

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

TECHNICAL MEMORANDUM

Project No. 029-20-21

Date: 21-Sep-20

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

Development Permit No.: D/113-2020

Dated: 19 October 2020

To:
Gideon Genade
Principal Town Planner
Gideon Town Planning
gg@gideontownplanning.com.au

From:
Lachlan McMurtrie
Director
McMurtrie Consulting Engineers
lachlan@mcmengineers.com

Re: 5 Moffatt Street, Port Curtis – Flood Statement

Introduction

McMurtrie Consulting Engineers (MCE) has been engaged by Mr. Peter Boodle to undertake a Flood Statement to support the proposed development of a shed on his property at 5 Moffatt Street, Port Curtis (Lot 5 SP238735), refer Figure 1. The subject site is located in the Rural Zone and is affected by Fitzroy Riverine flooding. The flood overlay map depicts that the site is situated in the high to extreme flooding zone.

The proposed shed (detailed in Attachment A) will have an open bay and an enclosed bay with roller doors on either end. The shed will not be a habitable structure, it will be used for storing feed and equipment associated with the horses that are kept on site. The shed provides an open layout as moving floodwaters (rising and receding) would create less turbulence and disruption and relatively unimpeded flow would be permitted. The doors of the shed would remain open during a flood event to ensure flood waters are capable of freely flowing through the shed and that existing flood risks are not made worse by alteration to the flow characteristics of the floodplain. Insignificant increase in impervious area in the post-development due to shed roof will have very minimal impact on the peak discharge and stormwater quality. Therefore this development would not create any actionable nuisance to surrounding properties.

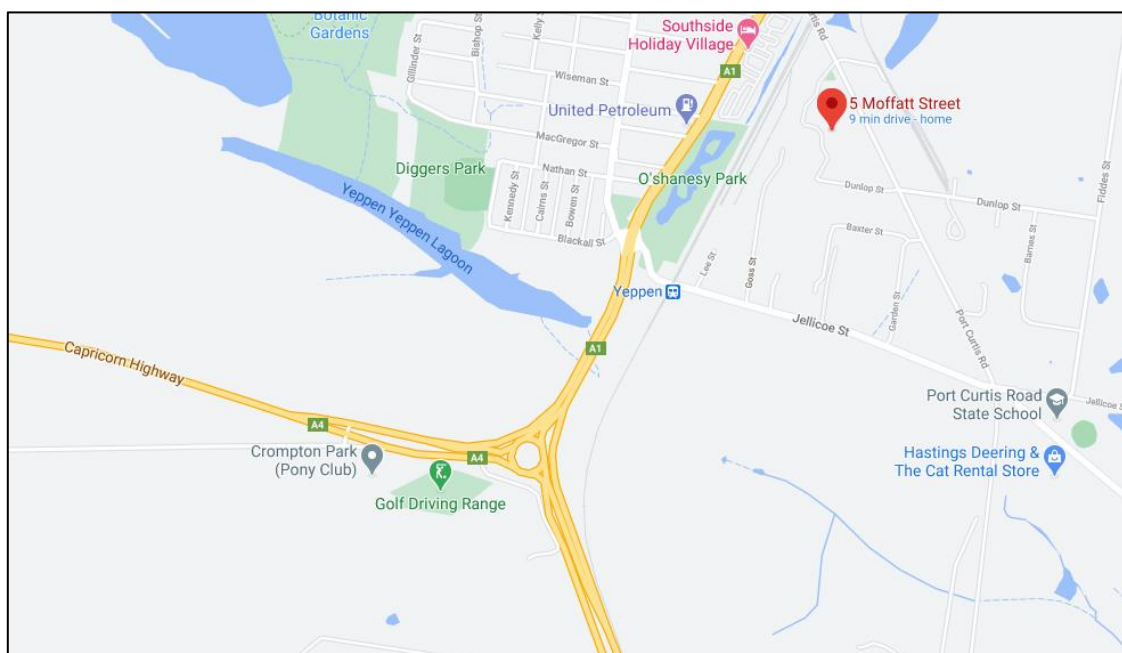


Figure 1 – Site Location



Summary of Existing Conditions

The existing site is essentially undeveloped with gravel access tracks traversing the site and approximately 10280 m² in land area. It is understood the intention is for the site to remain largely unchanged, aside from the construction of the proposed shed. The site is situated in the Fitzroy River Floodplain. Council's Designated Flood Event (DFE), is a flood with a once in a hundred-year probability or 1% Annual Exceedance Probability (AEP).

