



BIRZULIS ASSOCIATES Pty Ltd
Consulting Structural + Civil Engineers
ACN 003 797 911 ABN 99 003 797 911

SYDNEY OFFICE
583 Darling Street, Rozelle NSW 2039
Telephone: (02) 95557230
Email: office@birzulisassociates.com
NEWCASTLE OFFICE
2/163 King Street, Newcastle NSW 2300
Telephone: (02) 40494855
Email: office@birzulisassociates.com

STRUCTURAL ENGINEERING DESIGN BRIEF

FRESH HOPE COMMUNITIES GREENSTEAD VALLEY, JOADJA

PREPARED BY: JONATHAN WALUJONO
DATE: 15/03/2024
REVISION: A

DIRECTORS

B Fimmano BE(Hons), MIEAust, CPEng, NER, APEC Engineer, IntPE (Aus)
M Grogan BE, MEng, MIEAust, CPEng, NER, APEC Engineer, IntPE (Aus)
P Grogan BE(Hons), ME (Struct), MIEAust, CPEng, NER

ASSOCIATE DIRECTORS

R Faustino BE(Hons), MIEAust
J Walujono BE(Hons), ME(Struct), MIEAust

CONSULTANT

A J Birzulis OAM, BE, MEngSc, FIEAust, CPEng



DOCUMENT VERIFICATION

Project Title	Fresh Hope Communities – Greenstead Valley, Joadja
Document Title	Structural Schematic Design Report
Project No.	
Client Contact	Pure Projects Management

	Name	Signature
Prepared by	Jonathan Walujono	
Checked by		
Issued by		

DOCUMENT HISTORY

Date	Revision	Issued to	Description
04/10/2023	DRAFT	Pure Projects	DRAFT
15/03/2024	A	Pure Projects	CONCEPT DESIGN

EXECUTIVE SUMMARY

This report documents the performance design brief for structural engineering design of the new development at Greenstead Valley, Joadja in accordance with NCC 2022, relevant Australian Standards, and accepted engineering practice and principle noting also the 'Joadja Service Strategy' provided by the Client and the Architect.

The new development comprises of various options for accommodation including cabins, 'glamping' and service accommodations. The proposed alteration and addition to the existing cottage structure adjacent to the existing swimming pool ('Community 1') is located to the Northern part of the site. The shared amenities building 'Community 2', and the 'Arrival Village' building which will include a commercial kitchen, dining area, lounge, office, and meeting room, etc. are proposed to be located the South of 'Community 1'.

At this stage a geotechnical investigation assessment has yet to be completed. Hence, the footing design of the proposed building is yet to be confirmed. Currently high-level pad and strip footings are proposed noting the Client's and Architect's intent to touch the earth lightly. However, the suitability of the proposed footing will need to be confirmed following a geotechnical investigation assessment and results.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
TABLE OF CONTENTS.....	4
1 INTRODUCTION	6
1.1 LOCATION	6
1.2 GEOTECHNICAL.....	7
1.3 EXISTING STRUCTURES	7
1.4 EXISTING DOCUMENTATION	9
2 PROPOSED DEVELOPMENT	10
2.1 OVERVIEW	10
2.2 ARRIVAL VILLAGE.....	10
2.2.1 FOUNDATIONS & GROUND FLOOR SLAB	10
2.2.2 ROOF STRUCTURE	11
2.3 'COMMUNITY 1' BUILDING.....	12
2.3.1 FOUNDATIONS & GROUND FLOOR SLAB PLAN	12
2.3.2 ROOF STRUCTURE	13
2.3.3 MISCELLANEOUS.....	14
2.4 'COMMUNITY 2' BUILDING.....	14
2.4.1 FOUNDATIONS & LOWER GROUND FLOOR SLAB PLAN.....	14
2.4.2 GROUND FLOOR SLAB.....	15
2.4.3 ROOF STRUCTURE	16
2.5 GLAMPING TENTS AND CABINS.....	16
3 PERFORMANCE CRITERIA.....	18
3.1 DESIGN LOADS.....	18
3.1.1 PERMANENT, IMPOSED AND OTHER ACTIONS.....	19
3.1.2 WIND	20
3.1.3 EARTHQUAKE	20
3.2 DEFLECTION.....	21
3.3 FIRE RATING.....	22
3.4 LIST OF RELEVANT AUSTRALIAN STANDARDS (STRUCTURAL).....	24
3.5 MATERIALS	25
3.5.1 CONCRETE	25
3.5.2 REINFORCING STEEL	26
3.5.3 STRUCTURAL STEEL	26
3.5.4 STRUCTURAL TIMBER.....	26

3.5.5 MASONRY..... 26

4 CONTACT US..... 27

1 INTRODUCTION

1.1 LOCATION

Greestead Valley is located in the NSW Southern Highlands in the suburb of Joadja.

Site Address: 1551 Joadja Road, Joadja NSW

Site Area: Approximately 800 acres
with existing homestead, shed, riverside cottage and
cattle yards

Local Council: Wingecarribee Shire Council

The development proposed is an eco-tourist facility, located at 1551 Joadja Road, JOADJA NSW. The proposal includes a variety of Community Villages, for both short term stay and day trips. This includes;-

- Arrival Village consisting of parking areas and arrival building.
- Community 1 consisting of a refurbished homestead building and cabins.
- Community 2 consisting of amenities building and glamping.

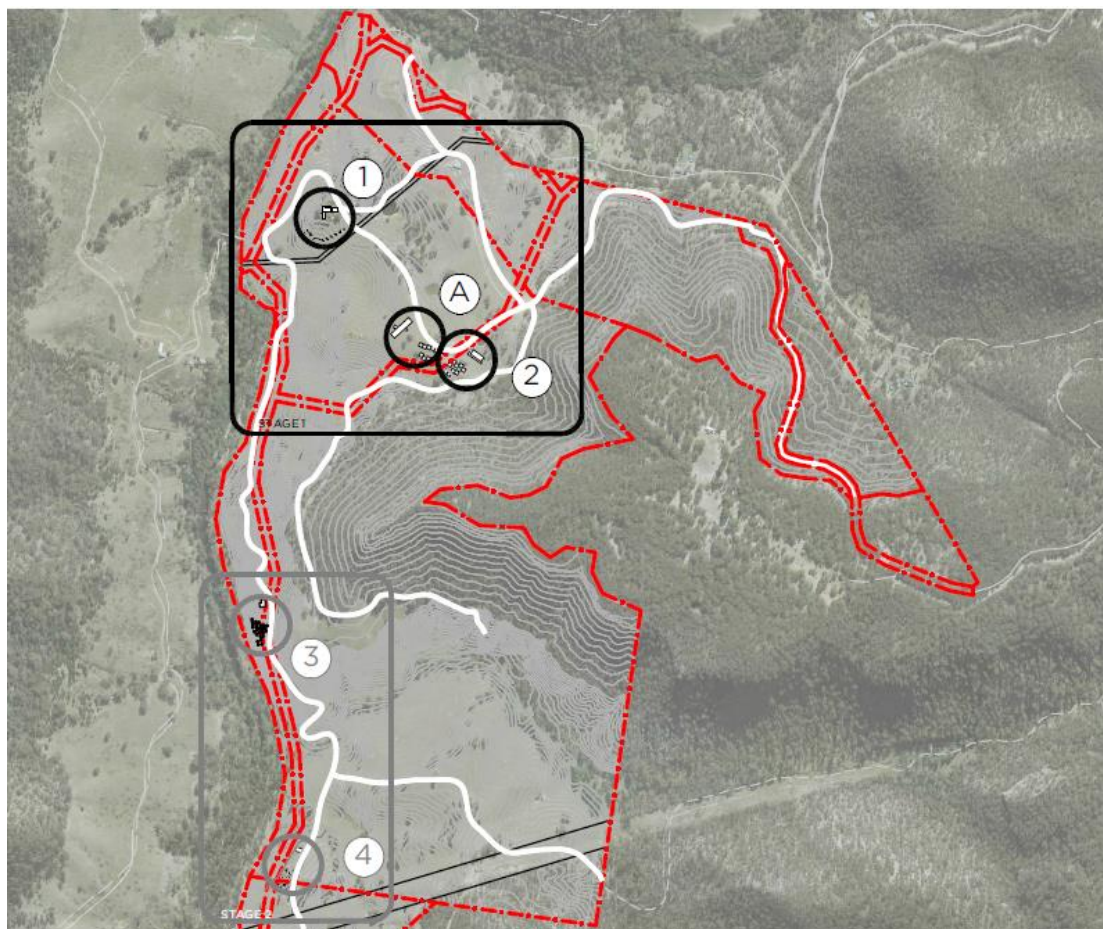


Figure 1.1.1 - Overall Site Plan

1.2 GEOTECHNICAL

A geotechnical investigation has been carried out by Martens Consulting Engineers Pty Ltd on 3 to 4 October 2023.

Based on the preliminary geotechnical investigation report (*Ref: P2108462JR03V01 – November 2023*) the majority of the site is expected to be underlain by Mandari Granodiorite located at relatively shallow depth to the natural ground level.

Geotechnical investigation revealed that the subsurface conditions are generally to be consisting of residual soil comprising of sandy clay / sandy silt / silty sand / silty clay of varying depth with an allowable end bearing pressure capacity for strip/pad footing of 100 kPa. Weathered rock comprising of highly weathered granodiorite material with an allowable end bearing pressure capacity for strip/pad footing of 500 kPa can be found underneath the residual soil material.

1.3 EXISTING STRUCTURES

An inspection of the site was carried out by this office on the 13th of September 2023.

At the Northern side of the site, there is an existing cottage building and existing swimming pool. The existing cottage building is a one-storey building constructed of load-bearing brick masonry walls. The roof of the building is metal deck roof sheeting. Ceiling finish covers most of the framing, however, we believe that the metal deck roof sheeting is supported on timber roof framing members bearing on load-bearing brick masonry walls.

The inspection was limited to a visual examination of the exposed and accessible areas of the building and hence a significant proportion of the existing building structures could not be properly inspected. No attempt has been made to remove vegetation, floor, wall and ceiling finishes, hence the construction and condition of the existing wall footings were not able to be determined.

The external and internal walls of the building were inspected. Based on our visual examination, the building structures generally appears to be in reasonable condition. No signs of significant structural distress were observed at the time of the inspection..

The new development to Greenstead Valley indicates a number of existing windows are to be removed with some extent of the existing openings to be infilled and make good, and new door opening created – refer to Figure 1.3.1 – Proposed ‘Community 1’ Demolition Plan

(*excerpt from Architectural drawing DA2-02 prepared by Breathe Architect dated 12/03/2024*). Proposed additions to the existing building are shown in the proposed Architectural drawing – refer to Figure 1.3.2.

