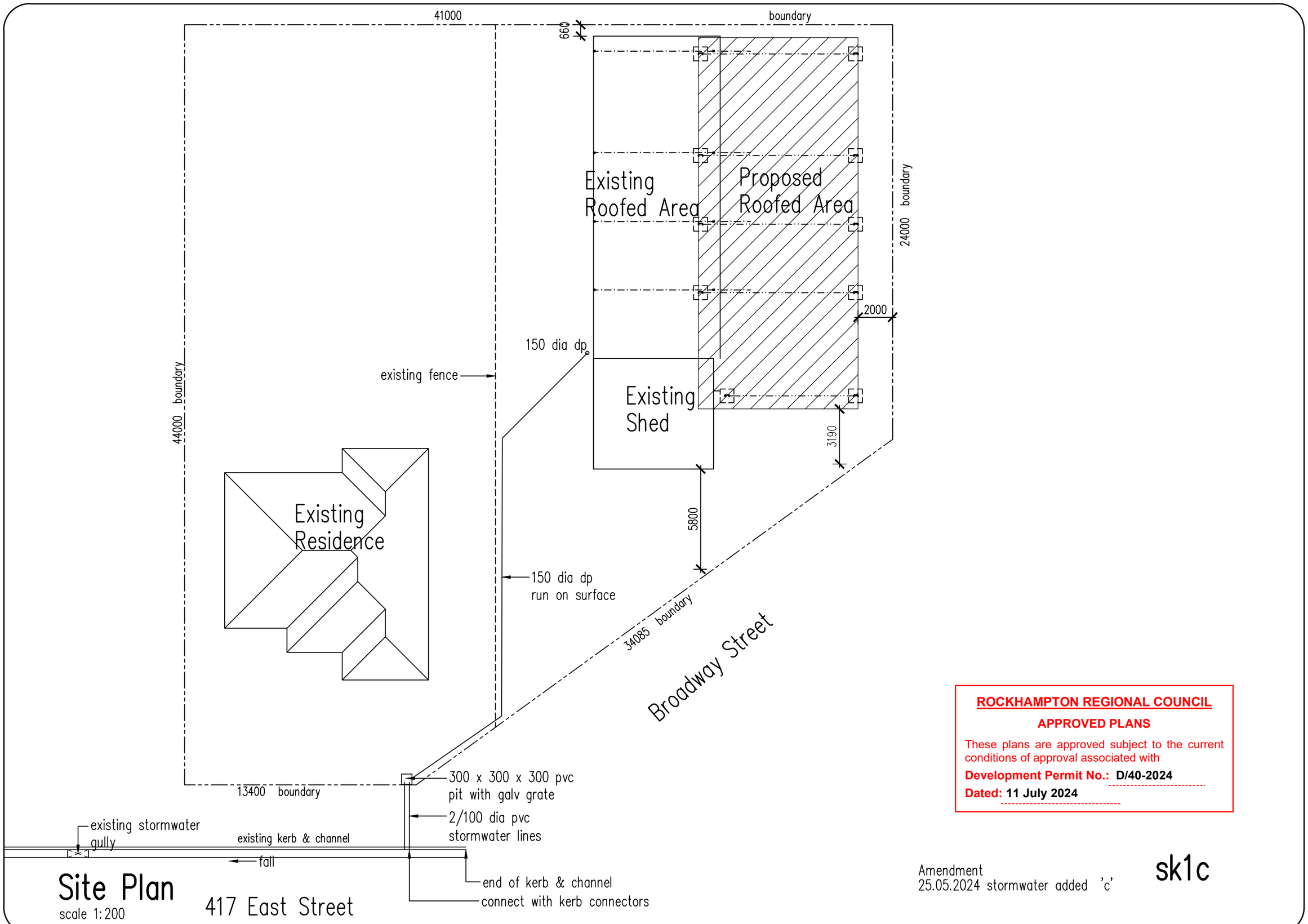


Site Plan

scale 1:200

417 East Street

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

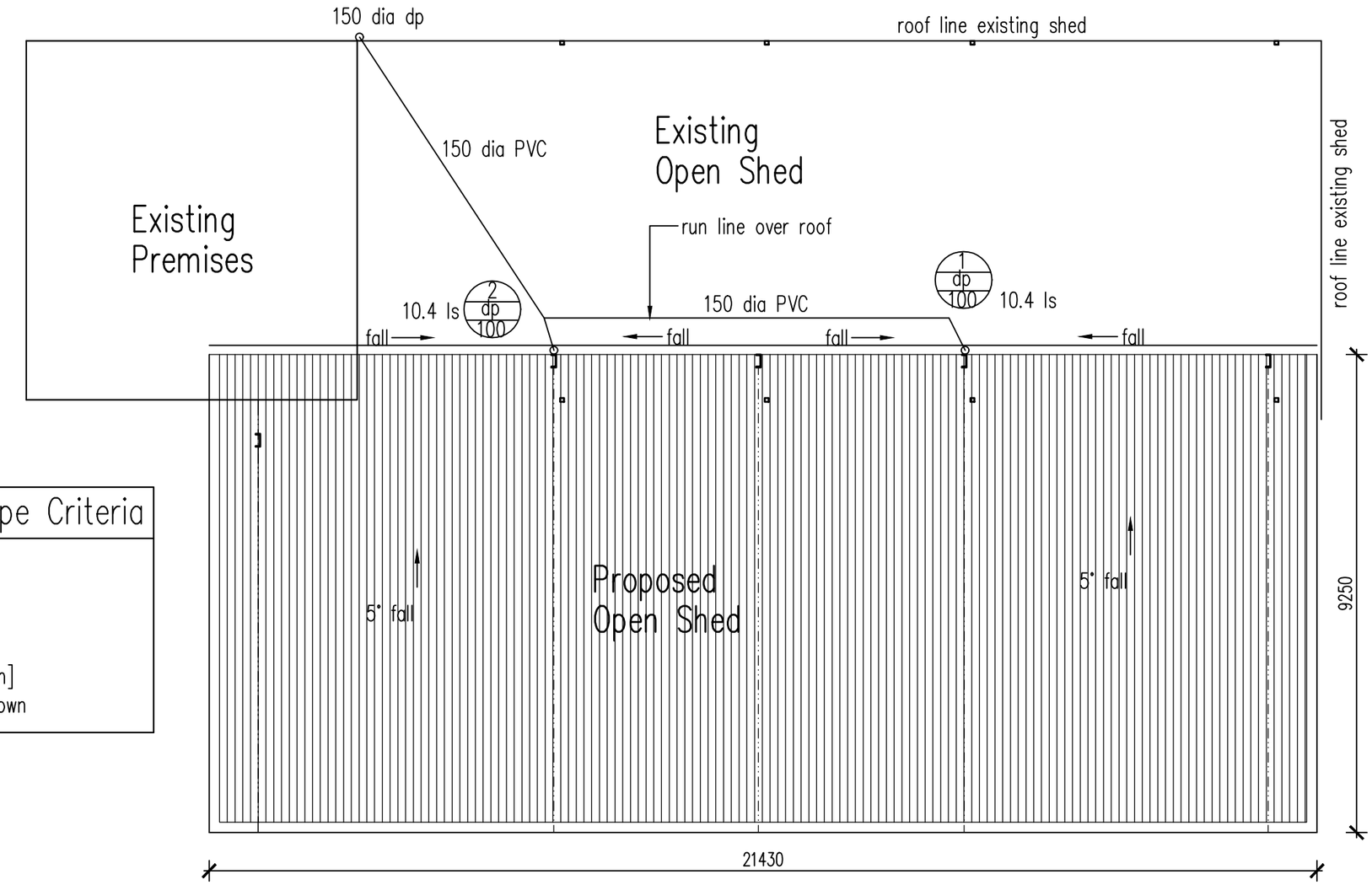
These plans are approved subject to the current conditions of approval associated with

Development Permit No.: D/40-2024

Dated: 11 July 2024

Amendment
25.05.2024 stormwater added 'c'

sk1c



Eaves Gutter&Downpipe Criteria

AS 3500.3
Rockhampton / Yeppoon
Q 20 – 260 mm/hr
5 min duration
Eaves Gutter 175 x 125 [min]
Downpipes 150 / 100 as shown

