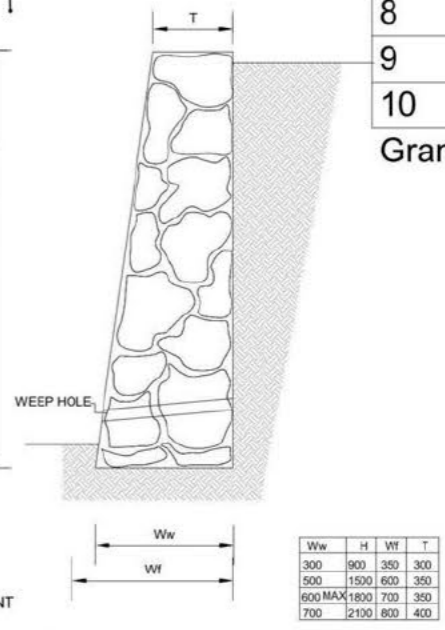
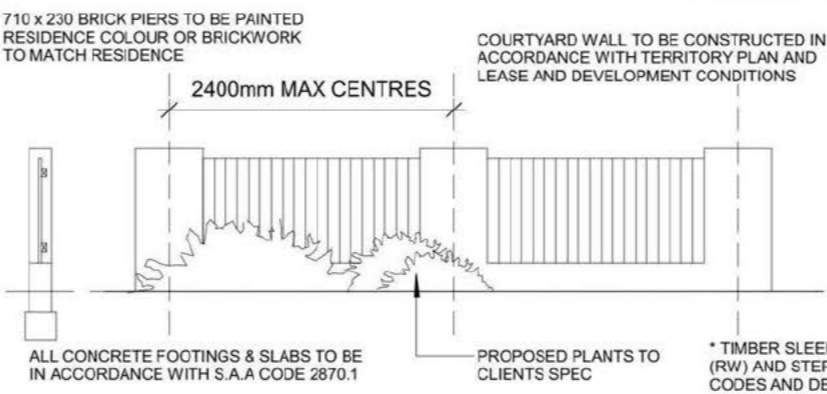
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 MAX GFA (50%): 283.5 m<sup>2</sup>  
 PPOS: 24 m<sup>2</sup>  
 POS: 56.7m<sup>2</sup> (6m FOR AN AREA NOT LESS THAN 10% OF THE BLOCK AREA AND TOTAL AREA OF HARD LANDSCAPE NOT TO EXCEED 50% AREA OF P.O.S.)

SITE AREA	
OPEN SPACE	404.38 m <sup>2</sup>
Footprint	133.25 m <sup>2</sup>
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Construction Area		
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10		6.10 m <sup>2</sup>
Grand total		350.04 m <sup>2</sup>



RETAINING WALL (MAX CUT / RW HT: 1.5m WITH IN 1.5m OF BOUNDARIES) AND STEPS TO SITE CONDITION - TO BE PROVIDED BY CLIENT AFTER HANDOVER  
 \* MIN 400L RAINWATER TANK, 50% OR 100m<sup>2</sup> OF ROOF AREA, WHICHEVER IS THE LESSER, IS CONNECTED TO THE TANK.  
 \* TANK IS CONNECTED TO ATLEAST A TOILET, LAUNDRY COLD WATER AND ALL EXTERNAL TAPS, AS PER ACT TERRITORY PLAN.  
 \* THE CONNECTION WILL REQUIRE A PUMP WHERE IT CANNOT BE ELEVATED SUFFICIENTLY TO GIVE ADEQUATE PRESSURE  
 \* DRIVEWAY TO COMPLY WITH GW/SD/DC.02 & FINISH TO COMPLY WITH ALL LEASE & DEVELOPMENT CONDITIONS AND RELEVANT LOCAL CODES  
 \* IF LEVELS & CONTOURS ARE DIFFERENT ON SITE FROM THE DRAWING BUILDER TO PROVIDE CONTOUR PLAN & REPORT BACK TO THE DESIGNER TO ADJUST LEVELS ACCORDINGLY.  
 \* NO PART OF CUT SHOULD ENCRACH OUT OF THE BOUNDARY OR EASEMENT



Ww	H	Wf	T
300	900	350	300
500	1500	600	350
600 MAX	1800	700	350
700	2150	800	400

**BCA certifies**  
 DATE 28 JUL 2022  
 Date Issued:  
 28 July 2022  
 BUILDING APPROVAL  
 Issued Under S.28 of  
 the Building Act 2004.  
 BCA Certifiers  
 Australia Pty Ltd  
 Lic. No: 200714  
 In & Sd  
 BCA Occupancy Class:  
 N/A  
 BCA Type of Construction:  
 Building Approval Plans are to  
 be Read in Conjunction with  
 the Building Approval Letter

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**Virk Building Design Services.**  
 Should not be COPIED in whole or in part  
 with out written permission.  
 Failure of which may result in legal action.

**1. SITE PLAN**  
 1 : 200

**Virk Building Design Services**  
 Email: virk.bds@gmail.com Mob: 0425677755

**Sch 2.2(a)(ii)**  
**RESIDENCE**  
 SUBURB: STRATHNAIRN

SITE PLAN		FOR APPROVAL	
Project number	211201	A100	
Date	2/6/22		
Drawn by	B.Virk		
Checked by	Client		
Scale	1 : 200	on A3	

**BUILDER NOTE:**

BUILDER TO PROVIDE CRUSHED GRANITE OR AGGREGATES AT ACCESS POINT TO SITE DURING CONSTRUCTION

NO CONSTRUCTION MATERIAL TO BE STORED ON THE VERGE  
VERGE TO BE COMPLETELY REINSTATED ON COMPLETION INCLUDING GRADING, GRASSING AND/OR TURF TO CITY PARKS AS PER TAMS REQUIREMENT.

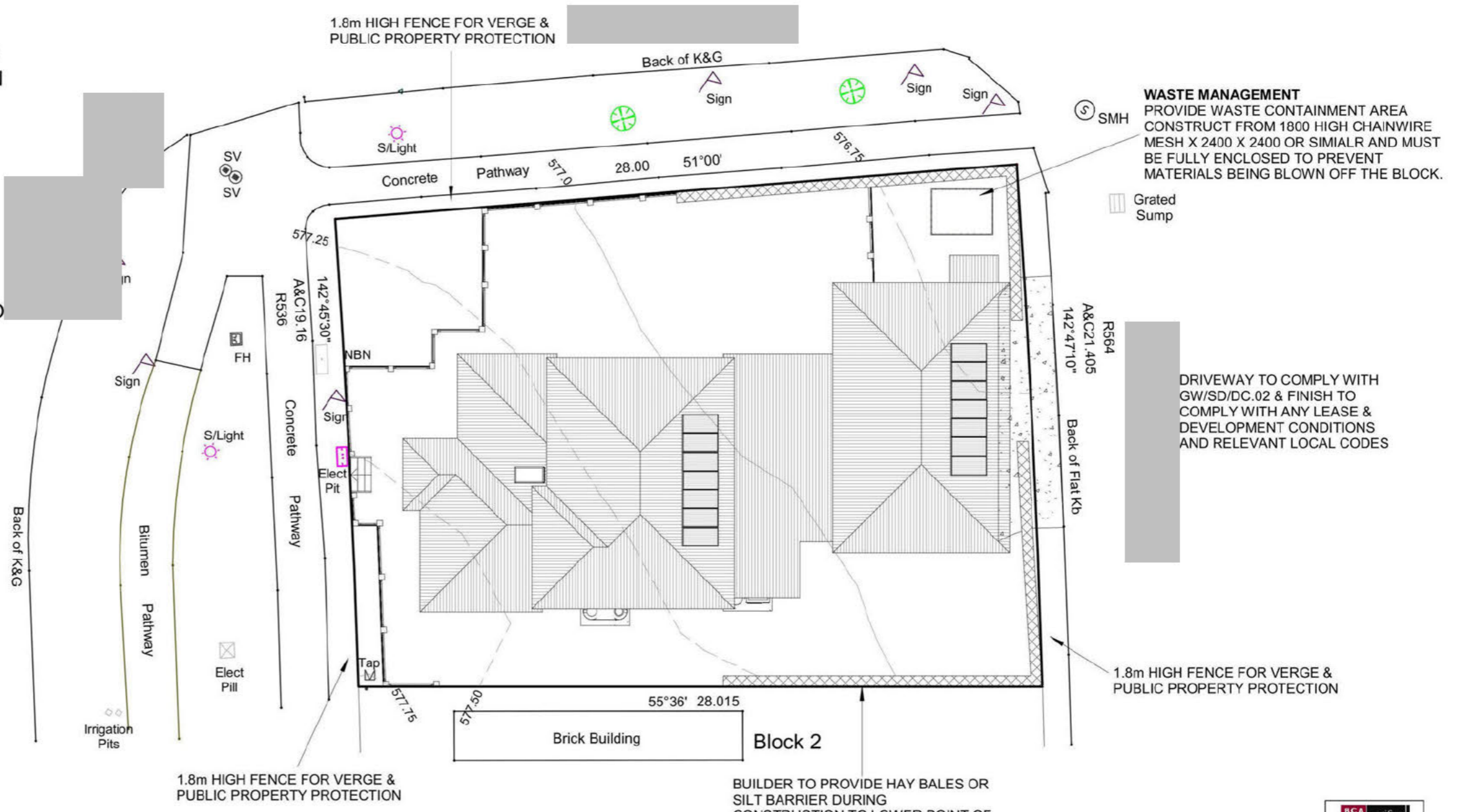
PROVIDE GEOTEXTILE FENCE, FIXED TO STARPICKETS AT 2m MAX. CTS 600mm DEEP OR PROVIDE HAY BALES AT LOWER SIDE OF THE SITE FOR SEDIMENT CONTROL

PROVIDE 1.8m HIGH FENCE AROUND THE BLOCK DURING CONSTRUCTION

PROVIDE TEMPORARY WASTE LOCATION & UTILITY FACILITIES ON SITE

IF DRIVEWAY IS NOT POUR ON THE VERGE BUILDER TO LAY 150-200mm THICK LAYOUT OF GRAVEL OR CRUSHED BRICK OR CONCRETE TO VEHICULAR ACCESS POINT

ANY & ALL DAMAGE CAUSED TO THE SURROUNDING PUBLIC INFRASTRUCTURE INCLUDING STREET KERBS, STREET TREES, FOOTPATHS, KERB CROSSOVERS, VERGE (NATURE STRIP) SERVICES & ADJOINING LAND, CAUSED BY THE CONSTRUCTION OF THE RESIDENCE IS TO BE REPAIRED & REINSTATED TO ITS ORIGINAL STATE



**BCA certifiers**  
Date Issued: 28 July 2022  
BUILDING APPROVAL Issued Under S.28 of the Building Act 2004.  
BCA Certifiers Australia Pty Ltd Lic. No: 200714  
*Ironstyle*  
BCA Occupancy Class: N/A  
BCA Type of Construction:  
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1

**EROSION & SEDIMENT**

1 : 200

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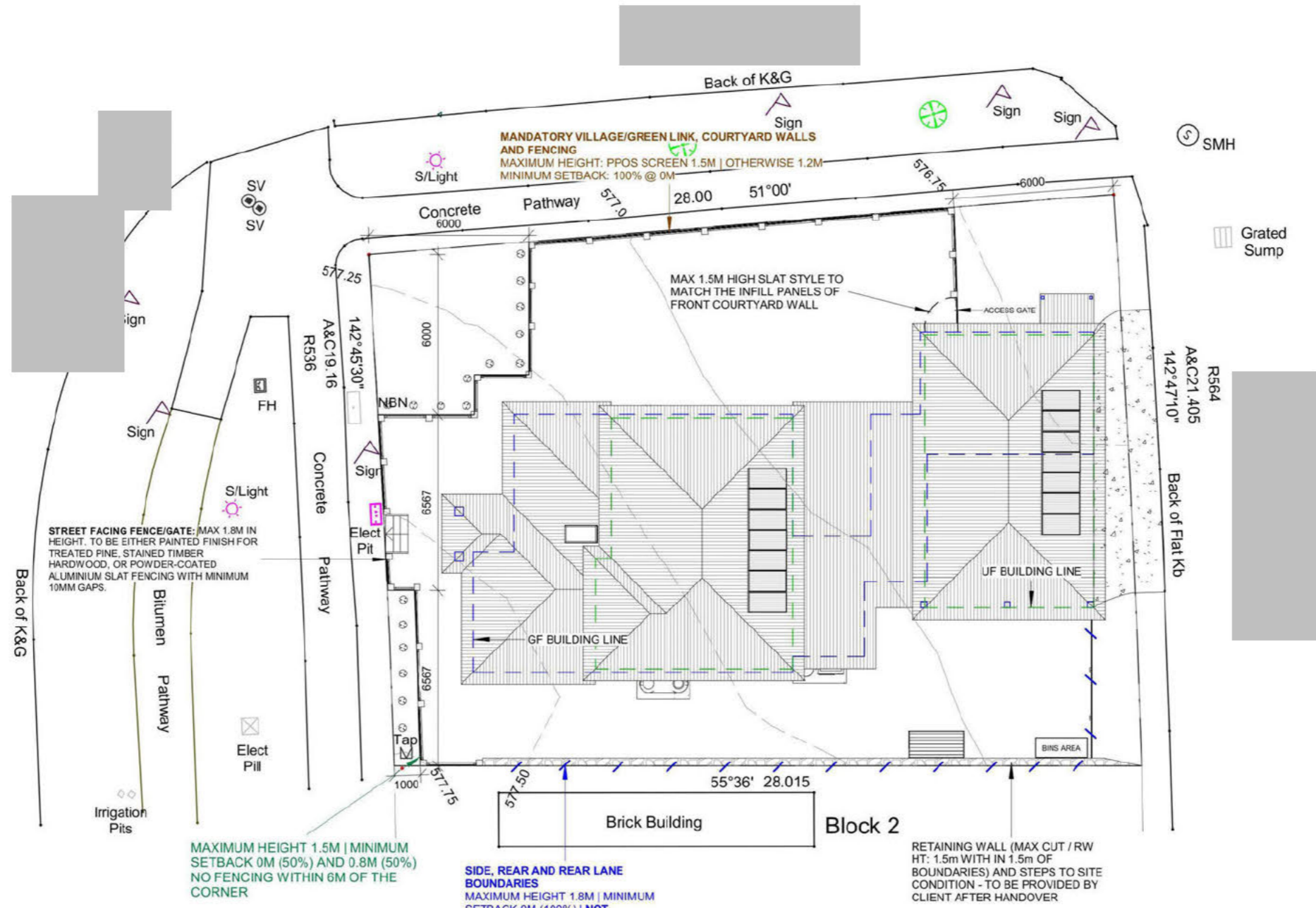
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Sch 2.2(a)(ii)  
**RESIDENCE**  
SUBURB: STRATHNAIRN

**EROSION&SEDIMENT PLAN FOR APPROVAL**

Project number	211201	<b>A103</b>
Date	2/6/22	
Drawn by	B.Virk	
Checked by	Client	
Scale	1 : 200	on A3

2/06/2022 1:54:39 PM



**1** FENCING PLAN  
1 : 200

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 BCA Occupancy Class:  
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 BCA Type of Construction:  
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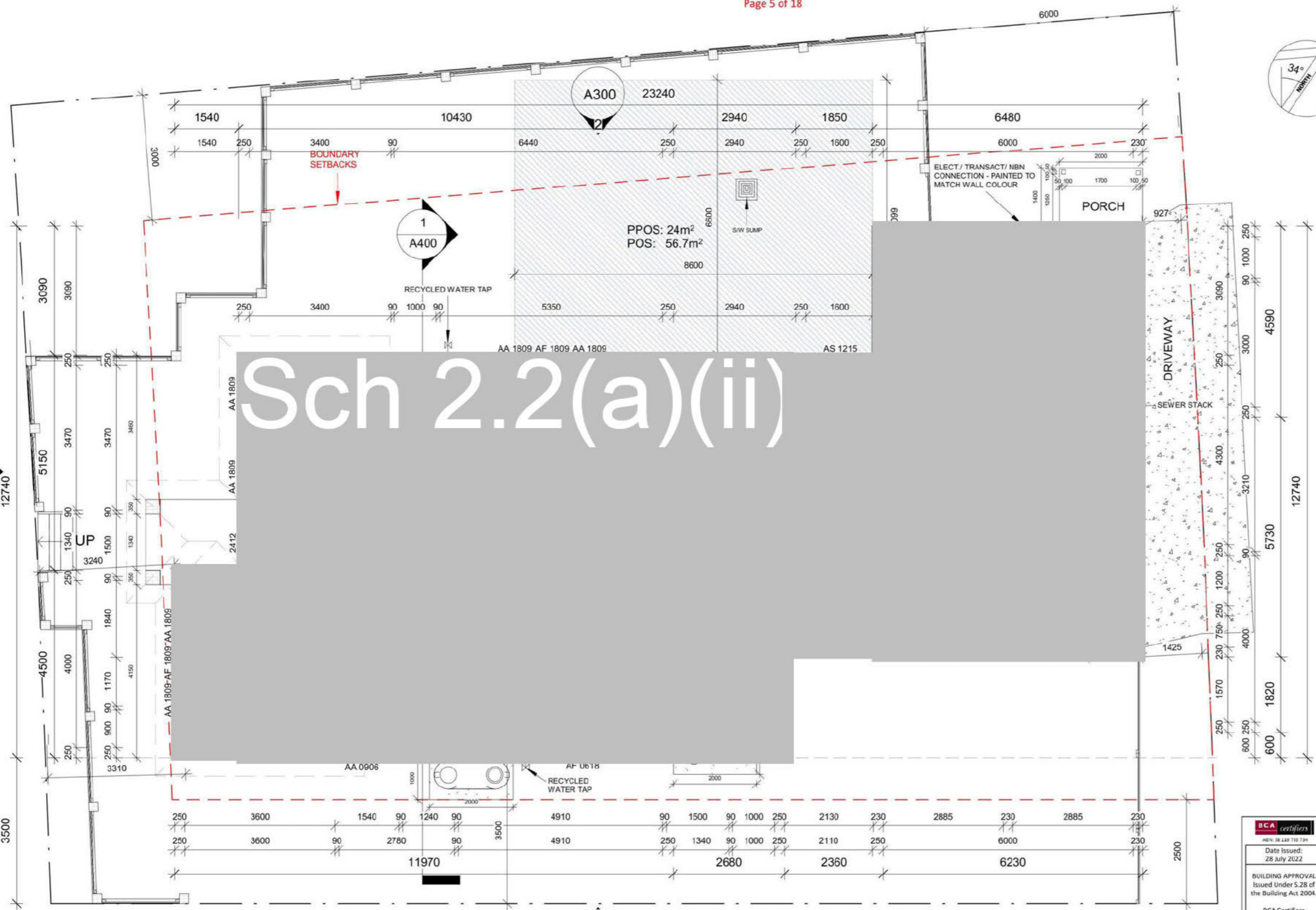
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Sch 2.2(a)(ii)  
**RESIDENCE**  
 SUBURB: STRATHNAIRN