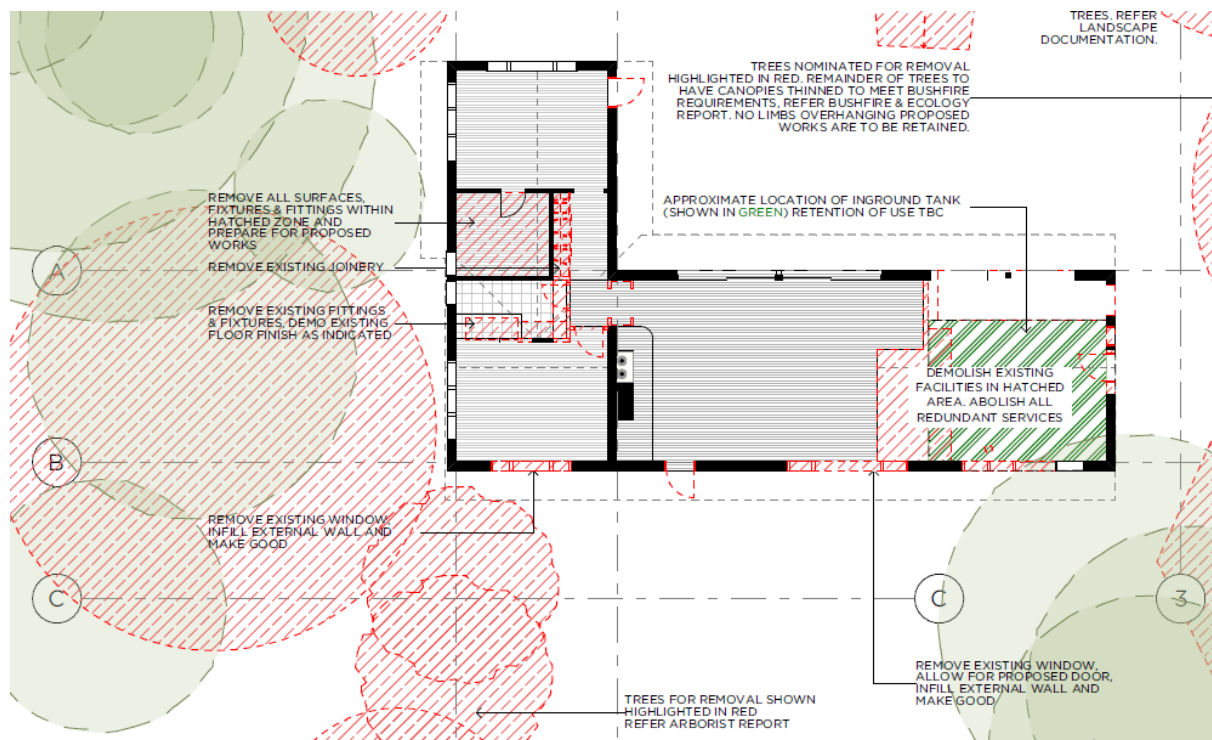


Figure 1.3.1 – Proposed 'Community 1' Demolition Plan
 (excerpt from Architectural drawing DA2-02 prepared by Breathe Architect dated 12/03/2024)

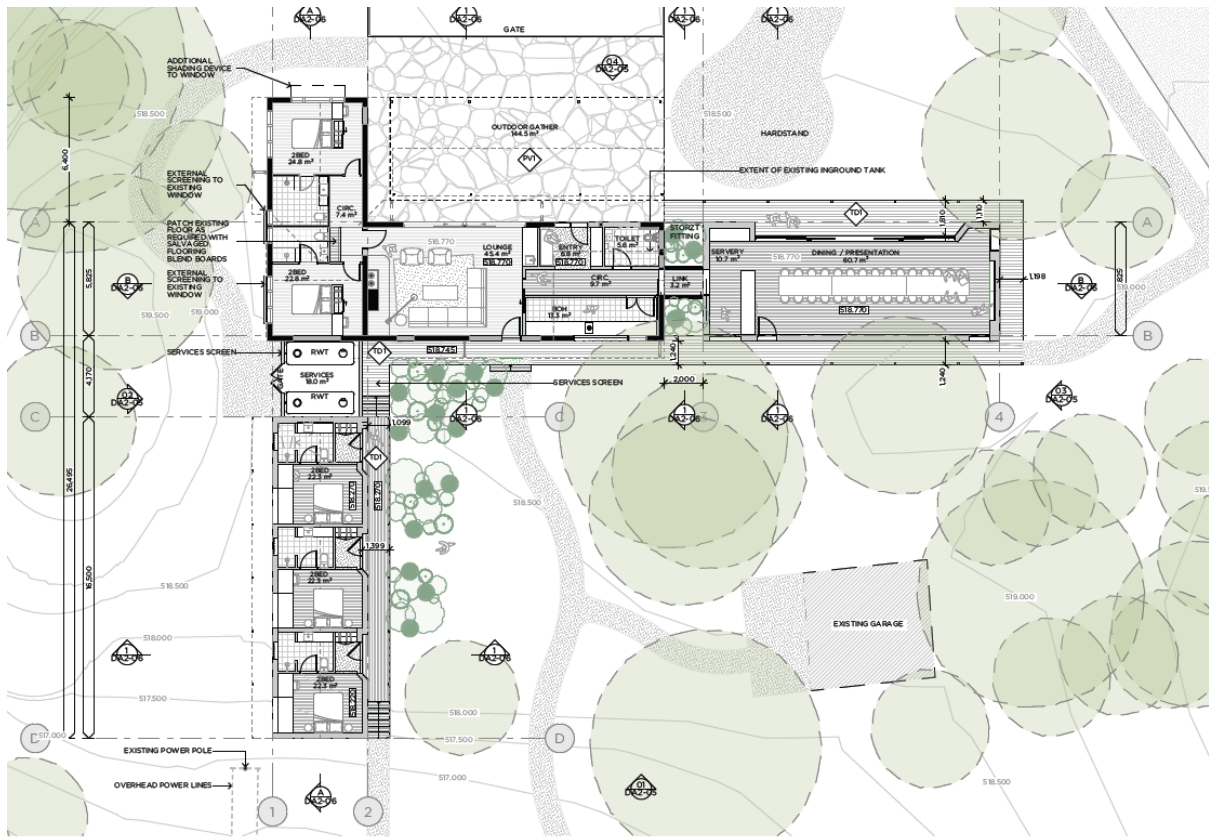


Figure 1.3.2 – Proposed 'Community 1' GA Plan
(excerpt from Architectural drawing DA2-03 prepared by Breathe Architect dated 12/03/2024)

Based on our preliminary examination of the existing building, the proposed building alterations and additions are structurally feasible subject to detailed structural design works to be carried out prior to construction in accordance with the current National Construction Code and relevant Australian Standards.

1.4 EXISTING DOCUMENTATION

The following documentation for the site has been received:

- Existing survey drawings covering the full extent of the site and showing existing buildings throughout the site. (Drawing No. 215774-MP01 & 215774-TS01 prepared by LandTeam Australia Pty Ltd dated 02/03/2023)
- Preliminary draft geotechnical investigation report prepared by Martens Consulting Engineers (Ref: P2108462JR03V01 dated November 2023)

2 PROPOSED DEVELOPMENT

2.1 OVERVIEW

The proposed development comprises of new 'Arrival Village' building, alteration and addition to the existing cottage building for 'Community 1', and a new amenities building for 'Community 2'.

2.2 ARRIVAL VILLAGE

The proposed 'Arrival Village' building is a one-storey building consisting of commercial kitchen, dining area, meeting rooms, offices, and amenities area.

2.2.1 FOUNDATIONS & GROUND FLOOR SLAB

Based on the topography of the site, the existing ground level of the 'Arrival Village' site has a fairly significant slope ranging from approximately RL 537.000 to RL 533.000 towards the North-Western corner of the site. The Ground Floor level of the building is proposed at RL 537.115 (approximately +4m above existing ground level).

The Ground Floor level of the building is proposed to be constructed of lightweight steel members comprising of steel beams supporting lightweight steel joists. The steel beams are proposed to be supported off steel columns at the ends and block piers along the internal spans.

Based on preliminary draft geotechnical investigation report provided by Martens Consulting Engineers the site is classified as Class 'M' as per AS2870 – 2001 (see figure below).

TABLE 2.1
CLASSIFICATION BASED ON SITE REACTIVITY

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites, which may experience only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which may experience moderate ground movement from moisture changes
H1	Highly reactive clay sites, which may experience high ground movement from moisture changes
H2	Highly reactive clay sites, which may experience very high ground movement from moisture changes
E	Extremely reactive sites, which may experience extreme ground movement from moisture changes

Figure 2.2.1 - Table 2.1 of AS2870 - 2011

Borehole log results from the preliminary geotechnical investigation also show highly weathered rock founded at relatively shallow levels (approximately 300mm – 1,200mm below natural ground level).



Figure 2.2.2 – Arrival Village Borehole Log Map
(excerpt from preliminary geotechnical investigation report prepared by Martens Consulting Engineers – Ref: P2108462JR03V01 dated November 2023)

Noting the above, pad and strip footings founded on highly weathered bedrock with an allowable bearing capacity of 500 kPa have been proposed to support the steel columns, walls, and block piers in lieu of concrete piling system. Mass concrete blinding layer may also be installed under the pad/strip footings to achieve the allowable bearing capacity required.

Refer to **8962 – A-SK01 & A-SK02** Greenstead Valley, Joadja concept plans for the proposed foundation and ground floor slab plan.

2.2.2 ROOF STRUCTURE

The proposed roof structure has been designed using structural steel portal frames and steel rafter beams supporting lightweight steel purlins and metal deck roof. Provision for solar panels has also been taken into consideration in the design load.

The steel rafter beams shall be supported off the steel portal frames which in turn is supported off the steel portal columns located around the perimeter of the building.

Refer to **8962 – A-SK03** Greenstead Valley, Joadja concept plans for the proposed roof marking plan.

2.3 'COMMUNITY 1' BUILDING

The proposed 'Community 1' building is an alteration and addition to the existing cottage structure located at the Northern side of the site. It comprises of communal lounge and dining areas, and accommodation rooms. There is also an existing swimming pool at the Northern end of the site.

2.3.1 FOUNDATIONS & GROUND FLOOR SLAB PLAN

Based on the topography of the site, the existing ground level of the 'Community 1' site is fairly level throughout. Hence, we propose that the Ground Floor be constructed of a raft slab-on-ground construction for a Class 'M' site based on AS 2870 (Australian Standards for residential slabs and footings)

The new paved area under the 'Outdoor Gathering' is proposed to be slab-on-ground construction with edge thickening around the perimeter acting as a low-height retaining structures.

The Ground Floor level of the proposed additions are proposed to match the level of the adjacent existing cottage building. Hence, some parts of the Ground Floor of the new additions are proposed to be cut into the existing ground. Permanent batter (approximately 1V:4H) are proposed around Eastern and South-Eastern perimeter of the new building.

We note that AS 3660.1 (Australian Standard for termite management) recommend a nominal clearance of 400mm between timber floor and natural ground level to allow for visual access inspections and ventilation. Hence, noting that the proposed external timber deck level is close to the existing ground level, the timber deck is proposed to be installed over a new concrete slab-on-ground paved area.

Borehole log results from the preliminary geotechnical investigation also show highly weathered rock founded at relatively shallow levels (approximately 200mm – 800mm below natural ground level).



Figure 2.3.1 – ‘Community 1’ Borehole Log Map

(excerpt from preliminary geotechnical investigation report prepared by Martens Consulting Engineers – Ref: P2108462JR03V01 dated November 2023)

Noting the above, pad and strip footings founded on highly weathered bedrock with an allowable bearing capacity of 500 kPa have been proposed to support the steel columns, timber posts, and walls in lieu of concrete piling system. Mass concrete blinding layer may also be installed under the pad/strip footings to achieve the allowable bearing capacity required.

Refer to **8962 – C1-SK01 & C-SK02** Greenstead Valley, Joadja concept plans for the proposed foundation and ground floor slab plan.

2.3.2 ROOF STRUCTURE

The intent of the proposed roof structure is to mimic the language of the existing roof framing of the existing cottage building, hence, the roof structure for the new additions is proposed to be constructed of metal deck roof sheeting supported off conventional timber roof framing members which are then supported by external timber post along the perimeter of the building.

Refer to **8962 – C1-SK03** Greenstead Valley, Joadja concept plans for the proposed roof marking plan.

2.3.3 MISCELLANEOUS

In addition to the alterations and addition to the existing building, there are also several self-contained cabins proposed. The cabins shall be comprised of proprietary independent dwelling structures sitting on compacted earth as per Manufacturer's recommendations. Refer also to Architectural drawings and specifications.

2.4 **'COMMUNITY 2' BUILDING**

The proposed 'Community 2' building is a two-storey amenities building located to the South of the 'Arrival Village'

2.4.1 FOUNDATIONS & LOWER GROUND FLOOR SLAB PLAN

Based on the topography of the site, the existing ground level of the "Community 2" site has a fairly significant slope ranging from approximately RL 542.000 to RL 539.500 towards the Northern side of the site. The Ground Floor level of the building is proposed at RL 542.137 (approximately 2.6m above existing natural ground level at the Northern side, and almost flush with the existing natural ground level on the Southern side).

The proposed Lower Ground Floor level of the building is at RL 538.937 (approximately 0.4m higher than the existing natural ground level at the Northern side, and -1m lower than the existing natural ground level on the Southern side of the Lower Ground Floor area). The proposed Lower Ground Floor slab shall be constructed of raft slab-on-ground construction for a Class 'M' site based on AS2870.

