Form 2

# NOTICE OF AN APPLICATION FOR PLANNING PERMIT

The land affected by the application is located at:	91 Old Gembrook Road, Pakenham Upper VIC 3810 L2 PS712083 V12282 F847		
The application is for a permit to:	Construction of a single dwelling, 2 outbuildings and associated earthworks		
The applicant for the permit is:	Draeh Planning		
The application reference number is:	T230527		
You may look at the application and any documents that support the application at the office of the	Cardinia Shire Council 20 Siding Avenue Officer 3809		
Responsible Authority:	This can be done during office hours and is free of charge.		
	Documents can also be viewed on Council's website:		
	https://www.cardinia.vic.gov.au/advertisedplanningapplications		

Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority.

#### An objection must

- \* be sent to the Responsible Authority in writing, at Cardinia Shire Council, PO Box 7, Pakenham, Vic, 3810 or email at <a href="mail@cardinia.vic.gov.au">mail@cardinia.vic.gov.au</a>.
- \* include the name and address of the objector/ submitter.
- \* include the application number and site address.
- \* include the reasons for the objection, and
- \* state how the objector would be affected.

The Responsible Authority will not decide on the application before:	08 May 2024

If you object, the Responsible Authority will tell you its decision.

Please be aware that copies of objections/submissions received may be made available to any person for the purpose of consideration as part of the planning process.

For additional information or advice contact Cardinia Shire Council, Planning Department on 1300 787 624 or mail@cardinia.vic.gov.au.

Your objection/submission and personal information is collected by Cardinia Shire Council for the purposes of the planning process as set out in the *Planning and Environment Act 1987*. If you do not provide your name and address, Council will not be able to consider your objection/submission. Your objection/submission will be available free of charge at the Council office for any person to inspect and copies may be made available on request to any person for the relevant period set out in the *P&E Act*. You must not submit any personal information or copyright material of third parties without their informed consent. By submitting the material, you agree that the use of the material as detailed above does not breach any third party's right to privacy and copyright.





"as is" without warranty of any kind. 24-Apr-2024



This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



# **ePlanning**

## **Revision Summary**

#### **Basic Information**

Proposed Use	Construction of a single dwelling, 2 outbuildings and associated earthworks
Current Use	open pastures, including a shed
Cost of Works	\$1,150,000
Revised Cost of Works	\$1,150,000
Revisions	Plans Changed
Proposed Changes	Refer to the enclosed covering letter of the changes made to the planning documents to address the RFI letter issued by CFA on the 2nd March 2024
Site Address	91 Old Gembrook Road Pakenham Upper VIC 3810

# **Covenant Disclaimer**

Does the proposal breach, in any way, an encumbrance on title such as restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?

No such encumbrances are breached

Note: During the application process you may be required to provide more information in relation to any encumbrances.

#### Contacts

Туре	Name	Address	Contact Details
Applicant	Draeh Planning	2 Larkin Close, Mount Martha VIC 3934	M: 0410 067 087 E: natasha@draehplanning.com.au
Owner			
Preferred Contact	Draeh Planning	2 Larkin Close, Mount Martha VIC 3934	M: 0410 067 087 E: natasha@draehplanning.com.au

#### Fees

Regulation Fee Condition Amount Modifier Payable

Total \$0.00



Civic Centre 20 Siding Avenue, Officer, Victoria

Council's Operations Centre (Depot) Purton Road, Pakenham, Victoria Postal Address
Cardinia Shire Council
P.O. Box 7, Pakenham MC, 3810

Email: mail@cardinia.vic.gov.au

Monday to Friday 8.30am-

5pm

Phone: 1300 787 624 After Hours: 1300 787 624 Fax: 03 5941 3784

## **Documents Uploaded**

Date	Туре	Filename
10-04-2024	Additional Document	Coverletter responding to CFA letter_91 Old Gembrook Road Pakenham Upper.pdf
10-04-2024	Additional Document	Response to CFA letter_91 OLD GEMBROOK ROAD PAKENHAM UPPER.pdf
10-04-2024	Additional Document	Planning Report_Cardinia_91 OLD GEMBROOK ROAD PAKENHAM UPPER_20240410.pdf
10-04-2024	Additional Document	24016 BMO 91 OLD GEMBROOK ROAD PAKENHAM UPPER V3.0.pdf
10-04-2024	Additional Document	22198 91 Old Gembrook Road Pakenham Upper - 20240322 - TP6 Issue.pdf

🔲 Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit

# Lodged Ry

Lougeu by				
Site User		2 Larkin Close, Mount Martha VIC 3934	M: 0410-067-087	
	Draeh Planning		E: draehplanning@outlook.com	
Submission Date	10 April 2024 - 09:22:AM			

#### Declaration

By ticking this checkbox, I declare that all the information in this application is true and correct; and the Applicant and/or Owner (if not myself) has been notified of the application.



