Our Ref: HRP15394
Council Ref: CA1235/2015
Contact: Dominic Hammersley

15 February 2016

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Chief Executive Officer
Douglas Shire Council
PO Box 723
Mossman QLD 4873

Attention: Simon Clarke

Dear Simon,

RESPONSE TO INFORMATION REQUEST – DEVELOPMENT PERMIT FOR A COMBINED APPLICATION (CODE ASSESSMENT) RETIREMENT FACILITY – JOHNSTON ROAD, MOSSMAN GORGE – LOT 1 ON SP150474

COUNCIL REF: CA1235/2015

I refer to Douglas Shire Council's ('Council') correspondence dated 25 January 2016 requesting further information in relation to the above application ('the Information Request').

A written response to each of the items raised in the Information Request is provided below, in accordance with section 278(1)(a) of the SPA.

1. ***Please provide a separate plan of subdivision showing the proposed lots and easement;***

Response:

A proposed subdivision plan is provided at **Attachment A**, identifying the boundaries of proposed lots 1 and 2 associated with the Reconfiguring a lot aspect of the proposed development. An access easement is no longer proposed; instead a public road is proposed to be constructed to which a crossover and access will be provided. Accordingly, land formerly identified as an easement is now identified as future road to be opened as part of the Reconfiguring a Lot.

2. ***Please provide a conceptual layout for the Stage 2 component of the proposed development to provide an understanding of proposed access arrangements, proposed densities and development configuration;***

Response:

A master plan for the 'Stage 2' Retirement facility is provided at **Attachment B** for Council's consideration.

The master plan comprises:

- Seven (7), 2-3 bedroom Retirement facility 'homes';
- fourteen (14), 1-2 bedroom Retirement facility 'studios'; and
- A 68 room, Retirement facility building comprising 'serviced rooms / private rooms'.

As a guide the following densities are nominated for each Retirement facility product identified on the master plan:

- 2 persons per 2 / 3 bedroom home (14 persons total)
- 1.5 persons per studio apartment (21 persons);

- 1 person per serviced room / private room (68 persons total).

The proposed master plan therefore accommodates 3.45 persons per hectare.

3. Clarify the extent of fill required to accommodate the proposed development;

Response:

Correspondence from Projex Partners is provided at **Attachment C**, detailing the extent of fill required to accommodate the proposed development.

4. Provide design detail of the extent of works proposed for the access easement in Stage 1;

Response:

A site plan is provided at **Attachment D** that describes the concept for the proposed new road and site access off the proposed road.

Detailed design of the road will be provided to Council at the Operational Works stage of the proposed development. Notwithstanding, detail on the type of road proposed and the proposed standard of construction is provided below.

Type of road proposed

It is noted that the Far North Queensland Regional Organisation of Councils (FNQROC) Development Manual does not provide a typical section for a road with a median for the anticipated traffic volumes for the road proposed. As per FNQROC the minimum road configuration / cross section for the type of traffic volumes anticipated is drawing S1005 (Type 2, Access Street). However, we note that in recent experience Douglas Shire Council has required a Type 4 road configuration where a median is proposed.

A Type 4 road has the following attributes:

- 16.5 metre road reserve;
- 7.5 metre sealed carriageway width; and
- 4.5 metre minimum verge width.

Given that the overall design scheme incorporates a landscaped median and a 25 metre road reserve, the proposed road attributes are recommended as follows:

- 19.0 metre road reserve;
- 4.0 metre carriageway width;
- 4.5 metre verge minimum; however, noting that the proposed road reserve is 25 metres wide a 7.5 metre verge is proposed; and
- 2.0 metre median (with the opportunity to increase during detailed design provided a minimum 4.5 metre verge is maintained).

Standard of construction

Road pavement design is proposed to be 200mm minimum pavement thickness with 30mm asphalt surface treatment as shown in the Engineering Report and in accordance with FNQROC requirements. The internal access road is proposed to be constructed by Council, in accordance with the FNQROC Development Manual standards.

To comply with flood study recommendations and allow overland sheetflow from Marrs Creek to continue past the site, the road is proposed to be designed in accordance with the following considerations:

- Roads and carparks will generally be kept as close to natural surface as practical to minimise interference with overland flows;
- Roads and carparks will be constructed with one way crossfall over verges, pavement and medians;
- Edge strips and shallow concrete spoon drains will be used in lieu of traditional kerb and channel; and

- Median strips will also be constructed lower or flush with natural surface level.

