

ISSUED AS CONSTRUCTED
SCOTT THOMAS - RPEQ 16203

DATED: 25.01.21

SIGNED:



ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Preliminary Approval No.: D/26-2021

Dated: 14 April 2021

TERMITE PROTECTION:

To be carried out in accordance with AS 3660.1 2000
Builder to advise Local Authority of method of termite protection
and provide necessary certificates as desired.
Builder to advise Owners of the method of termite protection
and their responsibility for any ongoing treatment/s.

NOTE:

THESE PLANS HAVE BEEN DRAWN FROM SITE
INSPECTION OF COMPLETED WORK ONLY.
DETAILS ARE AS OBSERVED.
THESE PLANS DO NOT GUARANTEE BUILDING
APPROVAL.

PROJECT:
PROPOSED AS CONSTRUCTED
ROOF SHELTERS

THIS DRAWING SIGNED IN RED BY THE DESIGNER IS
AN AUTHENTIC COPY OF PLANS PRODUCED BY THIS
DESIGN OFFICE FOR THIS SPECIFIC BUILDING SITE.
NO RESPONSIBILITY WILL BE TAKEN FOR THE
UNAUTHORIZED USE OF THESE DRAWINGS

DESIGN CRITERIA
C1 AS 1684.3 2010

CLIENT:
Ms G BELL
45 HOGANS ROAD
EMERLAD. QLD. 4720

SITE ADDRESS:
214 PETER STREET
BERSERKER. QLD. 4701

TYPE OF CONSTRUCTION:
OPEN SHELTERS

ROOF PITCH:
5° pitch

OWNER:
Ms G BELL
45 HOGANS ROAD
EMERLAD. QLD. 4720

JOB No. 20.74

SIGNATURE:




BUILDING DESIGN SERVICE
Des Houghton, A.D.C.E., M.BDAQ, M.QMBA Phone (07) 49264003
ABN 31 412 306 218 Mobile 0407760733
95 Burnett Street, North Rockhampton 4701
Email: plan@bigpond.net.au

QBCC Lic. No. 57924

DATE: 15-09-2020

SHEET 1 OF 6

ISSUED AS CONSTRUCTED
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SIGNED:

