

Project No. 080-21-22

ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS

Date: 02-Feb-22

These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D/28-2022
Dated: 28 March 2022

To:

John Sharpe
21 Old Gracemere Road, Fairy Bower, QLD 4700

From:

Lachlan McMurtrie
Director
McMurtrie Consulting Engineers

21 Old Gracemere Road, Fairy Bower – Flood Statement

McMurtrie Consulting Engineers (MCE) have been engaged by John and Marjorie Sharpe to undertake a Flood Statement to support the proposed development of a shed on their property at 21 Old Gracemere Road, Fairy Bower (described as Lot 2 on RP615454).

The proposed development includes:

- Construction of a 12m by 9m shed adjacent to the existing house, as shown in the attached Appendix A

1. Site Description

Existing Conditions

The site is located on Old Gracemere Road, approximately 2.3km from the Gracemere District Centre, as shown on Figure 1. The existing site is relatively flat and ground elevation varies between 6.75m to 8.95m. The site includes a single dwelling and the remainder is generally grassed with scattered trees.

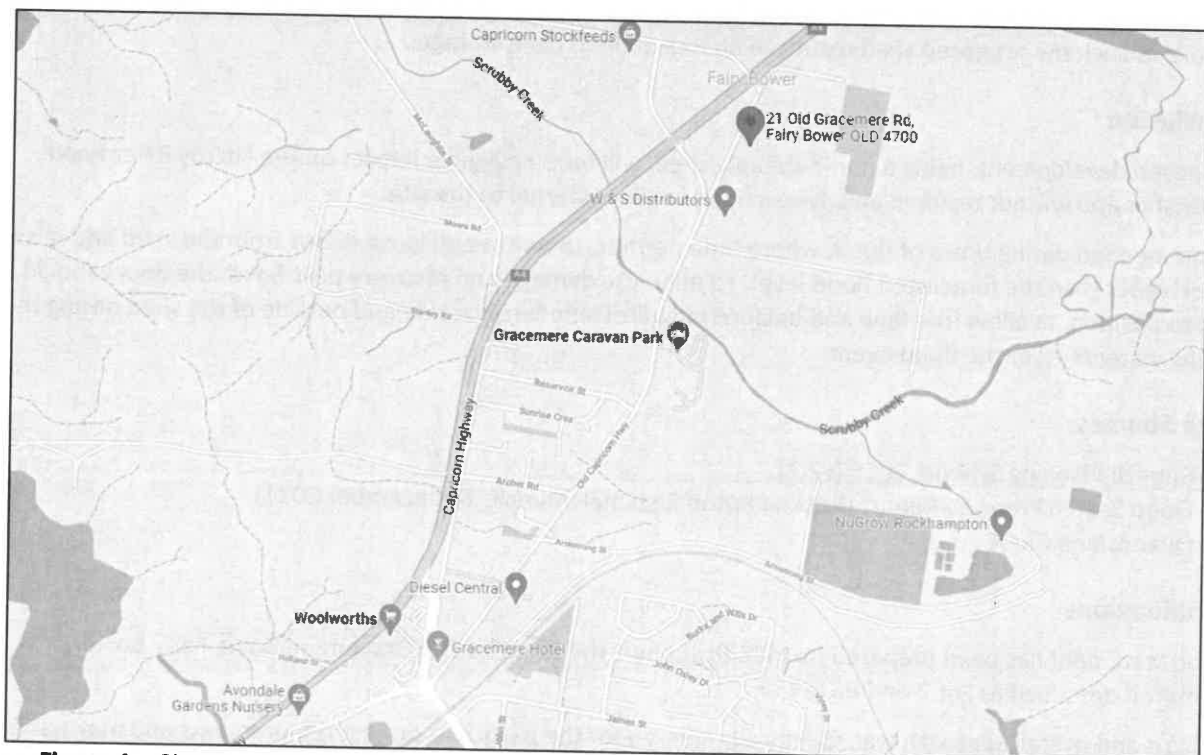


Figure 1 – Site Location (Source: Google Maps)



Proposed Conditions

The proposed development to the site includes the construction of a single non-habitable 12m by 9m shed adjacent to the existing house. The construction of the shed will require minimal earthworks to the existing ground levels within the site and will be built with a slab on ground foundation. The proposed shed will include three roller doors on the northern side, one roller door on the southern side and an access door on both the eastern and western sides. No other changes to the existing natural terrain within the site are proposed.