The Southern portion of the Lower Ground Floor slab shall be cut into the existing natural ground. The excess fill can then be used to built up the Northern portion of the slab. A new reinforced block retaining walls are also proposed to be installed around the Western and Southern side of the Lower Ground Floor slab area with drainage to be installed behind the retaining wall.

Borehole log results from the preliminary geotechnical investigation also show highly weathered rock founded at approximately 1,200mm – 3,400mm below natural ground level.



Figure 2.4.1 – ‘Community 2’ Borehole Log Map

(excerpt from preliminary geotechnical investigation report prepared by Martens Consulting Engineers – Ref: P2108462JR03V01 dated November 2023)

Noting the above, pad and strip footings founded on firm stably natural silty clay material with an allowable bearing capacity of 100 kPa have been proposed to support the steel columns, block piers, and walls in lieu of concrete piling system.

Refer to **8962 – C2-SK01 & C2-SK02** Greenstead Valley, Joadja concept plans for the proposed foundation and lower ground floor slab plan.

2.4.2 GROUND FLOOR SLAB

The Ground Floor level of the building is proposed to be constructed of lightweight steel members comprising of steel beams supporting lightweight steel joists. The steel beams are proposed to be supported off steel columns at the Northern end and block piers at the internal span.

Similarly with ‘Community 1’ the external timber decking at the Southern side of the building is proposed to be installed over a new concrete slab-on-ground. The excess fill from the Lower Ground floor and the ‘Community 1’ building can be used to built up the area as required.

Refer to **8962 – C2-SK03** Greenstead Valley, Joadja concept plans for the proposed ground floor slab plan

2.4.3 ROOF STRUCTURE

The proposed roof structure for the 'Community 2' building is proposed to be constructed of structural steel beams and columns supporting timber roof framing members and metal deck roof sheeting. Provision for solar panels has also been taken into consideration in the design load.

Refer to **8962 – C2-SK04** Greenstead Valley, Joadja concept plans for the proposed roof marking plan.

several self-contained cabins proposed. The cabins shall be comprised of proprietary independent dwelling structures sitting on compacted earth as per Manufacturer's recommendations. Refer also to Architectural drawings and specifications.

2.5 GLAMPING TENTS AND CABINS

Proposed glamping tents and cabins are proposed to be of proprietary items to be designed, installed, and certified by the Contractor/Manufacturer.

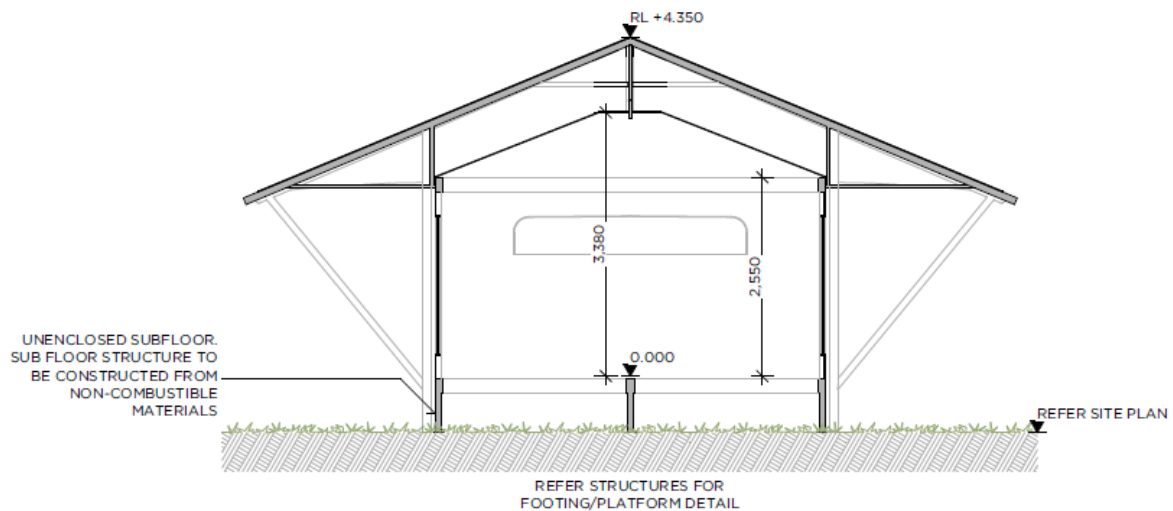


Figure 2.5.1 – Proposed Glamping Tent Section
(excerpt from Architectural drawing DA022 Rev 04 prepared by Breathe Architect)

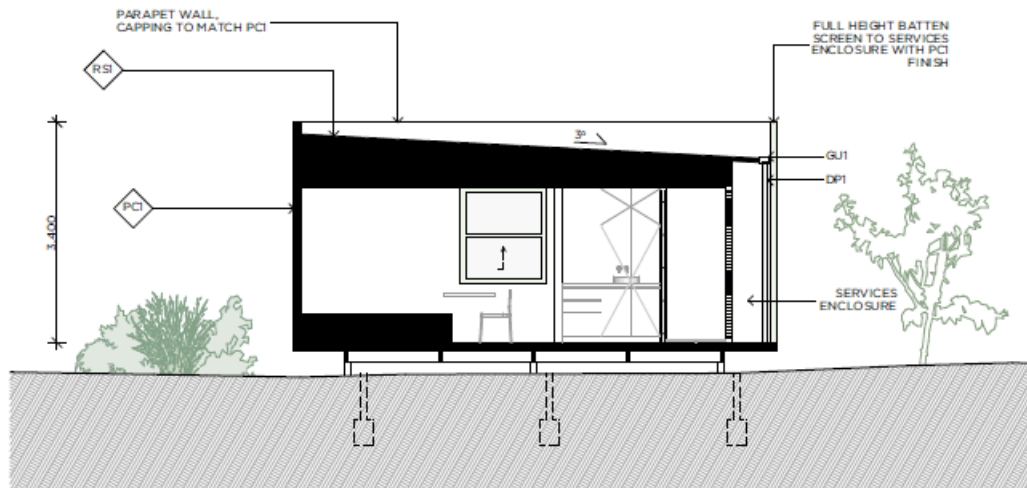


Figure 2.5.2 – Proposed Cabin Type 1 Section
(excerpt from Architectural drawing DA023 Rev 04 prepared by Breathe Architect)

Support foundation system for these items are to be of light-weight steel constructions to be confirmed after proprietary items have been selected and finalised to suit the Contractors/Manufacturer's requirements.

Consideration shall be made to use micro-piling system such as "Surefoot Footing" system for in-ground foundations to minimise excavation.

3 PERFORMANCE CRITERIA

The proposed building structures shall be designed in accordance with normal engineering practices, NCC 2022, and relevant Australian Standards.

3.1 DESIGN LOADS

In accordance with AS1170.0 Table 3.1 (Figure 3.1.1) the importance factor for the buildings is considered to be “2”. The structures shall be designed for design life of 50 years, the subsequent serviceability and limit states from Table 3.3 of AS1170.0 (Figure 3.1.2) shall be adopted for calculations of wind and earthquake loading.

TABLE 3.1
CONSEQUENCES OF FAILURE FOR IMPORTANCE LEVELS

Consequences of failure	Description	Importance level	Comment
Low	Low consequence for loss of human life, <i>or</i> small or moderate economic, social or environmental consequences	1	Minor structures (failure not likely to endanger human life)
Ordinary	Medium consequence for loss of human life, <i>or</i> considerable economic, social or environmental consequences	2	Normal structures and structures not falling into other levels
High	High consequence for loss of human life, <i>or</i> very great economic, social or environmental consequences	3	Major structures (affecting crowds)
		4	Post-disaster structures (post disaster functions or dangerous activities)
Exceptional	Circumstances where reliability must be set on a case by case basis	5	Exceptional structures

Figure 3.1.1 - Table 3.1 AS1170.0:2002

TABLE 3.3
ANNUAL PROBABILITY OF EXCEEDANCE

Design working life	Importance level	Annual probability of exceedance for ultimate limit states			Annual probability of exceedance for serviceability limit states	
		Wind	Snow	Earthquake	SLS1	SLS2 Importance level 4 only
50 years	1	1/100	1/50	1/100	—	—
	2	1/500	1/150	1/500	1/25	—
	3	1/1000	1/250	1/1000	1/25	—
	4	1/2500	1/500	1/2500	1/25	1/500

Figure 3.1.2 - Part of Table 3.3 AS1170.0:2002

3.1.1 PERMANENT, IMPOSED AND OTHER ACTIONS

The live loads adopted shall be in accordance with Table 3.1 of AS1170.1: 2002 as shown in Figure 3.1.3 below. Super imposed dead load have been adopted on a case by case basis depending on the floor finishes.

TABLE 3.1 (continued)

Type of activity/occupancy for part of the building or structure	Specific uses	Uniformly distributed actions kPa	Concentrated actions kN
C Areas where people may congregate			
C1 Areas with tables	Public, institutional and communal dining rooms and lounges, cafes and restaurants ⁽⁵⁾	2.0	2.7
	Reading rooms with no book storage	2.5	4.5
	Classrooms	3.0	2.7
C2 Areas with fixed seats ⁽⁶⁾	Institutional assembly areas such as classrooms, lecture theatres and similar	3.0	2.7
	Public assembly areas such as public halls, theatres, courts of law, auditoria, conference centres and similar	4.0	2.7
	Places of worship	4.0	2.7
C3 Areas without obstacles for moving people	Corridors, hallways, aisles, stairs ⁽²⁾ , landings ⁽²⁾ , concourses, terraces, plazas, etc., not subject to wheeled vehicles	4.0	4.5
	Corridors, hallways, aisles, stairs ⁽²⁾ , landings ⁽²⁾ , etc. subject to wheeled vehicles, trolleys, etc.	5.0	4.5
	Footpaths, terraces and plazas at ground level subject to wheeled vehicles	5.0	31 ⁽⁴⁾
	Museum floors and art galleries for exhibition purposes	4.0	4.5
	Balconies, and roofs used for floor type activities	same as areas providing access but not less than 4.0	1.8
C4 Areas with possible physical activities (see Note to Clause 3.1(b))	Dance halls and studios, gymnasias	5.0	3.6
	Drill halls and drill rooms	5.0	9.0
C5 Areas susceptible to overcrowding (see Note to Clause 3.1(b))	Assembly areas without fixed seating (concert halls, bars, vestibules, public lounges, places of worship, shopping malls) and grandstands	5.0	3.6
	Stages in public assembly areas	7.5	4.5

Figure 3.1.3 - Part of Table 3.1 AS1170.1:2002

3.1.2 WIND

The following wind load parameters shall be adopted in accordance with AS1170.2:

Region	A2
Ultimate wind Probability:	1/500
Ultimate wind speed (V_u):	45 m/s
Serviceability wind Probability:	1/25
Serviceability wind speed (V_s):	37 m/s
Terrain Category	2
Terrain/Height Multiplier	0.83
Topographic Multiplier	1
Shielding Multiplier	1

3.1.3 EARTHQUAKE

The following earthquake parameters have been adopted in accordance with AS1170.4: 2007 and as advised by geotechnical report:

Importance Level:	2
Probability Factor (k_p):	1.0
Hazard Factor(Z):	0.08
Sub-soil Class	B_e - rock
Design Category	EDC I
Structural Ductility Factor	2
Structural performance Factor	0.77

3.2 DEFLECTION

The suggested deflection criteria shall be in accordance with AS1170.0: 2002 Table C1 (Figure 3.2.1 - Table C1 AS170.1:2002)

