PLAN 1

PLANNING APPLICATION PLN-20-0127

16338 MIDLAND HIGHWAY, HAGGERSTON ROAD AND DEVON HILLS ROAD

ATTACHMENTS

A Application & plans, correspondence with applicant

B Responses from referral agencies

C Representations & applicant's response

PLANNING APPLICATION

Proposal

Description of proposal: 26-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 Keppoch Drive 2 McKillop Drive 3 Aachens Drive.

Site address: *16338 Midlands Highway, Perth*

.....

CT no: 18088/1, 18088/7 + 37065/100

Estimated cost of project *$900,000* *(include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? *Yes*
If yes – main building is used as..... *Dwelling + Horse Stables*

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

Please refer to the planning accompanying planning submission

.....

.....

.....

.....

(attach additional sheets if necessary)

Is any signage required? No.....

(if yes, provide details)

Department of State Growth

Salamanca Building Parliament Square
4 Salamanca Place, Hobart TAS
GPO Box 536, Hobart TAS 7001 Australia
Email permits@stategrowth.tas.gov.au Web www.stategrowth.tas.gov.au
Ref: SRA-20-46

Tasmanian Government

George Walker
6ty Pty Ltd
By email: gwalker@6ty.com.au

Dear George

Crown Landowner Consent Granted - 16338 Midland Highway, Perth

I refer to your recent request for Crown landowner consent relating to the development application at 16338 Midland Highway, Perth for subdivision of land.

I, Fiona McLeod, Manager Asset Management, State Roads, the Department of State Growth, having been duly delegated by the Minister under Section 52 (1F) of the *Land Use Planning and Approvals Act 1993* (the Act), and in accordance with the provisions of Section 52 (1B) (b) of the Act, hereby give my consent to the making of the application, insofar as it affects the State road network and any Crown land under the jurisdiction of this Department.

The consent given by this letter is for the **making of the application only** insofar as that it impacts Department of State Growth administered Crown land and is with reference to your application dated 20 July 2020, and the documents approved, as follows:

Approved Document Name	Author	Date Received	Notes
Crown Landowner Consent Application – 16338 Midland Highway, Perth (CT 18088/1, CT 18088/7 & CT 37065/100) – Dated 20/07/2020	(applicant)	20/07/2020	
Council Planning Permit Application Form - 16338 Midland Highway, Perth (CT 18088/1, CT 18088/7 & CT 37065/100) – Dated 16/06/2020	(applicant)	20/07/2020	
Certificate of title reference documents (CT 18088/1, CT 18088/7 & CT 37065/100) - Folio text – Folio Plan	-	20/07/2020	
Development Application Planning Supporting Report – Rev01 Dated June 2020	6ty°	20/07/2020	
Stormwater Report – REV 01 Dated 22/08/2018	6ty°	20/07/2020	
Traffic Impact Assessment – REV 01 – Dated June 2020	6ty°	20/07/2020	*Superseded by REV 02*
Traffic Impact Assessment – REV 02 – Dated August 2020	6ty°	03/09/2020	

Access – construction or alteration (Access works permit required)

In giving consent to lodge the subject development application, the Department notes that the proposed access to the State road network will require the following additional consent:

The consent of the Minister under Section 16 of the *Roads and Jetties Act 1935* to undertake works within the State road reservation.

For further information please visit https://www.transport.tas.gov.au/roads_and_traffic_management/permits_and_bookings/new_or_altered_access_onto_a_road_driveways or contact permits@stategrowth.tas.gov.au .

On sealed State roads all new accesses must be sealed from the road to the property boundary as a minimum.

Pursuant to Section 16 of the *Roads and Jetties Act 1935*, where a vehicle access has been constructed from land to a State highway or subsidiary road, the owner of that land is responsible for the maintenance and repair of the whole of the vehicular access.

Discharge of Stormwater or drainage into the State road drainage system (Ministerial consent required)

In giving consent to lodge the subject development application, the Department notes that the works in the State road network will require the following additional consent:

The consent of the Minister under Section 17B of the *Roads and Jetties Act 1935* to concentrate and discharge drainage to the State road reserve.

The proponent must submit a drainage plan, including catchment area, flows and drainage design for any area discharging to the State road reserve.

If any enlargement of the existing State road drainage infrastructure is required in order to carry any additional drainage, these works must be undertaken under the supervision and to the satisfaction of an officer designated by the Minister. If such works are required, the costs associated with the works will be payable by the proponent.

The proponent is responsible for the ongoing maintenance of their own infrastructure. For further information please contact Road Assets at roadassets.utilities@stategrowth.tas.gov.au.

The Department reserves the right to make a representation to the relevant Council in relation to any aspect of the proposed development relating to its road network and/or property.

Yours sincerely

Fiona McLeod
MANAGER ASSET MANAGEMENT

Delegate of
Minister for Infrastructure and Transport
Michael Ferguson MP

EXHIBITED

28 September 2020

cc: General Manager, Northern Midlands Council

NORTHERN MIDLANDS COUNCIL

General Manager's Consent to the Making of the Application – 26 Lot subdivision including new water main and access
16338 Midland Highway, Perth, Haggerston Road, and Devon Hills Road

I, Des Jennings, General Manager, Northern Midlands Council, give my consent to the making of the application as far as it affects land owned or administered by the Northern Midlands Council, under Section 52 (1B)(b) of the *Land Use Planning & Approvals Act 1993.*

This consent is given for the making of the application only, as far as it affects land owned or administered by the Northern Midlands Council and is with reference to application PLN-20-0127.

Des Jennings
General Manager

Date: 21/10/2020

P.O. Box 156
Longford Tas 7301

Telephone (03) 6397 7303
Facsimile (03) 6397 7331

www.northernmidlands.tas.gov.au

EXHIBITED

FOLIO PLAN

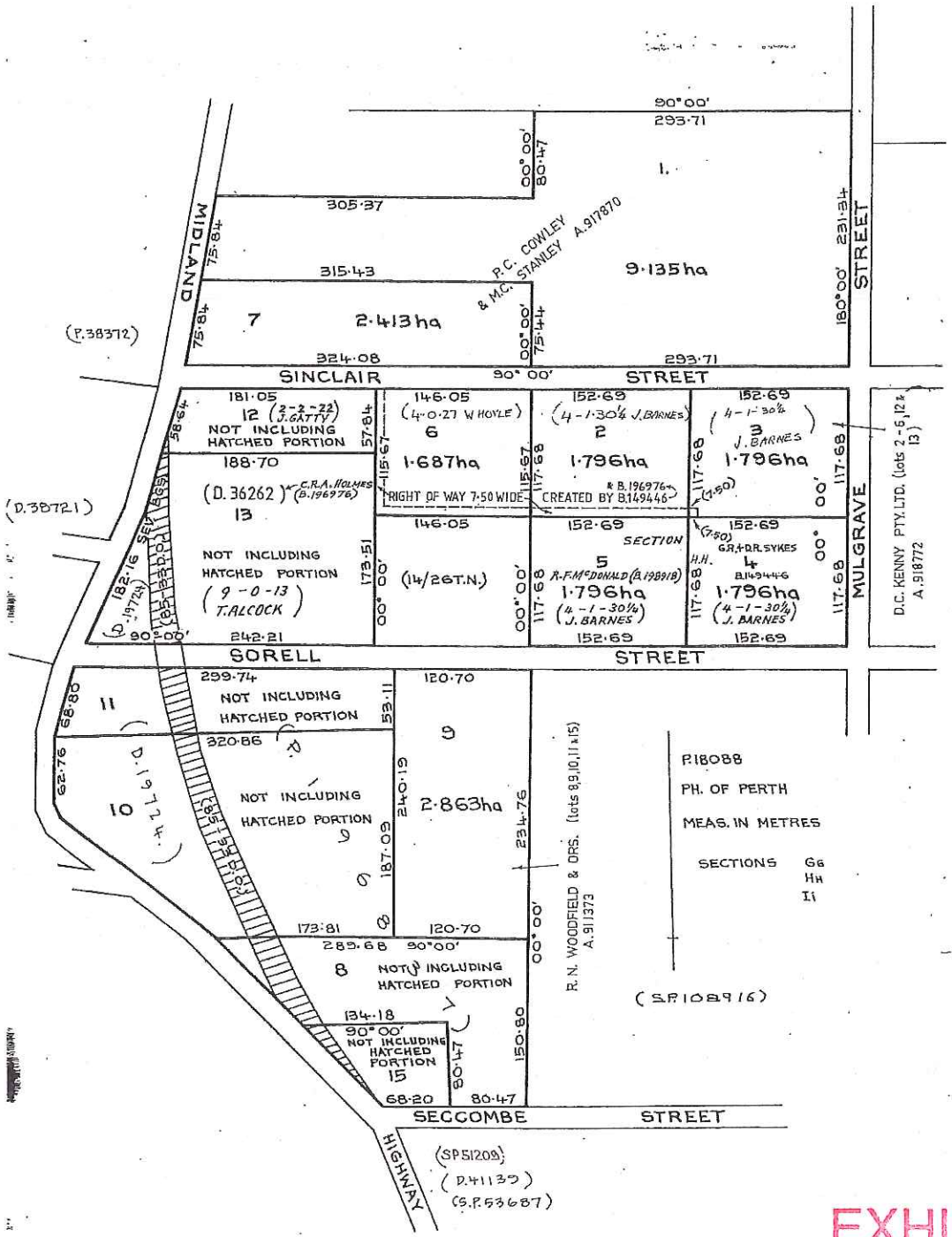
RECORDER OF TITLES 1-175

Issued Pursuant to the Land Titles Act 1980

OSK 1110

Owner: DECEASED PERSONS ESTATE	PLAN OF SURVEY by Surveyor ..... of land situated in the LAND DISTRICT ~ CORNWALL PARISH ~ PERTH	Registered Number: P.18088
Title Reference: Z.1703		Approved Effective from: 14 MAY 1982
Grantee: TURN OVER FOR GRANTEES.	Scale 1:3168 Measurements in Metres	ACTING DEPUTY Recorder of Titles

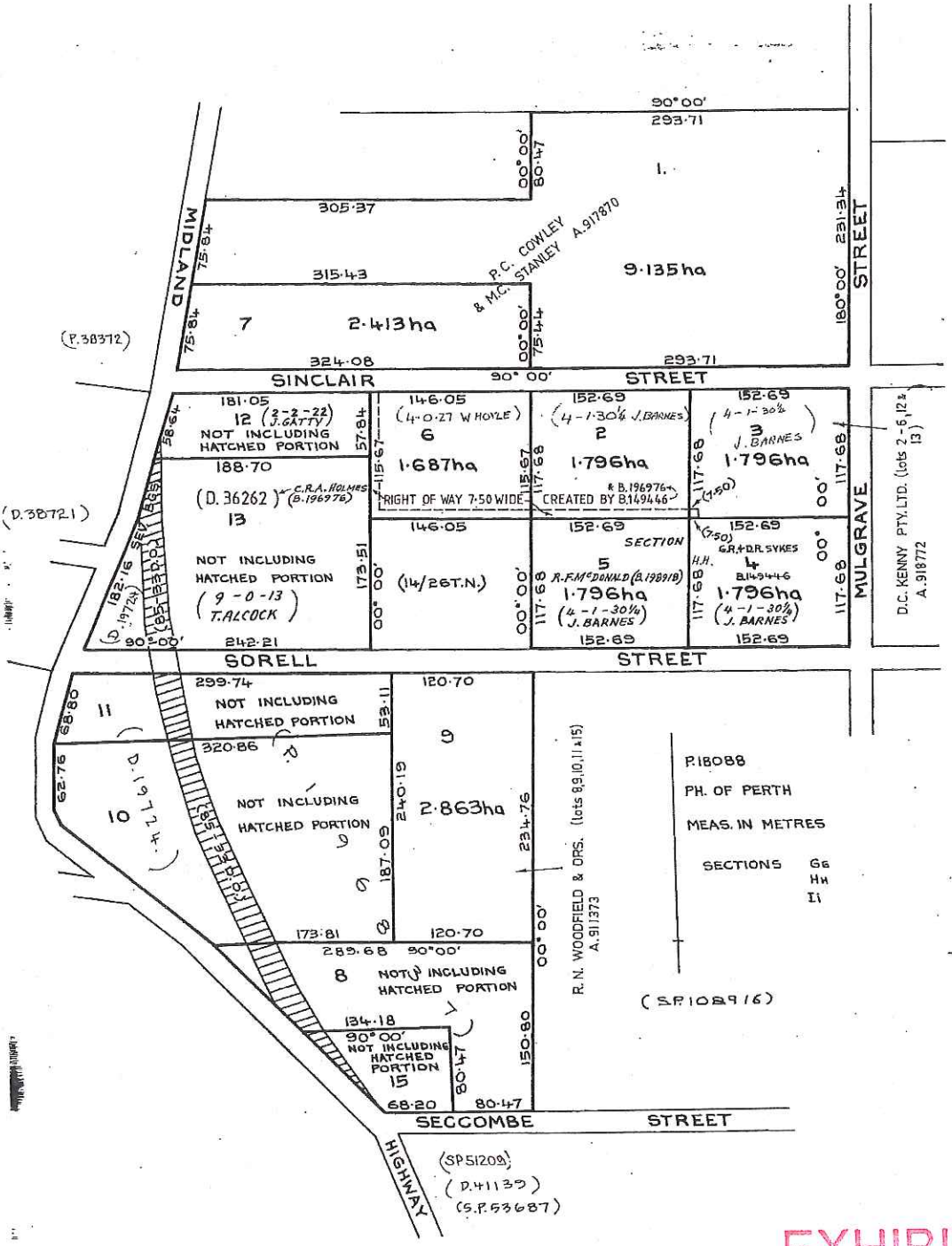
SEE INSIDE FIELD NOTES FOR REPEC. SEE D18083 FILE.



EXHIBITED

Owner: DECEASED PERSONS ESTATE	PLAN OF SURVEY by Surveyor ..... of land situated in the LAND DISTRICT ~ CORNWALL PARISH ~ PERTH	Registered Number: P.18088
Title Reference: Z.1703		Approved Effective from: 14 MAY 1982
Grantee: TURN OVER FOR GRANTEES.	3168 Scale 1:~~2000~~ Measurements in Metres	ACTING DEPUTY Recorder of Titles

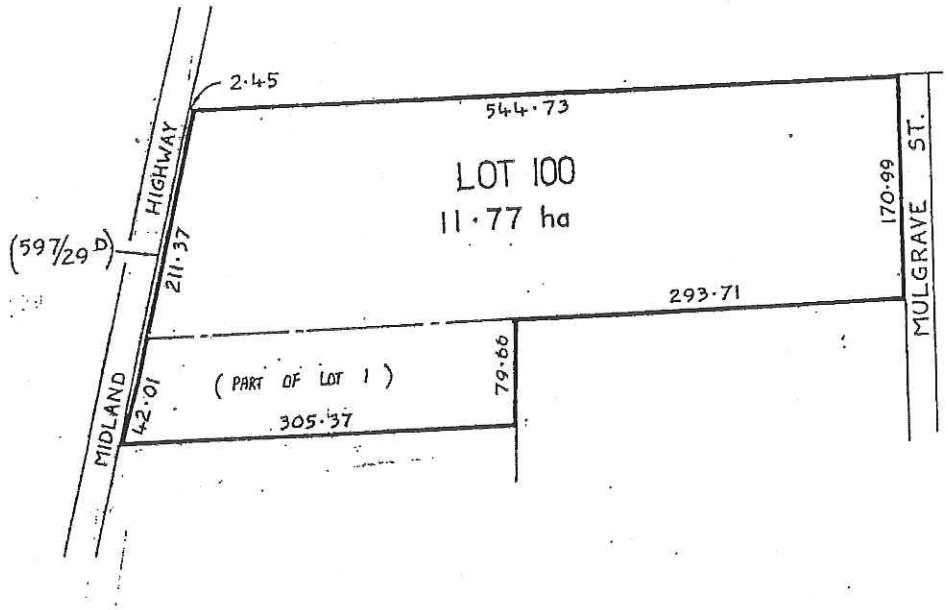
SEE INSIDE FIELD NOTES FOR REPEC. SEE D18083 FILE.



EXHIBITED

OSX 3910

Owner:	PLAN OF TITLE of land situated in the TOWN OF PERTH	Registered Number: D 37065
Title Reference: C.T. 3321-46	COMPILED FROM.....	Approved.....
Grantee: C.T. 3321-46	SCALE 1: 4000 MEASUREMENTS IN METRES	Recorder of Titles



EXHIBITED

Paul Godier

From: George Walker <gwalker@6ty.com.au>
Sent: Monday, 20 July 2020 1:28 PM
To: Paul Godier
Subject: PLN-20-0127 - 26-lot Subdivision
Attachments: 11.105 - s52(1B) land owner consent.pdf; 11.105 - GM Request POS.pdf

Hi Paul,

I hope you are well. The following email provides a partial response to the items raised within Council's RFI dated 26 June 2020. To this effect:

- Two letters are attached requesting Council consent for a cash-in-lieu contribution for part of public open space and for the making of the development application as it relates to Devon Hills Road.
- I can confirm that the land area listed in Section 1.1 of the planning report is accurate. There was a discrepancy between the title area which is quite old and the detail survey that was undertaken for the project.

I will follow up with the outstanding matters in due course (DSG consent and BHMP).

Thank you for putting the request for fee reduction in tonight's agenda for consideration.

Regards,

George

George Walker
Director | Planning Consultant

Measured form and function

Tamar Suite 103, The Charles
287 Charles Street, Launceston 72
PO Box 63 Riverside 7250
P 03 6332 3300
E gwalker@6ty.com.au
W 6ty.com.au
ARCHITECTURE | SURVEYING | EN

Our Ref: 11.105

Measured form and function

6ty Pty Ltd
ABN 27 014 609 900

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

Tamar Suite 103
The Charles
287 Charles Street
Launceston 7250
P (03) 6332 3300

57 Best Street
PO Box 1202
Devonport 7310
P (03) 6424 7161

20 July 2020

Mr Des Jennings
General Manager
Northern Midlands Council
PO Box 156
LONGFORD TAS 7301
By Email: council@nmc.tas.gov.au

Dear Mr Jennings,

LANDOWNER CONSENT REQUEST – 26-LOT SUBDIVISION 16338 MIDLAND HIGHWAY, PERTH

Pursuant to Section 52 (1B) of the *Land Use Planning and Approvals Act 1993*, we respectfully request landowner consent for the making of a development application for a 26-lot subdivision at 16338 Midland Highway, Perth. The application involves upgrading and extending of a water main that is located in the road reserve of Devon Hills Road which is under the authority of Northern Midlands Council.

Please do not hesitate to contact me should you wish to discuss any aspect of this request.

Yours faithfully
6ty° Pty Ltd

George Walker
Director/Planning Consultant

Our Ref: 11.105

Measured form and function

6ty Pty Ltd
ABN 27 014 609 900

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

Tamar Suite 103
The Charles
287 Charles Street
Launceston 7250
P (03) 6332 3300

57 Best Street
PO Box 1202
Devonport 7310
P (03) 6424 7161

20 July 2020

Mr Des Jennings
General Manager
Northern Midlands Council
PO Box 156
LONGFORD TAS 7301
By Email: council@nmc.tas.gov.au

Dear Mr Jennings,

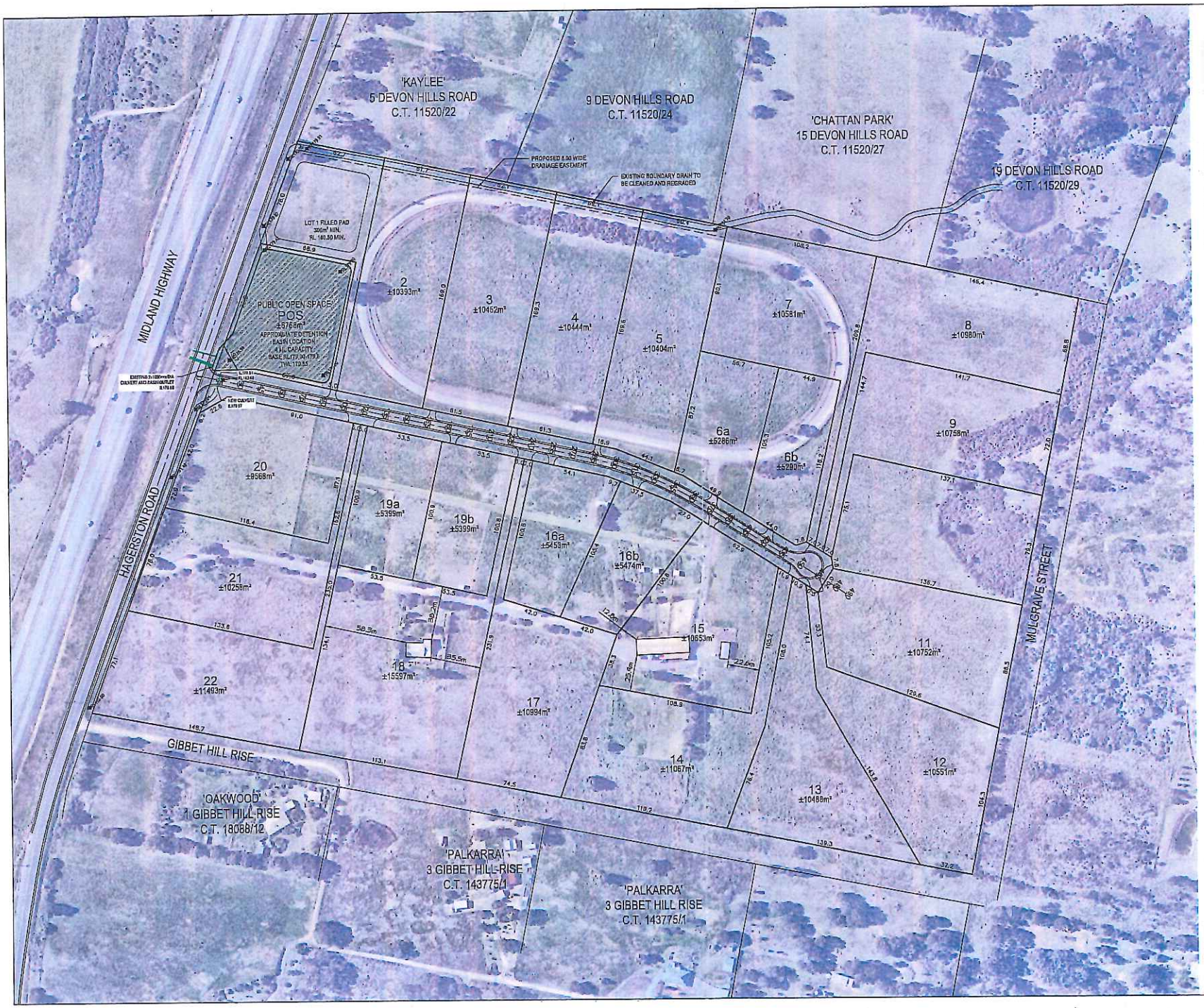
REQUEST FOR CASH PAYMENT IN LIEU OF PUBLIC OPEN SPACE – 26-LOT SUBDIVISION 16338 MIDLAND HIGHWAY, PERTH

Pursuant to clause E10.6.1 A1 (a) of the Northern Midlands Interim Planning Scheme 2013, we request that written consent be provided that there be a cash contribution for the difference between 5% of the land area and the area pf public open space being proposed for the 26-lot subdivision at 16338 Midland Highway, Perth.

Please do not hesitate to contact me should you wish to discuss any aspect of this request.

Yours faithfully
6ty° Pty Ltd

George Walker
Director/Planning Consultant



1–181

6ty°

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

6ty Pty Ltd
ABN 27 014 000 000
Architectural
ABP No. OC4874T
Structural / Civil
ABP No. CC1833L

Tamar Suite 103
The Charles
287 Charles Street
Launceston Tasmania
P (03) 6332 3200

57 Best Street
Devonport Tasmania
P (03) 6424 7161

APPROVED COMPANY
ISO 9001
Quality Management Systems
QMS Certification Services

ISSUE	DATE	ISSUED FOR	REV.
01	17.05.19	APPROVAL	
02	09.05.19	POS ADDED	
03	13.05.19	DETENTION BASIN AMENDED	
04	20.05.19	WALKWAY ADDED	
04	23.07.19	UPDATED PLAN	

DIMENSIONS ARE IN METRES. DO NOT SCALE, CHECK AND VERIFY ALL DIMENSIONS ON SITE. REFER DISCREPANCIES TO THE SUPERINTENDENT. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH: APPLICABLE AUSTRALIAN STANDARDS & LOCAL AUTHORITY REQUIREMENTS.

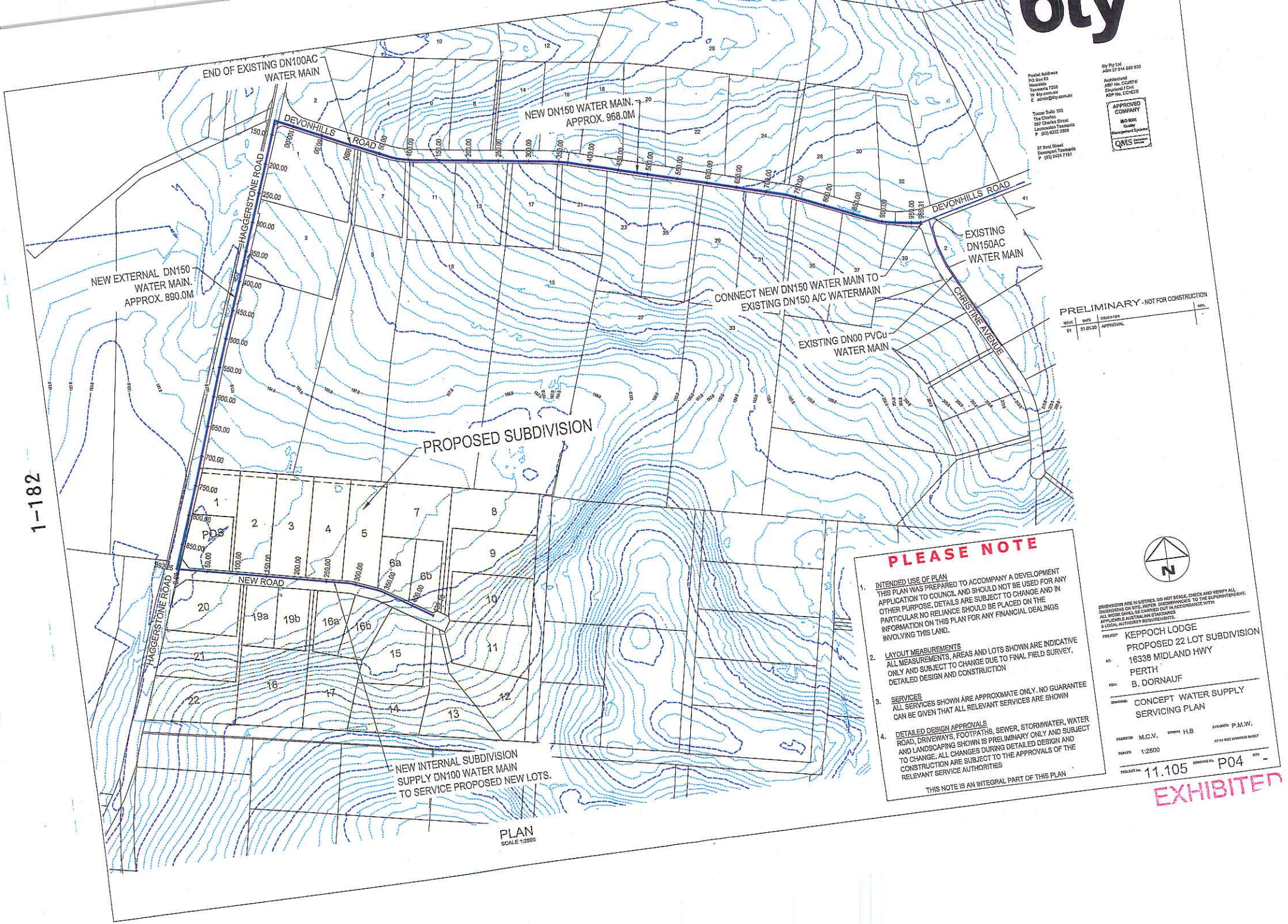
PROJECT: KEPPOCH LODGE
PROPOSED 22 LOT SUBDIVISION
AT: 16338 MIDLAND HWY
PERTH
FOR: B. DORNAUF

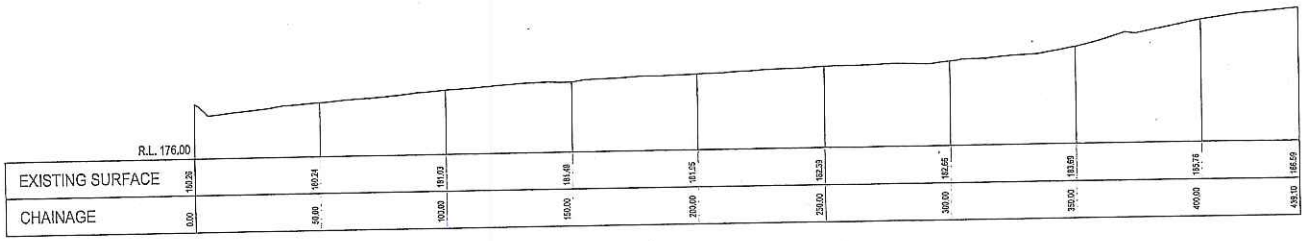
DRAWING: PROPOSED SUBDIVISION PLAN

DESIGNED: M.C.V. DRAWN: M.C.V. CHECKED: P.M.W.
SCALES: 1:1250 AT A1 SIZE DRAWING SHEET

PROJECT No. 11.105 DRAWING No. P01 REV. D

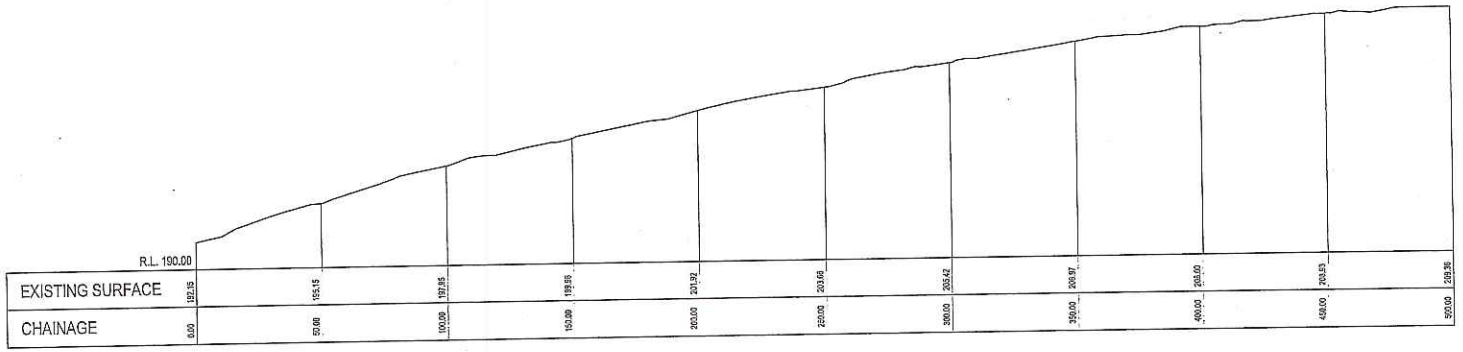
EXHIBITED


END OF EXISTING DN100AC WATER MAIN
DEVONHILLS ROAD
NEW DN150 WATER MAIN. APPROX. 968.0M
HAGGERSTONE ROAD
NEW EXTERNAL DN150 WATER MAIN. APPROX. 890.0M
CONNECT NEW DN150 WATER MAIN TO EXISTING DN150 A/C WATERMAIN
EXISTING DN150AC WATER MAIN
EXISTING DN00 PVCu WATER MAIN
CHRISTINE AVENUE
PROPOSED SUBDIVISION
NEW ROAD
NEW INTERNAL SUBDIVISION SUPPLY DN100 WATER MAIN TO SERVICE PROPOSED NEW LOTS.
PLAN
SCALE 1:2500
PRELIMINARY - NOT FOR CONSTRUCTION
PLEASE NOTE
1. INTENDED USE OF PLAN
THIS PLAN WAS PREPARED TO ACCOMPANY A DEVELOPMENT APPLICATION TO COUNCIL AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE. DETAILS ARE SUBJECT TO CHANGE AND IN PARTICULAR NO RELIANCE SHOULD BE PLACED ON THE INFORMATION ON THIS PLAN FOR ANY FINANCIAL DEALINGS INVOLVING THIS LAND.
2. LAYOUT MEASUREMENTS
ALL MEASUREMENTS, AREAS AND LOTS SHOWN ARE INDICATIVE ONLY AND SUBJECT TO CHANGE DUE TO FINAL FIELD SURVEY, DETAILED DESIGN AND CONSTRUCTION
3. SERVICES
ALL SERVICES SHOWN ARE APPROXIMATE ONLY. NO GUARANTEE CAN BE GIVEN THAT ALL RELEVANT SERVICES ARE SHOWN
4. DETAILED DESIGN APPROVALS
ROAD, DRIVEWAYS, FOOTPATHS, SEWER, STORMWATER, WATER AND LANDSCAPING SHOWN IS PRELIMINARY ONLY AND SUBJECT TO CHANGE. ALL CHANGES DURING DETAILED DESIGN AND CONSTRUCTION ARE SUBJECT TO THE APPROVALS OF THE RELEVANT SERVICE AUTHORITIES
THIS NOTE IS AN INTEGRAL PART OF THIS PLAN
PROJECT: KEPPOCH LODGE
PROPOSED 22 LOT SUBDIVISION
AT: 16338 MIDLAND HWY
PERTH
FOR: B. DORNAUF
DRAWING: CONCEPT WATER SUPPLY SERVICING PLAN
DESIGNED: M.C.V.
DRAWN: H.B
CHECKED: P.M.W.
SCALE: 1:2500
AT A1 SIZE DRAWING SHEET
PROJECT No. 11.105
DRAWING No. P04
REV -
EXHIBITED
1-182



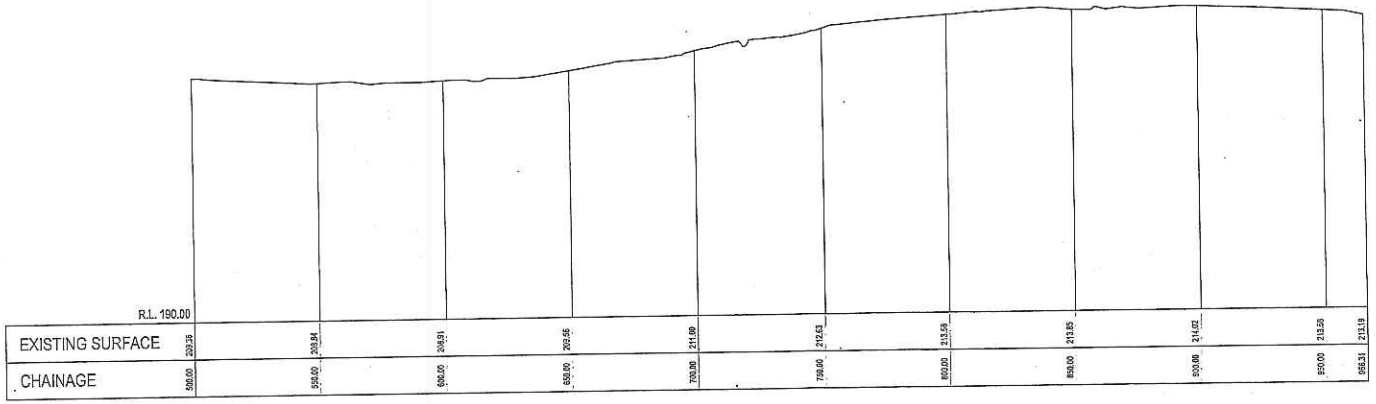
NATURAL SURFACE PROFILE OF WATER MAIN LINE - NEW SUBDIVISION

SCALE 1:100



NATURAL SURFACE PROFILE OF WATER MAIN LINE - DEVONHILLS ROAD- PROPOSED WATER MAIN UPGRADE
CHAINAGE 000.00M TO 500.00M

SCALE 1:100



NATURAL SURFACE PROFILE OF WATER MAIN LINE - DEVONHILLS ROAD- PROPOSED WATER MAIN UPGRADE
CHAINAGE 500.00M TO 966.00M

SCALE 1:100

6ty°

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

6ty Pty Ltd
ABN 27 011 609 930

Architectural
ABP No. CC4874Y
Structural / Civil
ABP No. CC1623I

Tamar Suite 103
The Charles
287 Charles Street
Launceston Tasmania
P (03) 6332 3300

57 Best Street
Devonport Tasmania
P (03) 6424 7161

APPROVED COMPANY
ISO 9001 Quality Management Systems
QMS Certification Services

PRELIMINARY - NOT FOR CONSTRUCTION

ISSUE	DATE	ISSUED FOR	REV.
01	21.05.20	APPROVAL	-

DIMENSIONS ARE IN METRES. DO NOT SCALE. CHECK AND VERIFY ALL DIMENSIONS ON SITE. REFER DISCREPANCIES TO THE SUPERINTENDENT. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH APPLICABLE AUSTRALIAN STANDARDS & LOCAL AUTHORITY REQUIREMENTS.