<b>FENCING PLAN</b>		<b>FOR APPROVAL</b>	
Project number	211201	<b>A105</b>	
Date	2/6/22		
Drawn by	B.Virk	Scale	1 : 200 on A3
Checked by	Client		

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2  
3



SITE AREA	
OPEN SPACE	404.38 m <sup>2</sup>
Footprint	133.25 m <sup>2</sup>
<b>Total</b>	<b>537.63 m<sup>2</sup></b>

GFA		
Number	Name	Area
1	Sch 2.2(a)(ii)	132.87 m <sup>2</sup>
2		62.12 m <sup>2</sup>
3		58.57 m <sup>2</sup>
4		29.74 m <sup>2</sup>
<b>Grand total</b>		<b>283.31 m<sup>2</sup></b>

A301

Construction Area		
Number	Name	Area
1	Sch 2.2(a)(ii)	132.87 m <sup>2</sup>
2		62.12 m <sup>2</sup>
3		58.57 m <sup>2</sup>
4		29.74 m <sup>2</sup>
5		36.01 m <sup>2</sup>
6		13.38 m <sup>2</sup>
7		4.05 m <sup>2</sup>
8		2.80 m <sup>2</sup>
9		4.40 m <sup>2</sup>
10		6.10 m <sup>2</sup>
<b>Grand total</b>		<b>350.04 m<sup>2</sup></b>

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 BCA Type of Construction:  
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- ALL MECHANICAL VENTILATION TO BE DUCTED DIRECTLY TO OUTSIDE ROOF SPACE IN ACCORDANCE WITH BCA V2 PART 3.8.7.4
- FLOW RATE OF MECHANICAL SYSTEMS TO COMPLY WITH BCA V2 3.8.7.3
- UPPER FLOOR WINDOWS TO BE RESTRICTED IN ACCORDANCE WITH BCA V2 3.9.2.6
- ALL WINDOWS AND SLIDERS AS PER AS2047 & AS1288 AND DOUBLE GLAZED
- FLOOR DRAINS IN ALL WET AREAS / BALCONY / OUTDOOR AS REQUIRED
- ALL INTERNAL DOORS HEIGHT: 2040mm

## 2. GROUND FLOOR PLAN

1 : 100

1  
4

**Virk Building Design Services**

Email: virk.bds@gmail.com Mob: 0425677755

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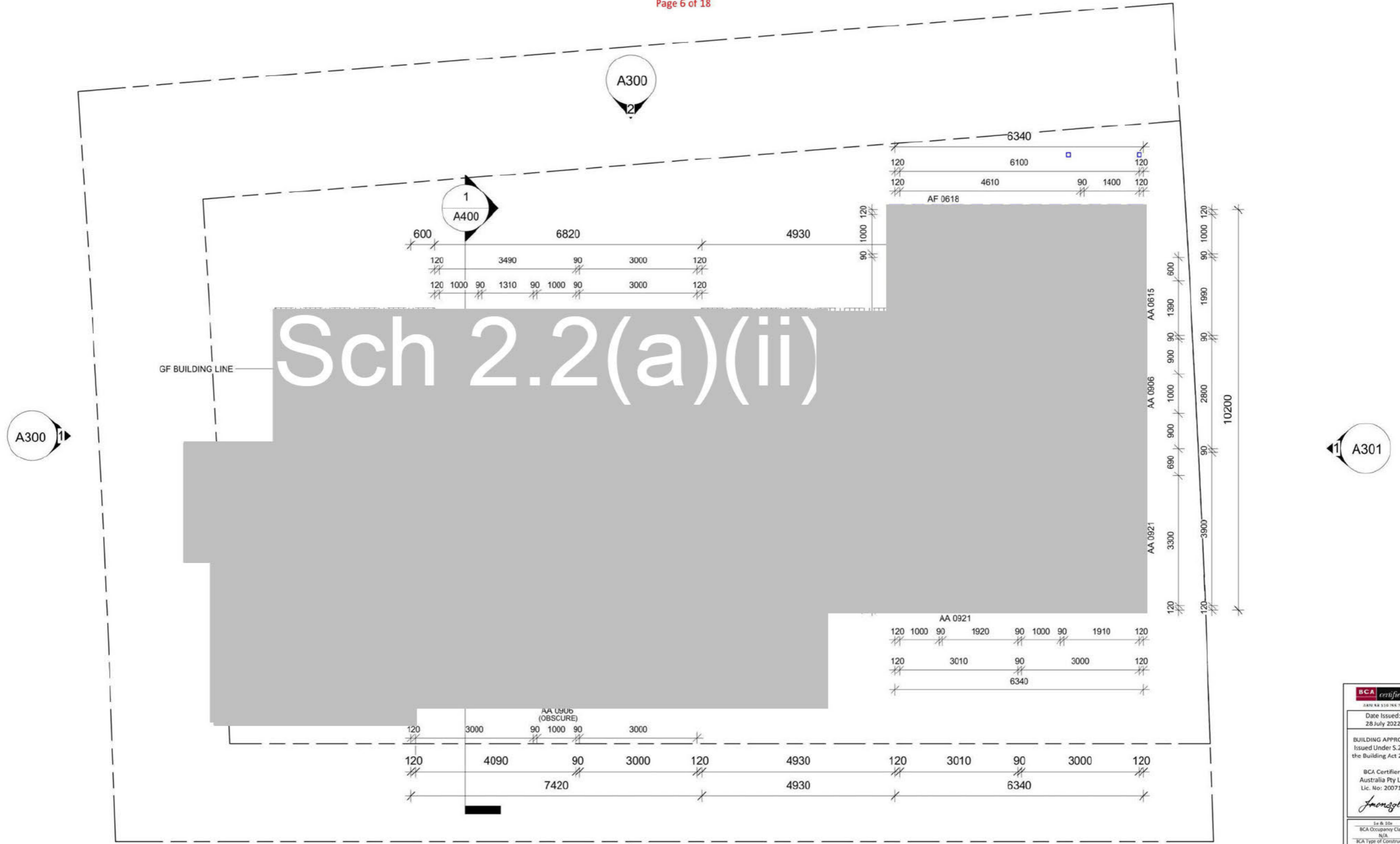
Sch 2.2(a)(ii)  
**RESIDENCE**  
 SUBURB: STRATHNAIRN

### GROUND FLOOR PLAN FOR APPROVAL

Project number	211201	<b>A200</b>
Date	2/6/22	
Drawn by	B.Virk	
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Scale	1 : 100	on A3

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2  
3



### 3. UPPER FLOOR PLAN

1 : 100

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1  
4

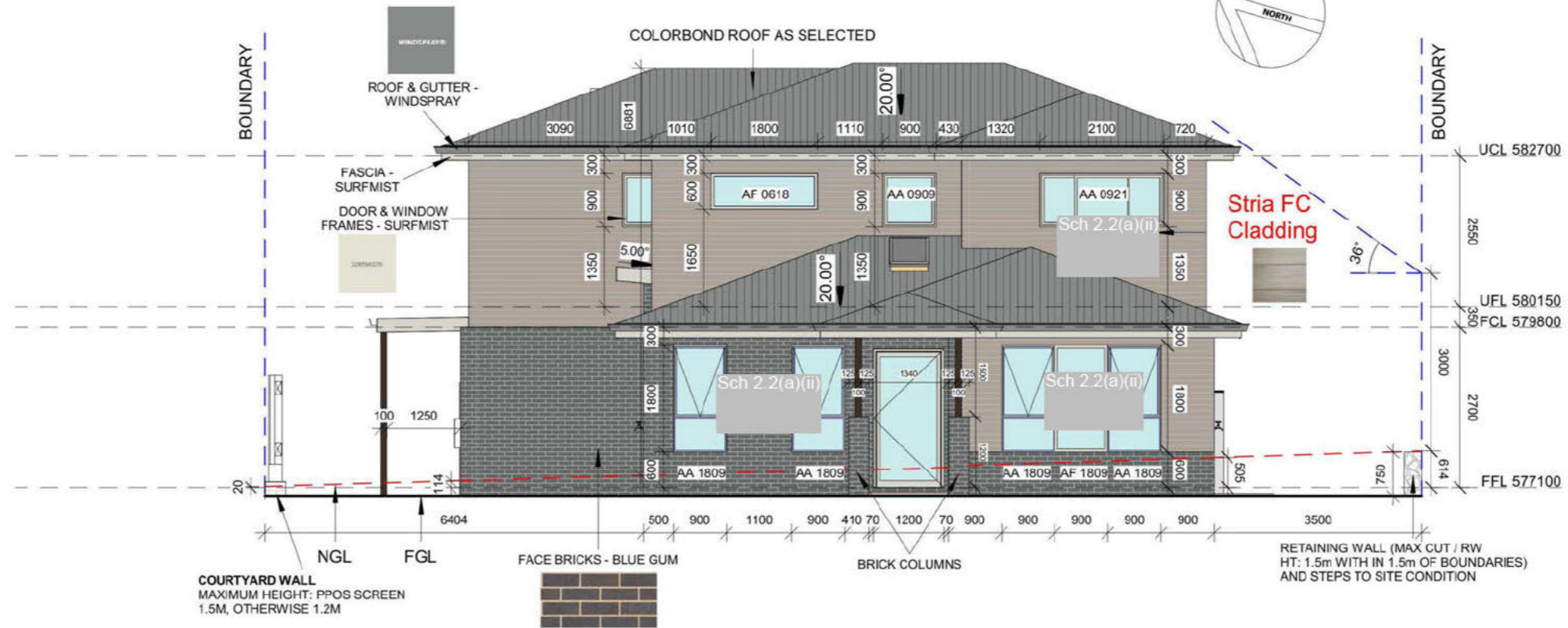
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<b>UPPER FLOOR PLAN</b>		<b>FOR APPROVAL</b>	
Project number	211201	<b>A201</b>	
Date	2/6/22		
Drawn by	B.Virk		
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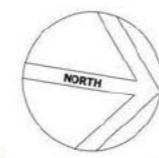
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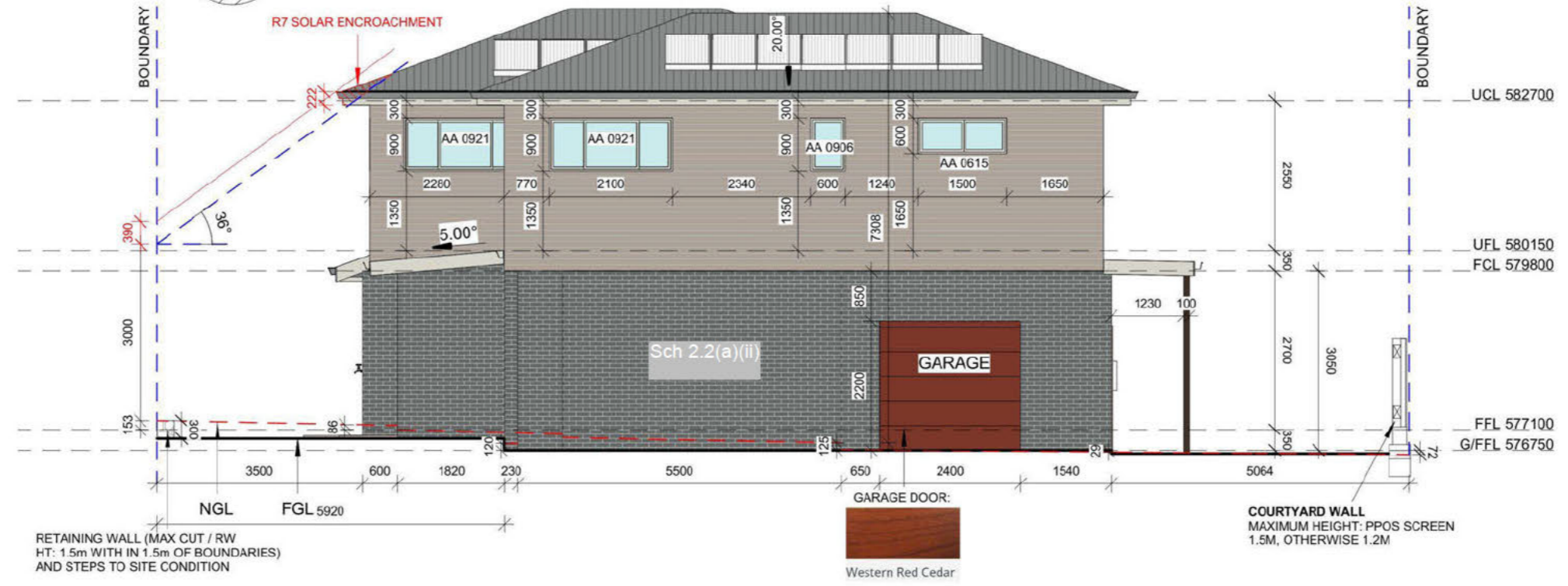
Sch 2.2(a)(ii)  
**RESIDENCE**  
SUBURB: STRATHNAIRN

<b>ELEVATION 1&amp;2</b>		<b>FOR APPROVAL</b>	
Project number	211201	<b>A300</b>	
Date	2/6/22		
Drawn by	B.Virk	Scale	1 : 100 on A3
Checked by	Client		

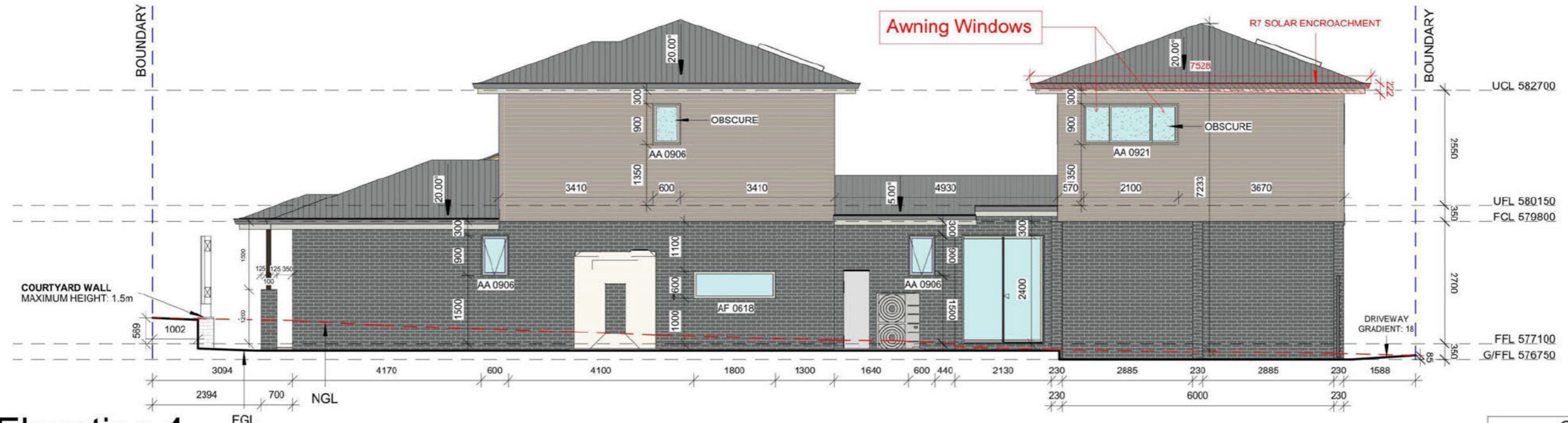
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1 Elevation 3  
1 : 100



2 Elevation 4  
1 : 100



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Sch 2.2(a)(ii)  
**RESIDENCE**  
SUBURB: STRATHNAIRN

<b>ELEVATION 3&amp;4</b>		<b>FOR APPROVAL</b>	
Project number	211201	<b>A301</b>	
Date	2/6/22		
Drawn by	B.Virk		
Checked by	Client		
Scale	1 : 100	on A3	

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**WINDOWS / DOORS:**  
 \* ALL MATERIALS, FIXING, FRAMES, GLAZING, FLY SCREENS, ETC TO CONFORM TO AS2047 & AS1288 / RELEVANT CODES / BEST TRADE PRACTICES.  
 \* ENSURE CORRECT OPERATION OF WINDOWS, SLIDING DOORS, ENSURING CORRECT PROTECTION FROM THE WATER.  
 \* ALL ALUMINIUM DOORS AND WINDOWS TO BE ALUMINIUM IMPROVED.

**ELECTRICAL:**  
 \* ALL ELECTRICAL MATERIALS, CONNECTIONS AND INSTALLATION FOR FULL SATISFACTORY OPERATION IN ACCORDANCE WITH AUTHORITY REQUIREMENTS, RELEVANT CODES / REGULATIONS AND AS DIRECTED BY THE BUILDER.  
 \* LIGHTING TO COMPLY WITH CLAUSE 3.12.5.5 OF BCA.  
 \* DOWNLIGHTS INSTALLED WITH APPROVED NON-VENTILATED COVER OR SHIELD ALLOWING INSTALLATION OF INSULATION TO SIDES AND TOP.  
 \* SMOKE ALARMS ARE TO BE INSTALLED IN ACCORDANCE WITH BCA, BUILDING NOTE 19 & TO COMPLY WITH AS3786. SMOKE ALARMS TO BE CONNECTED MAIN POWER WITH BATTERY BACKUP AND WIRED, IN ACCORDANCE WITH AS3000.

**WATER HEATER** IN HOT WATER SUPPLY SYSTEM TO COMPLY WITH CLAUSE 3.12.5.6 OF BCA V2.

**FOOTINGS:**  
 \* ALL CONCRETE FOOTINGS AND SLABS TO BE IN ACCORDANCE WITH S.A.A. CODE 2870.1 & ENGINEER'S DESIGN / SPECIFICATIONS.  
 \* CONTINUOUS DAMPPROOF MEMBRANE UNDER SLAB.  
 \* DAMPROOF COURSE AT BEARER SEATING LEVELS, STEPPED CAVITY FLASHING WITH WEEP HOLES AT 1200MM CENTERS TO THE EXTERNAL BRICK SKIN AT GROUND FLOOR LEVEL, UNDER WINDOW SILLS AND BRICKWORK ABOVE WINDOWS.