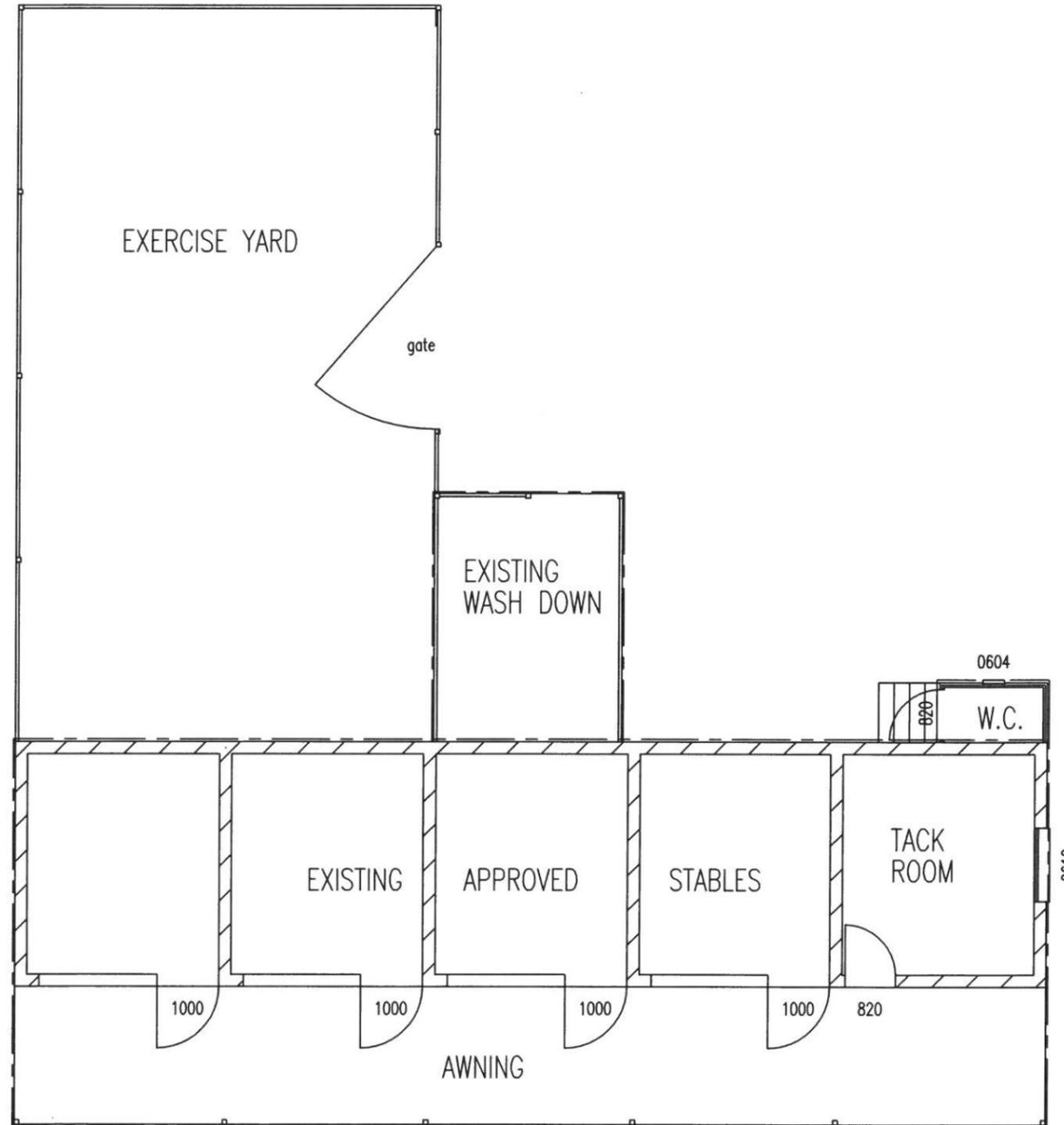


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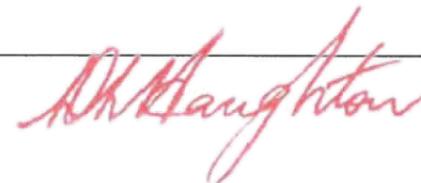
PLAND
a
BUILDING
BUILDING DESIGN SERVICE
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FLOOR PLAN