2. Flood Hazard

The property is identified as being at risk of flooding from the Fitzroy River. Site flooding from the Fitzroy River generally occurs as backwater flooding from flood waters. Peak flood levels, depths and velocities for the site are detailed in Table 1, with Rockhampton Regional Council's Flood Search Property Report included in Appendix B. The site exhibits a H4 flood hazard category, primarily because of Fitzroy River flood depths, rather than velocity.

Table 1: Peak Riverine Flood Levels – 21 Old Gracemere Road, Fairy Bower

| AEP % | Peak Flood Level (m AHD) | Peak Flood Depth (m) | Peak Flood Velocity (m/s) |
|-------|--------------------------|----------------------|---------------------------|
| 1% | 9.60m | 1.0m to 1.5m | 0.71m/s |

3. Flood Impact

A simple velocity head calculation has been undertaken to determine the afflux associated with the proposed shed. The shed blocks approximately 12m of the lot width and results in an estimated increase in velocity from 0.71m/s to 0.73m/s with a velocity head difference of approximately 1mm. Refer Appendix C for velocity head calculation. The afflux increase caused due to the shed is considered minimal and will have negligible impact on flood characteristics of surrounding properties and infrastructure.

The proposed non-habitable shed will allow the flood waters to enter through doors, windows, voids and joints between the panels, as such the proposed shed results in no loss of flood plain storage.

4. Conclusion

The proposed development, being a non-habitable shed, will have negligible impact on the Fitzroy River flood characteristics and will not result in an adverse flood impact external to the site.

It is recommended during times of flood, where time permits, to remove all loose debris from the shed and raise them to a level higher than the forecasted flood level. To minimise damage and recovery post flood, the doors should be left in an open position, to allow free flow and balance of hydrostatic forces inside and outside of the shed during the rising and falling water level of the flood event.

5. Data Sources

- Council Planning Scheme 2015 (v2.2)
- Flood Search Property Report (Rockhampton Regional Council, 20 December 2021)
- Queensland Globe

6. Qualifications

This flood statement has been prepared by MCE to support the DA of 21 Old Gracemere Road, Fairy Bower, Rockhampton described as Lot 2 on RP615454.

The analysis and overall approach was specifically catered for the particular project requirements and may not be applicable beyond this scope. For this reason, any other third parties are not authorised to utilise this report without further input and advice from MCE.



This statement has been prepared by a Registered Professional Engineer Queensland (RPEQ). The accuracy of the report is dependent upon the accuracy of the above mentioned data sources.

7. Limitations

1. MCE has relied upon third party sources of information to prepare the document which may not have been able to be fully verified. MCE has taken reasonable endeavours to inform itself of the parameters and project and has taken reasonable steps to ensure that the works and document is as accurate as possible given the information upon which it has been based including information that may have been provided or obtained by any third party or external sources which has not been independently verified.
2. It is noted that Council has no Local Storm / Overland Flow flood information for the subject lot as it is outside the extents of current flood study and modelling undertaken by Council. Therefore afflux caused due to shed during local catchment flooding is not assessed.
3. MCE reserves the right to review and amend any aspect of the works performed including any opinions and recommendations from the works included or referred to in the works if:
 - a. Additional sources of information not presently available (for whatever reason) are provided or becomes known to MCE; or
 - b. MCE considers it prudent to revise any aspect of the works in light of any information which becomes known to it after the date of submission.
 - c. MCE does not give any warranty nor accept any liability in relation to the completeness or accuracy of the works. If any warranty would be implied whether by law, custom or otherwise, that warranty is to the full extent permitted by law excluded. All limitations of liability shall apply for the benefit of the employees, agents and representatives of MCE to the same extent that they apply for the benefit of MCE.
4. MCE take no responsibility for the structural integrity of the shed, or the final placement (vertical or horizontal) of the structure. The shed should be built on or at a maximum of 100mm above natural ground level, so the development does not materially impede the flow of floodwaters through the site or worsen flood flows external to the site.
5. It is the landowner's responsibility to implement appropriate flood management strategies. The above noted advice is indicative of a development of this nature. It is the land owner's responsibility to implement, maintain and operate the site specific strategy.

