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Excavation crews for any works on site must be briefed for the (unlikely) possibility that these may be encountered, and in the event that any such items are found, then work must stop immediately and a historical archaeologist called to the site. It is not considered necessary for excavations to be archaeologically monitored given the very low likelihood of such remains being present.

In the event that archaeological remains (non-human remains) are found.

Although considered extremely unlikely, with shallow excavation evidence of headstones, grave surrounds, grave goods etc. may be found (even if fragmentary). Whilst these may not necessarily be of archaeological potential, they are of historical interest and could indicate associated burials (they could also represent discard/deposition from elsewhere). If any such items are encountered, a historical archaeologist is to be called and any further excavations in that immediate area must be monitored.

In the event that human remains are found.

Given the low likelihood of burials on the site, there is no up-front requirement to plan for any possible exhumations associated with any future excavation of the site. Accordingly, at this stage excavations are not permitted as an exhumation under either Sections 30 or 70 of the *Burials and Cremations Act 2019,* therefore human remains, if encountered, these must not be disturbed or removed.

Again, considered extremely unlikely, if human remains are found, work is to stop immediately, and the site secured. A historical archaeologist is to attend, and they and/or the project manager is to immediately contact the Coroner (6165 7134), Tasmania Police (13 13 44) and Northern Midlands Council's Environmental Health Officer (6397 7303). The directions of those authorities are to be followed. At that point, and in consultation with those authorities, the property owner and if necessary the planning authority (in the event that any conditions of planning approval require consultation if human remains are encountered) are to decide a course of action. Such a course of action *may* be exhumation, or an agreement that development can proceed without disturbance, but with obscuring of any particular burial site.

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Prime Design

110 Main Street, Cressy
Traffic Impact Assessment

December 2022

ENGINEERS AUSTRALIA

PROFESSIONAL ENGINEER OF THE YEAR
INDIVIDUAL AWARDS
TASMANIA
WINNER 2016

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1. Introduction

1.1 Background

Midson Traffic were engaged by Prime Design to prepare a traffic impact assessment for a proposed retirement village development at 110 Main Street, Cressy.

1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management,* Part 12: *Traffic Impacts of Developments*, 2019.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This TIA also addresses the relevant clauses in C2, *Parking and Sustainable Transport Code*, and C3, *Road and Railway Assets Code*, of the Tasmanian Planning Scheme - Northern Midlands, 2021.

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 26 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004

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- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.5 Subject Site

The subject site is located at 110 Main Street, Cressy at the rear of the existing church. The site is accessed via Saundridge Road.

The Cressy District High School is located on the southwestern corner of Main Street/ Saundridge Road. An access to the High School is located opposite the site.

The subject site and surrounding road network is shown in Figure 1.

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Figure 1 Subject Site & Surrounding Road Network

Image Source: LIST Map, DPIPWE

1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Tasmanian Planning Scheme - Northern Midlands, 2021 (Planning Scheme)
- Austroads, *Guide to Traffic Management,* Part 12: *Traffic Impacts of Developments*, 2019
- Austroads, Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections, 2021
- Department of State Growth, *Traffic Impact Assessment Guidelines*, 2020
- Roads and Maritime Services NSW, *Guide to Traffic Generating Developments*, 2002 (RMS Guide)
- Roads and Maritime Services NSW, *Updated Traffic Surveys,* 2013 (Updated RMS Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1)

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2. Existing Conditions

2.1 Transport Network

For the purposes of this report, the transport network consists of Main Street and Saundridge Road.

Saundridge Road connects rural land to the west of Cressy to Main Street. It has a sealed pavement width of 7 metres and wide nature strips on each side of the road. It has a straight horizontal alignment.

The traffic volume of Saundridge Road is estimated to be in the order of 500 vehicles per day based on the associated land use connecting to the road west of Main Street. The general urban speed limit of 50-km/h is applicable to Saundridge Road.

Saundridge Road connects to Main Street at a four-way give-way intersection with Main Street having priority.

Main Street is component of Cressy Road that traverses through the town centre of Cressy. It carries approximately 1,360 vehicles per day[1] south of the Saundridge Road intersection.

Figure 2 Main Street

2.2 Road Safety Performance

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

[1] Department of State Growth 2021 traffic data, AADT 1,359 vehicles per day.

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Crash data was obtained from the Department of State Growth for a 5+ year period between 1st January 2017 and 2017 to 30th September 2022 for Saundridge Road within the Cressy.

One crash was reported during this time. The crash occurred at 12:00pm on 31st July 2021 at the intersection of Main Street and Saundridge Road. The crash involved a motorcycle losing control on the carriageway, resulting in minor injury.

The crash history does not provide an indication that there are any existing road safety deficiencies in the road network near the subject site.

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3. Proposed Development

3.1 Development Proposal

The proposed development involves the construction of a small retirement village consisting of 8 independent living units (3 x 1-bedroom and 5 x 2-bedroom). A total of 10 on-site car parking spaces are provided.

The proposed units will be managed by Centacare Evolve Housing, Tasmanian Community Housing Provider, managing over 1,500 social and affordable housing properties throughout Tasmania.

The occupants are subject to an age restriction of over 55 (pension/ retirees) and the intent is for the residents to live comfortably in their own homes and also be able to enjoy the benefit of community living whilst not being encumbered with dwelling maintenance or ownership. The proposal includes a communal recreation facility in the form of a communal garden.

The proposed development plans are shown in Figure 3.

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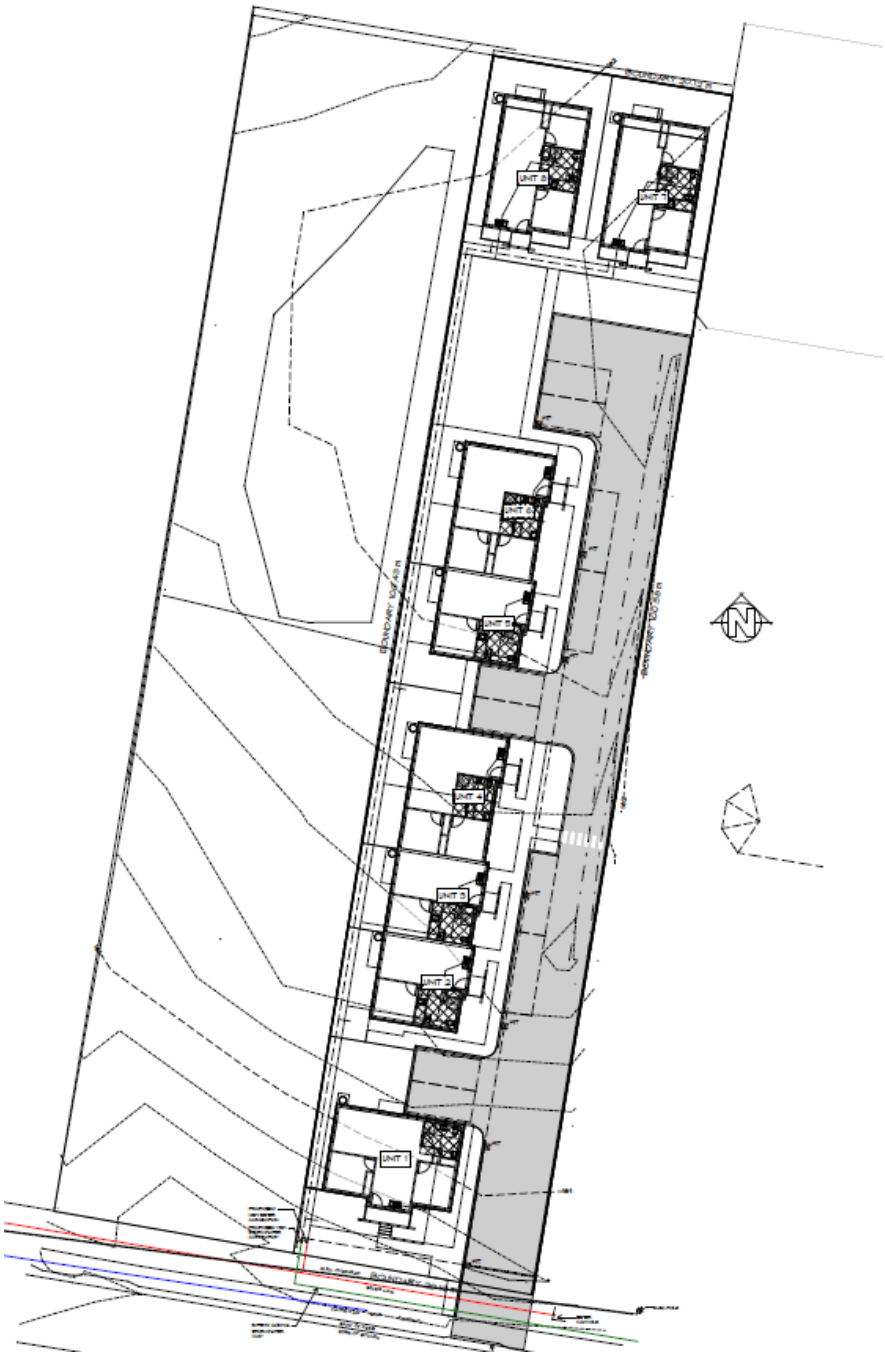
Figure 3 Proposed Development Plans



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4. Traffic Impacts

4.1 Trip Generation

Traffic generation rates associated with the development proposal were sourced from the RMS Guide. Traffic generation rates for 'aged and disabled persons' is 1-2 trips per day per dwelling with a peak of 0.1 to 0.2 trips per hour per dwelling.

This equates to a traffic generation of up to 16 vehicles per day, with a peak of 2 vehicle per hour. This assumes that all 8 residential aged care units generate traffic at the upper rate of 2 vehicles per day and 0.2 vehicles per hour.

4.2 Trip Assignment

The majority of traffic will access the site via right-in/ left-out manoeuvres. This is due to the connectivity of Saundridge Road with Main Street.

4.3 Access Impacts

The Acceptable Solution A1.4 of Clause C3.5.1 of the Planning Scheme states "*Vehicular traffic to and from the site, using an existing vehicle crossing or private level crossing, will not increase by more than the amounts in Table C3.1*".

Table C3.1 requires a maximum increase of 20% or 40 vehicles per day, whichever is greater. The traffic generation increase at the access is 16 vehicles per day, therefore the access complies with the requirements of Acceptable Solution A1.4 of Clause C3.5.1 of the Planning Scheme (ie. the traffic generation is less than 40 vehicles per day).

4.4 Sight Distance

Australian Standards, AS2890.1, provide the sight distance requirements for residential driveways. Sight distance requirements are lower for residential driveways compared to road junctions.

The minimum sight distance requirements for a driveway in a 50-km/h frontage road is 45 metres (the desirable sight distance is 69 metres). The available sight distance exceeds this requirement in both directions from the access, thus meeting the requirements of AS2890.1.

4.5 Pedestrian Impacts

The proposed development will generate a relatively small amount of pedestrian activity (to/ from Cressy town centre, school, etc). These movements can be accommodated safely and efficiently, noting the existing provision of pedestrian infrastructure in the network.

The Acceptable Solution A1 of Clause C2.6.5 of the Planning Scheme states:

> *"Uses that require 10 or more car parking spaces must:*

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(a) have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by:

(i) a horizontal distance of 2.5m between the edge of the footpath and the access way or parking aisle; or

(ii) protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and

(b) be signed and line marked at points where pedestrians cross access ways or parking aisles".

A footpath is provided between the buildings and access driveway. A pedestrian zebra crossing is also provided to the church midway along the driveway.

The pedestrian paths therefore meet the requirements of Acceptable Solution A1 of Clause C2.6.5 of the Planning Scheme.

4.6 Road Safety Impacts

No significant road safety impacts are foreseen for the proposed development. This is based on the following:

- The surrounding road transport network is capable of absorbing the relatively small amount traffic generation of the proposed development (with a typical peak estimated to be 2 vehicles per hour).
- Sight distance at all accesses exceeds Planning Scheme requirements and will provide a safe access environment.
- The crash history of the surrounding road network near the subject site does not indicate that there are any specific road safety issues that are likely to be exacerbated by traffic generated by the proposed development.

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5. Parking Assessment

5.1 Parking Provision

The proposed development provides a total of 10 on-site parking spaces. The layout of the parking spaces is shown in Figure 3.

5.2 Empirical Parking Demands

The RMS Guide provides guidance on two types of aged care facility: 'resident funded' and 'subsidised'. These are defined as follows:

> *"Resident funded developments tend to have a higher per unit cost and attract residents with higher financial resources. The car ownership levels of such residents is likely to be relatively high, as is the associated traffic generation and parking requirements of these residents. Subsidised developments, which are often run by religious organisations, are usually associated with lower car ownership levels and consequently lower corresponding generation rates. In assessing the parking demands for aged or disabled persons' housing, consideration must be given to the funding arrangement proposed for the development".*

The development is classified as 'resident funded'. The parking requirements for self-funded aged care facilities are as follows:

- Independent living units – 2 spaces per 3 units (residents), plus
- 1 space per 5 units (visitors)

This equates to a total parking provision of 7 spaces. The provision of 10 spaces meets this requirement.

In operational terms, the allocation of parking has been designed to provide each unit with one parking space and two visitor parking spaces for the site. This parking provision clearly meets the likely demands of the site noting the RMS requirements outlined above.

5.3 Planning Scheme Requirements

The Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme states:

> *"The number of on-site car parking spaces must be no less than the number specified in Table C2.1, excluding if:*
>
> *(a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan;*
>
> *(b) the site is contained within a parking precinct plan and subject to Clause C2.7;*
>
> *(c) the site is subject to Clause C2.5.5; or*

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(d) it relates to an intensification of an existing use or development or a change of use where:

(i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is greater than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case no additional on-site car parking is required; or

(ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is less than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case on-site car parking must be calculated as follows:

N = A + (C- B)

N = Number of on-site car parking spaces required

A = Number of existing on site car parking spaces

B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1

C= Number of on-site car parking spaces required for the proposed use or development specified in Table C2.1".

In this case, sub-points (a), (b), (c), and (d) are not applicable. The car parking requirements in Table C2.1 for residential land use is:

- 1-bedroom unit - 2 spaces for unit
- 2-bedroom unit – 1 space per unit
- 1 dedicated space per 4 dwellings for visitor parking

This equates to a parking requirement for 15 spaces. The provision of 10 spaces does not meet the requirements of Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme.

The Performance Criteria P1.2 of Clause C2.5.1 of the Planning Scheme states:

"The number of car parking spaces for dwellings must meet the reasonable needs of the use, having regard to:

(a) the nature and intensity of the use and car parking required;

(b) the size of the dwelling and the number of bedrooms; and

(c) the pattern of parking in the surrounding area".

The following is relevant with respect to the development proposal:

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a. Nature and intensity of use. The development is for a retirement village which has lower parking demands than a standard residential unit. The parking demands associated with the development proposal are set out in Section 5.2. The likely parking demands are 7 spaces, which is catered for with the 10 space on-site provision.

b. Dwelling size. The units are small in size and have two bedrooms.

c. On street parking. There is a relatively large pool of public on-street car parking available. Observations indicate that on-street parking demands are low in Saundridge Road and Main Street near the subject site outside school peak periods.

Based on the above assessment the development meets the requirements of Performance Criteria P1 of Clause C2.5.1 of the Planning Scheme. Specifically, the empirical parking demands associated with the development are catered for on-site.

5.4 Car Parking Layout

The car parking layout is shown in detail in The Acceptable Solution A1.1 of Clause C2.6.2 of the Planning Scheme states:

"Parking, access ways, manoeuvring and circulation spaces must either:

(a) comply with the following:

(i) have a gradient in accordance with Australian Standard AS 2890 - Parking facilities, Parts 1-6;

(ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces;

(iii) have an access width not less than the requirements in Table C2.2;

(iv) have car parking space dimensions which satisfy the requirements in Table C2.3;

(v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces;

(vi) have a vertical clearance of not less than 2.1m above the parking surface level; and

(vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or

(b) comply with Australian Standard AS 2890- Parking facilities, Parts 1-6".

The development was assessed against A1.1(b). The relevant Australian Standards associated with the development are AS2890.1 only. The assessment is provided in the following sections.

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The property is defined as a 'residential property' under AS2890.1 as it comprises three or more domestic units (three proposed units and the existing dwelling).

5.4.1 Driveway Grade

Section 2.5.3(b) of AS2890.1 states the following regarding the maximum grade of straight ramps:

i. Longer than 20 metres – 1 in 5 (20%) maximum.

ii. Up to 20 metres long – 1 in 4 (25%) maximum. The allowable 20 m maximum length shall include any parts of the grade change transitions at each end that exceed 1 in 5 (20%).

In this case the driveway is greater than 20 metres in length. The maximum grade is relatively level, therefore complying with the maximum grade requirements.

5.4.2 Parking Grade

Section 2.4.6 of AS2890.1 states that the maximum grades within a car park shall be:

- Measured parallel to the angle of parking 1 in 20 (5%)
- Measured in any other direction 1 in 16 (6.25%)

The grades of the parking spaces are effectively level, thus complying with the AS2890.1 grade requirements.

5.4.3 Car Parking Dimensions

For residential parking spaces (User Class 1A), Australian Standards, AS2890.1 requires the following dimensions for 90-degree parking spaces:

- Space width 2.4 metres
- Space length 5.4 metres
- Aisle width 5.8 metres

All spaces comply with AS2890.1 dimensional requirements.

5.4.4 Driveway Width

AS2890.1 defines the access as 'Category 1' access facility (Class 1A parking with less than 25 spaces fronting onto a local road). The AS2890.1 minimum driveway width requirement is 3.0 metres. The minimum driveway width is 5.7 metres, therefore the access width complies with the requirements of AS2890.1.

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5.4.5 Forward Entry and Exit

The car parking layout was assessed using B85 Vehicle swept paths for all parking spaces. A turning area is provided at the northern end of the access, facilitating on-site turning.

5.4.6 AS2890.1 Assessment Summary

The parking space dimensions and manoeuvring areas comply with the requirements of AS2890.1. The development therefore complies with the requirements of Acceptable Solution A1.1(b) of Clause C2.6.2 of the Planning Scheme.

Figure 4 and Figure 5.

The Acceptable Solution A1.1 of Clause C2.6.2 of the Planning Scheme states:

"Parking, access ways, manoeuvring and circulation spaces must either:

(a) comply with the following:

(i) have a gradient in accordance with Australian Standard AS 2890 - Parking facilities, Parts 1-6;

(ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces;

(iii) have an access width not less than the requirements in Table C2.2;

(iv) have car parking space dimensions which satisfy the requirements in Table C2.3;

(v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces;

(vi) have a vertical clearance of not less than 2.1m above the parking surface level; and

(vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or

(b) comply with Australian Standard AS 2890- Parking facilities, Parts 1-6".

The development was assessed against A1.1(b). The relevant Australian Standards associated with the development are AS2890.1 only. The assessment is provided in the following sections.

The property is defined as a 'residential property' under AS2890.1 as it comprises three or more domestic units (three proposed units and the existing dwelling).

5.4.7 Driveway Grade

Section 2.5.3(b) of AS2890.1 states the following regarding the maximum grade of straight ramps:

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iii. Longer than 20 metres – 1 in 5 (20%) maximum.

iv. Up to 20 metres long – 1 in 4 (25%) maximum. The allowable 20 m maximum length shall include any parts of the grade change transitions at each end that exceed 1 in 5 (20%).

In this case the driveway is greater than 20 metres in length. The maximum grade is relatively level, therefore complying with the maximum grade requirements.

5.4.8 Parking Grade

Section 2.4.6 of AS2890.1 states that the maximum grades within a car park shall be:

- Measured parallel to the angle of parking 1 in 20 (5%)
- Measured in any other direction 1 in 16 (6.25%)

The grades of the parking spaces are effectively level, thus complying with the AS2890.1 grade requirements.

5.4.9 Car Parking Dimensions

For residential parking spaces (User Class 1A), Australian Standards, AS2890.1 requires the following dimensions for 90-degree parking spaces:

- Space width 2.4 metres
- Space length 5.4 metres
- Aisle width 5.8 metres

All spaces comply with AS2890.1 dimensional requirements.

5.4.10 Driveway Width

AS2890.1 defines the access as 'Category 1' access facility (Class 1A[2] parking with less than 25 spaces fronting onto a local road). The AS2890.1 minimum driveway width requirement is 3.0 metres. The minimum driveway width is 5.7 metres, therefore the access width complies with the requirements of AS2890.1.

5.4.11 Forward Entry and Exit

The car parking layout was assessed using B85 Vehicle swept paths for all parking spaces. A turning area is provided at the northern end of the access, facilitating on-site turning.

[2] AS2890.1 defines Class 1A as "residential, domestic and employee parking".

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5.4.12 AS2890.1 Assessment Summary

The parking space dimensions and manoeuvring areas comply with the requirements of AS2890.1. The development therefore complies with the requirements of Acceptable Solution A1.1(b) of Clause C2.6.2 of the Planning Scheme.