Separation distances – driveway and Johnston Road, Intersection

It is proposed that intersections are spaced a minimum of 40 metres apart in accordance with the minimum requirements for 'T' intersections under Queensland Streets (section 2.11).

Spacing between the Aged Care Facility car park access road and the intersection with Johnston Road is also proposed to be a minimum of 40 metres in accordance with Queensland Streets as above, and on the basis that critical traffic movement will come to a stop situation at the intersection with Johnston road.

5. ***Please provide comments with respect to reverse amenity impacts having particular regard to the adjoining showgrounds and hospital (i.e. helipad);***

Response:

We note Performance Outcome 10 of the Multi-Unit Housing/Holiday Accommodation/Retirement Facility Code which states: *'Retirement Facilities are designed to provide for the amenity and security of residents'*. The development complies with all corresponding Acceptable Outcomes that have regard to security and people with disability access requirements. To be clear we note no specific requirements in the Douglas Shire Planning Scheme 2006 in respect to the identified reverse amenity impacts. Notwithstanding, in respect to reverse amenity noise impacts:

- associated with the helipad, we understand that the Civil Aviation Safety Authority (CASA) is the relevant authority responsible for helicopter traffic and note that the hospital helipad facility is for emergency use only. Therefore, the noise impacts are likely to be irregular, infrequent and un-mitigatable except by building insulation to walls, roofs and glazing. However, patients of the Mossman Hospital are likely to be at greater risk than the proposed Retirement facility use. We also note that there are existing sensitive land uses in proximity to the Mossman Hospital, notably detached dwellings. Accordingly, on the basis that it is not reasonable or relevant, we request that Council not apply any conditions in respect to noise mitigation associated with the helicopter operations of Mossman Hospital.
- emanating from the adjacent showgrounds, noise impacts will be irregular and of varying impact, dependent on the activities undertaken on the Showgrounds site. In respect to the proposed Retirement facility, the development is considered to be sufficiently separated so as to not warrant an acoustic report in satisfaction of Council's concerns; however, if it is considered reasonable and relevant, Council is respectfully requested to apply a condition to the Retirement facility preliminary approval (i.e. master plan) component of the development in the event that a development application for Retirement facility is proposed on proposed Lot 2 and Council warrants technical advice as to whether an acoustic fence is required on the northern boundary of the site.

6. ***Please advise of any intentions with respect to the overhead electricity line along the Johnston Road frontage.***

Response:

The Applicant proposes to connect to the existing overhead electricity line located on Johnston Road. To be clear, the Applicant does not intend to underground the electricity; however, the Applicant does intend to liaise with Ergon Energy with respect to undergrounding options, including an assessment of cost(s). Accordingly, it is respectfully requested that Council does not impose conditions with regard to the undergrounding of electricity lines as part of any approval.

Conclusion

The above represents a complete response to the information requested under section 278(1)(a) of the SPA, and Council is requested to proceed with assessment of this application.