**BRICKWORK:**  
 \* MASONRY STONE / BRICKWORK AS SELECTED, GENERALLY 230 X 110 X76 MM BRICKS BONDED IN STRETCHER BOND.  
 \* MORTAR TO COMPLY WITH THE REQUIREMENTS OF RELEVANT CODES & AUSTRALIAN STANDARDS. COLOUR TO NOT BE WHITE OR OFF WHITE.  
 \* MASONRY ARTICULATION REQUIRED (VERTICAL ARTICULATION JOINTS) IN ACCORDANCE WITH BCA V2 3.3.5.13

**LINTELS FOR BRICKWORK,** ALL BEAMS & LINTELS AS PER ENGINEER'S DESIGN / SPECIFICATION & MANUFACTURER'S TABLE.

**MATERIAL & FINISHES** TO BE CONFIRMED BY THE CLIENT

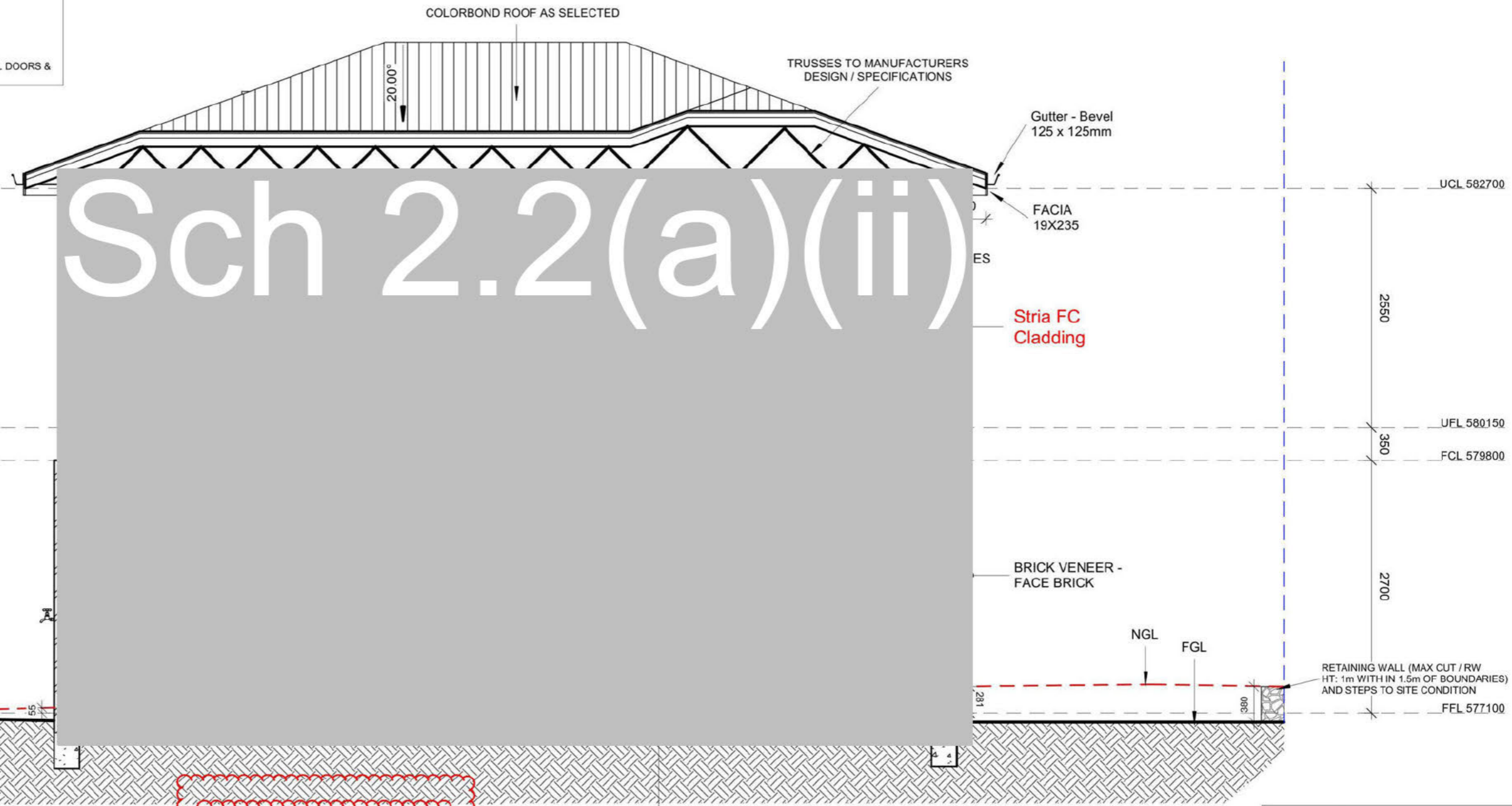
**TIMBER STUD WORK:**  
 \* ALL TIMBER WORK TO COMPLY WITH AS 1684.2 "RESIDENTIAL TIMBER FRAMED CONSTRUCTION"  
 \* 90X35MM PINE STUDS AT 450 MM CENTERS TO ALL LOAD - BEARING WALLS & AT 600 MM CENTERS TO NON LOAD-BEARING WALLS  
 \* 90X35MM PINE PLATE & NOGGING AND PROVIDE SECOND 90X45 MM TOP PLATE TO ALL LOAD-BEARING WALLS  
 \* PROVIDE 90X45 F8 STUDS TO BOTH SIDES OF OPENING CARRYING LINTELS  
 \* 50X38 MM CEILING BATTENS AT 450 MM CENTERS.  
 \* 10 MM PLASTER BOARD INTERNAL WALL & CEILING \*LINING FIBROUS CEMENT SHEET LINING TO EAVES.

**STEEL FRAME WORK:**  
 \* ALL STEEL WORK TO COMPLY WITH:  
 AS/NZS 4600, COLD FORMED STEEL STRUCTURES  
 AS 3623, DOMESTIC METAL FRAMING  
 AS 4100, STEEL STRUCTURES  
 \* BCA STANDARDS ADHERED TO BCA VOLUME 2, PART 3.4.2 STEEL FRAMING

**ROOFING:**  
 \* TRUSSES AT 600mm CENTERS, FIXED TO MANUFACTURERS SPECIFICATIONS.  
 \* LINTEL SIZE TO TRUSS MANUFACTURERS CHART.  
 \* METAL FASCIA & GUTTER AS SELECTED.  
 \* PLASTER INTERNAL LININGS WALL FRAMING TO ALL ROOMS TO BE COVERED JOINTS BEING BACKED WITH EITHER NOGGINGS OR STUDS AS REQUIRED BY MANUFACTURER.  
 \* ALL ELEMENTS TO BE SECURELY FIXED.  
 \* PLASTER BOARD ( MIN 10MM THICK) WALL & CEILING LINING.  
 \* FIBROUS CEMENT SHEET WALL LINING TO WET AREAS.  
 \* PROVIDE CORNICE, AS SELECTED SHALL BE FIXED AT INTERSECTION OF ALL BEAMS AND WALL JUNCTIONS WITH CEILINGS.  
 \* PROVIDE ROOF LIGHTS & VENTILATION TO COMPLY WITH THE NCC.  
 \* ROOF PLUMBING, FLASHING, ETC AS NECESSARY, TO COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.

**WATERPROOFING:**  
 \* WET AREAS WATERPROOFING: AS 3740 - 2010 AND AMDT 1 - 2012, AND BCA V2: 3.8.1.2  
 \* EXTERNAL / BALCONIES WATERPROOFING: AS 4654 - 2012 AND BCA V2: 3.8.1.3

**INSULATION SCHEDULE (NCC-2016 PART3.12):**  
 \* R 4.0 CEILING INSULATION + R1.3 BLANKET/SARKING  
 \* R 2.0 WALL INSULATION + BUILDING WRAPS  
 \* R 2.0 INSULATION TO INTERNAL WET AREA WALLS  
 \* R 2.0 FLOOR INSULATION  
 \* ALL WINDOWS / SLIDERS TO BE DOUBLE GLAZED  
 \* HEAVY DRAPES WITH PELMETS, WEATHER STRIPS TO EXTERNAL DOORS & SEAL EXHAUST FANS



**NOISE AFFECTED BLOCK - TO COMPLY WITH:**  
 \* AS/NZS 2107:2000 - Acoustics - Recommended design sound levels and reverberation times for building interiors (the relevant satisfactory recommended interior design sound level)  
 \* AS/NZS 3671 - Acoustics - Road Traffic Noise Intrusion Building Siting and Design and Ginnindery Noise Management Plan

WAFFLE POD SLAB TO ENGINEER'S DESIGN

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1 Section A  
 1 : 50

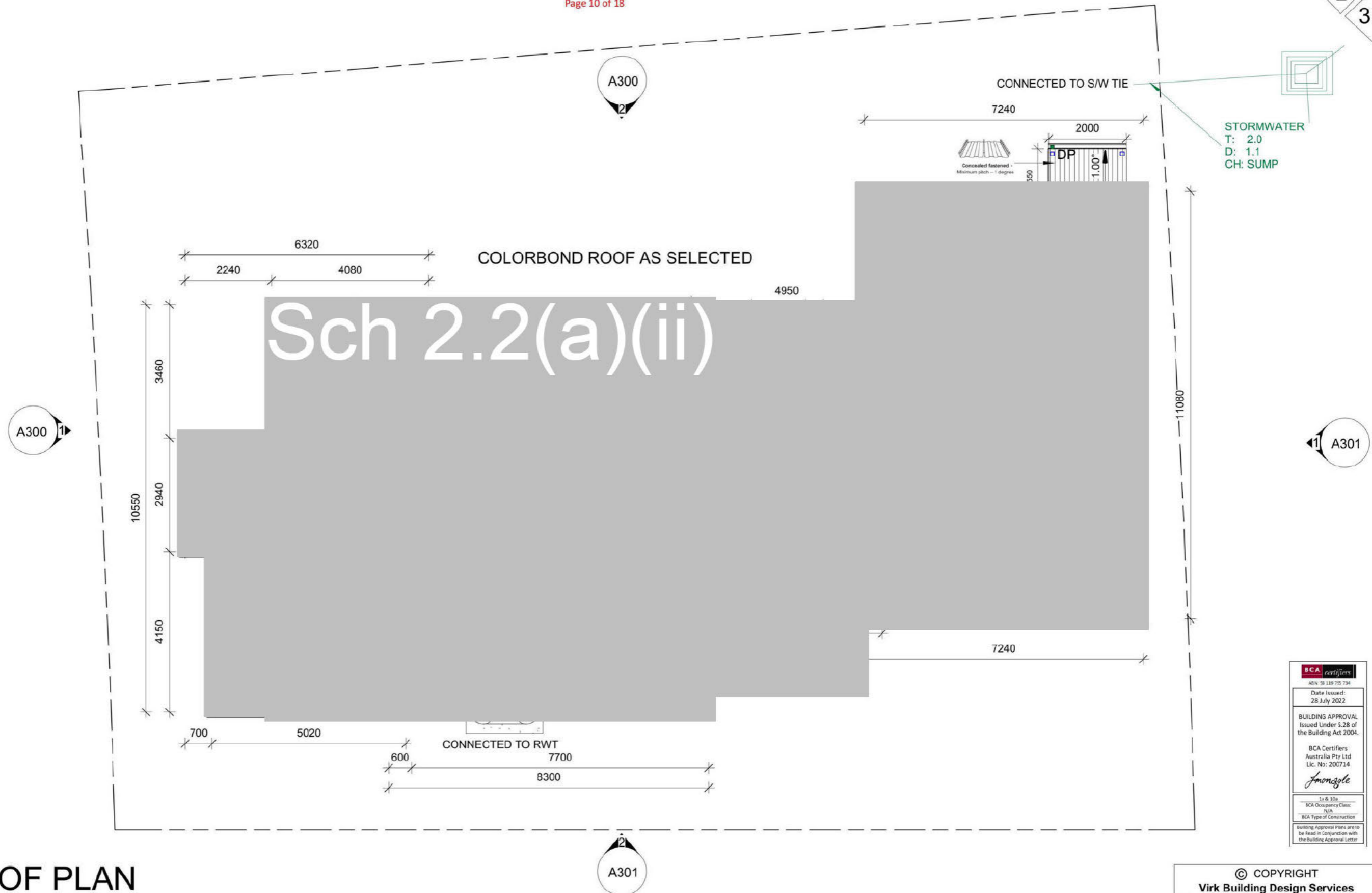
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Sch 2.2(a)(ii)  
 RESIDENCE  
 SUBURB: STRATHNAIRN

SECTION A		FOR APPROVAL	
Project number	211201	A400	
Date	2/6/22		
Drawn by	B.Virk		
Checked by	Client		
Scale	1 : 50	on A3	

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### 4. ROOF PLAN

1 : 100

**BCA certifiers**  
 ABN: 59 139 755 734  
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 BCA Certifiers  
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 BCA Type of Construction:  
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Sch 2.2(a)(ii)  
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 SUBURB: STRATHNAIRN

ROOF PLAN		FOR APPROVAL	
Project number	211201	A500	
Date	2/6/22		
Drawn by	B.Virk	Scale	1 : 100 on A3
Checked by	Client		

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# SAFE DESIGN OF STRUCTURES CODE OF PRACTICE



## 1. FALLS, SLIPS, TRIPS

### WORKING AT HEIGHTS

#### DURING CONSTRUCTION

Wherever possible, components for this building should be prefabricated off-site or at ground level to minimise the risk of workers falling more than two metres. However, construction of this building will require workers to be working at heights where a fall in excess of two metres is possible and injury is likely to result from such a fall. The builder should provide a suitable barrier wherever a person is required to work in a situation where falling more than two metres is a possibility.

#### DURING OPERATION OR MAINTENANCE

For houses or other low-rise buildings where scaffolding is appropriate:

Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, ladders or trestles should be used in accordance with relevant codes of practice, regulations or legislation. For buildings where scaffold, ladders, trestles are not appropriate: Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, fall barriers or Personal Protective Equipment (PPE) should be used in accordance with relevant codes of practice, regulations or legislation.

### FLOOR FINISHES - Specified

If finishes have been specified by designer, these have been selected to minimise the risk of floors and paved areas becoming slippery when wet or when walked on with wet shoes/feet. Any changes to the specified finish should be made in consultation with the designer or, if this is not practical, surfaces with an equivalent or better slip resistance should be chosen.

### FLOOR FINISHES - By Owner

If designer has not been involved in the selection of surface finishes, the owner is responsible for the selection of surface finishes in the pedestrian trafficable areas of this building. Surfaces should be selected in accordance with AS HB 197:1999 and AS/NZ 4586:2004.

## 2. STEPS, LOOSE OBJECTS AND UNEVEN SURFACES

Due to design restrictions for this building, steps and/or ramps are included in the building which may be a hazard to workers carrying objects or otherwise occupied. Steps should be clearly marked with both visual and tactile warning during construction, maintenance, demolition and at all times when the building operates as a workplace. Building owners and occupiers should monitor the pedestrian access ways and in particular access to areas where maintenance is routinely carried out to ensure that surfaces have not moved or cracked so that they become uneven and present a trip hazard. Spills, loose material, stray objects or any other matter that may cause a slip or trip hazard should be cleaned or removed from access ways. Contractors should be required to maintain a tidy work site during construction, maintenance or demolition to reduce the risk of trips and falls in the workplace. Materials for construction or maintenance should be stored in designated areas away from access ways and work areas.

## 3. FALLING OBJECTS

### LOOSE MATERIALS OR SMALL OBJECTS

Construction, maintenance or demolition work on or around this building is likely to involve persons working above ground level or above floor levels. Where this occurs one or more of the following measures should be taken to avoid objects falling from the area where the work is being carried out onto persons below.

1. Prevent or restrict access to areas below where the work is being carried out.
2. Provide toeboards to scaffolding or work platforms.
3. Provide protective structure below the work area.
4. Ensure that all persons below the work area have Personal Protective Equipment (PPE).

### BUILDING COMPONENTS

During construction, renovation or demolition of this building, parts of the structure including fabricated steelwork, heavy panels and many other components will remain standing prior to or after supporting parts are in place. Contractors should ensure that temporary bracing or other required support is in place at all times when collapse which may injure persons in the area is a possibility.

Mechanical lifting of materials and components during construction, maintenance or demolition presents a risk of falling objects. Contractors should ensure that appropriate lifting devices are used, that loads are properly secured and that access to areas below the load is prevented or restricted.

## 4. TRAFFIC MANAGEMENT

For building on a major road, narrow road or steeply sloping road: Parking of vehicles or loading/unloading of vehicles on this roadway may cause a traffic hazard. During construction, maintenance or demolition of this building designated parking for workers and loading areas should be provided. Trained traffic management personnel should be responsible for the supervision of these areas.

For building where on-site loading/unloading is restricted: Construction of this building will require loading and unloading of materials on the roadway. Deliveries should be well planned to avoid congestion of loading areas and trained traffic management personnel should be used to supervise loading/unloading areas.

For all buildings: Busy construction and demolition sites present a risk of collision where deliveries and other traffic are moving within the site. A traffic management plan supervised by trained traffic management personnel should be adopted for the work site.

## 5. SERVICES

### GENERAL

Rupture of services during excavation or other activity creates a variety of risks including release of hazardous material. Existing services are located on or around this site. Where known, these are identified on the plans but the exact location and extent of services may vary from that indicated. Services should be located using an appropriate service (such as Dial Before You Dig), appropriate excavation practice should be used and, where necessary, specialist contractors should be used.

Locations with underground power: Underground power lines MAY be located in or around this site. All underground power lines must be disconnected or carefully located and adequate warning signs used prior to any construction, maintenance or demolition commencing.

Locations with overhead power lines: Overhead power lines MAY be near or on this site. These pose a risk of electrocution if struck or approached by lifting devices or other plant and persons working above ground level. Where there is a danger of this occurring, power lines should be, where practical, disconnected or relocated. Where this is not practical adequate warning in the form of bright coloured tape or signage should be used or a protective barrier provided.

## 6. MANUAL TASKS

Components within this design with a mass in excess of 25kg should be lifted by two or more workers or by mechanical lifting device. Where this is not practical, suppliers or fabricators should be required to limit the component mass. All material packaging, building and maintenance components should clearly show the total mass of packages and where practical all items should be stored on site in a way which minimises bending before lifting. Advice should be provided on safe lifting methods in all areas where lifting may occur. Construction, maintenance and demolition of this building will require the use of portable tools and equipment. These should be fully maintained in accordance with manufacturer's specifications and not used where faulty or (in the case of electrical equipment) not carrying a current electrical safety tag. All safety guards or devices should be regularly checked and Personal Protective Equipment should be used in accordance with manufacturer's specification.

## 7. HAZARDOUS SUBSTANCES ASBESTOS

### ASBESTOS

For alterations to a building constructed prior to 1990: If this existing building was constructed prior to: 1990 - it therefore may contain asbestos 1986 - it therefore is likely to contain asbestos either in cladding material or in fire retardant insulation material. In either case, the builder should check and, if necessary, take appropriate action before demolishing, cutting, sanding, drilling or otherwise disturbing the existing structure.

### POWDERED MATERIALS

Many materials used in the construction of this building can cause harm if inhaled in powdered form. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation while using powdered material or when sanding, drilling, cutting or otherwise disturbing or creating powdered material.

### TREATED TIMBER

The design of this building may include provision for the inclusion of treated timber within the structure. Dust or fumes from this material can be harmful. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation of harmful material when sanding, drilling, cutting or using treated timber in any way that may cause harmful material to be released. Do not burn treated timber.

### VOLATILE ORGANIC COMPOUNDS

Many types of glue, solvents, spray packs, paints, varnishes and some cleaning materials and disinfectants have dangerous emissions. Areas where these are used should be kept well ventilated while the material is being used and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be carefully considered at all times.