TABLE C1
SUGGESTED SERVICEABILITY LIMIT STATE CRITERIA

Element	Phenomenon controlled	Serviceability parameter	Applied action	Element response (see Notes 1 and 2)
Roof cladding				
Metal roof cladding	Indentation	Residual deformation	$Q = 1 \text{ kN}$	Span/600 but $< 0.5 \text{ mm}$
	De-coupling	Mid-span deflection	$[G, \psi, Q]$	Span/120
Concrete or ceramic roof cladding	Cracking	Mid-span deflection	$[G, \psi, Q]$	Span/400
Roof-supporting elements				
Roof members (trusses, rafters, etc.)	Sag	Mid-span deflection	$[G, \psi, Q]$	Span/300
Roof elements supporting brittle claddings	Cracking	Mid-span deflection	$[G, \psi, Q]$ or $[W_s]$	Span/400
Ceiling and ceiling supports				
Ceilings with matt or gloss paint finish	Ripple	Mid-span deflection	G	Span/500 (see Note 3)
Ceilings with textured finish	Ripple	Mid-span deflection	G	Span/300
Suspended ceilings	Ripple	Mid-span deflection	G	Span/360
Ceiling support framing	Sag	Mid-span deflection	G	Span/360
Ceilings with plaster finish	Cracking	Mid-span deflection	$[G, \psi, Q]$ or $[W_s]$	Span/200
Wall elements				
Columns	Side sway	Deflection at top	W_s	Height/500
Portal frames (frame racking action)	Roof damage	Deflection at top	$[W_s]$ or $[E_s]$	Spacing/200 (Note 4)
Lintel beams (vertical sag)	Doors/windows jam	Mid-span deflection	W_s	Span/240 but $< 12 \text{ mm}$ (see Note 5)
Walls—General (face loaded)	Discerned movement	Mid-height deflection	W_s	Height/150
	Impact: soft body (neighbours notice)	Mid-height deflection	$Q = 0.7 \text{ kN}$	Height/200 but $< 12 \text{ mm}$ (see Note 6)
	Supported elements rattle	Mid-height deflection	W_s	Height/1000
Walls—Specific claddings (see Note 7):				
Brittle cladding (ceramic) face loaded	Cracking	Mid-height deflection	W_s	Height/500
Masonry walls (in plane)	Noticeable cracking	Deflection at top	$[W_s]$ or $[E_s]$	Height/600
(face loading)	Noticeable cracking	Deflection at top	$[W_s]$ or $[E_s]$	Height/400
Plaster/gypsum walls (in plane)	Lining damage	Mid-height deflection	W_s	Height/300
(face loading)	Lining damage	Mid-height deflection	$[W_s]$ or $[E_s]$	Height/200
Movable partitions (soft body impact)	System damage	Deflection at top	$Q = 0.7 \text{ kN}$	Height/160
Glazing systems	Bowing	Mid-span deflection	W_s	Span/400
Windows, facades, curtain walls	Facade damage	Mid-span deflection	$[W_s]$ or $[E_s]$	Span/250
Fixed glazing systems	Glass damage	Deflection	$[W_s]$ or $[E_s]$	$2 \times \text{glass clearance}$ (see Note 3)
Floors and floor supports				
Beams where line-of-sight is along invert	Sag	Mid-span deflection	$[G, \psi, Q]$	Span/500 (see Notes 8, 9)
Beams where line-of-sight is across soffit	Sag	Mid-span deflection	$[G, \psi, Q]$	Span/250
Flooring	Ripple	Mid-span deflection	$[G, \psi, Q]$	Span/300
Floor joists/beams	Sag	Mid-span deflection	$[G, \psi, Q]$	Span/300
Floors	Vibration	Static midspan deflection	$Q = 1.0 \text{ kN}$	less than 1 to 2 mm (see Note 10)
Normal floor systems	Noticeable sag	Mid-span deflection	$[G, \psi, Q]$	Span/400
Specialist floor systems	Noticeable sag	Mid-span deflection	$[G, \psi, Q]$	Span/600
Floors—Side-sway (acceleration)	Sway	Acceleration at floor	$W_s (P=5)$	$< 0.01 \text{ g}$ (see Note 11)
Floors—Supporting masonry walls	Wall cracking	Mid-span deflection	$[G, \psi, Q]$	Span/500
Floors—Supporting plaster lined walls	Cracks in lining	Mid-span deflection	$[G, \psi, Q]$	Span/300
Floors supporting existing masonry walls—Underpinning floors	Wall cracking	Mid-span deflection	$[G, \psi, Q]$	Span/750
Floors—For access for working by operators and maintenance	Sag	Midspan deflection	$Q = 1 \text{ kN}$	Span/250
Handrails—Post and rail system	Side sway	Mid-span system deflection	$Q = 1.5 \text{ kN/m}$	Height/60 + Span/240

Figure 3.2.1 - Table C1 AS170.1:2002

3.3 FIRE RATING

A Fire Engineering Report and/or BCA Report is not available at this stage.

As per BCA 2022, the proposed buildings characteristics are as follows (to be confirmed by BCA Consultant);-

BUILDING	Characteristics	Description
Arrival Village	Building Class	5,9
	Rise in storeys	1
	Effective Height	6-8m
	Type of Construction	C
Community 1	Building Class	3
	Rise in storeys	1
	Effective Height	3.5m
	Type of Construction	C
Community 2	Building Class	10a
	Rise in storeys	2
	Effective Height	9m
	Type of Construction	-

The fire-resisting construction of the building structures shall be designed in accordance with the requirements set-out in BCA 2022 Part C1 and Specification 5 for Type 'C' constructions are shown in Figure 3.3.1 - Extract from BCA 2022 of fire-resisting construction for TYPE C Construction below (to be confirmed by BCA Consultant).

Table S5C24a: Type C construction: FRL of parts of external walls

Distance from a <i>fire-source feature</i>	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	90/90/90	90/90/90	90/90/90	90/90/90
1.5 to less than 3 m	—/—/—	60/60/60	60/60/60	60/60/60
3 m or more	—/—/—	—/—/—	—/—/—	—/—/—

Table S5C24b: Type C construction: FRL of external columns not incorporated into an external wall

Distance from a <i>fire-source feature</i>	FRL (in minutes): <i>structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	90/—/—	90/—/—	90/—/—	90/—/—
1.5 to less than 3 m	—/—/—	60/—/—	60/—/—	60/—/—
3 m or more	—/—/—	—/—/—	—/—/—	—/—/—

S5C24

Fire resistance

Table S5C24c: Type C construction: FRL of common walls and fire walls

Wall type	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
<i>Loadbearing</i> or non-loadbearing	90/90/90	90/90/90	90/90/90	90/90/90

Table S5C24d: Type C construction: FRL of internal walls

Location	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Bounding <i>public corridors</i> , public lobbies and the like	60/60/60	—/—/—	—/—/—	—/—/—
Between or bounding <i>sole-occupancy units</i>	60/60/60	—/—/—	—/—/—	—/—/—
Bounding a stair if <i>required</i> to be rated	60/60/60	60/60/60	60/60/60	60/60/60

Table S5C24e: Type C construction: FRL of roof

Location	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Roofs	—/—/—	—/—/—	—/—/—	—/—/—

Figure 3.3.1 - Extract from BCA 2022 of fire-resisting construction for TYPE C Construction

3.4 LIST OF RELEVANT AUSTRALIAN STANDARDS (STRUCTURAL)

Refer to list of relevant Australian Standards for Structural Engineering design below

No.	Date	Title
AS/NZS 1170 Part 0	2002	Structural design actions — General principles (incorporating amendments 1, 3 and 4)
AS/NZS 1170 Part 1	2002	Structural design actions — Permanent, imposed and other actions (incorporating amendments 1 and 2)
AS/NZS 1170 Part 2	2021	Structural design actions — Wind actions
AS/NZS 1170 Part 3	2003	Structural design actions — Snow and ice actions (incorporating amendments 1 and 2)
AS 1170 Part 4	2007	Structural design actions — Earthquake actions in Australia (incorporating amendments 1 and 2)
AS 1684 Part 2	2021	Residential timber-framed construction — Non-cyclonic areas
AS 1720 Part 1	2010	Timber structures — Design methods (incorporating amendments 1, 2 and 3)
AS 2159	2009	Piling — Design and installation (incorporating amendment 1)
AS 2870	2011	Residential slabs and footings
AS 3600	2018	Concrete structures (incorporating amendments 1 and 2)
AS 3700	2018	Masonry structures
AS 4100	2020	Steel structures
AS/NZS 4600	2018	Cold-formed steel structures
AS 4678	2002	Earth-retaining structures
AS 1288	2021	Glass in buildings — Selection and installation
AS/NZS 1664 Part 1	1997	Aluminium structures — Limit state design (incorporating amendment 1)
AS/NZS 1664 Part 2	1997	Aluminium structures — Allowable stress design (incorporating amendment 1)
AS/NZS 1720 Part 4	2019	Timber structures — Fire resistance of timber elements
AS 1720 Part 5	2015	Timber structures — Nailplated timber roof trusses (incorporating amendment 1)
AS 3959	2018	Construction of buildings in bushfire-prone areas (incorporating amendments 1 and 2)
AS 4773 Part 1	2015	Masonry in small buildings — Design (incorporating amendment 1)
AS 4773 Part 2	2015	Masonry in small buildings — Construction (incorporating amendment 1)

3.5 MATERIALS

3.5.1 CONCRETE

Structural concrete elements shall be designed in accordance with AS 3600.

Concrete Quality:

Class	= Normal
Slump	= 80mm
Maximum size of aggregate in structural concrete	= 20mm U.N.O.
Cement Type	= SL
Admixtures	= nil, unless noted otherwise or approved in writing.

For concrete cast in contact with ground provide the following additional properties:

Minimum cement content = 330 kg/m ³
Maximum water/cement ratio = 0.50

Concrete shall have a characteristic compressive strength at 28 days (f_c) as shown in the following table, unless noted otherwise on the drawings:

ELEMENT	f _c MPa (28 days)
BORED PIERS, STRIP FOOTINGS, FOOTING BEAMS	32
INTERNAL SUSPENDED SLABS, BEAMS & STAIRS	32
COLUMN, WALLS	40 U.N.O.
EXTERNAL CONCRETE ALL OTHER CONCRETE	32

Clear concrete cover in mm to the reinforcement shall be as follows (unless noted otherwise on the drawings):

EXPOSURE CLASSIFICA- TION TO AS3600	CAST AGAINST FORMWORK			CAST AGAINST GROUND	
	INTERIOR	EXTERIOR	CONTACT WITH GROUND	PROTECTED BY MEMBRANE	NO MEMBRANE
A1				30	
A2	25	30	30		50
B1		40			
B2		45			

Exposure classification for interior concrete – **A2**

Exposure classification for exterior concrete – **B1**

3.5.2 REINFORCING STEEL

Reinforcement shall be Grade 500 MPa. Lap lengths shall be in accordance with AS 3600.

3.5.3 STRUCTURAL STEEL

Structural steel framing shall be designed in accordance with AS 4100

Structural steel members shall be of the following grades unless noted otherwise on the drawings:

WB, WC, UB, UC, PFC, EA, UA	- Grade 300
RHS, SHS	- Grade 350L0
CHS with outside diameter equal to or exceeding 76mm	- Grade 350L0
CHS with diameter less than 76mm	- Grade 250L0
All other members	- Grade 250
Shear Studs	- Grade 380

3.5.4 STRUCTURAL TIMBER

Structural timber framing shall be designed in accordance with AS 1720

The minimum stress grade for the timber shall be F7. The Joint Group Rating for the timber shall be J3 or better.

3.5.5 MASONRY

Masonry walls shall be designed in accordance with AS 3700

The minimum compressive strength of clay masonry bricks shall be 22 MPa. Clay masonry bricks shall have a Characteristic Expansion value not exceeding 0.8 mm/m.

Concrete masonry blocks shall be of a minimum compressive strength Grade 15 in accordance with AS 4455.