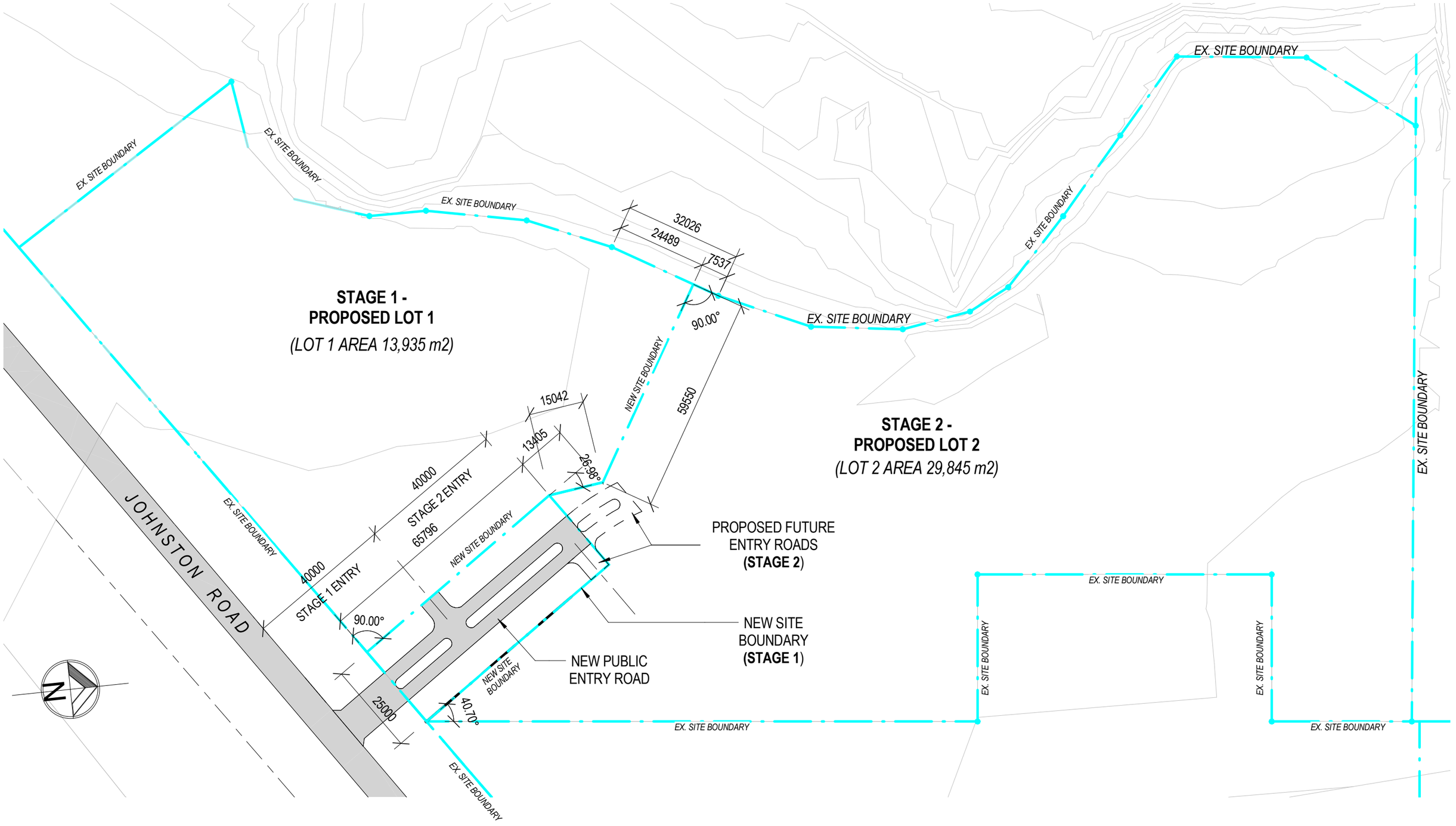
If you have any further queries, please contact me on (07) 4051 0288.

Yours faithfully,

DOMINIC HAMMERSLEY
Principal / Business Development Manager
For Cardno HRP

Enc:
Attachment A – Proposed subdivision plan
Attachment B – Master Plan
Attachment C – Projex Partners Correspondence
Attachment D – Site Plan

Attachment A – Proposed subdivision plan



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Project	MOSSMAN AGED CARE PLUS CENTRE	Drawing Title	PROPOSED SUBDIVISION PLAN	Drawing Number	15.0285.11 SK309
Client	THE SALVATION ARMY	Date	11.02.2016	Scale	1 : 1000

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Attachment B – Master Plan

MASTER PLAN

SCALE 1:500 @ A3

MOSSMAN & DISTRICT AGED CARE PRECINCT

10/02/2016

Attachment C – Correspondence Projex Partners

ProjexPartners

PROJECT MANAGEMENT | ENGINEERING | PLANNING

Ref: 645-001-001L

12 February 2016

Douglas Shire Council
PO Box 723
Mossman QLD 4873

Attention: Simon Clarke

Dear Simon

RESPONSE TO INFORMATION REQUEST FOR COMBINED APPLICATION (CODE ASSESSMENT)
RETIREMENT FACILITY – JOHNSTON ROAD, MOSSMAN GORGE
COUNCIL REF: CA 1235/2015 (765610)

We refer to your information request dated 25 January 2016 and are pleased to provide the following response to Council.

Item 3 - Clarify the extent of fill required to accommodate the proposed development.