### SYNTHETIC MINERAL FIBRE

Fibreglass, rockwool, ceramic and other material used for thermal or sound insulation may contain synthetic mineral fibre which may be harmful if inhaled or if it comes in contact with the skin, eyes or other sensitive parts or the body. Personal Protective Equipment including protection against inhalation of harmful material should be used when installing, removing or working near bulk insulation material.

### TIMBER FLOORS

This building may contain timber floors which have an applied finish. Areas where finishes are applied should be kept well ventilated during sanding and application and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be carefully considered at all times.

## 8. CONFINED SPACES

### EXCAVATION

Construction of this building and some maintenance on the building will require excavation and installation of items within excavations. Where practical, installation should be carried out using methods which do not require workers to enter the excavation. Where this is not practical, adequate support for the excavated area should be provided to prevent collapse. Warning signs and barriers to prevent accidental or unauthorised access to all excavations should be provided.

### ENCLOSED SPACES

For buildings with enclosed spaces where maintenance or other access may be required:

Enclosed spaces within this building may present a risk to persons entering for construction, maintenance or any other purpose. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter enclosed spaces, air testing equipment and Personal Protective Equipment should be provided.

### SMALL SPACES

For buildings with small spaces where maintenance or other access may be required: Some small spaces within this building will require access by construction or maintenance workers. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter small spaces they should be scheduled so that access is for short periods. Manual lifting and other manual activity should be restricted in small spaces.

## 9. PUBLIC ACCESS

Public access to construction and demolition sites and to areas under maintenance causes risk to workers and public. Warning signs and secure barriers to unauthorised access should be provided. Where electrical installations, excavations, plant or loose materials are present they should be secured when not fully supervised.

## 10. OPERATIONAL USE OF BUILDING

### RESIDENTIAL BUILDINGS

This building has been designed as a residential building. If it, at a later date, is used or intended to be used as a workplace, the provisions of the Work Health and Safety Act 2011 or subsequent replacement Act should be applied to the new use.

### 10. OTHER HIGH RISK ACTIVITY

All electrical work should be carried out in accordance with Code of Practice: Managing Electrical Risks at the Workplace, AS/NZ 3012 and all licensing requirements. All work using Plant should be carried out in accordance with Code of Practice: Managing Risks of Plant at the Workplace. All work should be carried out in accordance with Code of Practice: Managing Noise and Preventing Hearing Loss at Work. Due to the history of serious incidents it is recommended that particular care be exercised when undertaking work involving steel construction and concrete placement. All the above applies.

THESE NOTES MUST BE READ AND UNDERSTOOD BY ALL INVOLVED IN THE PROJECT. THIS INCLUDES (BUT NOT LIMITED TO): OWNER, BUILDER, SUB-CONSULTANTS, RENOVATORS, OPERATORS, MAINTENORS, DEMOLISHERS.

# PIERRE DRAGH

## CONSULTING ENGINEERS

### OFFICE

ADDRESS: 16 VICTORIA STREET, HALL, ACT, 2618

TEL : 0438 625 440

FAX : (02) 6230 9695

EMAIL : PDRAGH@BIGPOND.COM

### SITE ADDRESS

[Redacted]

STRATHNAIRN

### JOB DESCRIPTION

PROPOSED NEW DWELLING

### CLIENT:

Sch 2.2(a)(ii) [Redacted]

### DRAWING LIST

**S1 - GENERAL NOTES**

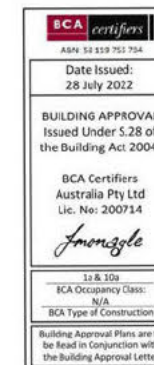
**S2 - FOOTING & SLAB LAYOUT**

**S3 - FOOTING DETAILS**

**S4 - JOIST & BEAM LAYOUT**

**S5 - MASONRY ARTICULATION JOINTS LAYOUT**

**S6 - MASONRY ARTICULATION JOINTS LAYOUT**



**APPROVED BY:**  
[Signature]

### NOTE

IT IS THE RESPONSIBILITY OF THE CLIENT IN CONSULTATION WITH THEIR BUILDER TO CHECK AND VERIFY THE BUILDABILITY OF THE DESIGN AS PRESENTED AND REFER ANY CONCERNS BACK TO THE ENGINEER PRIOR TO CONSTRUCTION. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.

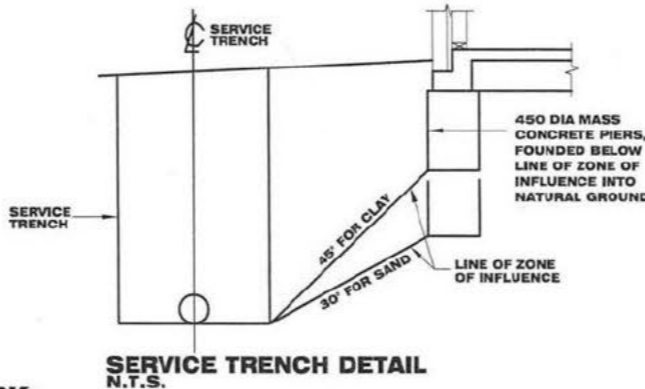
**GENERAL NOTES:**

- G.1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT/ENGINEER FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G.2 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS.
- G.3 SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE BUILDER.
- G.4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- G.5 ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITIONS OF THE A.S. CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITY.
- G.6 THE STRUCTURAL ELEMENTS SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES:  
 CONCRETE - A.S 3600  
 FOOTING - A.S 2870  
 STEEL - A.S 4100 & A.S. 4600

**FOUNDATIONS AND FOOTINGS:**

- F.1 FOOTINGS HAVE BEEN DESIGNED FOR A UNIFORM BEARING PRESSURE (refer to sheet 2). FOUNDATION MATERIAL SHALL BE APPROVED FOR THIS PRESSURE BEFORE PLACING CONCRETE FOOTING.
- F.2 THE SITE IS CLASSIFIED IN ACCORDANCE WITH GEOTECHNICAL REPORT (refer to sheet 2). WE DISCLOSE THAT WE HAVE NOT VERIFIED THIS REPORT AND THAT WE RELY ON ITS FINDINGS.
- F.3 FOOTING SHALL BE PLACED CENTRALLY UNDER WALLS AND COLUMNS UNLESS OTHERWISE NOTED.
- F.4 ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH A.S. 2870
- F.5 THE FOOTING DETAILS SHOWN ARE FOR THE SITE CLASSIFICATION STIPULATED, PDCE CONSULTING ENGINEERS TAKES NO RESPONSIBILITY FOR VARIATIONS WHICH MAY OCCUR DUE TO VARIATIONS IN SITE CONDITIONS.
- F.6 FILL USED IN THE CONSTRUCTION OF A SLAB EXCEPT WHERE THE SLAB IS SUSPENDED SHALL CONSIST OF A CONTROLLED FILL OR ROLLED FILL IN ACCORDANCE WITH A.S. 2870  
 A) ROLLED FILL CONSISTS OF MATERIAL COMPACTED IN LAYERS BY REPEATED ROLLING WITH AN EXCAVATOR. ROLLED FILL SHALL NOT EXCEED 600mm COMPACTED IN LAYERS NOT MORE THAN 300mm, FOR SAND MATERIAL OR 400mm COMPACTED IN LAYERS NOT MORE THAN 150mm FOR OTHERS MATERIAL.  
 B) CONTROLLED FILL SHALL CONSIST OF WELL GRADED SAND FILL UP TO 800mm DEEP, WELL COMPACTED IN NOT MORE THAN 300mm LAYERS BY VIBRATING PLATE OR VIBRATING ROLLER NON SAND FILL UP TO 400mm DEEP, WELL COMPACTED IN NOT MORE THAN 150 LAYERS BY A MECHANICAL ROLLER, CLAY FILL SHOULD BE MOIST DURING COMPACTION. THE DEPTHS OF FILL GIVEN ABOVE ARE DEPTHS MEASURED AFTER COMPACTION.FOR DEPTHS GREATER THAN THAT GIVEN ABOVE THE FILL SHALL BE SUBJECT TO CONTROL AND TESTING. IF TEST FAILS THEN PIERS ARE REQUIRED. CONTACT THIS OFFICE PRIOR TO FURTHER CONSTRUCTION. EDGE BEAMS MAY BE FOUNDED ON CONTROLLED FILL EDGE BEAMS SHALL NOT BE FOUNDED ON ROLLED FILL
- F.7 TOP SOIL CONTAINING GRASS ROOTS OR OTHER ORGANIC MATERIAL SHALL BE REMOVED FROM THE AREA ON WHICH THE SLAB IS TO REST.
- F.8 IF ANY FOOTING IS LOCATED SUCH THAT A LINE DRAWN AT 45 DEGREES FOR CLAY AND 30 DEGREES FOR SAND FROM ITS BASE INTERSECTS A SERVICE TRENCH THEN PIERS ARE REQUIRED AS PER DETAIL BELOW.

**BCA certifies**  
 ABN: 18 119 751 754  
 Date Issued:  
 28 July 2022  
 BUILDING APPROVAL  
 Issued Under S.28 of  
 the Building Act 2004.  
 BCA Certifiers  
 Australia Pty Ltd  
 Lic. No: 300714  
*Jaonagle*  
 19 & 20  
 BCA Occupancy Class  
 N/A  
 BCA Type of Construction  
 Building Approval Plans are to  
 be Read in Conjunction with  
 the Building Approval Letter



**CONCRETE WORK:**

- C.1 ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH A.S. 3600. & A.S. 2870
- C.2 CONCRETE QUALITY SHALL BE AS TABULATED BELOW U.N.O. AND SHALL BE VERIFIED BY TESTS.

ELEMENT	SLUMP mm	MAX. SIZE AGG. mm	CEMENT TYPE	EXPOSURE CLASSIFIC.	CONCRETE GRADE	COVER mm
SLABS ON GROUND	100	20	A	A1	25N	20 TOP 30 BTM 40 EXTERNAL
FOOTINGS	100	20	A	A1	25N	40
SUSPENDED SLAB	80	20	A	A1	32N	30 TOP 20 BTM 40 EXTERNAL

- C.3 ALL CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH A.S. 3600. WHERE CURING COMPOUNDS ARE USED IT MUST BE APPLIED AS FOLLOWS:  
 A) ONTO SLAB WITHIN 2HRS OF FINISHING OPERATION  
 B) ONTO WALLS AND COLUMNS IMMEDIATELY AFTER REMOVAL OF FORMWORK.
- C.4 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- C.5 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE TO THE APPROVAL OF THE ENGINEER.
- C.6 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS, IF ANY.
- C.7 HORIZONTAL FORMWORK SHALL BE STRIPPED WHEN APPROVED BY THE ENGINEER.
- C.8 UNLESS NOTED OTHERWISE NO ALLOWANCE HAS BEEN MADE FOR STACKED MATERIALS OR MACHINERY ON THE CONCRETE STRUCTURE.
- C.9 NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- C.10 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY, IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- C.11 SPLICES IN REINFORCEMENT MADE IN POSITIONS OTHER THAN SHOWN SHALL BE TO THE APPROVAL OF THE ENGINEER. WHERE THE LAP LENGTH IS NOT SHOWN IT SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT.
- C.12 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
- C.13 PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER.
- C.14 ALL REINFORCING BARS SHALL COMPLY WITH A.S. 4671. ALL FABRIC SHALL COMPLY WITH A.S. 4671 AND SHALL BE SUPPLIED IN FLAT SHEETS.
- C.15 REINFORCING SYMBOLS:  
 N - DENOTES GRADE D500 HIGH STRENGTH DEFORMED BARS TO A.S. 4671.  
 R - DENOTES GRADE R250 HOT ROLLED PLAIN BARS TO A.S. 4671.  
 SL - DENOTES HARD-DRAWN WIRE SQUARE REINFORCING FABRIC TO A.S. 4671.  
 RL - DENOTES HARD-DRAWN WIRE RECTANGULAR REINFORCING FABRIC TO A.S. 4671. THE NUMBER IMMEDIATELY FOLLOWING THESE SYMBOLS IS THE BAR DIAMETER IN MILLIMETRES.
- C.16 FABRIC REINFORCEMENT TO BE LAPPED ONE MESH PLUS 30mm. LAPS IN POSITIONS OF MAXIMUM MOMENT ARE NOT PERMITTED.

- C.17 ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON INSULATED STEEL, PLASTIC OR CONCRETE CHAIRS GENERALLY AT NOT GREATER THAN 800 CENTERS BOTH WAYS. RODS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
- C.18 ALL TENSILE REINFORCEMENT TO BE LAPPED AS SHOWN (u.n.o.):-

REINF. BAR	N12	N16	N20	N24
LAP LENGTH mm	500	600	700	800

**DRAINAGE NOTES:**

- D.1 ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH A.S. 2870
- D.2 DRAINAGE SHALL BE CONSTRUCTED TO AVOID WATER PONDING AGAINST OR NEAR THE FOOTING. THE GROUND IN THE IMMEDIATE VICINITY OF THE PERIMETER FOOTING, INCLUDING THE GROUND UPHILL FROM THE SLAB ON CUT-AND-FILL SITES, SHALL BE GRADED TO FALL 50mm MINIMUM AWAY FROM THE FOOTING OVER A DISTANCE OF 1m. SURFACE OR SUBSURFACE DRAINS SHALL BE USED TO CHANNEL WATER AWAY AND CONNECTED TO STORM WATER SYSTEM. ANY PAVING SHALL ALSO BE SUITABLY SLOPED
- D.3 PLUMBING TRENCHES SHALL BE SLOPED AWAY FROM THE HOUSE AND SHALL BE BACKFILLED WITH CLAY IN THE TOP 300mm WITHIN 1.5m OF THE HOUSE. THE CLAY USED FOR BACKFILLING SHALL BE COMPACTED. WHERE PIPES PASS UNDER THE FOOTING. SYSTEM, THE TRENCH SHALL BE BACKFILLED WITH CLAY OR CONCRETE TO RESTRICT THE INGRESS OF WATER BENEATH THE FOOTING SYSTEM.
- D.4 EXCAVATIONS NEAR THE EDGE OF THE FOOTING SYSTEM SHALL BE BACKFILLED IN SUCH A WAY AS TO PREVENT ACCESS OF WATER TO THE FOUNDATION. FOR EXAMPLE, EXCAVATIONS SHOULD BE BACKFILLED ABOVE OR ADJACENT TO THE FOOTING. WITH MOIST CLAY COMPACTED BY HAND-RODDING OR -TAMPING. POROUS MATERIAL SUCH AS SAND, GRAVEL OR BUILDING RUBBLE SHOULD NOT BE USED.
- D.5 WATER RUN-OFF SHALL BE COLLECTED AND CHANNELLED AWAY FROM THE HOUSE DURING CONSTRUCTION.
- D.6 PENETRATIONS OF THE EDGE BEAMS AND FOOTING BEAMS ARE TO BE AVOIDED, BUT WHERE NECESSARY SHALL BE SLEEVED TO ALLOW FOR MOVEMENT.
- D.7 CONNECTION OF STORMWATER DRAINS AND WASTE DRAINS SHALL INCLUDE FLEXIBLE CONNECTION.

**STRUCTURAL STEEL:**

- S.1 ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH A.S. 4100 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- S.2 UNLESS OTHERWISE NOTED, ALL STEEL SHALL BE IN ACCORDANCE WITH:  
 A.S. 3679.1 GRADE 300 FOR ROLLED SECTIONS.  
 A.S. 1163 GRADE 350 FOR RHS SECTIONS.  
 A.S. 1163 GRADE 350 FOR CHS SECTIONS.  
 A.S. 3378 GRADE 350 FOR ALL PLATE.  
 A.S. 3679.1 GRADE 350 FOR ALL FLAT  
 A.S. 1397 GRADE 450 FOR 1.5, 1.9, 2.4 AND 3.0 BMT OF COLD-FORMED STEEL SECTIONS.
- S.3 UNLESS NOTED OTHERWISE ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELDS AND ALL GUSSET PLATES SHALL BE 10mm THICK.
- S.4 BUTT WELDS WHERE INDICATED IN THE DRAWINGS ARE TO BE COMPLETE PENETRATION BUTT WELDS AS DEFINED IN A.S. 1554.
- S.5 UNLESS OTHERWISE SHOWN ALL BOLTS SHALL BE 16mm DIA HIGH STRENGTH (H.S.) BOLTS SHALL CONFORM TO A.S. 1252 AND SHALL BE INSTALLED IN ACCORDANCE WITH A.S. 4100 AS DIRECTED BY THE ENGINEER.
- S.6 UNLESS NOTED OTHERWISE ALL BEAMS TO BE SUPPORTED ON BRICKWORK/ENGAGED BRICK PIERS (110mm BRICK BEARING REQUIRED) PLACE INCOMPRESSIBLE PACKING AS REQUIRED UNDER THE ENDS OF THE BEAM TO ENSURE EVEN BEARING ON BRICKWORK.
- S.7 UNLESS NOTED OTHERWISE PROTECTIVE COATINGS FOR STEELWORK SHALL BE AS TABULATED BELOW AND IN ACCORDANCE WITH THE CURRENT EDITION OF THE BSA.