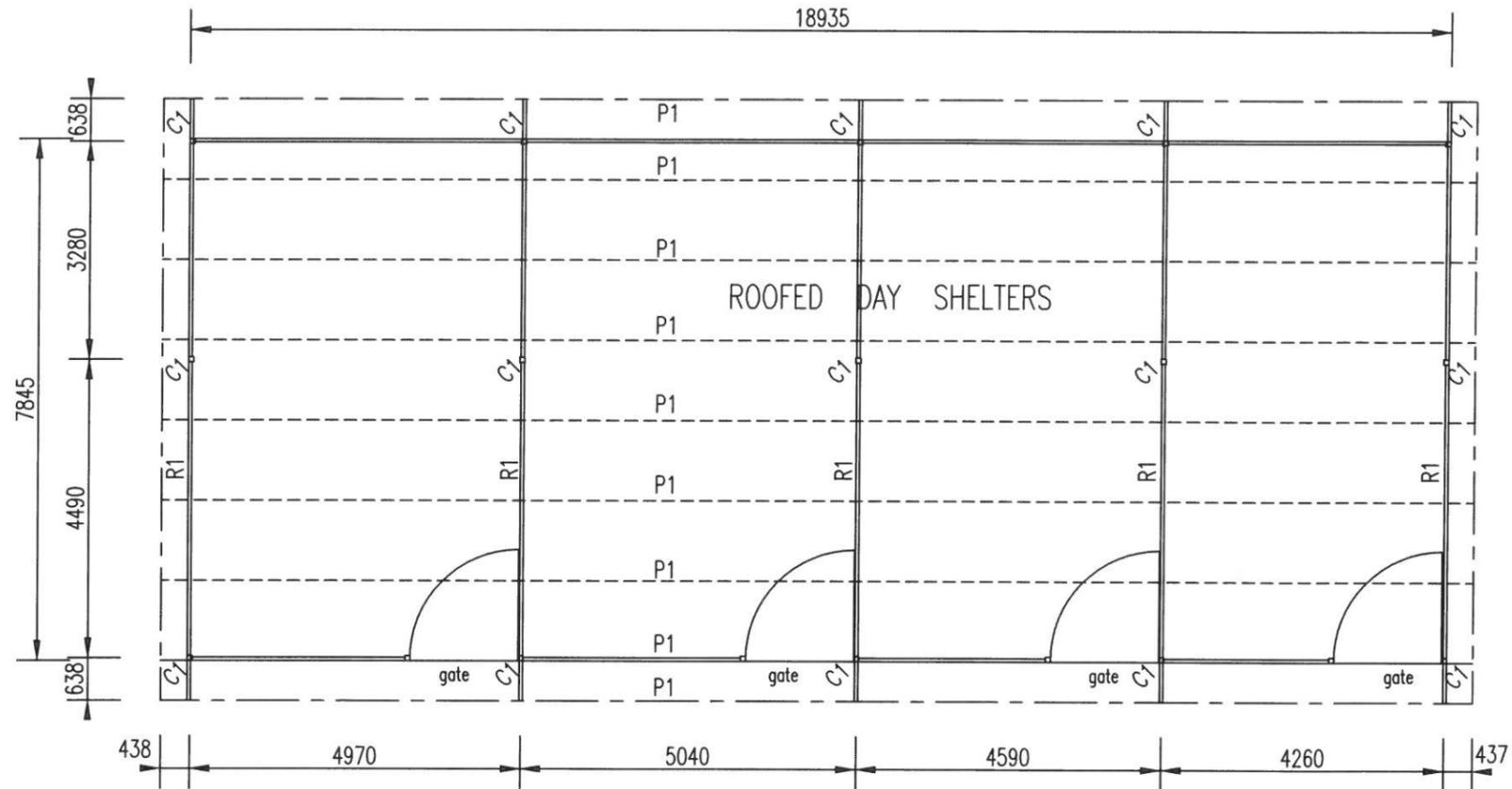
PROJECT AS CONSTRUCTED ROOF SHELTERS
SITE ADDRESS 214 PETER STREET, BERSERKER. QLD. 4701
CLIENT Ms G BELL
CLIENT ADDRESS 45 HOGANS ROAD, EMERLAD. QLD. 4720