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Figure 4 Car Parking Layout – Northern End

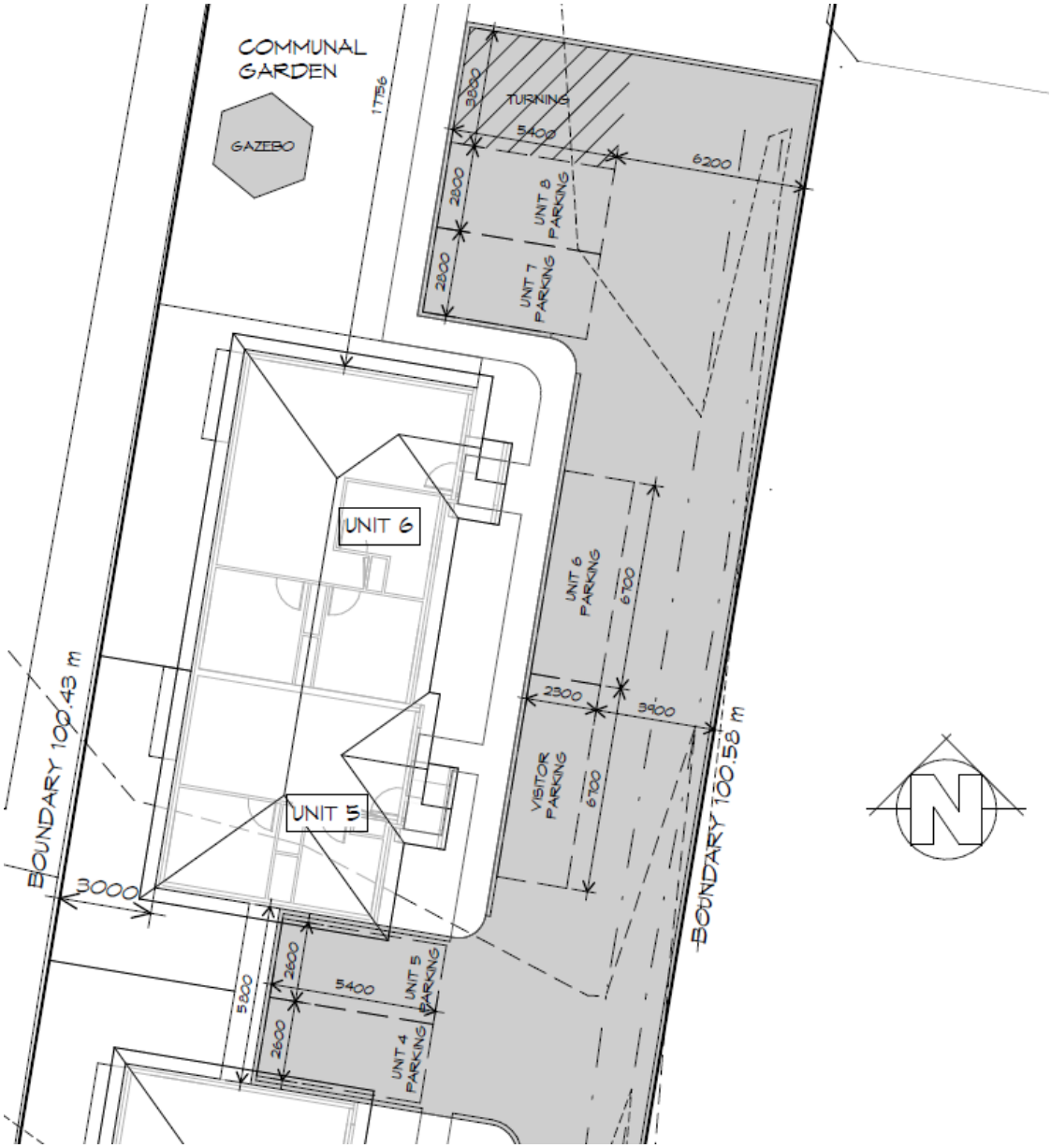

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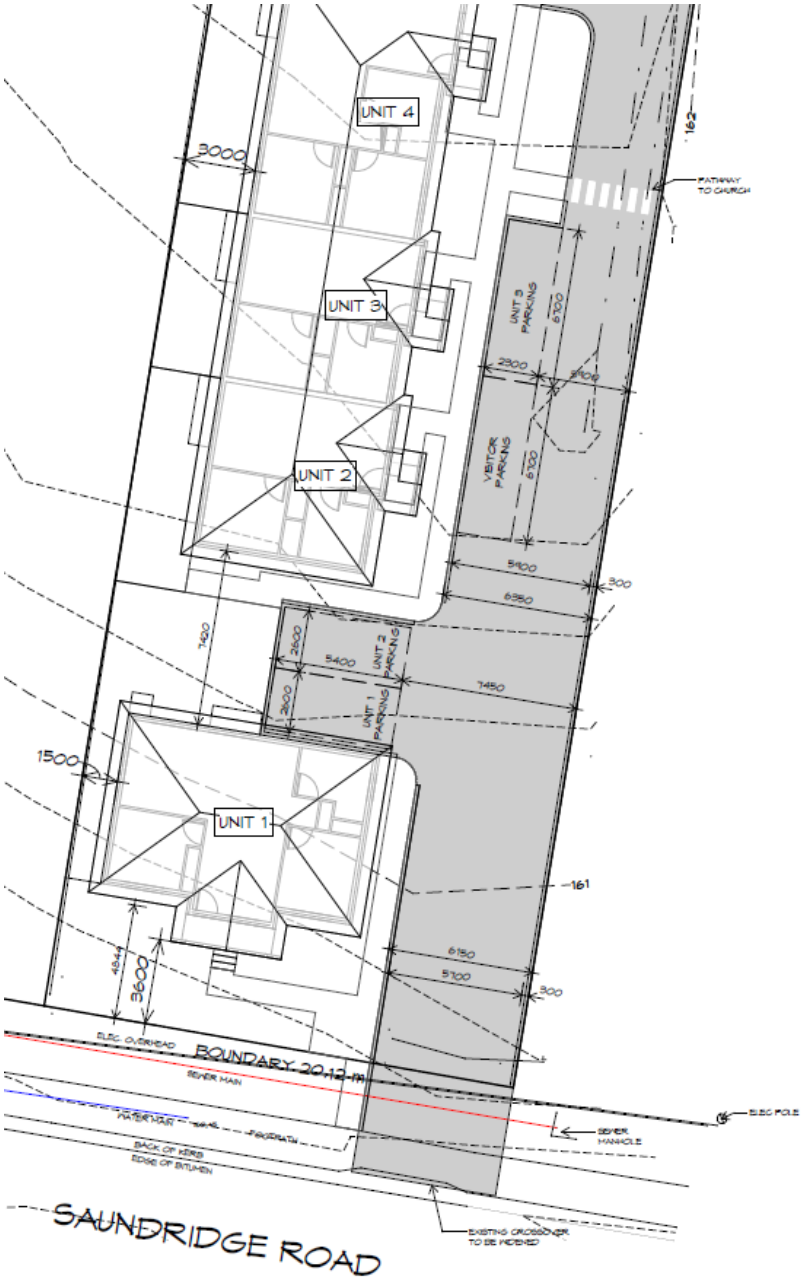
Figure 5 Car Parking Layout – Southern End



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6. Conclusions

This traffic impact assessment (TIA) investigated the traffic and parking impacts of a proposed independent living unit retirement village development at 110 Main Street, Cressy.

The key findings of the TIA are summarised as follows:

- The traffic generation of the development is likely to be 16 vehicles per day with a peak generation of 2 vehicles per hour.
- The traffic generation at the site's access represents an increase of 16 vehicles per day, thus meeting the requirements of Acceptable Solution A1.4 of Clause C3.5.1 of the Planning Scheme.
- The pedestrian infrastructure within the on-site car park meets the requirements of Acceptable Solution A1 of Clause C2.6.5 of the Planning Scheme.
- The car parking provision of 10 on-site parking spaces meets the requirements of Performance Criteria P1 of Clause C2.5.1 of the Planning Scheme. The parking demands associated with the retirement village can be met on-site as the development will generate a lower parking demand than a residential unit development.
- The car parking layout of the development meets the requirements of Acceptable Solution A1.1(b) of Clause C2.6.2 of the Planning Scheme.

Based on the findings of this report the proposed development is supported on traffic grounds.

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Document Status

Revision	Author	Review	Date
0	Keith Midson	Zara Kacic-Midson	7th December 2022

ENGINEERS ADVICE

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TO	Centacare Evolve Housing	DATE	19/12/2022
FROM	Dale Hayers	TIME	
PROJECT	110 Main Street - Centacare	PROJECT Nº	22.0387
SUBJECT	Stormwater Detention Design and Connection Details	REF Nº	EA-C01

GANDY AND ROBERTS
159 DAVEY ST
HOBART TASMANIA
AUSTRALIA 7000
CONSULTING ENGINEERS

This Engineers Advice has been prepared to address the Request for Additional Information dated 05/12/2022 and sent to Prime Design from the Northern Midlands Council as part of the Planning Application for a proposed unit development at Main St in Cressy. The request stated:

In accordance with section 54 of the Land Use Planning and Approvals Act 1993, please provide a concept plan showing stormwater drainage in accordance with Councils onsite stormwater detention policy. The plan must include pipe sizes, surface and invert levels of stormwater infrastructure and calculations prepared by a suitably qualified person.

Site Stormwater Detention

Rainfall Runoff Quantity

Site Analysis with XP Storm

Site rainfall scenarios were analysed in XP Storm 2019 by comparing the pre- and post-development runoffs using hydrological methods in accordance with Australian Rainfall and Runoff (ARR) 2019. The existing site is undeveloped and considered as impervious grassland. XP storm identifies the pre-development critical storm duration as the 30-minute rainfall event, with a median design runoff flow of 14.0 L/s. This flow rate is determined to be the Permissible Site Discharge (PSD). Post-development flow, when un-detained, is identified to exceed the PSD. Analysis results are summarised by *Figure 1* and *Figure 2* below.

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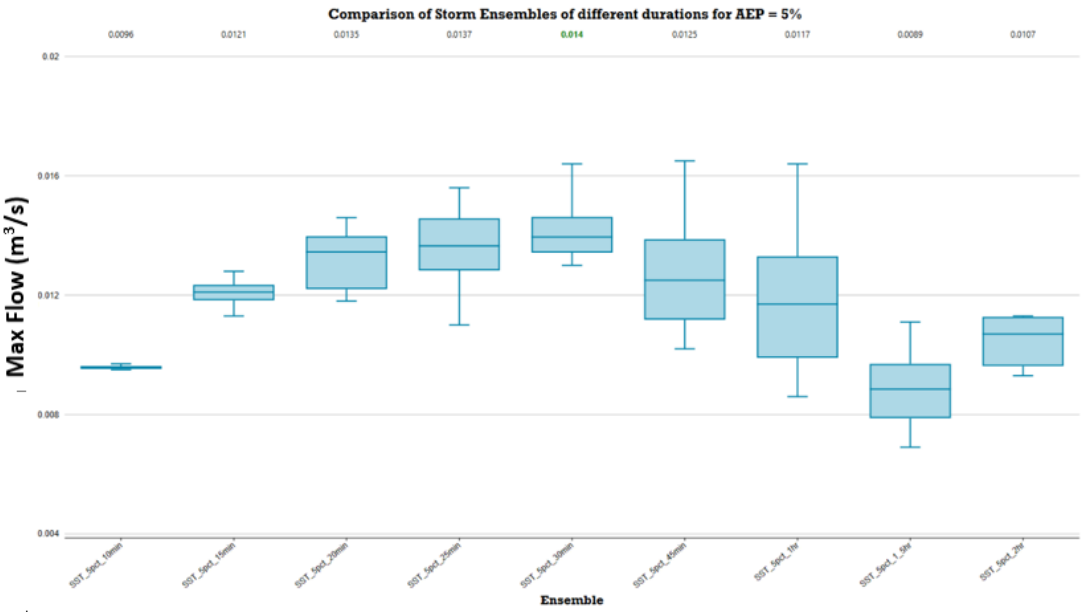

Figure 1: Box and whisker plots of storm ensembles for existing site of storm ensembles for 5% AEP.

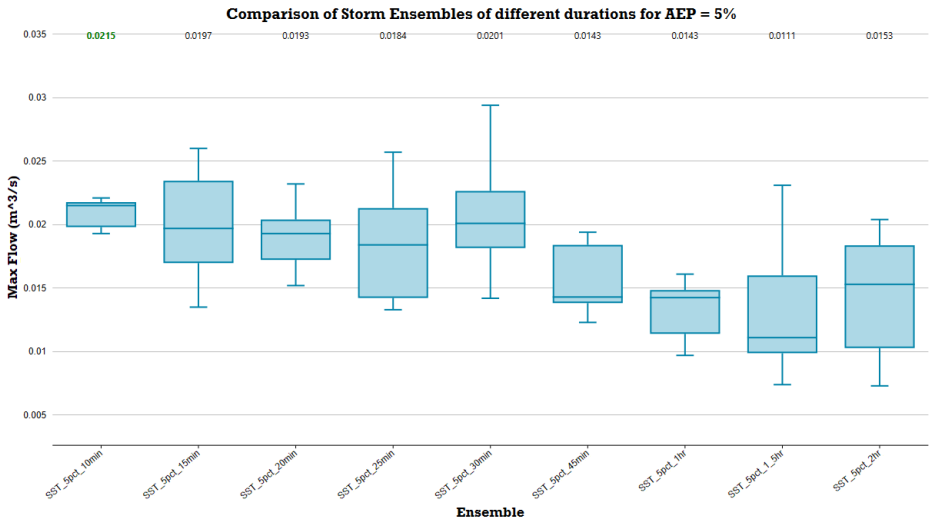

Figure 2: Developed site Maximum flows for storm ensembles of 5% AEP.

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AUSTRALIA 7000
CONSULTING ENGINEERS

Runoff Mitigation Proposal

To control the developed site discharge to the identified PSD, an on-site detention system is proposed, with an orifice regulated discharge limiting the flow offsite for all storm durations up to the 5% AEP event.

For this analysis it is assumed that all impervious driveway, concrete, courtyard and roof areas are captured by on-site detention and the remaining grassland area will be discharged from the site un-detained. The detention requirements were analysed with XP Storm with the storm pattern producing the median peak runoff for each event duration compared for a range of tank and orifice configurations. Considering the site layout, an underground tank is proposed for the southern end of the driveway. The Oz Tanks 5500 L "Sub" Underground Tank is suggested for use with a 73 mm orifice. See *Appendix A* for details.

Using this design, it is confirmed that the developed site discharge flow shall be limited to below the PSD; as summarised in the storm event box and whisker plot below (in *Figure 3*). Furthermore, the adopted tank storage will be able to detain the worst-case scenario volume, with the Oz Tanks product being able to hold 5500 L. This is shown by the plot *Figure 4.* The controlled drainage from the tank is summarised by *Figure 5.*

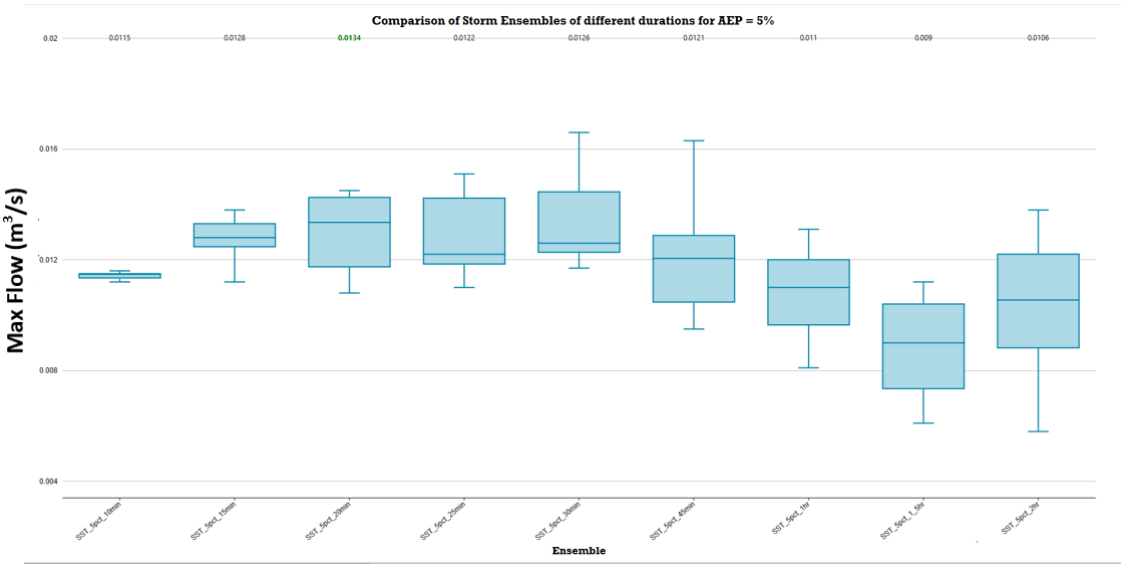

Figure 3: Box and whisker plot comparing maximum detained flow for storm ensembles for 5% AEP.

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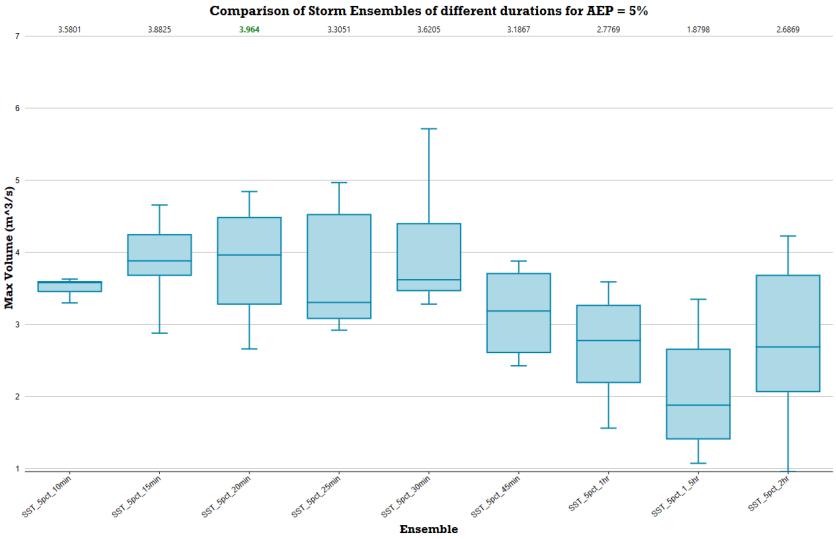

Figure 4: Plot for the maximum water volume for storm ensembles of 5% AEP, all of which are below the maximum allowable tank volume of 5500 L.

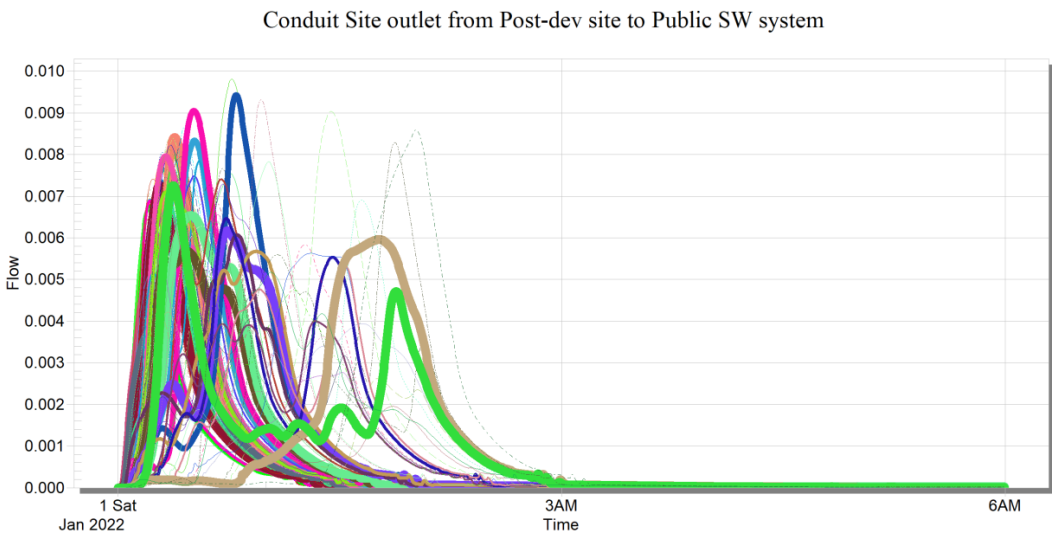

Figure 5: Hydrograph of discharge to site from orifice of tank for storm ensembles of 5% AEP.