Response:

A flood investigation of Marrs Creek has been conducted using 2D flood modelling software XPStorm. Results indicate the flood level for an ARI 200 year storm event in the vicinity of the proposed development are approximately 13.5m to 13.7m AHD (refer to the attached Figure C1). A floodwater height of 13.7m has been has been identified at the southernmost site boundary adjacent to Marrs Creek. In the center of the proposed building location a floodwater height of 13.5m has been identified.

The proposed development site generally slopes away from Marrs Creek towards the North-East. The flood modeling indicates that the undeveloped site currently experiences overland sheet flow 50 – 250mm deep heading in a North-Easterly direction in an ARI 200 year event (refer attached Figure C2). Flood waters continue to flow beyond the property boundaries in a North-easterly direction towards adjacent properties and Mossman.

A flood model for the developed case scenario with earthworks has also been conducted and is discussed further below.

The Mossman Aged Care Facility consists generally of three sections and with the following features:

- The Northern Wing including dining and living areas is proposed to be constructed on suspended slab and will have minimal impact on surface flows traversing the site;
- Southern Wing as above;
- The Central portion of the site consisting of the kitchen, terrace and staff area are proposed to be slab on ground construction.

To mitigate potential flood impacts on the site the following design elements are proposed:

- A finished floor level 300mm above flood levels for an ARI 200 year storm event is proposed as

per the requirements for aged care housing. Refer to Table 7.3.2 of Queensland Urban Drainage Manual (QUDM) attached. Therefore, the proposed finished floor level is 14.0 m AHD.

- Road construction is proposed to be flush with the natural surface to minimise interference with current overland sheet flow. Internal roads and carparks are generally to be designed with one way crossfall, edge strips and spoon drains to ensure a profile flush with the natural surface.
- As shown on the attached Concept Earthworks Sketch, a building pad is proposed to be constructed to 13.8 m AHD (allowing for an approximately 200mm slab TBC) in the center of the site. It is expected that any concentrated flows created by the building pad will return to sheet flow once beyond the development location. The extent of the proposed fill is as shown in the attached Concept Earthworks Sketch (SK02).
- A flood model for the developed case scenario with earthworks included as per the attached concept earthworks sketch has been conducted. As shown in Sketch E1 – Developed Case – Afflux 100 year ARI (attached) we do not anticipate any significant afflux due to the proposed building pad.

In conclusion and in response to the original RFI, the extent of fill will be as shown in the attached Concept Earthworks Sketch.

If you have any queries regarding this matter please contact Mitchell Turner of this office on 07 5451 1416.

Yours faithfully

MITCHELL TURNER
Civil Engineer

Encl.

- Appendix A
  - Figure C1
  - Figure C2
  - Figure E1 – Developed Case – Afflux 100 year ARI
- Appendix B
  - Queensland Urban Drainage Manual (QUDM) Table 7.3.2
- Appendix C – Concept Earthworks Sketch