Civic Centre 20 Siding Avenue, Officer, Victoria

Council's Operations Centre (Depot) Purton Road, Pakenham, Victoria Postal Address Cardinia Shire Council P.O. Box 7, Pakenham VIC, 3810

Email: mail@cardinia.vic.gov.au

Monday to Friday 8.30amā€\*5pm Phone: 1300 787 624 After Hours: 1300 787 624 Fax: 03 5941 3784

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Civic Centre 20 Siding Avenue, Officer, Victoria

Council's Operations Centre (Depot) Purton Road, Pakenham, Victoria

Monday to Friday 8.30am-

Phone: 1300 787 624 After Hours: 1300 787 624 Fax: 03 5941 3784

# **GROWCOTT RESIDENCE** PROPOSED NEW DWELLING

91 OLD GEMBROOK ROAD PAKENHAM UPPER, VICTORIA

Job N° 22198



DRAKE DESIGN PTY LTD

Suite 2, Level 1, 2 Beaconsfield-Emerald Rd Beaconsfield Vic 3807 Email: info@drakedesign.com.au www.drakedesign.com.au ABN: 52 638 464 906 ACN: 121 878 331

DWG NO.	TITLE	REVISION	
TP000	Cover Sheet	7	
TP100	Neighbourhood Site Description	7	
TP101	Existing / Demo Site Plan	7	
TP201	Proposed Building Envelope	7	
TP202	Proposed Overall Site Plan	7	
TP203	Proposed Part Site Plan	7	
TP204	Proposed Ground Floor Plan	7	
TP205	Proposed Theatre Room Floor Plan	7	
TP501	Proposed Elevations	7	
TP502	Proposed Elevations	7	
TP503	Proposed Materials Schedule	7	
TP504	Proposed Shed 1 Details	7	
TP505	Proposed Shed 2 Details	7	
TP701	Proposed Shadow Diagrams	7	