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Appendix A: Concept Design Drawings

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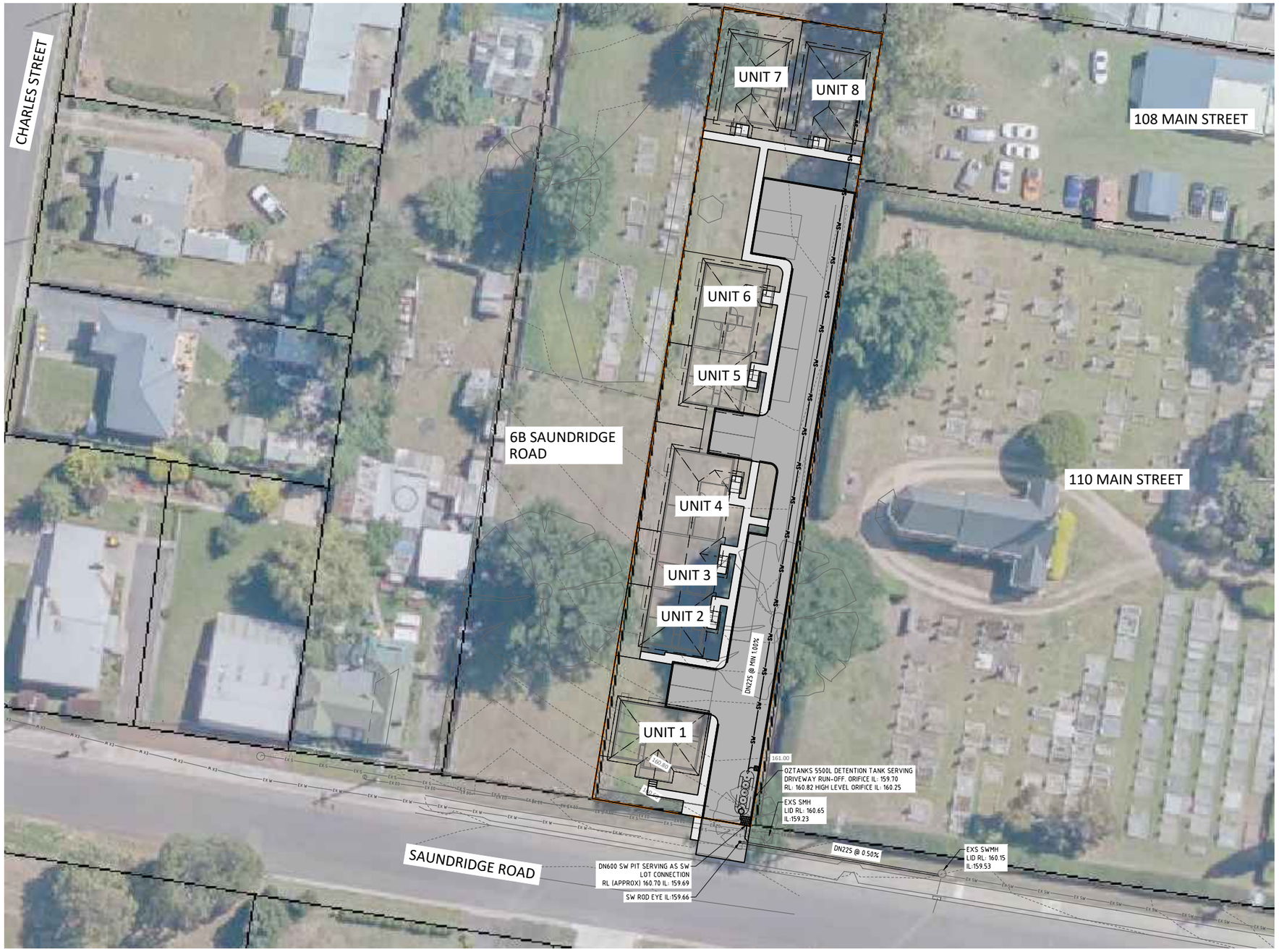

REV	DESCRIPTION	APP'D	DATE	REV	DESCRIPTION	APP'D	DATE
A	PLANNING APPROVAL	DH	19.12.2022				

THIS DRAWING HAS NOT BEEN APPROVED FOR CONSTRUCTION

North

GANDY AND ROBERTS CONSULTING ENGINEERS

159 DAVEY ST, HOBART
TASMANIA, AUSTRALIA 7000
www.gandyandroberts.com.au
mail@gandyandroberts.com.au
ph 03 6223 8877 fx 03 6223 7183

PROPSED OVER 55's VILLAGE
110 MAIN ST, CRESSY
TASMANIA 7302
DRAWING TITLE
CONCEPT SERVICING PLAN

0 50mm
SCALE 1:250 @ A1

DESIGNED	DRAWN	CHECKED
DH	DH	-
PROJECT	DRAWING	REVISION
22.0387	C020	A

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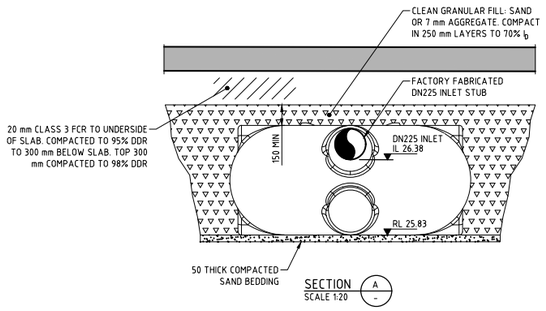

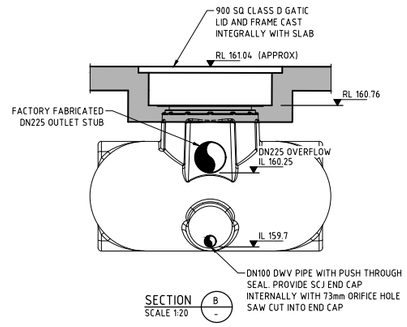

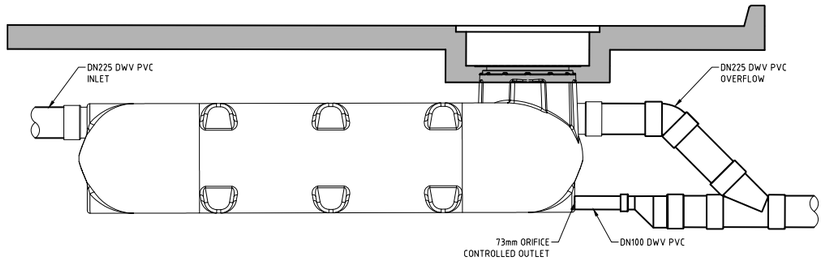

SECTION C
SCALE 1:20

REV	DESCRIPTION	APP'D	DATE	REV	DESCRIPTION	APP'D	DATE
A	PLANNING APPROVAL	DH	19.12.2022				

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mail@gandyandroberts.com.au
ph 03 6223 8877 fx 03 6223 7183

PROPSED OVER 55's VILLAGE
110 MAIN ST, CRESSY
TASMANIA 7302
DRAWING TITLE
DETAILS

DESIGNED	DRAWN	CHECKED
DH	DH	-
PROJECT	DRAWING	REVISION
22.0387	C020	A

0 50mm
SCALE 1:250 @ A1

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Paul Godier

From: Jonathan Galbraith
Sent: Tuesday, 20 December 2022 2:12 PM
To: Cameron Oakley; Paul Godier; Daniel Stearnes
Subject: RE: 110 Main Street, Cressy - stormwater report

Hi Paul,

As noted by Cam this line must end in a manhole.

Regards,

Jonathan Galbraith

Engineering Officer | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | M: 0400 935 642 | F: (03) 6397 7331
E: jonathan.galbraith@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

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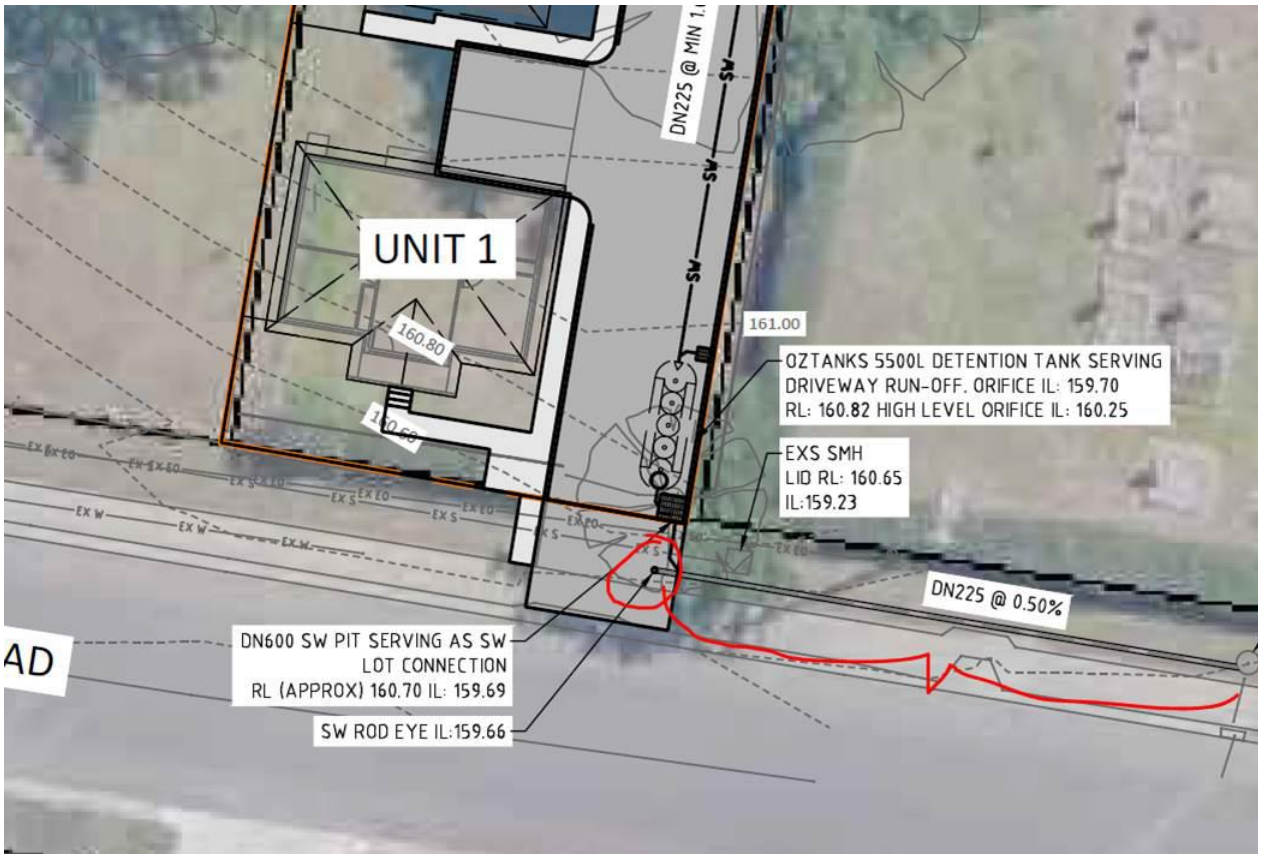
From: Cameron Oakley
Sent: Tuesday, 20 December 2022 2:10 PM
To: Paul Godier <paul.godier@nmc.tas.gov.au>; Jonathan Galbraith <jonathan.galbraith@nmc.tas.gov.au>; Daniel Stearnes <daniel.stearnes@nmc.tas.gov.au>
Subject: RE: 110 Main Street, Cressy - stormwater report

Sorry, the only thing I wanted to point out to Jonathan is that they are extending the DN225 line, however they are not putting manhole at the end of it. I am happy with the 225 diameter. There isn't a chance of extending that main in future as it is near the crest of the hill.



From: Paul Godier <paul.godier@nmc.tas.gov.au>
Sent: Tuesday, 20 December 2022 12:01 PM
To: Jonathan Galbraith <jonathan.galbraith@nmc.tas.gov.au>; Daniel Stearnes <daniel.stearnes@nmc.tas.gov.au>
Cc: Cameron Oakley
Subject: 110 Main Street, Cressy - stormwater report

Hi, can you please review the attached and advised.

Thanks,

Paul Godier

Senior Planner | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: paul.godier@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

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NORTHERN MIDLANDS COUNCIL

REPORT FROM:	**HERITAGE ADVISER, DAVID DENMAN**
DATE:	**20 January 2023**
REF NO:	**PLN-22-0211**
SITE:	**110 Main Street, Cressy**
PROPOSAL:	**Multiple Dwellings x 8**
APPLICANT:	**Prime Design**
REASON FOR REFERRAL:	**Local Heritage Place under the Tasmanian Planning Scheme – Northern Midlands**

Do you have any objections to the proposal: **No**

Because of the long narrow nature of the site and its location, the bulk of this development will be internal and therefore have the same impact on the streetscape as a single dwelling.

The general scale, forms and architectural detailing are considered acceptable in meeting the standards of the Local Historic Heritage Code.

The separation between the historic church building and the proposed development is considered acceptable.

David Denman (Heritage Adviser)

Date: 20/01/2023

C6.0 Local Historic Heritage Code **C6.1 Code Purpose**
The purpose of Local Historic Heritage Code is: C6.1.1 To recognise and protect: (a) The local historic heritage significance of local places, precincts, landscapes and areas of archaeological potential; and (b) Significant trees.

C6.1.2 This code does not apply to the Aboriginal heritage values.

C6.6.2 Site coverage	
Objective: That site coverage is compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions	**Performance Criteria**
A1 No Acceptable Solution.	**P1** The site coverage must be compatible with the local historic heritage significance of a local heritage place, having regard to: (a) The topography of the site; and (b) The historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person.
<u>Comment:</u> The site is a simple rectangular shape with 20.12m street and rear boundaries and 100.58m side boundaries, and although the proposed development is quite large, the bulk of the site coverage is internal. A single dwelling unit will present to the street.	

C6.6.3 Height and bulk of buildings	
Objective: That the height and bulk of buildings are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions	**Performance Criteria**

A1 No Acceptable Solution.	**P1** The height and bulk of buildings must be compatible with the local historic heritage significance of a local heritage place, having regard to: (a) The historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) The character and appearance of the existing building or place; (c) The height and bulk of other buildings in the surrounding area; and (d) The setting of the local heritage place.
<u>Comment</u> The height and bulk of the proposed dwellings are compatible with the surrounding development and will therefore be sympathetic with the street and townscape.	

C6.6.4 Siting of buildings and structures	
Objective: That the siting of buildings is compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions	**Performance Criteria**
A1 No Acceptable Solution.	**P1** The front, side and rear setbacks of a building must be compatible with the local historic heritage significance of the place, having regard to: (a) The historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the

	relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) The topography of the site; (c) The size, shape, and orientation of the lot; and (d) The setbacks of other buildings in the surrounding area.
Comment The proposed front and side setbacks are compatible with the surrounding area. The majority of the dwellings are located behind the single dwelling that will have a street frontage. The dwellings are setback to the west side boundary, which will give acceptable separation from the historic church building.	

C6.6.6 Roof form and materials	
Objective: That roof form and materials are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions	**Performance Criteria**
A1 Replacement roofs on local heritage places which will be visible from any road or public open space adjoining the site, must be of a	**P1** Roof form and materials must be compatible with the local historic heritage significance of a local heritage place, having regard to:

form and material to match the existing roof being replaced.	(a) The historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) The design, period of construction and materials of the building on the site that the roof directly relates to; (c) The dominant roofing style and materials in the setting; and (d) The streetscape.
Comment The proposed predominant 22.5-degree hipped roof forms with smaller gable entrance roof sections are compatible with the surrounding dwellings and structures within the streetscape and surrounding area.	

2/01/2023

The General Manager

Thankyou for the opportunity to submit comments on the proposed development at 110 Main Street & Saundridge Rd at Cressy Ref No PLN-22-0211.
We are writing to you to submit the following

1. the proposed development does not fit within the established character of and is considered out of context for the locality.

2. the proposed development would result in substantial view impacts as it is going from a heritage area of over 150yrs duration to a high density residental site.

3. the proposed development has insufficent off street parking.

4. the proposed developments impact on the avalabilty of on street parking to current residents, school staff,and heavy vehicles checking load restraints

5. the proposed developments impact on wildlife as its proposed location is on ground with heritage trees.

6. the proposed developments impact on existing infrastructure ie stormwater sewerage etc

These are just some of the points that we are humbly asking you to give a time extension on so that we may look at the proposal in more detail and provide you with a more detailed response to follow.

I may be contacted via phone on 0447 804 499 or alternatively by writing to me at 7 Saundridge Rd Cressy

~~yours faithfully~~

R G von Stieglitz

T M Cooper

NORTHERN MIDLANDS COUNCIL					
File No.					
Property					
Attachments					
REC'D 3 JAN 2023					
	I	A		I	A
GM			PLN		
P&DM			BLD		
CSM			MYR		
WM			EA		
HR					
HLT					

Received
18.01.2023

Prime Design
your build, your way

18 January 2023

Northern Midlands Council
13 Smith Street,
Longford
TAS 7301

Dear Paul,

Re: 110 MAIN STREET (FOLIO OF THE REGISTER 249681/2) & SAUNDRIDGE RD, CRESSY
Representation received to Planning Application PLN-22-0211 - Proposed village for over 55s consisting of 8 dwellings and communal garden, removal of trees and hedge (Retirement Village) (Vary front and side setbacks, vary carparking provisions) (Heritage Listed Property) and extend stormwater main in Saundridge Road

Thank you for the opportunity to respond to the representors concerns raised in their representations against the proposed development at 110 Main Street, Cressy. Below I have responded to each item of concern:

1. **The proposed development does not fit within the established character and is considered out of context for the locality.**
   The proposed development is within a pocket of Community Purpose Zone which is located over the subject site and associated church lot and the school across the road. Residential - Retirement Village is a permitted use within the Community Purpose Zone.

2. **The proposed development would result in substantial view impacts as it is going from a heritage area of over 150yrs duration to a high density residential site.**
   The site is currently obscured from the street by a large hedge along the front boundary. A hedge also runs along the Eastern boundary separating the lot from the associated Holy Trinity Anglican Church. The neighbouring vacant property has sold in December 2022 and is zoned general residential. It would be reasonable to expect a dwelling to be constructed on the property in the future. The proposal retains the residential streetscape of the northern side of Saundridge Road and retains the hedge around the church delineating the Heritage Place.

3. **The proposed development has insufficient off street parking**
   A Traffic Impact Assessment was prepared by a qualified and experienced Traffic Engineer who has visited the site and identified that the provision of 10 parking spaces is in excess of the RSM Guide requirements of 7 parking spaces and did not identify any concerns regarding the demand for on-street parking

4. **The proposed developments impact on the availability of on street parking to current residents, school staff, and heavy vehicles checking load restraints**
   Please refer to response to point 3.

ABN 63 111 803 948 | 10 Goodman Court Invermay, Launceston | Shop 9, 105-111 Main Road Moonah, TAS | p+(l) 03 6332 3790 p+(l) 03 6228 4575 | info@primedesigntas.com.au primedesigntas.com.au

Received
18.01.2023

5. **The proposed developments impact on wildlife as its proposed location is on ground with heritage trees**
   Proposed vegetation to be removed are not priority vegetation and have not been identified as forming a significant habitat for threatened fauna species.

6. **The proposed developments impact on existing infrastructure i.e. stormwater sewerage etc.**
   The impact in infrastructure for the development have been considered in the design and an onsite stormwater detention system with connection into council stormwater main to control the release of stormwater into council infrastructure has been included in the application.

   The application proposes to connect into the existing TasWater sewer main by a new lot connection.

Kind regards,

Bianca Pople

EXHIBITED

PLANNING APPLICATION

Proposal

Description of proposal: 116 Lot Subdivision
……

……

……

……

……

……
(attach additional sheets if necessary)

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1…… 2…… 3…….

***Site address**: Lot 1 Drummond Street, Perth 7300*
……

……

CT no: 174678/1

Estimated cost of project *$……* *(include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? Yes / No
If yes – main building is used as ……..

If variation to Planning Scheme provisions requested, justification to be provided:

……..

……..

……..

……..

……..
(attach additional sheets if necessary)

Is any signage required? ……..
(if yes, provide details)

PDA
SURVEYORS, ENGINEERS & PLANNERS

3/23 Brisbane Street
Launceston, Tasmania 7250
Phone (03) 6331 4099

ABN 71 217 806 325
pda.ltn@pda.com.au
www.pda.com.au

EXHIBITED

Our Ref: 44156

28th February 2022

Northern Midland Council
PO Box 156
LONGFORD TAS 7301

Via Email: Planning@nmc.tas.gov.au

Attention: Town Planner

Dear Sir/Madam

RE: SUBDIVISION – LOT 1 DRUMMOND STREET, PERTH

In accordance with instructions from our client Mackinnon Estates PTY LTD and would like to make an application for a planning permit.

To support this application, the following is submitted:

- Subdivision Proposal Plan
- Completed Development Application Form
- Copy of the Title
- Service Report
- Bushfire Assessment
- Traffic Impact Assessment
- Natural Values Assessment

Please forward an invoice for the fee as soon as possible to ensure prompt payment. I will provide a copy to our client along with the notification of lodgement in accordance with Section 52 of LUPA.