Appendix A

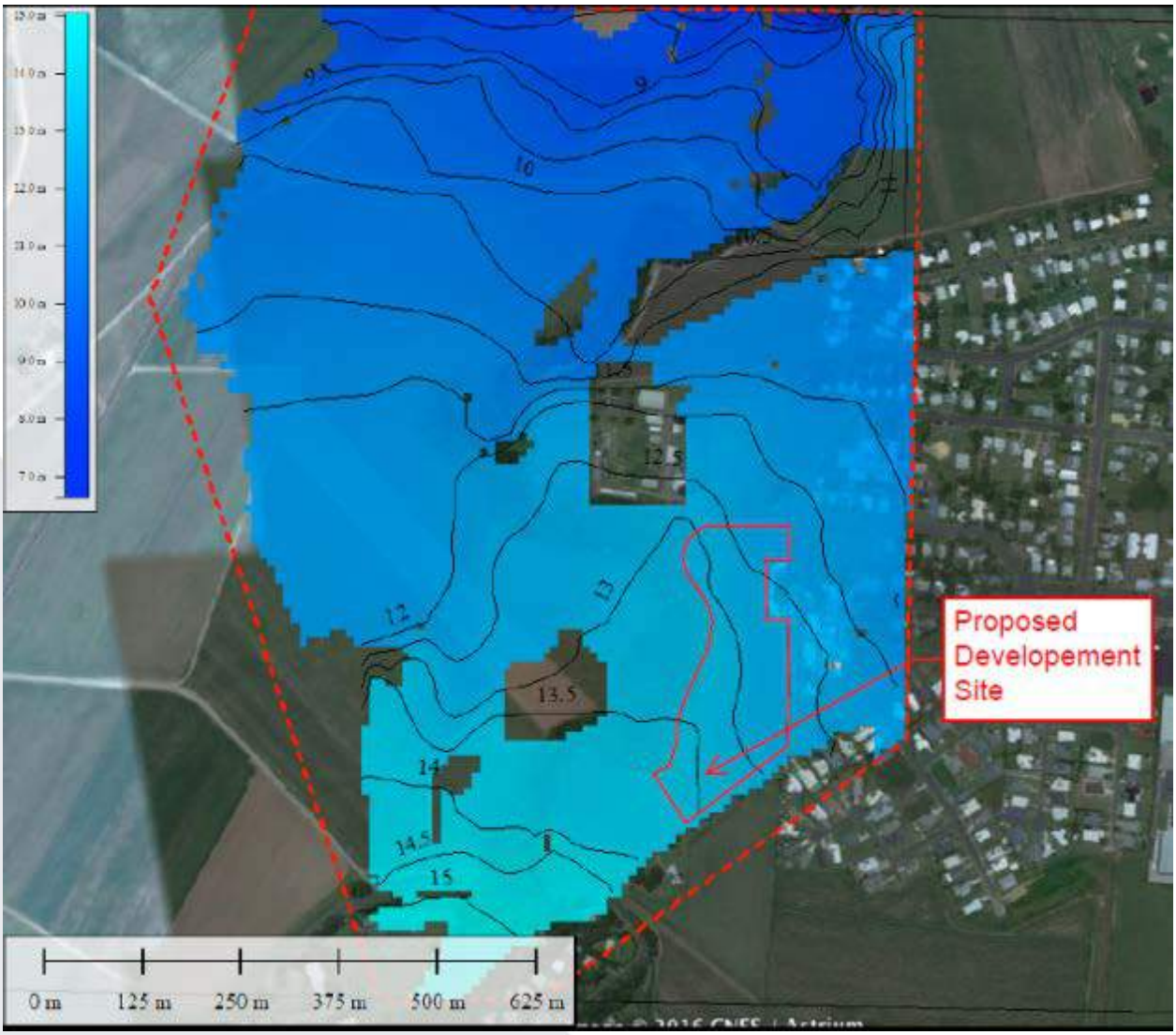

Figure C1 Existing Case Preliminary Flood Level - 200 Year ARI

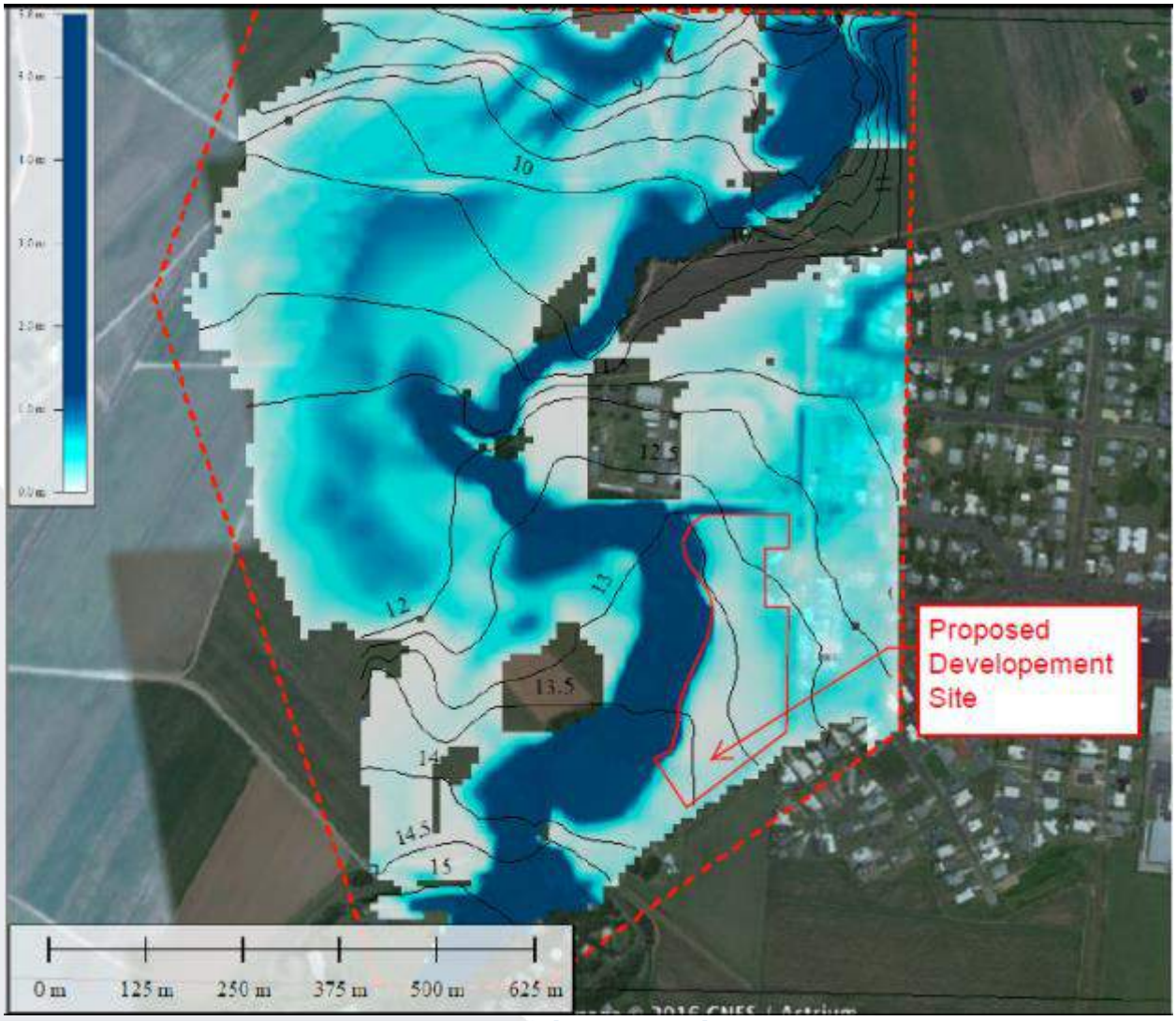

Figure C2 - Existing Case Preliminary Inundation - 200 Year ARI

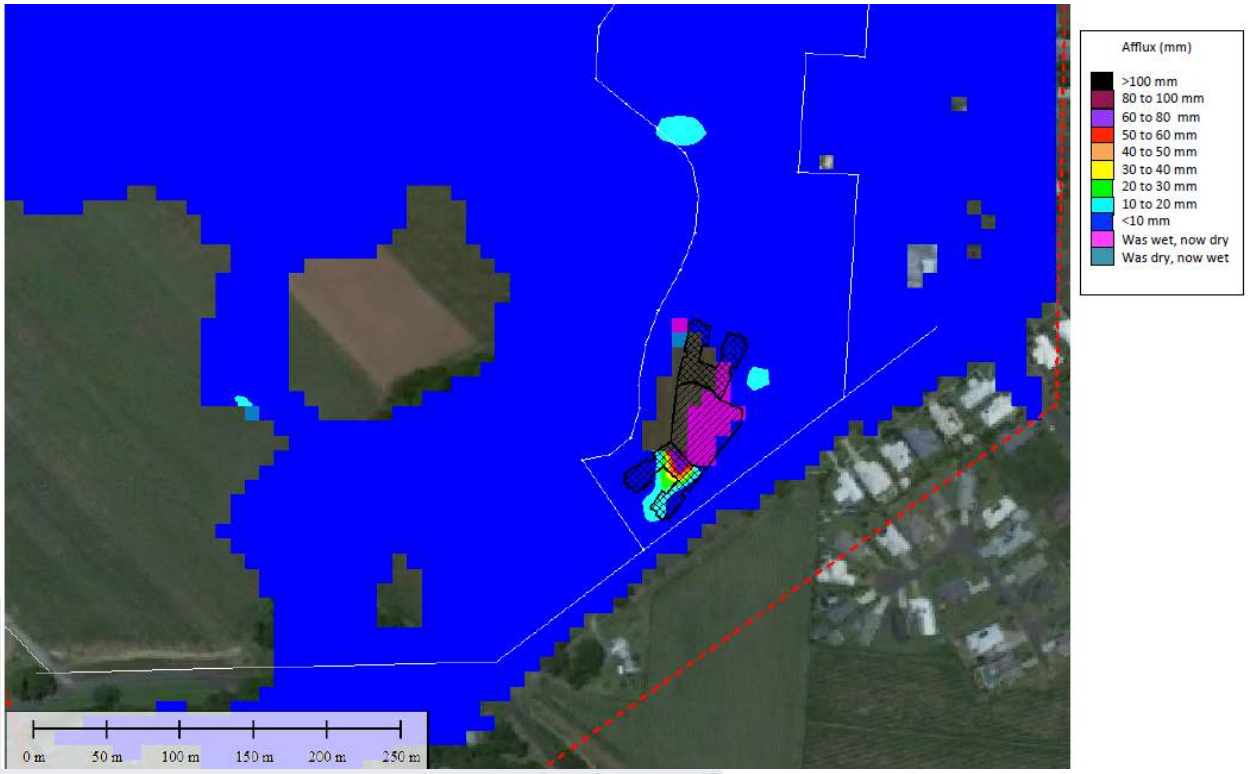

Figure E1 – Developed Case – Afflux 100 year ARI

Appendix B

Table 7.3.2 – Recommended design average recurrence intervals (ARI) and annual exceedence probabilities (AEP) for the combined minor/major system

Development category [1]	ARI (yrs)	AEP
Reference flood for setting floor levels in hospitals, emergency services, flood evacuation buildings and Civil Defence HQ	500	0.2%
Reference flood for setting floor levels of emergency shelters, police facilities, museums, libraries, storage facilities for valuable records or item of historical or cultural significants, and housing for aged and those with impaired mobility; and the setting design levels for water and wastewater centres [2] and critical utility services infrastructure [2]	200	0.5%