OWNER
OWNERS ADDRESS



SCALE:
1:100
15-09-2020

JOB No:
20.74
SHEET 2 OF 6



ISSUED AS CONSTRUCTED
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SIGNED: *[Signature]*

LEGEND:
C1 75x75 SHS columns
R1 100x50 RHS rafters
P1 C150 Purlins at 1200 centres

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

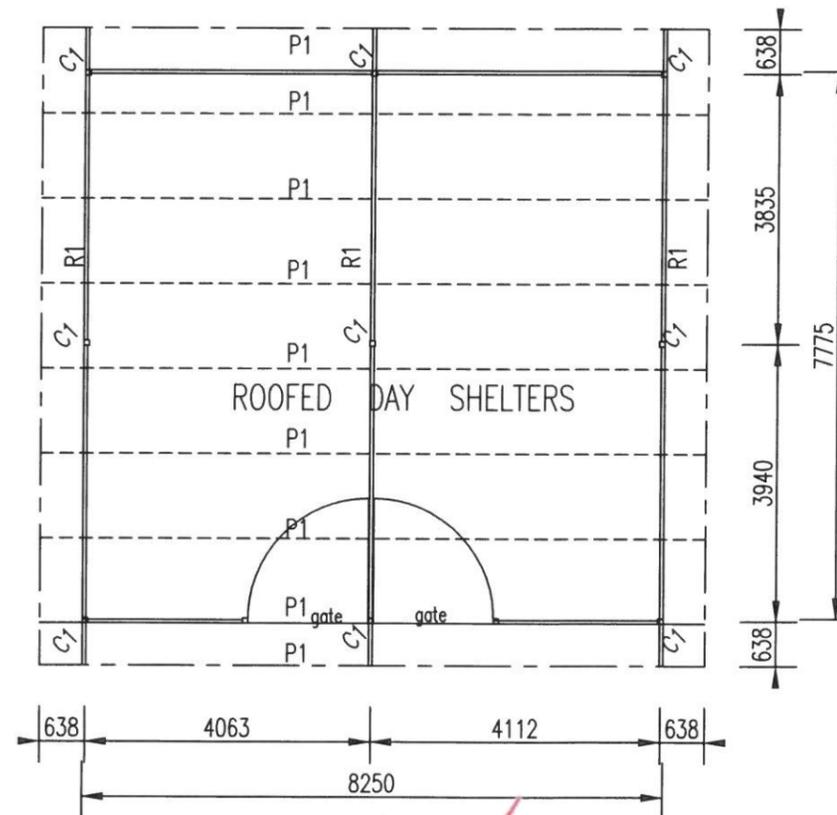
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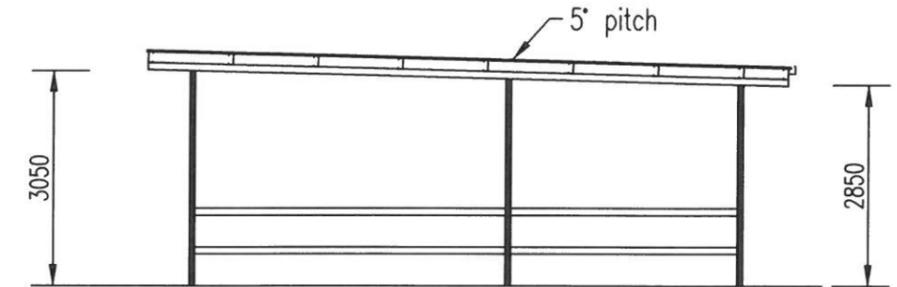
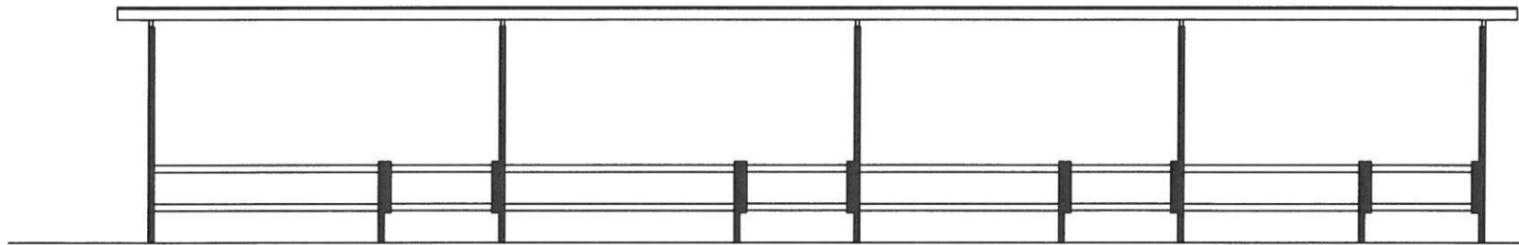
Des Haughton, A.D.C.E., M.BDAQ, M.QMBA Phone (07) 49264003
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QBCC. Lic. No. 57924



PROJECT AS CONSTRUCTED ROOF SHELTERS
SITE ADDRESS 214 PETER STREET, BERSERKER. QLD. 4701
CLIENT Ms G BELL OWNER
CLIENT ADDRESS 45 HOGANS ROAD, EMERLAD. QLD. 4720 OWNERS ADDRESS

[Signature: Des Haughton]

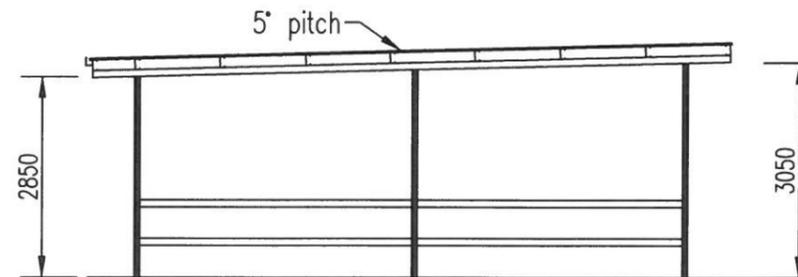
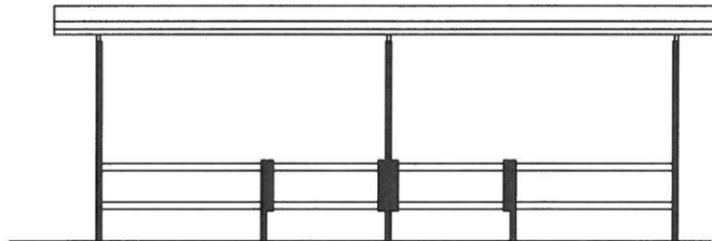
SCALE:	JOB No:
1:100	20.74
15-09-2020	SHEET 3 OF 6