If you have any queries about this application, please contact this office directly.
Yours Faithfully

Allan Brooks
MPlanning
BAppSc (ME)

HOBART:
C.M. Terry, BSurv (Tas.), M.SSSI (Director)
H. Clement, BSurv (Tas.), M.SSSI (Director)
M.S.G. Denholm, BGeom (Tas.), M.SSSI (Director)
T.W. Walter, Dip. Surv & Map (Director)
M. Westerberg, M.E.M., M.I.E. AUST., C.P.ENG. (Director)
D. Panton, B.E. F.I.E. AUST., C.P.ENG. (Consultant)
A. Collins, Ad. Dip. Surv & Map, (Senior Associate)
L.H. Kiely, Ad. Dip. Civil Eng, Cert IV I.T., (Associate)

KINGSTON:
A.P. (Lex) McIndoe, BSurv (Tas.), M.SSSI (Director)
M.M. Stratton, BSurvSpSc, GradDipLandSurv (Tas.) (Associate)

LAUNCESTON:
J.W. Dent, OAM, B. Surv (Tas.), M.SSSI (Director)
M.B. Reid, BGeom (Hons) (Tas.), M.SSSI (Director)
J.M. Brooks, MEnvPlg, M.PIA (Director)

BURNIE/DEVONPORT:
A.W. Eberhardt, BGeom (Tas.), M.SSSI (Director)
A.J. Hudson, B. SURV. (Tas.), M.SSSI. (Consultant)

OFFICES ALSO AT:
- 16 Emu Bay Rd, Deloraine, TAS 7304 (03) 6362 2993
- 6 Queen St, Burnie, TAS 7320 (03) 6431 4400
- 77 Gunn St, Devonport, TAS 7310 (03) 6423 6875
- 127 Bathurst St, Hobart, TAS 7000 (03) 6234 3217
- 6 Freeman St, Kingston, TAS 7050 (03) 6229 2131
- 10/16 Main Rd, Huonville, TAS 7109 (03) 6264 1277
- 3 Franklin St, Swansea, TAS 7190 (03) 6130 9099

PLANNING ASSESSMENT REPORT

EXHIBITED

Proposal: 116 Lot Subdivision

The Land: Lot 1 Drummond Street, Perth

The Land
The land a currently vacant with few trees located around the lot. There is a slope towards the East.

The Proposal
The application proposes to subdivide the area to make 116 Residential Lots. Currently, the land front Napoleon Street and the proposal will include new road and provide frontage to all lots.

The land is located in the General Residential Zone and is surrounded to the east with general residential. The upgraded midland highway separates the west land zoned rural resource. The land to the north and south is also zoned rural resource.

GENERAL RESIDENTIAL ZONE

For this type of Subdivision, the relevant clauses of the General Residential Zone are 10.4.15.1 (Lot Area, Building Envelope and Frontage), 10.4.15.2 (Provision of Services), 10.4.15.3 (Solar Orientation of lots), 10.4.15.5 (Integrated Urban Landscape) 10.4.15.6 (Walking and Cycling Network), and 10.4.15.7 (Neighbourhood Road Network).

10.4.15.1 Lot Area, Building Envelope and Frontage
The objective of this clause is to provide lots with areas and dimensions that enable the appropriate siting and construction of a dwelling, private open space, vehicle access and parking, easements and site features.

These objectives are met by meeting the acceptable solutions or performance criteria listed in the clauses.

The following justifies how the subdivision design meets the acceptable solutions.

A1(a) is met with each lot having an area of 450m^2. Building setbacks are not applicable due to the site having no existing building.
A2 is met with each lot having a frontage larger than 4m.

10.4.15.2 Provision of Services
The objective is to provide lots with appropriate levels of utility services.
These objectives are met by meeting the acceptable solutions or performance criteria listed in the clauses.

The following justifies how the subdivision design meets the acceptable solutions.

A1 is met with each lot will be connected to a reticulated water supply and sewerage supply.
P2 is met with each lot will discharge to a legal discharge point.

10.4.15.3 Solar Orientation of Lots
The objective is to provide for solar orientation of lots and solar access for future dwellings.

These objectives are met by meeting the acceptable solutions or performance criteria listed in the clauses.

The following justifies how the subdivision design meets the acceptable solutions/performance criteria.

A1 is met with 50% of lots are within the required long axis range.
A2 is not applicable as all lots are larger than 500m².

EXHIBITED

10.4.15.5 Integrated Urban Landscape

The objective is to provide attractive and continuous landscaping in roads and public open spaces that contribute to the:

- Character and identity of new neighbourhoods and urban places; or
- To existing or preferred neighbourhood character, if any.

These objectives are met by meeting the acceptable solutions or performance criteria listed in the clauses.

The following justifies how the subdivision design meets the performance criteria.

P1 is met with the road and public open space design has accessibility and mobility through spaces, the visual amenity is enhanced and provides connectivity through the urban environment.

10.4.15.6 Walking and Cycling Network

The objective is to:

- Provide safe, convenient and efficient movement through and between neighbourhoods by pedestrians and cyclists: and
- Design footpaths shared path and cycle path networks that are safe and comfortable, well constructed and accessible
- To provide adequate provision to accommodate wheelchairs, prams, scooters and other footpath bound vehicles.

These objectives are met by meeting the acceptable solutions or performance criteria listed in the clauses.

The following justifies how the subdivision design meets the performance criteria.

P1 is met with the subdivision design creates roads and footpaths that provide practicable direct access to services and interconnected and continuous networks of paths and roads.

10.4.15.7 Neighbourhood Road Network

The objective is to:

- Provide for convenient, safe and efficient movement through and between neighbourhoods for pedestrians, cyclists, public transport and other motor vehicle using the neighbourhood road networks; and
- Design and construct road carriageways and verges so that the road geometry and traffic speeds provide an accessible and safe neighbourhood road system for all users.

These objectives are met by meeting the acceptable solutions or performance criteria listed in the clauses.

The following justifies how the subdivision design meets the performance criteria.

P1 is met with the neighbourhood road take an accounting of existing mobility of the area, provides a clear hierarchy of roads and the design provides for an interconnecting and continuous network of roads with the neighbourhood for the use by pedestrians and vehicles.

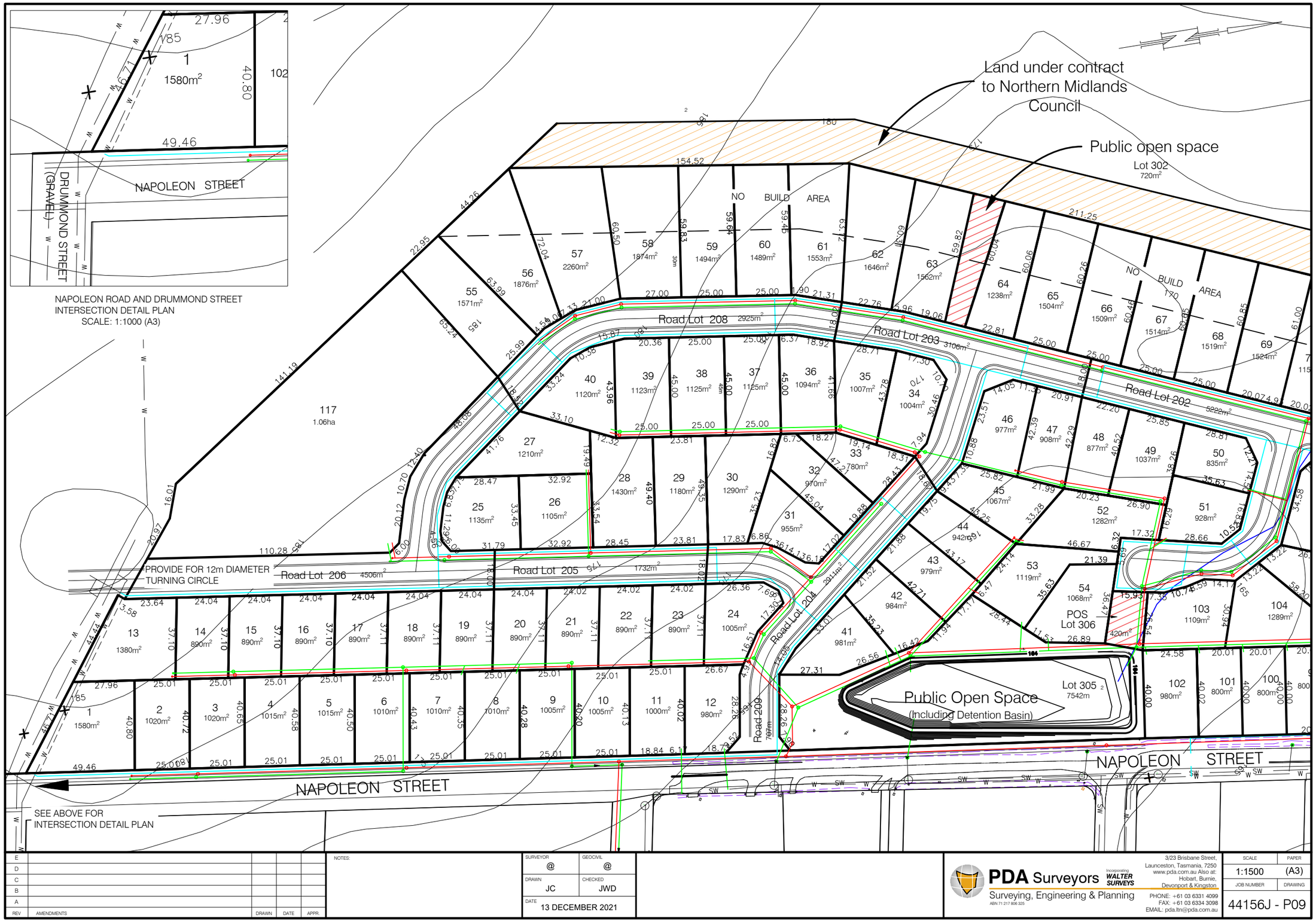
EXHIBITED

Conclusion
Given the above assessment, this report/proposed Subdivision has demonstrated compliance with the requirements of the Northern Midlands Interim Planning Scheme 2013.

We seek that the council support this application in its current form and grant a planning permit.

For PDA Surveyors, Engineers & Planners

Allan Brooks


NAPOLEON ROAD AND DRUMMOND STREET
INTERSECTION DETAIL PLAN
SCALE: 1:1000 (A3)
DRUMMOND STREET (GRAVEL)
NAPOLEON STREET
Land under contract to Northern Midlands Council
Public open space
Lot 302
720m²
NO BUILD AREA
Road Lot 208
Road Lot 203
Road Lot 202
Road Lot 206
Road Lot 205
Road Lot 204
Road 209
PROVIDE FOR 12m DIAMETER TURNING CIRCLE
POS
Lot 306
Public Open Space
(Including Detention Basin)
Lot 305
7542m
117
1.06ha
SEE ABOVE FOR
INTERSECTION DETAIL PLAN
NOTES:
SURVEYOR @
GEOCIVIL @
DRAWN JC
CHECKED JWD
DATE 13 DECEMBER 2021
PDA Surveyors
INCORPORATING WALTER SURVEYS
Surveying, Engineering & Planning
ABN 71 217 806 325
3/23 Brisbane Street,
Launceston, Tasmania, 7250
www.pda.com.au Also at:
Hobart, Burnie,
Devonport & Kingston
PHONE: +61 03 6331 4099
FAX: +61 03 6334 3098
EMAIL: pda.ltn@pda.com.au
SCALE 1:1500
PAPER (A3)
JOB NUMBER 44156J
DRAWING P09
REV AMENDMENTS DRAWN DATE APPR.

REV	AMENDMENTS	DRAWN	DATE	APPR.
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D				
C				
B				
A				

NOTES:

SURVEYOR	GEOCIVIL
@	@
DRAWN: JC	CHECKED: JWD
DATE: 16 NOVEMBER 2021	

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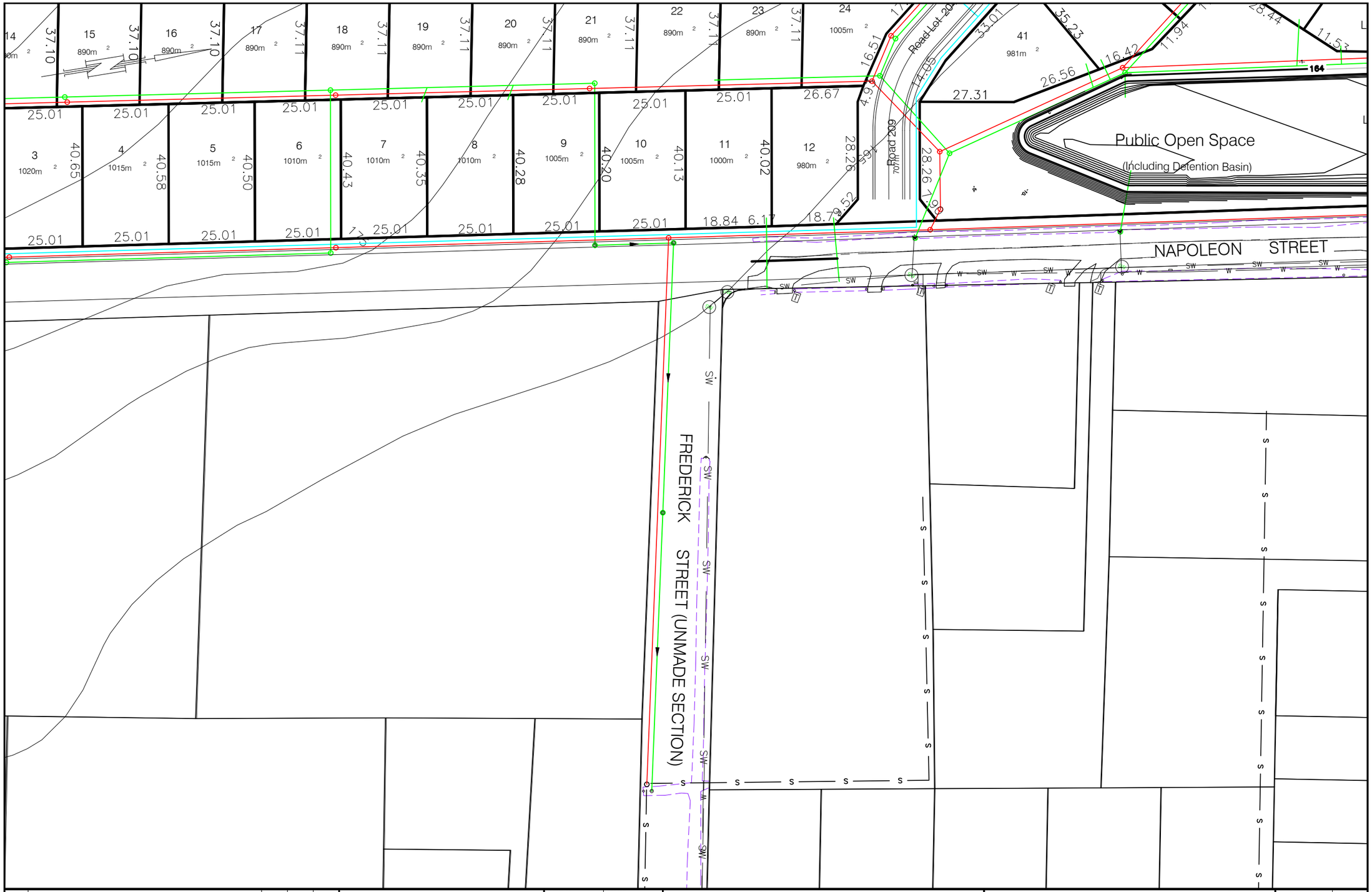

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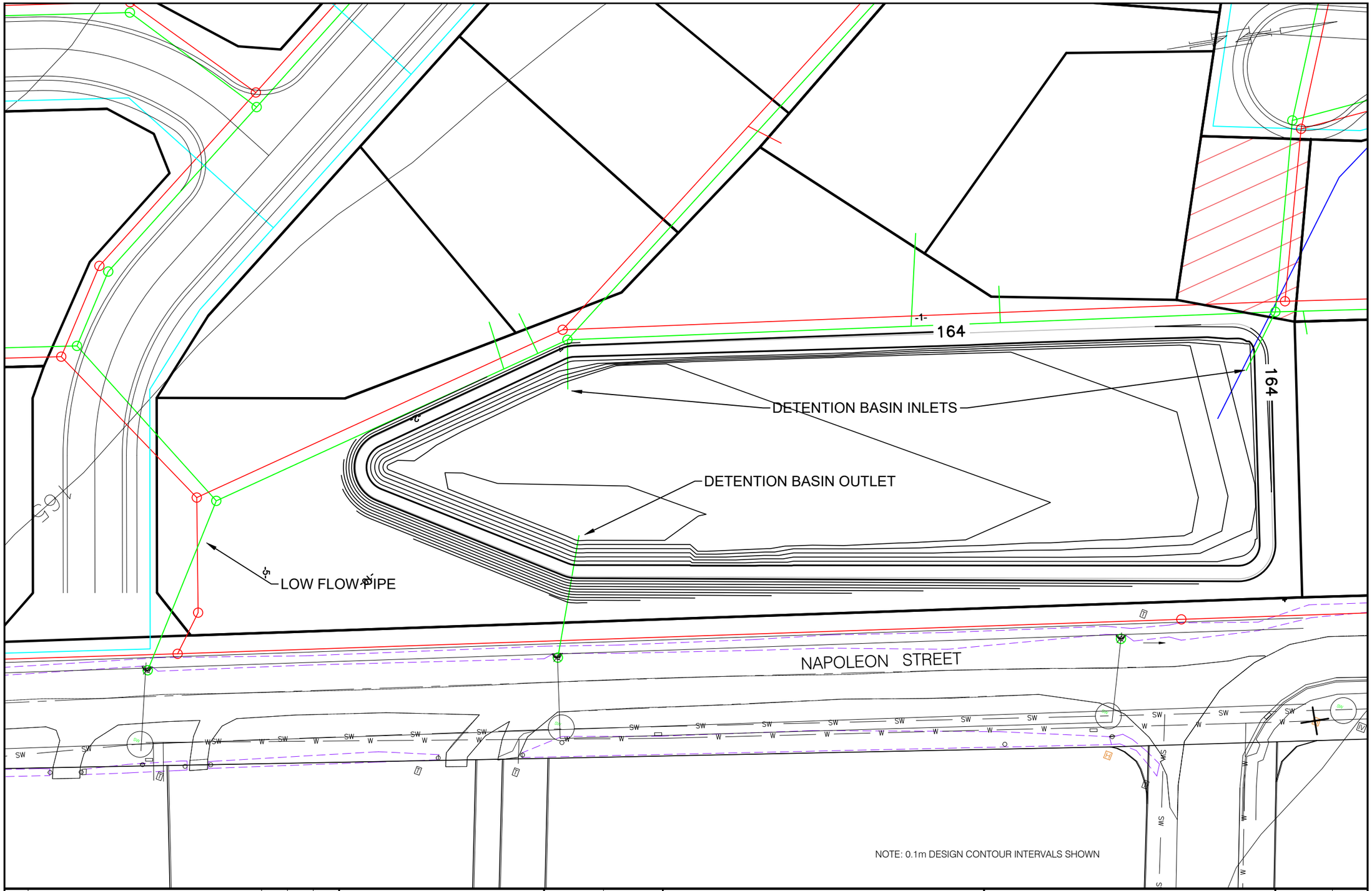

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A				

NOTES:

SURVEYOR	GEOCIVIL
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DRAWN: JC	CHECKED: CW
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SCALE	PAPER
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JOB NUMBER	DRAWING
44156J - P09	

NORTHERN
MIDLANDS
COUNCIL

13 Smith Street / PO Box 156
Longford Tas 7301

PLANNING APPLICATION

Phone: 6397 7303
E-mail: planning@nmc.tas.gov.au

PLANNING APPLICATION
Proposal

Description of proposal: 116 Lot Subdivision
……

……

……

……

……

……
(attach additional sheets if necessary)

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1…… 2…… 3…….

***Site address**: Lot 1 Drummond Street, Perth 7300*
……

……

CT no: 174678/1

Estimated cost of project $…… *(include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? Yes / No
If yes – main building is used as ……..

If variation to Planning Scheme provisions requested, justification to be provided:

……..

……..

……..

……..

……..
(attach additional sheets if necessary)

Is any signage required? ……..
(if yes, provide details)

PLANNING APPLICATION

Applicant / owner details

Applicant: PDA obo Mackinnon Estates P/L……

Signature of Applicant: ……**Date:** 28/2/2022……

Applicant's Details:

Postal address: P.O Box 284, Launceston

……

Phone: 6331 4099 Mobile: 0448 453 971

E-mail: allan.brooks@pda.com.au

☑ I agree to receive communication regarding this application via email (please tick)

Name of Owner/s of subject site: ……

(as per certificate of title)

*(If the subject site is Crown land, owned by the Council or administered by the Council or the Crown, the application must be signed by **either** the responsible Minister of the Crown (or the Minister's delegate) **or** by the General Manager of the Council, **and** must be accompanied by written permission of that Minister or general manger to the making of the application.)*

*If the proposal involves works to an existing access or a new access the application must be signed by **either** the responsible Minister of the Crown (or the Minister's delegate) **or** by the General Manager of the Council **and** must be accompanied by the written permission of that Minister or general manager to the making of the application.*

Owner's postal address: 390 Illawarra Road, Longford

Owner's email address: ……

As the owner of the land, I consent to the application being submitted,

Signed: ……**Date**: ……

OR

As the applicant, I declare that I have notified the owner of the application

Signed: ……**Date**: 28/2/2022

Right of Way:

If the subject site is accessed via a right of way, the owner of the ROW must also be notified of the application.