1
dp
100
10.4 ls

downpipe, id number
size, flow rate

ROCKHAMPTON REGIONAL COUNCIL

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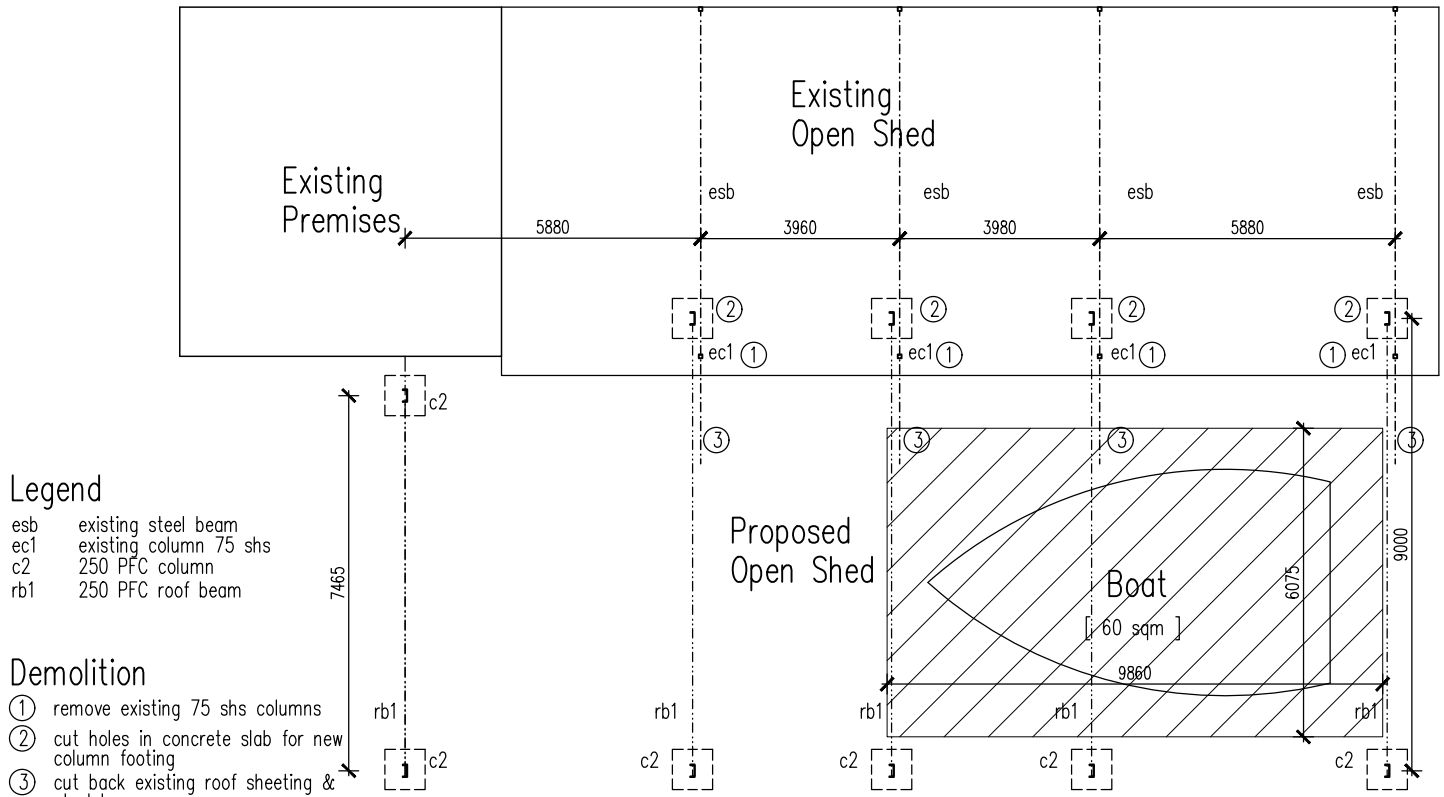
Roof Plan

Amendment
25.05.2024 stormwater added 'c'

sk6c



Legend

esb	existing steel beam
ec1	existing column 75 shs
c2	250 PFC column
rb1	250 PFC roof beam

Demolition

1. remove existing 75 shs columns
2. cut holes in concrete slab for new column footing
3. cut back existing roof sheeting & steel beams

Plan Boat Shed

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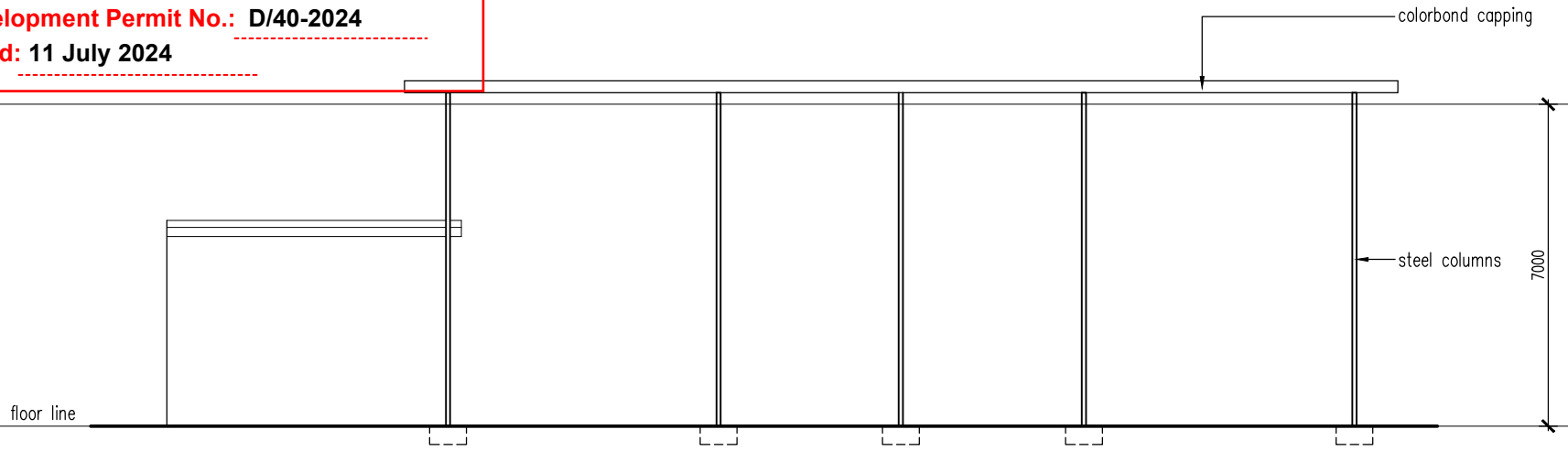
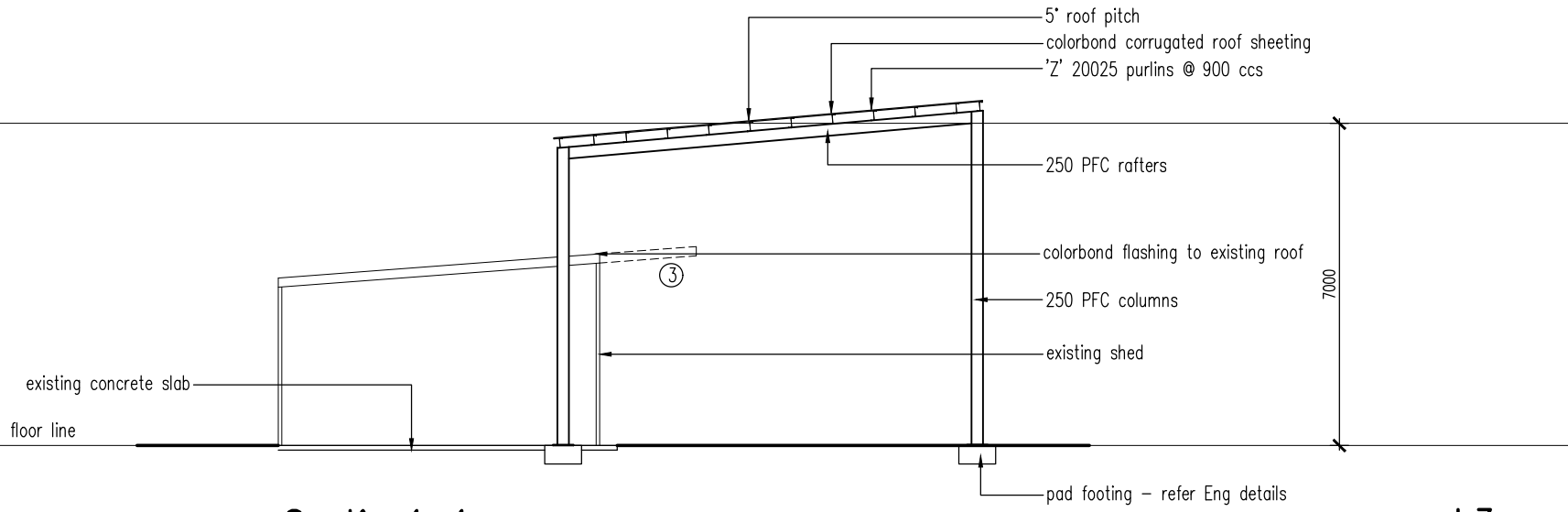
sk2a