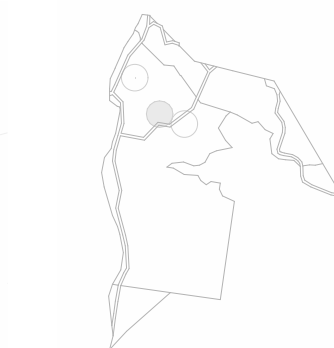
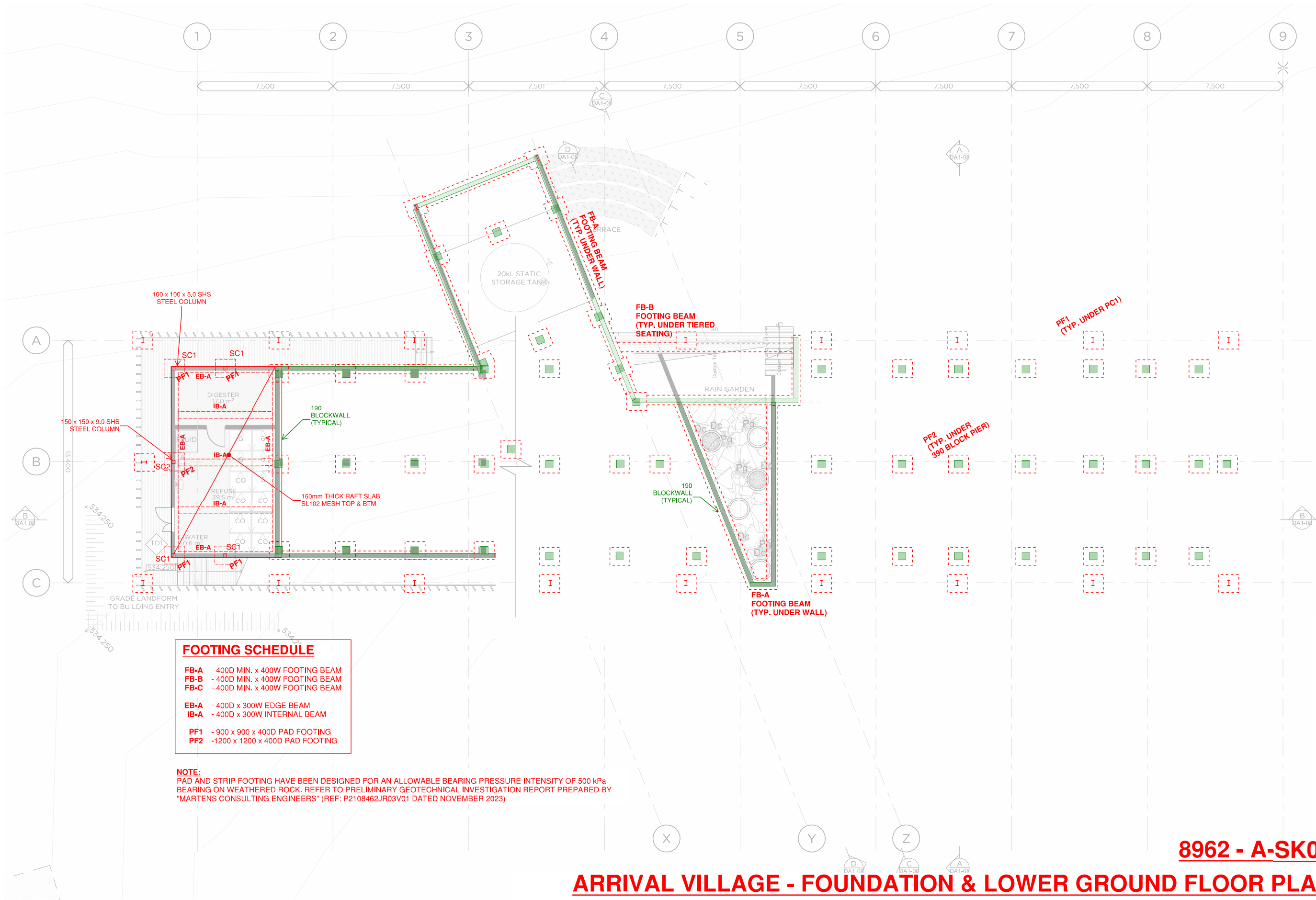
Mortar for structural concrete masonry walls shall consist of a 1 part of cement to 0.25 parts of hydrated lime to 3 parts well-graded sand. Mortar for structural brick masonry walls shall consist of 1 part cement to 1 part hydrated lime to 6 parts well-graded sand. All mortar shall conform to requirements of AS 3700

Core fill grout for concrete masonry blocks shall be in accordance with AS3700 with a minimum characteristic compressive strength of 20 MPa. The grout shall have a slump of 230mm +/- 30mm and the maximum size of aggregate shall be 10mm. Grout shall have a minimum cement content of 300 kg/m³.

4 CONTACT US

For further information contact Birzulis Associates (Sydney) on (02) 9555 4230 or email office@birzulisassociates.com

APPENDIX A – CONCEPT PLANS



- GA PLAN NOTES**
- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
 - AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
 - THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.
- GA PLAN LEGEND**
- RL 50.78 RELATIVE LEVEL, REFER SURVEY
 - EXISTING ELEMENTS
 - PROPOSED ELEMENTS
 - EXISTING WATER BODY
 - EXISTING VEGETATION
 - PROPOSED VEGETATION
 - TITLE BOUNDARY
 - STATIC DIMENSION
 - DOWNSPIPE
 - MATERIAL TAG

FOOTING SCHEDULE	
FB-A	- 400D MIN. x 400W FOOTING BEAM
FB-B	- 400D MIN. x 400W FOOTING BEAM
FB-C	- 400D MIN. x 400W FOOTING BEAM
EB-A	- 400D x 300W EDGE BEAM
IB-A	- 400D x 300W INTERNAL BEAM
PF1	- 900 x 900 x 400D PAD FOOTING
PF2	- 1200 x 1200 x 400D PAD FOOTING

NOTE:
PAD AND STRIP FOOTING HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE INTENSITY OF 500 kPa BEARING ON WEATHERED ROCK. REFER TO PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT PREPARED BY "MARTENS CONSULTING ENGINEERS" (REF: P2108462JR03V01 DATED NOVEMBER 2023)

8962 - A-SK01

ARRIVAL VILLAGE - FOUNDATION & LOWER GROUND FLOOR PLAN

**BIRZULIS**
ASSOCIATES
CONSULTING STRUCTURAL & CIVIL ENGINEERS
583 DARLING STREET, ROZELLE NSW 2039
ph: (02) 9559 7200
www.birzulisassociates.com email: office@birzulisassociates.com

BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA

+61 3 9381 2007
www.breathe.com.au

REV	COMMENTS	DATE
01	DA SUBMISSION	12/03/2024

DEVELOPMENT APPLICATION

REVISION	JOB	PLOT DATE	ARCHITECT	CAD	SCALE
01	1938	12/03/2024	JM	AA	1:200 @ A3

PROJECT
GREENSTEAD JOADJA

DRAWING TITLE
ARRIVAL VILLAGE - ENTRY BUILDING - LOWER GROUND

DRAWING
DA1-04

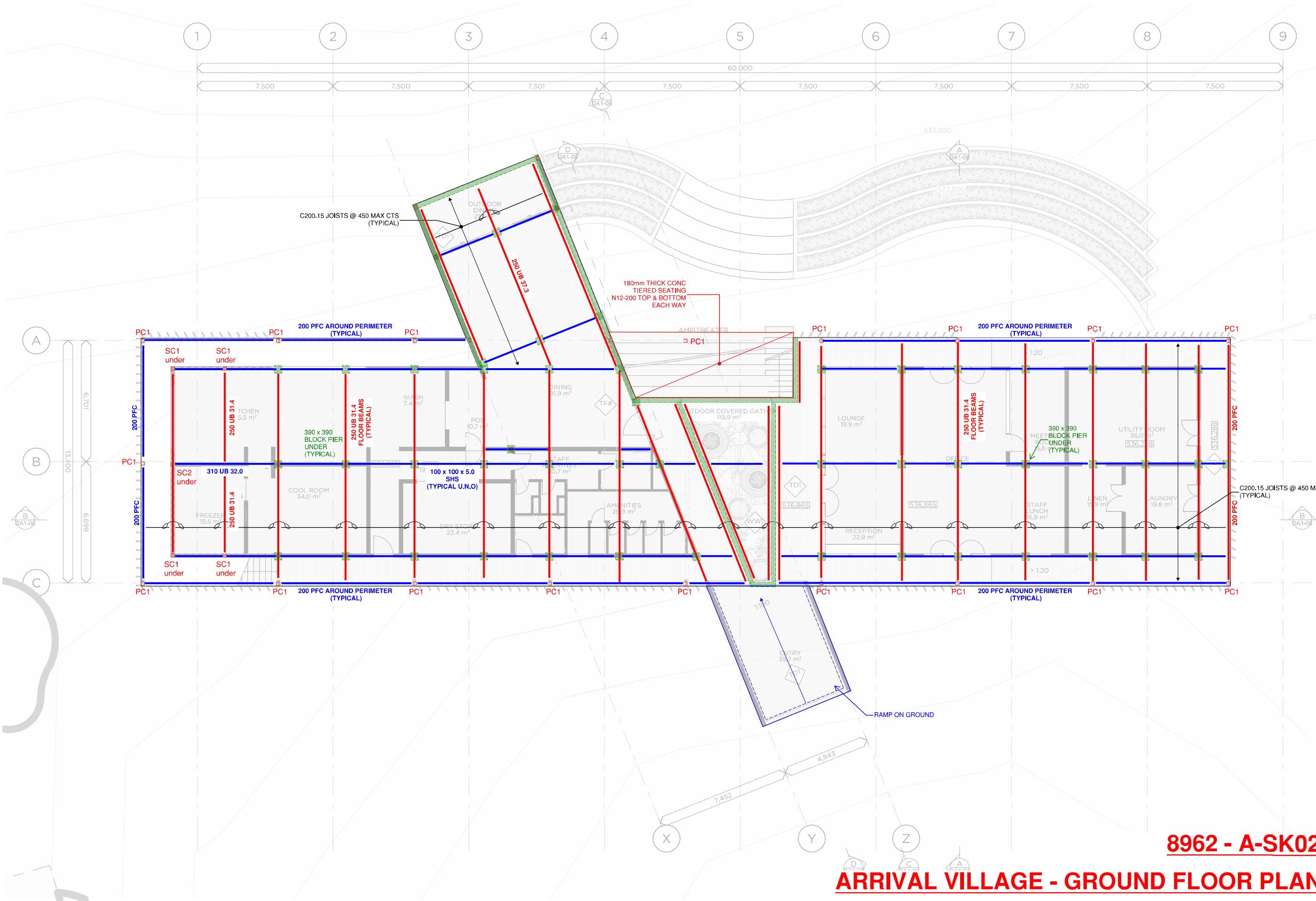


GA PLAN NOTES

- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
- AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.

GA PLAN LEGEND

- RL 50.78 RELATIVE LEVEL, REFER SURVEY
- EXISTING ELEMENTS
- PROPOSED ELEMENTS
- EXISTING WATER BODY
- EXISTING VEGETATION
- PROPOSED VEGETATION
- TITLE BOUNDARY
- STATIC DIMENSION
- DOWNSPIPE
- MATERIAL TAG



8962 - A-SK02

ARRIVAL VILLAGE - GROUND FLOOR PLAN

BIRZULIS ASSOCIATES
CONSULTING STRUCTURAL & CIVIL ENGINEERS
583 DARLING STREET, ROZELLE NSW 2039
tel: (02) 9555 7230
www.birzulisassociates.com email: office@birzulisassociates.com

BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA

+61 3 9381 2007
www.breathe.com.au

REV 01 COMMENTS DA SUBMISSION

DATE 12/03/2024

DEVELOPMENT APPLICATION

REVISION 01 JOB 1938 PLOT DATE 12/03/2024 ARCHITECT JM CAD AA SCALE 1:200 @ A3

PROJECT GREENSTEAD JOADJA

DRAWING TITLE ARRIVAL VILLAGE - ENTRY BUILDING - GA PLAN

DRAWING

DA1-05



GA PLAN NOTES

- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
- AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.