Name of Owner/s of ROW: ……

ROW Owner's Postal Address: ……

As the applicant, I have notified the owner of the ROW of the application

Signed: ……**Date**: ……

(attach extra page if required)

Office use only:

Paid $…… Date: …… Receipt No: …… (Code 01)

Ref: **P1**……**/** ……. Discretionary / Permitted / No Permit Required

Attachments:

- ❑ **Site plan** *(A4 or A3) showing:*
  - new buildings, works and alterations
  - north point, relative site and floor levels
  - lot boundaries, contours, road frontages, rights of way, easements and any services over the land
  - location of any existing buildings or structures on the land or adjoining lots
  - existing natural features such as trees, watercourses etc
  - items to be demolished, areas to be cut and filled
  - vehicle access points to roads and provisions for car parking & manoeuvring
  - provision of open space, including gradients, dimensions, access and adjoining open spaces
  - provisions for drainage
  - a completed environmental supplement for commercial or industrial developments
- ❑ **Adequate information to fully explain proposal, its intent, compatibility with environs & justification for any variation of Scheme provisions**
- ❑ **Locality plan showing:**
  - nearby streets
  - nearby buildings & features
- ❑ **Landscape plans & elevations** *(A4 or A3) showing:*
  - existing vegetation
  - proposed plantings
  - trees to be removed or land clearing and measures to prevent site soil erosion / pollution
- ❑ **Proposal plans/drawings** *(A4 or A3) showing:*
  - floor plan (inc area in m^2)
  - building elevations (inc heights of building)
  - external materials and proposed colour scheme
  - type and colour and construction materials on all external surfaces
  - details of external lighting including the location, direction and strengths of external lights and proposed baffle devices
  - details of signage required
- ❑ **Consent of the property owner;**
- ❑ **Copy of title plan & easements** (available from Service Tas)
- ❑ **Other reports** (eg engineering)
- ❑ **Fees**
  Application fees are based on estimates provided by the applicant when the planning application is made – an adjustment may be levied when a project cost is provided at building application stage.

Applications may be emailed to Planning@nmc.tas.gov.au, and application fees may be paid over the phone to Council's receptionist.

PRIVACY STATEMENT

The Northern Midlands Council abides by the *Personal Information Protection Act 2004* and views the protection of your privacy as an integral part of its commitment towards complete accountability and integrity in all its activities and programs.

Collection of Personal Information: The personal information being collected from you for the purposes of the *Personal Information Protection Act, 2004* and will be used solely by Council in accordance with its Privacy Policy. Council is collecting this information from you in order to process your application.

Disclosure of Personal Information: Council will take all necessary measures to prevent unauthorised access to or disclosure of your personal information. External organisations to whom this personal information will be disclosed as required under the *Building Act 2016*. This information will not be disclosed to any other external agencies unless required or authorised by law.

Correction of Personal Information: If you wish to alter any personal information you have supplied to Council please telephone the Northern Midlands Council on (03) 6397 7303. Please contact the Council's Privacy Officer on (03) 6397 7303 if you have any other enquires concerning Council's privacy procedures.

FOLIO PLAN

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

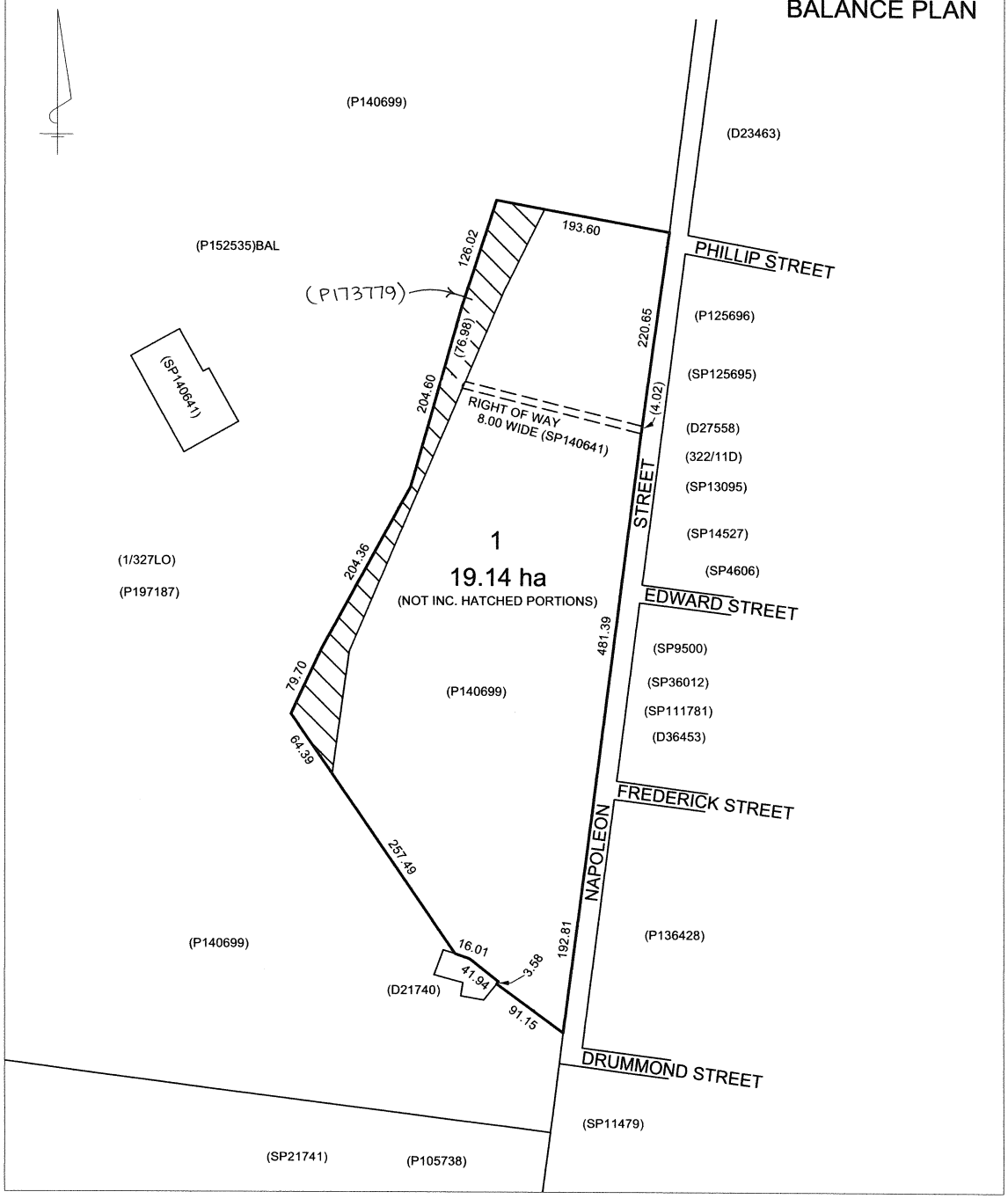
EXHIBITED

Tasmanian Government

OWNER HUGH CURZON MACKINNON FOLIO REFERENCE F/R152534/1 GRANTEE Part of 630 Acres & 320 Acres Gtd. to J. Thornloe.	**PLAN OF TITLE** LOCATION Land District of CORNWALL Parish of PERTH FIRST SURVEY PLAN No. COMPILED BY LEN C. MACKENZIE SCALE 1:4000 LENGTHS IN METRES	REGISTERED NUMBER **P174678** APPROVED 24 JAN 2019 Alice Kawa Recorder of Titles

MAPSHEET MUNICIPAL CODE No. 123 (5039)	LAST UPI No	LAST PLAN No. P173779 SP152534	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

BALANCE PLAN



LAUNCESTON
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M.B. Reid, B. GEOM.(HONS) (Tas.), M.SSSI M.AIPM (Associate)
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PDA Surveyors Incorporating WALTER SURVEYS
Surveying, Engineering & Planning
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Launceston, Tasmania, 7250
Phone (03) 6331 4099
ABN 71 217 806 325
Email: pda.ltn@pda.com.au
www.pda.com.au

Our Ref: 44156

20 December 2021

SERVICING REPORT
Drummond Street, Perth
116 lot subdivision

1. Stormwater Drainage:

The site is located between Napoleon Street and the Midland Highway Perth Link Road. The Midland Highway drainage design has been adopted from *MIDLAND HIGHWAY Perth Link Roads Submission to the Parliamentary Standing Committee on Public Works ver 1*. Stormwater drainage from the highway pavement and Mackinnons Hill is diverted through culverts and table drains at the base of the highway road embankments into the existing waterway.

The site is fairly flat with catchment size of 19.75 Ha. Catchment A7, A8 and R3 with total catchment size of 2.87 ha will discharge directly into the existing table drain in the unmade section of Frederick Street via new DN375 stormwater main. All other lots will discharge via multiple outlet structures to a new detention basin located on public open space lot 305 and will discharge into DN600 stormwater trunk main in Napoleon Street. The low flows will be accommodated in the piped system that bypasses the basin to control flows so the basin will be suitable for recreation. A stormwater detention basin will be designed and constructed so that peak discharges are not adversely increased by development and there is no net worsening, when compared to pre-development conditions, on downstream flooding for critical AEP1% storm and AEP10% storm.

Regional infiltration data for initial and continuing loss from ARR Data Hub has been adopted and is not specific to the site. Pre-development discharges from the site are currently estimated to be 245 L/s and 565 L/s for AEP10% and AEP1%. Impervious fractions of 0.5 for residential catchments has been adopted which include road corridors and public open spaces. With these assumptions, the developed overflow from the detention basin in AEP1% is 334 L/s. The new DN375 stormwater main in the Frederick Street carries 252L/s in AEP1%. Stormwater will be contained in piped network and detention basin in AEP10% storm.

2. Water Supply:

The subdivision will be serviced by the Mackinnons Hill Reservoir (TWL 219.5, capacity 7.5ML) via existing water reticulation network. A new internal reticulation system will be provided, typically. consisting of DN100 water mains, potentially some DN150 above contour 180m, connecting from DN150 UPVC water main (Asset IDA493548) at the intersection of Phillip Street and Napoleon Street, DN100 UPVC water main (Asset ID A493585) in Napoleon Street nearby Edward Street, and DN150 AC

OFFICES ALSO AT:
- 16 Emu Bay Road, Deloraine, 7304 (03) 6362 2993
- 6 Queen Street, Burnie, 7320 (03) 6431 4400
- 63 Don Road, Devonport, 7310 (03) 6423 6875
- 127 Bathurst Street, Hobart, 7000 (03) 6234 3217
- 6 Freeman Street, Kingston, 7050 (03) 6229 2131
- 8/16 Main Road, Huonville, 7109 (03) 6264 1277

water main (Asset ID A493693) at the intersection of Drummond Street and Napoleon Street, back through the subdivision to DN150 AC water Main (Asset ID A493693) nearby road lot 206 of the proposal plan. Underground connection type is subject to confirmation of existing conditions.

Suitable fire protection coverage will be provided within the subdivision extents.

3. Sewage Disposal:

It is proposed to service the first 30 lots of the subdivision by connecting into the existing gravity sewer system at sewer manhole A535046 and as per SI 2017/00357.

Due to current constraints on the existing system, it was proposed that the developer would install a new sewer pump station, to be located on public open space lot 305 and rising main to discharge as per TasWater requirements, currently at the Perth Sewage Treatment Plant. However, obtaining owner consent, to date, for the proposed alignment of new rising main has proved to be unsuccessful. Therefore it is now proposed to connect additional lots, over and above 30, to the existing gravity system and accordingly contribute to or upgrade the existing system to TasWater's requirement.

Yours faithfully
PDA Surveyors

Appendix A: Stormwater Modelling Outputs

Figure A1: Detention Basin Storage Capacity vs Elevation

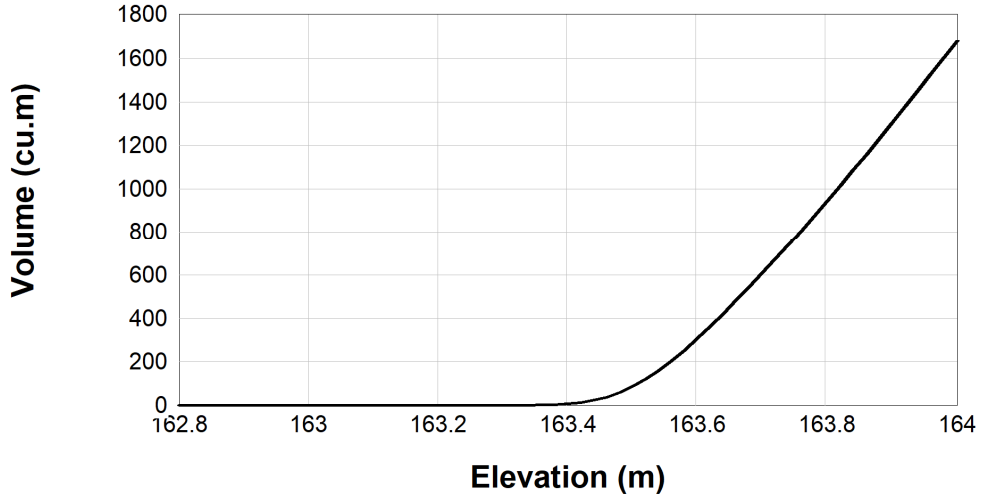


Figure A2: Detention Basin Water Level - 1% AEP Storm

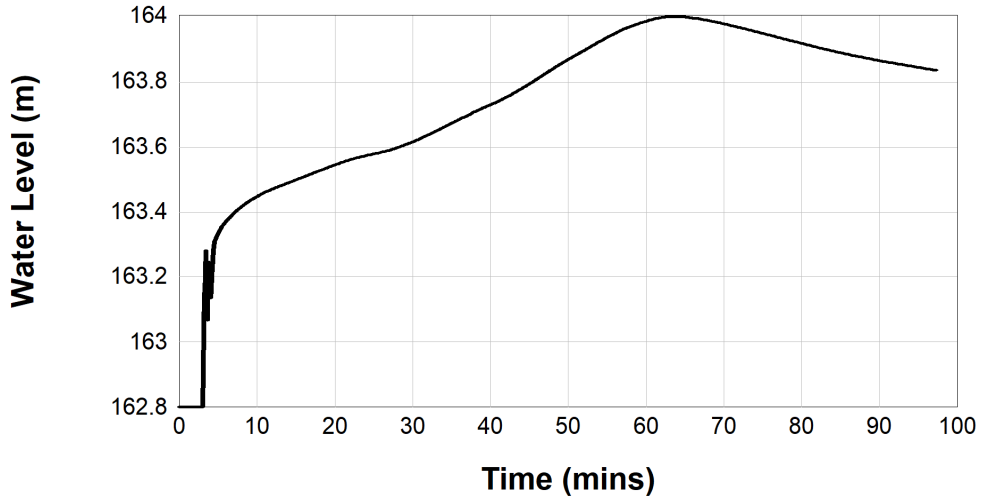


Figure A3: Post Development Overflow Rate - 1% AEP Storm

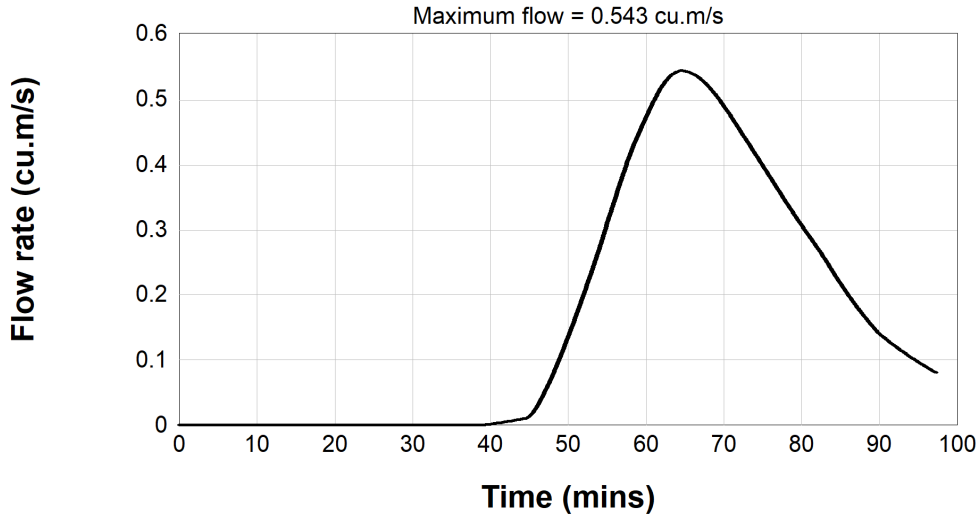


Figure A4: Detention Basin Water Level - 10% AEP Storm

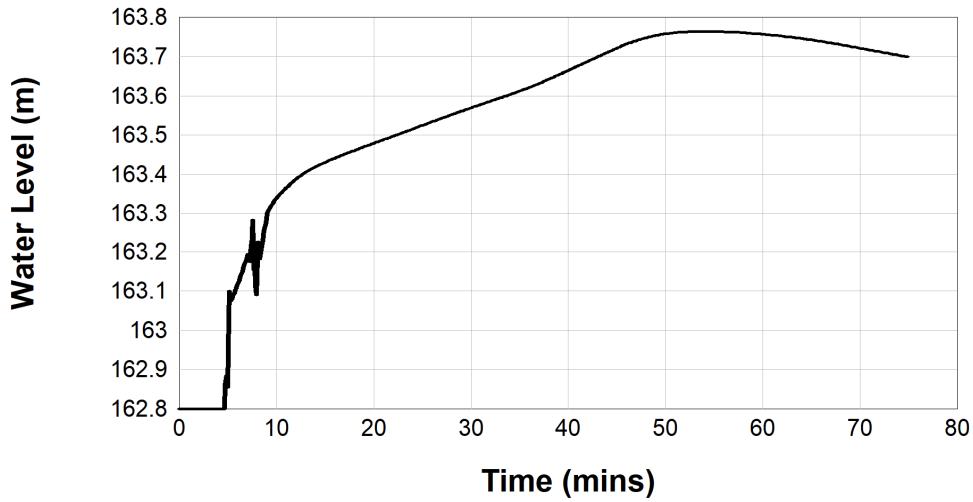
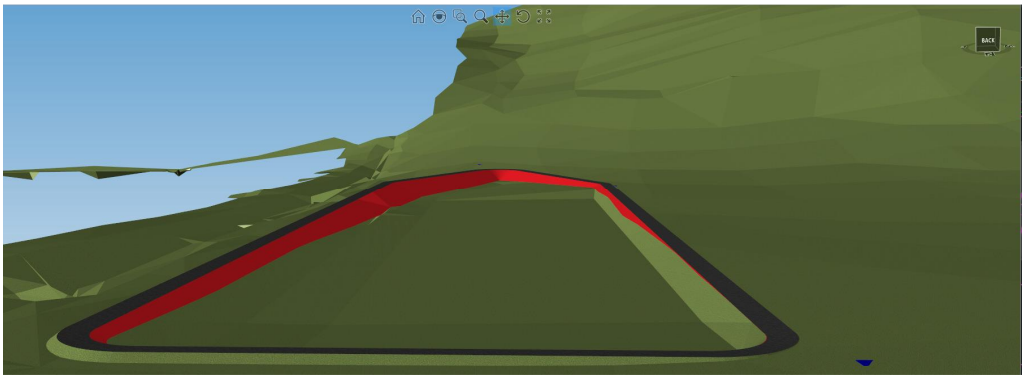


Figure A5: Detention Basin Aerial View From North– 3x Height Exaggeration



Bushfire Hazard Management Report: Subdivision

Report for: **PDA Surveyors**

Property Location: **115 Napoleon Street, Perth**

Prepared by:

Scott Livingston
Livingston Natural Resource Services
299 Relbia Road
Relbia, 7258

Date: 18th January 2022
Version: 2

Summary

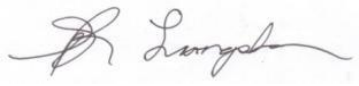
Client: PDA Surveyors obo Mackinnon Estates P/L

Current zoning: Rural Resource, Northern Midlands Interim Planning Scheme 2013

Property identification: CT 174678/1, PID 9359821
115 Napoleon Street, Perth

Proposal: A 116 lot + POS and roads subdivision is proposed from an existing title CT 174678/1 at 115 Napoleon Street, Perth.

Assessment by:



_____

Scott Livingston,
Master Environmental Management,
Natural Resource Management Consultant.
Accredited Person under part 4A of the Fire Service Act 1979:
Accreditation # BFP-105.

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VERSION

This report and attached BHMP supersede SRL20/57S dated 26/10/2020 with changes to lot layout.

DESCRIPTION

A 116 lot+ POS and roads subdivision is proposed from existing title CT 174678/1, 115 Napoleon Street, Perth. The property is around 21 ha and proposed for subdivision into 115 residential lots, 1 larger (1.0ha) lot and public open space and associated infrastructure. The western portion, 50m wide of the title, and 2 linkages to subdivision roads and a detention basin on Napoleon Street will become public open space. The larger western portion may be treated as a separate lot for subdivision purposes, if so that has no impact on this Bushfire Report or associated BHMP.

The subdivision fronts made and unmade sections of Napoleon Street. The area is /will be serviced by a water reticulated supply.

The property is currently grassland with some small patches of weed infestation (primarily gorse) and a small area of woodland and paddock trees on the southern hill.

Surrounding land to the north is pasture, the majority of land to the east is managed residential land with some larger los in the southern portion undeveloped and considered grassland. Land to the south is a grassland/woodland mosaic. Land to the west is the Perth bypass corridor with some vegetation plantings along the western boundary.

See Appendix 1 for maps and site plan, and appendix 2 for photographs.