Reference flood for setting habitable floor levels in residential buildings and floor levels in commercial/industrial buildings adjacent floodplains or overland flow paths	100	1%
Design storm for overland flow paths	50 or 100	2 or 1%

Notes (Table 7.3.2):

[1] The terms used in this table are described in the Glossary (Chapter 13) and Table 7.3.3.

[2] Refers to critical components of the system that are required to be flood-free in order to allow prompt and cost-effective recovery of services after a flood (e.g. electrical equipment).

[3] Refer to relevant local authority for confirmation of design storm AEP. Fill, building and floor levels are usually set relative to the 1% AEP event even if the overland flow path design storm represents a 2% probability.

Figure 1: Extract from QUDM – 2013

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Appendix C

MARRS CREEK

JOHNSTON ROAD

EARTHWORKS PAD
RL 13.800

RP713129

SP150474

Q200 13.50

Q200 13.00

CHAPEL AND WALKWAY PROPOSED TO BE ON SUSPENDED SLAB

EARTHWORKS LEGEND

- Access Road and Car Park
- Suspended Slab
- Area of Fill

Projex Partners

PROJECT MANAGEMENT - ENGINEERING - PLANNING

SUNSHINE COAST (07) 5493 3649
MACKAY (07) 4957 4988
CAIRNS (07) 4041 5118

projexpartners.com.au

CLIENT

No.	Description	Date	Drawn	Design	Check	RPEQ
1	FOR INFORMATION	12/02/16	SP	MT		

APPROVED

RPEQ

SCALE

1:500 0 5 10 20 30 A1
1:1000 A3

MOSSMAN AGED CARE

EARTHWORKS PLAN

DRAWING NUMBER 645-001-SK002

No IN SET OF

REVISION 1

Last Modified :- Feb 12, 2016 - 10:22am C:\Users\Shannen\Pappdata\local\temp\AcPublish_5712\645-001-SK02.dwg

Attachment D – Site Plan

PROPOSED LOT 1	13,935 m2
PROPOSED LOT 2	29,845 m2
GFA	3,066 m2
COVERED AREA	1,122 m2
PRIVATE OPEN SPACE	5,976 m2
PUBLIC COMMUNITY SPACE	3,771 m2
RESIDENTIAL UNITS	42 BEDROOMS
CAR PARKING	14 SPACES

thomson adsett

Project	MOSSMAN AGED CARE PLUS CENTRE	Drawing Title	SITE PLAN	Drawing Number	15.0285.11 SK02
Client	THE SALVATION ARMY	Date	11.02.2016	Scale	1 : 1000 9

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Original Sheet Size A3 - 297 x 420mm