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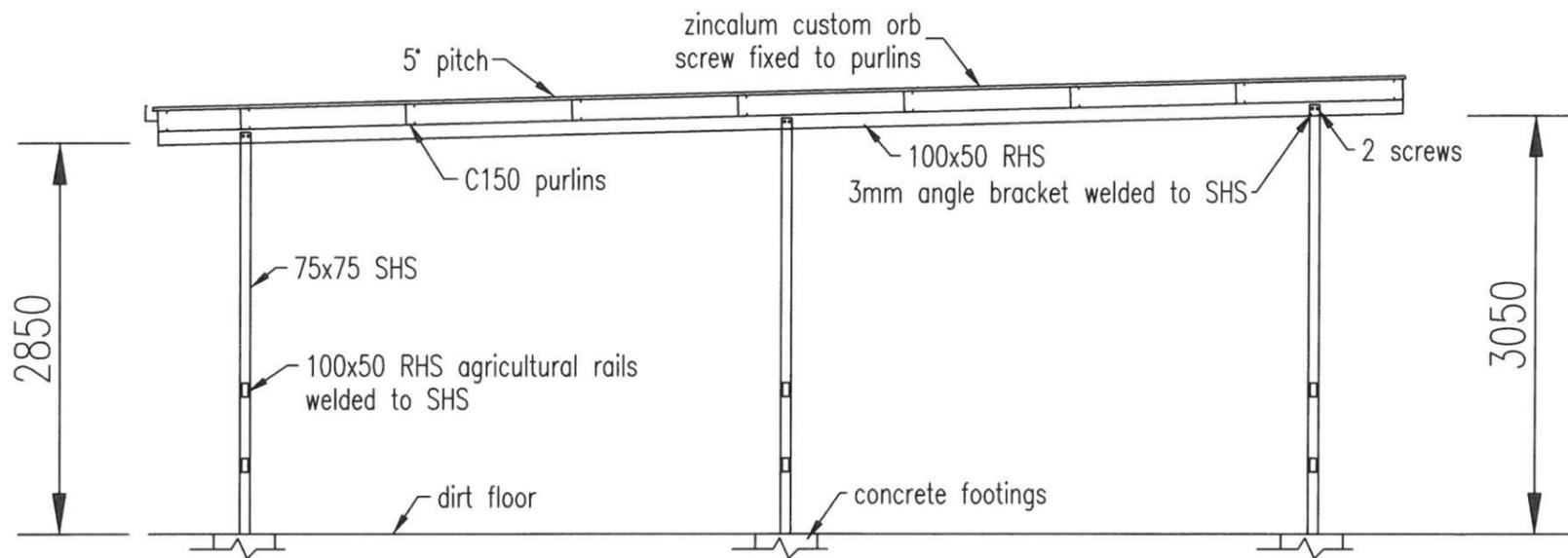
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SECTION X - X TYPICAL FOR BOTH SHETLERS

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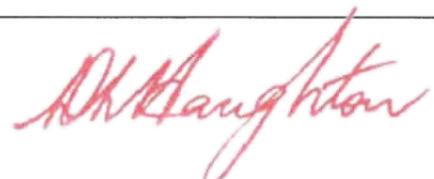
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PLAN a BUILDING
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CLIENT Ms G BELL
CLIENT ADDRESS 45 HOGANS ROAD, EMERLAD. QLD. 4720

OWNER
OWNERS ADDRESS



SCALE:
1:50
15-09-2020

JOB No:
20.74
SHEET 5 OF 6

214 Peter St, Berserker Flood Hazard Assessment

Project Name: 214 Peter St Flood Hazard Assessment

Project Number: 20-411

Project Address: 214 Peter St, Berserker QLD 4701 (Lot 2 on RP615372)

Client: Glenda Bell

Client Contact: Rebecca Harney (Muse Design Co.)

Dated: 11/01/21

Rev: 0

Revision	Revision	Issue Date
Original Issue	0	11/01/21

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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Preliminary Approval No.: D/26-2021

Dated: 14 April 2021

1.0 Introduction

The scope of this document is to address the relevant provisions of the Rockhampton Region Planning Scheme 2015 with regards to the Fitzroy River Flood Overlay for 214 Peter St, Berserker.