The below image, Figure 2, is an extract from the Aurecon, 18 July 2011, "Flood Study Report Fitzroy River Flood Study, Rockhampton Regional Council". It is evident the site is inundated to depths of 1.5 to 2.0m based on the Aurecon mapping.

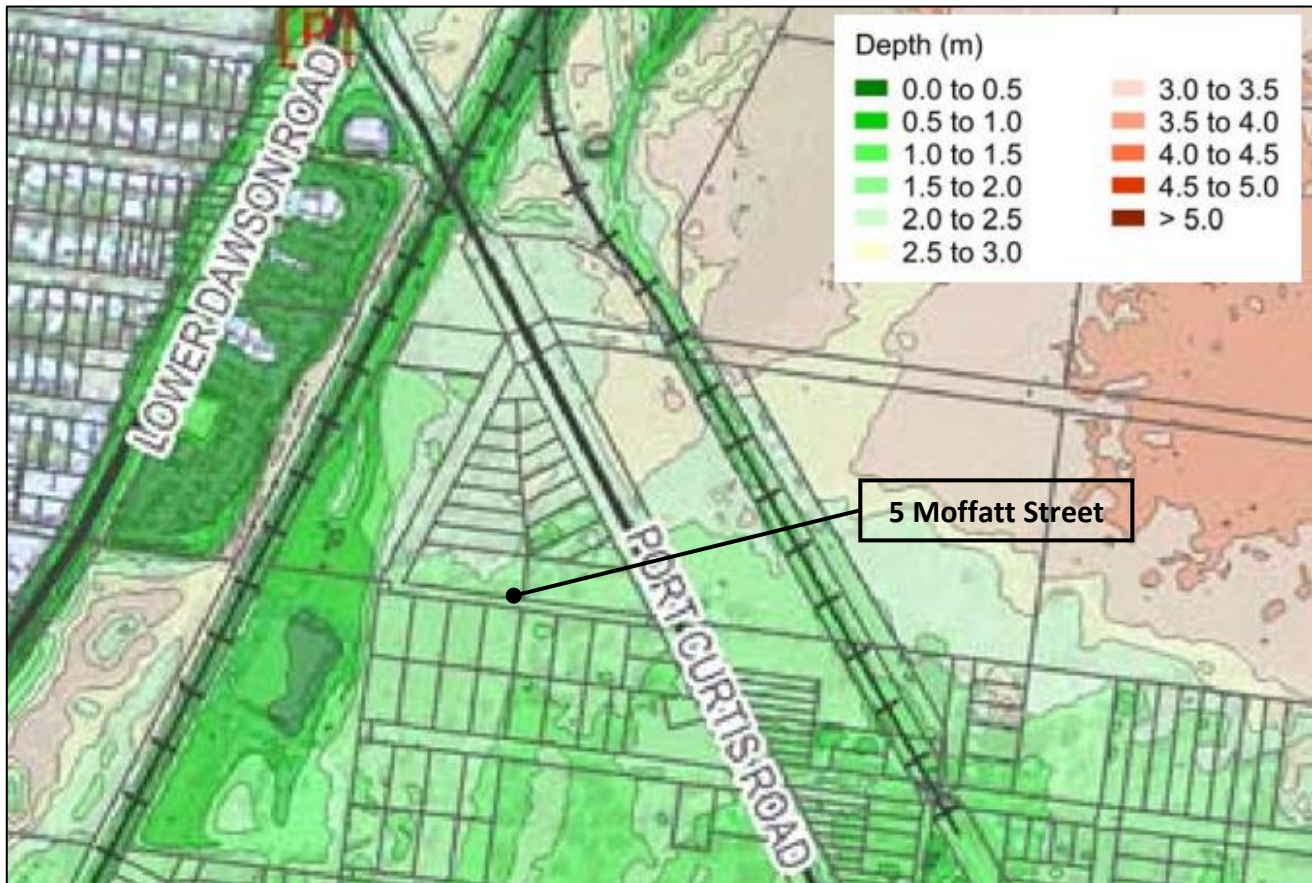


Figure 2 – Flood depth mapping (Aurecon, 2011)

Development Generated Impacts and Risks

If managed *correctly and constructed generally (max 100mm above) on natural ground level*, it is considered the proposed shed will cause negligible effect to the capacity and function of the floodway and flood storage areas. It is the owner's responsibility to ensure appropriate flood management measures are implemented, however, it is expected that given the structure is not habitable or a commercial facility these will be limited to management of the following:

- Monitoring flood warnings via appropriate media and Bureau of Meteorology (BOM) website data to plan for flood events, and in the case of a potential flood event;
- Remove all debris, loose materials (i.e. potential hazards) from site;
- Relocate plant/equipment stored in the shed off site;
- Relocate all livestock from site;
- Open all roller doors/doors/windows of the proposed shed to allow flood ingress;