PROJECT: KEPPOCH LODGE
PROPOSED 22 LOT SUBDIVISION
AT: 16338 MIDLAND HWY
PERTH
FOR: B. DORNAUF

DRAWING: LONGITUDINAL PROFILE
CONCEPT WATER SUPPLY

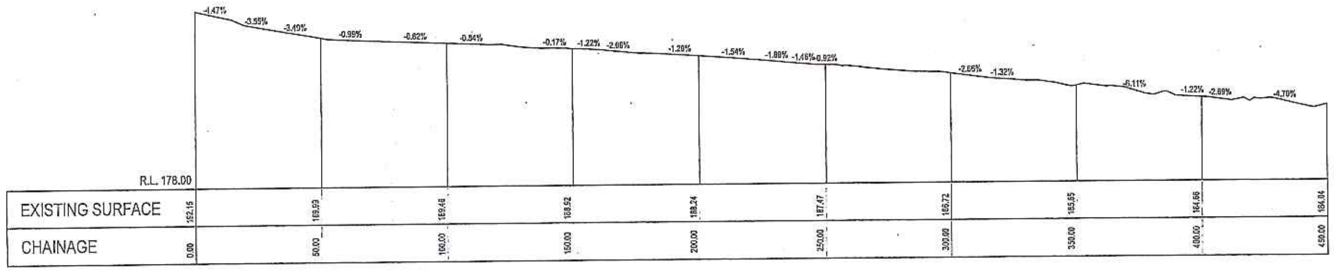
DESIGNED: M.C.V. DRAWN: H.S. CHECKED: P.M.W.

SCALES: AS SHOWN AT A1 SIZE DRAWING SHEET

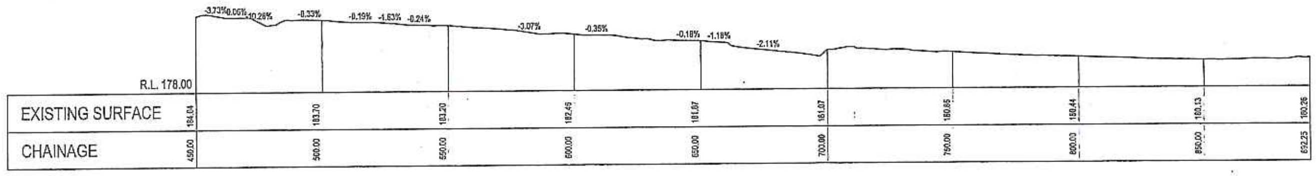
PROJECT No. 11.105 DRAWING No. P05 REV. -

1-183

EXHIBITED



SURFACE PROFILE OF WATER MAIN LINE - HAGGERSTONE ROAD- PROPOSED NEW WATER MAIN
CHAINAGE 000.00M TO 450.00M
SCALE 1:100



SURFACE PROFILE OF WATER MAIN LINE - HAGGERSTONE ROAD- PROPOSED NEW WATER MAIN
CHAINAGE 000.00M TO 450.00M
SCALE 1:100

6ty°

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

Tamar Suite 103
The Charles
287 Charles Street
Launceston Tasmania
P (03) 6332 3300

57 Best Street
Devonport Tasmania
P (03) 6424 7161

6ty Pty Ltd
ABN 27 014 609 900

Architectural
ABP No. CC6874T
Structural / Civil
ABP No. CC1633I

APPROVED COMPANY
ISO 9001
Quality
Management Systems
QMS

PRELIMINARY - NOT FOR CONSTRUCTION

ISSUE	DATE	ISSUED FOR	REV.
01	21.05.20	APPROVAL	-

PROJECT: KEPPOCH LODGE
PROPOSED 22 LOT SUBDIVISION
AT: 16338 MIDLAND HWY
PERTH
FOR: B. DORNAUF

DRAWING: LONGITUDINAL PROFILE
CONCEPT WATER SUPPLY

DESIGNED: M.C.V. DRAWN: H.B. CHECKED: P.M.W.
SCALES: AS SHOWN AT A3 SIZE DRAWING SHEET

PROJECT No. 11.105 DRAWING No. P06 REV. -

EXHIBITED

6ty°

Planning Submission

26 Lot Subdivision

'Keppoch Lodge' 16338 Midland Highway, Perth

Prepared for:

Northern Midlands Council

Measured form and function

6ty Pty Ltd
ABN 27 014 609 900

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

Tamar Suite 103
The Charles
287 Charles Street
Launceston 7250
P (03) 6332 3300

57 Best Street
PO Box 1202
Devonport 7310
P (03) 6424 7161

Issue	01
Date	June 2020
Project Name	Dornauf Subdivision
Project Number	11.105
Author	George Walker
Document	

Contents

1.0 Introduction

Planning approval is sought to undertake a 26 Lot subdivision at 16338 Midland Highway, Perth (the site – refer to Image 1). This planning submission provides relevant details of the application and an assessment against the applicable provisions of the *Northern Midlands Interim Planning Scheme 2013* (the Scheme).

Image 1 – Aerial image illustrating the boundaries of the site

1.1 Planning Overview

Element	Overview
Location	16338 Midland Highway, Perth
Title Information	37065/100, 18088/1 and 180088/7
Land Area	25.4 ha
Planning Instrument	*Northern Midlands Interim Planning Scheme 2013* (the Scheme)
Use Class	Residential
Proposed Development	Subdivision - 26 Lots
Zone(s)	12.0 - Low Density Residential
Applicable Code(s)	E1.0 - Bushfire Prone Areas Code E4.0 - Road and Railway Assets Code E5.0 - Flood Prone Areas Code E6.0 - Parking and Sustainable Transport Code E10.0 - Recreation and Open Space Code
Status of Application	Discretionary

1.2 Proposed Use and Development

The application seeks approval to subdivide the 25 ha site into 25 low density residential lots, a road lot and a public open space lot and to undertake associated works including the construction of a road, stormwater detention basin and installation of service infrastructure.

Subdivision

The size and configuration of the proposed lots is detailed within the following table. The proposed plan of subdivision is contained within **Appendix B**.

Table 1 - size and configuration of the proposed low density residential lots

Lot	Area (ha)	Shape	Frontage Width (m)	Depth (m)
1	5,750m^2	Internal	83	63
2	1.03	Rectangle	61	169
3	1.04	Rectangle	61	169
4	1.04	Rectangle	61	169
5	1.04	Oblong	61	169
6	**a** 5,286m^2	Oblong	56.6	96.25
6	**b** 5,290m^2	Oblong	51.8	110.75
7	1.05	Internal	7	90.1 (short axis of main body)
8	1.09	Internal	7	68.8 (short axis of main body)
9	1.07	Internal	7	72 (short axis of main body)
10	1.11	Oblong	7.8	136.7
11	1.07	Oblong	20	129.6
12	1.05	Internal	10.3	129.6
13	1.04	Irregular	10.9	184.4
14	1.10	Internal	11.9	83.8 (short axis of main body)
15	1.06	Irregular	62.9	100.8
16	**a** 5,453m^2	Oblong	63.8	103.1
16	**b** 5,474m^2	Oblong	64.5	103.1
17	1.09	Internal	6	131.1 (long axis of main body)
18	1.55	Internal	6	134.1 (long axis of main body)
19	**a** 5,399m^2	Rectangle	100.9	53.5
19	**b** 5,399m^2	Rectangle	100.8	53.5
20	1.02	Oblong (corner lot)	71 (primary) 101 (other)	85.1 (short axis)

21	1.03	Internal	78.1	138.6
22	1.06	Internal	77.1	148.7
POS	6,768m^2	Corner	137	70

Road Network

The site has frontage to Haggerston Road which was the former state highway between the Breadalbane roundabout and Perth. The construction of a new divided dual lane highway has recently been completed as part of the Perth-Breadalbane road improvement project which is a stage of the broader Perth bypass project. The new highway is located approximately 20 m to the west of Haggerston Road and shares the same alignment.

Haggerston Road is in the process of being reverted to a local road to be transferred to the Northern Midlands Council ('Council'). The road is used as a service lane to provide access to properties to the east of the new highway including the Devon Hills residential enclave and lots accessed off Gibbet Hill Rise. The 'newly constructed Midland Highway is a 'Category 1' road under the authority of the Department of State Growth (DSG) and is a primary freight and passenger route.

The proposed subdivision will include the construction of an access road which will extend perpendicularly from Haggerston Road. The access road will be approximately 470 m in length and will have a roughly east-west alignment. All lots will be accessed from the new road.

Provision of Service Infrastructure

Water

The subdivision will be serviced by reticulated water infrastructure. The water supply will be retrieved from existing reticulated water infrastructure in Devon Hills. It will require the upgrade of an existing DN100 water main that lies between Christine Avenue and the western end of Devon Hills Road near the junction of Haggerston Road to a DN150 water main. A new DN150 water main is proposed to be constructed from the end of the Devon Hills Road water main along Haggerston Road to the new road. All works required to extend water services to the site will be undertaken within existing road reserves and will be conducted in a way that minimises vegetation clearance. All works associated with the extension of the water main are considered to be exempt from requiring a permit under the Scheme pursuant to clause 6.2.2 (a).

Stormwater

The proposed access road will include a roadside swale drain that will direct stormwater runoff to the west where it will discharge into a detention basin which is proposed to be constructed in the public open space lot which will be located on the northern side of the new access road on the corner of Haggerston Road. Stormwater will be retained in the basin before discharging into existing culverts under Haggerston Road. The stormwater detention basin will be constructed to limit flows from the site to the existing surface flows for the equivalent of a 1 in 100 year event. Individual lots

will be capable of connecting directly into the roadside drainage which forms part of the reticulated stormwater system or, given the size of proposed lots, manage stormwater onsite.

An 8m wide stormwater drain will be constructed along the northern perimeter of lots 1-5. The drain will direct stormwater around the respective lots before discharging into the proposed detention basin.

Sewerage

The site is currently unserviced by sewerage infrastructure and it is not viable to extend sewerage infrastructure to the site due to existing capacity issues in Perth in addition to topographical and spatial constraints. Accordingly, each lot has been designed to be of a size and configuration that is suitable to accommodate on-site disposal of domestic wastewater in accordance with AS/NZS 1547:2012 On-site domestic wastewater management.

2.0 Location

2.1 Subject Site

The site is approximately 25 ha in area and comprises three titles (refer to Image 2). Together, the site is in the shape of a large oblong and has a 432 m frontage Haggerston Road and an average depth of approximately 600m.

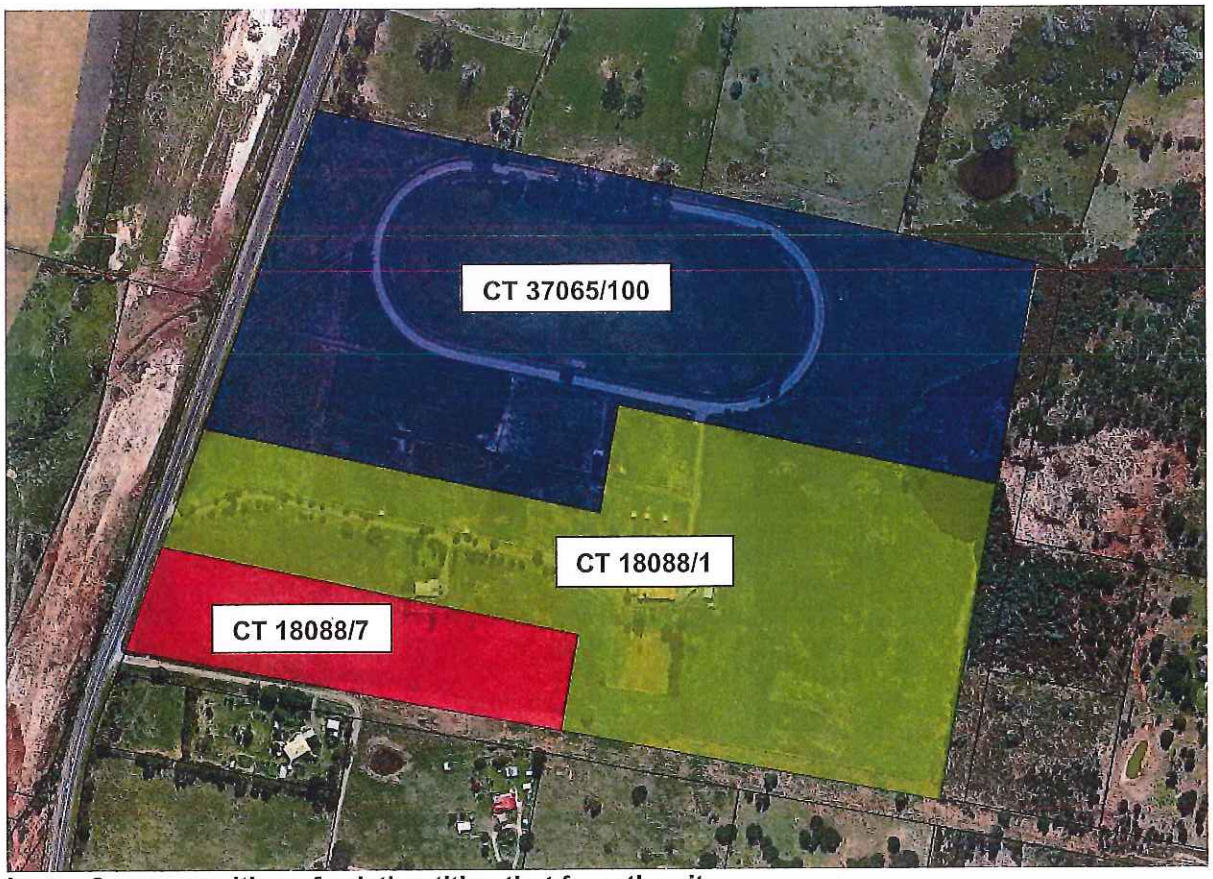


Image 2 - composition of existing titles that form the site

The site contains an existing dwelling, large horse stable and horse training track. It is otherwise undeveloped and contains managed pasture scattered with trees and scrub.

2.2 Description of the Surrounding Area

The site is located at the northern end of the Perth settlement area within a large contiguous expanse of Low Density Residential zoned land that is approximately 563 ha in area (refer to Image 3). The area of Low Density zoned land has been extensively developed overtime and includes a diverse mixture of lots that vary in shape, size and orientation. The majority of lots within this area contain single dwellings with only a handful of vacant lots remaining.

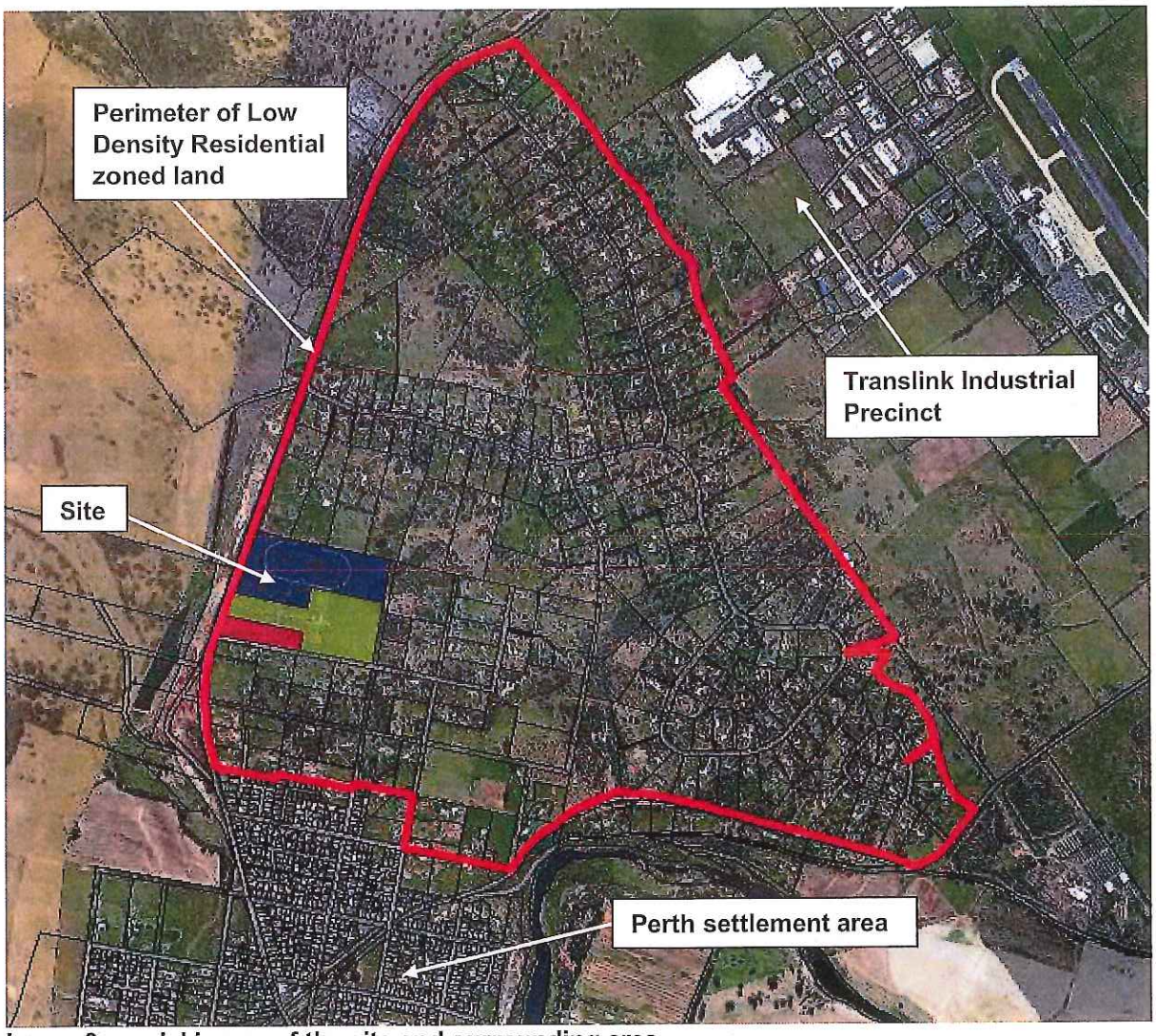


Image 3 - aerial image of the site and surrounding area

The eastern and southern boundaries of the site adjoin road reserves that are approximately 20m in width and lie parallel to the respective boundaries. The eastern road reserve is unmade. The southern road reserve contains a 180 m length of Gibbet Hill Rise which extends perpendicularly from Haggerston Road and runs parallel to the southern boundary before turning south at a right-angle. The remaining section of the road reserve is otherwise unmade. The northern boundary adjoins four rectangular lots which are perpendicular to the boundary. These lots contain residential dwellings, the closest of which is located approximately 180m from the northern boundary of the site.

2.3 Natural Values and Hazards

The site is located within a bushfire prone area. Accordingly, a bushfire hazard management plan (BHMP) has been prepared for the proposed subdivision to address the Bushfire-Prone Areas Code of the Scheme. The BHMP demonstrates that each lot can contain a hazard management area equal to or less than the requirements of BAL 19 and that vehicle access and water supply is appropriate for firefighting purposes.

Haggerston Road which is adjacent to the frontage boundary of the site is shown as a scenic management - tourist road corridor on the planning scheme maps. However, pursuant to clause E7.3 (a) the site does not form part of the scenic management - tourist road corridor on the basis that it is an extension of the Perth urban area and is zoned Low Density Residential. Further, the site is not subject to a local scenic management area as indicated on the planning scheme maps. Accordingly, the Scenic Management Code does not apply to the proposed subdivision pursuant to clause E7.2.1 of the Scheme.

2.4 Site Servicing

Each lot will be serviced by a reticulated water supply and capable of draining to the reticulated stormwater. Each lot will be capable of accommodating an onsite wastewater management system.

2.5 Site Access

All proposed new lots will be accessed from the new access road.

3.0 Planning Assessment

The following assessment addresses the applicable zone and code provisions and identifies whether the relevant acceptable solutions are satisfied. The relevant performance criteria are addressed in Section 4.

3.1 Low Density Residential Zone

For the purposes of clause 8.2.1, the use of the proposed subdivision is categorised as 'Residential'. Residential use is identified as a permitted use in the Low Density Residential zone. The proposed development meets the acceptable solutions for most of the standards in the zone that are relevant, as identified in the following table.

12.4.3 Subdivision Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
12.4.3.1 Lot Area, Building Envelopes and Frontage			
A1.1(a)	Each lot must have a minimum area of 1 ha	Lots 1, 6a, 6b, 16a, 16b, 19a, 19b and the POS lot will have an area less than 1ha. All other lots will have a minimum area of 1ha.	Relies on performance criteria.
A1.1 (b)	Each lot must have new boundaries aligned from existing buildings that satisfy the relevant acceptable solutions for setbacks	There are three existing buildings on the site that will be retained. The existing dwelling will be contained within proposed lot 18 which is an internal lot. The dwelling will be setback 38.2 m from the northern boundary, 35.5 m from the eastern boundary, 58.3 m from the western boundary and greater than 60 m from the southern boundary. These distances exceed the relevant acceptable solutions for side and rear boundary setbacks which are 7.5 m and 5 m respectively. The existing stable and associated outbuilding will be contained within lot 15 which is a standard	Complies with acceptable solution.

12.4.3 Subdivision Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
		lot that will have a 62.9 m frontage to the access road. The buildings will be setback 12.8 m from the western boundary, 22.6 m from the eastern boundary, 25.9 m from the southern boundary and greater than 60 m from the northern boundary. These distances exceed the relevant acceptable solutions for frontage, side and rear boundary setbacks which are 15 m, 7.5 m and 5 m respectively. All remaining minor horse shelters will be removed.	
A1.2	Subdivision at Devon Hills will not result in any new lots	The site is located within the district of Perth.	Not applicable.
A2	Each lot must have a frontage of at least 6m	Each lot will have a minimum frontage of 6 m as illustrated by Table 1 and the proposed subdivision plan.	Complies with acceptable solution.
A3 (a)	Each lot must be connected to a reticulated water supply	Each lot will be connected to a reticulated water supply.	Complies with acceptable solution.
A3 (b)	Each lot must be connected to a reticulated sewerage system	It is not proposed to service the proposed subdivision with sewerage infrastructure.	Relies on performance criteria.
A4	Each lot must be connected to a reticulated stormwater system	Each lot is capable of connecting to the reticulated stormwater system.	Complies with acceptable solution.

3.2 Bushfire-Prone Areas Code

The application involves subdivision of land that is located within a bushfire-prone area. The Bushfire-Prone Areas Code therefore applies pursuant to clause E1.2.1 (a) of the Scheme.

E1.6 Development Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
E1.6.1 Subdivision: Provision of hazard management areas			
A1 (b)	The proposed plan of subdivision is to show all lots within a bushfire-prone area, a building area for each lot, hazard management areas between bushfire-prone vegetation and each building area and a certified BHMP showing that hazard management areas satisfy the separation distances for BAL 19.	The certified BHMP demonstrates that each lot within the proposed subdivision is capable of accommodating hazard management areas equal to, or greater than, the separation distances for BAL 19.	Complies with acceptable solution.
E1.6.2 Subdivision: Public and firefighting access			
A1 (b)	A BHMP is to include a plan of subdivision showing the layout of roads, property access and fire trails that comply with the relevant requirements in Tables E1-E3 of the Code.	The certified BHMP shows that the access road and the private accesses to individual lots will comply with the requirements of Tables E1, E2 and E3.	Complies with acceptable solution.
E1.6.3 Subdivision: Provision of water supply for firefighting purposes			
A1 (b) + A2 (b)	Reticulated or static water supply is to be provided.	The certified BHMP demonstrates that each lot will have suitable access to a water supply in accordance with subclause A1 (b) and A2 (b).	Complies with acceptable solution.

3.3 Rail and Railway Assets Code

The proposed subdivision requires a new junction and accesses and will involve works within 50m of a category 1 road. The Road and Railway Assets Code therefore applies pursuant to clause E4.2.1 (a) and (c) of the Scheme.

E4.6 Use Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
E4.6.1 Use and road or rail infrastructure			
A3	The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction in an area subject to a speed limit of more than 60km/h, must not increase by more than 10%.	The development of dwellings on the proposed lots will increase traffic generation associated with the site by more than 10%. This will in part be at the new junction created by the access road and the individual accesses from Haggerston Road for lots 1 and 20-22.	Relies on performance criteria.

E4.7 Development Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
E4.7.1 Development on and adjacent to Existing and Future Arterial Roads and Railways			
A1	New road works, earthworks and building areas on new lots must be at least 50m from a railway, future road or railway and a category 1 or 2 road in an area subject to a speed limit of more than 60km/h.	The junction of the new access road and the individual accesses to lots 1 and 20-22 will be located within 50m of the eastern edge of the new highway which is a category 1 road.	Relies on performance criteria.
E4.7.2 Management of Road Accesses and Junctions			
A2	No new accesses or junctions to be created.	A new road junction and individual lot accesses are proposed.	Relies on performance criteria.
E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings			
A1 (a)	Sight distances at an access or junction must comply with Table E4.7.4.	It has been demonstrated that sight distances in both directions at the proposed junction and individual lot accesses onto Haggerston Road will comply with the requirements of Table E4.7.4 of the Scheme.	Complies with acceptable solution.

3.4 Flood Prone Areas Code

The site is potentially subject to flooding at a 1% annual exceedance probability. The Flood Prone Areas Code therefore applies pursuant to clause E5.2.1 (b) (i) of the Scheme.

E5.5 Use Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
E5.5.1 Use and flooding			
A2	Use must not be located in an area subject to a medium or high risk in accordance with the risk assessment in E5.7	The stormwater catchment and flooding report concluded that the site is subject to a low risk in accordance with Clause E5.7 and Table E5.1 of the Scheme.	Complies with acceptable solution.

E5.6 Development Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
E5.6.1 Flooding and Coastal Inundation			
A1	No acceptable solution	There is not acceptable solution.	Relies on performance criteria.

3.5 Parking and Sustainable Transport Code

Clause 6.2.1 of the Scheme identifies that the code applies to all use and development. On the other hand, the application does not include residential dwellings. The parking requirements relevant to each lot will be determined in conjunction with the design of individual dwellings. The current application therefore does not affect issues that are dealt with by the code directly, and it does not apply to the subdivision in accordance with Clause 7.4.2 (b) of the Scheme.

3.6 Recreation and Open Space Code

E10.6 Development Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
E10.6.1 Provision of Public Open Space			

E10.6 Development Standards			
Standard	**Requirement/s**	**Assessment**	**Compliance**
A1	The application must include consent in writing from Council's General Manager that no land is required for public open space but instead there is to be a cash payment in lieu.	Council's General Manager has advised that land for public open spaces purposes is required to be provided as part of the subdivision.	Relies on performance criteria.

4.0 Performance Criteria Assessment

The proposed development requires a discretionary planning permit and does not satisfy several acceptable solutions in the Low Density Residential zone, Road and Railway Assets Code and Flood Prone Areas Code. The relevant performance criteria are address below.

4.1 Clause 12.1 Low Density Residential Zone Purposes Statements

12.1.1.1 To provide for residential use or development on larger lots in residential areas where there are infrastructure or environmental constraints that limit development.

Consistent

The site is located within an area that is constrained by the absence of sewerage infrastructure services. Further, the site is subject to minor inundation and is located within a bushfire-prone area. The proposed subdivision will provide for larger lots (> 1 ha) that will be capable of facilitating residential use and development in a manner that will appropriately manage identified infrastructure and environmental constraints.

12.1.1.2 To provide for non-residential uses that are compatible with residential amenity.

Not applicable

The application does not involve non-residential uses.

12.1.1.3 To ensure that development respects the natural and conservation values of the land and is designed to mitigate any visual impacts of development on public views.

Consistent

The proposed subdivision will be generally consistent with the established pattern of subdivision within the surrounding area in terms of lot size, shape and orientation.

4.2 Clause 12.4.3.1 Lot Area, Building Envelopes and Frontage - Performance Criteria P1

12.4.3.1 Lot Area, Building Envelopes and Frontage
Objective To ensure: a) the area and dimensions of lots are appropriate for the zone; and b) the conservation of natural values, vegetation and faunal habitats; and

c) the design of subdivision protects adjoining subdivision from adverse impacts; and

d) each lot has road, access, and utility services appropriate for the zone.