PRELIMINARY TOWN PLANNING PERMIT ISSUE 06

as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

This copied document is made available for the purpose of the planning process

Job No:22198

Cover Sheet TP000 7

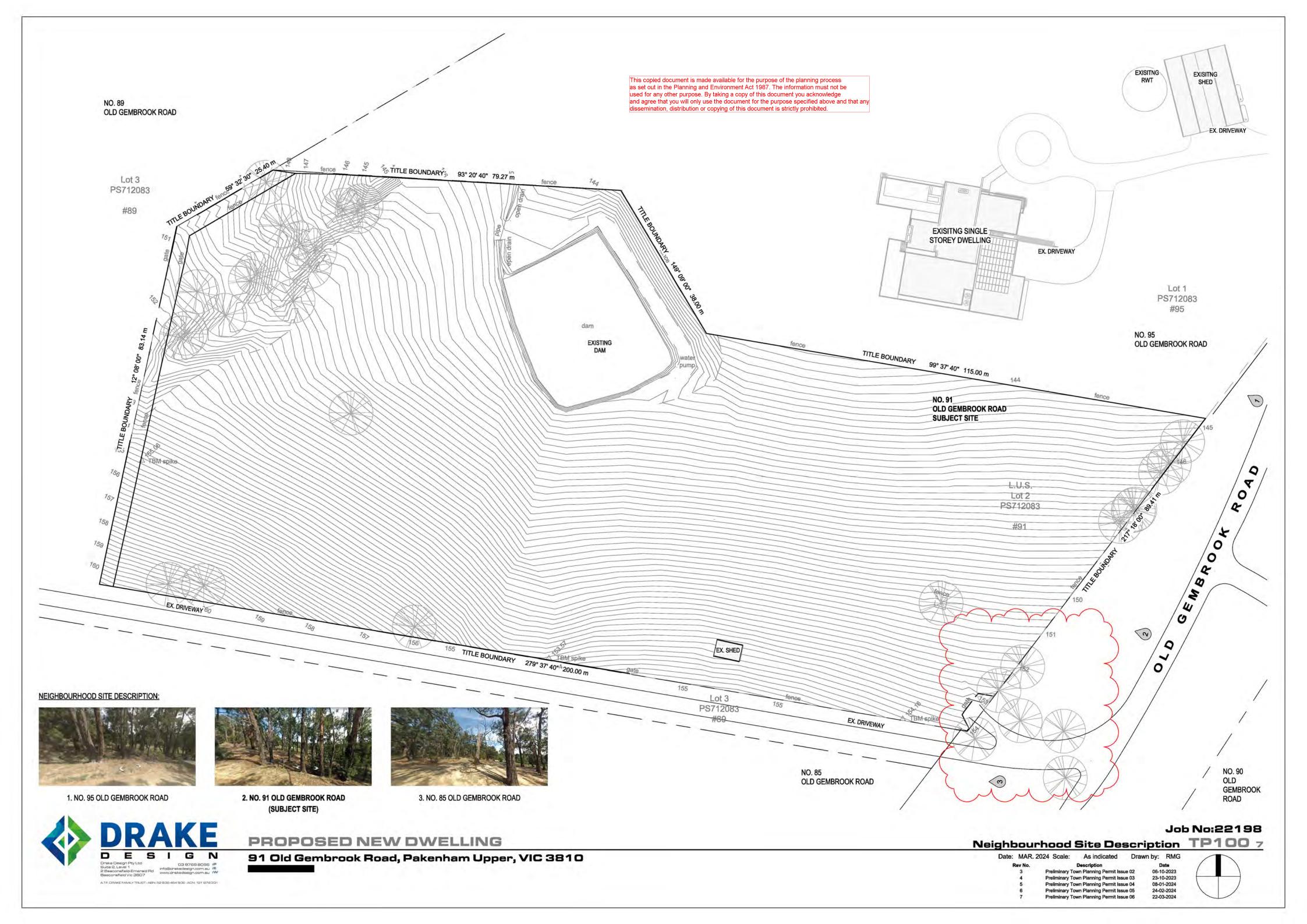
23-10-2023

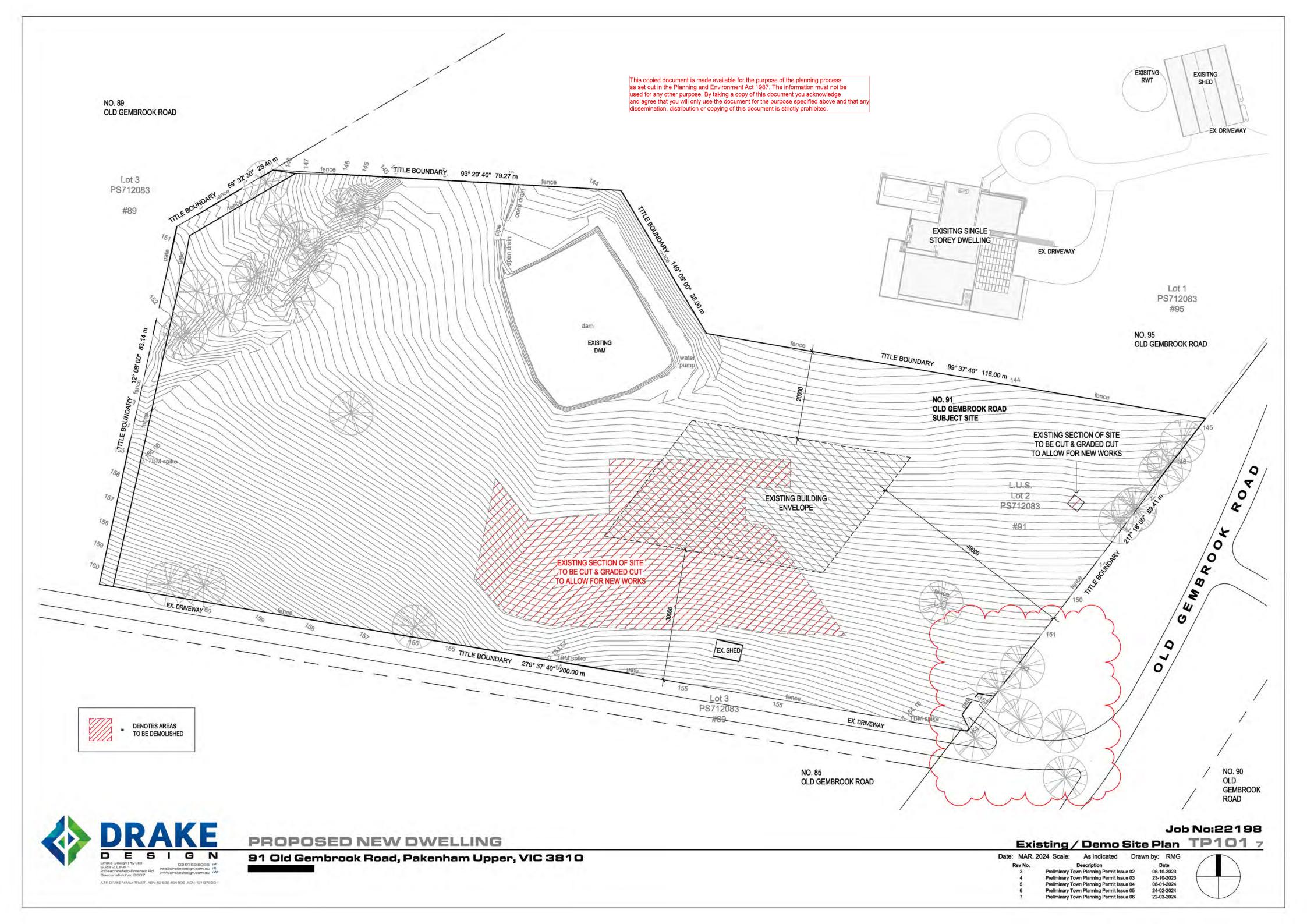
08-01-2024 24-02-2024

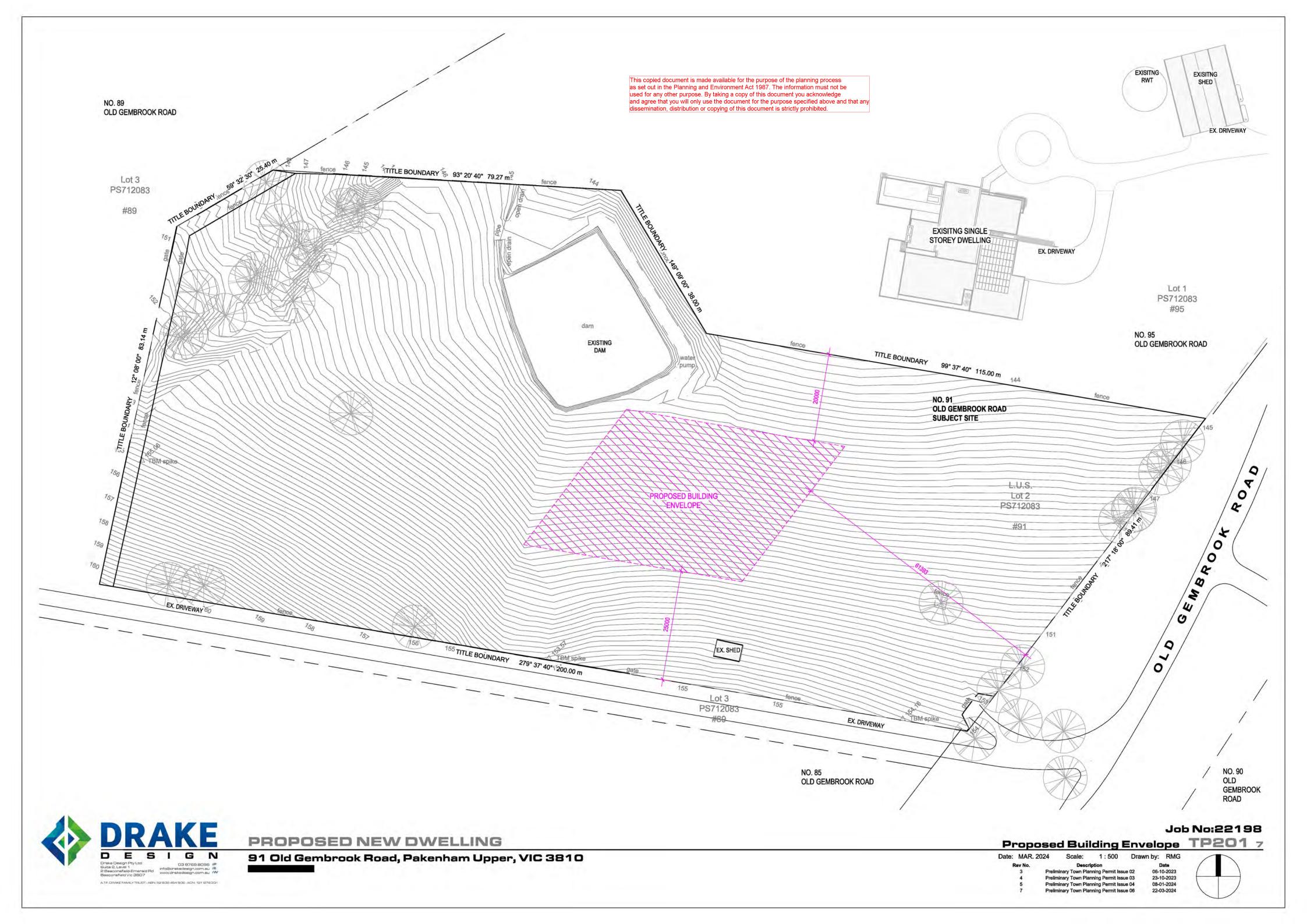
Preliminary Town Planning Permit Issue 04