South Elevation



Section1–1

sk3a

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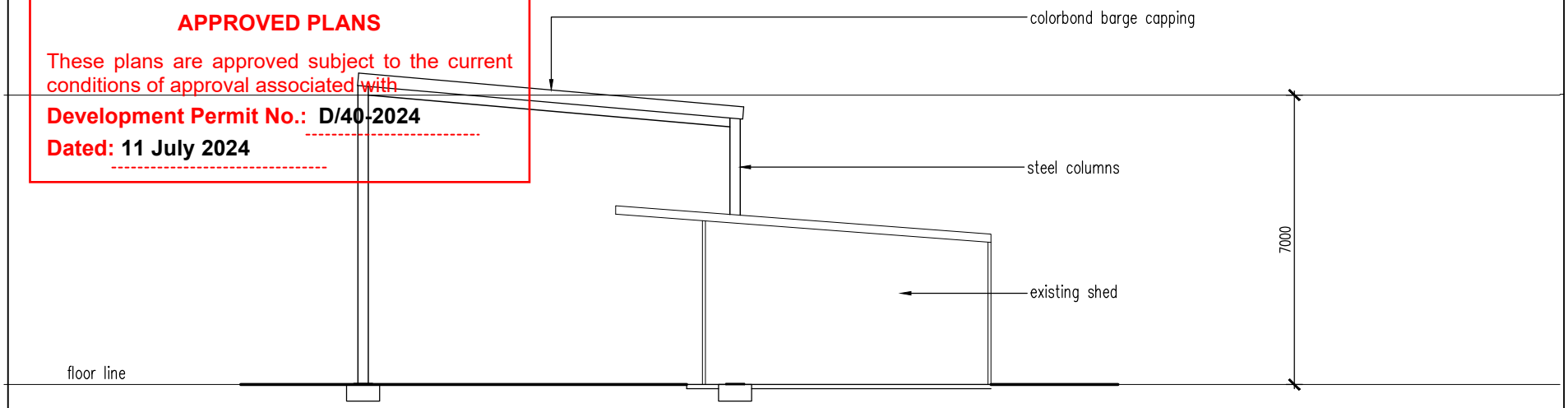
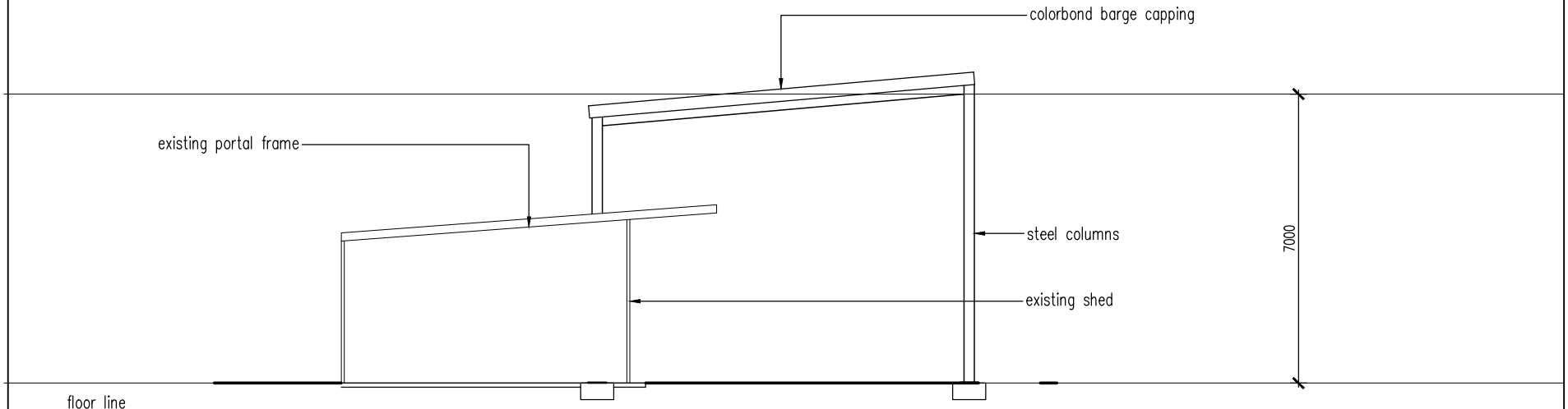
Dated: 11 July 2024

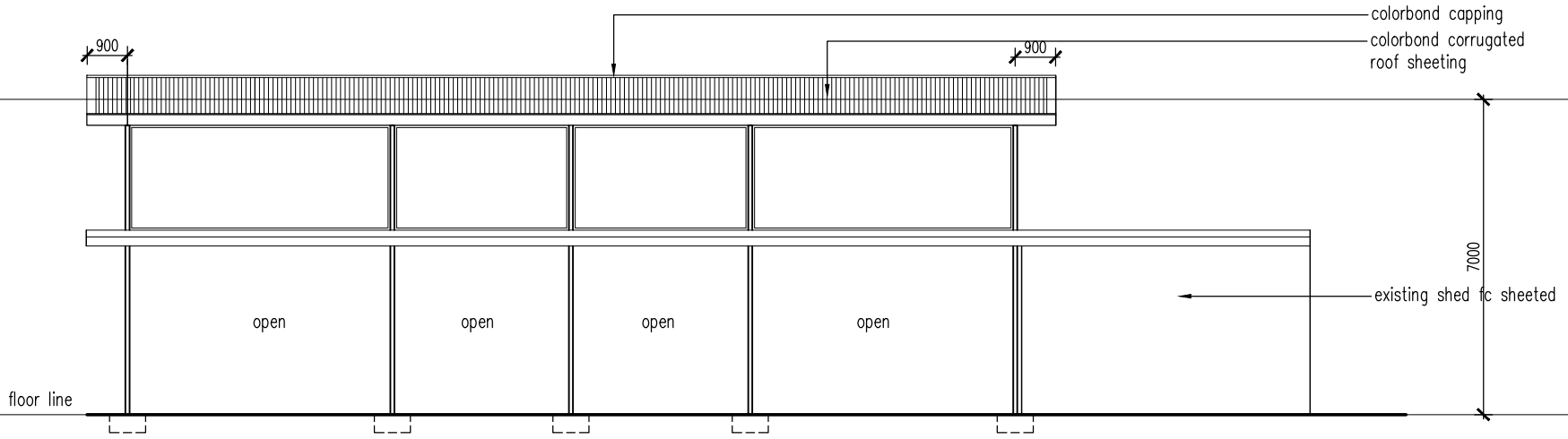


East Elevation



West Elevation

sk4a



North Elevation

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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Development Permit No.: D/40-2024

Dated: 11 July 2024

sk5a

DRAWING LIST

23109 S01 SPECIFICATION NOTES
23109 S02 FOOTING PLAN & FOOTING DETAILS
23109 S03 FRAMING PLAN & FRAMING DETAILS

GENERAL

1. ALL ACTIVITIES, WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT PROVISIONS OF THE QUEENSLAND BUILDING ACT, THE RELEVANT PROVISIONS OF THE NATIONAL CONSTRUCTION CODE, THE RELEVANT PROVISIONS OF THE RELEVANT AUSTRALIAN STANDARDS, THESE STRUCTURAL ENGINEERING DRAWINGS AND THE PROJECT SPECIFICATIONS.
2. ALL CONTRACTORS AND SUB-CONTRACTORS ARE TO HOLD APPROPRIATE REGISTRATION AND LICENSES.
3. PERFORM ALL ACTIVITIES IN A SAFE AND RESPONSIBLE MANNER AND IN ACCORDANCE WITH THE RELEVANT PROVISIONS OF THE QUEENSLAND WORK, HEALTH AND SAFETY ACT, QUEENSLAND WORK HEALTH AND SAFETY REGULATION, CODES OF PRACTICE AND INDUSTRY ACCEPTED CONSTRUCTION PRACTICE AND PRINCIPLES.
4. DURING THE STRUCTURAL ENGINEERING DESIGN PROCESS FOR THIS PROJECT THE SAFETY OF THE PEOPLE WHO WILL CONSTRUCT, USE, MAINTAIN AND DEMOLISH THE STRUCTURAL ELEMENTS HAVE BEEN CONSIDERED. ALTHOUGH RISKS TO THESE PEOPLE HAVE BEEN IDENTIFIED, THEY ARE CONSIDERED TO BE TYPICAL OF THE RISKS GENERALLY ASSOCIATED WITH SUCH A PROJECT AND WE BELIEVE SUCH RISKS CAN BE MITIGATED BY THE USE OF ACCEPTED PRACTICES.
5. DO NOT SCALE, PHYSICALLY OR ELECTRONICALLY, FROM THESE STRUCTURAL ENGINEERING DRAWINGS.
6. THESE STRUCTURAL ENGINEERING DRAWINGS HAVE BEEN BASED ON LIMITED VISUAL INSPECTIONS OF THE EXISTING STRUCTURAL ELEMENTS. THE CONTRACTOR IS TO EXPOSE THE EXISTING STRUCTURAL ELEMENTS TO ALLOW THE STRUCTURAL ENGINEER TO CONFIRM THESE STRUCTURAL ENGINEERING DRAWINGS BEFORE CONSTRUCTION AND FABRICATION BEGINS.
7. READ THESE STRUCTURAL ENGINEERING DRAWINGS IN CONJUNCTION WITH OTHER CONSULTANTS' DRAWINGS, THE PROJECT SPECIFICATIONS AND OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED. REFER ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THAT PART OF WORKS.
8. ALL WATERPROOFING, INCLUDING THE EXTERNAL BUILDING ENVELOPE AND WET AREAS, IS TO BE IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS, THE RELEVANT STANDARDS AND ACCEPTED CONSTRUCTION PRACTICE AND PRINCIPLES.
9. REFER TO THE ARCHITECTS DRAWINGS FOR SET OUT DIMENSIONS AND LEVELS. VERIFY ALL DIMENSIONS AND LEVELS BEFORE CONSTRUCTION AND FABRICATION BEGINS.
10. UNLESS NOTED OTHERWISE , ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES TO THE AUSTRALIAN HEIGHT DATUM.
11. ALL PENETRATIONS, CHASES ETC IN STRUCTURAL ELEMENTS ARE TO BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE CONSTRUCTION. UNLESS SHOWN IN THESE STRUCTURAL ENGINEERING DRAWINGS.
12. INSTALL ALL PROPRIETARY PRODUCTS IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS, RECOMMENDATIONS AND DETAILS.
13. ANY DEVIATION OR SUBSTITUTION FROM THE INFORMATION IN THESE STRUCTURAL ENGINEERING DRAWINGS IS TO BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE CONSTRUCTION FABRICATION BEGINS.
14. ROOF AND WALL CLADDING IS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THE DESIGN DATA NOTED IN THESE STRUCTURAL ENGINEERING DRAWINGS IS TO BE USED FOR THE DESIGN PROCESS.
15. DURING CONSTRUCTION MAINTAIN THE STRUCTURE IN A STABLE CONDITION AND ENSURE NO PART IS OVERSTRESSED. PROVIDE ALL TEMPORARY PROPPING AND BRACING NECESSARY TO ACHIEVE THIS. ANY TEMPORARY WORKS SHOWN IN THESE STRUCTURAL ENGINEERING DRAWINGS ARE INDICATIVE ONLY.
16. WHERE STRUCTURAL ENGINEERING CERTIFICATION OF CONSTRUCTION (FORM 16) IS REQUIRED, THE STRUCTURAL ENGINEER IS TO PERFORM ADEQUATE SITE VISITS TO ENSURE THE STRUCTURAL INTENT OF THESE STRUCTURAL ENGINEERING DRAWINGS IS ACHIEVED DURING CONSTRUCTION. THE CONTRACTOR IS TO GIVE A MINIMUM OF 48 HOURS NOTICE BEFORE THE COMMENCEMENT AND BEFORE THE COMPLETION OF ALL STRUCTURAL ELEMENTS SHOWN IN THESE STRUCTURAL ENGINEERING DRAWINGS.