The general risks identified with this development are the risk to livestock, damage to property and risk of people's safety. In the event of regional (catchment wide) flooding of the Fitzroy catchment, general flood risks manifest via:



- a) Inundation of the premises – causing risk to property and closure of the facility;
- b) Inundation of the road network – causing risk to people and limiting access to the facility;

There are also the ancillary risks to people, property and operations that can occur coincident with flooding, including:

- c) Storm damage of the premises and property. These can result in torn roofs, shattered windows, damage from fallen trees etc.
- d) Loss of power.
- e) Contaminated water supplies or sewerage surcharge.
- f) Constrained access/egress through intense rainfall, winds, fallen trees, debris, fallen power lines and surcharge manholes (displaced manhole covers) etc.

With the warning times associated with the Fitzroy River Floodplain, and the above noted management processes the associated risks are largely mitigated.

Limitations:

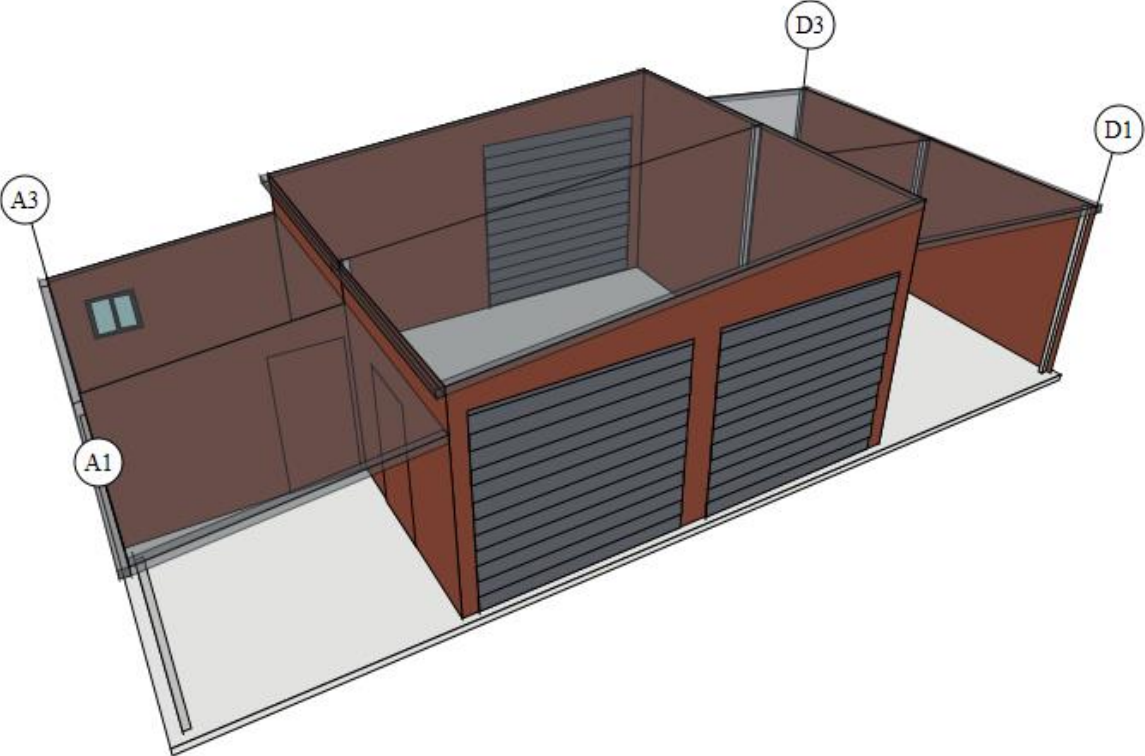
1. MCE has relied upon third party sources of information to prepare the document which may not have been able to be fully verified. MCE has taken reasonable endeavours to inform itself of the parameters and project and has taken reasonable steps to ensure that the works and document is as accurate as 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. 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.
3. MCE take no responsibility for the structural integrity of the shed, or the final placement (vertical or horizontal) of the structure. As previously noted, the shed should be built on or at a maximum of 100mm above natural ground level.
4. It is the land owner'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.