Acceptable Solutions	Performance Criteria
A1 Each lot must: (a) have a minimum area of 1ha; (b) have new boundaries aligned from buildings that satisfy the relevant acceptable solutions for setbacks; or (c) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a municipality; (d) be for the provision of public utilities; or (e) for the consolidation of a lot with another lot with no additional titles created; or (f) to align existing titles with zone boundaries and no additional lots are created. **A1.2** Subdivision at Devon Hills will not result in any new lots.	**P1** Each lot for residential use must provide sufficient useable area and dimensions to allow for: (a) a dwelling to be erected in a convenient and hazard free location; and (b) on-site parking and manoeuvrability; and (c) adequate private open space; (d) reasonable vehicular access from the carriageway of the road to a building area on the lot, if any; and (e) development that would not adversely affect the amenity of, or be out of character with, surrounding development and the streetscape. **P1.2** Land in Devon Hills must not be further subdivided.

Response

Lots 1, 6a, 6b, 16a, 16b, 19a, 19b and the POS lot will have an area less than 1ha. Assessment against the corresponding performance criteria is therefore required.

The site is not located within Devon Hills.

Performance Criteria Assessment

Each lot intended for residential use that will have an area of less than 1ha will be provided with sufficient useable area and dimensions having regard to the following:

a) each lot is capable of accommodating hazard management areas equal to BAL 19 as demonstrated by the certified BHMP. The site is not identified as being subject to any other natural hazards including landslip and flooding. Each lot will be predominately rectangular with a minimum width of approximately 45m and depth of approximately 63m. Dwellings can therefore be located within a convenient and hazard free location within each lot;

b) each lot will be provided with sufficient area to accommodate a driveway, on-site parking and vehicle circulation spaces in a location and of a scale that will be commensurate to residential use;

c) each lot will be capable of providing an area of private open space that will meet the needs of future residential use;

d) the majority of lots will have direct road frontage and the distance between the available building area and carriageway, including for internal lots, will be commensurate to surrounding residential development;

e) the dimensions of each lot will enable a future dwelling to be located in a position that can comply with the relevant acceptable solutions for building setbacks. Further, the subdivision will produce a lot density of 1 lot per hectare which is relative to the total area of the site. This will ensure that future development of each lot and the lot density of the subdivision is capable of achieving a character that is contemplated by relevant acceptable solutions for built form and lot size within the Low Density Residential zone whilst ensuring the amenity of adjoining lots is maintained.

Except for Lot 1, all proposed lots that will have an area of less than 1ha will be located centrally within the subdivision with acceptable solution compliant lots located around the perimeter of the subdivision. This will ensure that the smaller lots are not overtly apparent within the subdivision when viewed from public roads and surrounding subdivision development. Lot 1 will be adjacent to the public open space lot and will therefore read as a larger lot within the streetscape.

Overall, the proposed smaller lots is not expected to distort the amenity and character of the streetscape and surrounding area significantly beyond what is deemed to be acceptable within the Low Density Residential zone.

4.3 Clause 12.4.3.1 Lot Area, Building Envelopes and Frontage – Performance Criteria P3

12.4.3.1 Lot Area, Building Envelopes and Frontage

Objective To ensure: e) the area and dimensions of lots are appropriate for the zone; and f) the conservation of natural values, vegetation and faunal habitats; and g) the design of subdivision protects adjoining subdivision from adverse impacts; and h) each lot has road, access, and utility services appropriate for the zone.	
Acceptable Solutions	**Performance Criteria**
A3 Each lot must be connected to a reticulated: (a) water supply; and (b) sewerage system.	**P3** Lots that are not provided with reticulated water and sewerage services must be: (a) in a locality for which reticulated services are not available or capable of being connected; and (b) capable of accommodating an on-site wastewater management system.

Response

Lots will not be connected to a reticulated sewerage system. The subdivision relies on the performance criteria in relation to this standard. However, each lot will be connected to a reticulated water supply.

Performance Criteria Assessment

The site and broader Low Density Residential precinct that includes the Devon Hills residential enclave is not serviced by sewerage infrastructure. Following an investigation, it has been determined that the proposed subdivision is unable to be serviced with sewerage infrastructure due to significant capacity issues within Perth in addition to spatial and topographical constraints that will impede the ability to extend the existing sewerage infrastructure to the site.

It is noted that the Low Density Residential zone recognises that lots for residential purposes are not explicitly required to be serviced by reticulated sewerage infrastructure. This is reflected within zone purposes statement 12.1.1.1 and the flexibility provided within performance criteria 12.4.3.1 (P3).

Each lot will have a minimum size of 1 ha which provides enough space to locate a dwelling and onsite wastewater management system, including backup absorption and disposal areas. Further, the site is located within an area that can support domestic

scale onsite wastewater management systems which is demonstrated by the presence of established residential dwellings that utilise onsite wastewater management systems on adjoining and nearby lots.

The application therefore complies with the performance criteria.

4.4 Clause E4.6.1 Use and Road or Rail Infrastructure – Performance Criteria P3

E4.6.1 Use and road or rail infrastructure	
Objective **To ensure that the safety and efficiency of road and rail infrastructure is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions.**	
Acceptable Solutions	**Performance Criteria**
A3 For roads with a speed limit of more than 60km/h the use must not increase the annual average daily traffic (AADT) movements at the existing junction by more than 10%.	**P3** For limited access roads and roads with a speed limit of more than 60km/h: (a) access to a category 1 road or limited access road must only be via an existing access or junction or the use or development must provide a significant social and economic benefit to the State or region; and (b) any increase in use of an existing access or junction or development of a new access or junction to a limited access road or a category 1, 2 or 3 road must be for a use that is dependent on the site for its unique resources, characteristics or locational attributes and an alternate site or access to a category 4 or 5 road is not practicable; and (c) an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level or

	safety and efficiency for all road users.

Response

The development of dwellings on the lots facilitated by the proposed subdivision will increase traffic generation associated with the site by more than 10%. This will in part be at the new junction created by the access road and the individual accesses from Haggerston Road for lots 1 and 20-22. Assessment against the corresponding performance criteria is therefore required.

Performance Criteria Assessment

Pursuant to clause E4.5 of the Scheme, a Traffic Impact Assessment (TIA) has been prepared for the proposed subdivision. The TIA is contained within **Appendix E**.

The increase in vehicle traffic at the interface of the site and Haggerston Road from the new access road will be safe and will not unreasonably impact the efficiency of the road network, having regard to the following:

a) the proposed subdivision will not rely on an existing access or junction or require a new access or junction to a limited access road or a category 1, 2 or 3 road. Accordingly, subclauses (a) and (b) are not applicable to the proposed subdivision;

b) The TIA has concluded that the new junction onto Haggerston Road is unlikely to affect traffic amenity and safety of the road given the low traffic volumes currently experience along the road and adequate sight distances in both directions at the road junction and each of the individual lot accesses.

The application complies with the performance criteria.

4.5 Clause E4.7.1 Development on and adjacent to Existing and Future Arterial Roads and Railways – Performance Criteria P1

E4.7.1 Development on an adjacent to Existing and Future Arterial Roads and Railways
Objective
To ensure that development on or adjacent to category 1 or 2 roads (outside 60km/h), railways and future roads and railways is managed to:
a) ensure the safe and efficient operation of roads and railways; and
b) allow for future road and rail widening, realignment and upgrading; and
c) avoid undesirable interaction between roads and railways and other use or development.

Acceptable Solutions	Performance Criteria
A1 The following must be at least 50m from a railway, a future road or railway, and a category 1 or 2 road in an area subject to a speed limit of more than 60km/h: a) new road works, building, additions and extensions, earthworks and landscaping works; and b) building areas on new lots; and c) outdoor sitting, entertainment and children's play areas.	**P1** Development including buildings, road works, earthworks, landscaping works and level crossings on or within 50m of a category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must be sited, designed and landscaped to: (a) maintain or improve the safety and efficiency of the road or railway or future road or railway, including line of sight from trains; and (b) mitigate significant transport-related environmental impacts, including noise, air pollution and vibrations in accordance with a report from a suitably qualified person; and (c) ensure that additions or extensions of buildings will not reduce the existing setback to the road, railway or future road and railway; (d) ensure that temporary buildings and works are removed at the applicant's expense within three years or as otherwise agreed by the road or rail authority.

Response

The junction of the new access road and the individual accesses to lots 1, 2 and 20-22 will be located within 50m of the eastern edge of the new highway which is a category 1 road. Assessment against the corresponding performance criteria is therefore required.

It is noted that, whilst no building areas on new lots have bee illustrated on the proposed plan of subdivision, each lot will have sufficient separation from the new midland highway to ensure that building envelopes are setback a minimum distance of 50m from the eastern edge of the highway.

Performance Criteria Assessment

The proposed road works will be setback approximately 40m from the eastern edge of the highway pavement.

The proposed road and earth works within 50m of the new Midland Highway will not reduce the safety and efficiency of the road, having regard to the following:

a) the proposed road and earthworks will be located on the eastern side of the Haggerston Road. Haggerston Road is separated from the new highway by a distance of approximately 20m and a safety barrier which is located on the eastern edge of the dual south bound lane of the new highway. In addition, the pavement of the new highway is situated between 1m and 2m above the pavement of Haggerston Road where it is adjacent to the site frontage.

   Linkage to Haggerston Road from the new highway, relative to the site, are from entry and exit points approximately 640m to the south and 1.2km to the north. Accordingly, there is no opportunity for direct interaction between the new junction and accesses and the new highway.

   The safety and efficiency of the new highway will therefore not be affected by the proposed road and earth works that will be within 50m from the eastern edge of the highway.

b) The proposed road and earthworks will not be affected by transport related environmental impacts generated by the operation of the new Midlands Highway;

c) No additions or extensions to existing buildings, or temporary buildings are proposed. Subclauses (c) and (d) are therefore not applicable to the proposed subdivision.

The application complies with the performance criteria.

4.6 Clause E4.7.2 Management of Road Accesses and Junctions – Performance Criteria P2

E4.7.2 Management of Road Accesses and Junctions	
Objective **To ensure that the safety and efficiency of roads is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions.**	
Acceptable Solutions	**Performance Criteria**
A2	**P2**

For roads with a speed limit of more than 60km/h the development must not include a new access of junction.	For limited access roads and roads with a speed limit of more than 60km/h: a) access to a category 1 road or limited access road must only be via an existing access or junction or the development must provide a significant social and economic benefit to the State or region; and b) any increase in use of an existing access or junction or development of a new access or junction to a limited access road or a category 1, 2 or 3 road must be dependant on the site for its unique resources, characteristics or locational attributes and an alternate site or access to a category 4 or 5 road is not practicable; and c) an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level of safety and efficiency for all road users.

Response

A new road junction and individual lot accesses are proposed. Assessment against the corresponding performance criteria is therefore required.

Performance Criteria Assessment

The proposed new junction and individual lot accesses will not unreasonably impact the safety and efficiency of the road network, having regard to the following:

a) the proposed subdivision will not rely on an existing access or junction or require a new access or junction to a limited access road or a category 1, 2 or 3 road. Accordingly, subclauses (a) and (b) are not applicable to the proposed subdivision;

b) the TIA has concluded that the new junction and individual lot accesses onto Haggerston Road is unlikely to affect traffic amenity and safety of the road given the low traffic volumes currently experience along the road and adequate sight distances in both directions at the road junction and each of the individual lot accesses.

The application complies with the performance criteria.

4.7 Clause E5.6.1 Flooding and Coastal Inundation – Performance Criteria P1.2 and P1.3

Response against performance criteria P1.2 and P1.3 is provided within the stormwater catchment and flooding report.

4.8 Clause E10.6.1 Provision of Public Open Space - Performance Criteria P1

E10.6.1 Provision of Public Open Space	
Objective **a) To provide public open space which meets user requirements, including those with disabilities, for outdoor recreational and social activities and for landscaping which contributes to the identity, visual amenity and health of the community; and** **b) To ensure that the design of public open space delivers environments of a high quality and safety for a range of users, together with appropriate maintenance obligations for the short, medium and long term.**	
Acceptable Solutions	**Performance Criteria**
A1 The applicant must: a) Include consent in writing from the General Manager that no land is required for public open space but instead there is to be a cash payment in lieu.	**P1** Provision of public open space, unless in accordance with Table E10.1, must: a) not pose a risk to health due to contamination; and b) not unreasonably restrict public use of the land as a result of: (i) services, easements or utilities; and (ii) stormwater detention basins; and (iii) drainage or wetland areas; and

	(iv) vehicular access; and c) be designed to: (i) provide a range of recreational settings and accommodate adequate facilities to meet the needs of the community, including car parking; (ii) reasonably contribute to the pedestrian connectivity of the broader area; (iii) be cost effective to maintain; and (iv) respond to the opportunities and constraints presented by the physical characteristics of the land to provide practically useable open space; and (v) provide for public safety through Crime Prevention through Environmental Design principles; and (vi) provide for the reasonable amenity of adjoining land users in the design of facilities and associated works; and (vii) have a clear relationship with adjoining land uses through treatment such as alignment fencing and landscaping; and (viii) create attractive environments and focal points that contribute to the existing or desired future character statements, if any.

Response

Council's General Manager has advised that land for public open spaces purposes is required to be provided as part of the subdivision. Assessment against the corresponding performance criteria is therefore required.

Performance Criteria Assessment

The location and configuration of the proposed public open space lot has been selected under the guidance of Council officers. It will have frontage to Haggerston Road and the proposed access road. It is proposed to incorporate some of the lot into a stormwater detention basin. The remaining area of the lot is otherwise level and is easily accessed for use and maintenance purposes. The lot is not restricted by significant physical constraints.

5.0 Conclusion

The proposed development involves a 26 Lot subdivision at 16338 Midland Highway, Perth. The proposed subdivision relates to land that has previously been identified and zoned for residential use and development.

The planning submission has demonstrated that the proposed use and development complies with the applicable Scheme standards in the Low Density Residential zone and relevant code provisions, including the following performance criteria:

- **Clause 12.4.3.1 Lot area, building envelopes and frontage – Performance Criteria P3;**
- **Clause E4.6.1 Use and road or rail infrastructure – Performance Criteria P3;**
- **Clause E4.7.1 Development on and adjacent to existing and future arterial roads and railways – Performance Criteria P1;**
- **Clause E4.7.2 Management of road accesses and junctions – Performance Criteria P2;**
- **Clause E5.6.1 Flooding and coastal inundation – Performance Criteria P1.2 and P1.3; and**
- **Clause E10.6.1 Provision of public open space - Performance Criteria P1.**

It is therefore submitted that a discretionary permit can be issued for the use and proposed development in accordance with Section 51 and 57 of the *Land Use Planning and Approvals Act 1993*.

6ty°

Planning Report

Stormwater Report

16338 Midland Highway, Perth

Prepared for:

Northern Midlands Council

Measured form and function

6ty Pty Ltd
ABN 27 014 609 900

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

Tamar Suite 103
The Charles
287 Charles Street
Launceston 7250
P (03) 6332 3300

57 Best Street
PO Box 1202
Devonport 7310
P (03) 6424 7161

Issue	01
Date	22.08.2018
Project Name	Dornauf – Subdivision, 16338 Midland Highway, Perth
Project Number	11.105
Author	Mark Walters
Document	i:\2011\11105\council\r 18-08-22 stormwater report.docx

Contents

1.0 Introduction

This report forms part of a planning submission to local government for the subdivision of a parcel of land at 16338 Midland Highway, Perth, also known as "Keppoch Lodge".

The primary purpose of this report is to define the magnitude of runoff volumes produced by the contributing catchments in major storm events and to examine the likely extent of flooding during 100-year ARI events. This report also aims to assess the impact of the planned development on the subject land on the downstream stormwater infrastructure.

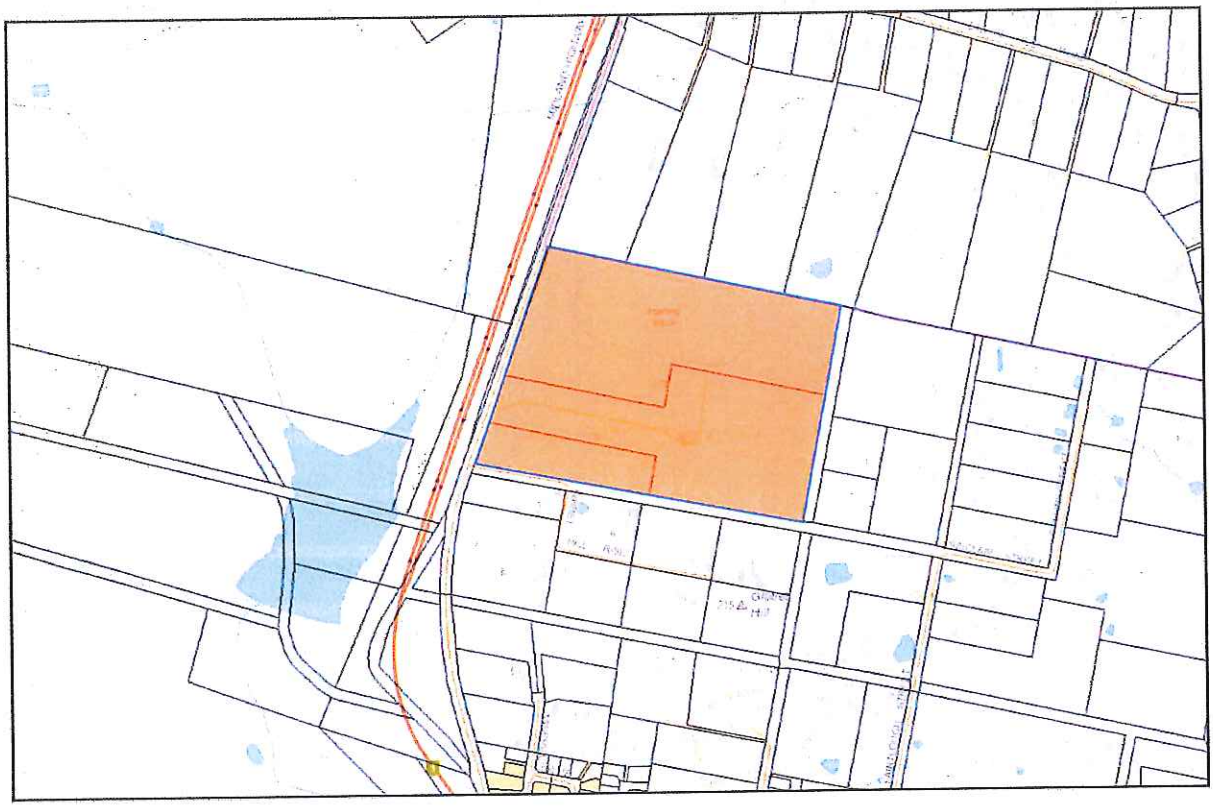


Image 1 – Subject site

2.0 The Existing Catchment

The subject land is surrounded by elevated areas with Devon Hills to the North East and Gibbet Hill to the South. Thus, the subject land receives runoff from these directions and naturally discharges these flows to the west in the direction of the Midland Highway.

This analysis assesses a total catchment area of approximately 95.6 Hectares, all of which is classified as low density residential according to the Tasmanian Interim Planning Scheme.

There are currently some minor open drains within the catchment to the north, which concentrate flows in rain events. Ultimately, all catchment flows are concentrated upstream of the culverts under the old Midland Highway by open channels from the North, East & South. There are three culverts under the old Midland Highway,

comprised of a dual 1050mm dia. culvert with a 600mm dia culvert located 6m to the north. Immediately downstream of these culverts is a new wetlands area dominated by a shallow settling pond, which leads to a new rectangular concrete culvert under the newly constructed Midland Highway.

Image 2 – Existing drainage channels extending north east from existing culvert

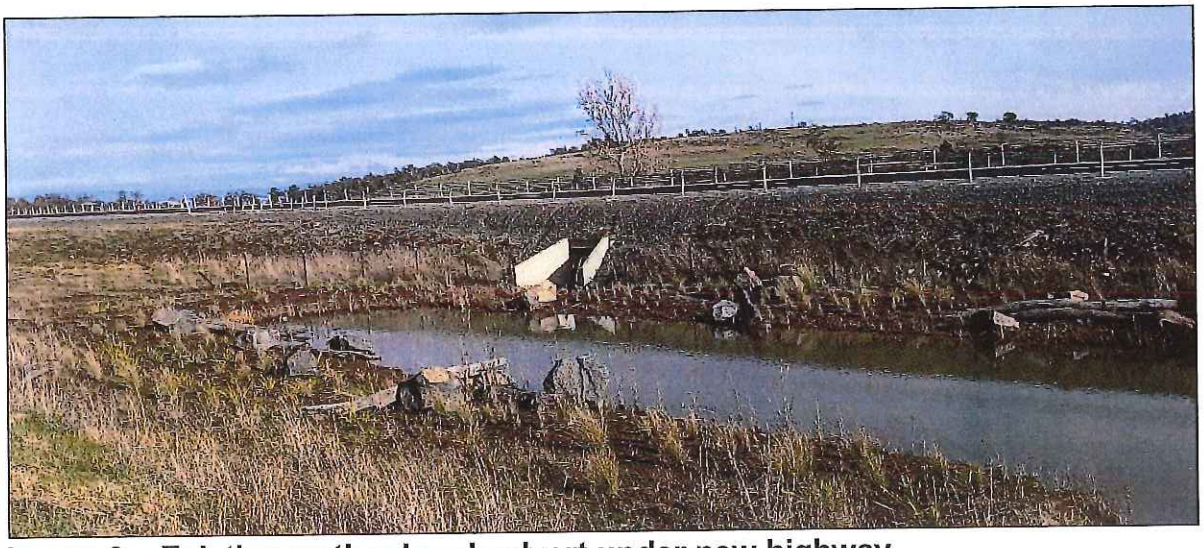


Image 3 – Existing wetland and culvert under new highway

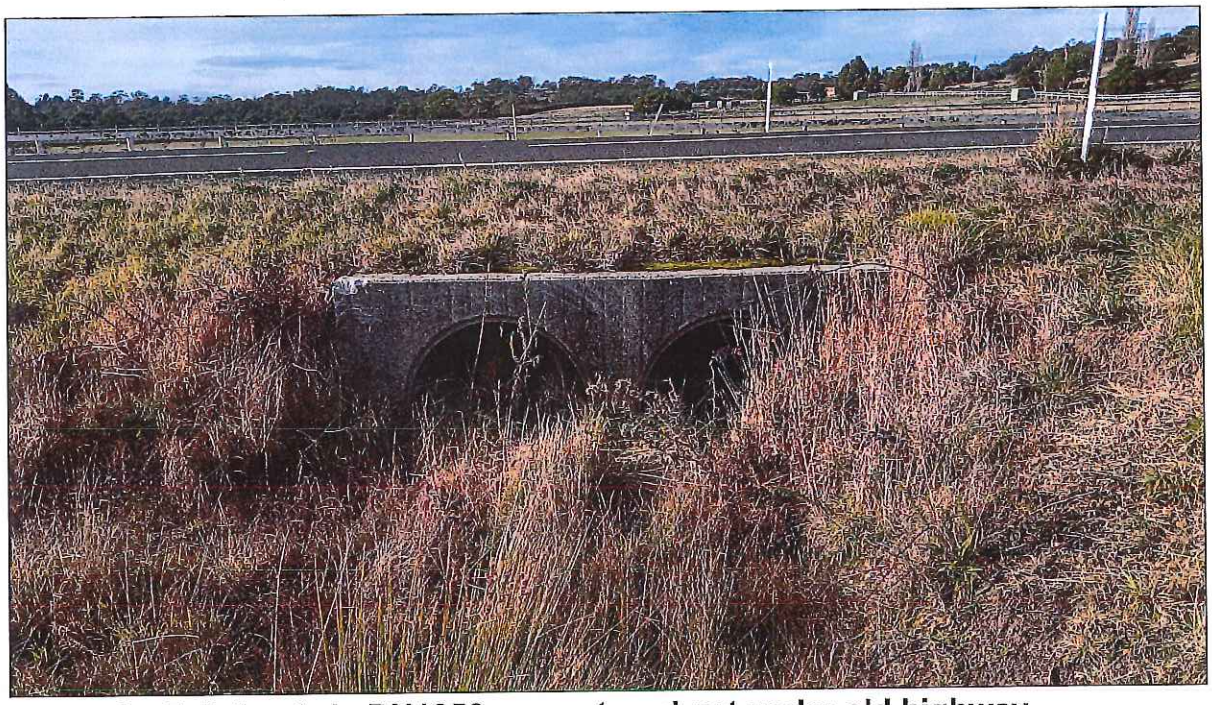


Image 4 – Existing twin DN1050 concrete culvert under old highway

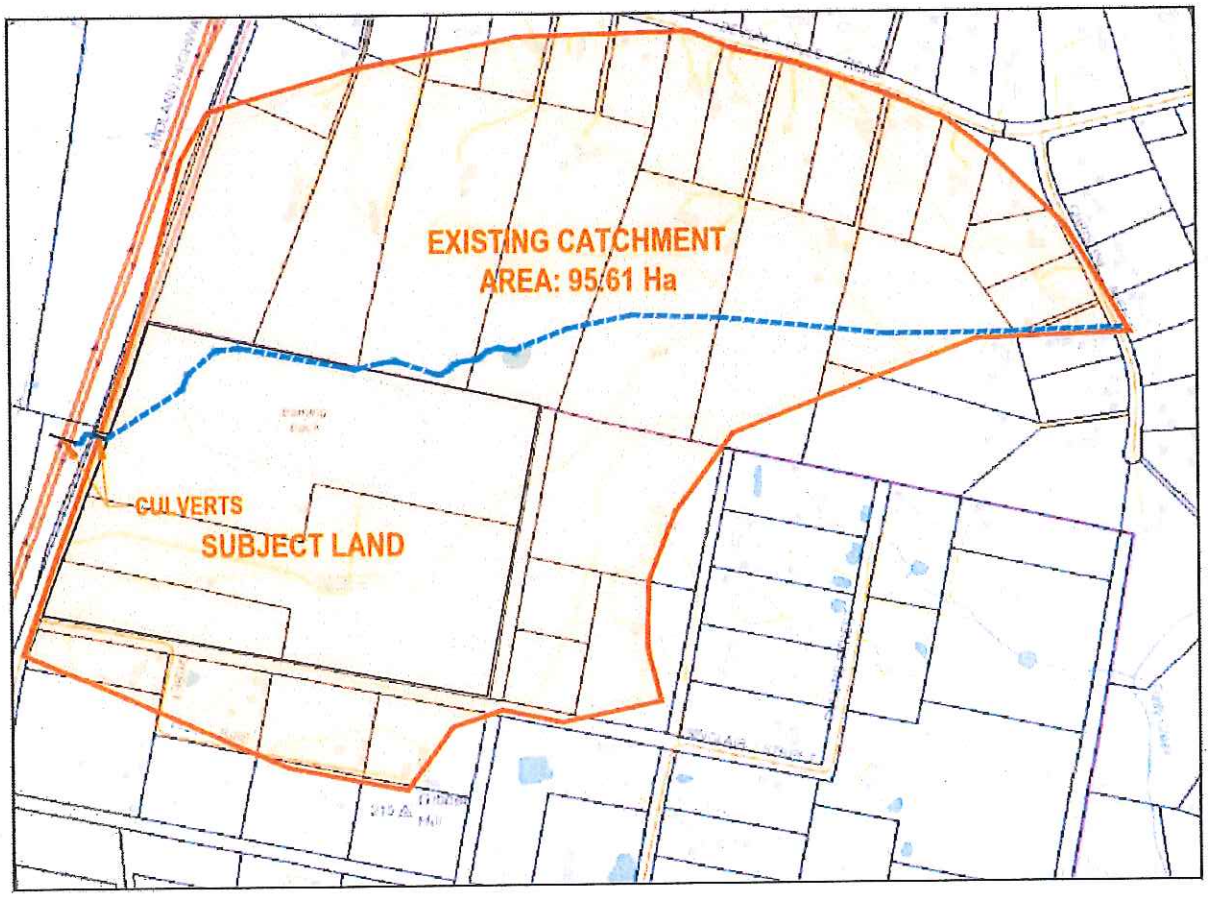


Image 5 – Image of existing catchment

Sub-Catchment	Area (Ha)	Percentage of Impervious Surfaces	Time of Concentration (mins)
North	18.51	3.00%	25
East	62.70	3.00%	50
South	14.40	5.00%	20
Overall	95.61	3.30%	

Table 1 – Watercom Drains Model – Existing catchment data

3.0 The Ultimate Catchment

The ultimate catchment area has the same footprint as the existing catchment. The major difference is the assumption that open drains will be constructed along the boundaries of the subject land. These boundary drains will concentrate flows from neighbouring properties and prevent potential shallow surface flows across the newly created titles. As the subject land will have boundary drains, this overall catchment has been further broken down into five sub-catchments as shown in image 6.

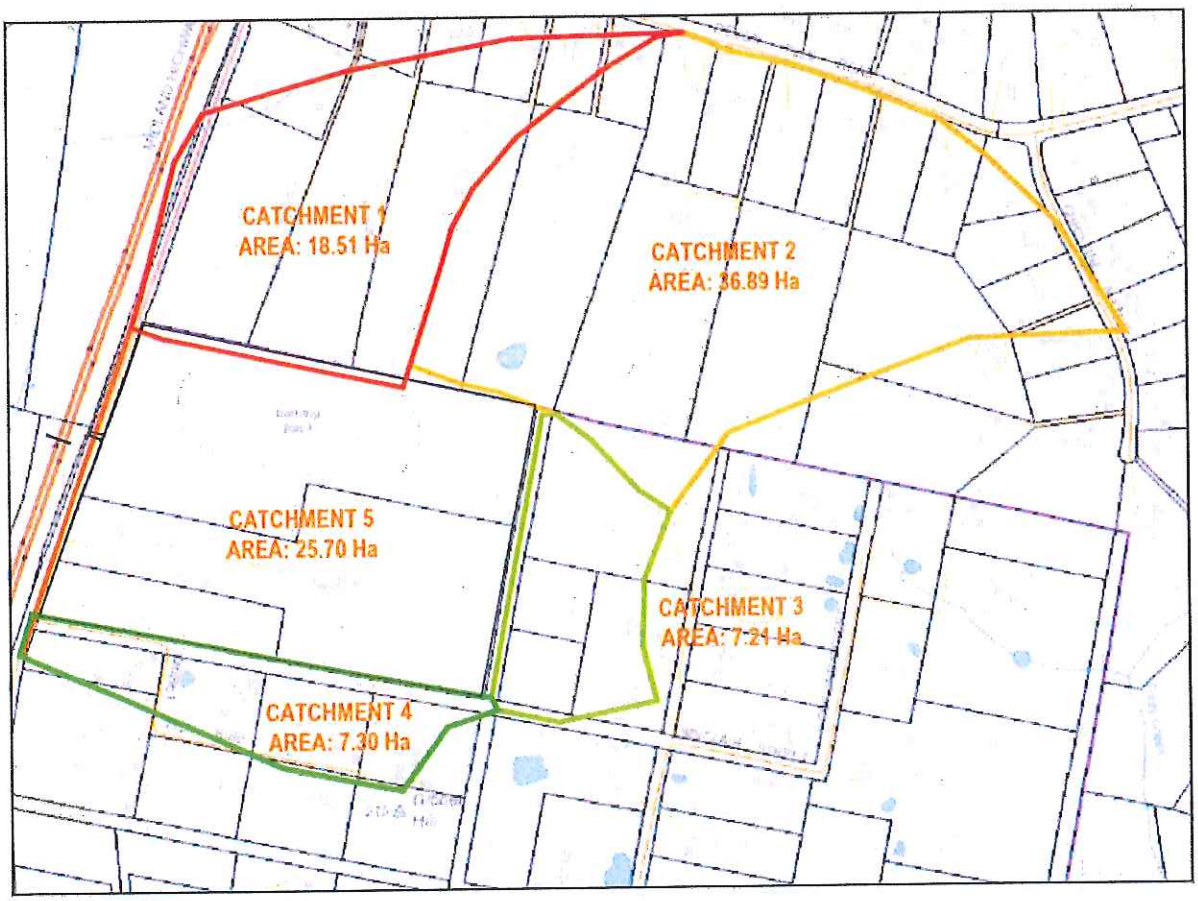


Image 6 – Image of sub-catchments

The overall catchment boundaries will not change from their pre-development locations because of the subdivision in the subject land. In addition to this, because the proposed subdivision is low density, the change in the percentage of impervious surfaces is minor.