MEMBER SCHEDULE

- RB1 - 250 UB 25.7
RB2 - 250 PFC OR 250 UB 25.7
RB3 - 250 UB 25.7
RB4 - 250 UB 25.7
RB5 - 250 UB 25.7

- SB1 - 310 UB 32.0
SB2 - 250 UB 31.4
SB3 - 250 UB 31.4

- PB1 - 360 UB 50.7
PB2 - 250 UB 37.3
PC1 - 250 UC 72.9
SC1 - 100 x 100 x 5.0 SHS

- TB1 - 125 x 125 x 5.0 SHS

- WT1 - 150 x 150 x 6.0 SHS
WT2 - 100 x 100 x 5.0 SHS

- wb - 89 x 89 x 6.0 SHS

WITH SOLAR PANELS:-
Z150.15 PURLINS @ 1,200 MAX CTS LAPPED

WITHOUT SOLAR PANELS:-
Z150.12 PURLINS @ 1,200 MAX CTS LAPPED

8962 - A-SK03

ARRIVAL VILLAGE - ROOF FRAMING PLAN



BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA

+61 3 9381 2007
www.breathe.com.au

REV 01 COMMENTS DA SUBMISSION

DATE 12/03/2024

DEVELOPMENT APPLICATION

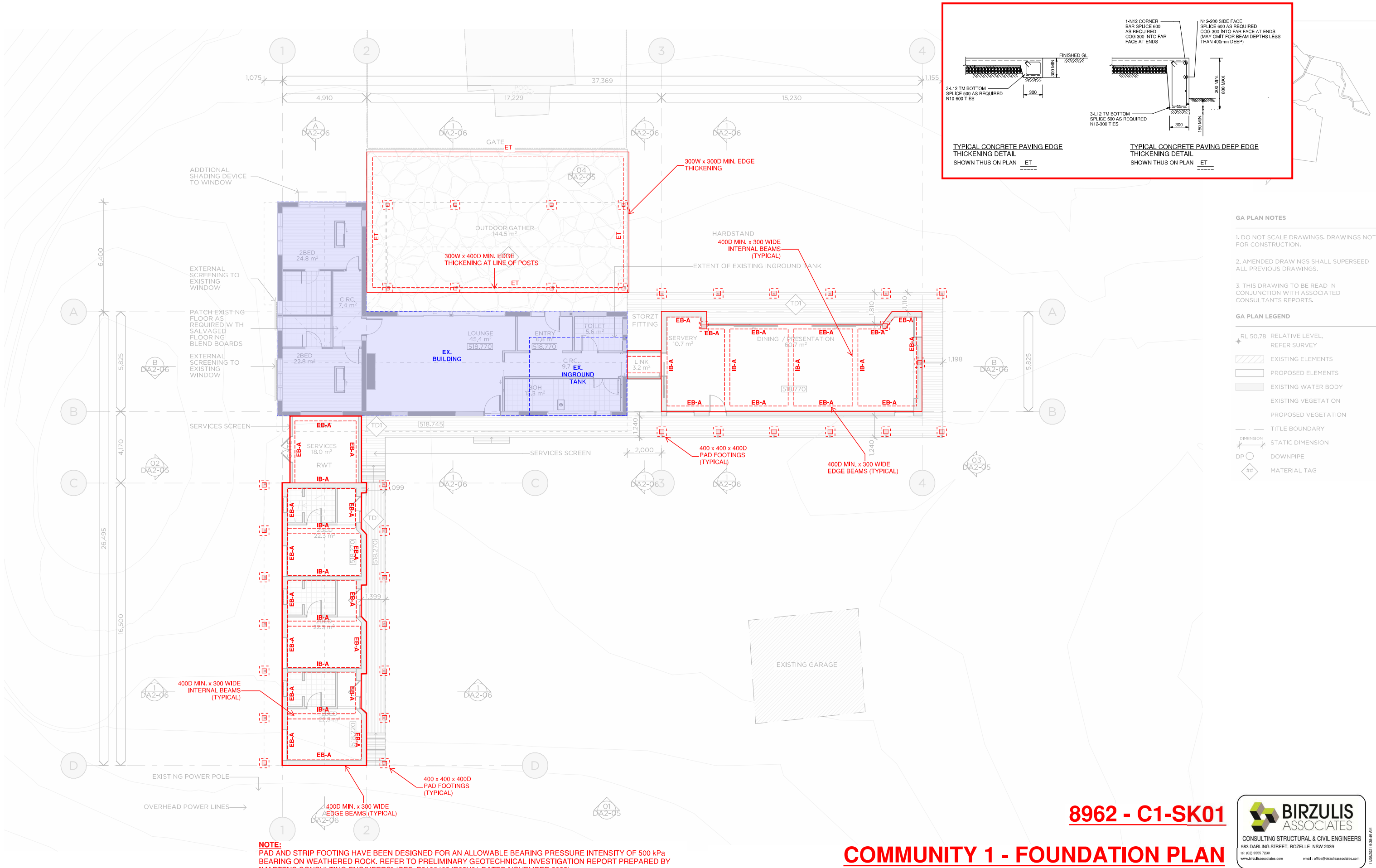
PROJECT GREENSTEAD JOADJA

DRAWING

DA1-05

REVISION 01 JOB 1938 PLOT DATE 12/03/2024 ARCHITECT JM CAD AA SCALE 1:200 @ A3

DRAWING TITLE ARRIVAL VILLAGE - ENTRY BUILDING - GA PLAN



BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA

+61 3 9381 2007
www.breathe.com.au

REV
01

COMMENTS
DA SUBMISSION

DATE
12/03/2024

DEVELOPMENT APPLICATION

REVISION
01

JOB
1938

PLOT DATE
12/03/2024

ARCHITECT
JM

CAD
AA

SCALE
1:200 @ A3

PROJECT
GREENSTEAD JOADJA

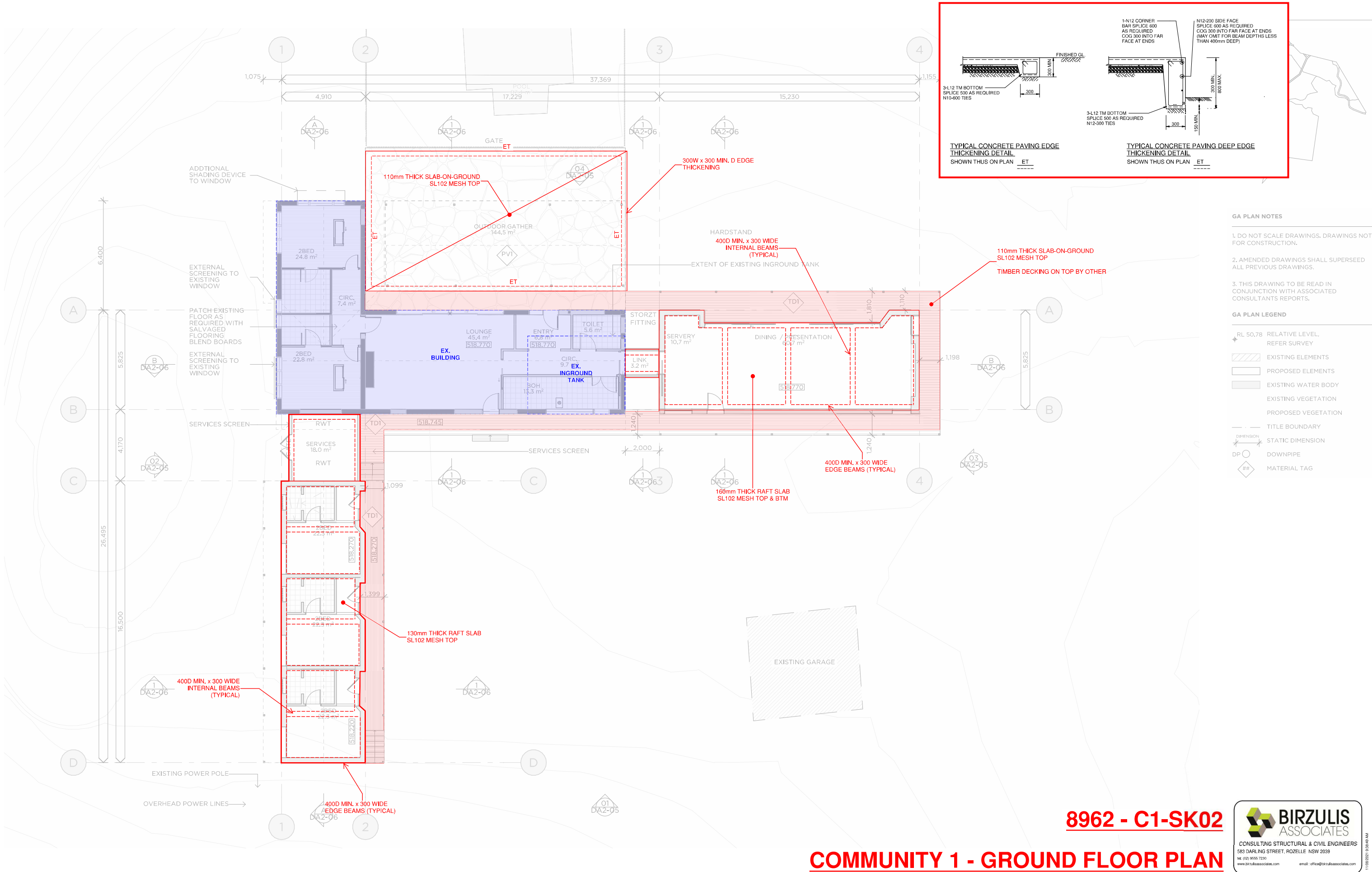
DRAWING TITLE
COMMUNITY 1 - REFUGE BUILDING - GA PLAN

DRAWING

DA2-03



11/03/2024 11:38:49 AM



BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA

+61 3 9381 2007
www.breathe.com.au

REV
01
COMMENTS
DA SUBMISSION

DATE
12/03/2024

DEVELOPMENT APPLICATION

REVISION
01
JOB
1938
PLOT DATE
12/03/2024
ARCHITECT
JM
CAD
AA
SCALE
1:200 @ A3

PROJECT
GREENSTEAD JOADJA

8962 - C1-SK02

COMMUNITY 1 - GROUND FLOOR PLAN

DRAWING TITLE
COMMUNITY 1 - REFUGE BUILDING - GA PLAN

BIRZULIS ASSOCIATES
CONSULTING STRUCTURAL & CIVIL ENGINEERS
583 DARLING STREET, ROZELLE NSW 2039
Tel: (02) 9556 7230
www.birzulisassociates.com email: office@birzulisassociates.com

DRAWING

DA2-03

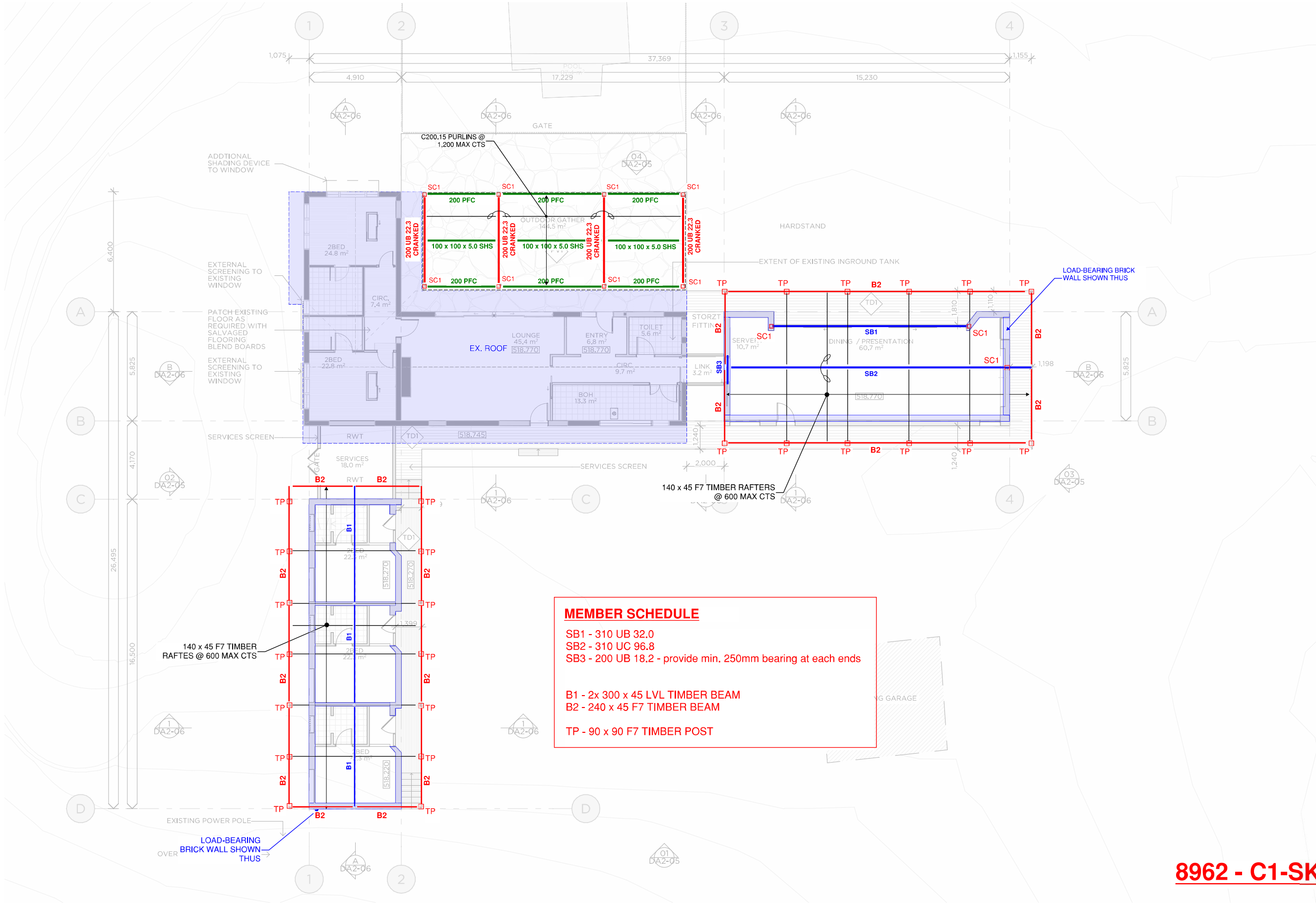


GA PLAN NOTES

- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
- AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.