BAL AND RISK ASSESSMENT

The land is mapped as Bushfire Prone. With development and management of threats within the subdivision the majority of lots will be BAL Low rated. The larger POS along the western boundary has been considered as remaining grassland for the purposes of this assessment. If additional plantings do occur and fuel loads increase to a forest rating the 30m building setback proposed would provide a BAL 19 rating for all but the 2m of the buildable area it is considered unlikely that the portion adjacent to the boundary would be planted to that extent, and fuel loads up to woodland to the boundary would not affect the BAL 12.5 building area. All lots with the exception of Lot 117have been assumed to become low threat, as part of subdivision Hazard Management and remain low threat in perpetuity. Lot 117 with the exception of a required HMA on the western boundary is assumed to have fuel loads up to grassland.

VEGETATION AND SLOPE

Stage	Lot		North	East	South	West
1	1	Vegetation within 100m of lot boundaries	0-100m grassland (0n lots)	0-18m road to be constructed) 18-100m grassland	0-100m grassland	0-100m grassland (0n lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL 12.5	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/19			
	2~10	Vegetation within 100m of lot boundaries	0-100m grassland (0n lots)	0-18m road to be constructed) 18-100m grassland	0-100m grassland	0-100m grassland (0n lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL 12.5	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5			
	11	Vegetation within 100m of lot boundaries	0-100m grassland (0n lots)	0-80m low threat ,80-100m grassland SW < 50m to grassland	0-100m grassland (0n lots)	0-100m grassland (0n lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL 12.5	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5			
	12	Vegetation within 100m of lot boundaries	0-100m grassland (0n lots)	0-80m lowthreat ,80-100m grassland SW < 50m to grassland	0-100m grassland (0n lots)	0-100m grassland (0n lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat

Stage	Lot		North	East	South	West
		BAL Rating at boundary	BAL FZ	BAL 12.5	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5			
2	85	Vegetation within 100m of lot boundaries	0-100m grassland	0-100m low threat	0-100m grassland (0n lots)	0-100m grassland (0n lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL Low	BAL Low	BAL Low
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
	86	Vegetation within 100m of lot boundaries	0-30m grassland (0n lots), 30-100m grassland	0-100m low threat	0-100m grassland (0n lots)	0-100m grassland (0n lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL Low	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
	87~ 102	Vegetation within 100m of lot boundaries	0-> 50m grassland (0n lots), >50m - 100m grassland	0-100m grassland (0n lots)	0-100m grassland (on lots)	0-> 50m grassland (on lots), >50m - 100m grassland
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL Low	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
3	78~ 81	Vegetation within 100m of lot boundaries	0-> 25m grassland (0n lots), >25m - 100m grassland	0-100m grassland (on lots)	0-100m grassland (on lots)	0-20m grassland (POS), 20-40 woodland (road verge). 40-100m road

Stage	Lot		North	East	South	West
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
	82	Vegetation within 100m of lot boundaries	0-100m grassland	0-80m grassland (0n lots), 80-100m low threat	0-100m grassland (on lots)	0-20m grassland (POS), 20-40 woodland (road verge). 40-100m road
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	not BFP	not BFP	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
	83	Vegetation within 100m of lot boundaries	0-100m grassland	0-40m grassland (0n lots) 40-100m low threat	0-100m grassland (on lots)	0-70m grassland (POS), 70-90 woodland (road verge). 90-100m road
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
	84	Vegetation within 100m of lot boundaries	0-40m grassland (0n lots) 40-100m low threat	0-40m grassland (0n lots) 40-100m low threat	0-100m grassland (on lots)	0-80m grassland (On lots), 90-100 grassland (POS)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5			

Stage	Lot		North	East	South	West
	114~ 115	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-40m grassland (0n lots), 40-100m low threat	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL low			
4	24	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-40m grassland (0n lots) 40-100m low threat	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL low			
	30~33, 41~ 45	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL low			
5	73~77	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-20m grassland (POS), 20-40 woodland (road verge). 40-100m road
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL Low	BAL FZ	BAL FZ

Stage	Lot		North	East	South	West
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
	108~113	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL Low			
6	20~23,26, 28, 29	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL low			
7	48~ 53, 106, 107	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL low			
	103~105	Vegetation within 100m of lot boundaries	0-40m grassland (0n lots), 40-100m low threat	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ

Stage	Lot		North	East	South	West
		BAL Rating with HMA and setbacks	BAL low			
	67~ 72	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-20m grassland (POS), 20-40 woodland (road verge). 40-100m road
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/ BAL 19			
8	62~ 66	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5	BAL 12.5	BAL 12.5	BAL 12.5
	34, 35, 46, 47	Vegetation within 100m of lot boundaries	0-100m low threat	0-100m low threat	0-100m low threat	0--100m grassland (POS)
		Slope (degrees, over 100m)	upslope/flat	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL low			
9	55	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m woodland/grassland	0-100m grassland
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat

Stage	Lot		North	East	South	West
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/19			
	56	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (lot 117)	0-100m woodland/grassland
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/19			
	57~61	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-25mlow threat 25-100m grassland	0-100m woodland/grassland	0-20m grassland (POS), 20-40 woodland (road verge). 40-100m road
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/19			
10	13	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-18m road to be constructed) 18-100m grassland	0-100m grassland	0-100m grassland (on lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/19			
	14~17	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-50+m grassland (0n lots), 50+ -100m grassland	0-50+ grassland (on lots), 50+ -100m grassland	0-100m grassland (on lots)

Stage	Lot		North	East	South	West
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5			
	18, 19	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-50+m grassland (0n lots), 50+ -100m grassland	0-50+mgrassland (0n lots)t, 50+ -100m grassland	0-100m grassland (on lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL Low			
	25, 27	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)	0-100m grassland (on lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5			
11	117	Vegetation within 100m of lot boundaries	0-100m grassland (on lots)	0-100m grassland (on lots)	0--100m grassland/woodland mosaic	0-100m grassland (on lots)
		Slope (degrees, over 100m)	Downslope 0-5°	Downslope 0-5°	upslope/flat	upslope/flat
		BAL Rating at boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
		BAL Rating with HMA and setbacks	BAL 12.5/19			

BUILDING AREA BAL RATING

Setback distances for BAL Ratings have been calculated based on the vegetation that will exist after development and management of land within the subdivision and have also considered slope gradients.

Where no setback is required for fire protection other Planning Scheme setbacks may need to be applied, a 30m no build zone has been applied to the western boundary as per plan of subdivision other building constraints such as topography have not been considered.

The BAL ratings applied are in accordance with the Australian Standard AS3959-2009, *Construction of Buildings in Bushfire Prone Areas*, and it is a requirement that any habitable building, or building within 6m of a habitable building be constructed to the BAL ratings specified in this document as a minimum.

Bushfire Attack Level (BAL)	Predicted Bushfire Attack & Exposure Level
BAL-Low	Insufficient risk to warrant specific construction requirements
BAL-12.5	Ember attack, radiant heat below 12.5kW/m²
BAL-19	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5-19kW/m²
BAL-29	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19-29kW/m²
BAL-40	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 29-40kW/m²
BAL-FZ	Direct exposure to flames radiant heat and embers from the fire front

BUILDING SETBACKS

Stage	Lot	BAL Rating	Setback requirement
1	1	BAL 12.5	14m from SW boundary
		BAL 19	10m from SW boundary
	2~12	BAL 12.5	none required
2	85	BAL 12.5	16m from northern boundary
		BAL 19	11m from northern boundary
	86	BAL 12.5	none required
	87-~102	BAL Low	none required
3	78~ 81	BAL 12.5	14m from western boundary
		BAL 19	10m from western boundary
	82	BAL 12.5	14m from western boundary & 16m from northern boundary
		BAL 19	10m from western boundary & 11m from northern boundary
	83	BAL 12.5	16m from northern boundary
		BAL 19	11m from northern boundary

Stage	Lot	BAL Rating	Setback requirement
	84	BAL 12.5	none required
	114~ 115	BAL Low	none required
4	24, 30~33, 41~ 45	BAL Low	none required
5	73~77	BAL 12.5	14m from western boundary
		BAL 19	10m from western boundary
	108~113	BAL Low	none required
6	20~23,26, 28, 29	BAL Low	none required
7	48~ 53, 103~107	BAL Low	none required
	67~ 72	BAL 12.5	14m from western boundary
		BAL 19	10m from western boundary
8	34, 35, 46, 47	BAL Low	none required
	62~ 66	BAL 12.5	14m from western boundary
		BAL 19	10m from western boundary
9	55, 56	BAL 12.5	22m from south western boundary
		BAL 19	15m from western boundary
	57	BAL 12.5	22m from western boundary & 14m from western boundary
		BAL 19	15m from western boundary & 10m from western boundary
	58~61	BAL 12.5	14m from western boundary
		BAL 19	10m from western boundary
	36~39	BAL Low	none required
	40	BAL 12.5	none required
10	13	BAL 12.5	14m from south western boundary
		BAL 19	10m from south western boundary
	14~17	BAL 12.5	none required
	18, 19, 25, 27	BAL Low	none required
11	117	BAL 12.5	22m from south western boundary
		BAL 19	15m from south western boundary

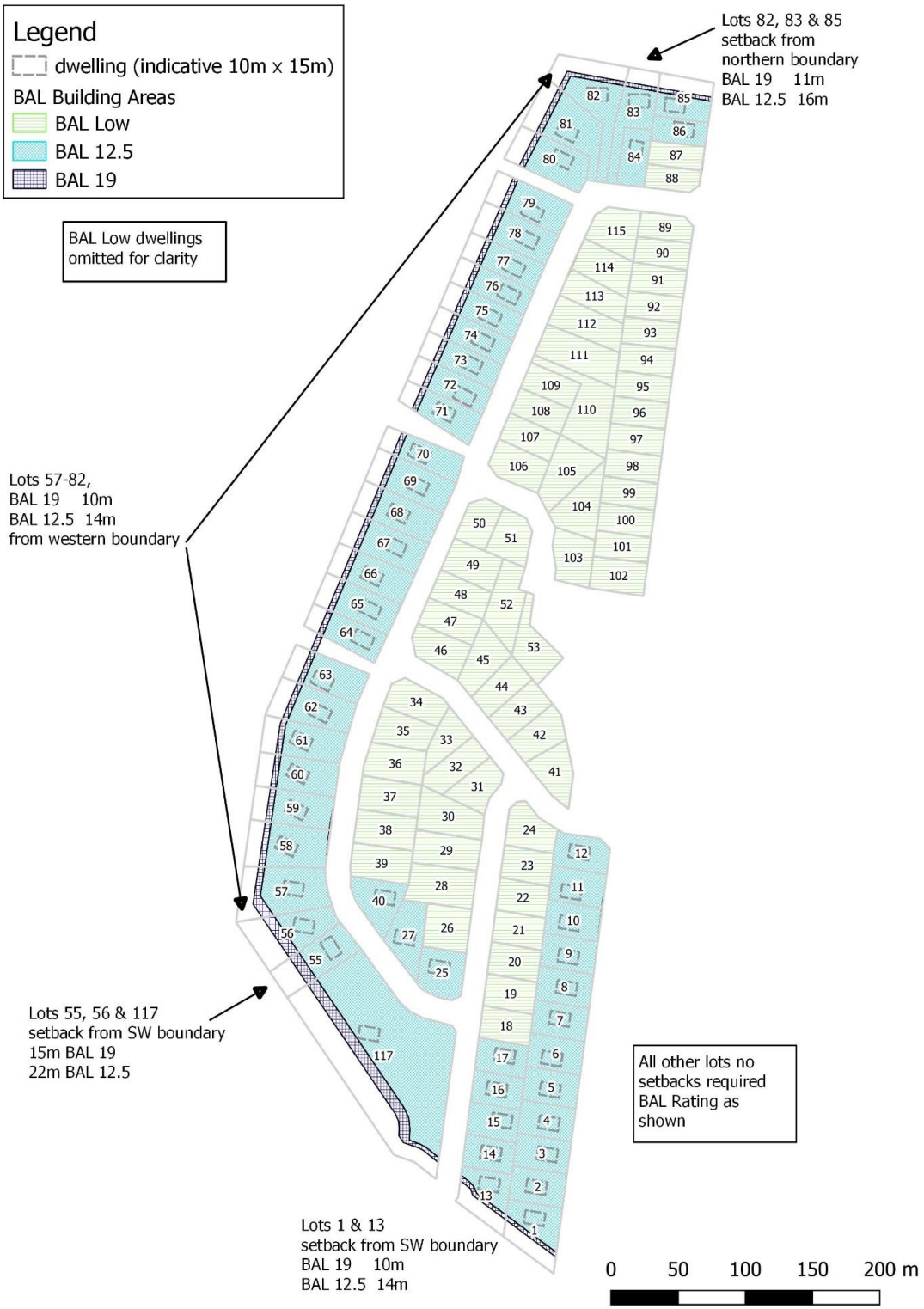


Figure 1: Proposed Lots and building areas

HAZARD MANAGEMENT AREA

All land within the distances shown in diagrams below must be managed as low threat vegetation from sealing of titles for any lot and maintained in perpetuity. The stages shown below and should be considered indicative only and may be adapted as required for any changes to sequencing.

Lot 117 to be low threat vegetation within 16m of Lot 55 boundary from sealing of titles for lot 55 and managed until construction of a dwelling on lot 55, once construction has commenced the HMA may be reduced to all land within 16m of the habitable building and any building within 6m of the habitable building. Grazing and or mowing on lot 117 is expected to provide the required fuel load reduction however a binding agreement must be in place to allow management of fuels if required on Lot 117 by the owner of lot 55 prior to issue of titles for Lot 55.

All Hazard management areas must be maintained in perpetuity, with the owner of a lot responsible for management of fuels on their lot, with the exception of the HMA on lot 117, that provides protection for Lot 55 which is the responsibility of the owner of Lot 55

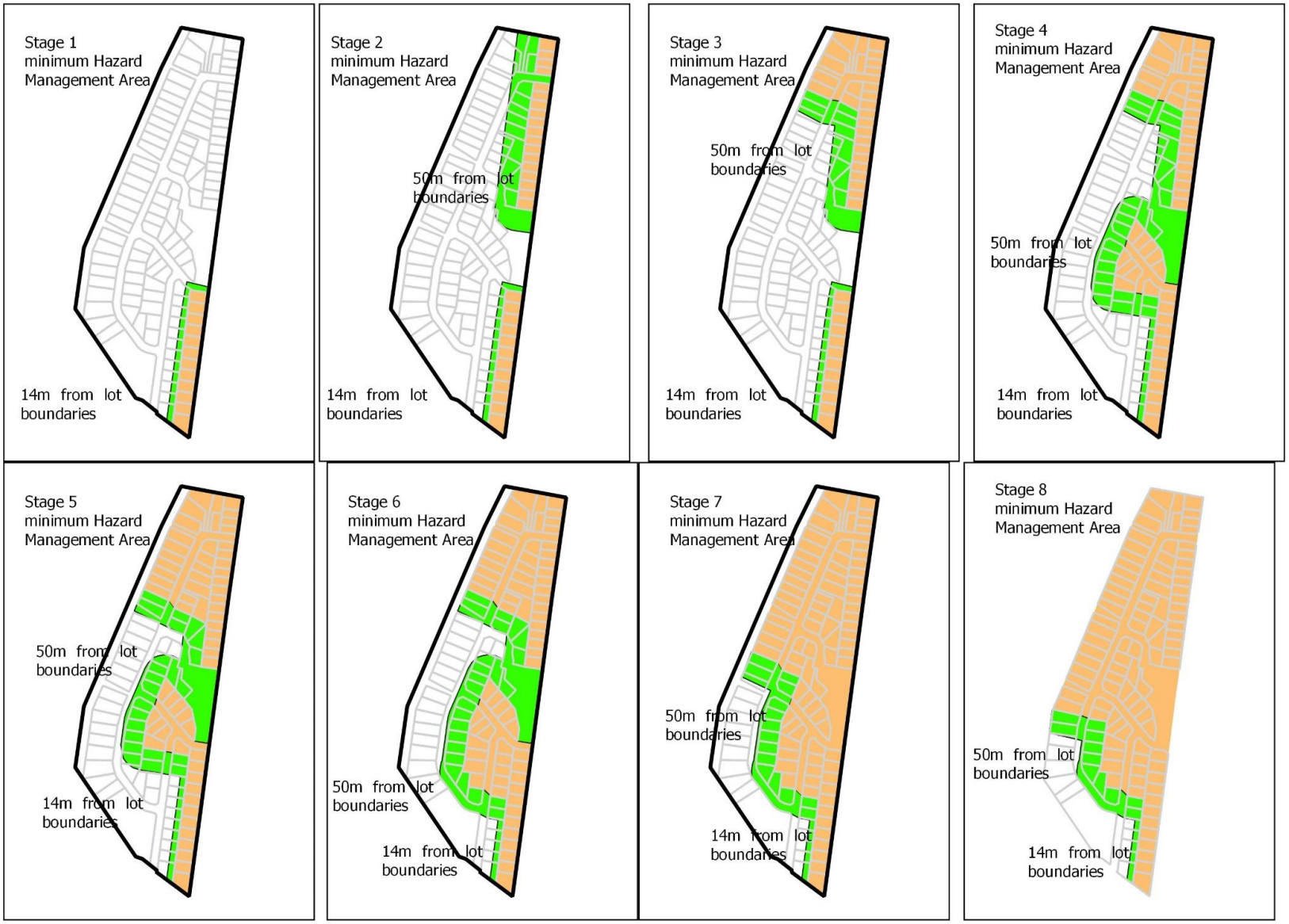

Stage 1
minimum Hazard
Management Area
14m from lot
boundaries
Stage 2
minimum Hazard
Management Area
50m from lot
boundaries
14m from lot
boundaries
Stage 3
minimum Hazard
Management Area
50m from lot
boundaries
14m from lot
boundaries
Stage 4
minimum Hazard
Management Area
50m from lot
boundaries
14m from lot
boundaries
Stage 5
minimum Hazard
Management Area
50m from lot
boundaries
14m from lot
boundaries
Stage 6
minimum Hazard
Management Area
50m from lot
boundaries
14m from lot
boundaries
Stage 7
minimum Hazard
Management Area
50m from lot
boundaries
14m from lot
boundaries
Stage 8
minimum Hazard
Management Area
50m from lot
boundaries
14m from lot
boundaries

Figure 2: Staged HMA, 1-8

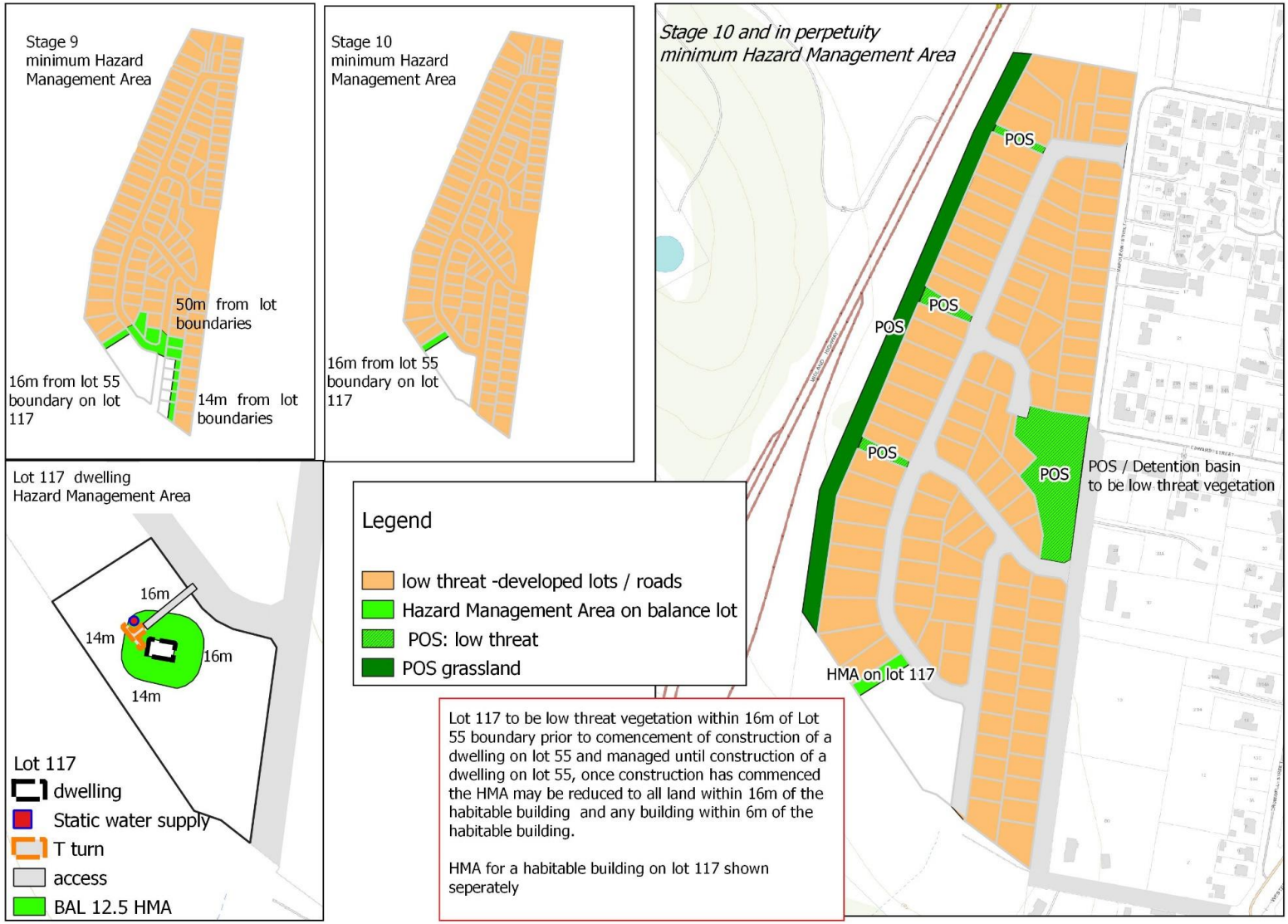


Figure 3: Staged Hazard Management Areas, 9-12

ROADS

Subdivision roads within bushfire prone areas must comply with the relevant elements of Table E1 Roads from *Planning Directive No. 5.1 Bushfire-Prone Areas Code and* must be in place prior to sealing of titles of each stage.