214 Peter St, as shown below, currently has an enclosed stables structure as well as two rooved day shelters and an open exercise yard.

The subject site is located in the flood hazard zone as defined by the Rockhampton Region Planning Scheme 2015 hazard overlays. As can be seen in Figure 2, the flood overlay map shows the site being within the H4 (High) zone.



Figure 1 - Site Location

2.0 Flood Hazard Assessment

The structure located at 214 Peter Street is to be a two rooved day shelters and semi-enclosed stables. Due to its location it triggers the need for a flood hazard assessment.

The purpose of the structures are to provide shelter to horses and store feed and equipment. The nature of the structures is such that they are generally open in nature, being that they won't retard the flow of flood waters, meaning that in a flood event water will be free to flow in and around the structures without causing nuisance turbulence or redirecting flows outside of the site.

It is seen that in a flood event, the site could be effectively managed with regards to achieving the acceptable outcomes set out in Appendix A by simply ensuring all doors are opened to allow water to flow unimpeded through the stables and day shelters which would in turn mean existing flood risks are not made worse by alteration to the flow characteristics of the site. Further, insignificant increase in impervious area is seen to have resulted from the structures, hence the post-development case for the site will show very minimal impact on the peak discharge and stormwater quality.

Summarising, the structures covered by this report would not create any actionable nuisance to the surrounding properties.

3.0 Existing Site Conditions

The proposed site is situated within the Fitzroy River Flood Overlay Zones H4.



Figure 2 - Proposed General Arrangement

Figure 4 is an extracts from the report "Flood Study Report Fitzroy River Flood Study, Rockhampton Regional Council" which was completed by Aurecon in 2011. This report shows that the peak depth in a

100 Year ARI is 1.0m to 1.5m. From the same report it was shown that the velocity of the water flowing through the site during a 100 Year ARI event will almost be negligible.



Figure 3 - Flood Depth Mapping (Aurecon, 2011)

It is seen that the proposal is acceptable based on the following:

1. Resilience to the existing flood event affects will be provided in accordance with the RRC Planning Scheme outcomes towards a defined flood event. This is achievable as the existing structure is constructed using block wall and hardwood timber. This coupled with the fact that the floodwater is slow moving due to being backflow from the Fitzroy River.
2. Local and global (Riverine Flooding) flood heights will not increase as a result of the development. This is due to the fact that there will be no material change to existing hydraulic parameters and no loss of storage.
3. As there will be no change to depth or velocity, there will be no increase to the sites Flood Hazard Category and therefore no risk to persons, infrastructure or property.
4. There are no proposed earthworks aside from minor levelling of ground under the carport.
5. Sufficient notice period of two weeks has been the case for previous Riverine Flooding events and we know this wouldn't change in the future. Given the structure is not habitable or commercial the management required after notice include:
 1. Removal of loose material and potential debris.
 2. Relocation of all equipment off site
 3. Relocation of all animals off site
 4. Open all doors and windows to allow ingress of flood waters

4.0 Conclusion

There appears to be no great engineering infrastructure difficulties with the proposed changes to the aforementioned property. It is seen that the proposal will not affect flooding, either on the property or upstream/downstream in any way and conforms to the acceptable outcomes as set out by the RRC planning scheme.

Yours sincerely,


Scott Thomas

Manager – B. Eng (Civil/Structural) RPEQ 16203

Fitzroy River – H1 or H2 or North Rockhampton flood management area or Creek catchment planning area 2

Table 8.2.8.3.1 Development outcomes for assessable development and requirements for accepted development (part)