ENVIRONMENT (EXPOSURE CLASSIFICATION AS PER BCA)	GENERAL STRUCTURAL MEMBERS (NOT BUILT INTO MASONRY OR CONCRETE)		LINTELS (BUILT INTO MASONRY OR CONCRETE)
	INTERNAL	EXTERNAL	
VERY LOW	R0		
LOW	R0	R1	R2
MEDIUM	R0	R2	R3
HIGH	R1	R3	R4
VERY HIGH	R1	R4	R5

PROTECTIVE COATING SPECIFICATION TO A.S. 2699.3

REVISION DETAILS			
NO.	DESCRIPTION	DATE	NAME

**PIERRE DRAGH**  
 CONSULTING ENGINEERS

OFFICE:  
 16 VICTORIA STREET, HALL, ACT, 2618

PH : 0438 625 440 Web: www.pdcengineers.com.au  
 FAX : (02) 6230 9695 email : pdragh@bigpond.com

PROJECT
STRATHNAIRN
CLIENT
Sch 2.2(a)(ii)

DRAWING
GENERAL NOTES

Job No.	Rev.	
SCALE:	DATE:	Dwg No.
1:100 @ A3	12/05/22	
DESIGNED:	DRAWN:	CHECKED:
	AFZAL	PD

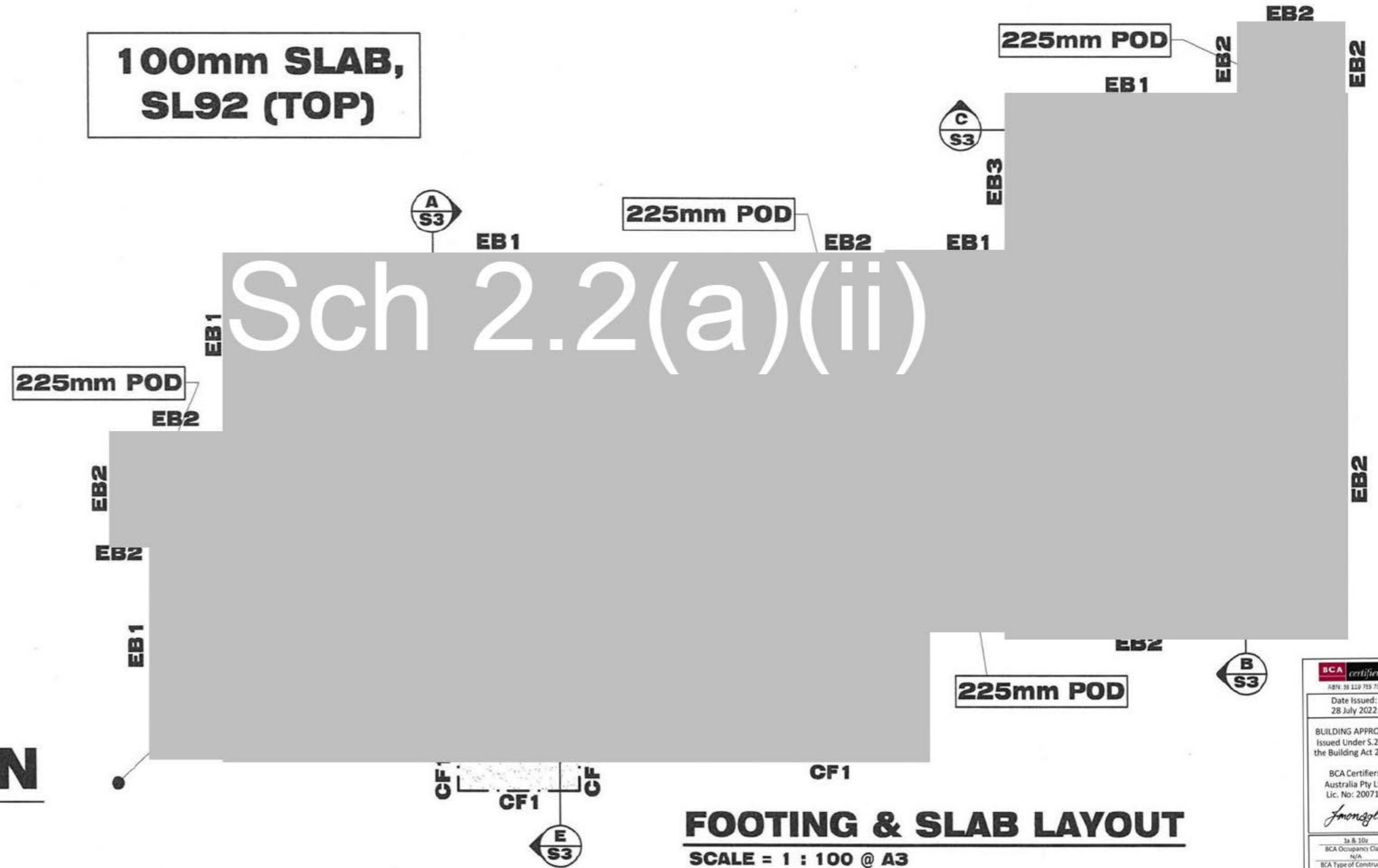
**S1**

**SLAB DESIGN SUMMARY**

BOX HEIGHT (mm)	300 / 225
SLAB THICKNESS (mm)	100
OVERALL DEPTH (mm)	400 / 325
BOX SIZE (mm)	1090 X 1090
SLAB REINFORCEMENT	SL92
110mm INTERNAL RIB REINFORCEMENT	1N12 BTM OR EQUIVALENT
300 INTERNAL BEAM REINFORCEMENT	3N12 BTM OR EQUIVALENT
300mm EXTERNAL EDGE BEAM REINFORCEMENT	3N12 BTM OR EQUIVALENT

REINFORCEMENT FOR BEAMS WHERE WIDTH EXCEEDS 301mm		
WIDTH (mm)	TOP	BOTTOM
301-370	1N12 OR EQUIV	3N12 OR EQUIV
371-480	2N12 OR EQUIV	4N12 OR EQUIV
481-600	3N12 OR EQUIV	5N12 OR EQUIV

**100mm SLAB,  
SL92 (TOP)**



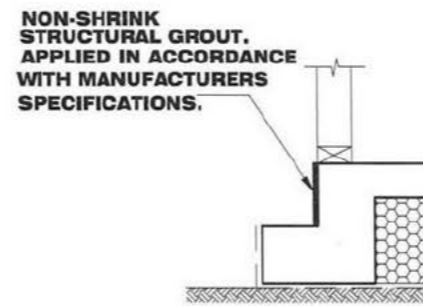
**WAFFLE SLAB PLAN  
"H1" CLASS**

**LEGEND**

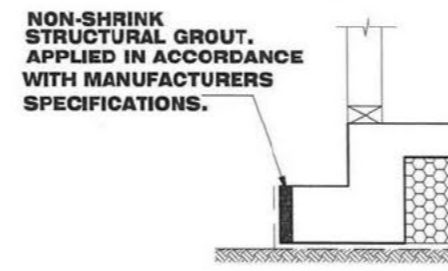
- 1 STANDARD 1090X1090 POD
- 3N12 OR 3L11TM, 2000mm LONG, TIED TO TOP OF SLAB MESH
- 450mm DIA CONCRETE PIERS TO MIN 500mm INTO NATURAL GROUND
- DENOTES STARTING POINT FOR POD LAYOUT.

**FOOTING & SLAB LAYOUT  
SCALE = 1 : 100 @ A3**

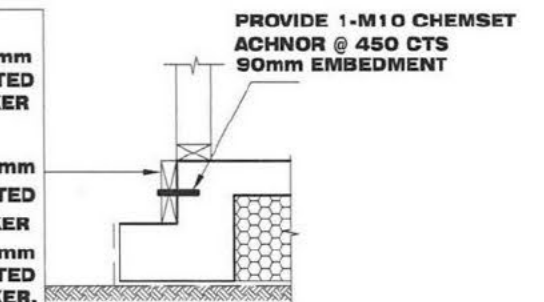
**BCA certifiers**  
Date Issued: 28 July 2022  
BUILDING APPROVAL Issued Under S.28 of the Building Act 2004.  
BCA Certifiers Australia Pty Ltd Lic. No: 200714  
*Amongle*  
BCA Occupancy Class: N/A  
BCA Type of Construction: Building Approval Plans are to be Read in Conjunction with the Building Approval Letter.



15-20mm FRAME OVERHANG  
**SLAB RECTIFICATION**  
SCALE = 1:20



15-30mm BRICK/ CALDDING OVERHANG  
**SLAB RECTIFICATION**  
SCALE = 1:20



20-40mm FRAME OVERHANG  
**SLAB RECTIFICATION**  
SCALE = 1:20

REVISION DETAILS			
NO.	DESCRIPTION	DATE	NAME

**PIERRE DRAGH**  
CONSULTING ENGINEERS

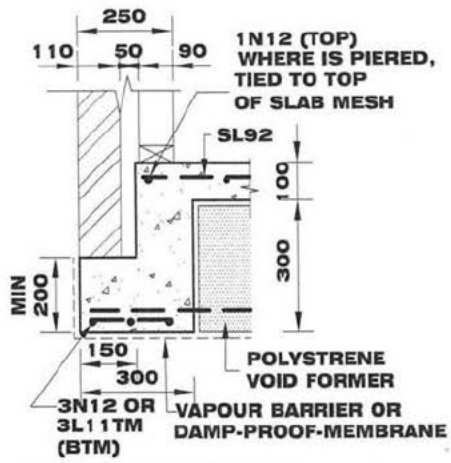
OFFICE:  
16 VICTORIA STREET, HALL ACT, 2618

PH : 0438 625 440 Web: www.pdcengineers.com.au  
FAX : (02) 6230 9695 email : pdragh@bigpond.com

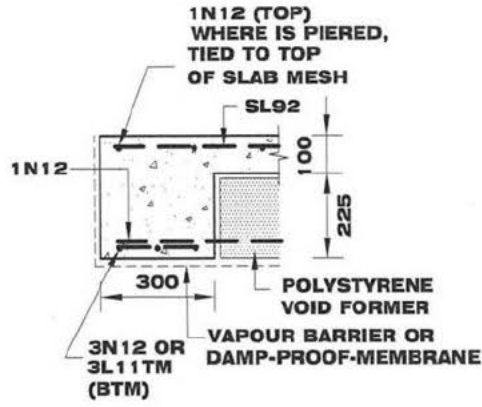
PROJECT	STRATHNAIRN
CLIENT	Sch 2.2(a)(ii)

DRAWING	FOOTING & SLAB LAYOUT
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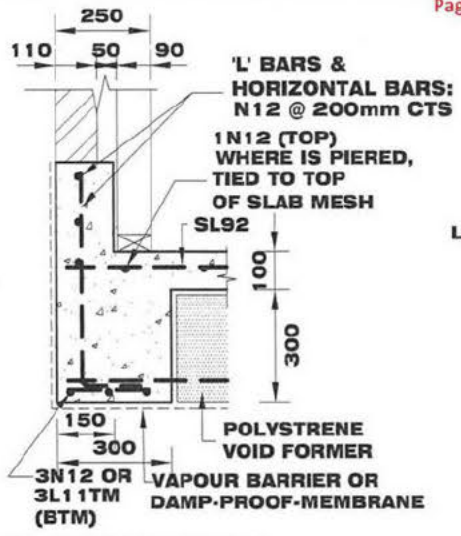
Job No.		Rev.	
SCALE:	DATE:	Dwg No.	<b>S2</b>
1:100 @ A3	12/05/22		
DESIGNED:			
DRAWN: AFZAL			
CHECKED: PD			



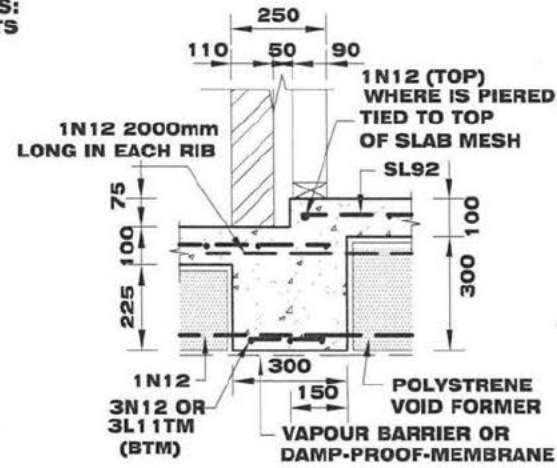
BEARING ONTO NATURAL STRATA OR PIERS(SEE NOTES)  
**STANDARD EDGE BEAM EB1**  
**SECTION A**  
 SCALE = 1:20 **S2**



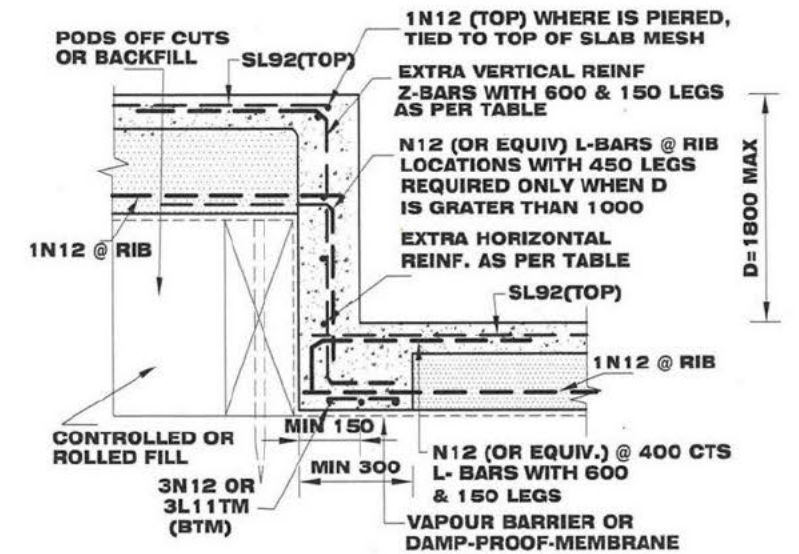
BEARING ONTO NATURAL STRATA OR PIERS(SEE NOTES)  
**STANDARD EDGE BEAM EB2**  
**SECTION B**  
 SCALE = 1:20 **S2**



BEARING ONTO NATURAL STRATA OR PIERS(SEE NOTES)  
**STANDARD EDGE BEAM EB3**  
**SECTION C**  
 SCALE = 1:20 **S2**

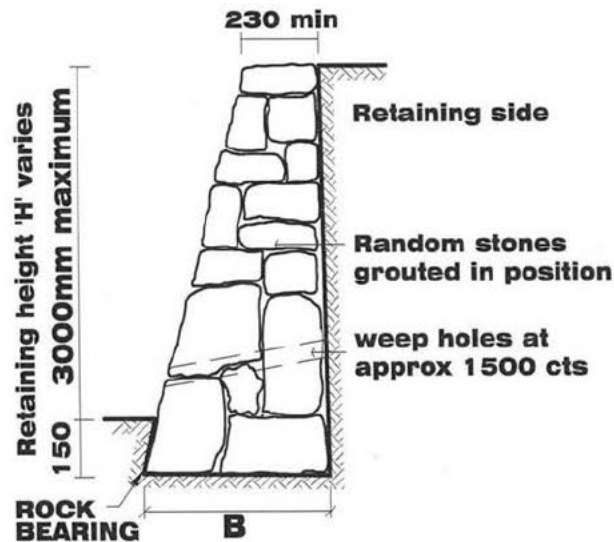


BEARING ONTO NATURAL STRATA OR PIERS(SEE NOTES)  
**75mm STEPDOWN BEAM SD1**  
**SECTION D**  
 SCALE = 1:20 **S2**

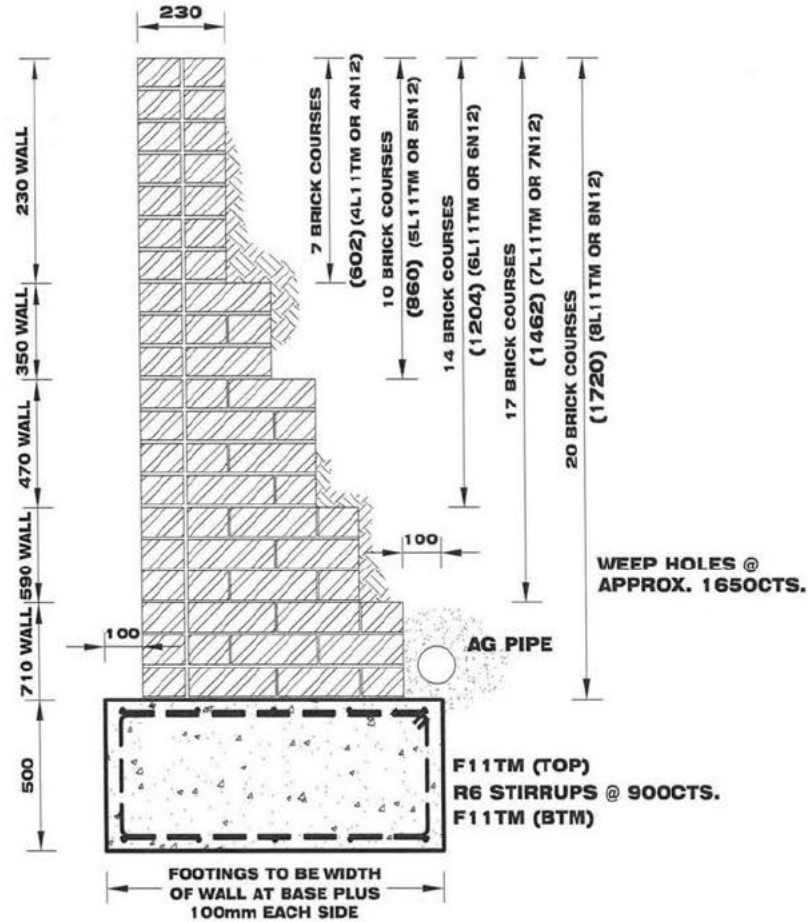


BEARING ONTO NATURAL STRATA OR PIERS(SEE NOTES)  
**DSB DEEP STEP BEAM (1800 MAX)**  
**SECTION E**  
 SCALE = 1:20

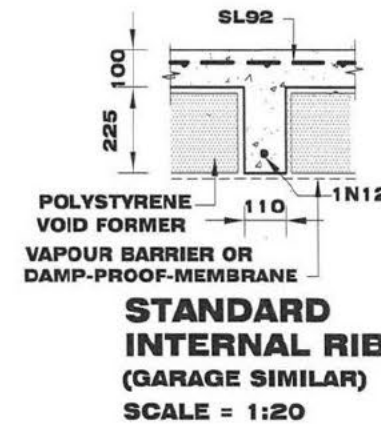
EXTRA REINFORCEMENT TO DEEP EDGE & DEEP STEP BEAM		
DEPTH 'D'	EXTRA VERTICAL REINFORCEMENT	EXTRA HORIZONTAL REINFORCEMENT
'D' IS LESS THAN 400	NONE	NONE
'D' IS BETWEEN 401 & 900	N12 @400CTS	N12 @400CTS
'D' IS BETWEEN 901 & 1200	N12 @300CTS	N12 @400CTS
'D' IS BETWEEN 1201 & 1800	N12 @200CTS	N12 @300CTS



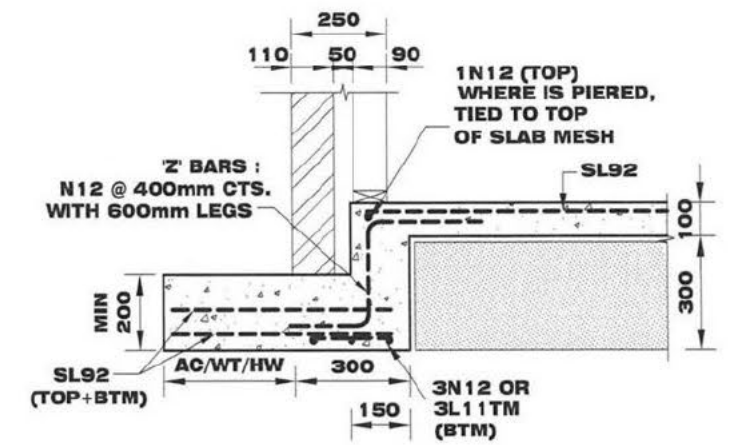
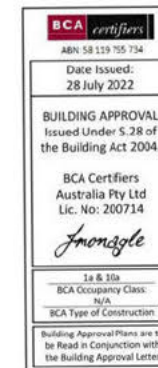
Retaining height 'H' varies  
 3000mm maximum  
**SRW TYPICAL STONE RETAINING WALL**  
 SCALE = 1:20