DESIGN DATA

1. THE PRINCIPLES OF STRUCTURAL MECHANICS, THE RELEVANT PROVISIONS OF THE QUEENSLAND BUILDING ACT, THE RELEVANT PROVISIONS OF THE NATIONAL CONSTRUCTION CODE, THE RELEVANT PROVISIONS OF THE RELEVANT AUSTRALIAN STANDARDS, MANUFACTURERS PUBLICATIONS AND ACCEPTED ENGINEERING PRACTICE AND PRINCIPLES HAVE BEEN CONSIDERED DURING THE DESIGN OF THE STRUCTURAL ELEMENTS IN THESE STRUCTURAL ENGINEERING DRAWINGS.
2. THE FOLLOWING ACTIONS/PARAMETERS HAVE BEEN ASSESSED AS APPROPRIATE FOR THIS PROJECT:

IMPOSED ACTIONS	UNIFORMLY DISTRIBUTED ACTIONS (kPa)	CONCENTRATED ACTIONS (kN)
ROOF	0.25	1.8

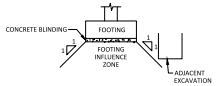
WIND LOADS	PARAMETERS
STRUCTURE IMPORTANCE LEVEL	2
REGION	C
TERRAIN CATEGORY	2
WIND DIRECTION MULTIPLIER, Md	0.95/1.0
TERRAIN HEIGHT MULTIPLIER, Mtcat	0.95
SHIELDING MULTIPLIER, Ms	1.0
TOPOGRAPHIC MULTIPLIER, Mt	1.0
FREE ROOFS	ARE NOT BLOCKED UNDER

FOUNDATIONS

1. ALL FOUNDATIONS ARE TO BE PREPARED IN ACCORDANCE WITH AS3798, AS2870, THESE STRUCTURAL ENGINEERING DRAWINGS AND THE PROJECT SPECIFICATIONS.
2. FOUND ALL FOOTING ELEMENTS IN FOUNDATION MATERIAL WITH AN ALLOWABLE BEARING CAPACITY AS FOLLOWS:

FOOTING ELEMENT	ALLOWABLE BEARING CAPACITY (kPa)
BORED PIERS - END BEARING	100
BORED PIERS - SIDE FRICTION	20

3. THE CONTRACTOR IS TO PROVIDE VERIFICATION FROM A GEOTECHNICAL ENGINEER THAT THE NOMINATED ALLOWABLE BEARING CAPACITIES HAVE BEEN ACHIEVED IN THE EXPOSED FOUNDATION MATERIALS.
4. WHERE SUITABLE FOUNDATION MATERIAL IS DEEPER THAN THAT REQUIRED FOR THE FOOTING ELEMENT, THE EXCAVATION IS TO BE BACKFILLED WITH CONCRETE BLINDING.
5. ENSURE THE EXPOSED FOUNDATION MATERIALS ARE FREE OF ANY ORGANIC MATERIAL, LOOSE MATERIAL OR WATER PRIOR TO PLACEMENT OF CONCRETE. CLEAN OUT BORED PIER EXCAVATIONS WITH A CLEANOUT BUCKET OR SUCTION EQUIPMENT.
6. PROVIDE FORMWORK INCLUDING REMOVABLE LINERS TO BORED PIERS/FOOTINGS, WHERE THE FOUNDATION MATERIAL IN THE SIDES OF EXCAVATIONS IS UNSTABLE.
7. WHERE AN EXCAVATION IS LARGER THAN REQUIRED FOR THE FOOTING, THE EXCAVATION IS TO BE BACKFILLED WITH CONCRETE BLINDING.
8. DO NOT ALLOW PREVIOUS OR FUTURE EXCAVATIONS TO ENCROACH INTO THE FOOTING INFLUENCE ZONE OF 1 ON 1 FROM THE BASE OF THE FOOTING. LOWER THE FOOTING BASE AND FILL WITH CONCRETE BLINDING OR RELOCATE THE EXCAVATION AWAY FROM THE FOOTING.



CONCRETE

1. ALL CONCRETE AND FORMWORK ACTIVITIES AND MATERIALS ARE TO BE IN ACCORDANCE WITH AS3600, AS3610, THESE STRUCTURAL ENGINEERING DRAWINGS AND THE PROJECT SPECIFICATIONS.
2. ANY HOLES, RECESSES, CHASES AND CAST IN CONDUITS, PIPES OR OTHER ITEMS ARE TO BE APPROVED BY THE STRUCTURAL ENGINEER, UNLESS SHOWN IN THESE STRUCTURAL ENGINEERING DRAWINGS.
3. REFER TO THE ARCHITECTS DRAWINGS FOR CONFIRMATION OF ALL LEVELS, STEPS, FALLS, DOOR AND GLAZING REBATES AND DOOR THRESHOLD RAMPS.
4. CONSTRUCTION JOINTS ARE TO BE APPROVED BY THE STRUCTURAL ENGINEER, UNLESS SHOWN IN THESE STRUCTURAL ENGINEERING DRAWINGS.
5. CONCRETE IS TO COMPLY WITH AS1379 AND THE FOLLOWING:

ELEMENT	GRADE	MAXIMUM AGGREGATE (mm)	SLUMP (mm)	SPECIAL REQUIREMENTS
BLINDING	N15	20	150	-
FOOTINGS	N32	20	80	-

6. STEEL REINFORCING IS TO BE IN ACCORDANCE WITH THE STEEL REINFORCEMENT NOTES. PROVIDE STEEL REINFORCING IN THE LOCATIONS NOMINATED IN THESE STRUCTURAL ENGINEERING DRAWINGS. THE POSITION OF STEEL REINFORCING IS TO BE MAINTAINED DURING CONCRETE PLACEMENT.
7. COVER TO STEEL REINFORCEMENT IS TO COMPLY WITH THE FOLLOWING:

ELEMENT	COVER (mm)	FACE
FOOTINGS	65	ALL
SLAB ON GROUND-EXTERNAL	40	TOP & EDGES
SLAB ON GROUND	45	BOTTOM ON VAPOUR BARRIER

8. CONCRETE ACTIVITIES ARE TO COMPLY WITH THE FOLLOWING, UNLESS NOTED OTHERWISE IN THESE STRUCTURAL ENGINEERING DRAWINGS:
   8.1. COMPACT ALL CONCRETE WITH THE USE OF IMMERSION VIBRATORS.
   8.2. THE FIRST POUR OF CONSTRUCTION JOINTS ARE TO BE FORMED AND THEN SCABBLED TO REMOVE LAITANCE AND EXPOSE AGGREGATE. AN APPROVED BONDING AGENT IS TO BE APPLIED IMMEDIATELY BEFORE THE SECOND POUR.
   8.3. CAST IN CONDUITS ARE NOT TO BE PLACED WITHIN THE COVER TO STEEL REINFORCING.
   8.4. CAST IN CONDUITS ARE TO BE LOCATED AS FAR APART AS POSSIBLE AND A CLEAR SPACING OF TWICE THE LARGER CONDUIT DIAMETER IS TO BE MAINTAINED BETWEEN CONDUITS AND BETWEEN CONDUITS AND PARALLEL REINFORCING STEEL.

STEEL REINFORCEMENT

1. ALL STEEL REINFORCEMENT ACTIVITIES AND MATERIALS ARE TO BE IN ACCORDANCE WITH AS/NZS4671, AS3600, AS3700 AND AS3850.
2. THE CONTRACTOR IS TO PROVIDE EVIDENCE THAT ALL STEEL REINFORCEMENT IS CERTIFIED BY THE AUSTRALIAN CERTIFICATION AUTHORITY FOR REINFORCING AND STRUCTURAL STEELS (ACRS).
3. STEEL REINFORCING IS TO COMPLY WITH THE FOLLOWING:

STEEL REINFORCEMENT	DESIGNATION
N	DEFORMED RIBBED, 500MPa, NORMAL DUCTILITY BAR (D500N)
R	ROUND, 250MPa, NORMAL DUCTILITY BAR (R250N)

4. LAPS TO STEEL REINFORCEMENT ARE TO COMPLY WITH THE FOLLOWING, UNLESS NOTED OTHERWISE IN THESE STRUCTURAL ENGINEERING DRAWINGS:

STEEL REINFORCEMENT	LAP
R10	450mm
N16	750mm

5. STEEL REINFORCEMENT IS TO BE ONLY SPLICED AT THE LOCATIONS AND TO DETAILS SHOWN IN THESE STRUCTURAL ENGINEERING DRAWINGS. ANY ADDITIONAL SPLICES ARE TO BE APPROVED BY THE ENGINEER BEFORE FABRICATION.
6. BEND STEEL REINFORCEMENT IN ACCORDANCE WITH AS3600.
7. DO NOT HEAT OR WELD STEEL REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER.
8. ALL STEEL REINFORCEMENT IS TO BE FABRICATED AND INSTALLED WITHIN THE TOLERANCES OF AS3600.
9. ALL STEEL REINFORCEMENT IS TO BE SUPPORTED IN ITS CORRECT POSITION BY PLASTIC BAR CHAIRS, PLASTIC TIPPED BAR CHAIRS OR CONCRETE SPACERS AT 800 MAX CRS IN BOTH DIRECTIONS.