Performance outcomes	Acceptable outcomes
<p>Development in Fitzroy River flood areas – H1 (low hazard area) or H2 (medium hazard area) or North Rockhampton flood management area or Creek catchment flood - planning area 2 Editor's note—Refer to overlay maps OM-8A and OM-8C</p>	
<p>PO1 Development (including extensions) for non-residential purposes is able to provide a safe refuge for people and for the storage of goods during times of flood inundation.</p>	<p>AO1.1 For non-residential development, at least thirty (30) per cent of the <u>gross floor area</u> of all new buildings and structures is located a minimum of 500 millimetres above the defined flood level.</p> <p>Editor's note—Areas less than those nominated above may be supported where accompanied by a flood impact report in accordance with SC6.10— Flood hazard planning scheme policy.</p> <p>Development is for residential purposes.</p> <p>AND</p> <p>AO1.2 A report from a registered professional engineer of Queensland certifies that the development in the flood area will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties.</p> <p>As provided in this report.</p>
<p>PO2 Development is located to minimise susceptibility to and potential impacts of flooding.</p>	<p>AO2.1 For residential uses the finished floor levels of all habitable rooms shall be constructed a minimum of 500 millimetres above the defined flood level.</p> <p>No habitable rooms in the structures</p> <p>AND</p> <p>AO2.2 A report from a registered professional engineer of Queensland certifies that the development in the flood area will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties. Editor's note—Report to be prepared in accordance with SC6.10—Flood hazard planning scheme policy.</p> <p>As provided in this report.</p>

<p>PO3 Development avoids the release of hazardous materials into floodwaters.</p>	<p>AO3.1 All hazardous materials and hazardous manufacturing equipment and hazardous containers are located and stored a minimum of 500 millimetres above the defined flood level.</p> <p>No hazardous materials, hazardous manufacturing equipment or hazardous containers are to be stored at the site.</p> <p>Editor's note—Refer to the Work Health and Safety Act 2011 and associated regulation, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances.</p>
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Fitzroy River – H3-H4 or H5-H6 or Creek catchment flood planning area 1

Table 8.2.8.3.1 Development outcomes for assessable development and requirements for accepted development (part)

Performance outcomes	Acceptable outcomes
<p>Development in Fitzroy River flood areas – H3-H4 (high hazard areas) or H5-H6 (extreme hazard areas) or Creek catchment flood - planning area 1 Editor's note—Refer to overlay maps OM-8A and OM-8C</p>	
<p>PO4 Development does not involve the further intensification of land uses and does not increase the risk to people and property.</p> <p>Editor's Note—Flood hazard risk assessment can be undertaken in accordance with SC6.10 — Flood hazard planning scheme policy.</p>	<p>AO4.1 AO4.1.1 Development does not involve new buildings or structures.</p> <p>Development approval is proposed for existing structures</p> <p>OR</p> <p>AO4.1.2 Where involving the replacement or alteration to an existing non-residential building or structure:</p> <ol style="list-style-type: none"> 1. there is no increase in the existing or previous buildings' <u>gross floor area</u>; and 2. the finished floor level of any replacement or alteration to an existing building is constructed a minimum of 500 millimetres above the defined flood level. <p>No alteration to the existing structure</p> <p>OR</p>

	<p>AO4.1.3 Where involving the replacement or alteration to an existing caretaker's accommodation, <u>dwelling house</u> or <u>dwelling unit</u>:</p> <ol style="list-style-type: none"> 1. there is no increase in the number of dwellings; 2. there is no increase in the existing or previous buildings' <u>gross floor area</u>; and 3. the finished floor level of all habitable rooms shall be constructed a minimum of 500 millimetres above the defined flood level. <p>No existing dwelling structure.</p> <p>AND</p> <p>AO4.1.4 Where located in the rural zone, the <u>total floor area</u> of class 10a buildings and structures on the <u>site</u> do not exceed a total of fifty (50) square metres, and are set back a minimum of twenty (20) metres from all <u>site</u> boundaries.</p> <p>Structure not located in the rural zone.</p>
<p>PO5 Development avoids the release of hazardous materials into floodwaters..</p>	<p>AO5.1 Materials manufactured, used or stored on <u>site</u> are not hazardous in nature.</p> <p>No hazardous materials to be manufactured, used or stored on site.</p>

Fitzroy River – all hazard areas, North Rockhampton flood management area or Creek catchment – all planning areas

Table 8.2.8.3.2 Development outcomes for assessable development

Performance outcomes	Acceptable outcomes
<p>Development in Fitzroy River flood area – all hazard areas, North Rockhampton flood management area or Creek catchment flood – all planning areas Editor's note—Refer to overlay maps OM-8A and OM-8C</p>	
<p>PO8 Development is located to minimise susceptibility to and potential impacts of flooding.</p>	<p>No acceptable outcome is nominated.</p> <p>Development has been located to minimise susceptibility to and potential impacts of flooding.</p>
<p>PO9 Underground car parks are designed to prevent the intrusion of floodwaters.</p>	<p>AO9.1 Development with underground car parking is designed to prevent the intrusion of floodwaters by the incorporation of a bund or similar barrier a minimum of 500 millimetres above the defined flood level.</p> <p>No underground car parks.</p>