GA PLAN LEGEND

- RL 50.78 RELATIVE LEVEL, REFER SURVEY
- EXISTING ELEMENTS
- PROPOSED ELEMENTS
- EXISTING WATER BODY
- EXISTING VEGETATION
- PROPOSED VEGETATION
- TITLE BOUNDARY
- STATIC DIMENSION
- DOWNPIPE
- MATERIAL TAG



MEMBER SCHEDULE

SB1 - 310 UB 32.0
SB2 - 310 UC 96.8
SB3 - 200 UB 18.2 - provide min. 250mm bearing at each ends

B1 - 2x 300 x 45 LVL TIMBER BEAM
B2 - 240 x 45 F7 TIMBER BEAM

TP - 90 x 90 F7 TIMBER POST

8962 - C1-SK03

COMMUNITY 1 - ROOF FRAMING PLAN

BIRZULIS ASSOCIATES
CONSULTING STRUCTURAL & CIVIL ENGINEERS
583 DARLING STREET, ROZELLE NSW 2039
tel: (02) 9555 7230
www.birzulisassociates.com email: office@birzulisassociates.com

BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA
+61 3 9381 2007
www.breathe.com.au

REV 01 COMMENTS DA SUBMISSION

DATE 12/03/2024

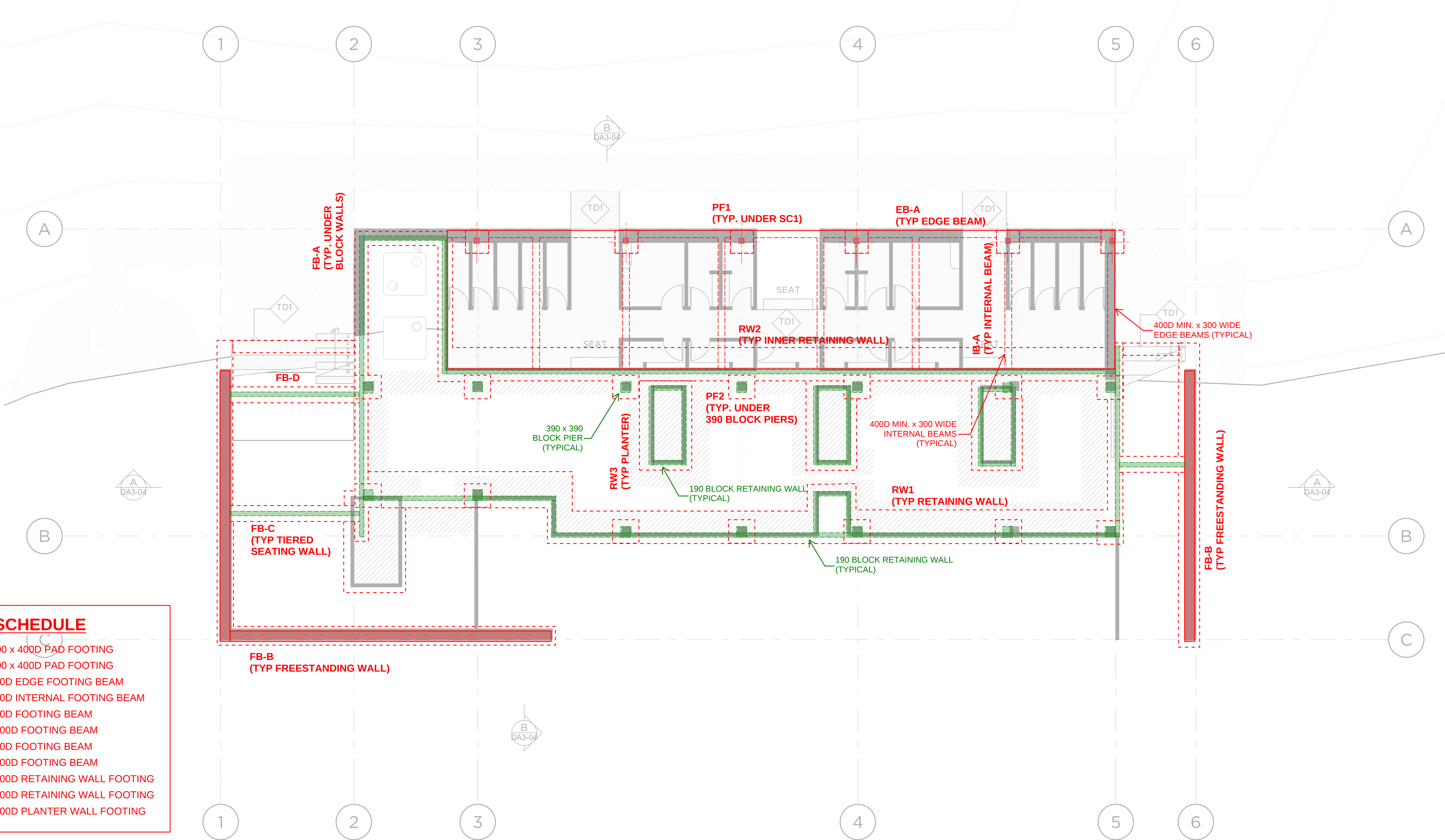
DEVELOPMENT APPLICATION

PROJECT GREENSTEAD JOADJA

DRAWING

DA2-03

This Drawing is COPYRIGHT and shall remain the property of BREATHE.



FOOTING SCHEDULE

PF1	- 1200 x 1200 x 400D PAD FOOTING
PF2	- 1700 x 1700 x 400D PAD FOOTING
EB-A	- 300W x 400D EDGE FOOTING BEAM
IB-A	- 300W x 400D INTERNAL FOOTING BEAM
FB-A	- 300W x 400D FOOTING BEAM
FB-B	- 1000W x 400D FOOTING BEAM
FB-C	- 500W x 400D FOOTING BEAM
FB-D	- 1300W x 400D FOOTING BEAM
RW1	- 2200W x 300D RETAINING WALL FOOTING
RW2	- 1200W x 300D RETAINING WALL FOOTING
RW3	- 1600W x 300D PLANTER WALL FOOTING

NOTE:
PAD AND STRIP FOOTING HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE INTENSITY OF 100 kPa BEARING ON FIRM STABLE NATURAL SILTY CLAY MATERIAL. REFER TO PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT PREPARED BY "MARTENS CONSULTING ENGINEERS" (REF: P2108462JR03V01 DATED NOVEMBER 2023)

GA PLAN NOTES

- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
- AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.

GA PLAN LEGEND

RL 50.78	RELATIVE LEVEL, REFER SURVEY
	EXISTING ELEMENTS
	PROPOSED ELEMENTS
	EXISTING WATER BODY
	EXISTING VEGETATION
	PROPOSED VEGETATION
	TITLE BOUNDARY
	STATIC DIMENSION
	DOWNPIPE
	MATERIAL TAG

BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA

+61 3 9381 2007
www.breathe.com.au

REV	COMMENTS
01	GENERAL AMENDMENTS
02	DA SUBMISSION

DATE
21/09/2023
12/03/2024

DEVELOPMENT APPLICATION

REVISION	JOB	PLOT DATE	ARCHITECT	CAD	SCALE
02	1938	12/03/2024	JM	AA	@ A3

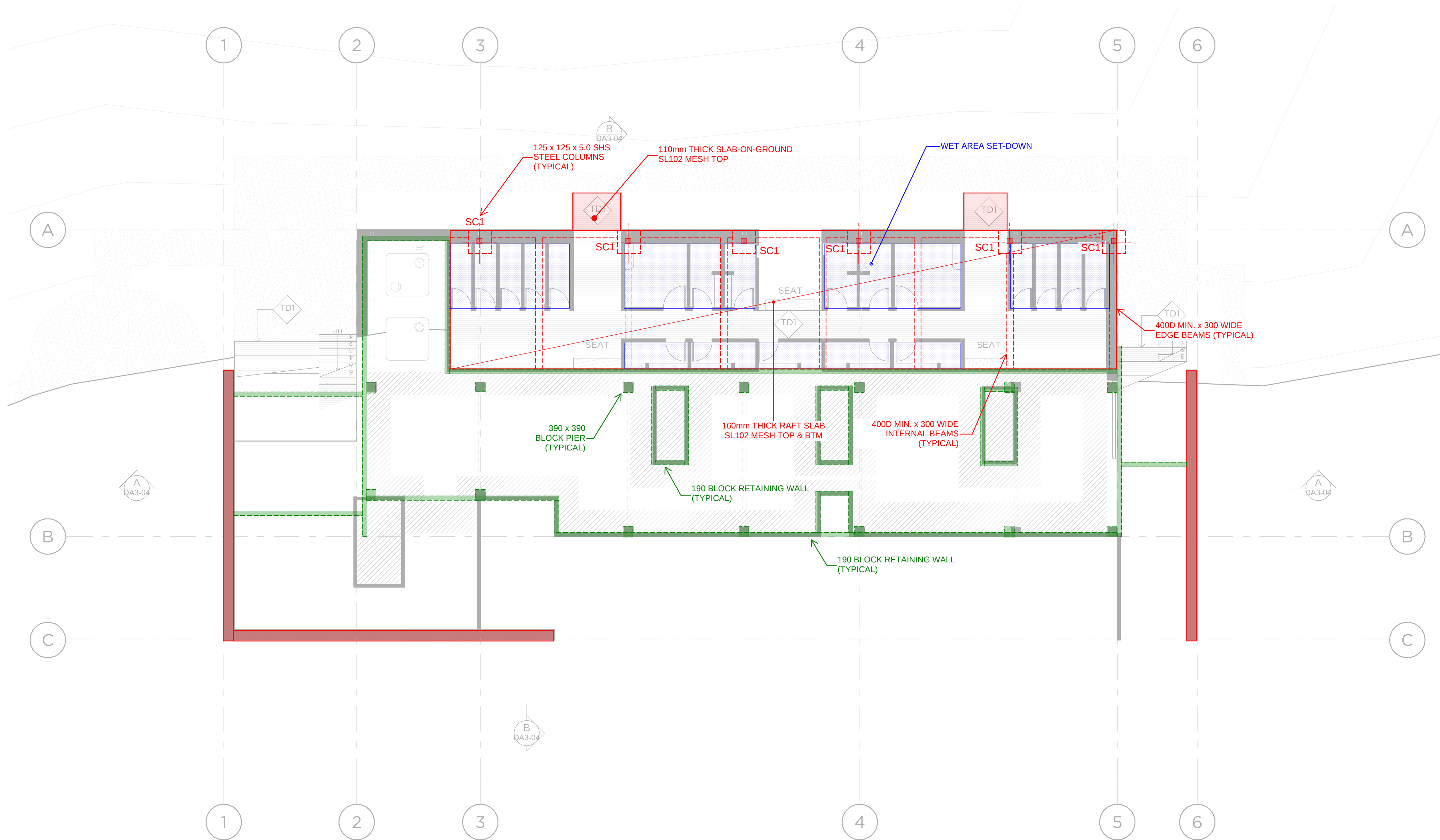


PROJECT
GREENSTEAD JOADJA

DRAWING TITLE
COMMUNITY 2 - REFUGE BUILDING - LOWER GROUND

DRAWING

DA3-02A



GA PLAN NOTES

- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
- AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.