**(TYPICAL BRICK RETAINING WALL)**  
 WIDTH OF WALL AT BASE DEPENDS ON DEPTH RETAINING.  
 READ OFF WIDTH REQUIRED FROM RETAINING WALL DETAIL.  
 DEPTH OF FOOTING TO BE CHECKED ON SITE BY CONSULTING ENGINEER DURING EXCAVATION.  
 WATERPROOFING OF RETAINING WALL BY OTHERS.  
**SCALE = 1:20**



**STANDARD INTERNAL RIB (GARAGE SIMILAR)**  
 SCALE = 1:20



**CF1 TYPICAL CANTILEVED SECTION E**  
 SCALE = 1:20 **S2**

REVISION DETAILS			
NO.	DESCRIPTION	DATE	NAME

**PIERRE DRAGH**  
 CONSULTING ENGINEERS

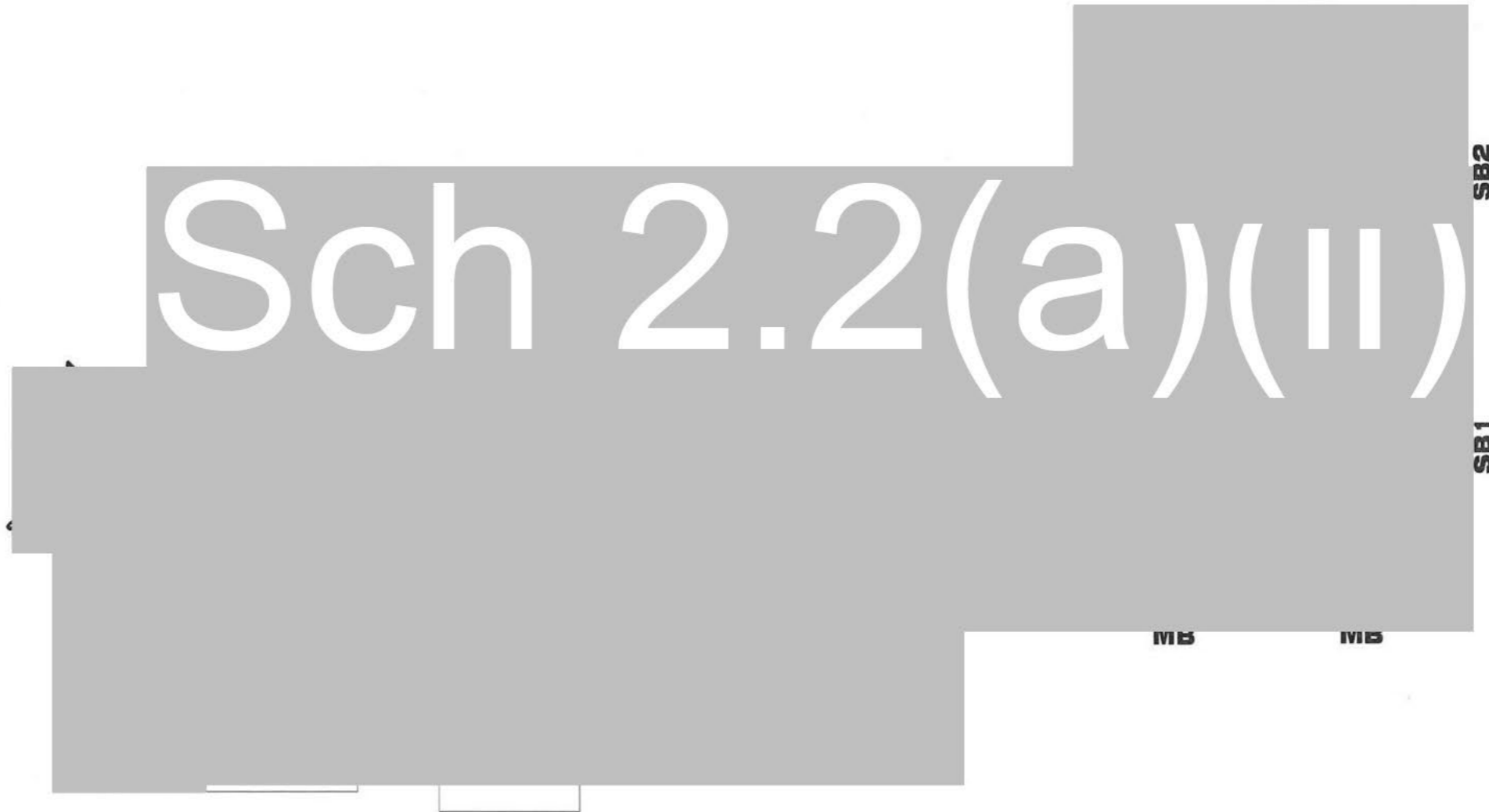
OFFICE:  
 16 VICTORIA STREET, HALL, ACT, 2618

PH: 0438 625 440 Web: www.pdcengineers.com.au  
 FAX: (02) 6230 9695 email: pdragh@blgpond.com

PROJECT	STRATHNAIRN
CLIENT	Sch 2.2(a)(ii)

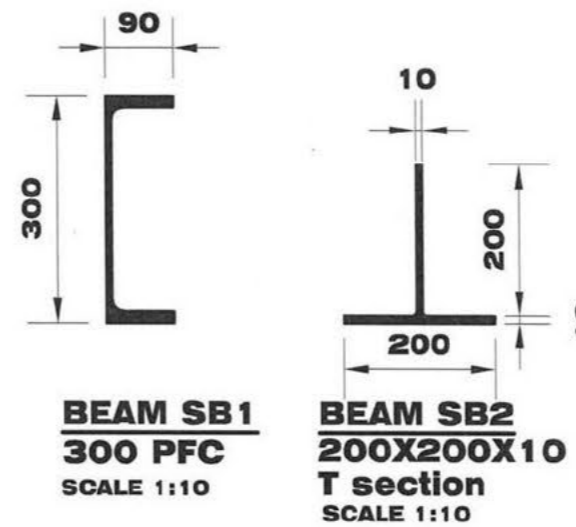
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Job No.	
SCALE:	DATE:
1:100 @ A3	12/05/22
DESIGNED:	
DRAWN:	AFZAL
CHECKED:	PD

Dwg No.	<b>S3</b>
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**JOIST & BEAM LAYOUT**  
SCALE = 1 : 100 @ A3

MEMBER SCHEDULE		
MARK	SIZE	REMARKS
SB1	300 PFC FLOOR BEAM	
SB2	200X200X10 T- SECTION	
MB	METAL BEAM BY OTHERS	
SC1	89X89X3.5 SHS OR 90X90X2 SHS	
JOISTS	JOISTS TO MANU. SPEC.	



BCA certifiers  
ARN: 51 119 751 754  
Date Issued:  
28 July 2022  
BUILDING APPROVAL  
Issued Under 5.28 of  
the Building Act 2004.  
BCA Certifiers  
Australia Pty Ltd  
Lic. No: 200714  
*Amongle*  
14 & 10a  
BCA Occupancy Class:  
N/A  
BCA Type of Construction  
Building Approval Plans are to  
be read in Conjunction with  
the Building Approval Letter

REVISION DETAILS			
NO.	DESCRIPTION	DATE	NAME

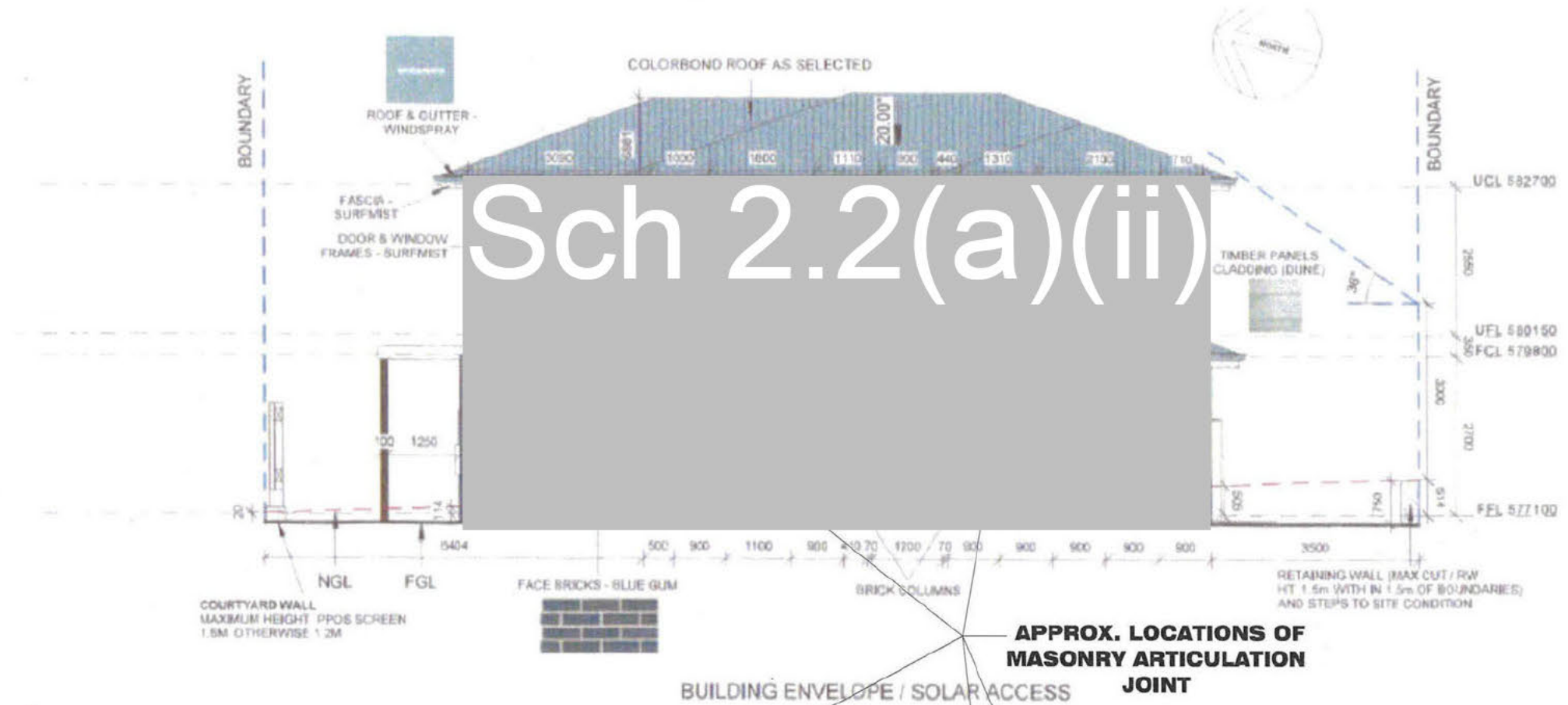
**PIERRE DRAGH**  
CONSULTING ENGINEERS  
OFFICE:  
16 VICTORIA  
STREET, HALL,  
ACT, 2618  
PH: 0438 625 440 Web: www.pdcengineers.com.au  
FAX: (02) 6230 9695 email: pdragh@bigpond.com

PROJECT  
STRATHNAIRN  
CLIENT  
Sch 2.2(a)(ii)

DRAWING  
JOIST & BEAM LAYOUT

Job No.      Rev.  
SCALE: 1:100 @ A3      DATE: 12/05/22      Dwg No.  
DESIGNED:      **S4**  
DRAWN: AFZAL  
CHECKED: PD

Elevation 1  
1 : 100



Elevation 2



**MASONRY ARTICULATION JOINTS LAYOUT**  
SCALE = 1 : 100

Date Issued:  
 28 July 2022  
 BUILDING APPROVAL  
 Issued Under S.28 of  
 the Building Act 2004.  
 BCA Certifiers  
 Australia Pty Ltd  
 Lic. No: 200714  
  
 BCA Occupancy Class:  
 N/A  
 BCA Use of Construction  
 Building Approval Plans are to  
 be read in conjunction with  
 the Building Approval Letter

REVISION DETAILS			
NO.	DESCRIPTION	DATE	NAME

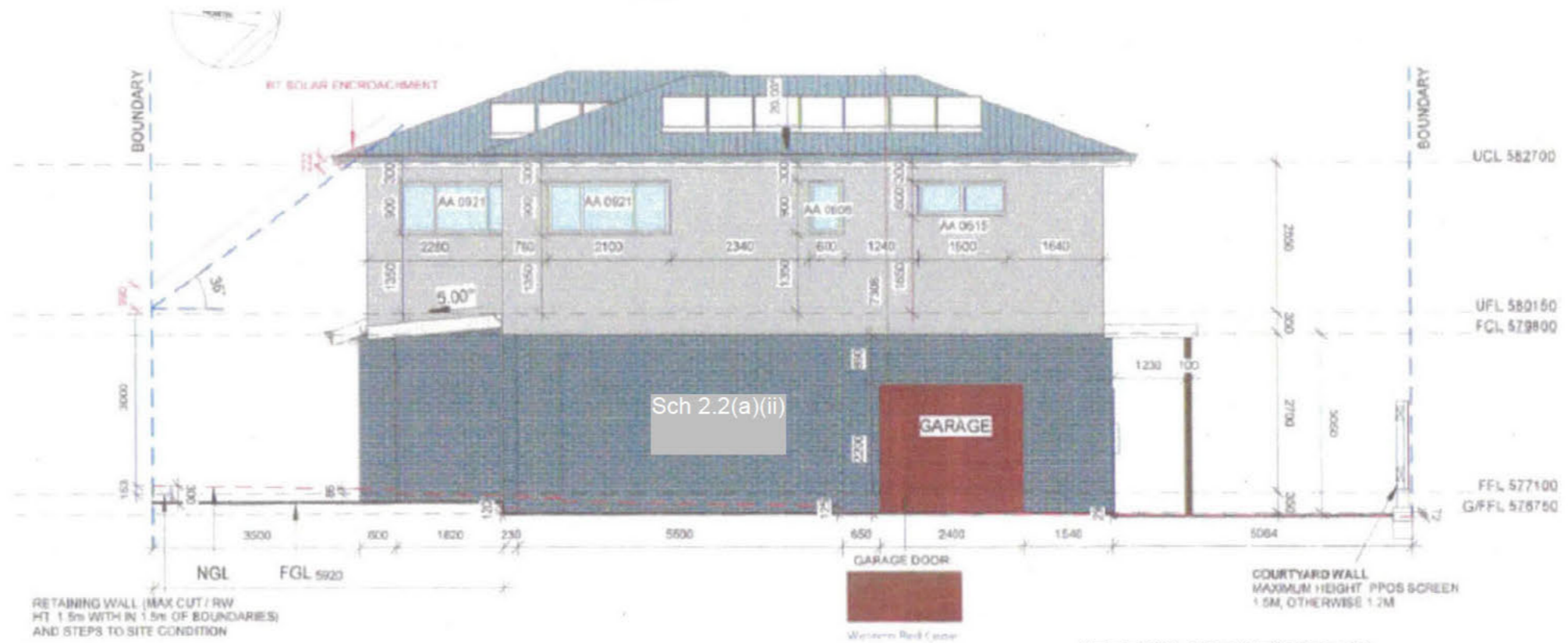
**PIERRE DRAGH**  
 CONSULTING ENGINEERS  
 OFFICE:  
 16 VICTORIA  
 STREET, HALL,  
 ACT, 2618  
 PH : 0438 625 440 Web: www.pdcengineers.com.au  
 FAX : (02) 6230 9695 email : pdragh@bigpond.com

PROJECT  
 STRATHNAIRN  
 CLIENT  
 Sch 2.2(a)(ii)

DRAWING  
**MASONRY ARTICULATION JOINTS LAYOUT**

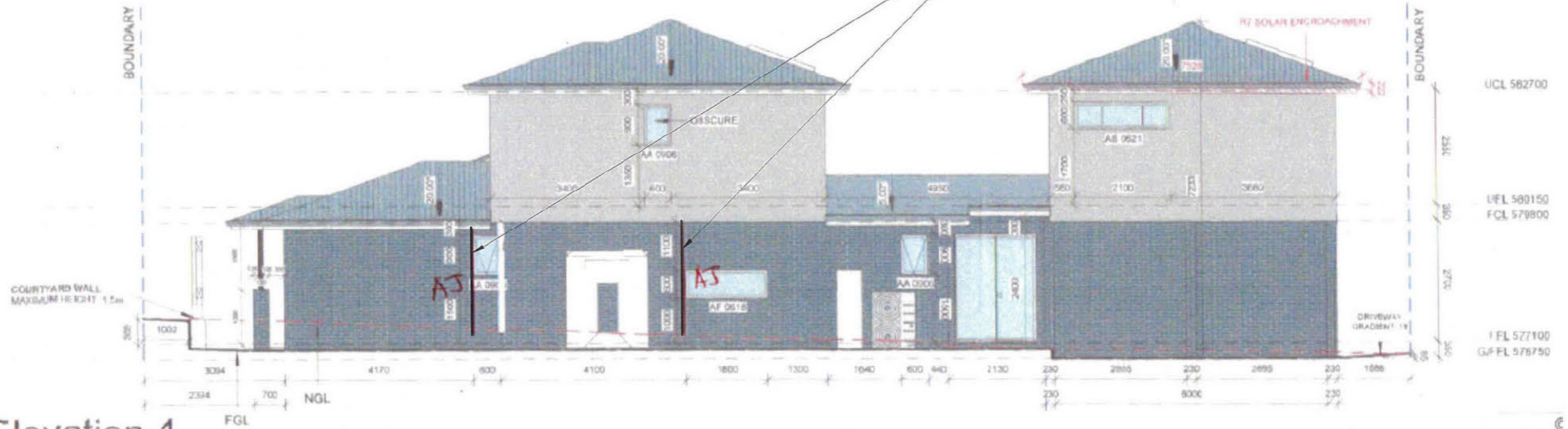
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SCALE: 1:100 @ A3	DATE: 12/05/22
DESIGNED:	Dwg No.
DRAWN: AFZAL	<b>S5</b>
CHECKED: PD	

Elevation 3  
1 : 100



APPROX. LOCATIONS OF MASONRY ARTICULATION JOINT

Elevation 4



**MASONRY ARTICULATION JOINTS LAYOUT**  
SCALE = 1 : 100

**BCA certifiers**  
40M 58 117 55 734  
Date Issued:  
28 July 2022  
BUILDING APPROVAL  
Issued Under S.28 of  
the Building Act 2004.  
BCA Certifiers  
Australia Pty Ltd  
Lic. No: 200714  
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1a & 10a  
BCA Occupancy Class:  
N/A  
BCA Type of Construction  
Building Approval Plans are to  
be Read in Conjunction with  
the Building Approval Letter

Virk Bull  
This plan rem

REVISION DETAILS			
NO.	DESCRIPTION	DATE	NAME

**PIERRE DRAGH**  
CONSULTING ENGINEERS

OFFICE:  
16 VICTORIA  
STREET, HALL,  
ACT, 2618

PH : 0438 625 440 Web: www.pdcengineers.com.au  
FAX : (02) 6230 9695 email : pdragh@bigpond.com

PROJECT  
STRATHNAIRN  
CLIENT  
Sch 2.2(a)(ii)

DRAWING  
MASONRY ARTICULATION JOINTS LAYOUT

Job No.	Rev.
SCALE: 1:100 @ A3	DATE: 12/05/22
DESIGNED:	Dwg No.
DRAWN: AFZAL	<b>S6</b>
CHECKED: PD	

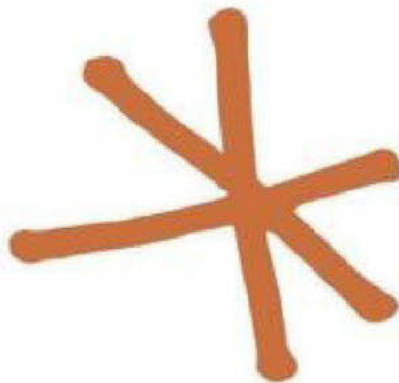


RIVERVIEW PROJECTS (ACT) PTY LTD

# **GINNINDERRY NEIGHBOURHOOD 1**

## **OVERARCHING NOISE MANAGEMENT PLAN**

JUNE 2021



**Ginninderry**



# Question today *Imagine tomorrow* Create for the future

## Ginninderry Neighbourhood 1 Overarching Noise Management Plan

Riverview Projects (ACT) Pty Ltd

WSP

Level 1, 121 Marcus Clarke Street

Canberra ACT 2601

PO Box 1551

Canberra ACT 2600

Tel: +61 2 6201 9600

Fax: +61 2 6201 9666

wsp.com

REV	DATE	DETAILS
3	9 June 2021	Updated following comments from client

	NAME	DATE	SIGNATURE
Prepared by:	Sch 2.2(a)(ii)	9 June 2021	Sch 2.2(a)(ii)
Reviewed by:		9 June 2021	
Approved by:		9 June 2021	

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# EXECUTIVE SUMMARY

WSP Australia Pty Ltd has prepared an overarching Noise Management Plan (NMP) suitable for inclusion in the Development Application (DA) of the residential blocks located adjacent to the arterial road within Stage One of the Ginninderry development.