STRUCTURAL STEELWORK

1. ALL STRUCTURAL STEELWORK ACTIVITIES AND MATERIALS ARE TO BE IN ACCORDANCE WITH AS4100, AS/NZS1554, AS1627, AS/NZS2312, AS/NZS4600, THESE STRUCTURAL ENGINEERING DRAWINGS AND THE PROJECT SPECIFICATIONS.
2. THE CONTRACTOR IS TO PROVIDE EVIDENCE THAT ALL STRUCTURAL STEEL IS CERTIFIED BY THE AUSTRALIAN CERTIFICATION AUTHORITY FOR REINFORCING AND STRUCTURAL STEELS (ACRS).
3. ALL ANCILLARY STRUCTURES, INCLUDING CEILINGS, SERVICES, PLANT OR PLANT DECKS ETC SUPPORTED BY THE STRUCTURAL STEELWORK ARE TO BE APPROVED BY THE STRUCTURAL ENGINEER, UNLESS SHOWN IN THESE STRUCTURAL ENGINEERING DRAWINGS.
4. SUBMIT STRUCTURAL STEEL WORKSHOP DRAWINGS TO THE ENGINEER AND OBTAIN APPROVAL OF THEIR STRUCTURAL INTENT, IN WRITING, BEFORE BEGINNING FABRICATION. THIS APPROVAL DOES NOT INCLUDE DIMENSIONS. ALL DIMENSIONS REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.
5. STRUCTURAL STEEL IS TO COMPLY WITH THE FOLLOWING, UNLESS NOTED OTHERWISE IN THESE STRUCTURAL ENGINEERING DRAWINGS:

SECTION	GRADE (MPa)	STANDARD
HOT ROLLED SECTIONS & FLAT BAR	300	AS/NZS3679-1
PLATE	250	AS/NZS3678
PURLINS AND GIRTS	450	AS4600

6. BOLTS, NUTS AND WASHERS ARE TO COMPLY WITH THE FOLLOWING:

BOLT	INSTALLATION	GRADE	STANDARD
4.6/S	SNUG TIGHT	4.6 COMMERCIAL	AS1111 & AS1112

7. ALL WELDS ARE TO BE GENERAL PURPOSE (GP). IN ACCORDANCE WITH AS/NZS 1554 AND PERFORMED BY A QUALIFIED WELDER.
8. SURFACE PREPARATION AND CORROSION PROTECTION OF STRUCTURAL STEEL ARE TO COMPLY WITH THE FOLLOWING:

STEELWORK	SURFACE PREPARATION TO AS1627	PRIMER COAT	INTERMEDIATE & TOP COAT
ALL STEELWORK	CLASS 2.5 ABRASIVE BLAST CLEAN	EPOXY PRIMER (DULUX ZINCANODE 402 OR EQUIVALENT APPROVED BY THE ENGINEER). MINIMUM DRY FILM THICKNESS 75µm	DULUX LUXATHENE HPX OR EQUIVALENT APPROVED BY THE ENGINEER). MINIMUM DRY FILM THICKNESS 50µm
ALL EXTERNAL FITMENTS NUTS, BOLTS AND WASHERS	N/A	HOT DIPPED GALVANISED IN ACCORDANCE WITH AS/NZS4680 MINIMUM 600 g/m² COATING MASS	TO OWNERS/ARCHITECTS REQUIREMENTS

9. PURLINS AND GIRTS ARE TO BE PROVIDED WITH A Z350 COATING TO PROTECT AGAINST CORROSION.
10. INSTALL NON-SHRINK CEMENTITIOUS GROUT UNDER ALL BASE PLATES.
11. STRUCTURAL STEEL WORK IS TO COMPLY WITH THE FOLLOWING, UNLESS NOTED OTHERWISE IN THESE STRUCTURAL ENGINEERING DRAWINGS:
    11.1. FABRICATE ALL STEELWORK IN ACCORDANCE WITH AS4100 AND AS/NZS4600.
    11.2. FABRICATE ALL CLEATS, GUSSETS AND CONNECTION PLATES FROM 8mm FLAT BAR.
    11.3. GRIND ALL SHARP EDGES AND CORNERS SMOOTH.
    11.4. WELDING ELECTRODES ARE TO BE E48xx.
    11.5. WELD HOT ROLLED STEEL WITH 6mm CONTINUOUS FILLET WELD.
    11.6. WELD COLD FORMED STEEL WITH 2mm CONTINUOUS FILLET WELD.
    11.7. BUTT WELDS ARE TO ACHIEVE FULL PENETRATION OF CONNECTED MEMBERS.
    11.8. BOLTS SHALL BE M20 4.6/S.
    11.9. PROVIDE AT LEAST TWO BOLTS TO ALL CONNECTIONS.
    11.10. PROVIDE 2mm BOLT HOLE CLEARANCE.
    11.11. CAST IN, HOLD DOWN BOLTS ARE TO BE M16 4.6/S.
    11.12. PROVIDE 6mm BOLT HOLE CLEARANCE FOR CAST IN, HOLD DOWN BOLTS.
    11.13. PROVIDE 4mm BOLT HOLE CLEARANCE FOR DRILLED ANCHORS.
    11.14. PROVIDE LEVELING NUTS AND WASHERS TO HOLD DOWN BOLTS.
    11.15. ALL CHEMICAL OR EPOXY ANCHORS SHALL BE HILTI HIT-RES00 PREPARED AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS, OR EQUIVALENT APPROVED BY THE STRUCTURAL ENGINEER.
    11.16. SUPPORT ROOF BRACING WITH R6 PURLIN HANGERS AT 2500 MAX CENTRES.
12. PURLINS AND GIRTS ARE TO COMPLY WITH THE FOLLOWING, UNLESS NOTED OTHERWISE IN THESE STRUCTURAL ENGINEERING DRAWINGS:
    12.1. LAP ALL PURLINS AND GIRTS THE GREATER OF 15% OF THE SPAN OR 600mm.
    12.2. PROVIDE BRIDGING BETWEEN ALL PURLINS AND GIRTS AT 2000mm CENTRES.
    12.3. FIX 100, 150, 200 AND 250 SERIES PURLINS AND GIRTS WITH TWO PROPRIETARY FLANGED PURLIN BOLTS AND NUTS, GRADE 4.6 WITH M12 THREAD.
    12.4. TRIM PENETRATIONS, HIPS, VALLEYS, BARGES AND DIAGONAL SHEET ENDS WITH PURLIN OR GIRT MEMBERS OF THE SAME SIZE AS THE ROOF PURLINS OR WALL GIRTS. PROVIDE PROPRIETARY BRACKETS AND CLAMP PLATES AT EACH END. FIX WITH TWO PURLIN BOLTS IN EACH LEG OF BRACKETS.
    12.5. ALL BRACKETS FOR CEILING FRAMING, SERVICES AND PLANT ARE TO CONNECT TO THE WEB OF THE PURLINS.
13. CLEATS FOR PURLINS AND GIRTS SHALL COMPLY WITH THE FOLLOWING UNLESS NOTED OTHERWISE IN THESE STRUCTURAL DRAWINGS:

PURLIN OR GIRT	DISTANCE BETWEEN SUPPORTING MEMBER AND FAR FACE OF PURLIN OR GIRT	CLEAT
100, 150, 200 & 250 SERIES	UP TO 270mm	75mm x 8mm FLAT BAR

14. ALL STRUCTURAL STEELWORK SHALL BE ERECTED IN ACCORDANCE WITH AS4100 AND AS3828.
15. THE CONTRACTOR IS IS TO PROVIDE ALL TEMPORARY WORKS TO MAINTAIN THE STRUCTURAL STEELWORK IN A STABLE CONDITION DURING CONSTRUCTION.

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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Development Permit No.: D/40-2024

Dated: 11 July 2024

Revision	Date	Revision Description	Drawn	Design	Checked
1	08/03/2024	PRELIMINARY	AA	AH	GJ

GREG JANES R.P.E.Q. 10913

APPROVAL FOR ISSUE FOR AND ON BEHALF OF JANES AND STEWART STRUCTURES PTY LTD

A1 SHEET - DO NOT SCALE

Client: **C & D THOMASSON**

Janes and Stewart Structures Pty Ltd
120 William Street | Po Box 1072
Rockhampton 4700
07 4922 1948
janes.and.stewart@jsstructures.com.au
ABN 30 620 233 025

JS² Janes and Stewart Structural+Civil CONSULTANTS

Project: **PROPOSED FREESTANDING ROOF**

417 EAST STREET ROCKHAMPTON

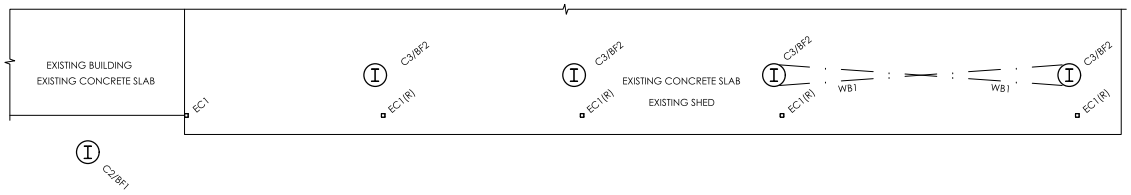
PRELIMINARY
NOT FOR CONSTRUCTION PURPOSES

Project Number: 23109

Title: **SPECIFICATION NOTES**

Drawing: **S01**

Revision: 1



FOOTING PLAN

SCALE 1:50

- REFER TO ARCHITECTS DRAWINGS FOR ALL LEVELS, STEPS AND FALLS
- REFER TO ARCHITECTS DRAWINGS FOR EXTENT OF ELEMENTS TO BE DEMOLISHED

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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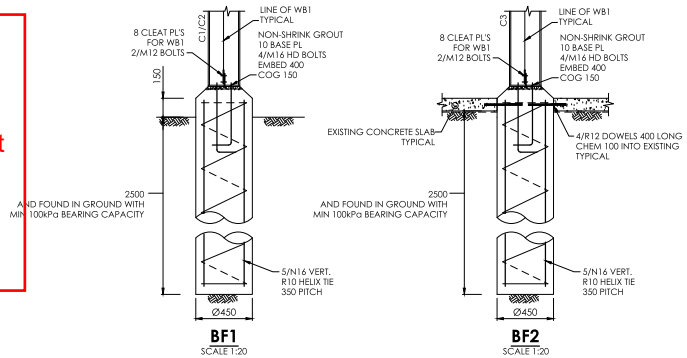