Sub-Catchment	Area (Ha)	Percentage of Impervious Surfaces	Time of Concentration (mins)
Catchment 1	18.51	3.00%	24
Catchment 2	36.89	3.00%	30
Catchment 3	7.21	3.00%	15
Catchment 4	7.30	5.00%	15
Catchment 5	25.70	5.00%	20
Overall	95.61	3.69%	

Table 2 – Watercom Drains Model – Ultimate catchment data

4.0 Hydraulic Analysis

The Watercom Drains software package has been used to model the existing catchment flows under 100-year ARI storm event circumstances and compares these with the post development flows for the same storm events.

For simplicity the culverts under the old highway have been modelled as twin 1150mm Dia culverts which are approximately equal to the current arrangement in total flow area and perimeter.

A key finding during the development of the model, was that the existing culverts are not able to pass all flows during a 100-year ARI storm event and impoundment will occur. Effectively this means that we expect the water level upstream of the culverts under both highways to rise as flows increase, inundating the land immediately surrounding the headwall. This has been represented in the hydraulic model as two separate staged storage basins upstream of the culverts, with storage volumes based on surveyed topography. This allows for an accurate analysis of expected inundation levels in both areas during storm events.

4.1 Existing System – Peak Discharge for 100-year ARI

Under existing conditions, the hydraulic model shows that peak flow rates in the culverts under each highway peaks at just under **3.00 m^3/s.**

Upstream of the new highway culvert, the hydraulic model shows that peak inflows will slightly exceed peak outflows. This results in a peak retained volume of 900m^3 and a corresponding high-water level of **179.85m** in the area between the highways.

Upstream of the old highway culvert, the hydraulic model shows that peak inflows will significantly exceed the culvert capacity, with **5.25 m^3/s** expected to arrive at this junction in a 20 min storm. In a 1 hour storm these surplus flows will result in a peak retained volume of around 3700m^3, which corresponds to a high-water level of **180.30m.**

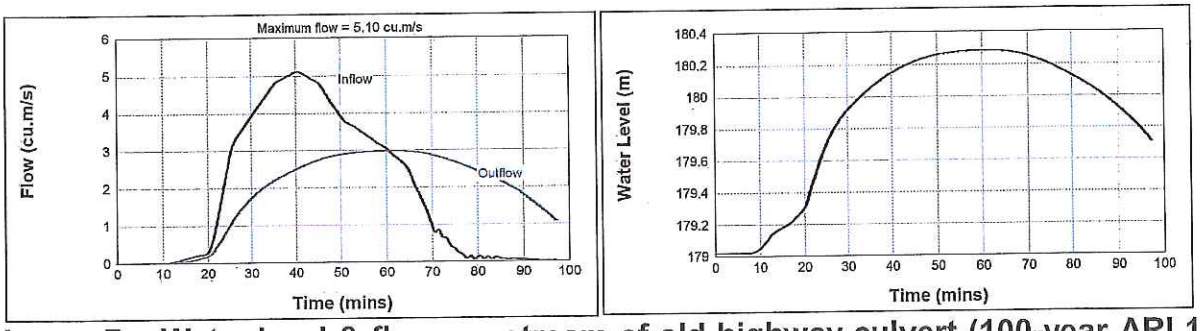


Image 7 – Water level & flows upstream of old highway culvert (100-year ARI 1 hour storm)

High water levels are not expected to exceed the level of the road pavement on both roads. Hence flows are expected to be retained within the culverts during a 100-year ARI storm event.

New Highway Culvert		
		Storm Duration
Peak Outflow	2.89m3/s	1 hour
Peak Upstream Inflows	2.94m^3/s	20 mins
Road Pavement Level	181.30m	-
Peak Upstream Water Level	179.85m	1 hour
Peak Upstream Storage Volume	900m^3	1 hour

Table 3 – Hydraulic analysis results – Existing catchment – New highway culvert

Old Highway Culvert		
		Storm Duration
Peak Outflow	2.97m^3/s	1 hour
Peak Upstream Inflows	5.25m^3/s	20 mins
Road Pavement Level	180.30m	-
Peak Upstream Water Level	180.28m	1 hour
Peak Upstream Storage Volume	3700m^3	1 hour

Table 4 – Hydraulic analysis results – Existing catchment – Old highway culvert

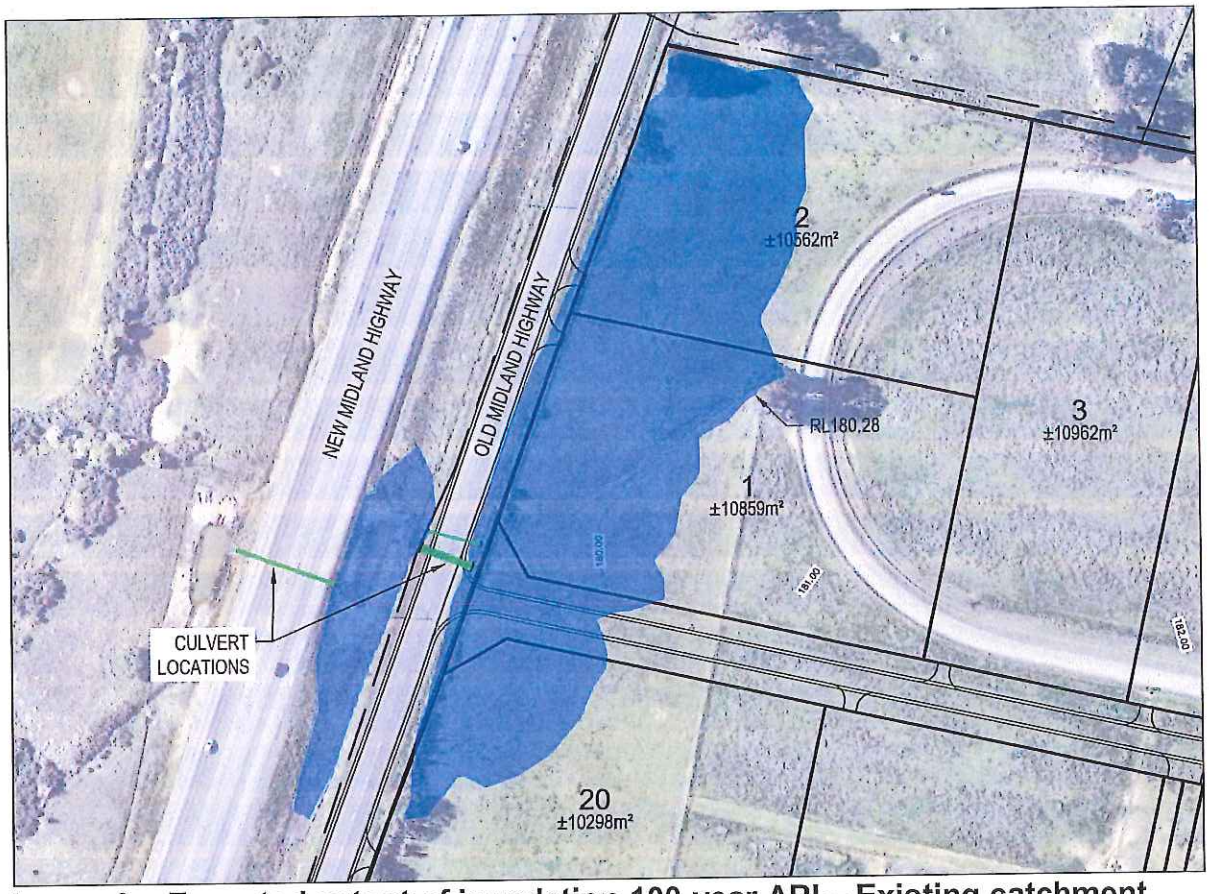


Image 8 – Expected extent of inundation 100-year ARI – Existing catchment

4.2 Developed System – Peak Discharge for 100-year ARI

Under developed conditions, the hydraulic model shows that there is a marginally higher peak discharge compared to the existing catchment.

Just as for the existing system upstream of the new highway culvert, the hydraulic model shows that peak inflows will slightly exceed peak outflows. This results in a peak retained volume of 900m^3 and a corresponding high-water level of **179.88m** in the area between the highways.

Upstream of the old highway culvert, the hydraulic model shows that peak inflows will significantly exceed the culvert flows, with **6.29 m^3/s** expected to arrive at this junction in a 1-hour storm. These surplus flows will result in a peak retained volume of around 4000m^3, which corresponds to a high-water level of **180.31m.**

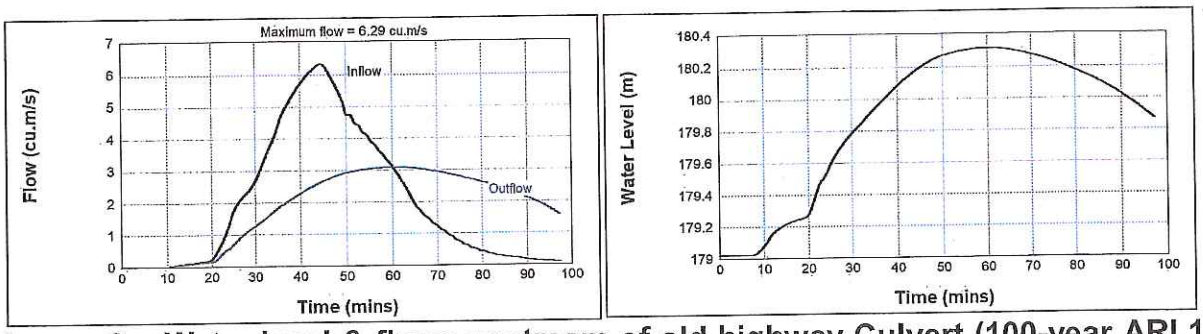


Image 9 – Water level & flows upstream of old highway Culvert (100-year ARI 1 hour storm)

High water levels will not exceed the level of the new Midland Highway road pavement but will exceed the level on the old Midland Highway by only 10mm. Hence all significant flows are expected to be retained within the culverts during a 100-year ARI storm event.

New Highway Culvert		
		Storm Duration
Peak Outflow	2.95m³/s	1 hour
Peak Upstream Inflows	3.02m³/s	1 hour
Road Pavement Level	181.30m	-
Peak Upstream Water Level	179.88m	1 hour
Peak Upstream Storage Volume	909m³	1 hour

Table 5 – Hydraulic analysis results – Existing catchment – New highway culvert

Old Highway Culvert		
		Storm Duration
Peak Outflow	3.07m³/s	1 hour
Peak Upstream Inflows	6.31m³/s	1 hour
Road Pavement Level	180.30m	-
Peak Upstream Water Level	180.31m	1 hour
Peak Upstream Storage Volume	3990m³	1 hour

Table 6 – Hydraulic analysis results – Existing catchment – Old highway culvert

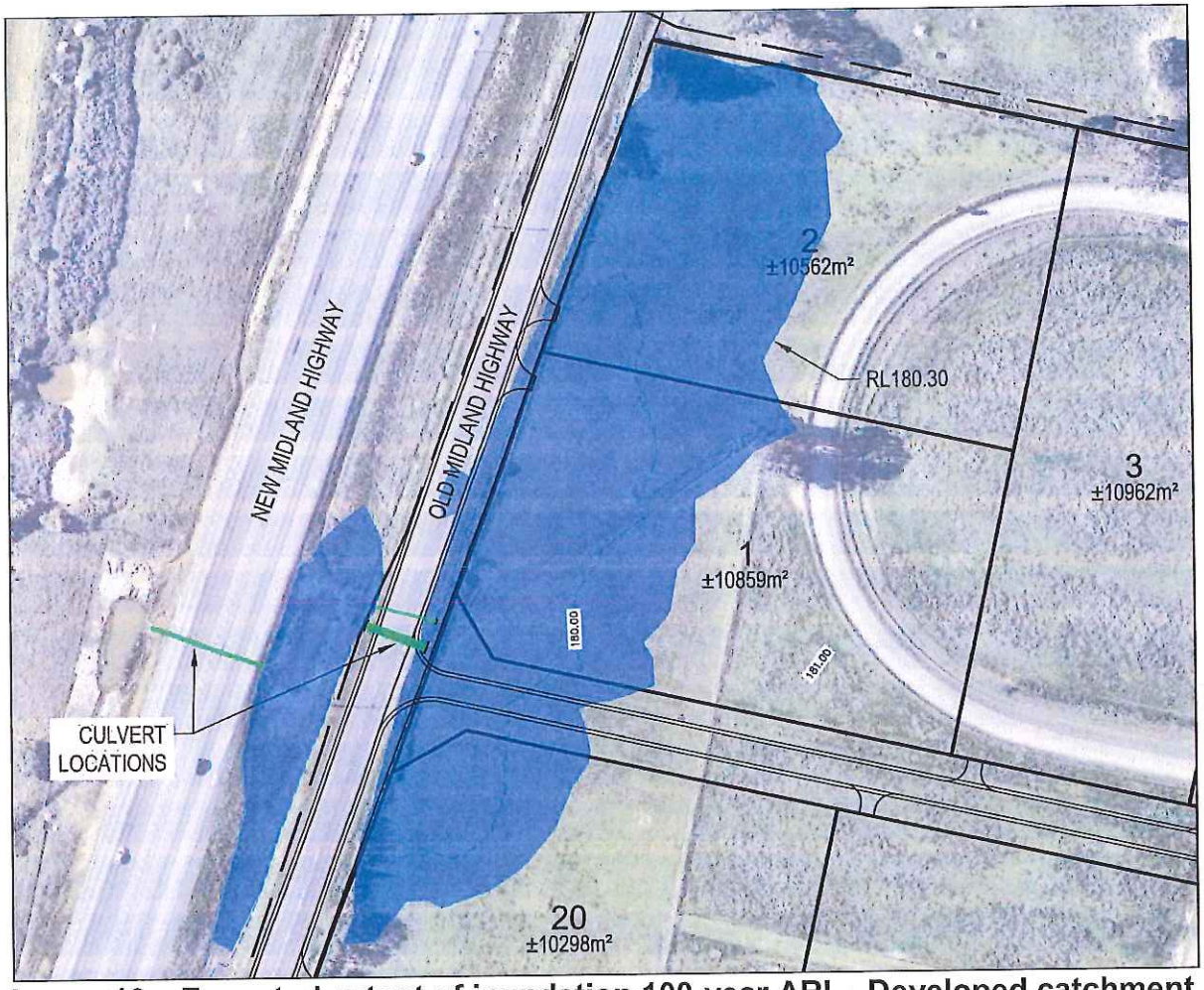


Image 10 – Expected extent of inundation 100-year ARI – Developed catchment

To reduce the level of inundation upstream of the old Midland Highway culvert, the capacity of the culvert could be increased. The addition of a third DN1050 culvert under the old highway will reduce water levels above the old highway, however the increased flows will increase the peak water levels in the areas between the highways. The following tables and figures show the relevant data for a 100-year event in the scenario where an additional DN1050 culvert is installed under the old Midland Highway.

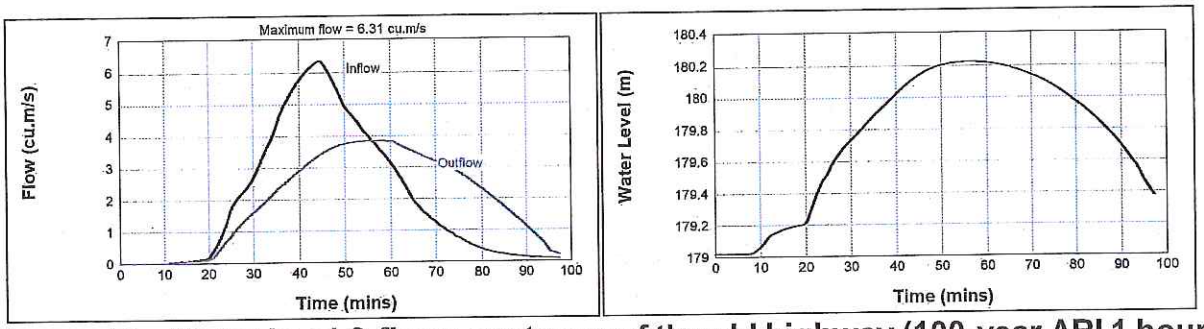


Image 11 – Water level & flows upstream of the old highway (100-year ARI 1 hour storm)

New Highway Culvert		
		Storm Duration
Peak Downstream Outflow	3.56m³/s	1 hour
Peak Upstream Inflows	3.73m³/s	1 hour
Road Pavement Level	181.30m	-
Peak Upstream Water Level	180.03m	1 hour
Peak Upstream Storage Volume	1190m³	1 hour

Table 7 – Hydraulic analysis results – Existing catchment – New highway culvert

Old Highway Culvert		
		Storm Duration
Peak Downstream Outflow	3.82m³/s	1 hour
Peak Upstream Inflows	6.31m³/s	1 hour
Road Pavement Level	180.30m	-
Peak Upstream Water Level	180.21m	1 hour
Peak Upstream Storage Volume	2830m³	1 hour

Table 8 – Hydraulic analysis results – Existing catchment – Old highway culvert

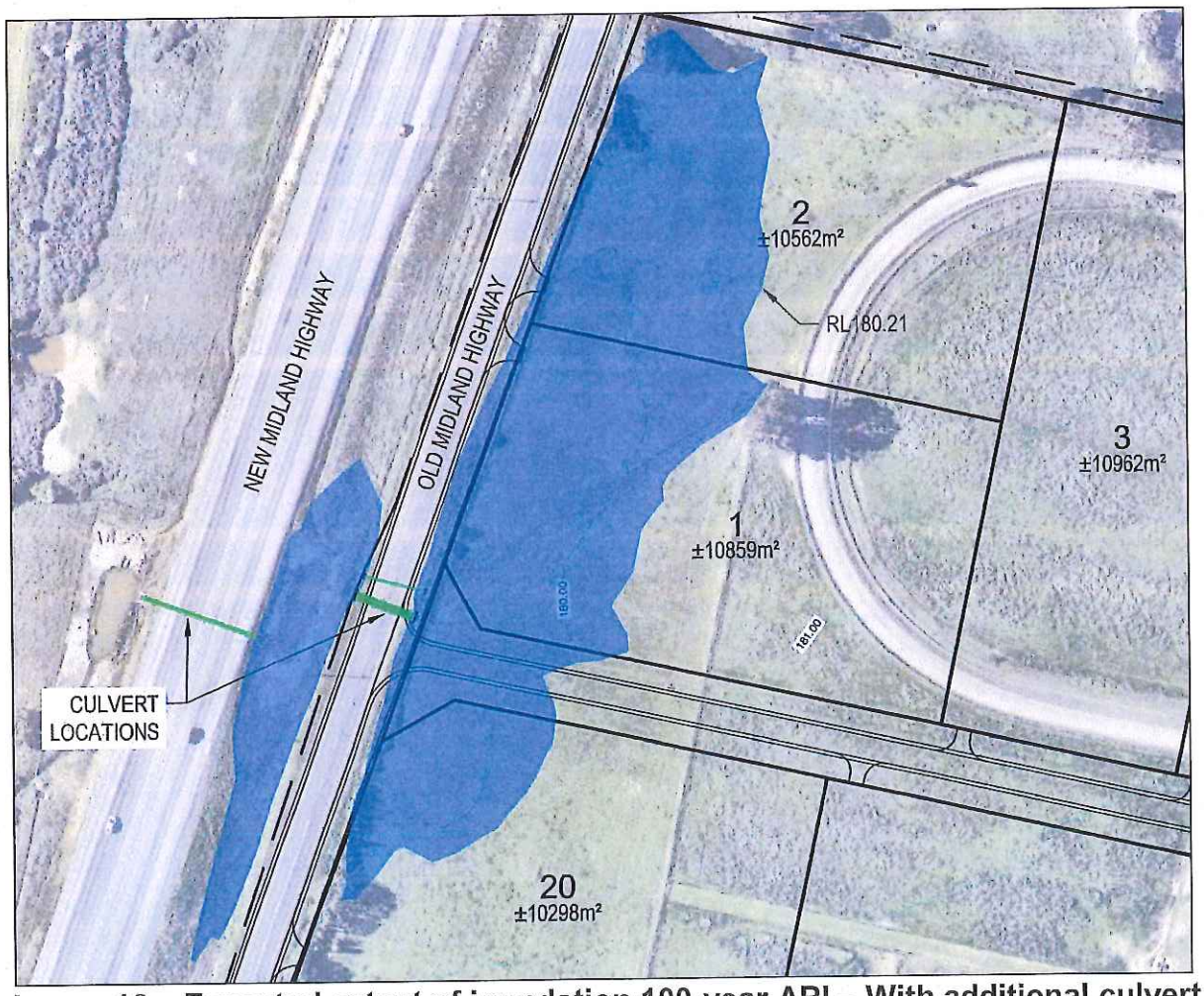


Image 12 – Expected extent of inundation 100-year ARI – With additional culvert installed

5.0 Summary

The existing catchment directs flows from surrounding lands through the subject land as either channel flows or sheet flows. The addition of formalised perimeter drainage to the subject land will reduce the incidence of overland sheet flows across the site, however it will also slightly increase the peak flowrate crossing the old Midland Highway.

The current culvert arrangement is able to contain a 10-year ARI storm without significant impoundment; however, a 20-year ARI storm will result in minor inundation of the residential land and a 50-year ARI storm is likely to result in significant inundation extending up to 40m east of the old highway.

A 100-year ARI storm event will result in impoundment of both highway culverts at the upstream end. This retained volume is relatively minor upstream of the new highway culvert, but it is more significant upstream of the old highway culvert and this will cause flood waters to extend up to 65m east of the old highway.

A summary of the flows through the new Midland Highway culvert is shown on the following table:

New Highway Culvert			
Scenario	Existing	Post Development	Post development with additional DN1050 under old highway
Peak Downstream Outflow	2.89m³/s	2.95m³/s	3.56m³/s
Peak Upstream Inflows	2.94m³/s	3.02m³/s	3.73m³/s
Road Pavement Level at low point	181.30m		
Peak Upstream Water Level	179.85m	179.88m	180.03m
Peak Upstream Storage Volume	900m³	909m³	1.19m³

Table 9 – New highway culvert flow summary

A summary of the flows through the old Midland Highway culvert is shown on the following table:

Old Highway Culvert			
Scenario	Existing	Post Development	Post Development with additional DN1050 under Old Highway
Peak Downstream Outflow	2.97m³/s	3.07m³/s	3.82m³/s
Peak Upstream Inflows	5.25m³/s	6.31m³/s	
Road Pavement Level at low point	180.30m		
Peak Upstream Water Level	180.28m	180.31m	180.21m
Peak Upstream Storage Volume	3.70m³	3.99m³	2.83m³

Table 10 – Old highway culvert flow summary

These results show that after the installation an additional culvert under the old Midland Highway, the retained water is reduced by 23% from existing conditions. This provides future residents with greater protection from flooding and greatly reduces the likelihood that the road will become inundated.

6.0 Flood Prone Areas Code

The following assessment addresses performance criteria P1.2 and P1.3 of the Flood Prone Areas Code.

Clause E5.6.1 Flooding and Coastal Inundation P1.2

Development subject to medium risk in accordance with the risk assessment in E5.7 must demonstrate that the risk to life, property and the environment is mitigated through structural methods or site risks to a low risk level in accordance with the risk assessment in E5.7.

Response

As per the findings of this report the likely inundation in a major 100-year ARI storm event is isolated to lots 1, 2 & 20. The expected inundation zone leaves ample area for an unaffected building envelope on these lots with flood waters being shallow and slow moving over privately-owned land.

In accordance with the risk assessment in E5.7 the flooding likelihood is deemed to be "Unlikely" (2% AEP) and the consequence is deemed to be "Minor" with temporary access restrictions and minor environmental damage likely in such an event.

Clause E5.6.1 Flooding and Coastal Inundation P1.3

Where mitigation of flood impacts is proposed or required, the application must demonstrate that:

a) *the works will not unduly interfere with natural coastal or watercourse processes through restriction or changes to flow;*

b) *the works will not result in an increase in the extent of flooding on other land or increase the risk to other structures;*

c) *inundation will not result in pollution of the watercourse or coast through appropriate location of effluent disposal or the storage of materials; and*

d) *where mitigation works are proposed to be carried out outside the boundaries of the site, such works are part of an approved hazard reduction plan covering the area in which the works are proposed.*

Response

As per the findings of this report the proposed development will not significantly increase impervious areas on the site and increased flowrates will be insignificant. Any increase in flow rates will be absorbed by large natural downstream detention storage and will not interfere with natural watercourse processes nor will it increase any flooding on other lands.

Provided site works are completed in accordance with standard soil and water management policy the proposal will not result in additional watercourse pollution.

7.0 Recommendations

1. That a perimeter cut off drain be constructed along the boundary of the subject land to reduce the likelihood of sheet flows travelling across any newly created residential lots during significant storm events.
2. That an additional DN1050 culvert be installed alongside the existing double culvert under the old Midland Highway, reducing the 100-year flood levels and providing extra protection against the flood waters exceeding the level of the road.
3. That the accumulated debris and vegetation in and around the existing double culvert under the old Midland Highway be removed to allow the culvert to function at optimal efficiency.
4. That the minimum floor level for future dwellings created as part of the proposed subdivision be at least 300mm higher than the expected 100-year ARI flood level.

Image 13 – 'Keppoch Lodge' land

6ty°

Planning Report

Stormwater Report

16338 Midland Highway, Perth

Prepared for:

Northern Midlands Council

AMENDED

Measured form and function

6ty Pty Ltd
ABN 27 014 609 900

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

Tamar Suite 103
The Charles
287 Charles Street
Launceston 7250
P (03) 6332 3300

57 Best Street
PO Box 1202
Devonport 7310
P (03) 6424 7161

Issue	02
Date	10.11.2020
Project Name	Dornauf – Subdivision, 16338 Midland Highway, Perth
Project Number	11.105
Author	Mark Walters and Moses Van Den Berg
Document	i:\2011\11105\council\da 2020\stormwater\r 20-11-10 stormwater report.docx

Contents

1.0 Introduction

This report forms part of a planning submission to local government for the subdivision of a parcel of land at 16338 Midland Highway, Perth, also known as "Keppoch Lodge".

The primary purpose of this report is to define the magnitude of runoff volumes produced by the contributing catchments in major storm events and to examine the likely extent of flooding during 100-year ARI events. This report also aims to assess the impact of the planned development on the subject land on the downstream stormwater infrastructure.

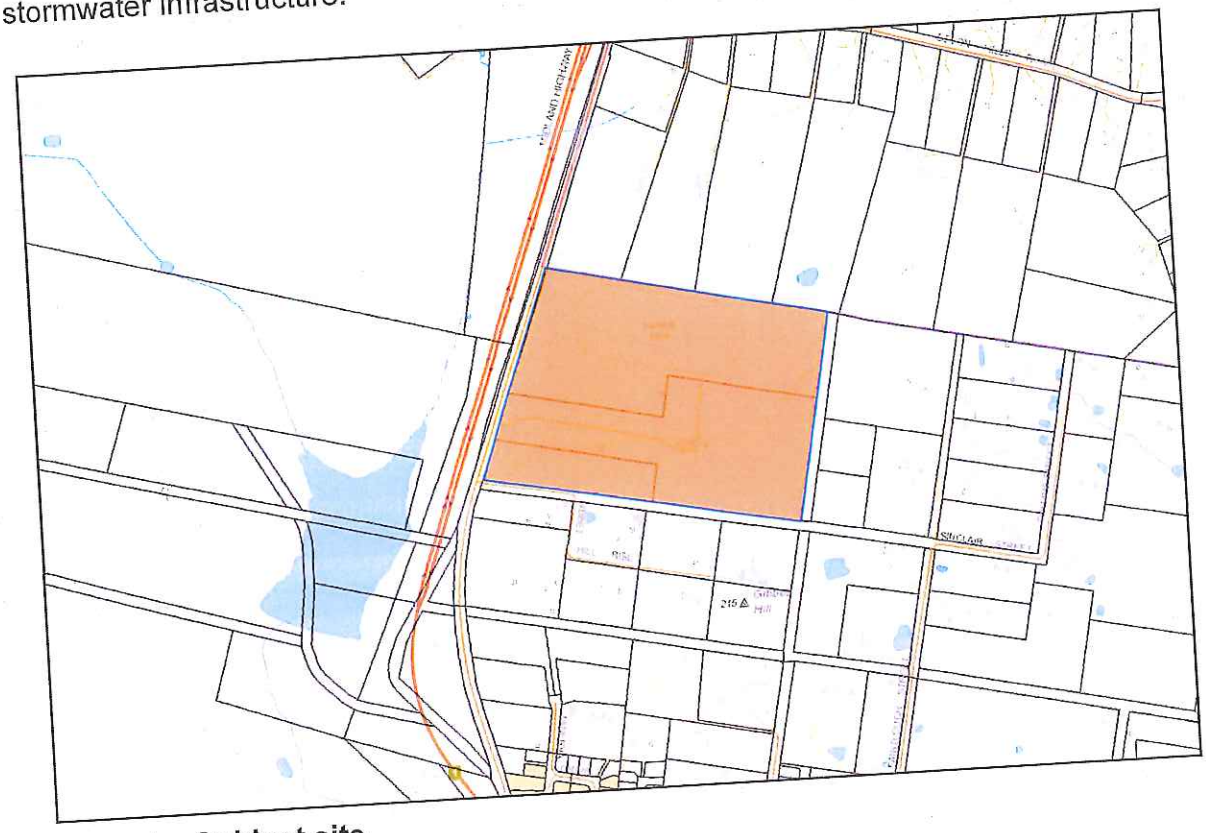


Image 1 – Subject site

2.0 The Existing Catchment

The subject land is surrounded by elevated areas with Devon Hills to the North East and Gibbet Hill to the South. Thus, the subject land receives runoff from these directions and naturally discharges these flows to the west in the direction of the Midland Highway.

This analysis assesses a total catchment area of approximately 95.6 Hectares, all of which is classified as low density residential according to the Tasmanian Interim Planning Scheme.

There are currently some minor open drains within the catchment to the north, which concentrate flows in rain events. Ultimately, all catchment flows are concentrated upstream of the culverts under the old Midland Highway by open channels from the North, East & South. There are three culverts under the old Midland Highway,

comprised of a dual 1050mm dia. culvert with a 600mm dia culvert located 6m to the north. Immediately downstream of these culverts is a new wetlands area dominated by a shallow settling pond, which leads to a new rectangular concrete culvert under the newly constructed Midland Highway.