Lachlan McMurtrie
Director
RPEQ 15243

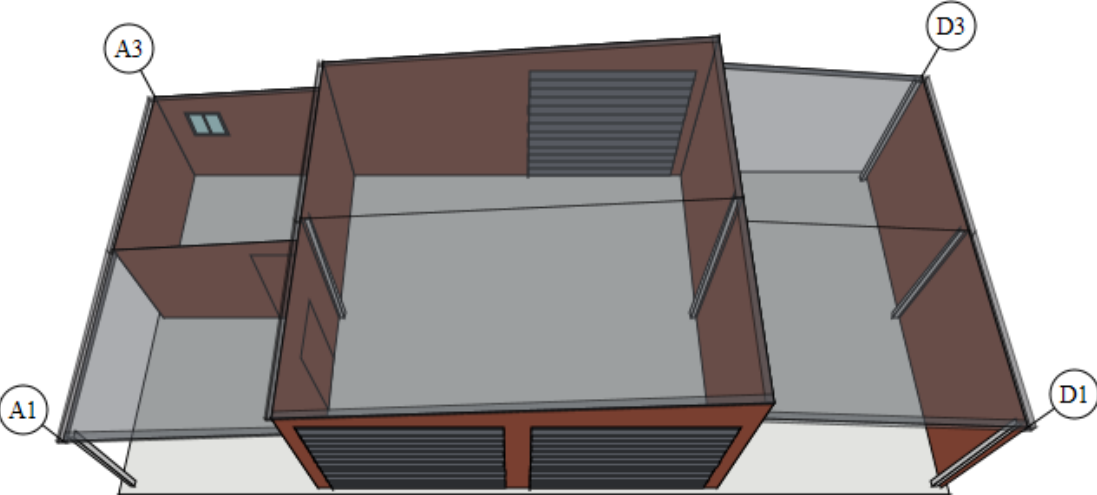


APPENDIX A – PROPOSED SHED LAYOUTS

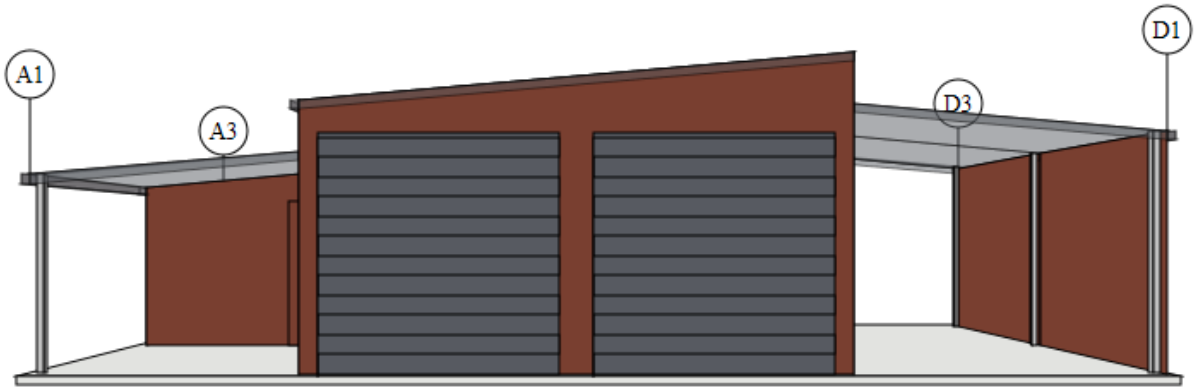
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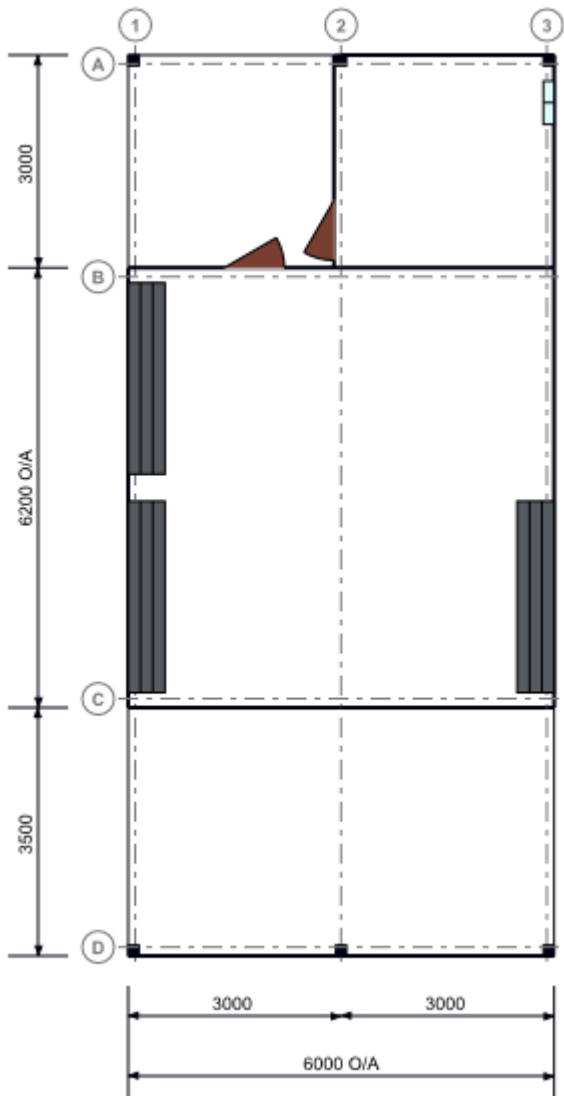