The assessment has been prepared in reference to the planning requirements of the Single Dwelling Housing Development Code and Multi Unit Housing Development Code.

The purpose of this report is to provide information for land purchasers to guide the selection of façade glazing with respect to meeting the road traffic noise intrusion requirements of these codes. Following this guidance does not guarantee Development Application Approval, and further detailed assessment may be required on a site-by-site basis. Information is provided for costing and selection purposes only.

The primary objectives of this NMP are to:

- Predict and assess the likely road traffic noise levels impacting on the future building façade of developments adjacent to the arterial road in Stage 1.
- Provide indicative acoustic building envelope construction requirements that respond to these road traffic noise levels.

Three dimensional computer noise modelling has been undertaken based on the appropriate input parameters, which resulted in prediction of the likely future road traffic noise levels impacting on the façade of the future dwellings adjacent to the arterial road.

Indicative building envelope construction requirements have been recommended in order to meet the internal noise level goals as discussed in Section 2.

Implementation of the suggested construction (subject to detailed design) is expected to allow the proposed development at the residential blocks adjacent to the arterial road to meet the current planning requirements.

Recommended minimum façade glazing requirements are tabulated on a block-by-block basis in Appendix A.

# 1 INTRODUCTION

WSP Australia Pty Ltd has been commissioned by Riverview Projects (ACT) Pty Ltd to prepare an overarching Noise Management Plan for Neighbourhood One of the Ginninderry estate.

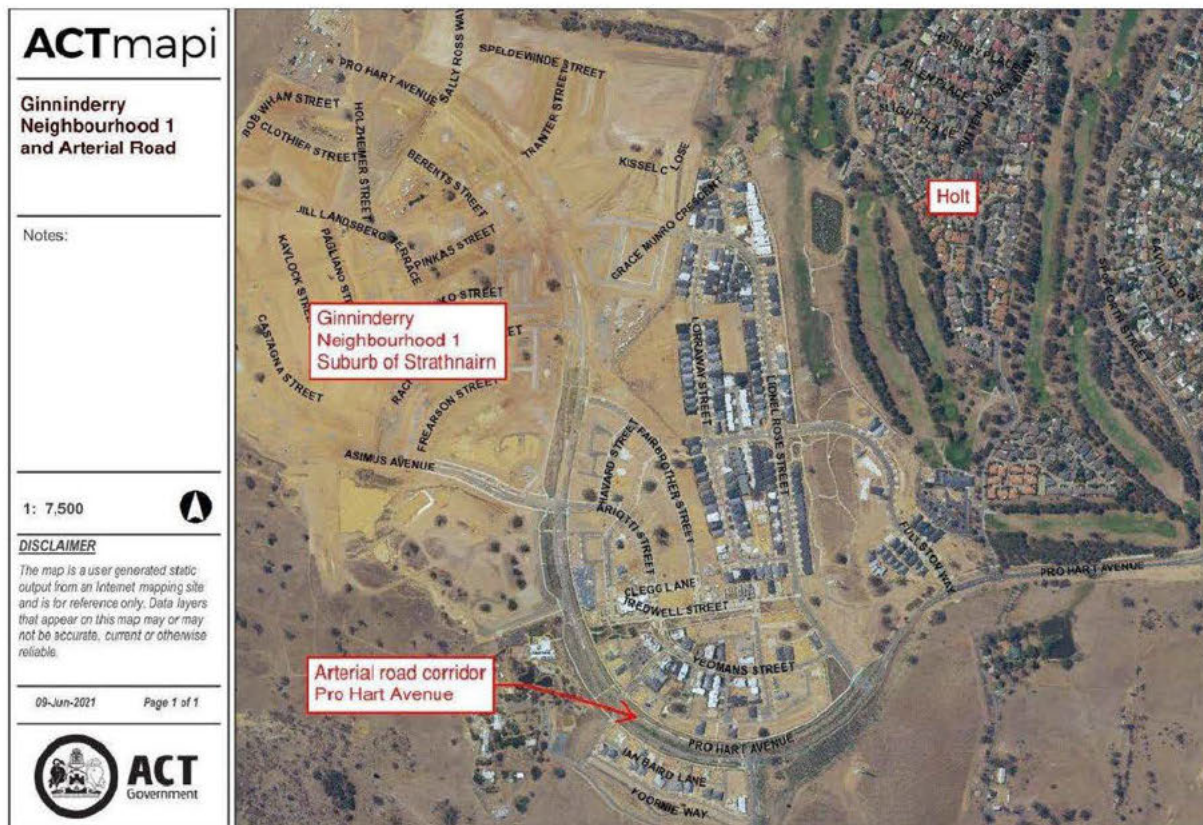
In accordance to the Single Dwelling Housing Development Code (SDHDC) and the Multi Unit Housing Development Code (MUHDC), a NMP and noise assessment is required to be prepared for any land blocks located adjacent to an arterial road (carrying road traffic of 12,000 and above).

The Ginninderry Neighbourhood One location is presented in Figure 1.1. A road noise assessment was previously conducted as part of the preparation of the Estate Development Plan (EDP) (WSP report reference 2303672PA-ACG-R-1 Rev0 dated 29 April 2016). The 3-dimensional road noise model used for the EDP study will serve as the basis of the assessment for this NMP.

The primary objectives of this NMP are to:

- Predict and assess the likely road traffic noise levels impacting on the future building façade of the development adjacent to the arterial road (Pro Hart Avenue) in Stage 1.
- Provide indicative building envelope construction requirements.

The purpose of this report is to provide information for land purchasers to guide the selection of façade glazing with respect to meeting the road traffic noise intrusion requirements of these codes. Following this guidance does not guarantee Development Application Approval, and further detailed assessment may be required on a site-by-site basis. Information is provided for costing and selection purposes only.



Source: ACTmapi accessed 9 June 2021

Figure 1.1 Aerial photograph indicating layout of Ginninderry Neighbourhood One and arterial road

## 2 PLANNING REQUIREMENTS

The relevant noise criteria applicable to the project site have been established in accordance with the following documents:

- Single Dwelling Housing Development Code
- Multi Unit Housing Development Code

With regard to potential noise intrusion to the proposed residential development, Rule 42 of the SDHDC and Rule 67 of the MUHDC states that:

Where a block has one or more of the following characteristics:

- 1 identified in a precinct code as being potentially affected by noise from external sources
- 2 **adjacent to a road carrying or forecast to carry traffic volumes greater than 12,000 vehicles per day**
- 3 located in a commercial zone
- 4 adjacent to a commercial or industrial zone

dwellings should be constructed to comply with the relevant sections of all of the following:

- AS/NZS 2107:2000 – Acoustics – Recommended design sound levels and reverberation times for building interiors (the relevant satisfactory recommended interior design sound level)
- AS/NZS 3671 – Acoustics – Road Traffic Noise Intrusion Building Siting and Design

For other than road traffic noise, compliance with this rule is demonstrated by a noise management plan prepared by a member of the Australian Acoustical Society with experience in the assessment of noise, and endorsed by the EPA. For other than road traffic noise, the noise level immediately adjacent to the dwelling is assumed to be the relevant noise zone standard specified in the ACT Environment Protection Regulation 2005.

For road traffic noise, compliance with this rule is demonstrated by an acoustic assessment and noise management plan, prepared by a member of the Australian Acoustical Society with experience in the assessment of road traffic noise, and endorsed by the Transport Planning & Projects Section in EPSDD.

The Ginninderry arterial road was predicted to carry up to 29,000 vehicles per day. As emboldened in the quotation above, this triggers a road traffic noise assessment under relevant rules by being identified as being located adjacent to a major road corridor.

It should be noted that AS2107:2000 currently referenced in the SDHDC and MUHDC has been superseded by a revised issue dated 2016. The older version was however referenced in this NMP as per required by the MUHDC.

---

### 2.1 ROAD TRAFFIC NOISE INTRUSION

The recommended and maximum internal noise levels for residential developments, in accordance with AS/NZS 2107:2000 *Acoustics – Recommended design sound levels and reverberation times for building interiors* (AS2107), are listed in Table 2.1.

AS2107 uses the  $L_{Aeq}$  descriptor, which describes a steady state sound level of equivalent energy to the time varying noise level over a given period. The time period used for assessment purposes should be representative of the time period that the building will be in use.

This assessment will use the highest  $L_{Aeq-15min}$  measurements for daytime (7 am to 10 pm) and night time (10 pm to 7 am) as the basis for assessing living areas and bedrooms respectively. The attended measurements are considered to be conservative indications of road traffic noise levels likely to impact the proposed development.

The sound transmission loss performance of the façade of the development shall be designed to achieve the recommended internal noise levels shown in Table 2.1.

Table 2.1 AS2107 Recommended design sound levels (dB L<sub>Aeq</sub>)

OCCUPANCY TYPES	AS2107 SATISFACTORY DESIGN SOUND LEVEL		PROPOSED PROJECT ASSESSMENT LEVEL
	RECOMMENDED	MAXIMUM	
Sleeping areas <sup>1</sup>	30 dBA	40 dBA	≤35 dB L <sub>Aeq-9h</sub> (night time)
Living areas <sup>1</sup>	35 dBA	45 dBA	≤40 dB L <sub>Aeq-15h</sub> (daytime)

(1) Based on recommended design targets for the category of *Houses and apartments near major road*.

AS 3671:1989 *Acoustics – Road traffic noise intrusion – Building siting and construction* (AS3671) is concerned with road traffic noise intrusion to buildings near to major roads. AS3671 provides guidelines for determining necessary building envelope constructions to achieve the internal noise levels recommended in AS2107.

Table 2.2 outlines the recommended building construction categories required to achieve satisfactory internal noise levels for a residential building, as per AS2107 (see Table 2.1). This is a guideline only, and the actual reduction afforded will depend upon the frequency content of the noise. Where significant low frequency noise is evident, the guidelines in AS3671 may not be sufficient.

Table 2.2 AS3671 residential building construction categories

BUILDING TYPE	RESIDENTIAL BUILDING CONSTRUCTION CATEGORY			
	Category 1	Category 2	Category 3	Category 4
External road traffic noise level, dB L <sub>Aeq</sub>	≤45	>45 ≤60	>60 ≤75	>75
Most onerous proposed project assessment level, dB L <sub>Aeq</sub>	Sleeping areas ≤35	Sleeping areas ≤35	Sleeping areas ≤35	Sleeping areas ≤35
Resulting necessary Traffic Noise Reduction (TNR)	≤10	>10 ≤25	>25 ≤35	>40

According to AS3671, the categories referenced in Table 2.2 are:

- Category 1 – Standard construction: openings including open windows may comprise up to 10% of the exposed façade.
- Category 2 – Standard construction except for lightweight elements or all glass facades (both of which require acoustic advice). Windows, doors and other openings should be closed.
- Category 3 – Special construction as advised in the Standard. Windows, doors and other openings should be closed.
- Category 4 – Special acoustic advice should be sought.

Following noise predictions for this project, all of the development blocks assessed (see Appendix A) were found to be either **Category 2 or 3**, requiring closable windows and a degree of acoustic consultancy support in final glazing selections.

# 3 ROAD NOISE MODELLING APPROACH

As the forecasted traffic volume along the arterial road will not be realised until the entire Ginninderry development becomes fully occupied, the noise intrusion assessment is entirely based on noise prediction. All predictions were carried out using the Calculation of Road Traffic Noise (CoRTN) algorithm (UK Department of Environment Welsh Office 1988).

Based on information provided by Calibre Consulting during preparation of the EDP, the list of information that contributed to the establishment of the noise model and execution of the noise predictions are briefly summarised in Table 3.1.

Table 3.1 Noise model parameters used

ITEM	DESCRIPTION
3-dimensional ground topography data for the future design ground level of the assessment area	Provided by Calibre Consulting
CAD drawings indicating currently proposed layout of the subdivision	
CAD drawings indicating the centrelines of the proposed arterial road	
Indicative dwelling site plans and floor plans	Provided by Riverview Projects. All buildings will be setback from the road fronting boundary by $\geq 4$ m and from the side boundaries by $\geq 1.5$ m. All buildings to be up to two stories high.
Traffic volume and mix forecast along the proposed arterial road	Based on an extract from the traffic assessment report completed by AECOM dated 1 December 2015 and email advice dated 21 January 2016
Sign-posted speed limit	60 km/hr
Design year for noise assessment purposes	Year 2041
Road pavement type	Dense graded asphalt
Daily traffic volume (24-hour)	15,000 to 29,000 dependent on location of the road sections
Percentage of 18-hour volume over 24-hour volume	95%
Percentage of heavy vehicles (including bus and truck traffic)	Up to 4%
Correction factor to account for potential façade reflection at 1 m in front of building façade	+2.5 dB
Noise model correction factor	-3.7 dB <sup>1</sup>

(1) This is an ACT Government-assigned correction factor for CoRTN algorithm to suit local ACT conditions. This correction factor has typically been found to be applicable in the ACT based on noise model validation processes conducted for various past road projects in the ACT.

# 4 RECOMMEND MINIMUM FACADE CONSTRUCTIONS

## 4.1 ROAD NOISE ASSESSMENT

Based on the modelling parameters presented above, the predicted road traffic noise levels are presented in Table A.1 in Appendix A.

From the predicted noise levels for each development block presented in Table A.1, the predicted noise levels ranges are:

- Day time – 61 to 67 dB  $L_{Aeq, 15hour}$  (a range of 4 dB)
- Night time – 58 to 64 dB  $L_{Aeq, 9hour}$  (a range of 4 dB)

Corresponding minimum glazing and façade wall construction recommendations are described in Section 4.2 and Section 4.3. As the minimum glazing requirements vary slightly from block to block these are also tabulated in Table A.1 for clarity.

## 4.2 GLAZING

The following recommendations for glazing are applicable for façades that have direct and partial frontage to Pro Hart Avenue. This means that an occupant inside the space would have direct line of sight to the road. For façades that face away from the arterial road, standard glazing constructions without specific sound insulation requirements would be suitable. This means that for each final block configuration, the actual position of side and rear windows would need to be reviewed. This will be particularly important for corner blocks or end terraces.

The assessment conducted assumed a glazing area of up to 6 m<sup>2</sup>. If the actual glazing area used is larger than this assumption, further review and assessment will be required.

The following construction recommendations are provided to suit the predicted external noise levels:

- If day time noise level (see Appendix A) is  $L_{Aeq} \leq 63$  dB:
  - Living area – glazing meeting  $\geq 30$  dB  $R_w$  ( $\geq 29$  dB  $R_w + C_{tr}$ ); for example:
    - $\geq 6$  mm standard float glass, or;
    - any double glazing
- If day time noise level (see Appendix A) is  $L_{Aeq} \leq 65$  dB:
  - Living area – glazing meeting  $\geq 32$  dB  $R_w$  ( $\geq 30$  dB  $R_w + C_{tr}$ ); for example:
    - $\geq 6.38$  mm laminated glass, or;
    - double glazing that makes use of  $\geq 6$  mm panes (e.g. 6 / 12 / 6 double glazing)
- If day time noise level (see Appendix A) is  $L_{Aeq} \leq 67$  dB:
  - Living area – glazing meeting  $\geq 34$  dB  $R_w$  ( $\geq 32$  dB  $R_w + C_{tr}$ ); for example:
    - $\geq 10.38$  mm laminated glass, or;
    - double glazing that makes use of  $\geq 10$  mm panes (e.g. 10 / 12 / 6 double glazing)
- If night time noise level (see Appendix A) is  $L_{Aeq} \leq 60$  dB:
  - Sleeping area – glazing meeting  $\geq 32$  dB  $R_w$  ( $\geq 30$  dB  $R_w + C_{tr}$ ); for example:

- $\geq 6.38$  mm laminated glass, or;
  - double glazing that makes use of  $\geq 6$  mm panes (e.g. 6 / 12 / 6 double glazing)
- If night time noise level (see Appendix A) is  $L_{Aeq} \leq 62$  dB:
  - Sleeping area – glazing meeting  $\geq 34$  dB  $R_w$  ( $\geq 32$  dB  $R_w + C_{tr}$ ); for example:
    - $\geq 10.38$  mm laminated glass, or;
    - double glazing that makes use of  $\geq 10$  mm panes (e.g. 10 / 12 / 6 double glazing)
- If night time noise level (see Appendix A) is  $L_{Aeq} \leq 64$  dB:
  - Sleeping area – glazing meeting  $\geq 36$  dB  $R_w$  ( $\geq 34$  dB  $R_w + C_{tr}$ ); for example:
    - $\geq 12.38$  mm laminated glass, or;
    - double glazing that makes use of  $\geq 10.38$  mm laminated panes (e.g. 10.38lam / 12 / 6 double glazing)

The above advice gives minimum sound reduction performances for glazing, and typical constructions that are normally capable of meeting these performances. It is normally the case that thicker or laminated glazing (for example as may be selected for thermal performance) will provide higher acoustic performance, and this will be acceptable if this is verified to be the case for the final selection.