GA PLAN LEGEND

- RL 50.78 RELATIVE LEVEL. REFER SURVEY
- EXISTING ELEMENTS
- PROPOSED ELEMENTS
- EXISTING WATER BODY
- EXISTING VEGETATION
- PROPOSED VEGETATION
- TITLE BOUNDARY
- STATIC DIMENSION
- DOWNPIPE
- MATERIAL TAG

8962 - C2-SK02

COMMUNITY 2 - LOWER GROUND FLOOR PLAN



BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA
+61 3 9381 2007
www.breathe.com.au

REV	COMMENTS
01	GENERAL AMENDMENTS
02	DA SUBMISSION

DATE
21/09/2023
12/03/2024

DEVELOPMENT APPLICATION

REVISION	JOB	PLOT DATE	ARCHITECT	CAD	SCALE
02	1938	12/03/2024	JM	AA	@ A3

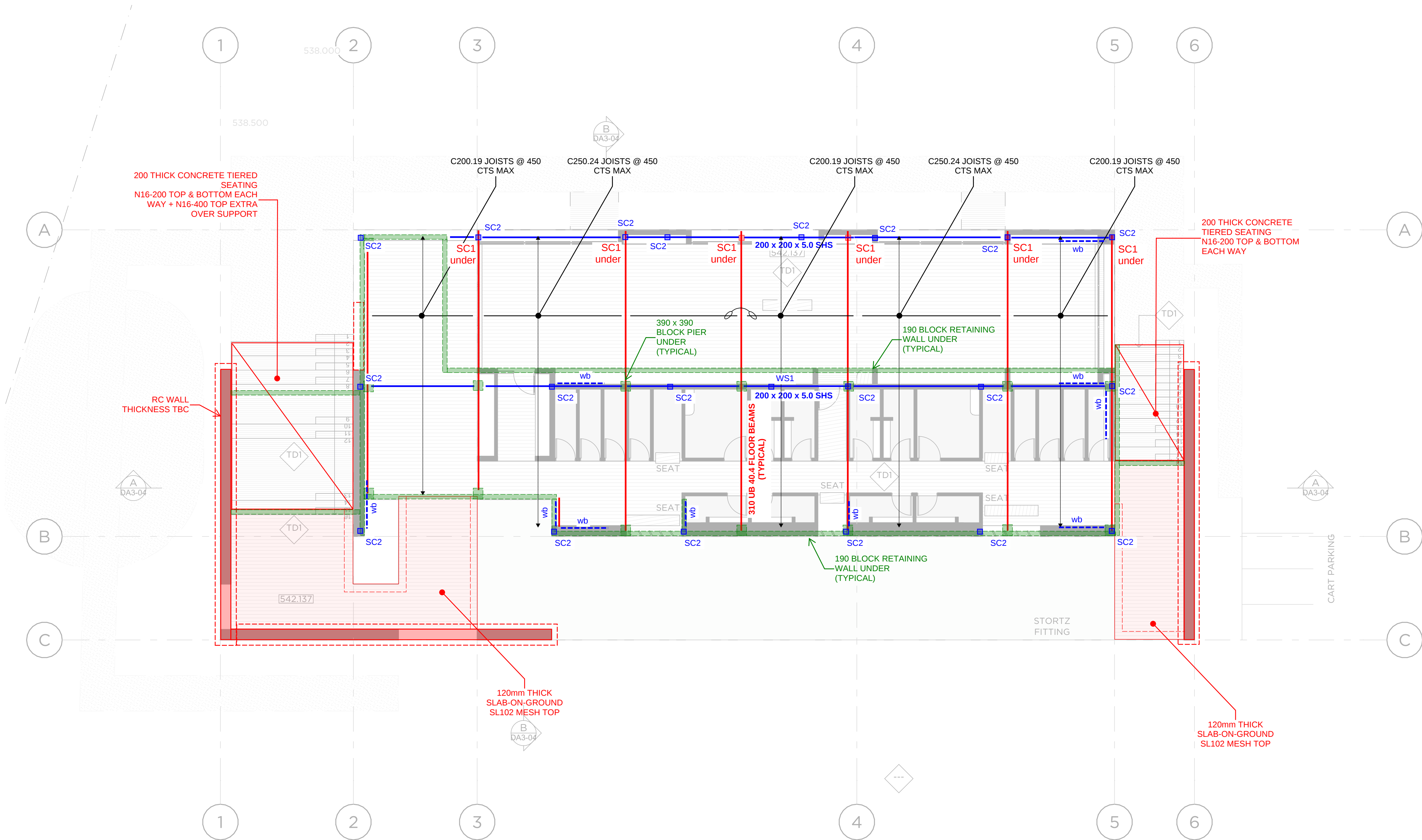


PROJECT
GREENSTEAD JOADJA

DRAWING TITLE
COMMUNITY 2 - REFUGE BUILDING - LOWER GROUND

DRAWING

DA3-02A



GA PLAN NOTES

- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
- AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.

GA PLAN LEGEND

- RL 50.78 RELATIVE LEVEL. REFER SURVEY
- EXISTING ELEMENTS
- PROPOSED ELEMENTS
- EXISTING WATER BODY
- EXISTING VEGETATION
- PROPOSED VEGETATION
- TITLE BOUNDARY
- STATIC DIMENSION
- DOWNPIPE
- MATERIAL TAG

8962 - C2-SK03

COMMUNITY 2 - GROUND FLOOR PLAN



BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA
+61 3 9381 2007
www.breathe.com.au

REV	COMMENTS
01	GENERAL AMENDMENTS
02	DA SUBMISSION

DATE
21/09/2023
12/03/2024

DEVELOPMENT APPLICATION

REVISION	JOB	PLOT DATE	ARCHITECT	CAD	SCALE
02	1938	12/03/2024	JM	AA	@ A3

PROJECT
GREENSTEAD JOADJA

DRAWING TITLE
COMMUNITY 2 - REFUGE BUILDING - GA PLAN

DRAWING

DA3-02

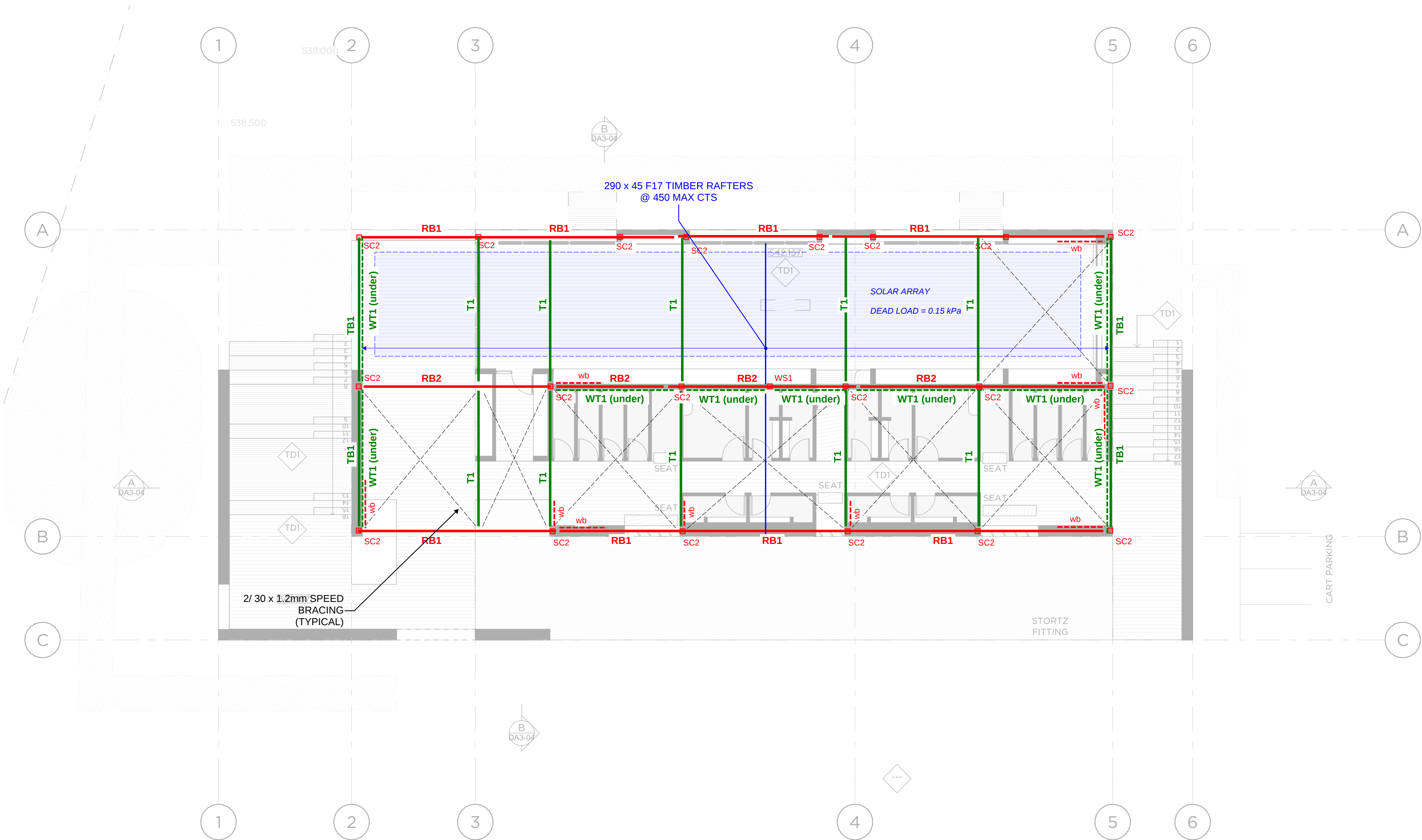
MEMBER SCHEDULE

RB1 - 250 UB 31.4
RB2 - 310 UB 40.4

T1 - 100 x 100 x 5.0 SHS
TB1 - 150 x 150 x 5.0 SHS

WT1 - 150 x 150 x 5.0 SHS

SC2 - 125 x 125 x 5.0 SHS
wb - 89 x 89 x 6.0 SHS



GA PLAN NOTES

- DO NOT SCALE DRAWINGS. DRAWINGS NOT FOR CONSTRUCTION.
- AMENDED DRAWINGS SHALL SUPERSEED ALL PREVIOUS DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS REPORTS.

GA PLAN LEGEND

- RL 50.78 RELATIVE LEVEL. REFER SURVEY
- EXISTING ELEMENTS
- PROPOSED ELEMENTS
- EXISTING WATER BODY
- EXISTING VEGETATION
- PROPOSED VEGETATION
- TITLE BOUNDARY
- STATIC DIMENSION
- DOWNPIPE
- MATERIAL TAG

8962 - C2-SK04

COMMUNITY 2 - ROOF FRAMING PLAN



BREATHE

THE COMMONS
9 FLORENCE ST
BRUNSWICK 3056
VIC AUSTRALIA
+61 3 9381 2007
www.breathe.com.au

REV	COMMENTS
01	GENERAL AMENDMENTS
02	DA SUBMISSION

DATE
21/09/2023
12/03/2024

DEVELOPMENT APPLICATION

REVISION	JOB	PLOT DATE	ARCHITECT	CAD	SCALE
02	1938	12/03/2024	JM	AA	@ A3

PROJECT
GREENSTEAD JOADJA

DRAWING TITLE
COMMUNITY 2 - REFUGE BUILDING - GA PLAN

DRAWING

DA3-02