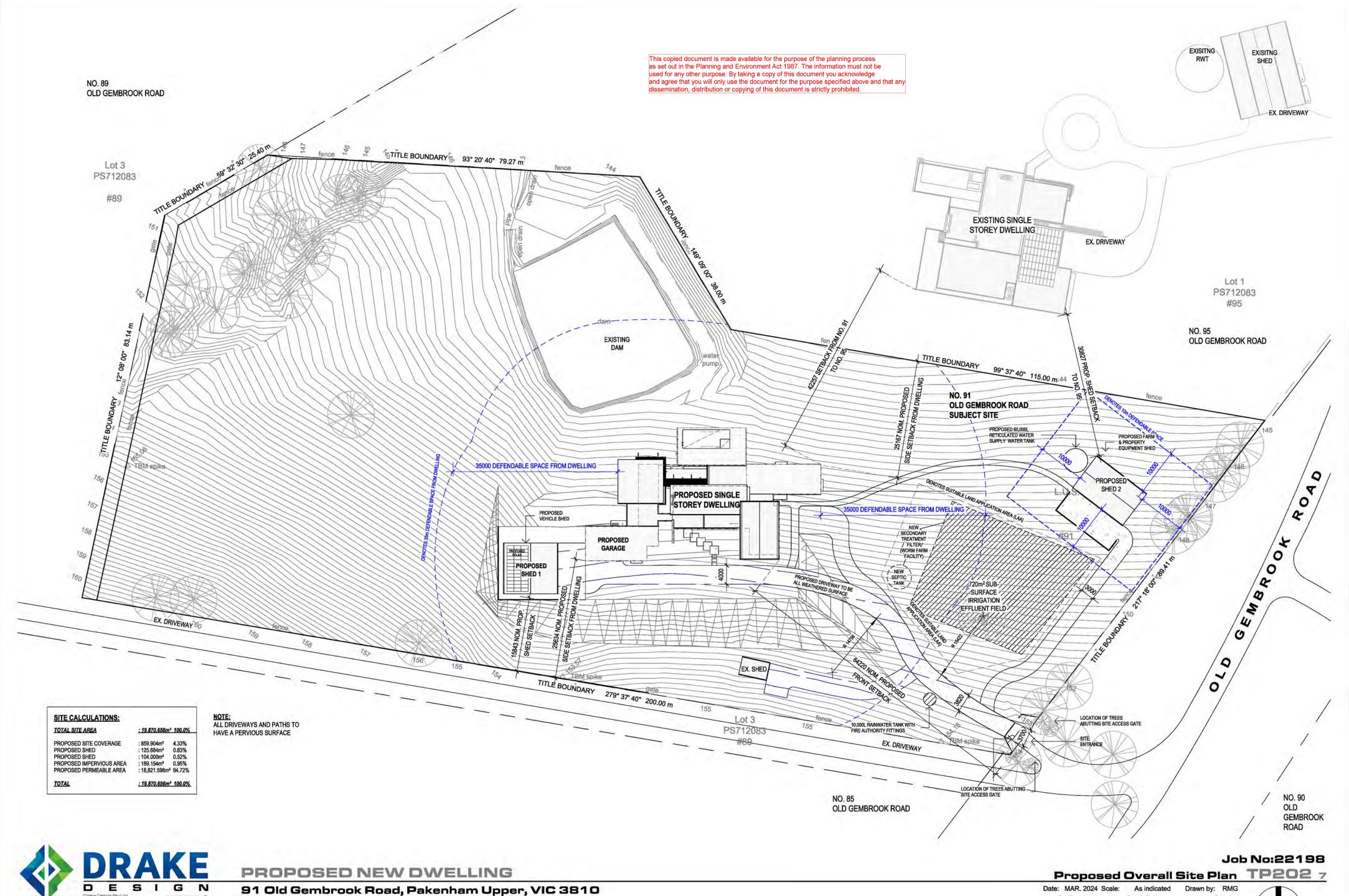
Preliminary Town Planning Permit Issue 05