-BEARING CAPACITY TO BE CONFORMED BY GEOTECHNICAL ENGINEER

Revision	Date	Revision Description	Drawn	Design	Checked
1	08/03/2024	PRELIMINARY	AA	AH	GJ

GREG JANES R.P.E.Q.10913

APPROVAL FOR ISSUE FOR AND ON BEHALF OF JANES AND STEWART STRUCTURES PTY LTD

0 0.5 2.0m 1:50
0 0.2 0.8m 1:20

A1 SHEET - DO NOT SCALE

Client: **C & D THOMASSON**

Janes and Stewart Structures Pty Ltd
120 William Street | Po Box 1072
Rockhampton 4700
07 4922 1948
janes.and.stewart@jsstructures.com.au
ABN 30 620 233 025

Janes and Stewart Structural+Civil CONSULTANTS

Project: **PROPOSED FREESTANDING ROOF**

417 EAST STREET ROCKHAMPTON

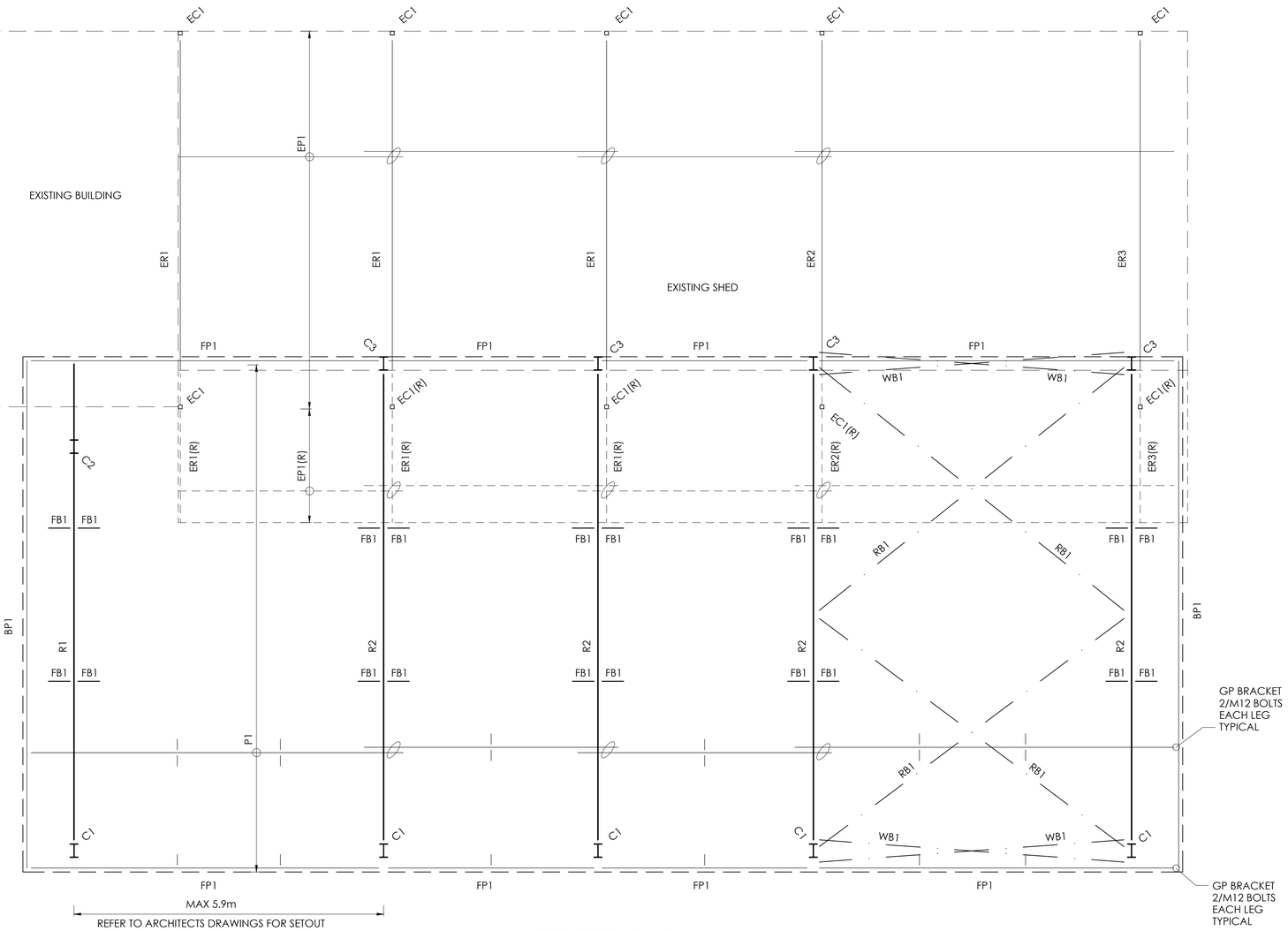
PRELIMINARY
NOT FOR CONSTRUCTION PURPOSES

Project Number: 23109

Title: **FOOTING PLAN & FOOTING DETAILS**

Drawing: **S02**

Revision: 1



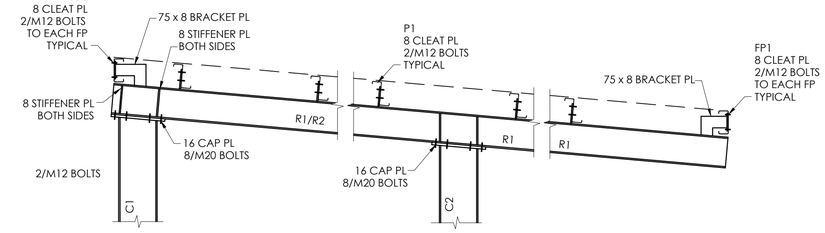
FRAMING PLAN

SCALE 1:50

- REFER TO ARCHITECTS DRAWINGS FOR EXTENT OF ELEMENTS TO BE DEMOLISHED

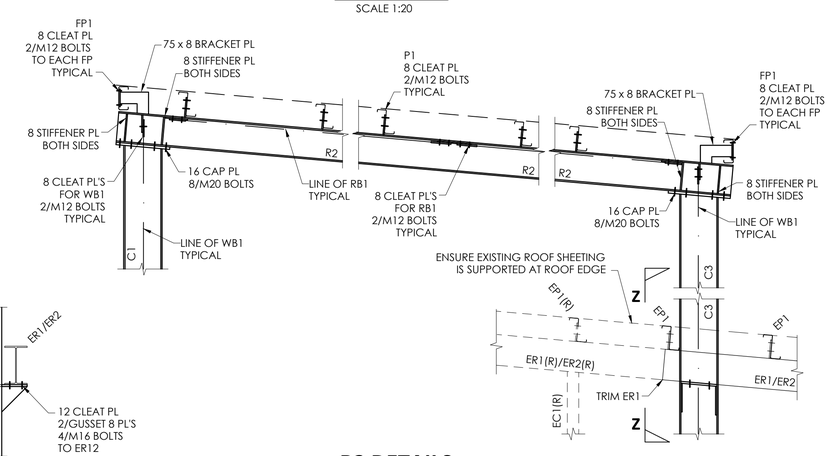
EXISTING MEMBER SCHEDULE	
EC1	EXISTING SHS COLUMN
EC1(R)	EXISTING SHS COLUMN (REMOVED
ER1	EXISTING UB RAFTER
ER1(R)	EXISTING UB RAFTER (REMOVED)
ER2	EXISTING RHS RAFTER
ER2(R)	EXISTING RHS RAFTER (REMOVED)
ER3	EXISTING 'C' SERIES RAFTER
ER3(R)	EXISTING 'C' SERIES RAFTER (REMOVED)
EP1	EXISTING 'Z' SERIES PURLINS
EP1(R)	EXISTING 'Z' SERIES PURLINS (REMOVED)

MEMBER SCHEDULE	
C1	250UB31 COLUMN
C2	250UB31 COLUMN
C3	250UB31 COLUMN
R1	200UB25 RAFTER
R2	200UB25 RAFTER
P1	Z15019 PURLINS @ 900 CRS MAX, LAP 900, BRIDGING AS SHOWN
BP1	C15015 BARGE PURLIN
FP1	C15024 FASCIA PURLIN, BRIDGING AS SHOWN
RB1	M12 TENSIONED ROD X-ROOF BRACING
WB1	M12 TENSIONED ROD X-WALL BRACING
FB1	FLY BRACING REFER TO DETAILS



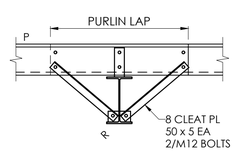
R1 DETAILS

SCALE 1:20



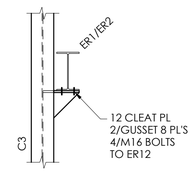
R2 DETAILS

SCALE 1:20



FB1 DETAILS

SCALE 1:20



VIEW Z-Z

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

These plans are approved subject to the current conditions of approval associated with

Development Permit No.: D/40-2024

Dated: 11 July 2024

Revision	Date	Revision Description	Drawn	Design	Checked
1	08/03/2024	PRELIMINARY	AA	AH	GJ

GREG JANES R.P.E.Q. 10913

APPROVAL FOR ISSUE FOR AND ON BEHALF OF JANES AND STEWART STRUCTURES PTY LTD

0 0.5 2.0m 1:50
0 0.2 0.8m 1:20

A1 SHEET - DO NOT SCALE

Client: **C & D THOMASSON**

Janes and Stewart Structures Pty Ltd
120 William Street | Po Box 1072
Rockhampton 4700
07 4922 1948
janes.and.stewart@jsstructures.com.au
ABN 30 620 233 025

JS2 Janes and Stewart Structural+Civil CONSULTANTS

Project: **PROPOSED FREESTANDING ROOF**

417 EAST STREET ROCKHAMPTON

PRELIMINARY
NOT FOR CONSTRUCTION PURPOSES

Title: **FRAMING PLAN**

Project Number: 23109

Drawing: **S03**

Revision: 1

Project Number 23109
Date 8th March 2024

Janes and Stewart Structural+Civil CONSULTANTS
Janes and Stewart Structures Pty Ltd
120 William Street, PO Box 1072
Rockhampton 4700
07 4922 1948
janes.and.stewart@jsstructures.com.au

Letter - 23109LET01

Soundbridge Financial Services
166 Quay Street
Rockhampton Qld 4700

Attention: Cyril Thomasson
cyril@soundbridge.com.au

Dear Cyril

Technical Letter – Flood Statement
Proposed Freestanding Roof
417 East Street, Depot Hill

Janes and Stewart Structural and Civil Consultants have prepared this civil engineering technical letter to support the project for a new freestanding roof to be installed at 417 East Street, Depot Hill. 417 East Street is currently subjected to inundation from riverine flooding events of the Fitzroy River as well as local stormwater catchment flooding based on flood modelling undertaken for Rockhampton Regional Council.