The terminus of any dead-end road, including during staging, must meet turning circle provisions including a 12m outer radius. For staged roads this may be gravelled and temporary until further stages are added. Cul de sac heads must have no parking signs, and if the turning provision /carriageway is less than 12m outer radius, mountable kerbs and footpaths must be installed to provide compliant trafficable surface.

The southern terminus of Napoleon Street requires either a turning provision or Drummond Street to be upgraded to compliant standards.
Roads compliant with table E1 of Planning Directive No. 5.1 Bushfire-Prone Areas Code must be in place prior to sealing of titles of each stage.

Road lot (206) at the terminus adjacent to Lot 13 & 117 is insufficient in width for a compliant turning circle. Provision must be made for adequate turning on either Lot 117 or the adjacent lot south of the subdivision or alternatively a compliant through access to Drummond St could be provided on that lot. A minor boundary change or binding agreement or must be in place to allow turn provision for Stage 1 road on lot 117 if that that has been created as a separate title. It is assumed that the turn provision can be on the balance lot during staging if title to lot 117 has not been issued as would be the case for a temporary turn.

Table E1: Standards for roads

Element	Requirement

A.	Roads	Unless the development standards in the zone require a higher standard, the following apply: (a) two-wheel road, all-weather construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 2m from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; (h) curves have a minimum inner radius of 10m; (i) dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7 metres in width; (j) dead-end or cul-de-sac roads have a turning circle with a minimum 12m outer radius; and (k) carriageways less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with *Australian Standard AS1743-2001 Road signs-Specifications*.

PROPERTY ACCESS

Access to a dwelling with must comply with the relevant elements of Table E2 Access of Planning Directive No. 5.1 Bushfire-Prone Areas Code

Access to the majority of lots will be less than 30m and or no access to water supply points (hydrants) required. If access to a water supply point within the lot is required it must meet Element . Depending on the location of habitable building on Lot 117 and available hydrants , access in excess of 30m and access to a static water supply may be required to meet Element B standards of table E2.
Access to habitable buildings must be compliant prior toc commencement of construction.

Table E2: Standards for Property Access

Column 1	Column

Element		Requirement
A.	Property access length is less than 30 metres; or access is not required for a fire appliance to access a water connection point.	There are no specified design and construction requirements.
B.	Property access length is 30 metres or greater; or access for a fire appliance to a water connection point.	The following design and construction requirements apply to property access: (1) All-weather construction; (2) Load capacity of at least 20 tonnes, including for bridges and culverts; (3) Minimum carriageway width of 4 metres; (4) Minimum vertical clearance of 4 metres; (5) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway; (6) Cross falls of less than 3 degrees (1:20 or 5%); (7) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; (8) Curves with a minimum inner radius of 10 metres; (9) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and (10) Terminate with a turning area for fire appliances provided by one of the following: (a) A turning circle with a minimum inner radius of 10 metres; or (b) A property access encircling the building; or (c) A hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.
C.	Property access length is 200 metres or greater.	The following design and construction requirements apply to property access: (1) The Requirements for B above; and (2) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200
D.	Property access length is greater than 30 metres, and access is provided to 3 or more properties.	The following design and construction requirements apply to property access: (1) Complies with Requirements for B above; and (2) Passing bays of 2 metres additional carriageway width and 20 metres length must be provided every 100 metres.

FIRE FIGHTING WATER SUPPLY

The subdivision will be serviced by a reticulated supply. All Lots are expected to have hydrants located within 120m of the furthest extents of building areas including Lot 117. Existing hydrants on Napoleon Street between Phillip and Edward St partially service the subdivision including lots 85-102 (stage 1)

Hydrants compliant with table E4 of Planning Directive No. 5.1 Bushfire-Prone Areas Code must be in place prior to sealing of titles for any stage. If a future habitable building on lot 117 is greater than 120m from a hydrant it will require a static water supply compliant with table 5 of of Planning Directive No. 5.1 Bushfire-Prone Areas Code.

Table E4 Reticulated water supply for fire fighting

Element		Requirement
A.	Distance between building area to be protected and water supply.	The following requirements apply: (a) the building area to be protected must be located within 120m of a fire hydrant; and (b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.
B.	Design criteria for fire hydrants	The following requirements apply: (a) fire hydrant system must be designed and constructed in accordance with *TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA 2nd Edition*; and (b) fire hydrants are not installed in parking areas.
C.	Hardstand	A hardstand area for fire appliances must be: (a) no more than 3m from the hydrant, measured as a hose lay; (b) no closer than 6m from the building area to be protected; (c) a minimum width of 3m constructed to the same standard as the carriageway; and (d) connected to the property access by a carriageway equivalent to the standard of the property

CONCLUSIONS

A 116 lot plus roads and POS subdivision is proposed from an existing title CT 174678/1 at 115 Napoleon Street, Perth. The area is mapped as bushfire prone.

There is sufficient area on all lots to provide for a BAL 19 or lower building area for any future habitable buildings. The majority of Lots are rated BAL Low. Hazard management areas must be provided during development such that lots retain their eventual BAL rating. During staged development within the subdivision and adjacent to developed lots must be managed as low threat vegetation. A hazard management are on Lot 117 or the balance lot if that title has not been issued must be established and maintain in perpetuity from sealing of titles on lot 55. A binding agreement must be in place to allow management of fuels if required on LOT 117 by the owner of lot 55 prior to issue of titles for Lot 55.

The POS associated with the detention basin and access strip POS to the larger western POS must be managed as low threat vegetation The owner of a lot is responsible for hazard management within their lot.

For any stage compliant water supply (hydrants) water supply must be in place prior to sealing of titles, Static water supplies must be in place prior to commencement of construction for any building area where the furthest extent is greater than 120m hose lay from a hydrant.

Roads must comply Table E1 Access of Planning Directive No. 5.1 Bushfire-Prone Areas Code, including temporary turning provisions during staging. Access to lots must comply with the element B of Table E2 Access of Planning Directive No. 5.1 Bushfire-Prone Areas prior to commencement of construction of a habitable building on a lot.

REFERENCES

Planning Commission (2017), Planning Directive No. 5.1 Bushfire-Prone Areas Code.
Tasmanian Planning Scheme

Standards Australia. *AS 3959-2018 Construction of Buildings in Bushfire Prone Areas*

APPENDIX 1 – MAPS

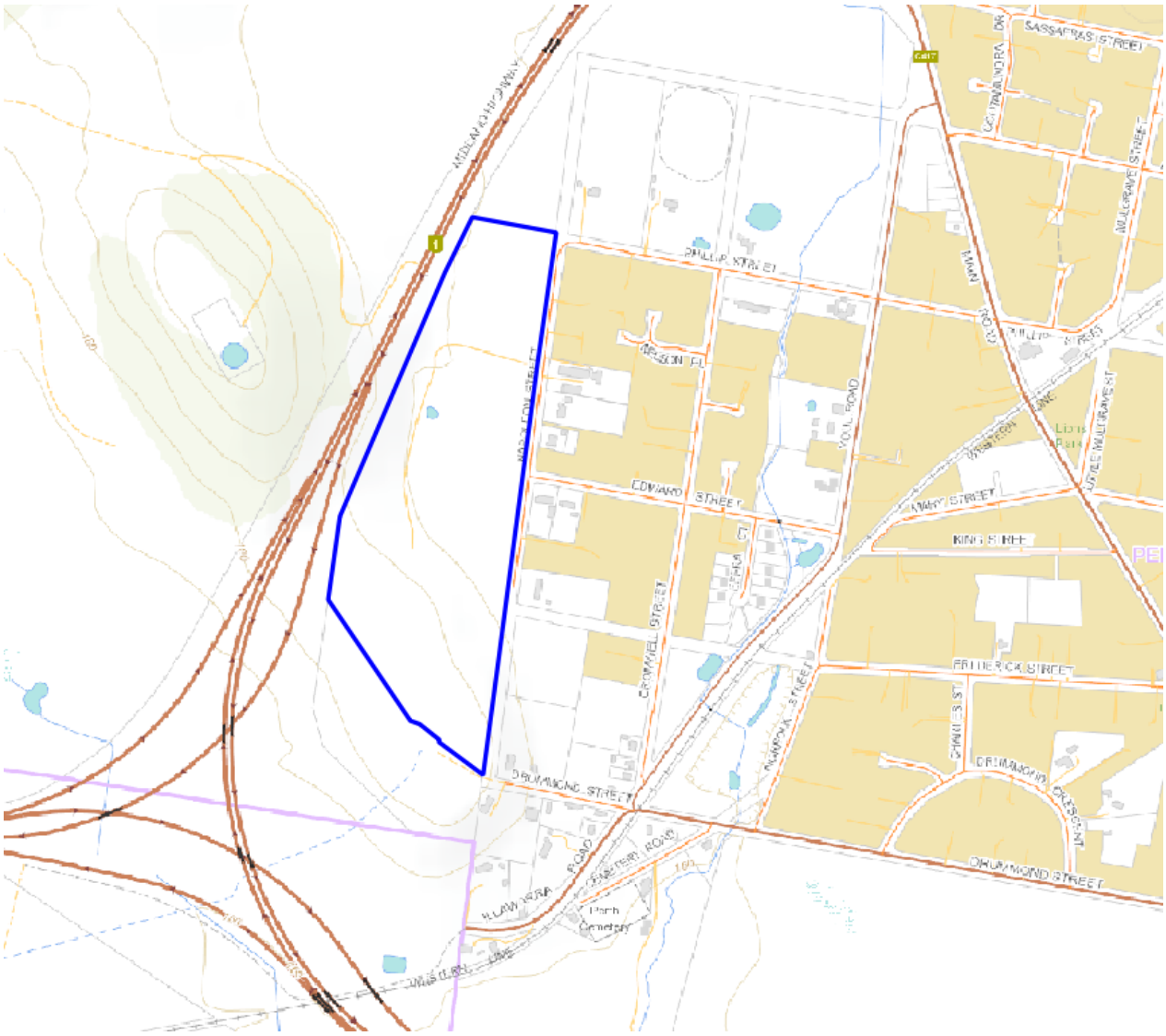


Figure 4: Location existing title in blue

Figure 5: Aerial Image

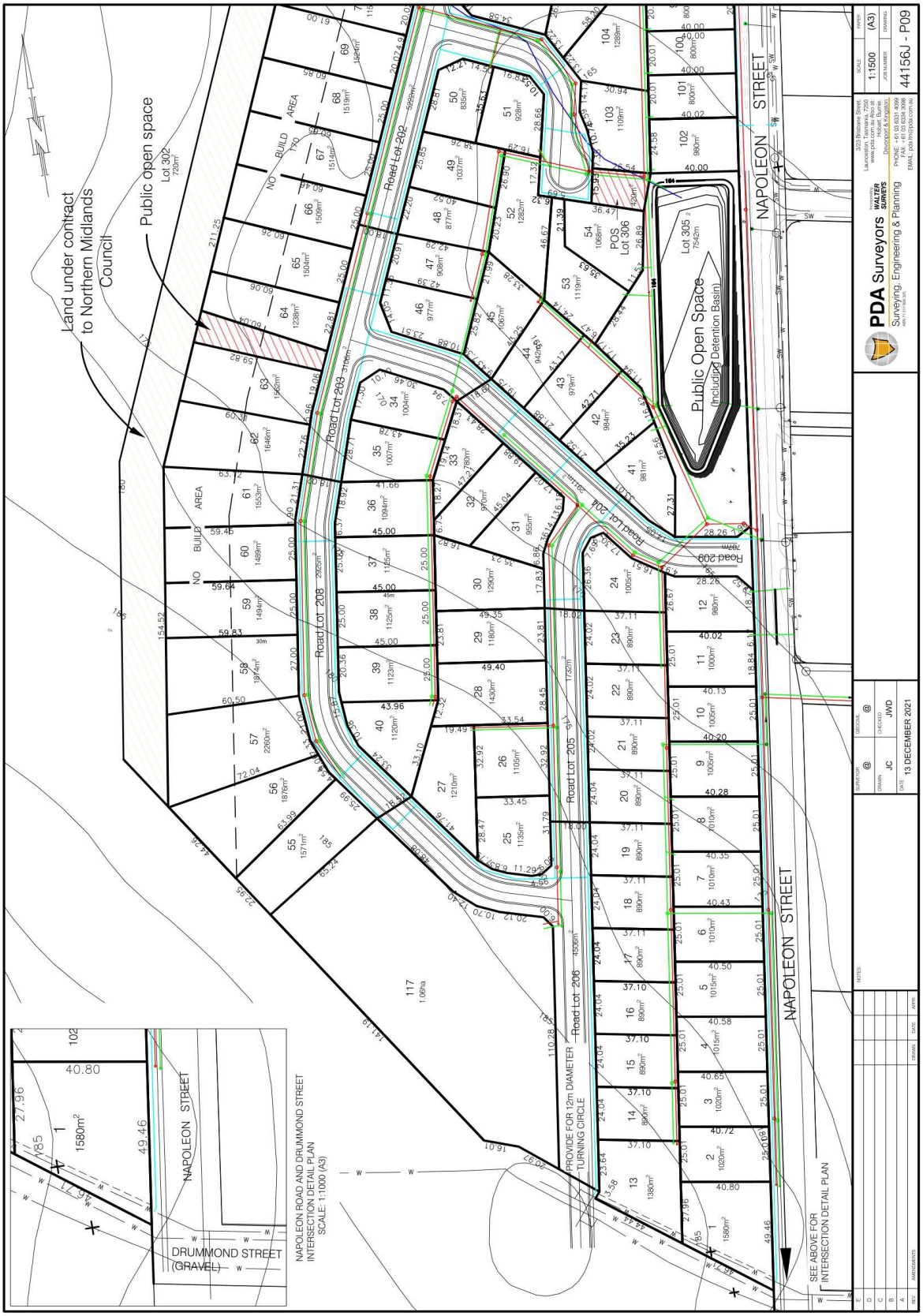


Figure 6: Proposed Subdivision Plan

Figure 7: Plan of subdivision page 2

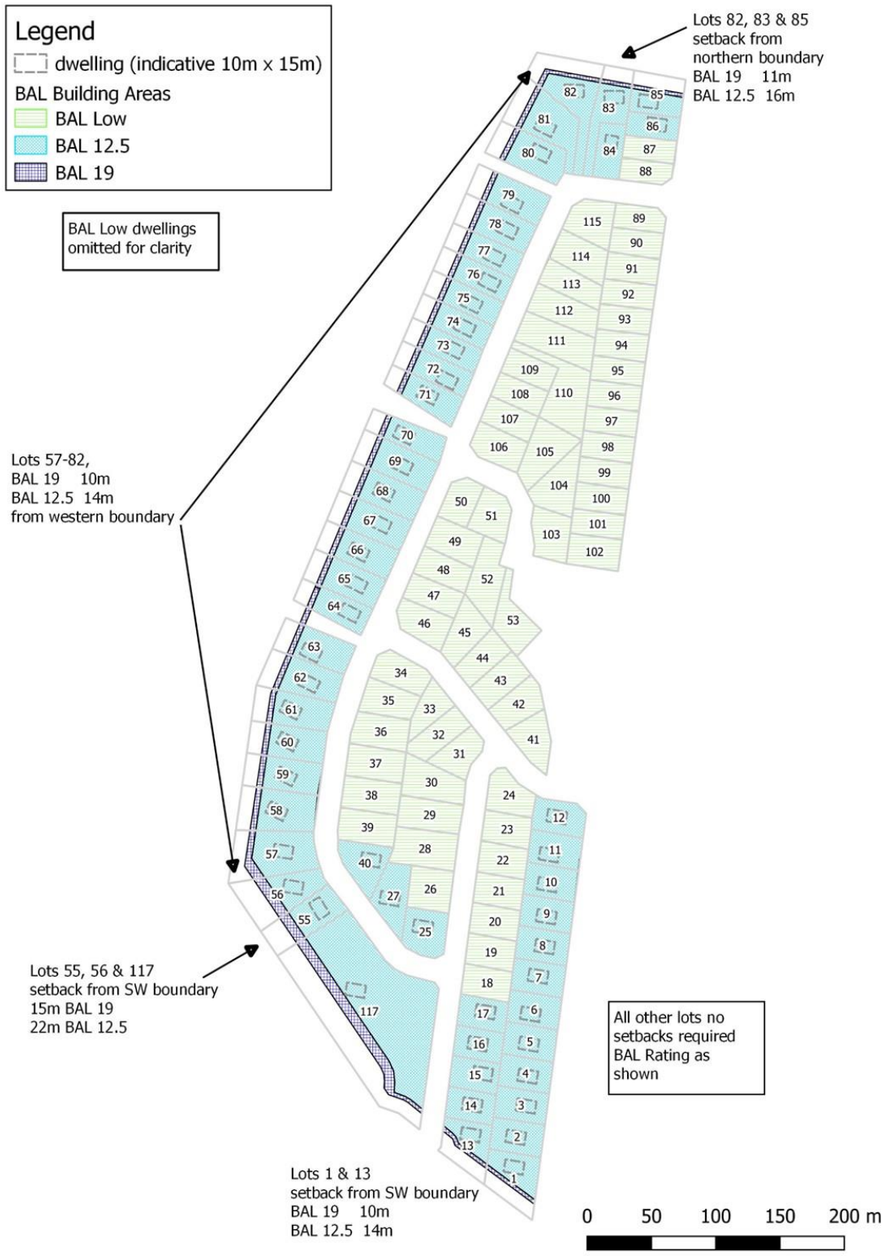
APPENDIX 2 – PHOTO

Figure 8: south along Napoleon Street

Figure 9: south west across lots

Figure 10 :north along southern section of Napoleon St Road reserve

Bushfire Hazard Management Plan:



Proposed Development	A 115 lot + POS and roads subdivision from1 title
Plan of Subdivision	PDA Surveyors, Proposed Subdivision PO9
Property Owner	H Mackinnon
Address	115 Napoleon Street Perth
CT	174678/1
PID	9359821

Construction: BAL 19 / Bal 12.5, BAL Low as shown

Buildings in Bushfire Prone Area to be built in accordance with the Building Code of Australia and Australian Standard AS3959.

Building setbacks / BAL ratings apply to habitable buildings (Class 1, 2 3, 8 or 9) and class 10a buildings within 6m of a habitable building

Building Areas

See report for further detail

for future habitable buildings the following must be installed/ compliant prior to commencement of construction and be maintained in perpetuity:

- **Subdivision Roads**
- **Hazard Management Areas**
- **water supply**
- **Access**

The owner of a lot is responsible for management of vegetation and maintenance of infrastructure within their lot,including staged HMA's on the balance lot. The owner of Lot 55 is responsible for management of the HMA on Lot 117 where it provides protection for Lot 55.

This BHMP has been prepared to satisfy the requirements of the *Northern Midlands Planning Scheme*, *2013* and *Planning Directive No. 5.1 Bushfire-Prone Areas Code*..