PROPOSED NEW DWELLING





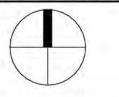




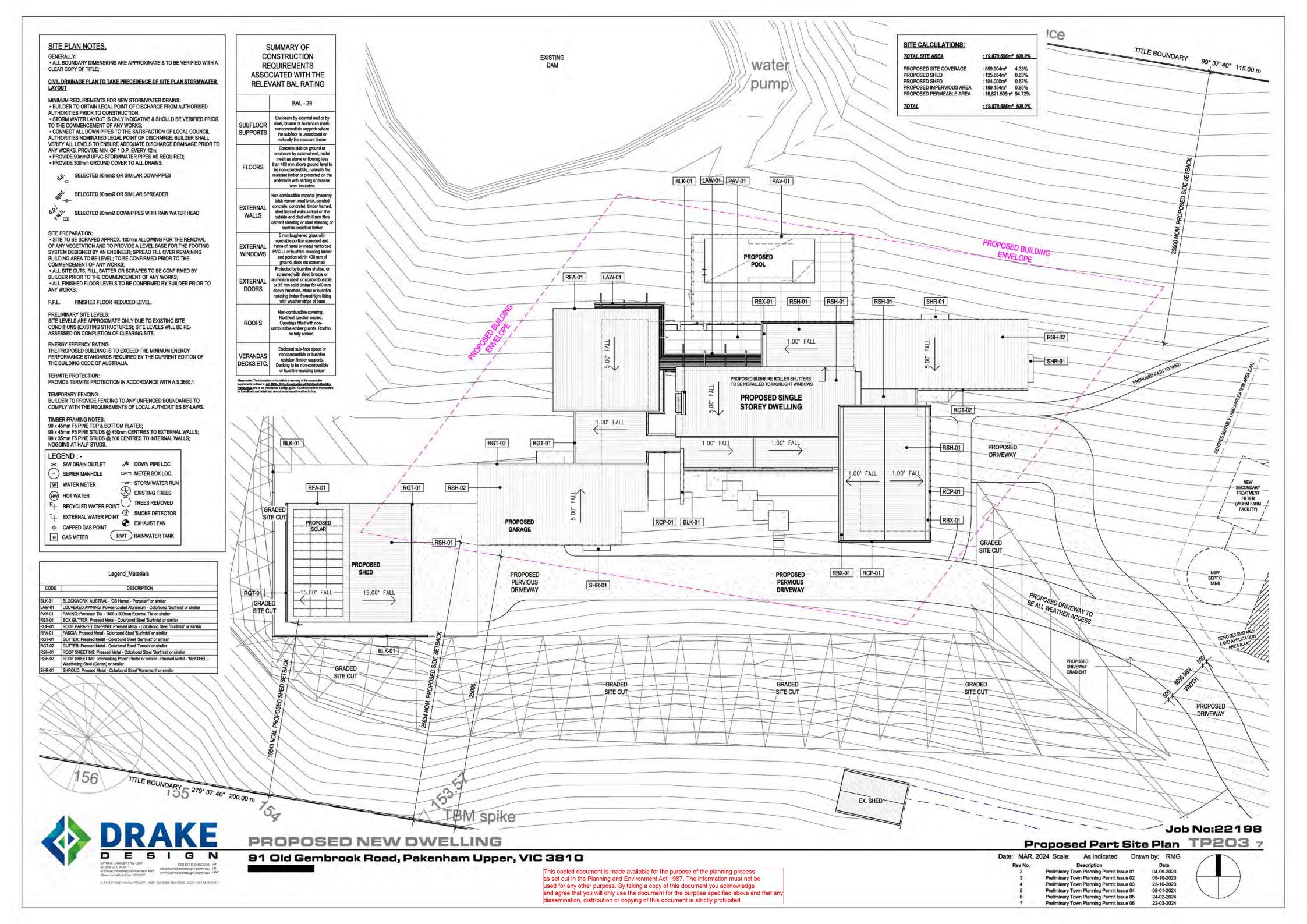


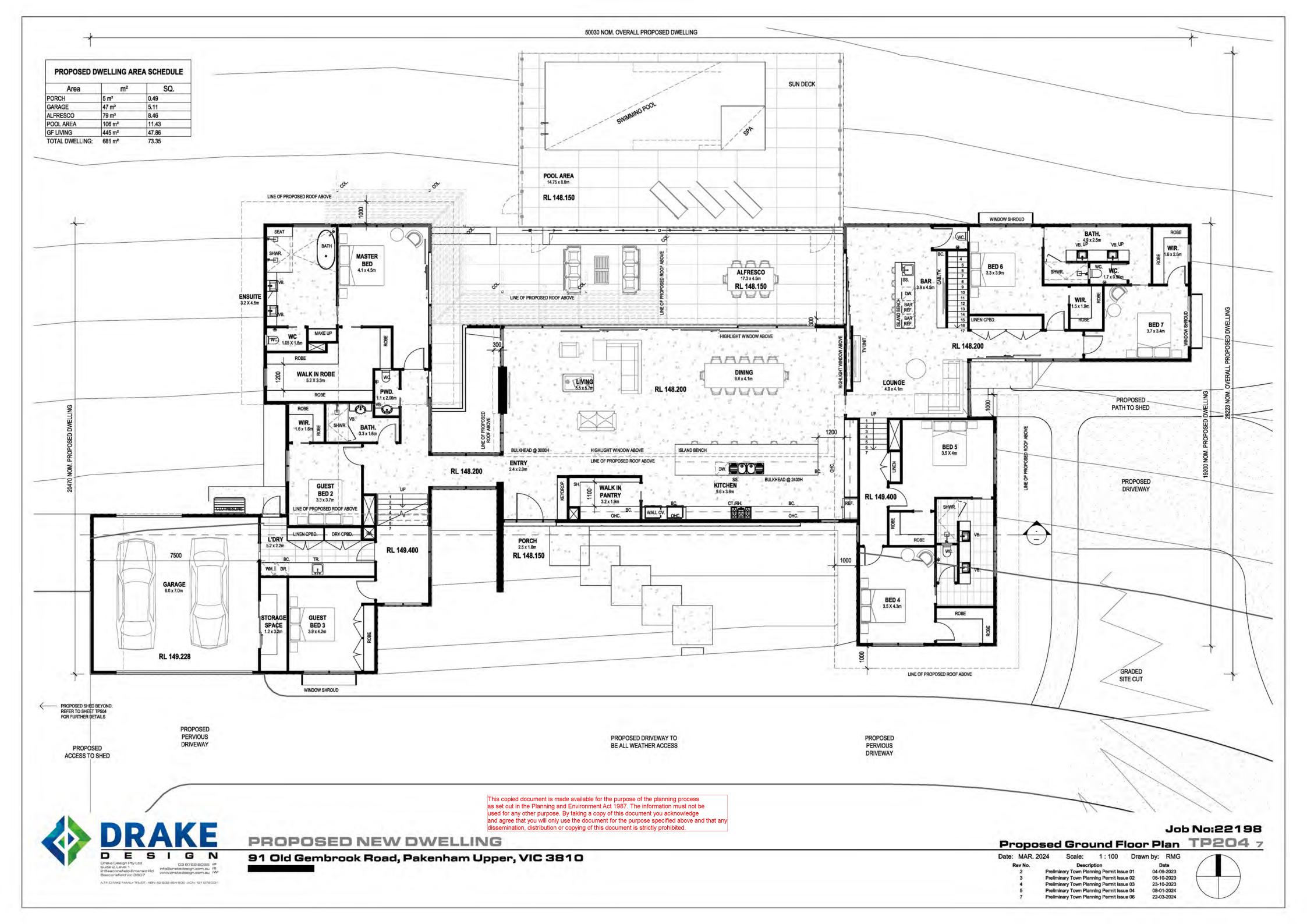
Description
Preliminary Town Planning Permit Issue 01 Date 04-09-2023 Preliminary Town Planning Permit