A handwritten signature in black ink, appearing to read 'L. McMurtrie'.

Lachlan McMurtrie
Director
RPEQ 15243



Appendix A – Site Layout and Shed Details

IN PRESENCE OF

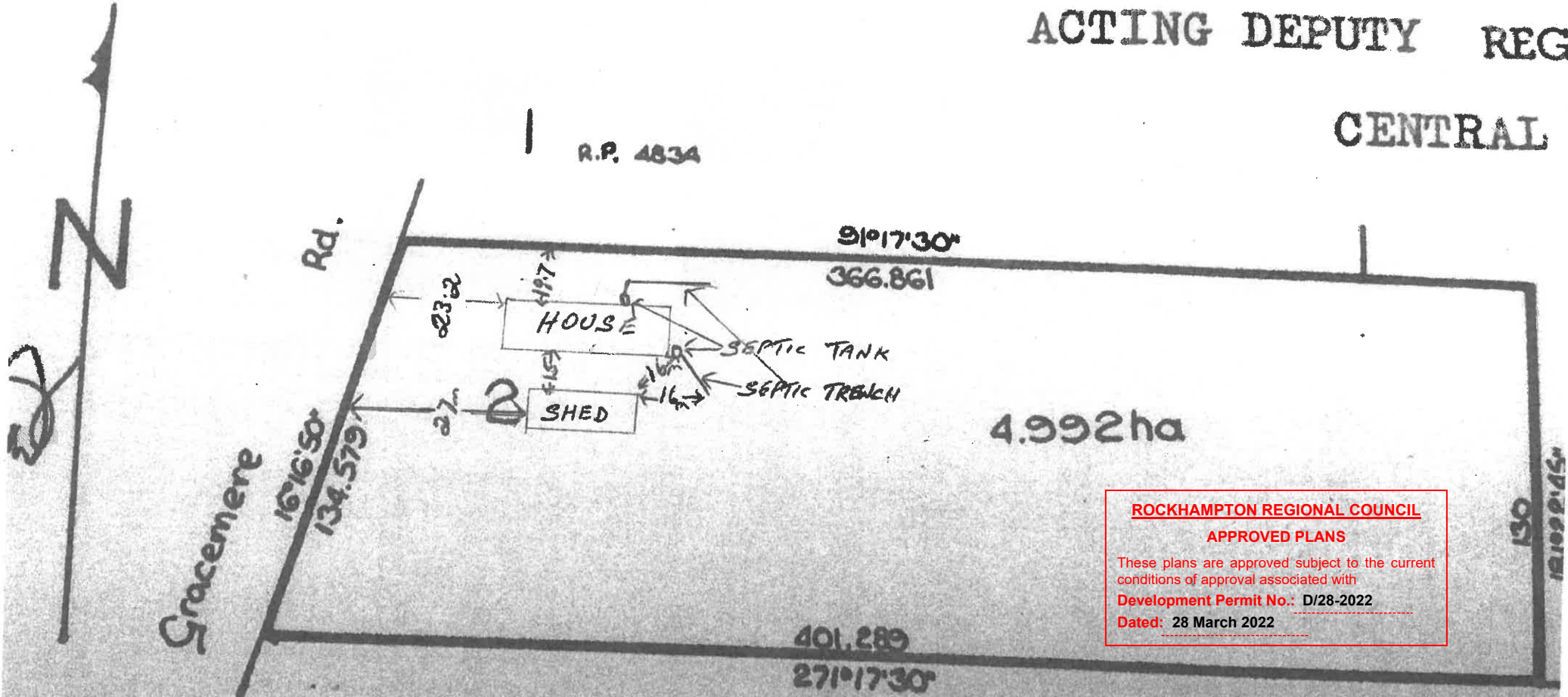
(Handwritten signature)