<p>PO10 Development:</p> <ol style="list-style-type: none"> 1. does not result in any reduction of onsite flood storage capacity; or 2. does not result in any change to depth, duration or velocity of floodwaters within the premises; and 3. does not change flood characteristics outside the premises, including but not limited to causing: <ol style="list-style-type: none"> 1. loss of flood storage; or 2. loss of or changes to flow paths; or 3. acceleration or retardation of flows; or 4. any reduction in flood warning times elsewhere on the <u>floodplain</u>. <p>Editor's note—<u>Council</u> may require the applicant to submit a <u>site</u>-based flood study that investigates the impact of the development on the <u>floodplain</u> and demonstrates compliance with the relevant performance outcome.</p>	<p>No acceptable outcome is nominated.</p> <ol style="list-style-type: none"> 1. Development does not result in a reduction of onsite flood storage; 2. Development does not result in a change to depth, duration or velocity of floodwater within the premises, and; 3. Does not change flood characteristics outside the premises, including but not limited to causing ; <ol style="list-style-type: none"> 1. Loss of flood storage, 2. Loss of or changes to flow paths, 3. Acceleration or retardation of flows, and; 4. Any reduction of flood warning times.
<p>PO11 Essential community infrastructure and community facilities are protected from, and able to function effectively during and immediately after, a defined flood event.</p>	<p>AO11.1 A use for a purpose listed in Table 8.2.8.3.3:</p> <ol style="list-style-type: none"> 1. is not located within the flood hazard area; and has at least one (1) flood free access road. <p>Development is not essential community infrastructure, community facilities or public asset.</p>
<p>PO12 Development provides safe and trafficable access to the local evacuation centres and evacuation services and have regard to:</p> <ol style="list-style-type: none"> 1. evacuation time; 2. number of persons affected; 3. types of vehicles necessary for evacuation purposes; 4. the distance to flood free land; and <p>the evacuation route.</p>	<p>AO12.1 Trafficable access to and from the development complies with the Capricorn Municipal Guidelines.</p> <p>Trafficable access will be provided with regards to the requirements of the Capricorn Municipal Development Guidelines.</p> <p>AND</p> <p>AO12.2 Trafficable access to and from the development within the creek catchment planning areas are in accordance with the Queensland Urban Drainage Manual.</p> <p>Trafficable access will be provided with regards to the requirements of the Queensland Urban Drainage Manual..</p> <p>Note—Trafficable access for <u>emergency services</u> or community related uses is obtained from at least one (1) route (minor collector or higher) for <u>emergency services</u> purposes. The development is to ensure that safe access, to the road network between the development site and the closest centre zone, is provided.</p>

Editor's note—Trafficable access requirements for creek catchment planning areas has not been identified and reference has been made to the provisions under the Queensland Urban Drainage Manual. This is due to the short period that property may be isolated.

Fitzroy River – H3-H4 or H5-H6, North Rockhampton flood management area or Creek catchment – planning area 1

Table 8.2.8.3.2 Development outcomes for assessable development

Performance outcomes	Acceptable outcomes
Development in Fitzroy River flood areas – H3-H4 (high hazard areas) or H5-H6 (extreme hazard areas), North Rockhampton flood management area or Creek catchment flood – planning area 1 Editor's note—Refer to overlay maps OM-8A and OM-8C	
PO13 Development that involves temporary or moveable residential structures (for example caravan parks and camping grounds) are not located with the Fitzroy River high and extreme hazard areas, North Rockhampton flood management area and Creek catchment planning area 1.	No acceptable outcome is nominated. The development is not temporary or moveable.

Operational work

Table 8.2.8.3.2 Development outcomes for assessable development (part)

Performance outcomes	Acceptable outcomes
Operational work	
PO17 Development does not materially impede the flow of floodwaters through the site or worsen flood flows external to the site .	AO17.1 Development does not involve: <ul style="list-style-type: none"> a) filling with a height greater than 100 millimetres; or b) block or solid walls or fences; or c) garden beds or other structures with a height more than 100 millimetres; or d) the planting of dense shrub hedges. Development does not impede the flow of floodwaters through the site or worsen flood flows external to the site – refer Report 20-411.