Issue 02 06-10-2023 23-10-2023 08-01-2024 Preliminary Town Planning Permit Issue 03 Preliminary Town Planning Permit Issue 04 Preliminary Town Planning Permit Issue 05

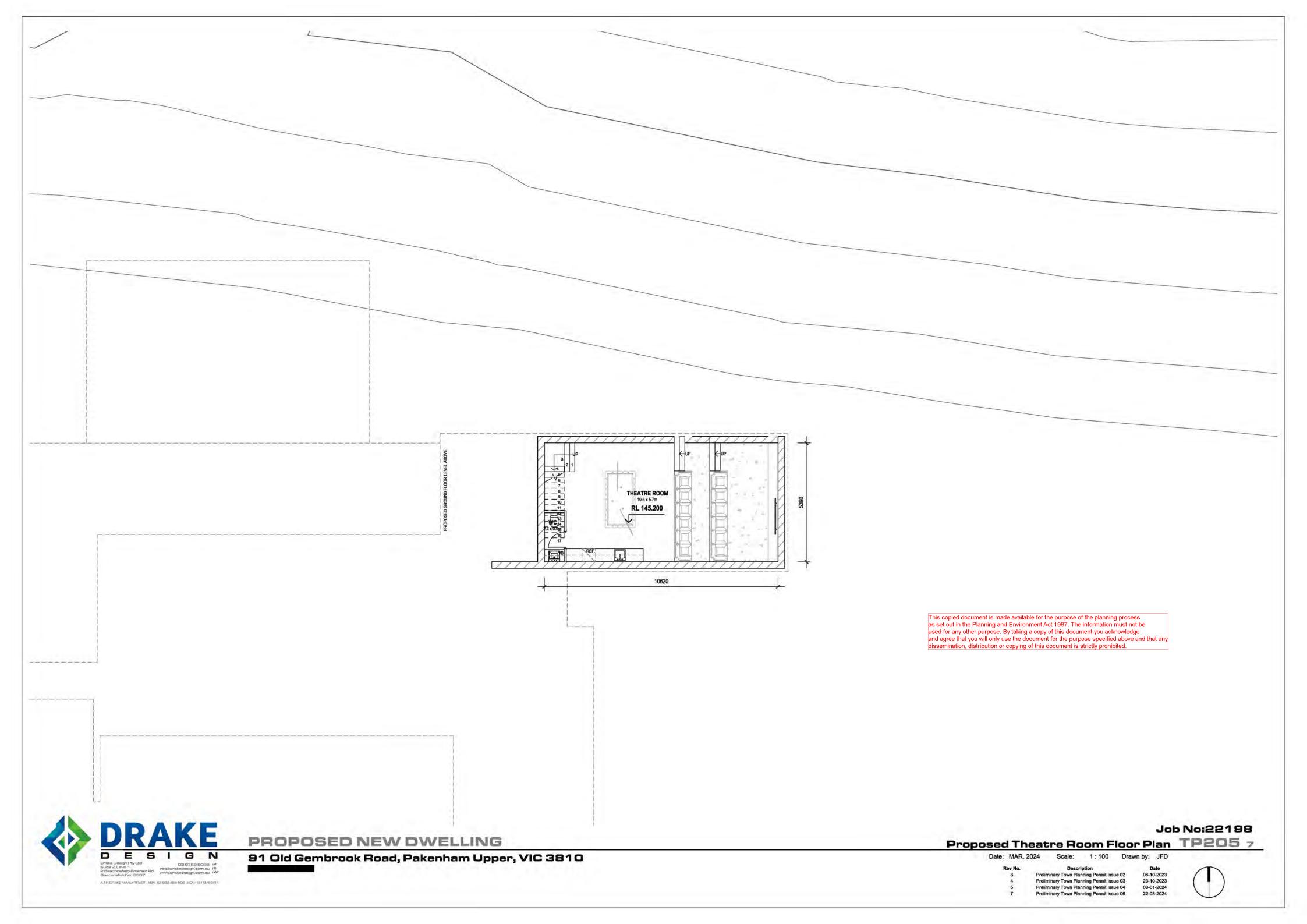
Preliminary Town Planning Permit Issue 06