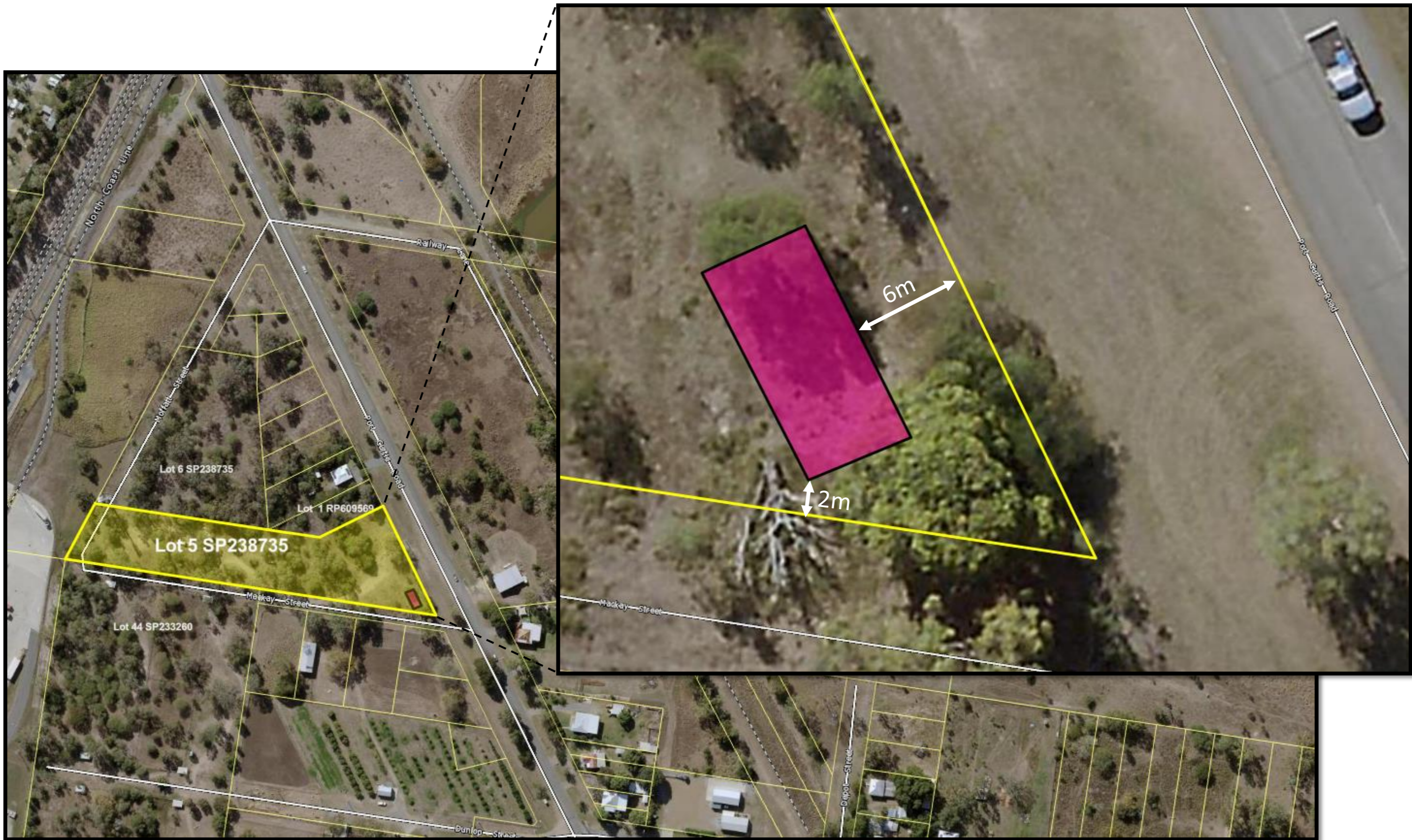
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Proposed Shed
 5 Moffat Street, Port Curtis (Lot 5 SP238735)
 Site Plan

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