Image 2 – Existing drainage channels extending north east from existing culvert

Image 3 – Existing wetland and culvert under new highway

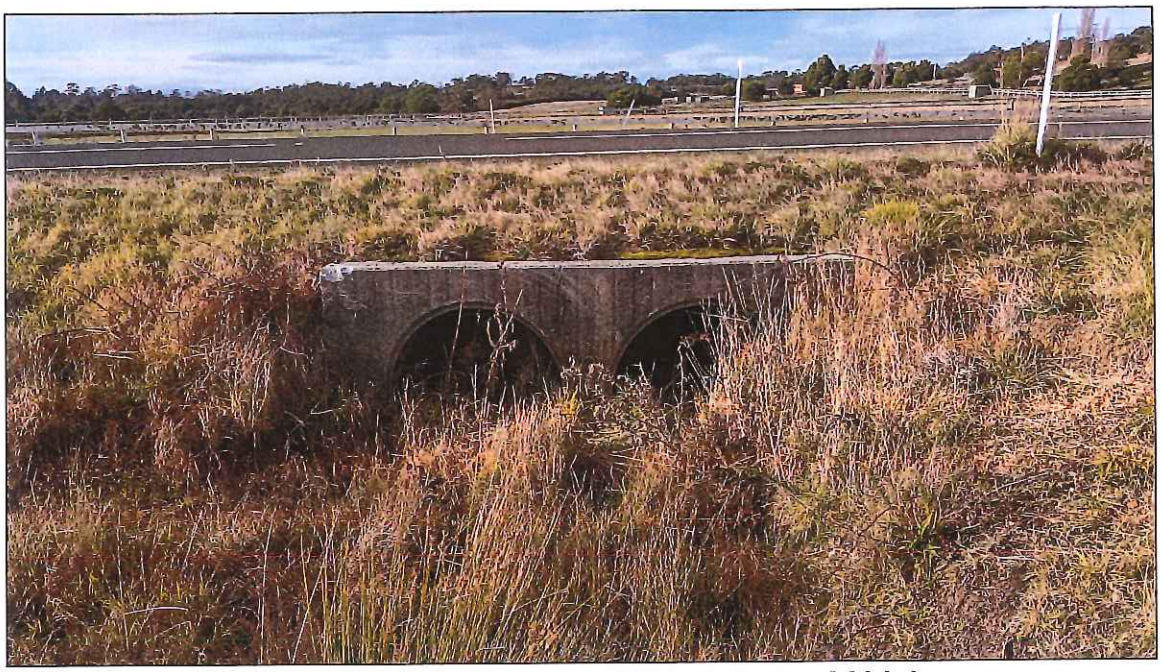


Image 4 – Existing twin DN1050 concrete culvert under old highway

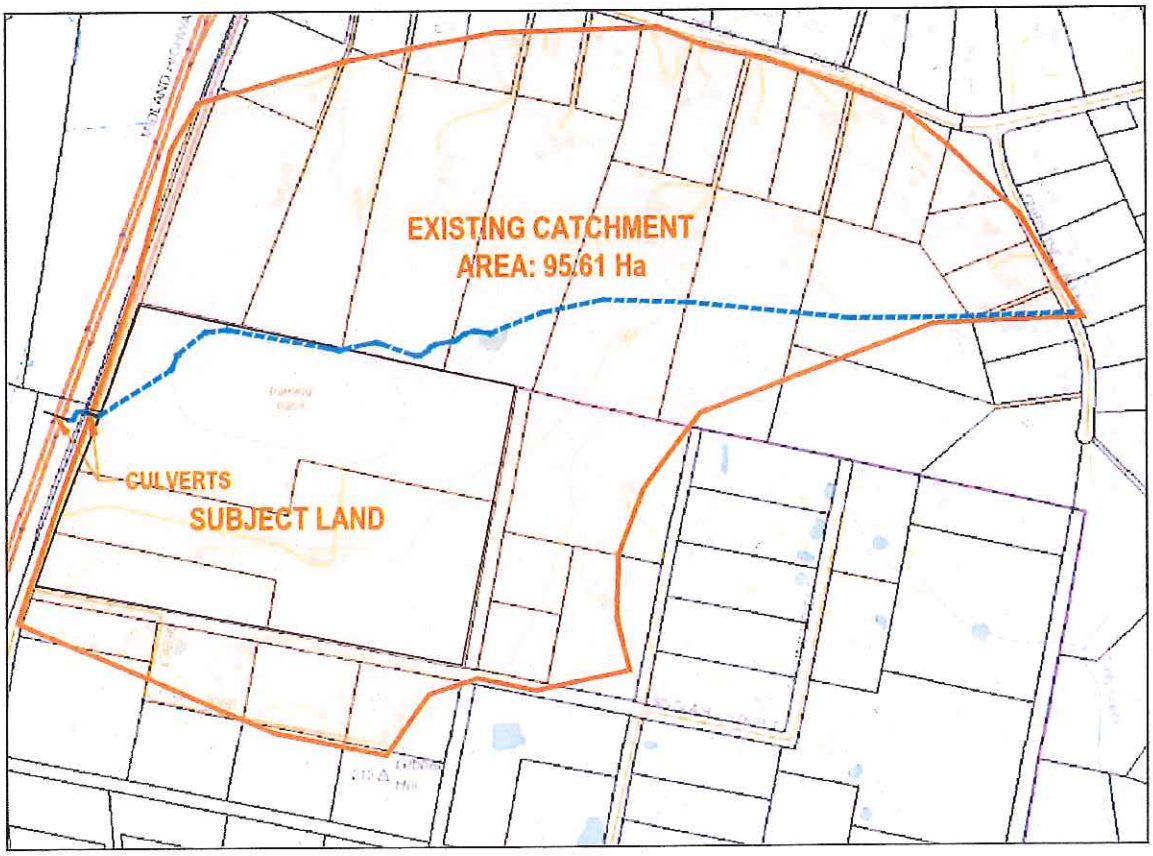


Image 5 – Image of existing catchment

Sub-Catchment	Area (Ha)	Percentage of Impervious Surfaces	Time of Concentration (mins)
North	18.51	3.00%	25
East	62.70	3.00%	50
South	14.40	5.00%	20
Overall	95.61	3.30%	

Table 1 – Watercom Drains Model – Existing catchment data

3.0 The Ultimate Catchment

The ultimate catchment area has the same footprint as the existing catchment. The major difference is the assumption that open drains will be constructed along the boundaries of the subject land. These boundary drains will concentrate flows from neighbouring properties and prevent potential shallow surface flows across the newly created titles. As the subject land will have boundary drains, this overall catchment has been further broken down into five sub-catchments as shown in image 6.

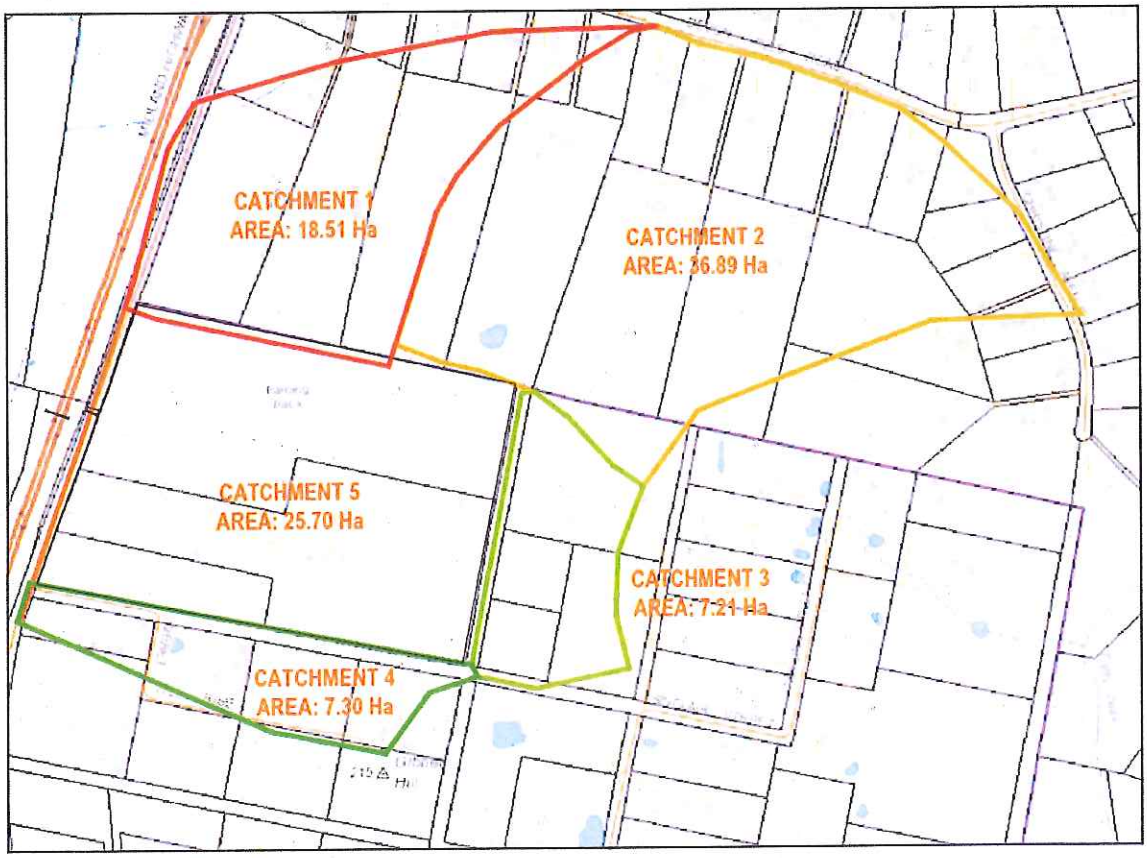


Image 6 – Image of sub-catchments

The overall catchment boundaries will not change from their pre-development locations because of the subdivision in the subject land. In addition to this, because the proposed subdivision is low density, the change in the percentage of impervious surfaces is minor.

Sub-Catchment	Area (Ha)	Percentage of Impervious Surfaces	Time of Concentration (mins)
Catchment 1	18.51	3.00%	24
Catchment 2	36.89	3.00%	30
Catchment 3	7.21	3.00%	15
Catchment 4	7.30	5.00%	15
Catchment 5	25.70	5.00%	20
Overall	95.61	3.69%	

Table 2 – Watercom Drains Model – Ultimate catchment data

4.0 Hydraulic Analysis

The Watercom Drains software package has been used to model the existing catchment flows under 100-year ARI storm event circumstances and compares these with the post development flows for the same storm events.

For simplicity the culverts under the old highway have been modelled as twin 1150mm Dia culverts which are approximately equal to the current arrangement in total flow area and perimeter.

A key finding during the development of the model, was that the existing culverts are not able to pass all flows during a 100-year ARI storm event and impoundment will occur. Effectively this means that we expect the water level upstream of the culverts under both highways to rise as flows increase, inundating the land immediately surrounding the headwall. This has been represented in the hydraulic model as two separate staged storage basins upstream of the culverts, with storage volumes based on surveyed topography. This allows for an accurate analysis of expected inundation levels in both areas during storm events.

4.1 Existing System – Peak Discharge for 100-year ARI

Under existing conditions, the hydraulic model shows that peak flow rates in the culverts under each highway peaks at just under **3.00 m^3/s.**

Upstream of the new highway culvert, the hydraulic model shows that peak inflows will slightly exceed peak outflows. This results in a peak retained volume of 900m^3 and a corresponding high-water level of **179.85m** in the area between the highways.

Upstream of the old highway culvert, the hydraulic model shows that peak inflows will significantly exceed the culvert capacity, with **5.25 m^3/s** expected to arrive at this junction in a 20 min storm. In a 1 hour storm these surplus flows will result in a peak retained volume of around 3700m^3, which corresponds to a high-water level of **180.30m.**

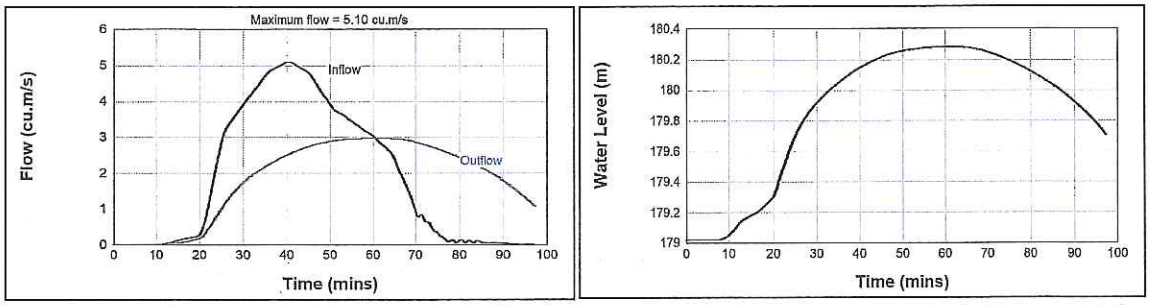


Image 7 – Water level & flows upstream of old highway culvert (100-year ARI 1 hour storm)

High water levels are not expected to exceed the level of the road pavement on both roads. Hence flows are expected to be retained within the culverts during a 100-year ARI storm event.

New Highway Culvert		
		Storm Duration
Peak Outflow	2.89m3/s	1 hour
Peak Upstream Inflows	2.94m^3/s	20 mins
Road Pavement Level	181.30m	-
Peak Upstream Water Level	179.85m	1 hour
Peak Upstream Storage Volume	900m^3	1 hour

Table 3 – Hydraulic analysis results – Existing catchment – New highway culvert

Old Highway Culvert		
		Storm Duration
Peak Outflow	2.97m^3/s	1 hour
Peak Upstream Inflows	5.25m^3/s	20 mins
Road Pavement Level	180.30m	-
Peak Upstream Water Level	180.28m	1 hour
Peak Upstream Storage Volume	3700m^3	1 hour

Table 4 – Hydraulic analysis results – Existing catchment – Old highway culvert

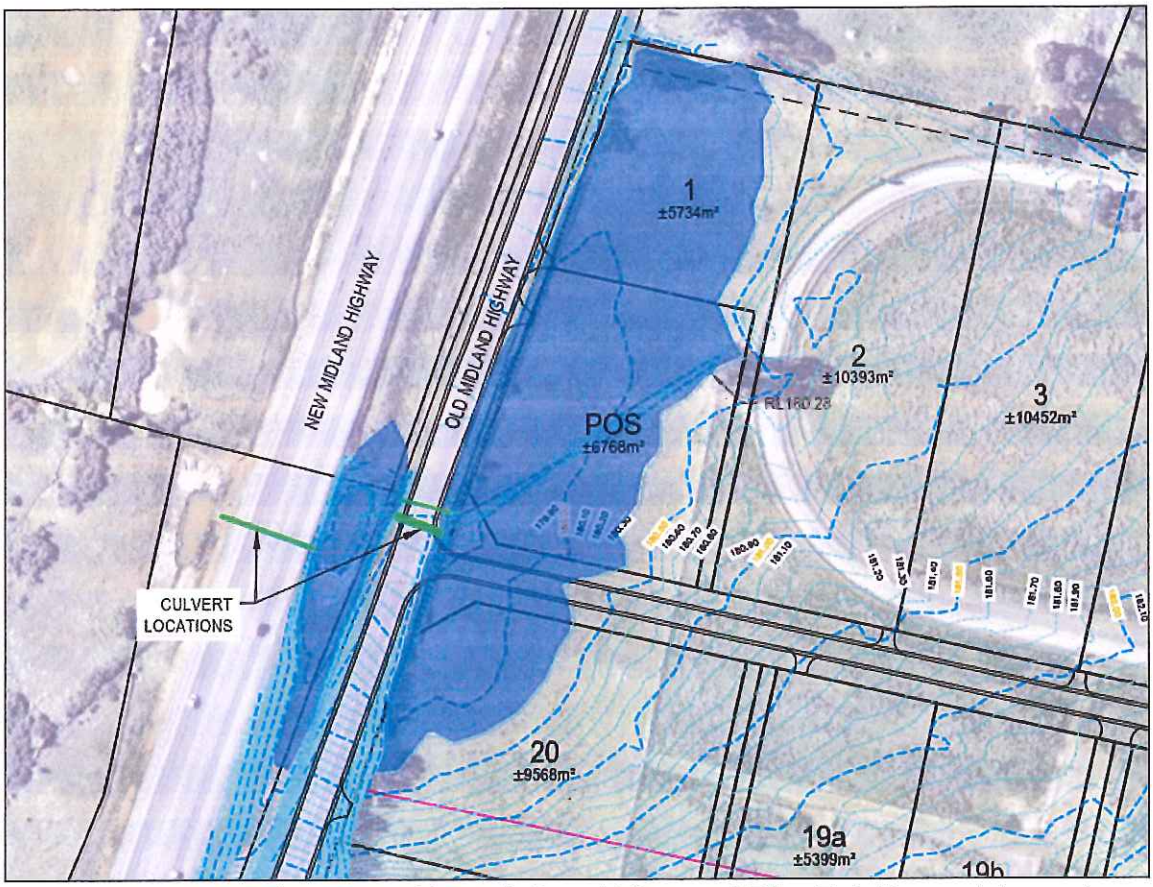


Image 8 – Expected extent of inundation 100-year ARI – Existing catchment

4.2 Developed System – Peak Discharge for 100-year ARI

Under developed conditions, the hydraulic model shows that there is a marginally higher peak discharge compared to the existing catchment.

Just as for the existing system upstream of the new highway culvert, the hydraulic model shows that peak inflows will slightly exceed peak outflows. This results in a peak retained volume of 900m^3 and a corresponding high-water level of **179.88m** in the area between the highways.

Upstream of the old highway culvert, the hydraulic model shows that peak inflows will significantly exceed the culvert flows, with **6.29 m^3/s** expected to arrive at this junction in a 1-hour storm. These surplus flows will result in a peak retained volume of around 4000m^3, which corresponds to a high-water level of **180.31m.**

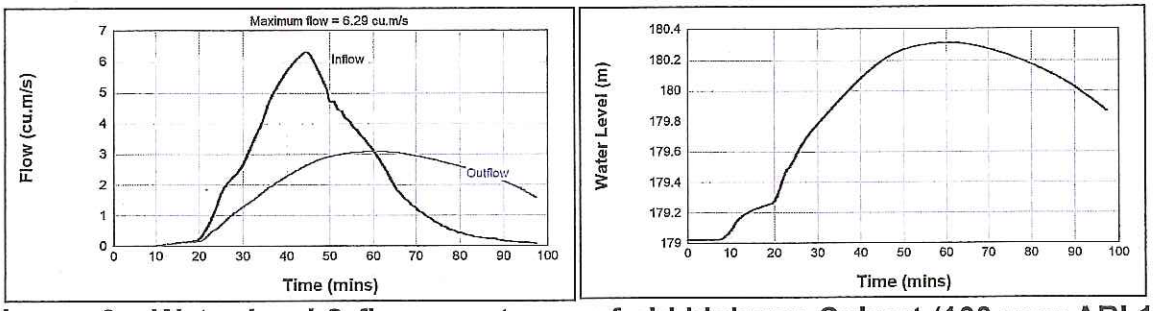


Image 9 – Water level & flows upstream of old highway Culvert (100-year ARI 1 hour storm)

High water levels will not exceed the level of the new Midland Highway road pavement but will exceed the level on the old Midland Highway by only 10mm. Hence all significant flows are expected to be retained within the culverts during a 100-year ARI storm event.

New Highway Culvert		
		Storm Duration
Peak Outflow	2.95m³/s	1 hour
Peak Upstream Inflows	3.02m³/s	1 hour
Road Pavement Level	181.30m	-
Peak Upstream Water Level	179.88m	1 hour
Peak Upstream Storage Volume	909m³	1 hour

Table 5 – Hydraulic analysis results – Existing catchment – New highway culvert

Old Highway Culvert		
		Storm Duration
Peak Outflow	3.07m³/s	1 hour
Peak Upstream Inflows	6.31m³/s	1 hour
Road Pavement Level	180.30m	-
Peak Upstream Water Level	180.31m	1 hour
Peak Upstream Storage Volume	3990m³	1 hour

Table 6 – Hydraulic analysis results – Existing catchment – Old highway culvert

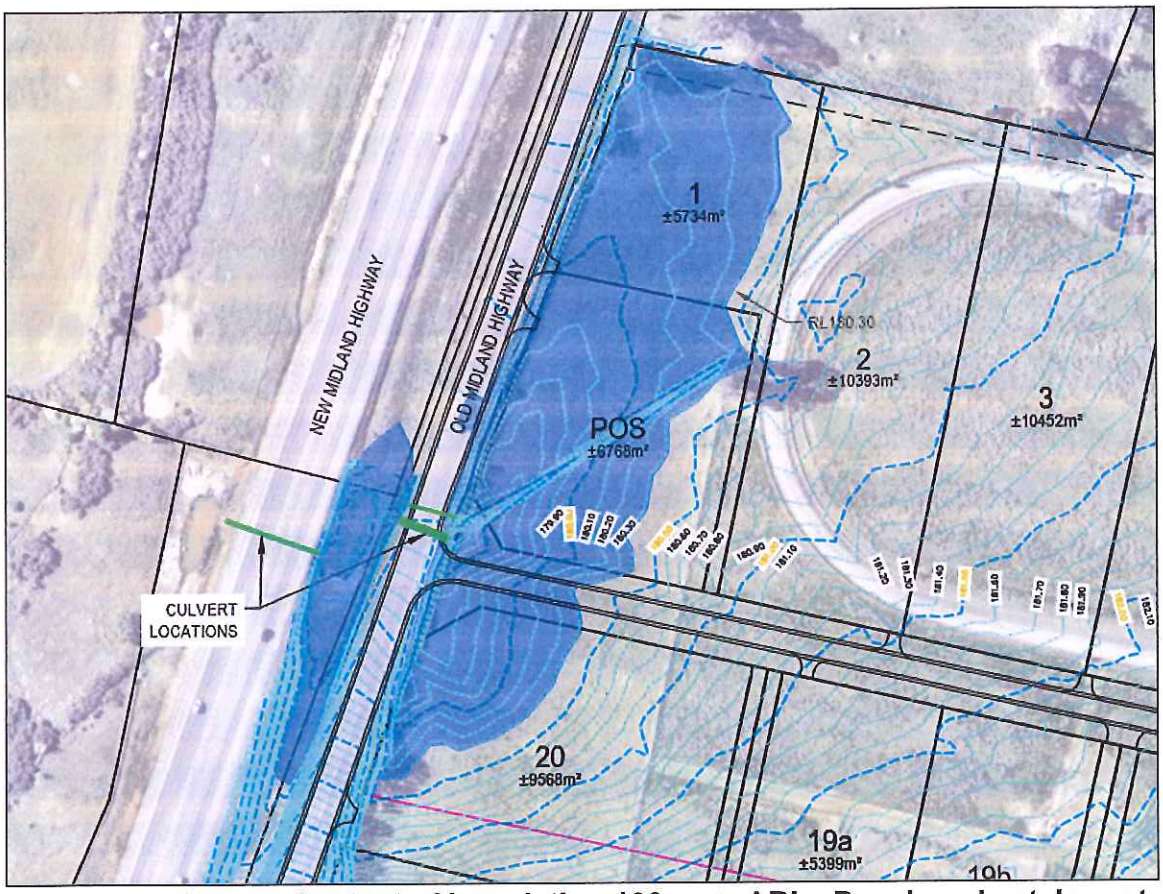


Image 10 – Expected extent of inundation 100-year ARI – Developed catchment

To reduce the impact of inundation upstream of the old Midland Highway culvert, the Northern Midlands Council have requested that a detention basin be provided within the proposed public open space. The proposed basin would be in the form of a shallow, grassed basin with a total area of approximately 0.67 ha. The basin will serve to confine the inundated area upstream of the culvert to the footprint of the public open space lot.

A preliminary 3D model has been produced for such a basin showing that a volume of 4 ML can be achieved on the public open space area.

Image 11 – Preliminary Model of 4ML Site Detention Basin

The proposed detention basin is designed to retain flows up to the 100 year event and will progressively flood for lesser events. The proposed basin shows the following characteristics during various flood events:

Event (ARI)	Critical Storm	Flooded POS Area	Average Depth	Depth at Road Culverts
1 Year	16mm in 2 hours	2300m^2	0.1 m	0.20 m
10 Year	22mm in 1 hour	4870m^2	0.16 m	0.32 m
100 Year	67.6mm in 2 hours	6650m^2	0.48 m	0.96 m

Table 7 – Hydraulic analysis results – Existing catchment – Old highway culvert

Table 7 demonstrates that the full basin area would only be required for the 100 year ARI event and that the 1 year event would flood 34% of the public open space area to an average depth of 100mm.

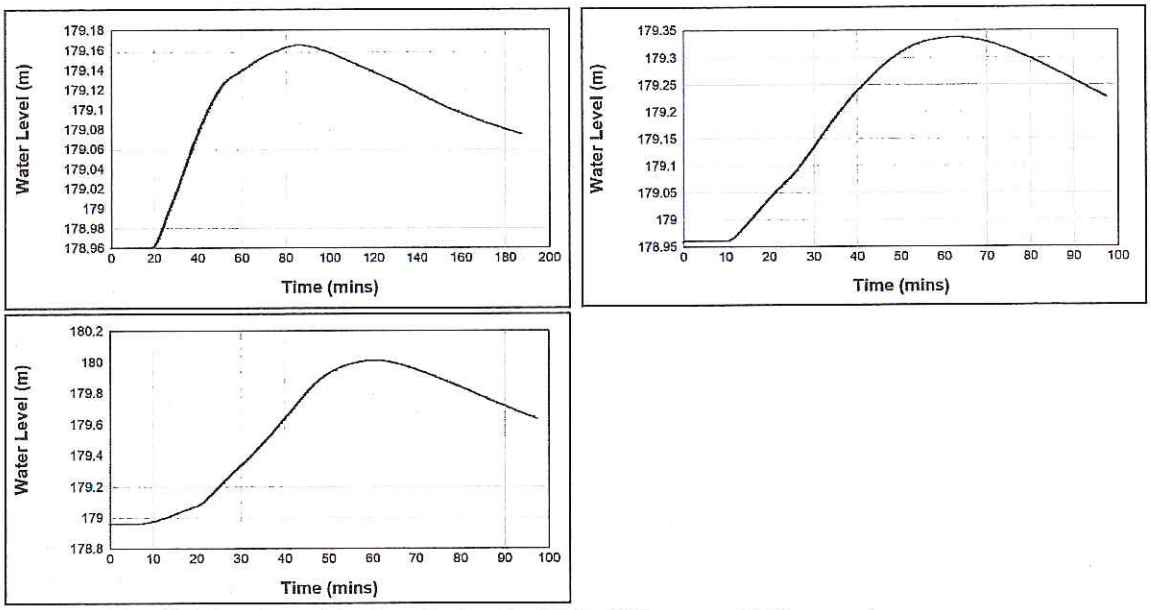


Image 12 – Water level in basin in 1, 10 & 100 year ARI events

The graphs in image 12 show the changes in water levels within the proposed basin over time for the three key design storm events.
In the 1-year event the basin would begin to fill 20 minutes after the start of the critical storm, would peak 80 minutes after the start of the storm and would empty 190 minutes after the start of the storm.
In the 10-year event the basin would reach peak storage level in 60 minutes, covering approximately 72% of the public open space area and would not fully empty for some 5 hours after the start of the rainfall event. Image 13 shows in plan the approximate extent of inundation associated with the results of the hydraulic model.

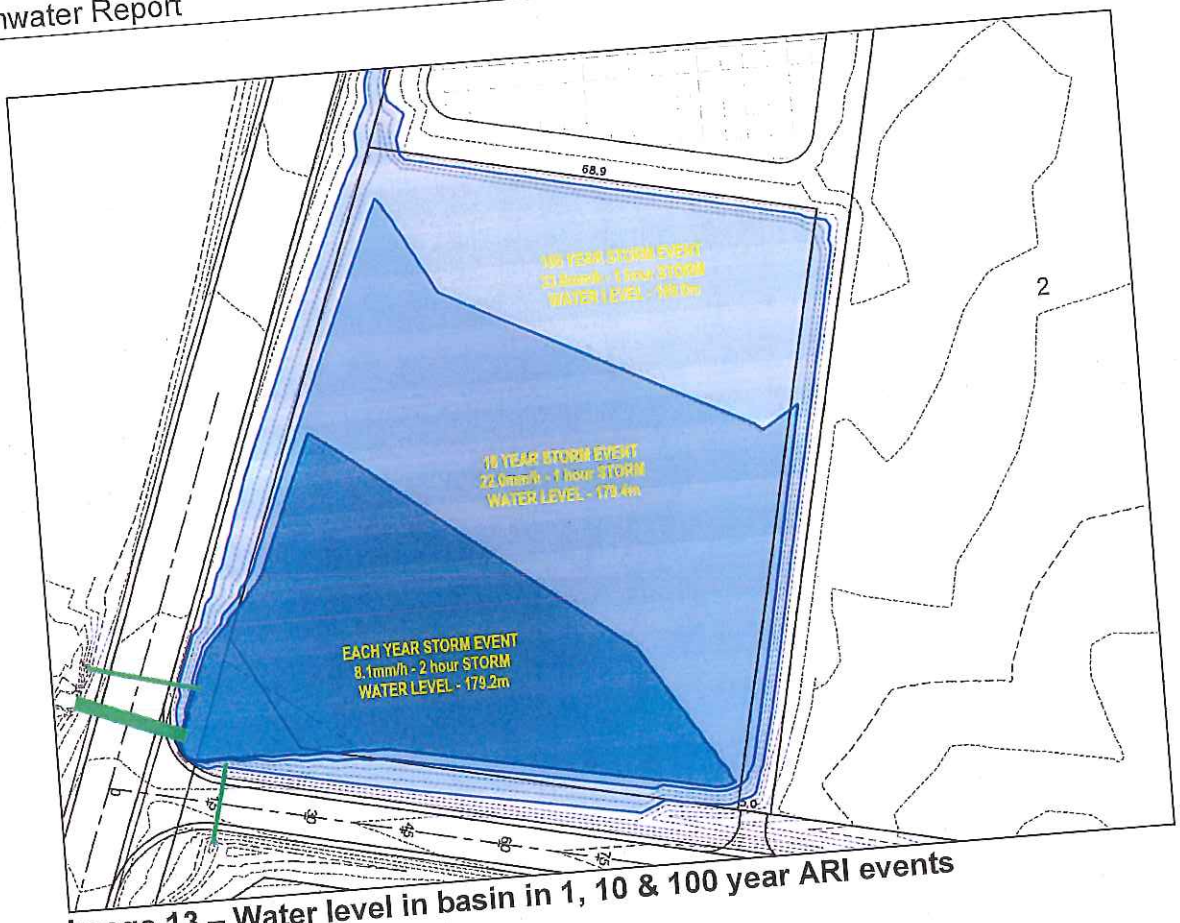


Image 13 – Water level in basin in 1, 10 & 100 year ARI events

5.0 Summary

The existing catchment directs flows from surrounding lands through the subject land as either channel flows or sheet flows. The addition of formalised perimeter drainage to the subject land will reduce the incidence of overland sheet flows across the site, however it will also slightly increase the peak flowrate crossing the old Midland Highway.

The current culvert arrangement is able to contain a 10-year ARI storm without significant impoundment; however, a 20-year ARI storm will result in minor inundation of the residential land and a 50-year ARI storm is likely to result in significant inundation extending up to 40m east of the old highway.

A 100-year ARI storm event will result in impoundment of both highway culverts at the upstream end. This retained volume is relatively minor upstream of the new highway culvert, but it is more significant upstream of the old highway culvert and this will cause flood waters to extend up to 65m east of the old highway.

The addition of a 4 ML surface detention basin on the proposed public open space area can reduce the extent of inundation so that it is contained within the public open space lot in a 100-year ARI event. Such a basin would flood to varying levels depending on the severity of the storm event. Table 8 shows the likely depth and area of flooding in the 0.67ha basin for the 1, 10- and 100-year ARI storm events.

Event (ARI)	Critical Storm	Flooded POS Area	Average Depth	Depth at Road Culverts
1 Year	16mm in 2 hours	2300m^2	0.1 m	0.20 m
10 Year	22mm in 1 hour	4870m^2	0.16 m	0.32 m
100 Year	67.6mm in 2 hours	6650m^2	0.48 m	0.96 m

Table 8 – Hydraulic analysis results – Existing catchment – Old highway culvert

6.0 Flood Prone Areas Code

The following assessment addresses performance criteria P1.2 and P1.3 of the Flood Prone Areas Code.

Clause E5.6.1 Flooding and Coastal Inundation P1.2

Development subject to medium risk in accordance with the risk assessment in E5.7 must demonstrate that the risk to life, property and the environment is mitigated through structural methods or site risks to a low risk level in accordance with the risk assessment in E5.7.

Response

As per the findings of this report the likely inundation in a major 100-year ARI storm event is isolated to lots 1, 2 & 20. The expected inundation zone leaves ample area

for an unaffected building envelope on these lots with flood waters being shallow and slow moving over privately-owned land.

In accordance with the risk assessment in E5.7 the flooding likelihood is deemed to be "Unlikely" (2% AEP) and the consequence is deemed to be "Minor" with temporary access restrictions and minor environmental damage likely in such an event.

Clause E5.6.1 Flooding and Coastal Inundation P1.3

Where mitigation of flood impacts is proposed or required, the application must demonstrate that:

a) *the works will not unduly interfere with natural coastal or watercourse processes through restriction or changes to flow;*

b) *the works will not result in an increase in the extent of flooding on other land or increase the risk to other structures;*

c) *inundation will not result in pollution of the watercourse or coast through appropriate location of effluent disposal or the storage of materials; and*

d) *where mitigation works are proposed to be carried out outside the boundaries of the site, such works are part of an approved hazard reduction plan covering the area in which the works are proposed.*

Response

As per the findings of this report the proposed development will not significantly increase impervious areas on the site and increased flowrates will be insignificant. Any increase in flow rates will be absorbed by large natural downstream detention storage and will not interfere with natural watercourse processes nor will it increase any flooding on other lands.

Provided site works are completed in accordance with standard soil and water management policy the proposal will not result in additional watercourse pollution.

7.0 Recommendations

1. That a perimeter cut off drain be constructed along the boundary of the subject land to reduce the likelihood of sheet flows travelling across any newly created residential lots during significant storm events.
2. That a detention basin be constructed to contain the inundation due to the 100 year ARI storm event within the public open space area.
3. That the accumulated debris and vegetation in and around the existing double culvert under the old Midland Highway be removed to allow the culvert to function at optimal efficiency.

4. That the minimum floor level for future dwellings created as part of the proposed subdivision be at least 300mm higher than the expected 100-year ARI flood level.