(Handwritten signature)

ACTING DEPUTY REG

CENTRAL

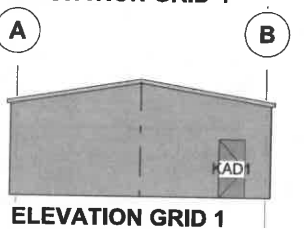
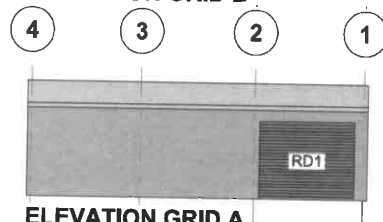
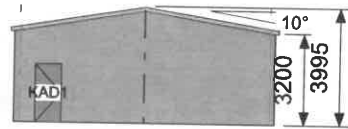
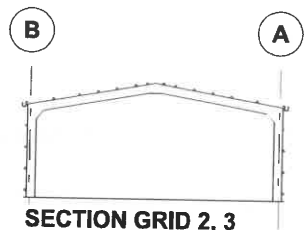
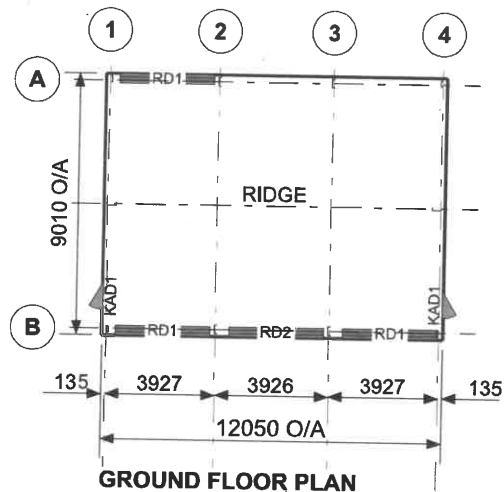
R.P. 4834



ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
 These plans are approved subject to the current conditions of approval associated with
 Development Permit No.: D/28-2022
 Dated: 28 March 2022

3

John Francis Sharpe and
Margorie Anne Sharpe



| CLADDING | | | |
|----------|------------------|--------|--------|
| ITEM | PROFILE (min) | FINISH | COLOUR |
| ROOF | TRIMDEK 0.42 BMT | CB | EH |
| WALLS | TRIMDEK 0.42 BMT | CB | CV |
| CORNERS | - | CB | CV |
| BARGE | - | CB | PB |
| GUTTER | EMLINE | CB | PB |

0.35bmt=0.40tct; 0.42bmt=0.47tct; 0.48bmt=0.53tct

| ACCESSORY SCHEDULE & LEGEND | | |
|-----------------------------|------|--|
| QTY | MARK | DESCRIPTION |
| 3 | RD1 | B&D, R.D. "R2I-W/Lock-Fitted-55m/s", 2625 high x 3277 wide Clear Opening C/B |
| 1 | RD2 | B&D, R.D. "R2I-W/Lock-Fitted-55m/s", 2625 high x 3276 wide Clear Opening C/B |
| 2 | KAD1 | Premium (TA650DO) Access Door Kit, C/B (BG). (Not Available in WA) |

ARCHITECTURAL DRAWING ONLY, NOT FOR CONSTRUCTION USE

| WIND DESIGN | | | |
|------------------|--------|---------|-----|
| IMPORTANCE LEVEL | REGION | TERRAIN | Ms |
| 2 | C | 2 | 1.0 |

CLIENT
John Sharpe

SITE
**21 Old Gracemere Road Fairy Bower
GRACEMERE QLD 4702**

BUILDING
BIG G
9010 SPAN x 3200 EAVE x 12050 LONG

TITLE
GENERAL ARRANGEMENT

| | | | |
|-------------------------|------------------------------------|-----------------|--------------------|
| SCALE A4 SHEET 1:250 | DRAWING NUMBER 412228-GA | REV A | PAGE 1/1 |
|-------------------------|------------------------------------|-----------------|--------------------|

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D/28-2022
Dated: 28 March 2022