It should also be noted that the glazing configuration and adopted glazing areas nominated above represent one possible construction combination. These glazing types are based on WSP's understanding of glazing types that are likely to be routinely used in residential construction, that typically do not require bespoke design/manufacture. Other combinations are possible and can be capable of meeting the planning requirements.

It is recommended that as a general approach, all residential building facades that have frontage to Pro Hart Avenue are capable of being fully closed/sealed and incorporate acoustic seals to windows and doors. However, the selected window frame system and acoustic seals must not degrade the overall sound insulation performance of the window system and therefore must be of sufficient acoustic rating that matches the glazing.

---

## 4.3 WALLS

In general, a well-mortared brick veneer or any masonry construction is acoustically suitable on this development without further recommendations.

If lightweight cladding is used on the façade with direct and partial frontage to Pro Hart Avenue, the following typical minimum constructions would provide adequate façade sound insulation to meet the internal noise levels given in Table 2.1:

- External wall meeting  $\geq 51$  dB  $R_w$  ( $\geq 42$  dB  $R_w + C_{tr}$ ); for example:
  - External cladding
    - $\geq 9$  mm compressed fibre cement board (or boards of total surface mass  $\geq 13$  kg/m<sup>2</sup>), or
    - $\geq 60$  mm expanded polystyrene foam (NRG Greenboard or equivalent), with  $\geq 10$  mm thick concrete render on the external facing
  - Insulated cavity
    - $\geq 90$  mm frame fully filled with fibrous acoustic insulation ( $\geq 14$  kg/m<sup>3</sup>)
  - Internal cladding
    - $\geq 2$  layers of 13 mm standard core plasterboard (or other boards of surface mass  $\geq 8.5$  kg/m<sup>2</sup> each layer)

For other areas, a similar lightweight construction as above is suitable but with a single layer of plasterboard for the internal lining.

It should be noted that there are a wide range of equivalent lightweight constructions that would provide similar façade sound insulation. Any proposed design that does not meet the nominated facade requirements for glazing, height and materials as detailed above would require a more specific assessment and should be reviewed by an acoustic consultant as design progresses.

It is also noted certain plasterboard, cladding and wall system manufacturers provide design guidelines that will include estimate sound insulation rating ( $R_w$ ) based on tests or expert opinion. Provided that these are sourced from reputable suppliers, it is expected that these design guides can be used to select the appropriate wall systems to meet the noise reduction requirements (e.g. CSR Red Book, Knauf, Boral).

---

## 4.4 VENTILATION

It is assumed that openable windows will be the principal form of ventilation for these sites. All noise assessment has been undertaken assuming that windows can be closed by the occupant.

If permanently open in-wall passive ventilation is pursued for these buildings, the associated reduction in overall composite façade sound insulation performance should be reviewed by an acoustic consultant at the design stage.

# 5 CONCLUSION

WSP Australia has prepared an overarching Noise Management Plan (NMP) suitable for inclusion in the Development Application (DA) of the residential blocks located adjacent to the arterial road, Pro Hart Avenue within Neighbourhood One of the Ginninderry development.

The assessment has been prepared in reference to the planning requirements of the Single Dwelling Housing Development Code and Multi Unit Housing Development Code.

The primary objectives of this NMP are to:

- Predict and assess the likely road traffic noise levels impacting on the future building façade of developments adjacent to the Pro Hart Avenue in Ginninderry Neighbourhood 1.
- Provide indicative building envelope construction requirements for these developments.

Three-dimensional computer noise modelling has been undertaken based on the appropriate input parameters, which resulted in prediction of the likely future road traffic noise levels impacting on the façade of the future dwellings adjacent to the Pro Hart Avenue.

Indicative building envelope construction requirements have been recommended in order to meet the internal noise level goals as discussed in Section 2. Implementation of the suggested constructions (subject to detailed design) are expected to allow the proposed development at the residential blocks adjacent to Pro Hart Avenue to meet the current planning requirements.

Recommended minimum façade glazing requirements are tabulated on a block-by-block basis in Appendix A.

# APPENDIX A

## PREDICTED ROAD TRAFFIC NOISE LEVELS AND ASSOCIATED GLAZING AND FAÇADE WALL PERFORMANCES

Table A.1 summarises the predicted facade sound pressure level for each development block during the day and night time periods, and gives associated minimum glazing performance requirements as well as typical selections that are normally capable of meeting these requirements:

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### A1.1 GLAZING

#### – Glazing combination **Type A**

- Living area – glazing meeting  $\geq 30$  dB  $R_w$  ( $\geq 29$  dB  $R_w + C_{tr}$ )
  - e.g.  $\geq 6$  mm standard float glass, or any double glazing
- Sleeping area – glazing meeting  $\geq 32$  dB  $R_w$  ( $\geq 30$  dB  $R_w + C_{tr}$ )
  - e.g.  $\geq 6.38$  mm laminated glass, or double glazing that makes use of  $\geq 6$  mm panes (e.g. 6 / 12 / 6 double glazing).

#### – Glazing combination **Type B**

- Living area – glazing meeting  $\geq 32$  dB  $R_w$  ( $\geq 30$  dB  $R_w + C_{tr}$ )
  - e.g.  $\geq 6.38$  mm laminated glass, or double glazing that makes use of  $\geq 6$  mm panes (e.g. 6 / 12 / 6 double glazing)
- Sleeping area – glazing meeting  $\geq 34$  dB  $R_w$  ( $\geq 32$  dB  $R_w + C_{tr}$ )
  - e.g.  $\geq 10.38$  mm laminated glass, or double glazing that makes use of  $\geq 10$  mm panes (e.g. 10 / 12 / 6 double glazing)

#### – Glazing combination **Type C**

- Living area – glazing meeting  $\geq 34$  dB  $R_w$  ( $\geq 32$  dB  $R_w + C_{tr}$ )
  - e.g.  $\geq 10.38$  mm laminated glass, or double glazing that makes use of  $\geq 10$  mm panes (e.g. 10 / 12 / 6 double glazing)
- Sleeping area – glazing meeting  $\geq 36$  dB  $R_w$  ( $\geq 34$  dB  $R_w + C_{tr}$ )
  - e.g.  $\geq 12.38$  mm laminated glass, or double glazing that makes use of  $\geq 10.38$  mm panes (e.g. 10.38 / 12 / 6 double glazing)

## A1.2 EXTERNAL WALL

- External wall meeting  $\geq 51$  dB  $R_w$  ( $\geq 42$  dB  $R_w + C_{tr}$ ); for example:
  - External cladding:  $\geq 9$  mm compressed fibre cement board (or boards of total surface mass  $\geq 13$  kg/m<sup>2</sup>),
  - Insulated cavity:  $\geq 90$  mm frame fully filled with fibrous acoustic insulation ( $\geq 14$  kg/m<sup>3</sup>)
  - Internal cladding :  $\geq 2$  layers of 13 mm standard core plasterboard (or other boards of surface mass  $\geq 8.5$  kg/m<sup>2</sup> each layer)
- Or appropriate wall systems from manufacturer design guidelines that are tested or estimated to meet  $\geq 51$  dB  $R_w$  ( $\geq 42$  dB  $R_w + C_{tr}$ ). Sourced from reputable suppliers (e.g. CSR Red Book, Knauf, Boral).

## A1.3 PREDICTED ROAD TRAFFIC FAÇADE NOISE LEVEL FOR EACH NEIGHBOURHOOD ONE DEVELOPMENT BLOCK

Table A.1 Predicted road traffic façade noise levels and associated minimum glazing requirements

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB $R_w$ ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB $L_{Aeq, 15h}$	NIGHT dB $L_{Aeq, 9h}$	
<b>Stage 1</b>				
R01 AZ - a	Ground	64	61	Type B
R01 AZ - a	First	66	63	Type C
R02 AZ - o, m, n	Ground	64	61	Type B
R02 AZ - o, m, n	First	65	62	Type B
R03 AZ - l, k	Ground	64	61	Type B
R03 AZ - l, k	First	65	62	Type B
R04 AZ - f to i	Ground	64	61	Type B
R04 AZ - f to i	First	65	62	Type B
R05 AY - a	Ground	64	61	Type B
R05 AY - a	First	65	62	Type B
R06 AU - a	Ground	65	62	Type B
R06 AU - a	First	67	64	Type C
R07 AS - a, b	Ground	64	61	Type B
R07 AS - a, b	First	66	63	Type C
R08 AS - c, d	Ground	64	61	Type B
R08 AS - c, d	First	66	63	Type C
R09 AS - e, f, g	Ground	64	61	Type B

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB R <sub>w</sub> ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB L <sub>Aeq, 15h</sub>	NIGHT dB L <sub>Aeq, 9h</sub>	
R09 AS - e, f, g	First	66	63	Type C
R10 AS - h to n	Ground	64	61	Type B
R10 AS - h to n	First	66	63	Type C
R11 AS - o	Ground	64	61	Type B
R11 AS - o	First	66	63	Type C
R12 AS - p	Ground	64	61	Type B
R12 AS - p	First	66	63	Type C
R13 AS - q	Ground	64	61	Type B
R13 AS - q	First	66	63	Type C
R14 AS - r	Ground	64	61	Type B
R14 AS - r	First	66	63	Type C
R15 AI - j	Ground	65	62	Type B
R15 AI - j	First	66	63	Type C
R16 AI - i	Ground	64	61	Type B
R16 AI - i	First	66	63	Type C
R17 AI - h	Ground	64	61	Type B
R17 AI - h	First	66	63	Type C
R18 AI - g	Ground	64	61	Type B
R18 AI - g	First	66	63	Type C
R19 AF - a	Ground	63	60	Type A
R19 AF - a	First	66	63	Type C
R19 AI - f	Ground	64	61	Type B
R19 AI - f	First	66	63	Type C
R20 AF - b	Ground	64	61	Type B
R20 AF - b	First	66	63	Type C
R21 AF - c	Ground	64	61	Type B
R21 AF - c	First	66	63	Type C
R22 AG - a	Ground	63	60	Type A
R22 AG - a	First	66	63	Type C
R23 AG - b	Ground	63	60	Type A

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB R <sub>w</sub> ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB L <sub>Aeq, 15h</sub>	NIGHT dB L <sub>Aeq, 9h</sub>	
R23 AG - b	First	66	63	Type C
R24 AG - c	Ground	63	60	Type A
R24 AG - c	First	65	62	Type B
R25 AG - d	Ground	63	60	Type A
R25 AG - d	First	65	62	Type B
R26 AG - e	Ground	63	60	Type A
R26 AG - e	First	65	62	Type B
R27 AG - g	Ground	63	60	Type A
R27 AG - g	First	65	62	Type B
R27 AG - h	Ground	63	60	Type A
R27 AG - h	First	65	62	Type B
R28 AG - i	Ground	63	60	Type A
R28 AG - i	First	65	62	Type B
R29 AG - j	Ground	63	60	Type A
R29 AG - j	First	65	62	Type B
R30 AA - b	Ground	63	60	Type A
R30 AA - b	First	66	63	Type C
R31 AA - c	Ground	64	61	Type B
R31 AA - c	First	66	63	Type C
R32 AA - d	Ground	64	61	Type B
R32 AA - d	First	66	63	Type C
R33 AA - e	Ground	64	61	Type B
R33 AA - e	First	66	63	Type C
R34 AA - f	Ground	64	61	Type B
R34 AA - f	First	66	63	Type C
R35 AA - h	Ground	63	60	Type A
R35 AA - h	First	66	63	Type C
R36 BK - a	Ground	64	61	Type B
R36 BK - a	First	66	63	Type C
R37 BK - b	Ground	64	61	Type B

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB R <sub>w</sub> ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB L <sub>Aeq, 15h</sub>	NIGHT dB L <sub>Aeq, 9h</sub>	
R37 BK - b	First	66	63	Type C
R38 BK - d	Ground	64	61	Type B
R38 BK - d	First	66	63	Type C
R39 BK - e	Ground	64	61	Type B
R39 BK - e	First	66	63	Type C
R40 BK - f	Ground	64	61	Type B
R40 BK - f	First	66	63	Type C
R41 BK - g	Ground	64	61	Type B
R41 BK - g	First	66	63	Type C
R42 BK - h	Ground	64	61	Type B
R42 BK - h	First	66	63	Type C
R43 BK - j	Ground	64	61	Type B
R43 BK - j	First	66	63	Type C
R44 BK - k	Ground	64	61	Type B
R44 BK - k	First	66	63	Type C
R45 BK - l	Ground	64	61	Type B
R45 BK - l	First	66	63	Type C
R46 BK - m	Ground	64	61	Type B
R46 BK - m	First	66	63	Type C
R47 BG - a	Ground	64	61	Type B
R47 BG - a	First	66	63	Type C
<b>Stage 2</b>				
R48 AR - a	Ground	63	60	Type A
R48 AR - a	First	65	62	Type B
R49 AR - b	Ground	64	61	Type B
R49 AR - b	First	65	62	Type B
R50 AP - p	Ground	64	61	Type B
R50 AP - p	First	65	62	Type B
R50 AP - p	Ground	65	62	Type B
R50 AP - p	First	65	62	Type B

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB R <sub>w</sub> ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB L <sub>Aeq, 15h</sub>	NIGHT dB L <sub>Aeq, 9h</sub>	
R51 AP - b	Ground	65	62	Type B
R51 AP - b	First	65	62	Type B
R52 AP - c	Ground	64	61	Type B
R52 AP - c	First	66	63	Type C
R53 AP - d	Ground	64	61	Type B
R53 AP - d	First	65	62	Type B
R54 AP - e	Ground	64	61	Type B
R54 AP - e	First	65	62	Type B
R54 AP - f, g	Ground	64	61	Type B
R54 AP - f, g	First	65	62	Type B
R56 AH - d	Ground	63	60	Type A
R56 AH - d	First	65	62	Type B
R60 AG - a	Ground	64	61	Type B
R60 AG - a	First	65	62	Type B
R61 AG - b	Ground	64	61	Type B
R61 AG - b	First	65	62	Type B
R62 AG - c	Ground	63	60	Type A
R62 AG - c	First	65	62	Type B
R63 AG - d	Ground	64	61	Type B
R63 AG - d	First	65	62	Type B
R64 AG - e	Ground	64	61	Type B
R64 AG - e	First	65	62	Type B
R65 AG - f	Ground	64	61	Type B
R65 AG - f	First	65	62	Type B
R66 AG - g	Ground	64	61	Type B
R66 AG - g	First	65	62	Type B
R67 AG - h	Ground	64	61	Type B
R67 AG - h	First	65	62	Type B
R68 AG - i	Ground	60	57	Type A
R68 AG - i	First	61	58	Type A

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB R <sub>w</sub> ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB L <sub>Aeq, 15h</sub>	NIGHT dB L <sub>Aeq, 9h</sub>	
R69 AG - j	Ground	60	57	Type A
R69 AG - j	First	61	58	Type A
R70 AG - k	Ground	59	56	Type A
R70 AG - k	First	60	57	Type A
R71 AG - l	Ground	62	59	Type A
R71 AG - l	First	64	61	Type B
R78 AB - a	Ground	60	57	Type A
R78 AB - a	First	61	58	Type A
R79 AB - b	Ground	61	58	Type A
R79 AB - b	First	63	60	Type A
R80 AB - c	Ground	62	59	Type A
R80 AB - c	First	63	60	Type A
R81 AB - d	Ground	62	59	Type A
R81 AB - d	First	63	60	Type A
R82 AB - e	Ground	62	59	Type A
R82 AB - e	First	63	60	Type A
R83 AB - f	Ground	61	58	Type A
R83 AB - f	First	63	60	Type A
R84 BJ - a	Ground	62	59	Type A
R84 BJ - a	First	64	61	Type B
R85 BJ - c	Ground	63	60	Type A
R85 BJ - c	First	65	62	Type B
R86 BJ – d to k	Ground	63	60	Type A
R86 BJ – d to k	First	65	62	Type B
R87 BJ - l	Ground	63	60	Type A
R87 BJ - l	First	65	62	Type B
R88 BH - a	Ground	63	60	Type A
R88 BH - a	First	65	62	Type B
R89 BH – b to g	Ground	63	60	Type A
R89 BH – b to g	First	65	62	Type B

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB R <sub>w</sub> ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB L <sub>Aeq, 15h</sub>	NIGHT dB L <sub>Aeq, 9h</sub>	
R90 BH - h	Ground	63	60	Type A
R90 BH - h	First	65	62	Type B
R91 BH - i	Ground	63	60	Type A
R91 BH - i	First	65	62	Type B
R92 BH - j	Ground	63	60	Type A
R92 BH - j	First	65	62	Type B
R93 BH - k	Ground	63	60	Type A
R93 BH - k	First	65	62	Type B
R94 BH - l	Ground	63	60	Type A
R94 BH - l	First	65	62	Type B
R95 BH - m	Ground	63	60	Type A
R95 BH - m	First	65	62	Type B
R96 BH - n	Ground	63	60	Type A
R96 BH - n	First	65	62	Type B
R97 BH - o	Ground	63	60	Type A
R97 BH - o	First	65	62	Type B
R99 BF - a	Ground	63	60	Type A
R99 BF - a	First	65	62	Type B
R102 BF - y	Ground	63	60	Type A
R102 BF - y	First	65	62	Type B
R103 BF - x	Ground	63	60	Type A
R103 BF - x	First	65	62	Type B
R104 BF - w	Ground	63	60	Type A
R104 BF - w	First	65	62	Type B
R105 BF - v	Ground	63	60	Type A
R105 BF - v	First	65	62	Type B
R106 BF - u	Ground	63	60	Type A
R106 BF - u	First	65	62	Type B
R107 BF - t	Ground	63	60	Type A
R107 BF - t	First	65	62	Type B

BLOCK REFERENCE (FROM NORTH TO SOUTH)	BUILDING LEVEL	PREDICTED ROAD TRAFFIC SOUND PRESSURE LEVEL AT RESIDENTIAL FAÇADE		MINIMUM GLAZING SOUND INSULATION PERFORMANCE (dB R <sub>w</sub> ) AND TYPICAL GLAZING SELECTION NORMALLY CAPABLE OF MEETING THIS PERFORMANCE
		DAY dB L <sub>Aeq, 15h</sub>	NIGHT dB L <sub>Aeq, 9h</sub>	
R108 BF - s	Ground	63	60	Type A
R108 BF - s	First	65	62	Type B
R109 BF - p	Ground	65	62	Type B
R110 BF - o	Ground	64	61	Type B
R110 BF - o	First	65	62	Type B



# BUILDING APPROVAL

**PROJECT NUMBER:** 220634

**DATE:** 28 July 2022

**PROJECT DETAILS:** Strathnairn [REDACTED]

**PROJECT DESCRIPTION:** New Dwelling, Garage, Carport, Porch & Alfresco

**BCA Certifiers Australia Pty Ltd**

**ACT COLA LIC Number:** [200714](#)

**ABN:** [58 119 755 734](#)