The intent of this letter is to review the project against the flood modelling available to ensure that there are no expected significant impacts on the flood situation from the boat shed project.

A flood property search (attached) from Rockhampton Regional Council has identified that in a riverine flood event from Fitzroy River flooding, the flood level for a 1% Annual Exceedance Probability (AEP) for 417 East Street is RL 8.18m AHD, based on the Fitzroy River Flood study.

The flood property search also shows that in a Local stormwater catchment flooding scenario, the 1% AEP flood level is approximately RL 6.57m AHD based off the South Rockhampton Flood Study 2018 for Rockhampton Regional Council.

This project involves the installation of a new freestanding roof approximately 21.5m by 9.3m which will be fixed to an existing steel framed shed currently located on the site. The proposed roof structure comprises 10 x 250UB31 columns supporting the rafters, purlins and roof sheeting. The column and footing layout of the proposed roof structure can be seen in figure 1 below.

Figure 1: Aerial image of 417 East Street with proposed roof column and footing locations overlaid (Aerial source: QLD Globe)

The existing site topography is flat with site levels varying from 6.74m AHD maximum to 6.41m AHD minimum as identified in the flood property search. Therefore, on comparison of the 1% AEP flood levels against the existing site levels, the maximum depth of inundation on the site is approximately 1.77m in a riverine flood event resulting in the site being fully inundated. In a local catchment flooding event, only a small portion of the site is shown to be impacted from the 1% AEP with a maximum inundation depth of 0.16m.

The project does not require any changes to existing ground surface levels. Therefore, to assess the volume of the proposed columns under the 1% AEP riverine flood level, the minimum site level of 6.41m has been adopted for all columns which could be considered a conservative approach. As part of our assessment, the volume of the proposed columns below the 1% AEP riverine flood level has been calculated using the structural sizes of the columns. This assessment has identified that the total volume of all new roof columns under the 1% AEP level is less than approximately 0.07m³.

This is a notably small amount of potential displaced flood water. As such we believe that no significant impact to the flood situation is expected with the proposed installation of a new freestanding roof at 417 East Street, Depot Hill.

If you should have any queries relating to this technical letter, please feel free to contact our office.

Janes and Stewart Structural+Civil CONSULTANTS

Yours sincerely

Matthew Dennis
Senior Civil Engineer (RPEQ 24862)
for and on behalf of Janes and Stewart Structures Pty Ltd

Attachments:

1. RRC Flood Property Search Report for 417 East Street, Depot Hill

Rockhampton Office
232 Bolsover St, Rockhampton
Gracemere Office
1 Ranger St, Gracemere
Mount Morgan Office
32 Hall St, Mount Morgan

10 November 2023

Your Ref: diane@soundbridge.com.au
Telephone: 07 4936 8099
Email: developmentadvice@rrc.qld.gov.au

D J Thomasson
PO BOX 8386
ALLENSTOWN QLD 4700

Dear Sir / Madam

FLOOD INFORMATION REQUEST FOR 417 EAST STREET, DEPOT HILL QLD 4700 DESCRIBED AS LOT 2 ON RP600414

Council is in receipt of your application dated 2 November 2023 requesting flood information for 417 East Street, Depot Hill, and more properly described as Lot 2 on RP600414.

Please find attached a Flood Search Property Report for your reference. The purpose of this report is to provide flood level information to support the application of Council's planning scheme Flood Hazard overlay code, floodplain planning provisions, and applicable flood planning levels.

Council records show that the abovementioned property parcel is identified as being at risk of flood in a 1% AEP Fitzroy River and/or Local Storm / Overland Flow flooding event. Annual Exceedance Probability (AEP) is the probability of a flood event of a given magnitude being equalled or exceeded in any one year. A 1% AEP event means there is statistically a 1% (or 1 in 100) probability that an event of that magnitude will occur or be exceeded in any year.

The design flood level information contained within this report provide water surface levels for a range of typical planning and development design standards. The flood planning level for most development in the Flood Hazard overlay area is the Defined Flood Event (DFE). Council has adopted a DFE of 1% AEP as a planning standard for the management of development in Rockhampton Region. As such, for most development types - the floodplain planning provisions of Council's planning scheme apply relative to the 1% AEP defined flood event. Exceptions apply for critical infrastructure. The Defined flood event may change as Council undertakes further flood risk analysis and profiling as part of its long-term floodplain management planning for the catchment.

The flood levels contained within this flood search report have been sourced from Council's adopted flood modelling and flood study at this location, and are based on the best available information at the time of completing the study. The flood levels are measured in metres Australian Height Datum (mAHD), where mean sea level is approximately zero (0) mAHD.

Council is committed to providing residents with the most up to date flood risk information. The current flood study for this catchment area has assessed flood risk for a number of flood events including rare flood events greater than the 1%AEP flood, to provide a better understanding of the flood behaviour in the catchment. As such, the flood search report contains flood levels for flood events such as the 0.2%AEP (1 in 500 year AEP), 0.05% AEP (1 in 2000 year flood event), and the PMF (probable maximum flood). This information is being provided for completeness, and may not be applicable for development assessment purposes.

Please note: All reasonable steps have been undertaken to ensure the information presented in this report is accurate at the time of generation. Changes to the topography and condition of the local creeks and waterways may have an impact on flooding. Over time, Council may also undertake further technical studies to maintain the understanding of flooding across the city, and update the information available.

Should you have any queries regarding this information please contact Council's Development Engineering section using the contact information above.

Yours faithfully

Mohit Paudyal
Senior Development Engineer
Planning and Regulatory Services

Enc Flood Search Property Report and Flood Property Map

Rockhampton Regional Council Flood Search Property Report

Property Address:	**417 East Street, Depot Hill QLD 4700**
Lot Details:	**Lot 2 on RP600414**
Date of Issue:	**10 November 2023**

Rockhampton Regional Council

Flood Search Property Report Overview

It is possible for one or more sources of flooding to occur, especially where a property is near a creek or waterway. These flooding sources can include riverine, creek and overland flow flooding which can each behave differently and impact how a building or development is designed. All flood hazard triggers should be considered when designing and planning with flooding in mind.

The Rockhampton Regional Council Flood Search Report is provided to support planning and development, in accordance with the current version of the Rockhampton Region Planning Scheme 2015.

This report summaries flood information for this property to inform and supplement the application of the Council's planning scheme Flood Hazard overlay code, floodplain planning provisions, and the applicable flood planning levels. The contents of this report have been derived from Council's flood studies and flood modelling and should be considered along with all other applicable planning and development requirements. Flood studies and associated modelling assist Council to better understand flooding in the Rockhampton region and implement plans to avoid and mitigate its impacts on the community.

Flood modelling of the Fitzroy River has been progressively refined over a long period of time. The flood modelling addresses riverine impacts on Rockhampton City and surrounding areas, including Alton Downs, Pink Lily, Nine Mile, Fairy Bower, Midgee and Port Curtis. Local Creek and Catchment Flood Studies provide Council with information on flood behaviour of the creeks, and how they are expected to respond during varying intensities and durations of rainfall events.

Understanding your flood risk can help you prepare for flooding at your home or business. The information provided in this report utilises information from the most up to date flood studies available to Council at the date of issue of this report. All reasonable steps have been undertaken to ensure the information presented in this report is accurate at the time of generation. Changes to the topography and condition of the local creeks and waterways may have an impact on flooding. Over time, Council may undertake further technical studies to maintain the understanding of flooding across the city, and update the information available.

Copies of Council's current Flood Studies are available on Council's website at www.rrc.qld.gov.au

What is flood modelling?

Flood modelling uses sophisticated computer software to estimate how rainfall of various intensities and duration produce stormwater flows along creek and river catchments.

Flood modelling is used to estimate:

- The inundation extents of the areas that may be flooded;
- The peak depths of flood waters; and
- The hazard related to the depth of water or how quickly the water flows (velocity).

Flood modelling estimates a range of design floods based on a statistical analysis of rainfall information provided by the Bureau of Meteorology. This information is used to establish the likelihood of a rainfall or flood event.