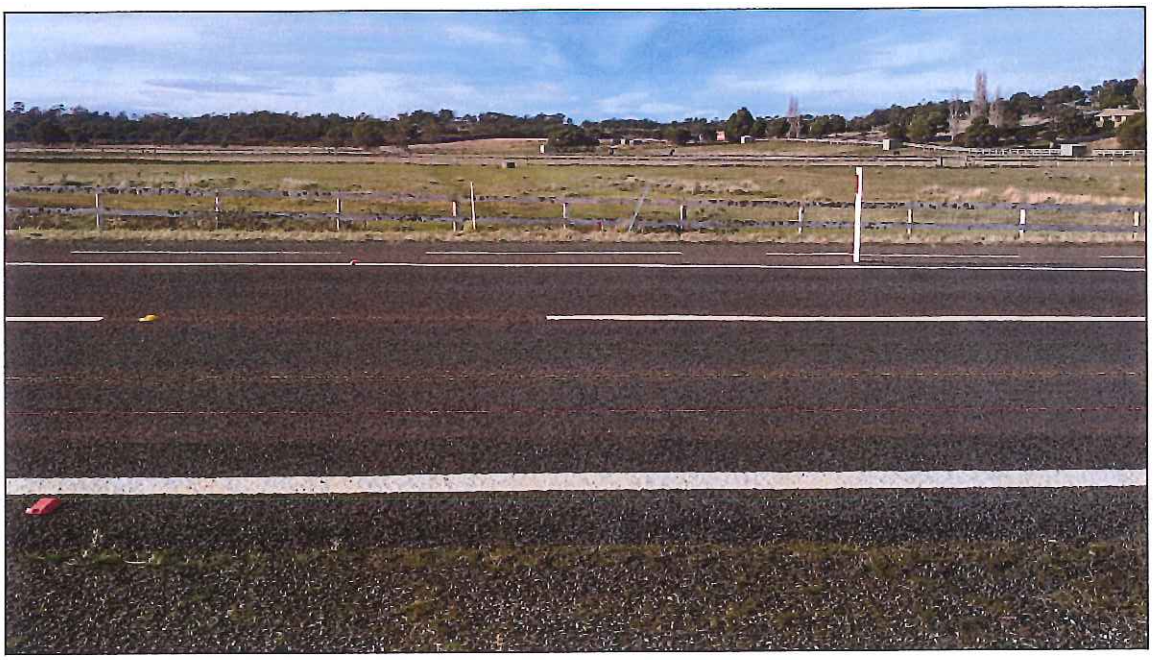


Image 14 – 'Keppoch Lodge' land

Rec 3/9

6ty°

Planning Report

Traffic Impact Assessment

16338 Midlands Highway, Perth

Prepared for:

Northern Midlands Council

Measured form and function

6ty Pty Ltd
ABN 27 014 609 900

Postal Address
PO Box 63
Riverside
Tasmania 7250
W 6ty.com.au
E admin@6ty.com.au

Tamar Suite 103
The Charles
287 Charles Street
Launceston 7250
P (03) 6332 3300

57 Best Street
PO Box 1202
Devonport 7310
P (03) 6424 7161

Issue	02
Date	August 2020
Project Name	Dornauf – Subdivision, 16338 Midland Highway, Perth
Project Number	11.105
Author	Mark Walters
Document	

Contents

1.0 Introduction

The proposed development is to re-subdivide three parcels of land currently used as a horse training property into 25 lot low density residential properties accessed by a new road off Haggerston Road, which is the former route of the Midland Highway.

This traffic report has been prepared in conjunction with the Department of Transport's "Traffic Impact Assessment" (TIA) Guidelines (draft) by 6ty Pty Ltd on behalf of WG & SA Dornauf, the owners.

2.0 Existing Conditions

2.1 Subject Site

The subject site is located at 'Keppoch Lodge', 16338 Midlands Highway, Perth. (Refer to Image 1).

The Title References are: CT 37065/100, 18088/1 & 18088/7.

The parcels of land total some 25.31 Ha and are located approximately 600m north of Perth township, roughly midway between Devon Hills Road and Seccombe Street. The land is bounded by the Sinclair Street road reservation to the south and the Mulgrave Street road reservation to the east, both undeveloped at this time. The road providing frontage to the land is Haggerston Road, a State Growth managed local road.

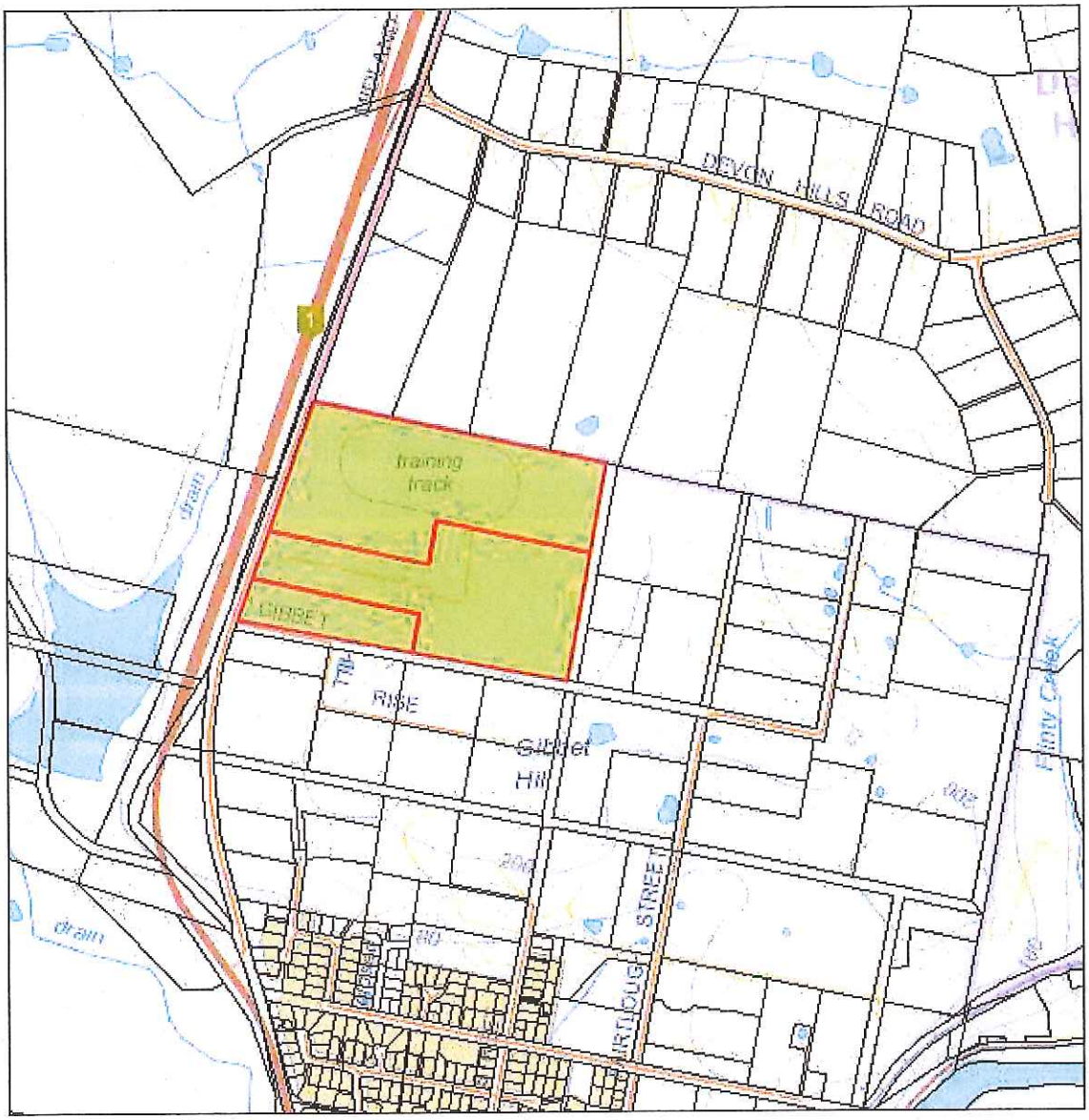


Image 1 – Site location north of Perth

2.2 Use of Land

The property is currently a rural property used for the breeding and training of horses. It has a training track, stables and a residence.

2.3 Existing Road

Haggerston Road that forms the frontage of the property is a sealed road, comprised of a 1.5m gravel shoulder and 1.2m sealed flank on the western side, two 2.8m wide traffic lanes, an 0.75m painted median strip and 2.7mm wide shared bike lane/pedestrian path on the eastern (property) side. The posted speed limit is 70 km/hr.

The road runs parallel with the new section of the Midlands Highway, which extends from Perth to Breadalbane and now acts as a service lane to provide access to properties on the eastern side of the Midlands Highway including the Devon Hills residential area and the lots accessed off Gibbet Hill Rise. The road is level and straight, save for crest and curve south of the land.

There are both off and entry ramps from the new highway to directly serve Devon Hills Road, as well as a two-way intersection connection within the Perth town boundary adjacent to Seccombe Street, to provide a southern connection to Haggerston Road.

3.0 Traffic

Haggerston Road has only been operational as a local road for some months and there have been no traffic counts taken in that period. There are some 157 properties accessed by Devon Hills Road and a further 8 properties located south of Devon Hills Road.

Devon Hills Road is amply served by entry and exits ramps from the new section of the Midlands Highway. These connections provide the most convenient link for traffic commuting between either Launceston or Perth, without the need for using Haggerston Road.

However, for vehicles travelling to Devon Hills from the south, the southern leg of the Haggerston Road is a shorter route by some 1.3 km as it avoids the underpass to the new highway north of the Devon Hills Road intersection and is likely to be a preferred route for vehicles travelling to Devon Hills via Perth.

For design purposes, it is assumed that 80% of all traffic during peak hours will be for commuting to and from the north and that the remaining 20% will all use the Haggerston Road link rather than the new Highway for travelling to Perth and

southern destinations. It can thus be estimated that the peak hour traffic passing the frontage of the land will not exceed 30 vehicles per hour during the AM peak. This is a very conservative assumption as it ignores the use of the south bound entry ramp to the new highway from the Devon Hills Road intersection.

4.0 Proposed Development

The proposed development of the land is to subdivide the three existing parcels of land into 25 low density residential lots with a minimum lot size of 0.5 Ha. All lots will be accessed from the new road.

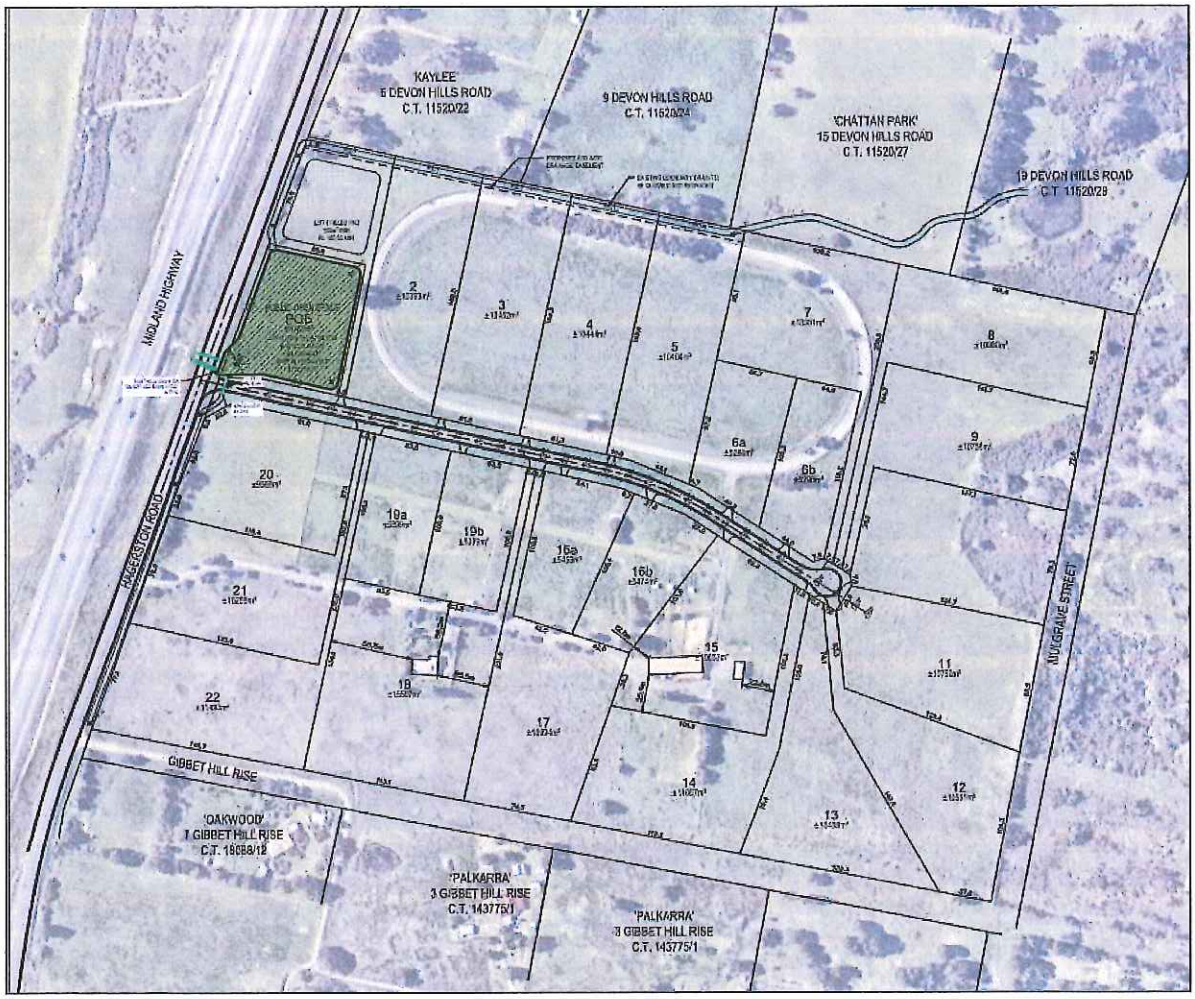


Image 2 – The proposed subdivision layout

5.0 Trip Generation

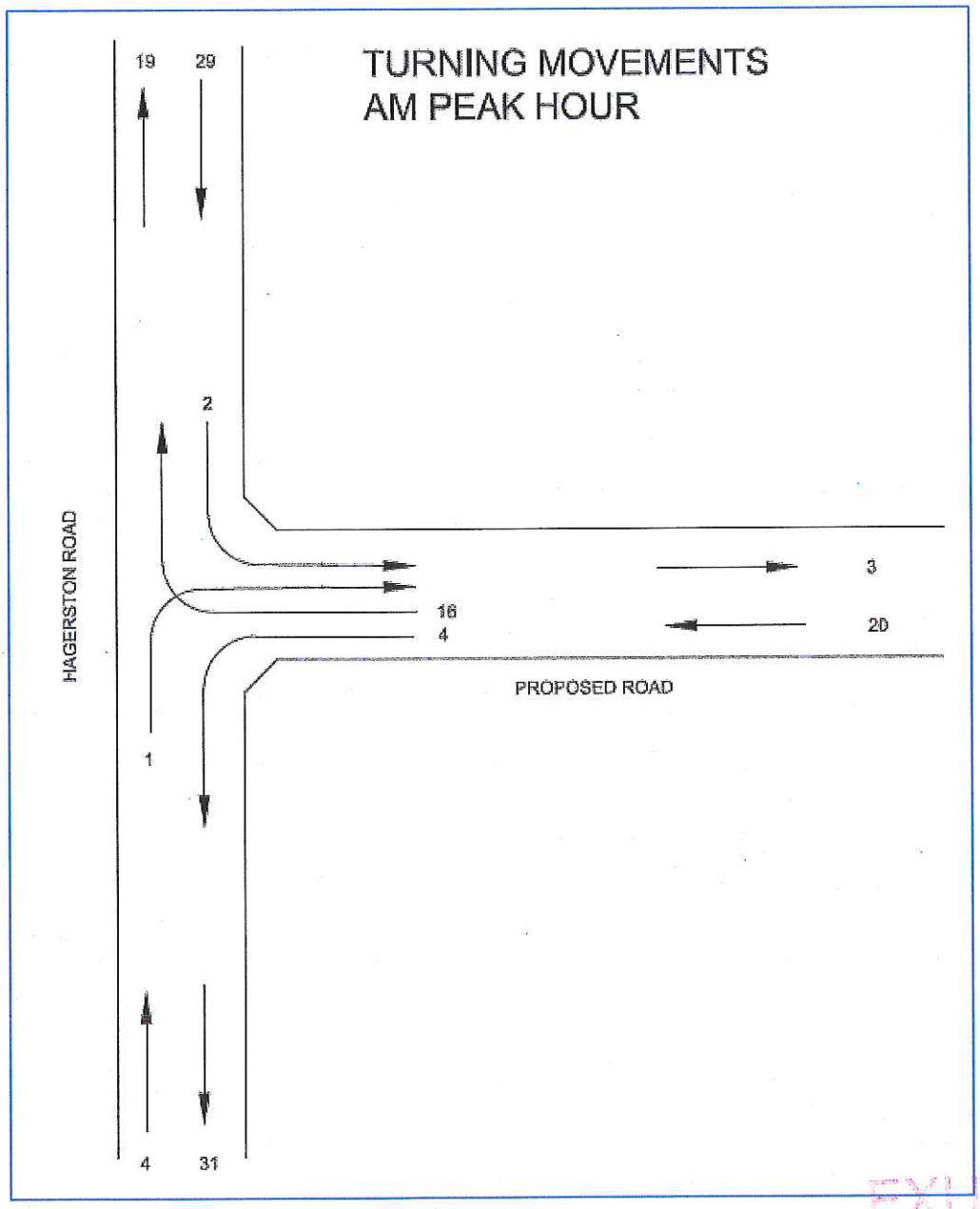
The development of the land will entail the construction of 24 new residences. At 9 movements per household per day, the 25 residences will generate an additional 225 daily movements onto Haggerston Road, with a total morning and evening peak of 23 vehicle movements per hour, on the assumption that 10% of all traffic movements will occur during peak hour.

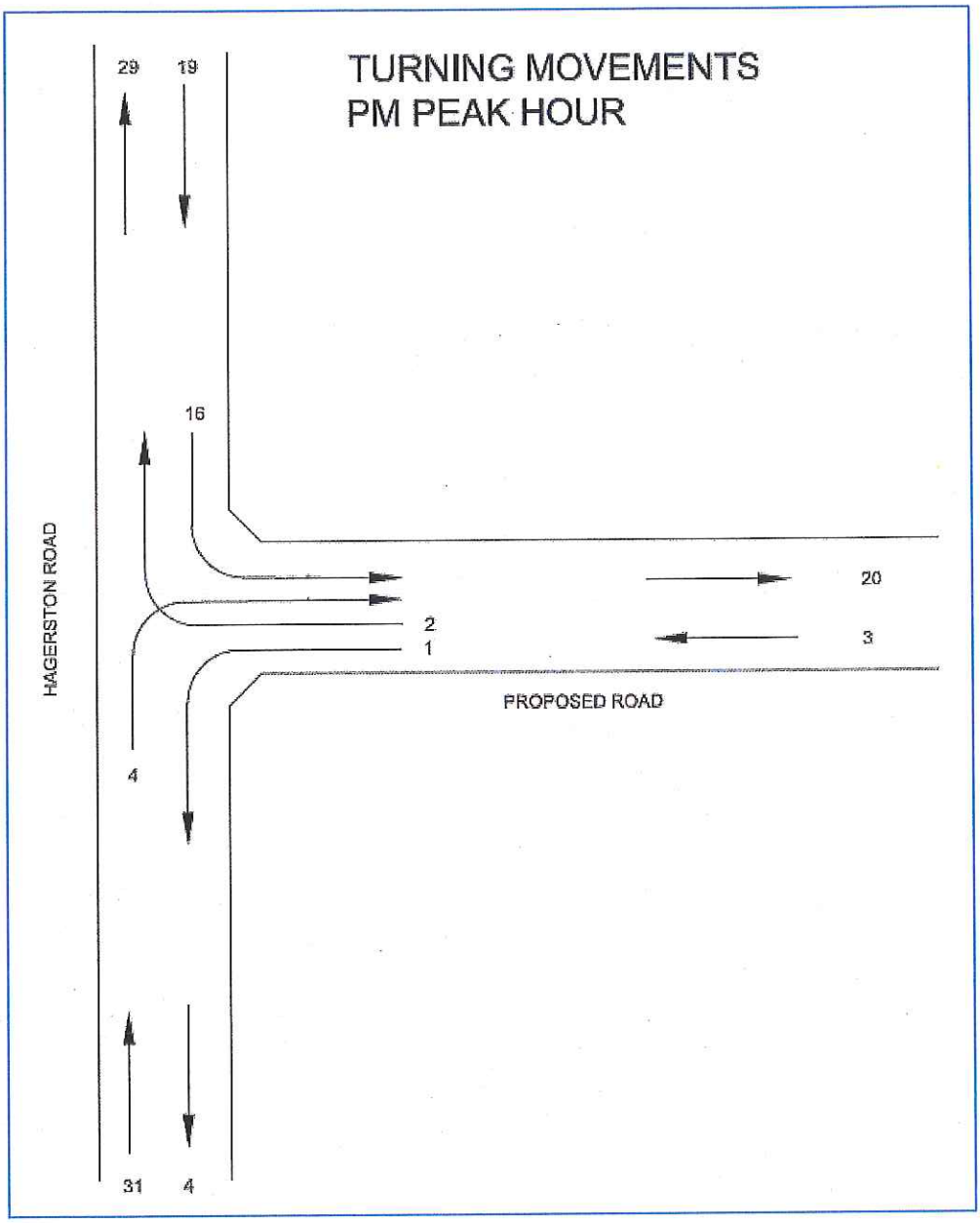
6.0 Trip Assignment

It is anticipated that 80% of all traffic to and from the site will be from the north, being the most convenient connection to the Midlands Highway, the Launceston Airport industrial zone and Launceston proper. A further assumption is that 10% of the peak hour traffic movements will be returning vehicles (a 90/10 direction split).

7.0 Turning Movements

The predicted peak hour movements at the new intersection are shown on the following schematics :





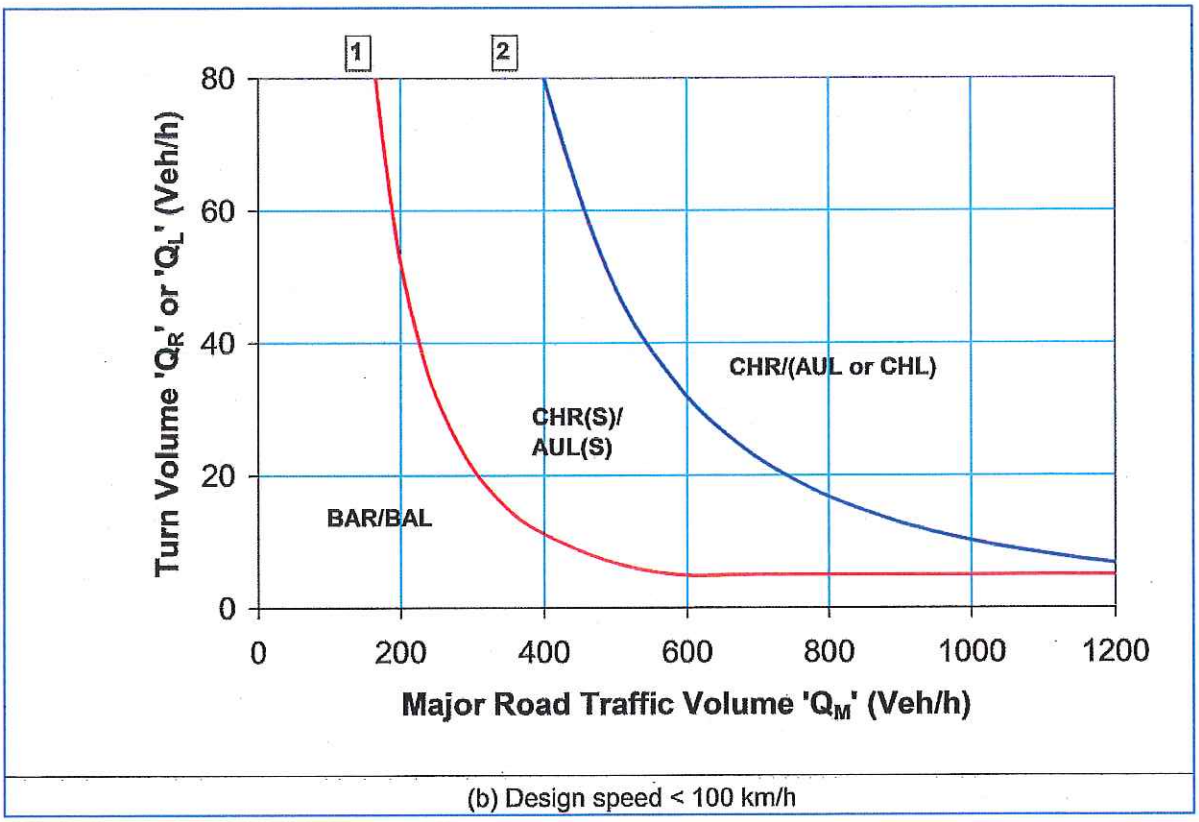
For the AM peak hour, the following major road turning volumes occur:

Turn Type	Q_R or Q_L (v/hour)	Q_M (v/hour)
Right (in)	1	3+27+2 = 32
Left (out)	4	27

For the PM peak hour:

Turn Type	Q_R or Q_L (v/hour)	Q_M (v/hour)
Right (in)	4	31+4+16 = 35
Left (out)	1	4

It can be seen from the following extract of the Austroads publication "Guide to Road Design Part 4: Intersections and Crossings – General" that the turn manoeuvres from the site combined with the through traffic in Haggerston Road fall within a type BAR/BAL treatment for the new intersection, both at the lower end of the warrant diagram.



(b) Design speed < 100 km/h

For right turning traffic from Haggerston Road, the critical timing is the PM peak hour where 4 vehicles per hour turn right from a stream of 31 vehicles per hour. The south bound traffic is only 4 vehicles per hour so significant delay is unlikely. A sealed shoulder of some 122m in length (including tapers) is required for a BAR treatment.

The left hand manoeuvre from Haggerston Road into the new road is minor for both peak hours with 16 vehicles per hour slowing down from a stream of 19 vehicles per hour to turn left into the site during the evening peak. The morning peak has 2 vehicles per hour slowing down to turn left out of a stream of 29 vehicles per hour. No particular left turn treatment is required at this intersection.

8.0 Vehicle Types

The predominant vehicle type will be passenger vehicles, with the largest vehicle routinely visiting the site being the weekly garbage collection service.

9.0 Assessment Years

Construction is likely to begin in late 2021, with the site being fully developed in late 2024.

10.0 Traffic Growth

Traffic growth for Haggerston Road is considered unlikely, as there is very limited potential for development of the lands accessed from the road and the new Highway will cater for future growth in the region. Traffic volumes and growth are not considered to be relevant factors for this proposal.

11.0 Existing Traffic Issues

There are no known traffic issues for Haggerston Road. The newly reconstructed road has ample capacity for existing and predicted volumes of traffic.

12.0 Road Safety

Enquiries with the Department of State Growth Crash Data section have revealed that there have been no accidents within Haggerston Road since the new section of the Midlands Highway was opened.

13.0 Access Points

The proposed subdivision will create a new road access onto Haggerston Road, replacing the existing single access driveway. There are no other access points proposed for the road.

14.0 Access Parameters

For the proposed road intersection, the sight distance to the south is over 400m and 750m to the north, with the Devon Hills Road intersection being clearly visible.

Image 3 – Looking north along Haggerston Road. Available sight distance is in excess of 750m from the proposed intersection on the righthand side.

Image 4 – Looking south along Haggerston Road. Available sight distance is in excess of 280m from the proposed intersection to the crest adjacent to the Gibbet Hill Rise intersection.

15.0 Planning Scheme Requirements

The Northern Midlands Interim Planning Scheme 2013 applies to this site, specifically the provisions of Section E4 Road and Railway Assets Code. As the proposal is for more than one driveway and the speed limit of Haggerston Road is more than 60 km/hr, a TIA is required pursuant to sections E4.5.1 and E4.7.2 P2 (c).

Section E4.7.2 P2(c) requires that new access points to a road must be designed and located to maintain an adequate level of safety and efficiency for all road users. Given the low traffic numbers, the issue of safety is confined to the application of section E4.7.4 Sight Distances at Accesses, Junctions and Level Crossings, which requires the sight distances to comply with Table E4.7.4.

Table E4.7.4 requires a sight distance of 140m for a vehicle speed of 70 km/hr being routinely attained. As stated in the body of this report, the approach sight distances to the proposed access driveways and the new road intersection exceed 280m.

16.0 Recommended Works

That a BAR type road widening be installed at the new road intersection.

The new road intersection is to be designed in accordance with the DSG Drawings SD-84.011 and SD-84.013 and is to provide for the existing bicycle/footpath.

17.0 Street Furniture

No changes to street furniture are required by this development.

18.0 Pedestrian Access

The eastern side of Haggerston Road has been constructed and line marked to provide a shared pedestrian and bike path that extends from Breadalbane in the north, past the frontage of the site, through to Perth. The path is proving popular with cyclists but is currently rarely used by pedestrians. Sight distance to the pedestrian path at the proposed intersection is ample and Council may elect to require a pedestrian path within the proposed new road.

19.0 State Roads

Haggerston Road, whilst no longer part of the Midland Highway, remains a State Roads. The proposed intersection works will require the detail design approval and construction approval of the Department of State Growth.

20.0 Summary

The development of the site is unlikely to affect traffic amenity or safety on the section of Haggerston Road that provides frontage for the land being developed.

The traffic volumes of all types are very low, and the site has ample sight distance in both directions. The intersection will need to be designed to provide a BAR treatment on Haggerston Road.

Amended
15.09.20

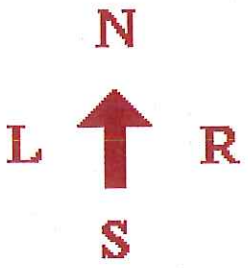
Bushfire Hazard Management Report: Subdivision

Report for: 6TY Pty Ltd

Property Location: 16338 Midland Hwy, Perth

Prepared by:
Scott Livingston
Livingston Natural Resource Services
12 Powers Road
Underwood, 7268

Date: 9th September 2020
Version 5



Amended
15.09.20

Summary

Client: 6TY Pty Ltd obo Bill Dornauf

Property identification: 16338 Midland Hwy, Perth 7300
Current zoning: Low Density Residential, *Northern Midlands Interim Planning Scheme 2013*

CT 37065/100, 18088/1, 18088/7, PID 7241202

Proposal: A 25 lot plus road and POS subdivision is proposed from the existing 3 titles at 16338 Midland Hwy, Perth.

Assessment comments: A field inspection of the site was conducted to determine the Bushfire Risk and Attack Level.

This report and BHMP supersede SRL18/47S4, dated 2/9/2020

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.

Contents

DESCRIPTION

A 25 lot subdivision is proposed from 3 existing titles CT 37065/100, 18088/1, 18088/7, at 16338 Midland Hwy, Perth. The property is zoned Low Density Residential, *Northern Midlands Interim Planning Scheme 2013*.The area is mapped as Bushfire Prone in Planning Scheme overlays.

Proposed Lot 18 has an existing dwelling, lot 15 stables and outbuildings. The vegetation on the title is grassland, with an area of gorse (scrub) located on the eastern portion of proposed lots 9 & 10. Surrounding land to the north and south is developed low density residential land, that contains a mosaic of low threat vegetation, grassland and occasional trees. Land to the east is an unmade road reserve (Mulgrave St). This land and adjoining properties to the east have areas of gorse (scrub), grassland and woodland.

The property is accessed from Midland Hwy and adjoins Gibbert Hill Rise and is not currently serviced by a reticulated water supply.

See Appendix 1 for maps and site plan, and appendi2 for photographs.

BAL AND RISK ASSESSMENT

The area is mapped as Bushfire Prone in Planning Scheme overlays. It is assumed land within the lots will be managed as fuel loads up to grassland, with the exception of the areas on proposed lots 9 and 10 which is currently gorse. While removal of this weed is encouraged, the rocky nature of the site and remnant eucalypts present are such that after removal of gorse the area may be best revegetated to native woodland or scrub and is therefore assumed may continue to be a hazard and future buildings on those lots and adjacent lot 11 may be impacted. Changes in vegetation within that area may increase the available building areas.