This plan should be read in conjunction with the report titled: Bushfire Hazard Management Report 115 Napoleon Street Perth, Livingston Natural Resource Services

Scott Livingston
Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 18/1/2022

SRL20/57S2

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Hazard Management Areas (HMA)

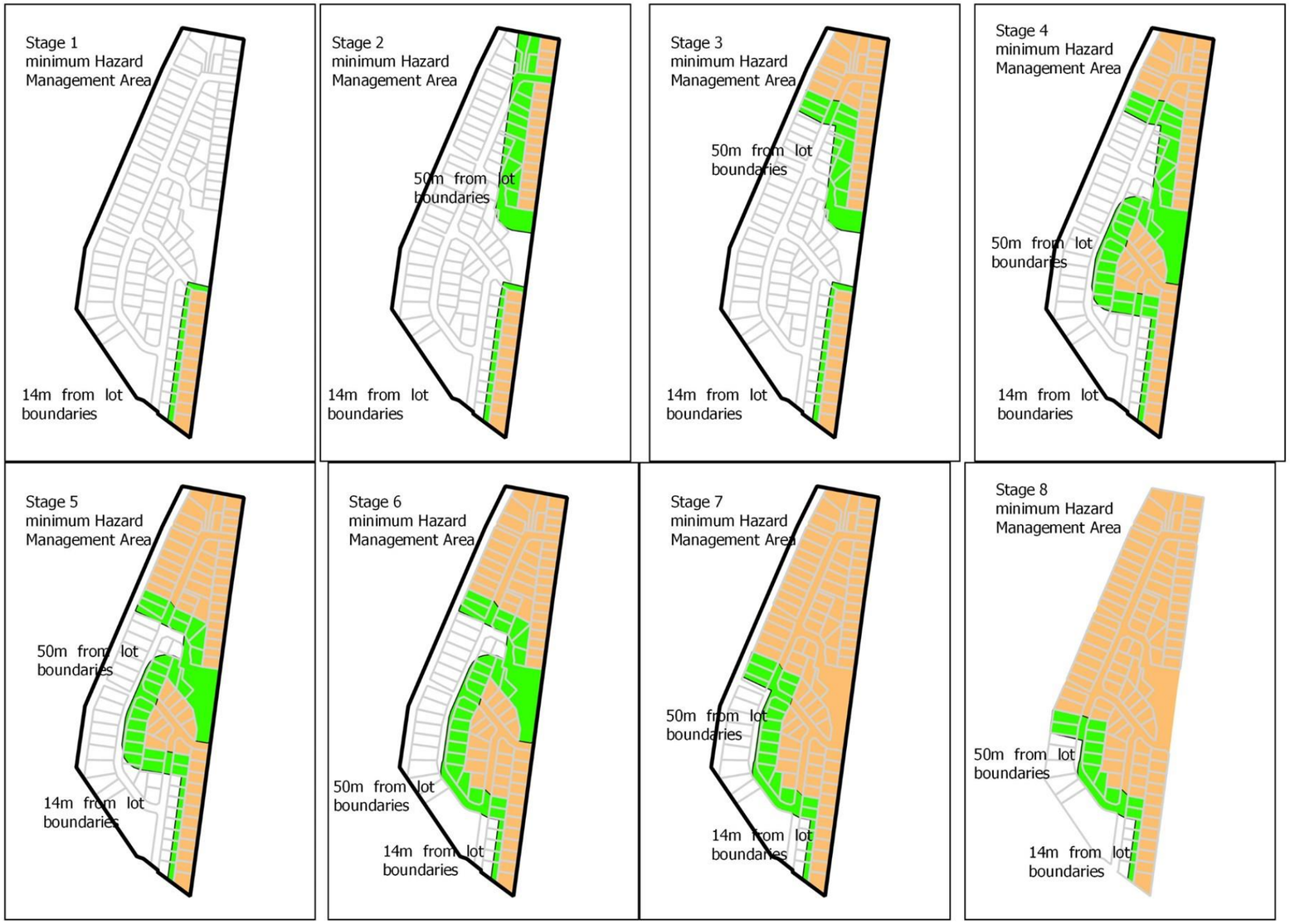
Hazard management areas include the area to protect the buildings as well as the access and water supplies.

Low threat vegetation, includes maintained lawns (<100mm in height) gardens and orchards.

During staging all land within 50m of a BAL rated lot and 14m of a BAL12.5 rated lot must be managed as low threat vegetation.

Maintenance Schedule: managed land

- Cut lawns to less than 100mm
- Remove pine bark and other flammable garden mulch
- Prune larger trees to establish and maintain horizontal and vertical canopy separation.
- Minimise storage of petroleum fuels
- Maintain road access to the dwelling and water connection point.
- Remove fallen limbs, leaf & bark from roofs, gutters and around buildings.



Hazard Management areas must be in place at sealing of titles of any lot.

All Hazard management areas must be maintained in perpetuity, with the owner of a lot responsible for management with the exception of the HMA on lot 117, that provides protection for Lot 55 which is the responsibility of the owner of Lot 55.

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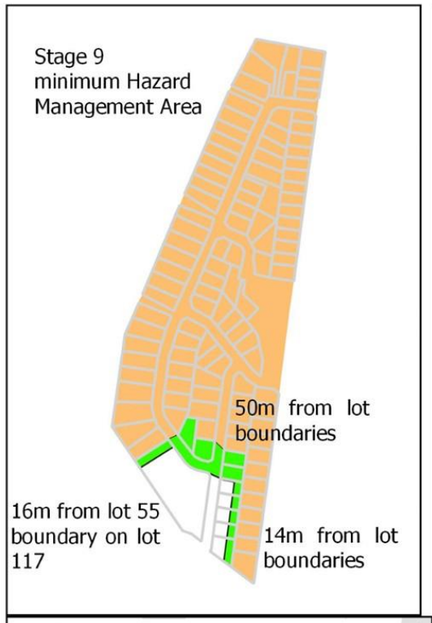

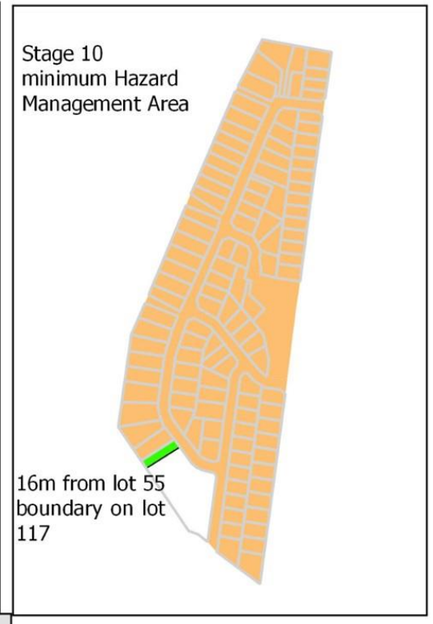

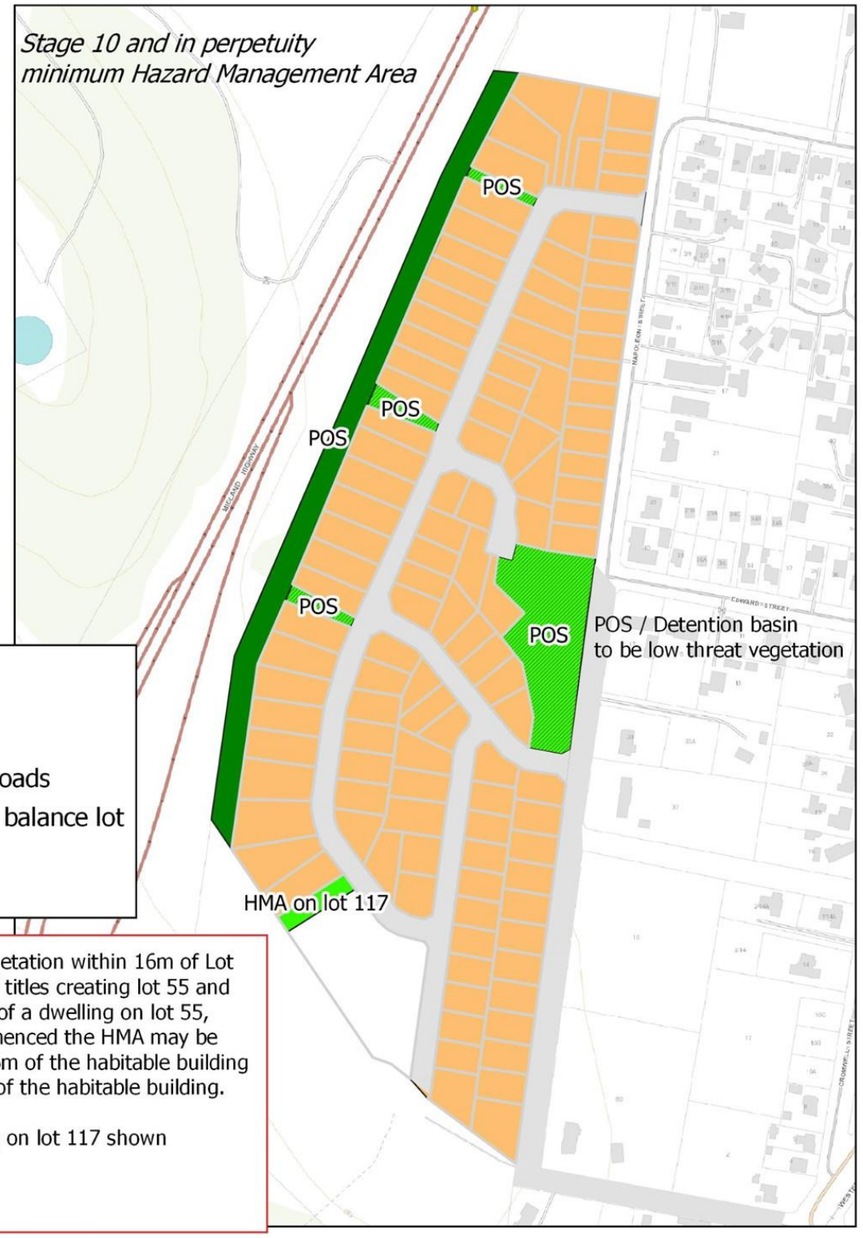

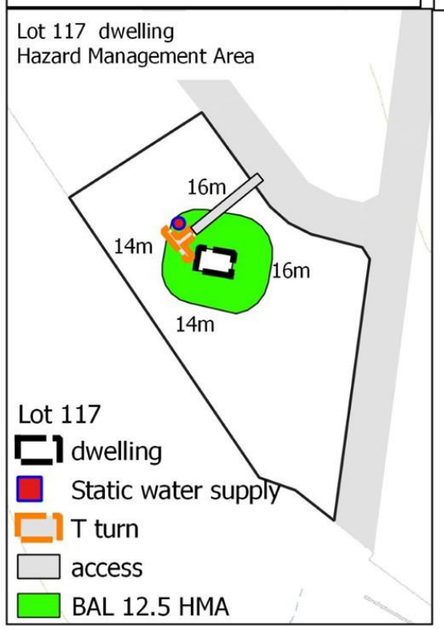

Legend

- low threat -developed lots / roads
- Hazard Management Area on balance lot
- POS: low threat
- POS grassland

Lot 117 to be low threat vegetation within 16m of Lot 55 boundary from sealing of titles creating lot 55 and managed until construction of a dwelling on lot 55, once construction has commenced the HMA may be reduced to all land within 16m of the habitable building and any building within 6m of the habitable building.

HMA for a habitable building on lot 117 shown seperately

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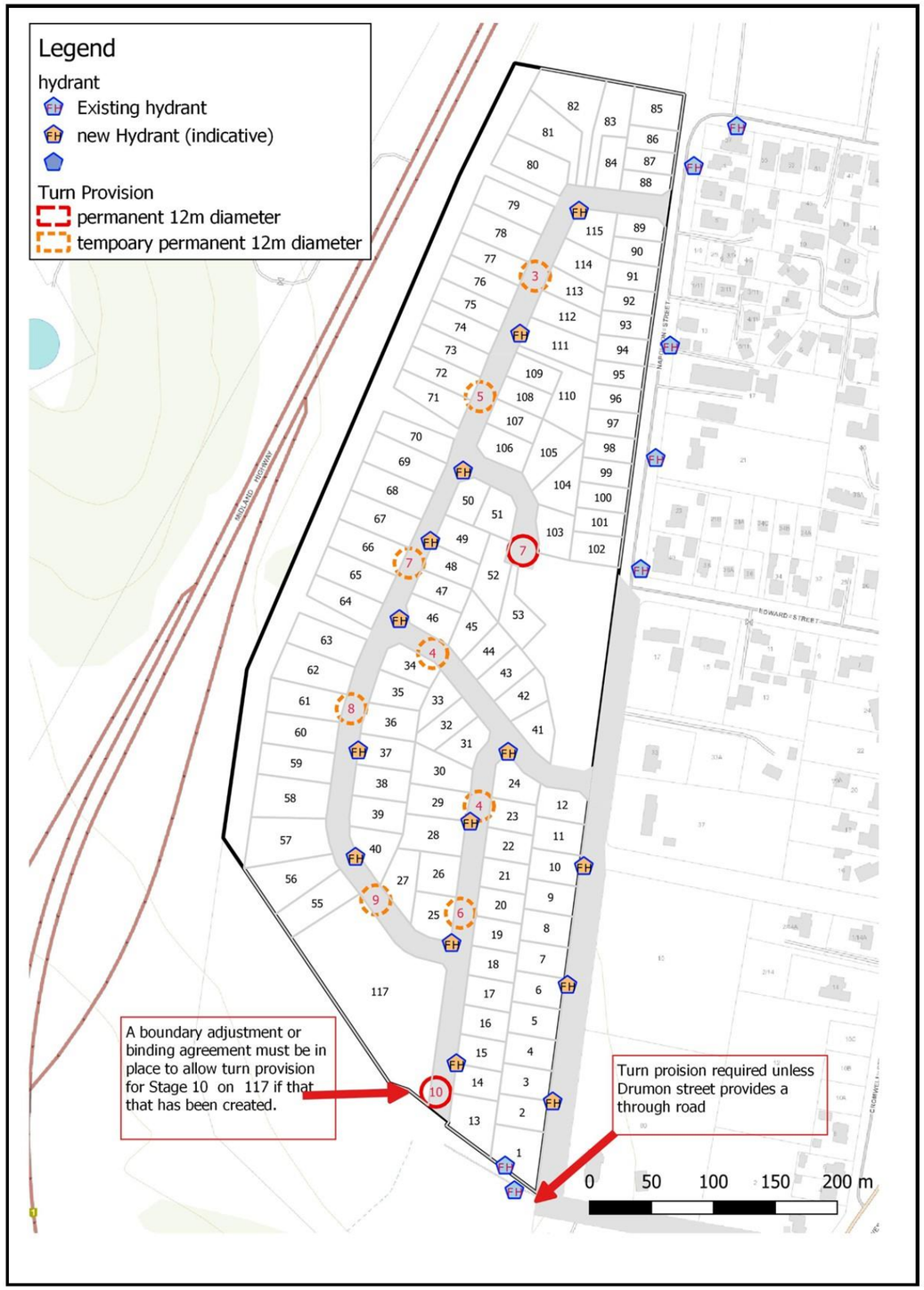

ROADS

All future roads within the subdivision must comply with the following:

a. two-wheel drive, all-weather construction;

b. load capacity of at least 20t, including for bridges and culverts;

c. minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road;

d. minimum vertical clearance of 4m;

e. minimum horizontal clearance of 2m from the edge of the carriageway;

f. cross falls of less than 3 degrees (1:20 or 5%);

g. maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads;

h. curves have a minimum inner radius of 10m;

i. dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7 metres in width;

k. carriageways less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with *Australian Standard* AS1743-2001 Road signs-Specifications.

Terminate in a 10m turning circle or hammerhead "T" or "Y" turning head 4 metres wide and 8 me-

Access

If property access exceeds 30m to a to habitable buildings and or water supply point it must be constructed to

a. All-weather construction;

b. Load capacity of at least 20 tonnes, including for bridges and culverts;

c. Minimum carriageway width of 4m;

d. Minimum vertical clearance of 4m;

e. Minimum horizontal clearance of 0.5m from the edge of the carriageway;

f. Cross falls of less than 3°(1:20 or 5%)

g. Dips less than 7° (1:8 or 12.5%)

h. Curves with a minimum inner radius of 10m;

i. Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed road; and

j. Terminate with a turning area for fire appliances provided by one of the following:

i) A turning circle with a minimum inner radius of 10m;

ii) A property access encircling the building; or

iii) A hammerhead "T" or "Y" turning head 4m wide and 8m long

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Water Supply

The subdivision will be serviced by a reticulated supply, additional hydrant must be installed prior to sealing of titles in any stage. The building area to be protected must be located within 120 metres of a fire hydrant; and the distance must be measured as a hose lay, between the water connection point and the furthest part of the building area.

Additional Hydrants must comply with

a. Fire hydrant system must be designed and constructed in accordance with TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA Edition 2.0; and

b. Fire hydrants are not installed in parking areas

A hardstand area for fire appliances must be provided:

a. no more than 3m from the hydrant, measured as a hose lay;

b. No closer than six metres from the building area to be protected;

c. With a minimum width of three metres constructed to the same standard as the carriageway; and

d. Connected to the property access by a carriageway equivalent to the standard of the property access

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Water Supply– Static

a static water supply to following standards must be installed for any building area that's furthest extent is more than 120m as the hose lays from a hydrant.

The following requirements apply:

a. the building area to be protected must be located within 90m of the fire fighting water point of a static water supply; and
b. the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.

A static water supply:
a. may have a remotely located offtake connected to the static water supply;
b. may be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;
c. must be a minimum of 10,000l per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;
d. must be metal, concrete or lagged by non-combustible materials if above ground; and
e. if a tank can be located so it is shielded in all directions in compliance with section 3.5 of *Australian Standard AS 3959-2009 Construction of buildings in bushfire-prone areas*, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by:
   i. metal;
   ii. non-combustible material; or fibre-cement a minimum of 6mm thickness.

Fittings and pipework associated with a fire fighting water point for a static water supply must:
a. have a minimum nominal internal diameter of 50mm;
b. be fitted with a valve with a minimum nominal internal diameter of 50mm;
c. be metal or lagged by non-combustible materials if above ground;
d. if buried, have a minimum depth of 300mm1;
e. provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire fighting equipment;
f. ensure the coupling is accessible and available for connection at all times;
g. ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length);
h. ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and
i. if a remote offtake is installed, ensure the offtake is in a position that is:
   i. visible;
   ii. accessible to allow connection by fire fighting equipment;
   iii. at a working height of 450 – 600mm above ground level; and
   iv. protected from possible damage, including damage by vehicles.

The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:
a. comply with water tank signage requirements within *Australian Standard AS 2304-2011 Water storage tanks for fire protection systems;* or
b. Comply with the Tasmania Fire Service Water Supply Guideline published by Tasmania Fire Service

A hardstand area for fire appliances must be:
a. no more than 3m from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);
b. no closer than 6m from the building area to be protected;
c. a minimum width of 3m constructed to the same standard as the carriageway; and
d. connected to the property access by a carriageway equivalent to the standard of the property access

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE[1] UNDER S51(2)(d) LAND USE PLANNING AND APPROVALS ACT 1993

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:	115 Napoleon Street, Perth
Certificate of Title / PID:	CT 174678/1, PID 9359821

2. Proposed Use or Development

Description of proposed Use and Development:	116 lot + POS and roads subdivision from 1 existing title
Applicable Planning Scheme:	Northern Midlands Interim Planning Scheme 2013

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Bushfire Hazard Management Report, 115 Napoleon Street, Perth v2	Scott Livingston	18/01/2022	2
Bushfire Hazard Management Plan, 115 Napoleon Street, Perth v2	Scott Livingston	18/01/2022	2
Plan of Subdivision	PDA Surveyors	13/12/2021	PO9

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

[1] This document is the approved form of certification for this purpose and must not be altered from its original form.

☐	**E1.4 / C13.4 – Use or development exempt from this Code**	
	Compliance test	**Compliance Requirement**
☐	E1.4(a) / C13.4.1(a)	Insufficient increase in risk

☐	**E1.5.1 / C13.5.1 – Vulnerable Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.1 P1 / C13.5.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
☐	E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

☐	**E1.5.2 / C13.5.2 – Hazardous Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.2 P1 / C13.5.2 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
☐	E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

☒	**E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.1 P1 / C13.6.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
☒	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as ‘balance’)
☐	E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

☐	**E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access**	
	Acceptable Solution	**Compliance Requirement**

☐	E1.6.2 P1 / C13.6.2 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
☒	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Property Access complies with relevant Tables,

☐	**E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
☐	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
☐	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
☐	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
☒	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
☐	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner

Name:	Scott Livingston	**Phone No:**	0438 951 021
Postal Address:	299 Relbia Road, Relbia	**Email Address:**	scottlivingston.lnrs@gmail.com
Accreditation No:	BFP – 105	**Scope:**	1, 2, 3A, 3B, 3C

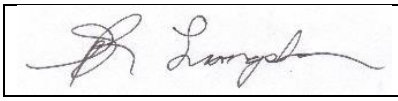
6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

☐ Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or

☒ The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier



Name: Scott Livingston **Date:** 18/01/2022

Certificate Number: SRL 20/57S2

(for Practitioner Use only)

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To:	Mackinnon Estates P/L		Owner /Agent
	390 Illawarra Rd		Address
	Longford	7301	Suburb/postcode

Qualified person details:

Qualified person:	Scott Livingston		
Address:	299 Relbia Rd	Phone No:	0438 951 021
	Relbia 7258	Fax No:	
Licence No:	BFP-105	Email address:	scottlivingston.lnrs@gmail.com

Qualifications and Insurance details: Accredited Bushfire Assessor *(description from Column 3 of the Director of Building Control's Determination)*

Speciality area of expertise: Bushfire Assessment *(description from Column 4 of the Director of Building Control's Determination)*

Details of work:

Address:	115 Napoleon Street	Lot No:	1-53, 55-115 & 117
	Perth 7300	Certificate of title No	174678/1

The assessable item related to this certificate: Bushfire Attack Level (BAL)

(description of the assessable item being certified)
Assessable item includes –
- *a material;*
- *a design*
- *a form of construction*
- *a document*
- *testing of a component, building system or plumbing system*
- *an inspection, or assessment, performed*

Certificate details:

Certificate type: Bushfire Hazard *(description from Column 1 of Schedule 1 of the Director of Building Control's Determination)*

This certificate is in relation to the above assessable item, at any stage, as part of - *(tick one)*

building work, plumbing work or plumbing installation or demolition work: ✓

or

a building, temporary structure or plumbing installation: ☐

In issuing this certificate the following matters are relevant –

Documents:	• Bushfire Attack Level Assessment & Report
Relevant calculations:	