When reading this report, please consider:

- If a property is identified as being at risk of being affected by Fitzroy River and/ or Local Creek Catchment flooding, the highest maximum flood heights should be used to establish minimum building and development levels. For large property parcels - there may be a significant difference between the minimum and maximum flood heights for a particular flood type. In these situations, you may need to seek further advice from Council regarding the flood height that is appropriate for the exact location of the proposed building or development.
- The flood maps included with this report display the flood inundation extent only. All maps generated from the Flood Studies are available on Council's website.
- The flood maps provided depict the flood inundation extents under existing climate and catchment conditions.
- If preparing a new building and/or development application, it is recommended that you confirm all flood related provisions within Council's Planning Scheme relevant to the property.

Property Details

Address: **417 East Street, Depot Hill QLD 4700**
Lot and plan: Lot 2 on RP600414

Property Ground Levels:

Property ground levels can be found on the attached property flood report. The ground level data has been sourced from Aerial LiDAR survey, and as such, these levels are approximate.

Should the extent of flooding at a property need to be more accurately predicted, then individual property level information (e.g. surveyed site levels, and building floor levels) could be utilised in conjunction with Council's flood information. Council does not undertake this level of investigation or survey on behalf of property owners.

For your information:
AHD (Australian Height Datum) is the National Mapping Datum used throughout Australia. The level of 0.0m AHD is approximately mean sea level.

Elevation Data Source: The digital elevation model used in the flood modelling is generated on a regional scale and utilises ground level elevations from aerial laser surveys performed in2016. The survey data used to determine the extent and depth of potential inundation is captured and updated periodically and may not reflect inundation of land that has recently been modified, such as a new subdivision that has changed the existing landform.

Flood Information

Riverine Flood: Affected

The property is identified as being at risk of flooding from the Fitzroy River. A property flood report displaying the 1% AEP (Annual Exceedance Probability) flood extent on the property is attached. Planning and development must consider risk to people and property, natural floodplain characteristics, and flood free/low flood hazard access outcomes during a river flood event.

For your information:
AEP (Annual Exceedance Probability) is the probability of a flood event of a given size occurring or being exceeded in any one year. Information in relation to more or less likely floods and the full flood plain extent can be accessed on Council's website.

Local Storm / Overland Flow Flood: Affected

The property is identified as being at risk of flooding from Local Storm / Overland Flow flooding. The attached map displays the 1% AEP flood extent on the property due to the Local Storm / Overland Flow Flooding. Planning and development must consider risk to people and property, natural floodplain characteristics, and flood free/low flood hazard access outcomes during local storm and overland flow flood events.

For your information:
AEP (Annual Exceedance Probability) is the probability of a flood event of a given size occurring or being exceeded in any one year. Information in relation to more or less likely floods and the full flood plain extent can be accessed on Council's website.

Flood Report for 417 East Street Depot Hill QLD 4700

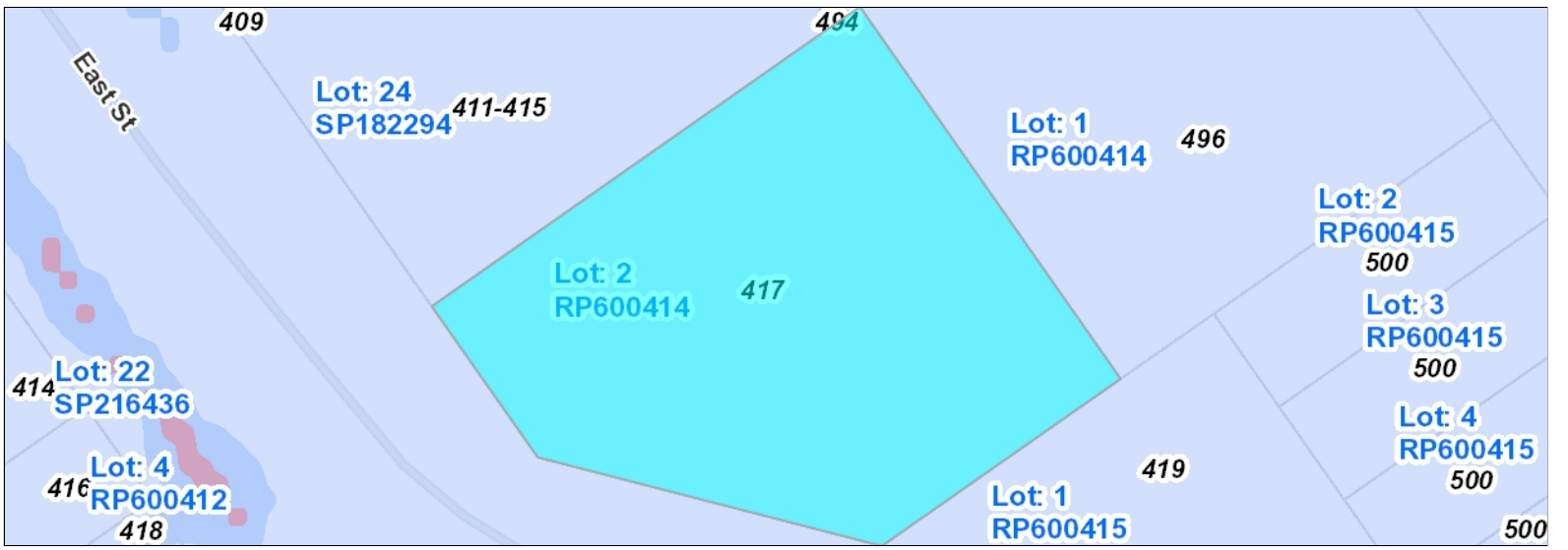
Printed from GeoCortex on 10/11/2023

Owners: D J Thomasson

Ratepayer Address: PO BOX 8386 ALLENSTOWN QLD 4700

Parcel ID: RP600414/2

Land use: Single Dwelling



Riverine Catchment: Fitzroy River Flood Study

Creek Catchment: South Rockhampton Local Catchment Study 2018

Mitigation Area: N/A

Horizontal Datum: MGA 56, GDA 2020

Elevation / WSL: mAHD

Velocity: m/sec

Comments

N/A

Riverine

PMF WSL Min:	11.73	AEP 2% WSL Min:	7.81
PMF WSL Max:	11.74	AEP 2% WSL Max:	7.82
PMF Velocity Min:	0.15	AEP 2% Velocity Min:	0.04
PMF Velocity Max:	0.26	AEP 2% Velocity Max:	0.20
AEP 0.05% WSL Min:	9.44	AEP 5% WSL Min:	7.25
AEP 0.05% WSL Max:	9.44	AEP 5% WSL Max:	7.26
AEP 0.05% Velocity Min:	0.09	AEP 5% Velocity Min:	0.02
AEP 0.05% Velocity Max:	0.19	AEP 5% Velocity Max:	0.19
AEP 0.2% WSL Min:	8.90	AEP 10% WSL Min:	*6.61*
AEP 0.2% WSL Max:	8.91	AEP 10% WSL Max:	*6.65*
AEP 0.2% Velocity Min:	0.08	AEP 10% Velocity Min:	*0.02*
AEP 0.2% Velocity Max:	0.17	AEP 10% Velocity Max:	*0.18*
AEP 0.5% WSL Min:	8.50	AEP 18% WSL Min:	*N/A*
AEP 0.5% WSL Max:	8.51	AEP 18% WSL Max:	*N/A*
AEP 0.5% Velocity Min:	0.07	AEP 18% Velocity Max:	*N/A*
AEP 0.5% Velocity Max:	0.18	AEP 18% Velocity Max:	*N/A*
AEP 1% WSL Min:	8.17	AEP 39% WSL Min:	*N/A*
AEP 1% WSL Max:	8.18	AEP 39% WSL Max:	*N/A*
AEP 1% Velocity Min:	0.05	AEP 39% Velocity Min:	*N/A*
AEP 1% Velocity Max:	0.20	AEP 39% Velocity Max:	*N/A*

Creek \ Local Catchment

PMF WSL Min:	*6.57*	AEP 5% WSL Min:	*N/A*
PMF WSL Max:	*6.61*	AEP 5% WSL Max:	*N/A*
PMF Velocity Min:	*0.01*	AEP 5% Velocity Min:	*N/A*
PMF Velocity Max:	*0.22*	AEP 5% Velocity Max:	*N/A*
AEP 0.05% WSL Min:	*6.55*	AEP 10% WSL Min:	*N/A*
AEP 0.05% WSL Max:	*6.58*	AEP 10% WSL Max:	*N/A*
AEP 0.05% Velocity Min:	*0.00*	AEP 10% Velocity Min:	*N/A*
AEP 0.05% Velocity Max:	*0.24*	AEP 10% Velocity Max:	*N/A*
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AEP 0.2% WSL Max:	*6.58*	AEP 18% WSL Max:	*N/A*
AEP 0.2% Velocity Min:	*0.00*	AEP 18% Velocity Min:	*N/A*
AEP 0.2% Velocity Max:	*0.19*	AEP 18% Velocity Max:	*N/A*
AEP 0.5% WSL Min:	*6.55*	AEP 39% WSL Min:	*N/A*
AEP 0.5% WSL Max:	*6.57*	AEP 39% WSL Max:	*N/A*
AEP 0.5% Velocity Min:	*0.00*	AEP 39% Velocity Min:	*N/A*
AEP 0.5% Velocity Max:	*0.10*	AEP 39% Velocity Max:	*N/A*
AEP 1% WSL Min:	*6.55*	AEP 63% WSL Min:	*N/A*
AEP 1% WSL Max:	*6.57*	AEP 63% WSL Max:	*N/A*
AEP 1% Velocity Min:	*0.01*	AEP 63% Velocity Min:	*N/A*
AEP 1% Velocity Max:	*0.10*	AEP 63% Velocity Max:	*N/A*

Property Elevation

Ground Elevation (Min):	6.41
Ground Elevation (Max):	6.74

AEP 2% WSL Min:	*N/A*
AEP 2% WSL Max:	*N/A*
AEP 2% Velocity Min:	*N/A*
AEP 2% Velocity Max:	*N/A*