VEGETATION AND SLOPE

Lot		North	East	South	West
	Vegetation, within 100m Subdivision boundaries	0-100m grassland	0-100m scrub/ woodland	0-100m grassland	0-65~80m low threat roads and verges,65~80-100m grassland
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
1	Vegetation, within 100m lot boundaries	0-100m grassland	0-100m grassland	0-100m grassland (detention Basin)	0-73m road and verges, 73-100m grassland

Amended
15.09.20

Lot		North	East	South	West
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL Low
	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
	Vegetation, within 100m lot boundaries	0-100m grassland	0-100m grassland	0-20m road and verges, 20-100m grassland	0-80m grassland,80-100m road and verges
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
2	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
	Vegetation, within 100m lot boundaries	0-100m grassland	0-100m grassland	0-20m road and verges, 20-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
3~5, 6a &b	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
	Vegetation, within 100m lot boundaries	0-100m grassland	0-100m grassland	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
7	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
	Vegetation, within 100m lot boundaries	0-100m grassland, scrub & woodland mosaic	0-100m scrub	0-10m grassland, 10+-100m scrub, grassland western portion	0-100m grassland
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
8	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5

Amended
15.09.20

Lot		North	East	South	West
9	Vegetation, within 100m lot boundaries	0-70m grassland, 70-100m grassland, scrub & woodland mosaic	0-100m scrub	0-10m grassland, 10+-100m scrub, grassland western portion	0-100m grassland
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
10	Vegetation, within 100m lot boundaries	0-100m grassland western portion, 0-100m scrub eastern portion	0-100m scrub, woodland mosaic	0-10m grassland western portion, 0-100m scrub eastern portion	0-100m grassland
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
11	Vegetation, within 100m lot boundaries	0-100m grassland western portion, 0-100m scrub eastern portion	0-100m scrub, woodland mosaic	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Flat /upslope	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
12	Vegetation, within 100m lot boundaries	0-100m grassland western portion, 0-80m grassland, 80-100m scrub eastern portion	0-100m scrub, woodland mosaic	0-50m grassland 50-100m woodland	0-100m grassland
	Slope (degrees, over 100m)	Down slope 0-5°	Flat /upslope	Flat /upslope	Down slope 0-5°

Lot		North	East	South	West
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
	Vegetation, within 100m lot boundaries	0-100m grassland	0-100m grassland	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Down slope 0-5°	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL FZ
13~19 a&b	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5
	Vegetation, within 100m lot boundaries	0-100m grassland	0-100m grassland	0-100m grassland (some low threat)	0-60mroadand verges,60-100m grassland
	Slope (degrees, over 100m)	Down slope 0-5°	Flat /upslope	Flat /upslope	Down slope 0-5°
	BAL Rating at Boundary	BAL FZ	BAL FZ	BAL FZ	BAL Low
20~22	BAL Rating with setback and HMA	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5	BAL 19/12.5

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, 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

BAL	Slope	Grassland	Scrub	Woodland
BAL 12.5	Flat/ Upslope	14m	27m	22m
	Down slope 0-5°	16m	31m	26m
BAL 19	Flat/ Upslope	10m	19m	15m
	Down slope 0-5°	11m	22m	18m

PROPOSED LOT BAL RATING

All Lots have building areas at BAL 19, with a smaller area at BAL 12.5.

Lot	BAL	Setback
1	BAL 12.5	14m from northern, eastern and southern boundaries
	BAL 19	10m from northern, eastern and southern boundaries
2-7	BAL 12.5	14m from northern, eastern and southern boundaries, 16m from western boundary
	BAL 19	10m from northern, eastern and southern boundaries, 11m from western boundary
8	BAL 12.5	27m from boundary(northern) with CT 11520/29 and eastern boundary, 14m from southern boundary, 16m from western boundary
	BAL 19	19m from boundary(northern) with CT 11520/29 and eastern boundary, 10m from southern boundary, 11m from western boundary
9-11	BAL 12.5	27m from boundary of scrub, 14m from northern and southern boundary, 16m from western boundary
	BAL 19	19m from boundary of scrub, 10m from northern and southern boundary, 11m from western boundary
12-19 ab	BAL 12.5	14m from, eastern and southern boundaries, 16m from northern and western boundary,
	BAL 19	10m from, eastern and southern boundaries, 16m from northern and western boundary,

20-22	BAL 12.5	14m from, eastern and southern boundaries, 16m from northern boundary,
	BAL 19	10m from, eastern and southern boundaries, 16m from northern boundary,

Lot 18 has an existing dwelling within the BAL 12.5 building area

Amended
15.09.20

1-269

EXHIBITED

Figure 1: Proposed Lots and building areas

HAZARD MANAGEMENT AREAS

The hazard management area for the existing dwelling (lot 18) meets the requirements shown below and must continue be maintained as low threat in perpetuity.

The hazard management area for future habitable buildings will depend on construction rating as shown below. Hazard management areas must be in place at commencement of construction of future habitable building(s).

	Hazard Management Area
Existing dwelling	All areas of the lot within 11m north and north west of a building façade and 10m in other directions
BAL 12.5 construction	All areas of the lot within 16m downslope (north and north west) & 14m in other directions from habitable building.
BAL 19 construction	All areas of the lot within 11m downslope (north and north west) & 10m in other directions from habitable building.

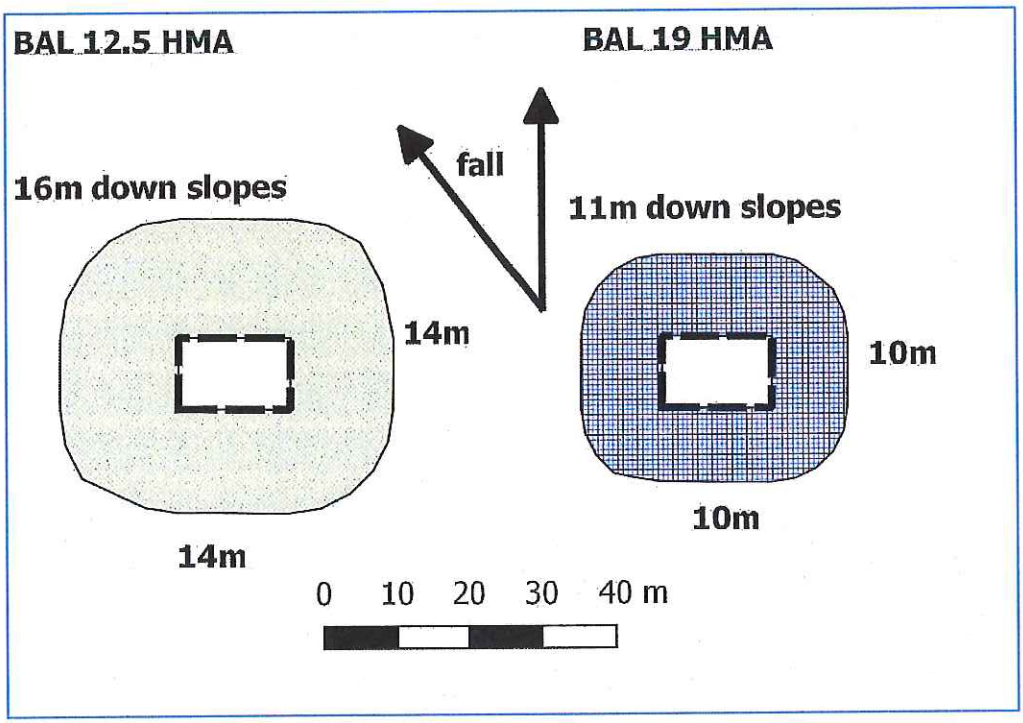


Figure 2: Example Hazard Management Areas

Amended
15.09.20

ROADS

Subdivision roads must comply with the relevant elements of Table E1 Roads, *Planning Directive No. 5.1 Bushfire-Prone Areas Code.* The proposed road is dead end and longer than 200m and will need to comply with width or no parking zone requirements. 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 carriageway is less than 12m outer radius, mountable kerbs and footpaths must be installed to provide compliant trafficable surface.

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 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; (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.*

1-271

EXHIBITED

Amended
15.09.20

PROPERTY ACCESS

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

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

1-272

EXHIBITED

Amended
15.09.20

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 new reticulated supply. No existing hydrants are within 120m of the subdivision. New hydrants if installed they must meet the requirements of Table 4, *Planning Directive No. 5.1 Bushfire-Prone Areas Code.*
New habitable buildings greater than 120m as the hose lays from a hydrant must have a static water installed to the standards listed in Table 5, *Planning Directive No. 5.1 Bushfire-Prone Areas Code.* Habitable buildings that rely on hydrants for water supply coverage should have the hose lay length measured accurately at planning stages when the building footprint is known, as hydrant locations and obstacles to hose lays may change.

1-273

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.

EXHIBITED

Amended
15.09.20

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 access.

Table E5

Column Element		Column 2 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 90 metres of the water connection point of a static water supply; and b) The distance must be measured as a hose lay, between the water point and the furthest part of the building area.
B.	Static Water Supplies	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 10,000 litres 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 AS 3959-2009, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by: (i) metal; (ii) non-combustible material; or (iii) fibre-cement a minimum of 6 mm thickness.

1–274

EXHIBITED

Amended
15.09.20

Column	Element	Column 2 Requirement
C.	Fittings, pipework and accessories (including stands and tank supports)	Fittings and pipework associated with a water connection 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) Where buried, have a minimum depth of 300mm (compliant with *AS/NZS 3500.1-2003 Clause 5.23);* (e) Provide a DIN or NEN standard forged Storz 65 mm 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 220 mm length); (h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and (i) Where 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
D.	Signage for static water connections	The water connection 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 AS 2304-2011 *Water storage tanks for fire protection systems; or* (b) comply with water tank signage requirements within *Australian Standard AS 2304-2011 Water storage tanks for fire protection systems*; or (c) comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.

1–275

EXHIBITED

Amended
15.09.20

Column Element		Column 2 Requirement
E.	Hardstand	A hardstand area for fire appliances must be provided: (a) No more than three metres from the water connection point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); (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.

1-276

EXHIBITED

STAGING

Staging of development will not affect the BAL building areas or Hazard Management areas of any proposed lots. If staging of road construction occurs the terminus of the road must meet requirements including turning provision.

CONCLUSIONS

25 lot plus road and POS subdivision is proposed from the existing 3 titles CT 37065/100, 18088/1, 18088/7, at 16338 Midland Hwy, Perth. The area is mapped as bushfire prone in planning overlays.

A compliant water supply must be installed on Lot 18 (existing dwelling) prior to sealing of titles. BAL 19 hazard management areas as a minimum must be maintained around the dwelling prior to sealing of titles and in perpetuity.

There is sufficient area on all lots to provide for a BAL 19 for any future habitable dwellings. Construction to BAL 12.5 is also possible on all lots with increased setbacks and hazard management areas.

Hazard management areas must be maintained around habitable dwellings from commencement of construction and in perpetuity, the extent of HMA will depend on construction rating. The owner of a lot is responsible for hazard management.

Subdivision roads must comply with the relevant elements of Table E1 Roads from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code.* Access to all lots must comply with the relevant elements of Table E2 Access, *Planning Directive No. 5.1 Bushfire-Prone Areas Code.* It is anticipated that dwellings will require between 30 and 200m of access and therefore need to comply with Element B. If staging of road construction occurs the terminus of the road must meet requirements including turning provision.

The subdivision will be serviced by a new reticulated supply. New hydrants if installed must meet the requirements of Table 4, *Planning Directive No. 5.1 Bushfire-Prone Areas Code.* New habitable buildings greater than 120m as the hose lays from a hydrant must have a static water installed to the standards listed in Table 5, *Planning Directive No. 5.1 Bushfire-Prone Areas.*

REFERENCES

Standards Australia. (2009). *AS 3959-2009 Construction of Buildings in Bushfire Prone Areas*

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

Amended
15.09.20

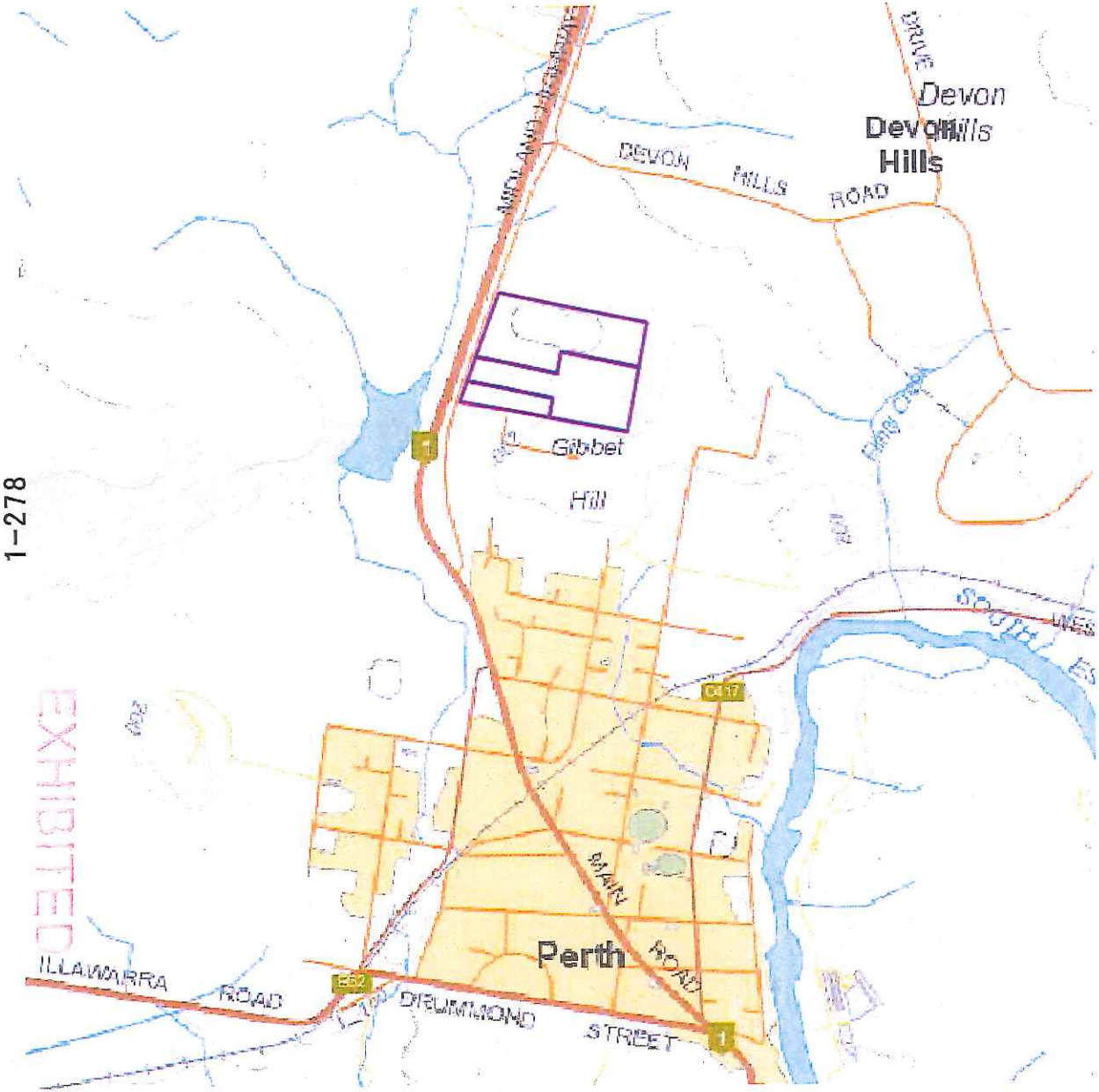
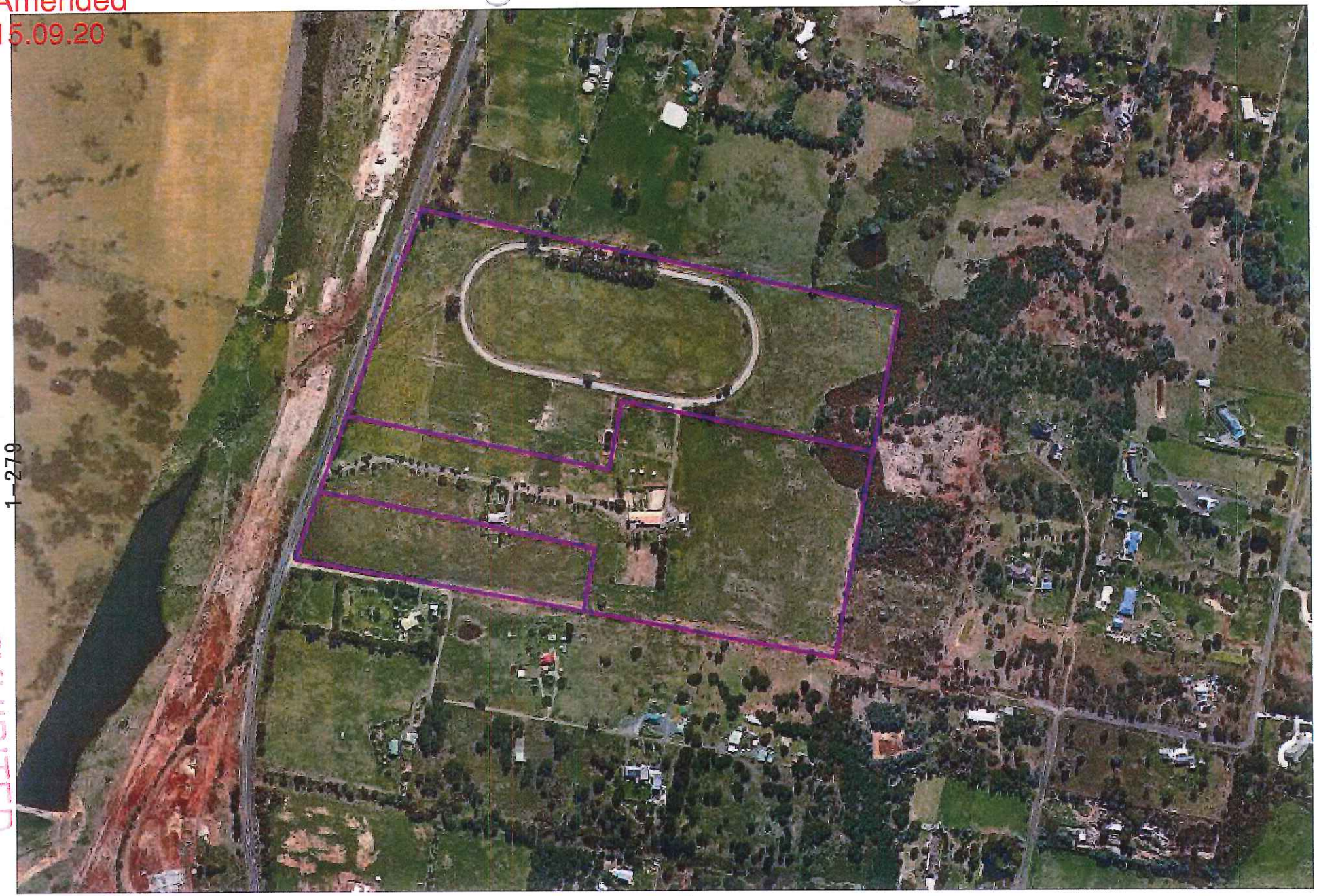


Figure 3: Location

1–278

Amended
15.09.20



1-270

EXHIBITED

Figure 4: Aerial Image

Amended
15.09.20

1-280

EXHIBITED

Figure 5: Proposed Subdivision Plan

Figure 6: south from stables

Figure 7: east across property, gorse patch

Figure 8: north across property boundary, adjacent grassland

Amended
15.09.20

Bushfire Hazard Management Plan: Subdivision

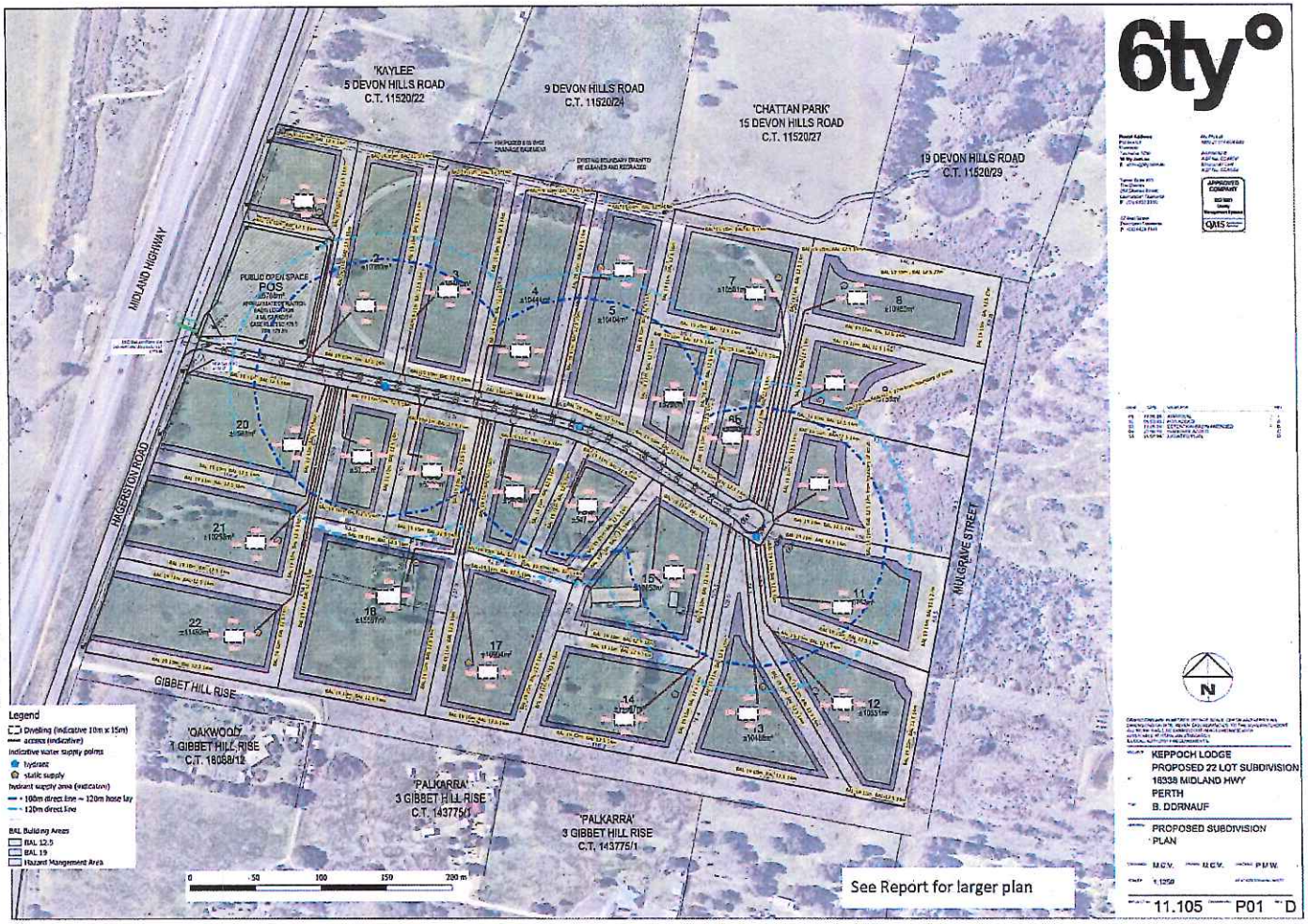
Lot	BAL	Setback
1	BAL 12.5	14m from northern, eastern and southern boundaries
	BAL 19	10m from northern, eastern and southern boundaries
2-7	BAL 12.5	14m from northern, eastern and southern boundaries, 16m from western boundary
	BAL 19	10m from northern, eastern and southern boundaries, 11m from western boundary
8	BAL 12.5	27m from boundary (northern) with CT 11520/29 and eastern boundary, 14m from southern boundary, 16m from western boundary
	BAL 19	19m from boundary (northern) with CT 11520/29 and eastern boundary, 10m from southern boundary, 11m from western boundary
9-11	BAL 12.5	27m from boundary of scrub, 14m from northern and southern boundary, 16m from western boundary
	BAL 19	19m from boundary of scrub, 10m from northern and southern boundary, 11m from western boundary
12	BAL 12.5	14m from western, eastern and southern boundaries, 16m from northern boundary, 27m from NE corner of lot
	BAL 19	10m from western, eastern and southern boundaries 11m from northern boundary, 19m from NE corner of lot
13-19	BAL 12.5	14m from western, eastern and southern boundaries, 16m from northern boundary,
	BAL 19	10m from western, eastern and southern boundaries 11m from northern boundary,
20-22	BAL 12.5	14m from eastern and southern boundaries, 16m from northern boundary
	BAL 19	10m from eastern and southern boundaries 11m from northern boundary

Construction: BAL 12.5—BAL 19 as shown

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

Proposed Development	Subdivision, 25 lots + road and POS from 3 lots
Plan of Subdivision	6TY Proposed Subdivision Plan PO1 D, 26/7/2020
Property Owner	B Dornauf
Address	16338 Midland Hwy, Perth
CT	37065/100, 18088/1, 18088/7
PID	7241202

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.



Scott Livingston
Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 9/9/2020

SRL18/47S5

1–283

EXHIBITED

Amended
15.09.20

Hazard Management Areas (HMA)

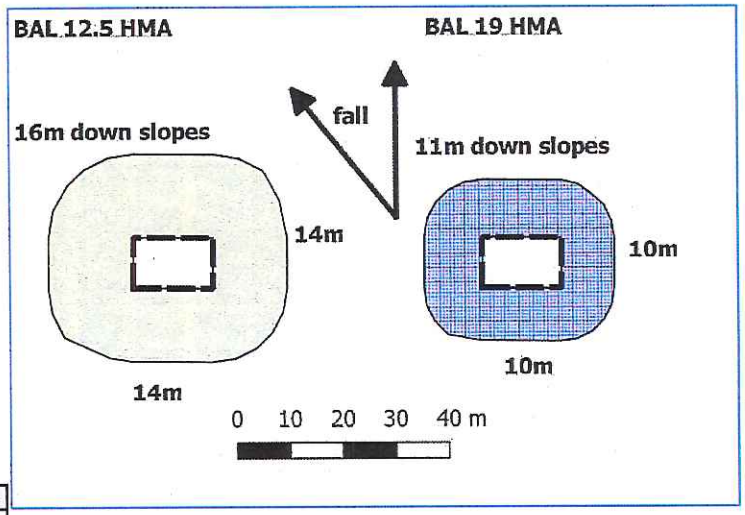
Land within the distances shown in the table below must be managed to the following maximum fuel levels in perpetuity:

The owner of a lot is responsible for maintenance of HMA's.

Low Threat/ Managed Land: managed gardens orchards or lawns maintained to < 100mm in height.

Maintenance Schedule:: Managed Land

- Cut lawns to less than 100mm and maintained
- 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.



	Minimum Hazard Management Area
Existing dwelling	All areas of the lot within 11m north and north west of a building façade and 10m in other directions
BAL 12.5 construction	All areas of the lot within 16m downslope (north and north west) & 14m in other directions from habitable building.
BAL 19 construction	All areas of the lot within 11m downslope (north and north west) & 10m in other directions from habitable building.

1–284

Hazard management Areas for the existing dwelling on Lot 18 must be in place prior to sealing of titles .

Hazard management Areas for future habitable buildings must be in place prior to commencement of construction.

EXHIBITED

This BHMP has been prepared to satisfy the requirements of the Northern Midlands Interim Planning Scheme, 2013 & Bushfire Prone Areas Code 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 ,16338 Midland Hwy v5, Livingston Natural Resource Services

Scott Livingston
Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 9/9/2020

SRL18/47S5

N
L R
S

Amended
15.09.20

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;
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.

Staged roads, must comply with turning provisions

1–285

EXHIBITED

Access

If access exceeds 30m to a to a habitable building or water supply point it must be constructed to the following standards:
The following design and construction requirements apply to property access:

a. All-weather construction;
b. Load capacity of at least 20 tonnes, including for bridges and culverts;
c. Minimum carriageway width of 4 metres;
d. Minimum vertical clearance of 4 metres;
e. Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
f. Cross falls of less than 3 degrees (1:20 or 5%);
g. Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;
h. Curves with a minimum inner radius of 10 metres;
i. 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
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 10 metres; or
   ii) A property access encircling the building; or
   iii) a hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.
k. Passing bays of 2 metres additional carriageway width and 20 metres length must be provided every 200 metres.

Access to the existing dwelling on Lot 18 must be in place prior to sealing of titles.

Access to future habitable buildings must be in place prior to commencement of construction.

Scott Livingston
Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 9/9/2020

SRL18/47S5

N
L R
S

Amended
15.09.20

Water Supply

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

1–286

Water supply for the existing dwelling on Lot 18 must be in place prior to sealing of titles.

Water supply for future habitable buildings must be in place prior to commencement of construction.

Habitable buildings that rely on hydrants for water supply coverage should have the hose lay length measured accurately at planning stages when the building footprint is known, as hydrant locations and obstacles to hose lays may change.

EXHIBITED

Scott Livingston
Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 9/9/2020

SRL18/47S5

Where building areas are greater than 120m as the hose lays from a hydrant a static water supply to following standards must be installed for each building area:

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

Amended
15.09.20

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:	16338 Midland Hwy, Perth 7300
Certificate of Title / PID:	CT 37065/100, 18088/1, 18088/7, PID 7241202

2. Proposed Use or Development

Description of proposed Use and Development:	25 lot + road & POS subdivision from 3 existing titles
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, 16338 Midland Hwy v5	Scott Livingston	9/9/2020	5
Bushfire Hazard Management Plan, 16338 Midland Hwy v5	Scott Livingston	9/9/2020	5
Proposed Subdivision Plan PO1	6ty Pty Ltd	26/7/2020	D

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)	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

Amended
15.09.20

5. Bushfire Hazard Practitioner

Name:	Scott Livingston	**Phone No:**	0438 951 021
Postal Address:	12 Powers Road	**Email Address:**	scottlivingston.lnra@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:** 9/9/2020

Certificate Number: SRL18/47S5

(for Practitioner Use only)

Amended
15.09.20

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Bill Dornauf *Owner /Agent*
16338 Midland Hwy *Address*
Perth 7300 *Suburb/postcode*

Qualified person details:

Qualified person: Scott Livingston
Address: 12 Powers Rd
Underwood 7268
Phone No: 0438 951 201
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: 16338 Midland Hwy
Perth 7300
Lot No: 1-22
Certificate of title No: CT 37065/100, 18088/1 &7

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 –

Amended
15.09.20

Documents:	• Bushfire Attack Level Assessment & Report
Relevant calculations:	N/A
References:	• Australian Standard 3959 • Planning Directive No.5.1 • Building Amendment Regulations 2016 • Director of Building Control, Determination (2017) • Guidelines for development in bushfire prone areas of Tasmania

Substance of Certificate: *(what it is that is being certified)*

1. Assessment of the site Bushfire Attack Level (BAL) to Australian Standards 3959

Amended
15.09.20

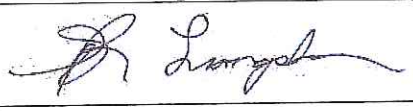
Scope and/or Limitations

Scope:
This report was commissioned to identify the Bushfire Attack Level for the existing property. All comment, advice and fire suppression measures are in relation to compliance with Interim Planning Directive No 1.1, Bushfire-Prone Areas Code issued by the Tasmanian Planning Commission, the Building Code of Australia and Australian Standards, AS 3959-2009, Construction of buildings in bushfire-prone areas.

Limitations:
The inspection has been undertaken and report provided on the understanding that;-

1. The report only deals with the potential bushfire risk all other statutory assessments are outside the scope of this report.
2. The report only identifies the size, volume and status of vegetation at the time the site inspection was undertaken and cannot be relied upon for any future development.
3. Impacts of future development and vegetation growth have not been considered.

I certify the matters described in this certificate.

Qualified person:	*Signed:*	*Certificate No:*	*Date:*
		SRL18/47S5	9/9/2020

NORTHERN
MIDLANDS
COUNCIL

Our ref: PLN-20-0127

26 June 2020

George Walker
6ty° Pty Ltd

By email: gwalker@6ty.com.au

Dear George,

Additional Information Required for Planning Application PLN-20-0127
26 lot subdivision at 16338 Midland Highway, Perth

I refer to the abovementioned application, which has been reviewed by Council's planners. The following information is requested:

- Confirmation of the land area. Section 1.1 of the Planning Report states the land area is 25.4 ha, the titles give a land area of 23.318 ha.
- Written consent from the General Manager that there be a cash contribution for the difference between 5% of the land area and the area of public open space proposed.
- Written consent from the General Manager to making the application as far as it relates to Devon Hills Road.
- Written consent from the Minister administering the Crown Land to making the application as far as it relates to Haggerston Road.
- A revised Bushfire Hazard Management Report to accord with the proposed layout.
- Fees of $11,946 as per the attached schedule.

Your request for consideration of a reduction in fees due to there being no significant differences from the previous application will be taken to the Council meeting of the 20th July.

This information is required under Section 54(1) of the *Land Use Planning and Approvals Act* 1993 (the Act). In accordance with Section 54 of the Act, the statutory period for processing the application will not recommence until the requested information has been satisfactorily supplied.

If you have any queries, please contact me on 6397 7301 or email planning@nmc.tas.gov.au.

Yours sincerely

Paul Godier
Senior Planner

Encl. Fee schedule

Fees due
Mail: PO Box 156, Longford 7301
Offices: 13 Smith St, Longford
Email: Planning@nmc.tas.gov.au

NORTHERN MIDLANDS COUNCIL

Phone: (03) 6397 7303
Fax: (03) 6397 7331

FEES PAYABLE FOR

PLANNING APPLICATION: PLN20-0127

16338 Midland Hwy Perth

Type of Fee	$	Code
Subdivision application ($528 + $268 per new lot (+ $258 advertising fees)	6950	2.2
Engineering Department assessment (Additional $129 per unit/lot over 3 [23])	3321	7.1
Health - Subdivision Assess Outside Sewer District (Additional $67 each new lot [23])	1675	
TOTAL	$11946	
Payment may be made at Council offices, OR by card to our receptionist by phoning 6397 7303, OR by cheque payable to 'Northern Midlands Council'. (please present this list with payment)		
Processing of applications does not commence until fees are paid. Quote valid to 30.6.20 and may change after full review of application by Council.		

Date:.....Paid:.....Receipt:.....

Rosemary Jones

From: Hills, Garry <Garry.Hills@stategrowth.tas.gov.au>
Sent: Tuesday, 3 November 2020 3:16 PM
To: NMC Planning
Subject: RE: Referral to Department of State Growth of Planning Application PLN-20-0127 - 16338 Midland Highway, Haggerston Road, & Devon Hills Road, Perth TAS 7300

Follow Up Flag: Follow up
Flag Status: Flagged

Our Ref: D20/275308

Hello Rosemary, thanks for the referral regarding the above.

I advise that the Department do not object to the proposal. However it is noted that new, and modifications to, access / drainage works are required.

In this regard it will be appreciated if you can arrange to include the below as a condition (and subsequent note) on any permit issued by Council;

- Detailed engineering drawings showing the extent of the proposed intersection and road widening, including removal of the existing access, new or modified drainage infrastructure, remodelling of the shared path and all other associated works must be provided to the Department of State Growth for review and acceptance as part of a works permit application, see Note 1.
- The applicant must provide a drainage plan, including catchment area, flows and drainage design for any area discharging to the State road reserve as part of an application for approval to concentrate drainage of the land onto the State road network, see Note 2.

NOTE 1: A valid works permit is required for all works undertaken in the State road (Haggerston Road) reservation. Details of the permit process and application forms can be found at: www.transport.tas.gov.au/roads_and_traffic_management/permits_and_bookings/general_works_pathways,_stock_underpass. Applications must be received by the Department of State Growth a minimum of twenty (20) business days prior to the expected commencement date for works in order to allow sufficient time for the application to be assessed. No works are to be undertaken until a written permit has been issued.

NOTE 2: Approval is required from the Department of State Growth to concentrate and discharge stormwater or drainage onto the State road network. Details of the permit process and application forms can be found at: https://www.transport.tas.gov.au/roads_and_traffic_management/permits_and_bookings/stormwater_discharge_only.

Let me know if you need any further information.

Cheers, Garry

Garry Hills | Principal Analyst Traffic Engineering
State Roads Division | Department of State Growth

GPO Box 536, Hobart TAS 7001
Phone: (03) 6777 1940
www.stategrowth.tas.gov.au

1-297

DEPARTMENT OF STATE GROWTH COURAGE TO MAKE A DIFFERENCE THROUGH:

TEAMWORK EXCELLENCE INTEGRITY RESPECT

From: NMC Planning [mailto:planning@nmc.tas.gov.au]
Sent: Friday, 23 October 2020 3:11 PM
To: Development <Development@stategrowth.tas.gov.au>
Subject: Referral to Department of State Growth of Planning Application PLN-20-0127 - 16338 Midland Highway, Haggerston Road, & Devon Hills Road, Perth TAS 7300

23/10/2020

Department of State Growth
via email to: Development@stategrowth.tas.gov.au

Referral to Department of State Growth of Planning Application PLN-20-0127 - 16338 Midland Highway, Haggerston Road, & Devon Hills Road, Perth TAS 7300

The following planning application has been received under the *Northern Midlands Interim Planning Scheme* 2013.

NMC ref no:	PLN-20-0127
Site:	16338 Midland Highway, Haggerston Road, & Devon Hills Road, Perth TAS 7300
Proposal:	26 lot subdivision including shared stormwater detention/Public Open Space, cul-de-sac (creation of 7 lots less than 1 hectare) (Road & Railway Assets Code, Flood Prone Areas Code) and water main (utilities) in Devon Hills Road & Haggerston Road
Applicant:	6ty°
Use class:	Residential (subdivision)
Zone:	LOW DENSITY RESIDENTIAL ZONE
Development status:	Discretionary
Notes:	The subject site is in an 80kph zone.

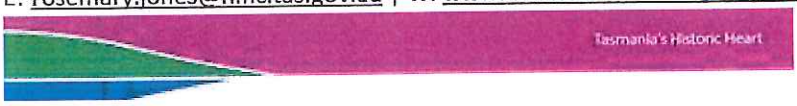
Attached is a copy of the application, plans/documentation relating to the proposal. It would be appreciated if you could return any comments, or notification that you do not wish to comment on the application, within fourteen (14) days of the date of this letter. If you have any queries, please telephone Council's Development Services Department on 6397 7301 or e-mail planning@nmc.tas.gov.au

Attachments: Application & supporting documentation as pdf

Our Longford office is open from 8:45am until 4:30pm weekdays, however meetings with Council Officers are by appointment only, and we ask that transactions be conducted via telephone or online wherever possible. Our Customer Service team can be contacted by phone, post, via our website or email at council@nmc.tas.gov.au
Our priority is to keep our community, including staff, ratepayers and residents safe and to minimise the spread of COVID-19.

Rosemary Jones

Administration Officer - Community & Development | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: rosemary.jones@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au



Northern Midlands Council Confidentiality Notice and Disclaimer:

The information in this transmission, including attachments, may be confidential (and/or protected by legal professional privilege), and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received the transmission in error, please advise this office by return email and delete all copies of the transmission, and any attachments, from your records. No liability is accepted for unauthorised use of the information contained in this transmission. Any content of this message and its attachments that does not relate to the official business of the Northern Midlands Council must be taken not to have been sent or endorsed by it or its officers unless expressly stated to the contrary. No warranty is made that the email or attachment(s) are free from computer viruses or other defects.

Paul Godier

From: TasWater Development Mailbox <Development@taswater.com.au>
Sent: Wednesday, 25 November 2020 8:56 AM
To: Paul Godier
Subject: RE: TasWater Submission to Planning Authority Notice - Conditions.doc DA 2020 01761-NMC for 16338 MIDLAND HWY, PERTH PLN-20-0127

Categories: Sent to ECM

Hi Paul,

We under take water modelling for all large subdivisions, and one has been done for this one at the time of our response to council.
I can confirm that Summit Dr, at the crest of the hill has a slightly lower pressure than the minimum 220kPa, and is a known problem.
When you apply the new 25 lots to the existing network, it will reduce the pressure at the crest on Summit Dr. by approximately 5kPa
on a peak day, which is not to be confused with an average day. Peak days occur occasionally , approximately 1 to 15 days a year.

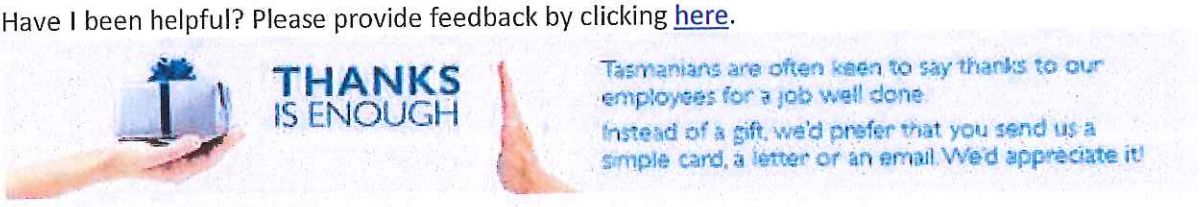
The height of the street is the main factor that is contributing to impacting their supply.

Cheers

David Boyle
Senior Assessment Officer
Currently working Tuesday to Friday

M 0436 629 652
F 1300 862 066
A GPO Box 1393, Hobart TAS 7001
36-42 Charles Street, Launceston, TAS 7250
E david.boyle@taswater.com.au
W http://www.taswater.com.au/

Have I been helpful? Please provide feedback by clicking here.



From: Paul Godier <paul.godier@nmc.tas.gov.au>
Sent: Tuesday, 17 November 2020 11:54 AM
To: TasWater Development Mailbox <Development@taswater.com.au>
Cc: Boyle, David <David.Boyle@taswater.com.au>
Subject: RE: TasWater Submission to Planning Authority Notice - Conditions.doc DA 2020 01761-NMC for 16338 MIDLAND HWY, PERTH PLN-20-0127

Hello David, this application has received representations which raise the following issues:

Concern regarding the impact the development will have on water pressure for Devon Hills residents, as the water pressure in parts of Summit Drive is already compromised.

What studies have been undertaken to ensure Devon Hills residents that this upgrade will guarantee no variation in water pressure during peak times, and that this upgrade is indeed sufficient?

Are you able to provide some advice on these matters.

Please let me know if you'd like to discuss.

Regards,

Our Longford office is open from 8:45am until 4:30pm weekdays, however meetings with Council Officers are by appointment only, and we ask that transactions be conducted via telephone or online wherever possible. Our Customer Service team can be contacted by phone, post, via our website or email at council@nmc.tas.gov.au
Our priority is to keep our community, including staff, ratepayers and residents safe and to minimise the spread of COVID-19.

Paul Godier

NORTHERN MIDLANDS COUNCIL

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
Tasmania's Historic Heart

employer of choice

From: TasWater Development Mailbox
Sent: Friday, 30 October 2020 5:41 PM
To: NMC Planning
Subject: TasWater Submission to Planning Authority Notice - Conditions.doc DA 2020 01761-NMC for 16338 MIDLAND HWY, PERTH PLN-20-0127

Dear Sir/Madam

Please find attached TasWater Submission to Planning Authority Notice as mentioned above. A copy of the attached document(s) should be referenced in and appended to the council permit.

If you have any queries, please contact me.

Regards

David Boyle
Senior Development Assessment Officer
Currently working Tuesday to Friday

TasWater

D 0436 629 652
F 1300 862 066
A GPO Box 1393, Hobart TAS 7001
36-42 Charles Street, Launceston, TAS 7250
E david.boyle@taswater.com.au
W http://www.taswater.com.au/

Disclaimer

This email, including any attachments, may be confidential and/or legally privileged. You must not use, access or disclose it other than for the purpose for which it was sent. If you receive this message or any attachments or information in it in error, please destroy and delete all copies and notify the sender immediately by return email or by contacting TasWater by telephone on 136992. You must not use, interfere with, disclose, copy or retain this email. TasWater will not accept liability for any errors, omissions, viruses, loss and/or damage arising from using, opening or transmitting this email

Northern Midlands Council Confidentiality Notice and Disclaimer:

The information in this transmission, including attachments, may be confidential (and/or protected by legal professional privilege), and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received the transmission in error, please advise this office by return email and delete all copies of the transmission, and any attachments, from your records. No liability is accepted for unauthorised use of the information contained in this transmission. Any content of this message and its attachments that does not relate to the official business of the Northern Midlands Council must be taken not to have been sent or endorsed by it or its officers unless expressly stated to the contrary. No warranty is made that the email or attachment(s) are free from computer viruses or other defects.

Disclaimer

This email, including any attachments, may be confidential and/or legally privileged. You must not use, access or disclose it other than for the purpose for which it was sent. If you receive this message or any attachments or information in it in error, please destroy and delete all copies and notify the sender immediately by return email or by contacting TasWater by telephone on 136992. You must not use, interfere with, disclose, copy or retain this email. TasWater will not accept liability for any errors, omissions, viruses, loss and/or damage arising from using, opening or transmitting this email

TasWater

Submission to Planning Authority Notice

Council Planning Permit No.	PLN-20-0127	Council notice date	23/10/2020
TasWater details			
TasWater Reference No.	TWDA 2020/01761-NMC	Date of response	30/10/2020
TasWater Contact	David Boyle	Phone No.	0436 629 652
Response issued to			
Council name	NORTHERN MIDLANDS COUNCIL		
Contact details	Planning@nmc.tas.gov.au		
Development details			
Address	16338 MIDLAND HWY, PERTH	Property ID (PID)	7241202
Description of development	Subdivision - 26 lots		

Schedule of drawings/documents

Prepared by	Drawing/document No.	Revision No.	Date of Issue
6ty °	Concept Servicing plan / 11.05 P04	-	21/05/2020

Conditions

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:

CONNECTIONS, METERING & BACKFLOW

1. A suitably sized water supply with metered connections to each lot of the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.
2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.
3. Prior to commencing construction of the subdivision/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.

ASSET CREATION & INFRASTRUCTURE WORKS

4. Plans submitted with the application for Engineering Design Approval must, to the satisfaction of TasWater show, all existing, redundant and/or proposed property services and mains.
5. Prior to applying for a Permit to Construct to construct new infrastructure the developer must obtain from TasWater Engineering Design Approval for new TasWater infrastructure. The application for Engineering Design Approval must include engineering design plans prepared by a suitably qualified person showing the hydraulic servicing requirements for water to TasWater's satisfaction.
6. Prior to works commencing, a Permit to Construct must be applied for and issued by TasWater. All infrastructure works must be inspected by TasWater and be to TasWater's satisfaction.
7. In addition to any other conditions in this permit, all works must be constructed under the supervision of a suitably qualified person in accordance with TasWater's requirements.

8. Prior to the issue of a Consent to Register a Legal Document all additions, extensions, alterations or upgrades to TasWater's water and sewerage infrastructure required to service the development, generally as shown on the concept servicing plan "6ty° 11.05 P04", are to be constructed at the expense of the developer to the satisfaction of TasWater, with live connections performed by TasWater.

9. After testing/disinfection, to TasWater's requirements, of newly created works, the developer must apply to TasWater for connection of these works to existing TasWater infrastructure, at the developer's cost.

10. At practical completion of the water and sewerage works and prior to TasWater issuing a Consent to a Register Legal Document, the developer must obtain a Certificate of Practical Completion from TasWater for the works that will be transferred to TasWater. To obtain a Certificate of Practical Completion:

    a. Written confirmation from the supervising suitably qualified person certifying that the works have been constructed in accordance with the TasWater approved plans and specifications and that the appropriate level of workmanship has been achieved;

    b. A request for a joint on-site inspection with TasWater's authorised representative must be made;

    c. Security for the twelve (12) month defects liability period to the value of 10% of the works must be lodged with TasWater. This security must be in the form of a bank guarantee;

    d. Work As Constructed drawings and documentation must be prepared by a suitably qualified person to TasWater's satisfaction and forwarded to TasWater.

11. After the Certificate of Practical Completion has been issued, a 12 month defects liability period applies to this infrastructure. During this period all defects must be rectified at the developer's cost and to the satisfaction of TasWater. A further 12 month defects liability period may be applied to defects after rectification. TasWater may, at its discretion, undertake rectification of any defects at the developer's cost. Upon completion, of the defects liability period the developer must request TasWater to issue a "Certificate of Final Acceptance". The newly constructed infrastructure will be transferred to TasWater upon issue of this certificate and TasWater will release any security held for the defects liability period.

12. The developer must take all precautions to protect existing TasWater infrastructure. Any damage caused to existing TasWater infrastructure during the construction period must be promptly reported to TasWater and repaired by TasWater at the developer's cost.

13. Ground levels over the TasWater assets and/or easements must not be altered without the written approval of TasWater.

14. A construction management plan must be submitted with the application for TasWater Engineering Design Approval. The construction management plan must detail how the new TasWater infrastructure will be constructed while maintaining current levels of services provided by TasWater to the community. The construction plan must also include a risk assessment and contingency plans covering major risks to TasWater during any works. The construction plan must be to the satisfaction of TasWater prior to TasWater's Engineering Design Approval being issued.

FINAL PLANS, EASEMENTS & ENDORSEMENTS

15. Prior to the Sealing of the Final Plan of Survey, a Consent to Register a Legal Document must be obtained from TasWater as evidence of compliance with these conditions when application for sealing is made.

Advice: Council will refer the Final Plan of Survey to TasWater requesting Consent to Register a Legal

DEVELOPMENT ASSESSMENT FEES

16. The applicant or landowner as the case may be, must pay a development assessment fee of $1,139.79 and a Consent to Register a Legal Document fee of $149.20 to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater.

    The payment is required within 30 days of the issue of an invoice by TasWater.

17. In the event Council approves a staging plan, a Consent to Register a Legal Document fee for each stage, must be paid commensurate with the number of Equivalent Tenements in each stage, as approved by Council.

Advice

General

For information on TasWater development standards, please visit
http://www.taswater.com.au/Development/Development-Standards

For application forms please visit http://www.taswater.com.au/Development/Forms

Boundary Conditions

The proposed development is located in the Devon Hills Booster Pump pressure zone supplied from the Devon Hills Booster Pump with a TWL of 256 m AHD. This development is at an elevation of 185 m AHD, giving a maximum static pressure of 71 m from a single-direction feed pipe.

This pressure head described above is at the assumed connection point at the eastern end of the proposed road within the subdivision road and does not include losses through the proposed water main in this new road or the individual lot service connections

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

Jason Taylor
Development Assessment Manager

TasWater Contact Details			
Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

Paul Godier

From: Chris Wicks
Sent: Monday, 17 June 2019 2:46 PM
To: Paul Godier; Rosemary Jones
Subject: Keppoch Lodge - wastewater disposal

Hi Paul and Rosemary

This afternoon I visited 16338 Midland Highway Perth (Keppoch Lodge) to consider the potential for on-site wastewater disposal. Having considered features including the topography, exposed rock, pasture and recent rainfall and the proposed lot sizes, it is reasonable to conclude that safe wastewater disposal for residential development can be achieved on the proposed parcels of land. My conclusion is supported by land use information provided by the owner and the various on-site wastewater management system options currently available.

Regards

Chris

Chris Wicks

NORTHERN MIDLANDS COUNCIL

Environmental Health Officer | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: chris.wicks@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

Tasmania's Historic Heart

Rosemary Jones

From: Kerri Thomas
Sent: Monday, 2 November 2020 1:32 PM
To: NMC Planning
Subject: Subdivision Proposal: 16338 Midlands Highway.

Follow Up Flag: Follow up
Flag Status: Flagged

Kerry Thomas,

30 Devon Hills Rd.,

Devon Hills: 7300

The General Manager,

Northern Midlands Council,

P. O. Box 156

Longford: 7301

Reference Number: PLN-20-0127

Dear Sir,

I strongly object to the proposed development adjoining Devon Hills and Gibbet Hill at 16338 Midlands Highway/Haggerston Rd./Devon Hills Rd. for 26 lots.

If the above land is to be subdivided it should be in **accordance with the surrounding property sizes both at Devon Hills and Gibbet Hill**, which is in excess of approximately 2 hectares and maximum of 10 hectares and larger. For

such a proposal to be submitted for 26 lots to be squeezed into such an inappropriate parcel of land is absolutely preposterous, and a blatant disregard for surrounding residents, and an obvious grab for money!

Here at Devon Hills we have numerous species of native wildlife, including the critically-endangered-listed Eastern Barred Bandicoot, Spotted Quoll, Long-Nosed Potoroo, Tasmanian Bettong, Little Pygmy Possum, Ringtail Possum, Echidna, Southern Brown Bandicoot, Pademelon, Wallaby etc., etc., plus numerous species of native birds including the Spotted Pardalote, 2 varieties of Honey Eaters, Peregrine Falcon, and the recently sighted and critically-endangered Wedge Tail Eagle etc. etc. Approximately 2 - 3 years ago I came across a wombat on Summit Dr. Sadly, and most unfortunately most of the above-mentioned are far more endangered now than they were just a few years ago, due to not only cats and dogs but also irresponsible drivers. Consequently another huge concern regarding the proposed 26 lot development is the devastating impact it would have on our remaining native wildlife.

My husband and I chose to reside in Devon Hills almost 40 years ago because of its uniqueness and rural atmosphere, and during that time we have witnessed not only the expansion of Devon Hills, but also the proposal by 3 or 4 individuals to subdivide their properties. On each occasion in access of 95% of residents strongly and successfully contested these proposals. And now we have a proposal to subdivide adjoining land of, as I understand, 25 hectares into 26 lots!

Another concern is regarding the impact this development will have on water pressure for Devon Hills residents, as the water pressure in parts of Summit Dr. is already compromised.

I can only hope that commonsense will prevail and that the **proposal of 26 lots will be be hugely reduced to more in keeping with adjoining Devon Hills and Gibbett Hill properties**! The actual proposal as it stands is for lots 1 - 10 adjoining existing Devon Hills properties, which are in excess of 5 hectares each!!!

Sincerely,

Kerry Thomas

P.S. It is most frustrating that Devon Hills residents who will be most impacted by the above mentioned development have only been notified of this proposal (107 pages) by mail October 29, 2020, with closing submissions November 9, 2020.

The General Manager

Northern Midlands Council

cc. Councilor Ian Goninon

Reference number : PLN-20-0127

Site Proposal :16338 Midlands Highway,Haggerston road & Devon Hills road

Public Comment response.

Dear Sir

In response to the above application the writer has several concerns in relation to this proposed development.

For background information I am a rate payer of the NMC and have been residing at 27 Devon Hills Rd for in excess of 20 yrs. During this time, I have seen and experienced the growth within the Perth township which my property boundaries. This has been, in my view, a successful utilization of available land resources however, there are continuing negative affects over the years that were not addressed or perhaps not envisaged at the time of early planning.

I speak mainly of the dwindling habitat for our native animals and birdlife, and the seasonal migration of the echidnas as an example, due to small land housing blocks of less than 1 hectare and the affect that unchecked dogs and cats have had killing Tasmanian marsupials ,Wallabies, Padymelons Tasmanian Bettong, Possums Birdlife Native hens etc etc. This 26-lot development with its overcrowding of housing especially blocks less than 1 hectare that boundaries neighboring Devon hills properties without sufficient external fencing to limit the affect will without doubt, decrease numbers of native animals. All the good intentions in the world will not stop some large dogs from roaming and as I have witnessed killing these native animals. At the very least I would recommend a secured perimeter fence around the 3 sides of of Hegerston road.

In deliberations you should consider the size of properties surrounding the immediate area and determine that this proposed sub-divisions cramming in houses in no way meets the similarity of size and look of living in a rural setting. The beauty and intention of this area is so its residents can have the experience of country living not far from the city and unfortunately this development will look like a singled out group of houses stuck in the middle of a paddock.

Secondly, I completely disagree with council accepting cash in lieu of public open space. Public open space is surely completely necessary for a sub-division of this magnitude and if anything is far to small already and I would think not in keeping with the residents of rate payers. Councilor Goninon how is it that the General Manager of our council has the power of swapping land for cash without the community's input? There is simply insufficient entertainment and outdoor facilities for children and families for the magnitude of this nature.

WATER MAINS

I note there is to be an upgrade of water mains line from Christine avenue to the new subdivision. Councilor what studies have been undertaken to ensure Devon Hills residents that this upgrade will guarantee no variation in water pressure during peak times? And that this upgrade is indeed sufficient?

STORMWATER DRAINAGE

There is an 8 meter wide stormwater drain along the northern perimeter of lots 1-5 this proposed drain is in my view not going to help lots 6a 6b lots 7 8 or 9 as the concentration of water during May through to mid-November runs on a natural watercourse from my property straight through those mentioned above and indeed as of writing this document the ground is in places under water.

SEWRAGE

There is to be no town sewerage connections for 26 houses crammed together, with septic tanks, please provide assurances that in the event of overflow the technology required within these septic tanks will not cause excess run of. Surely there needs to be direct sewage infrastructure connection with the quantity of blocks as small as these.

Under the performance criteria it stated that each lot will have a minimum size of 1 hectare which provides enough space to locate a dwelling and onsite waste management system including back up absorption and disposal areas. Therefore, by their own admission there are 7 lots that do not comply. What is the absorption rate they speak? where is the disposal areas they speak of in the plans?

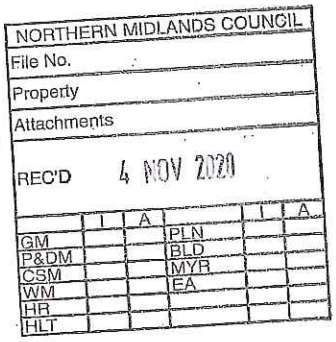
CONCLUSION

I do not oppose development of housing in that area, I do however have grave concerns as listed above. It appears to me to be a money hungry developer cramming in as many houses as possible whilst trying to explain the many shortcomings away through "performance Criteria Assessment".

This proposal raises more questions than answers and at the very least needs to increase the size of blocks to a minimum 1 hectare and an increase the public area space and address the above concerns.

Thankyou for the opportunity to raise my concerns, and I look forward to your response.

Neil Johnson



Erin Eiffe (Mrs)

Perth. Tas 7300

October 26 2020

Mr Des Jennings
General Manager
Northern Midlands Council
PO Box 156
Longford Tas 7301

Re: Proposed subdivision of Keppoch Lodge Perth
Ref: PLN-20-0127 1633 Midlands Highway Perth

Dear Mr Jennings

I wish to make the following submission in regards to the above.

We object most strongly to any further development in this area, and in no way support the above proposal, which bears little resemblance to Devon Hills which consists of much larger blocks, whereas the proposed development seeks to cram 25 houses into a much smaller area and is totally out of keeping with the character of this place.

A great deal of farmland and animal habitat has already been lost in the Perth area due to the construction of the new Midlands Highway, yet despite this, developers are still being permitted to gobble up more rural land. Once built on, (including the property in question) this land is lost forever to wildlife and farming and the character of these areas is forever changed, to the detriment of the people and wildlife who live there. I am deeply disappointed that in view of this, there are no requirements for developers to provide wildlife corridors.

Should the above proposal go ahead, more wildlife will be forced out of this area, including critically endangered animals like the Eastern Barred Bandicoot. In a shrinking environment, where will these animals go? Being forced from their own into another's territory is a death sentence. The more wildlife that is lost, the poorer and less unique an area becomes.

As Council determines the zoning of land which allows development in these areas, surely there is a responsibility to protect our diminishing fauna and flora. Preservation or the extinction of our wildlife begins with planning decisions that encroach on their habitat. When making decisions regarding this proposed development, I ask that the Council keep in mind that a lot of animal habitat, as well as trees, has already been lost or compromised by the Breadalbane to Perth highway upgrade, which bisects their territory, and that this proposed development will only further the processes which lead to the extinction of our wildlife.

If I understand the proposal correctly, the blocks were not to be less than 1 hectare in size, yet some of the blocks are less, so that the proposed subdivision will still, as per the first proposal, consist of 25 new houses which means that at least 50 more people will be crammed into this area, along with their cars, barking dogs, and of particular concern, marauding cats.

The noise in this area can only increase with the introduction of so many people and vehicles and 25 extra lawnmowers, and will have a negative effect on surrounding properties. The comfort of existing residents is already compromised by increased traffic noise from the upgraded highway and its 110 kmh speed limit. Noise also affects our native birds and animals, and in some cases, drives them out of the area to an uncertain future.

Short of coating the houses with invisible paint, I do not understand how there can be no visual impact from this development. Should an extra 25 houses be built, then surrounding properties will face the unappealing reality of views of roof tops and cars, or of staring at walls or into the windows of some of these houses, as well as a possible sea of electricity poles, rather than across the expansive rural vista that exists at present.

In relation to fire safety and bushfires, it is not only bushfires that are a threat. Property owners who constantly burn are also a threat, as wind can fan fires up the hill (which has happened in the past), and smoke from these burns and wood fires is hazardous to those of us with health problems. This problem will only increase if more people are allowed into the area.

I also do not understand how the extra amount of water with which the land will have to cope can be safely absorbed: there will be at least 50 more people having showers, washing cars, using washing machines, and the toilet. With a frog habitat just across the road, how can that amount of water and sewerage be contained without contaminating the ground water?

And how much blasting will occur? I am no geologist, but it is obvious that a great part of this proposed development will sit on the same rock shelf as at least some of the existing properties. Who will assess and pay for any damage that occurs to these houses, and the possible rupture of their tanks, which is their only water supply?

Contrary to what the proposal states, people and their dogs do use the walkway, not only cyclists.

Should this proposal go ahead, it will further erode all that has made Perth special and a place worth living in. We would rather see a less destructive use found for the land, one that is more in keeping with the rural nature of this area, and that contributes to the preservation of our irreplaceable fauna and flora, and to the wellbeing of those of us who call this place home.

Thank you for your consideration of this submission.

Yours sincerely,

(Mrs) Erin Eiffe

8 - 11 - 2020

TO : NORTHERN MIDLANDS COUNCIL GENERAL MANAGER

SUBJECT : Some concerns in relation to the proposed 26 lot subdivision at 16338 Midland Hwy, Haggerston Rd, Perth.
Reference No: PLN - 20 - 0127

1. VISUAL AMENITY

Gibbet Hill visually separates Devon Hills from Perth. All current blocks in Devon Hills and on the north side of Gibbet Hill are much larger than those in the proposed development and the nature of the land contours and remnant vegetation in the area mean that any one residence sees little in the way of others. The proposed development in open paddocks on flat land, or consistent slope into the access road, will mean no residence will be visually shielded from any other. The development will be more like a suburban area surrounded by a more rural aspect. This is not in keeping with the general ambience of the area. A reduction to 10 to 12 blocks would be more in keeping with this ambience.

2. SEWERAGE

The development proposes septic tanks, with outfall, on each block. I see two issues here.

The first is in relation to the blocks on the southern side of the proposed access road. The ground here is rocky with shallow soils and on

an underlying dolerite sill. This will mean that there will probably be much reduced soaking of septic tank overflow deep into the substrate. Surface contamination after higher rainfall events is a distinct possibility as the outfall lines will be restricted by block size and individual residence location. The number of blocks will add to this issue.

The second is in relation to the area to the north of the proposed access road. While I note that modelling of a 100 year flood indicates inundation of only a small area towards Haggerston Rd. the more pressing issue, in my view is the regular winter rain and short, high rainfall events, raising the water table to the surface. This happens in this area at the moment and with climate change the problem may well be exacerbated. This high water table will raise sewerage outfall to the surface and the resulting pollution will be compounded by the number of blocks. I note that the high water table issue is partially recognised by indicating that house foundations, on some blocks, should be elevated by 300 mm above the ground level. This will not address sewerage contamination. If it occurs this contamination will flow to the western side of the Midland Highway and into the existing dams. Is this an issue for the land-owner? Will this become an issue for the Council?

The fact that 7 of the proposed blocks are only about 0.5 Ha in size will make mitigation of this issue even more difficult.

Any detention basin for run-off will need to

be isolated from the public due to this potential for contamination no matter how many blocks may be finally approved.

3. WILDLIFE

As already indicated I perceive sewerage contamination as a potential issue. What effect will this have on the endangered green and gold frog population? Considerable money was spent as part of the new highway works to provide habitat and access to waterways for this species.

The higher density of housing blocks in the area has the potential to impact other species both directly and indirectly.

The eastern barred bandicoot and brown bandicoot are susceptible to dog and cat predation. These populations will have developed strategies and habitat location to mitigate this predation over time in the Devon Hills area due to its longer term stability and spread out human occupation. The influx of a significant new population in a relatively small area has the potential to impact these ~~sp~~ small mammals with increased numbers of household pets, which will roam! Reducing the number of blocks will mitigate this issue to some extent. Other wildlife including paddy melons, wallabies, echidnas, skinks and lizards will all suffer some impact due to roaming domestic pets. Surely it would be wise to keep this impact to a minimum.

4. PUBLIC OPEN SPACE

I note that public open space is to be deleted from the development with a cash payment to the Council. I see this as setting a dangerous precedent for future developments in the area as, at its extreme, there is the potential for very little public amenity in the future. Surely, with increasing population, wise allocation of suitable and sufficient public open space should be of some priority for a Council showing some concern for its citizens.

5. PUBLIC CONSULTATION

I have spoken with some residents of Deven Hills regarding this subdivision and in some cases they had not received notification. There are those who do not have the confidence to reply or make representation, especially the elderly. I would respectfully ask Council to extend this consultative period. This will allow decision makers within council to speak directly to residents of Deven Hills at its open public space, (Community Hall). This is a significant subdivision and deserves further scrutiny.

Yours faithfully
David Hamilton
31 Deven Hills
TAS 7300

Mob:
Email

David H. Hamilton