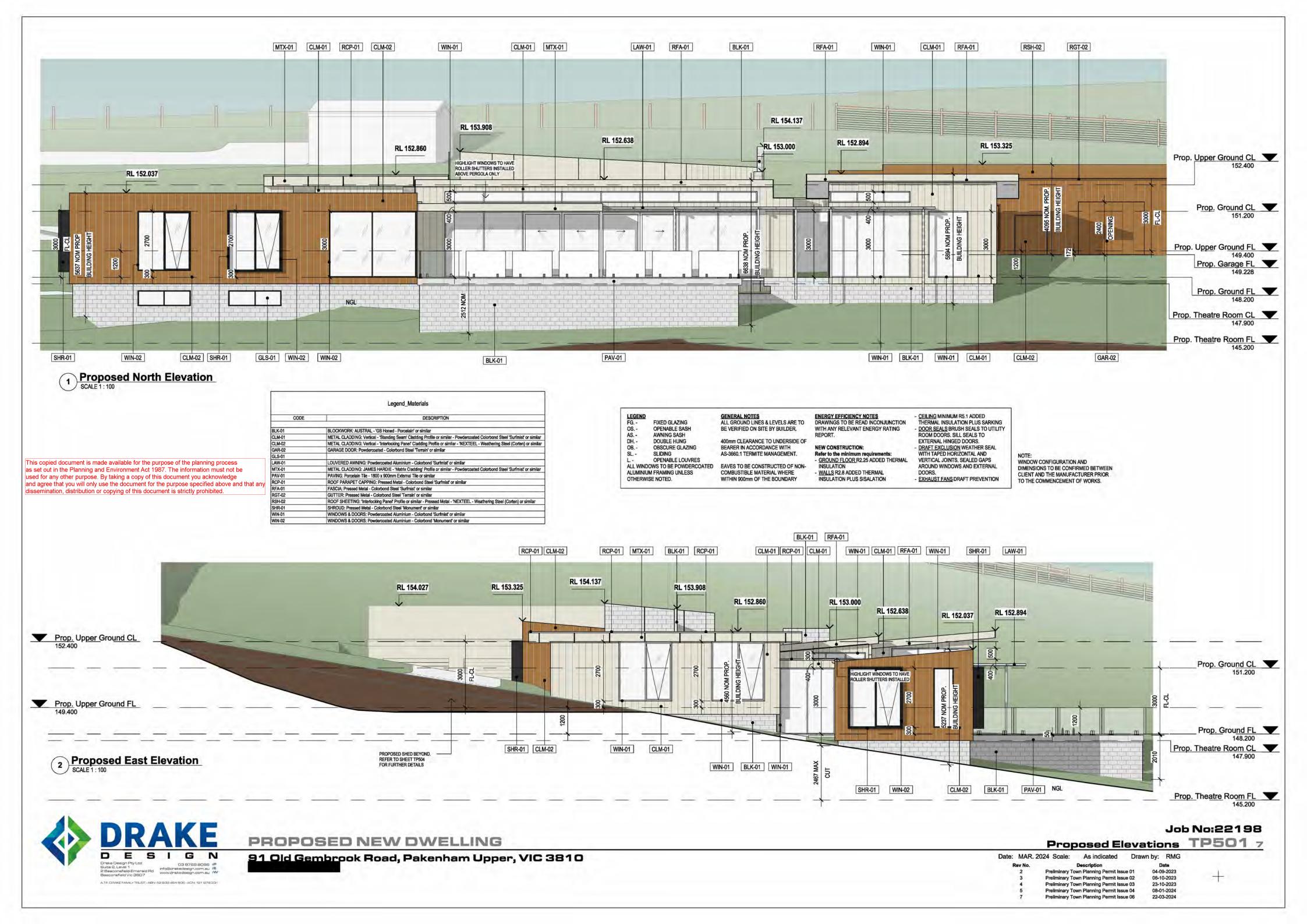


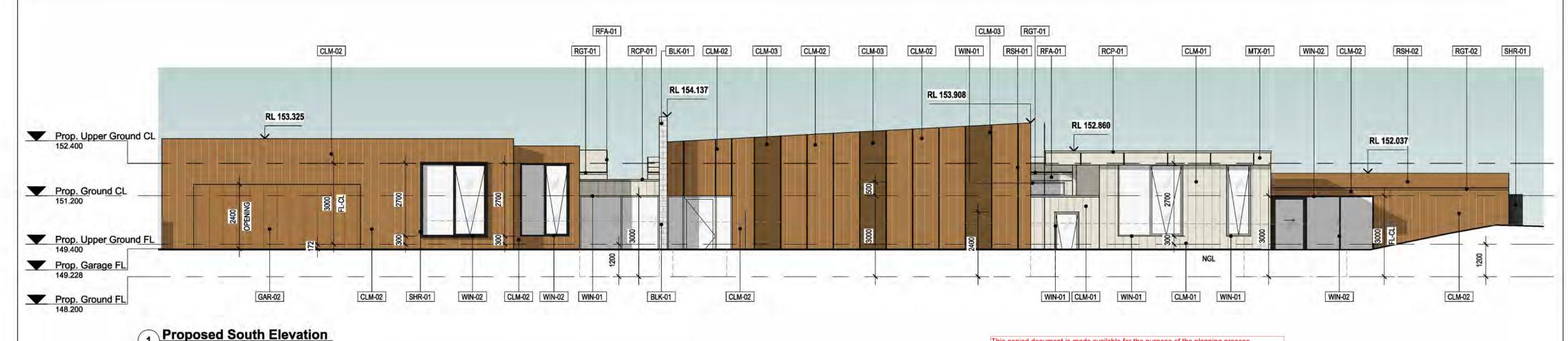
22-03-2024











Legend\_Materials METAL CLADDING: Vertical - 'Standing Seam' Cladding Profile or similar - Powdercoated Colorbond Steel 'Surfmist' or similar METAL CLADDING: Vertical - 'Interlocking Panel' Cladding Profile or similar - 'NEXTEEL - Weathering Steel (Corten) or similar METAL CLADDING: Corten or similar - Perforated Corten Steel Sheet Panel or similar GARAGE DOOR: Powdercoated - Colorbond Steel 'Terrain' or similar LOUVERED AWNING: Powdercoated Aluminium - Colorbond 'Surfmist' or similar METAL CLADDING: JAMES HARDIE - Matrix Cladding' Profile or similar - Powdercoated Colorbond Steel 'Surfmist' or similar PAVING: Porcelain Tile - 1800 x 900mm External Tile or similar ROOF PARAPET CAPPING: Pressed Metal - Colorbond Steel 'Surfmist' or similar FASCIA: Pressed Metal - Colorbond Steel 'Surfmist' or similar GUTTER: Pressed Metal - Colorbond Steel 'Surfmist' or similar GUTTER: Pressed Metal - Colorbond Steel 'Terrain' or similar ROOF SHEETING: Pressed Metal - Colorbond Steel 'Surfmist' or similar ROOF SHEETING: 'Interlocking Panel' Profile or similar - Pressed Metal - 'NEXTEEL - Weathering Steel (Corten) or similar SHROUD: Pressed Metal - Colorbond Steel "Monument" or similar WINDOWS & DOORS: Powdercoated Aluminium - Colorbond 'Surfmist' or similar WINDOWS & DOORS: Powdercoated Aluminium - Colorbond 'Monument' or similar

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

LEGEND FG. -OS. -AS. -DH. -OB. -SL. -FIXED GLAZING OPENABLE SASH AWNING SASH DOUBLE HUNG

OBSCURE GLAZING SLIDING OPENABLE LOUVRES

ALUMINIUM FRAMING UNLESS

OTHERWISE NOTED.

BEARER IN ACCORDANCE WITH AS-3660.1 TERMITE MANAGEMENT ALL WINDOWS TO BE POWDERCOATED EAVES TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL WHERE WITHIN 900mm OF THE BOUNDARY

GENERAL NOTES
ALL GROUND LINES & LEVELS ARE TO

400mm CLEARANCE TO UNDERSIDE OF

BE VERIFIED ON SITE BY BUILDER.

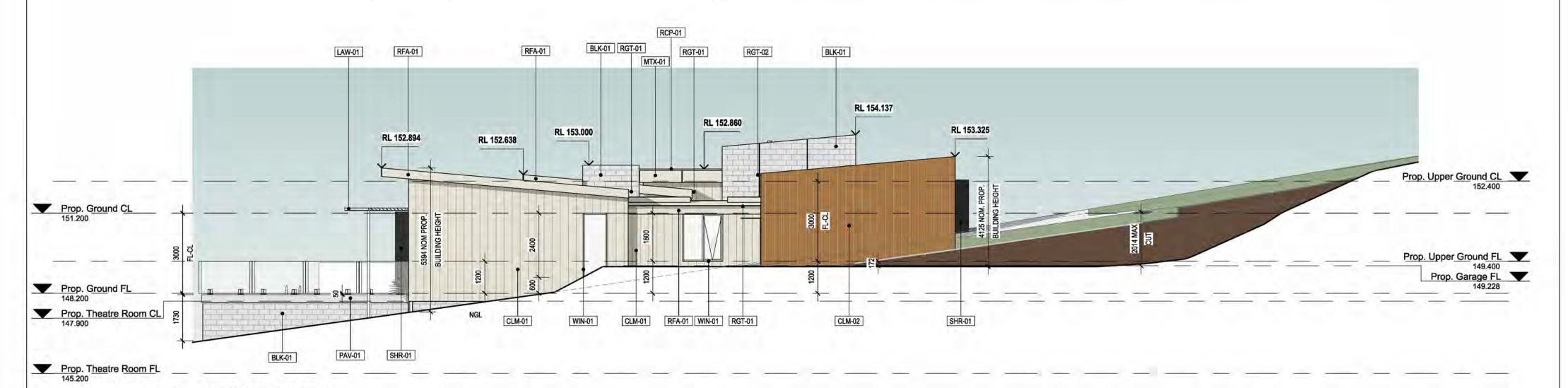
ENERGY EFFICIENCY NOTES
DRAWINGS TO BE READ INCONJUNCTION WITH ANY RELEVANT ENERGY RATING REPORT.

NEW CONSTRUCTION: Refer to the minimum requirements GROUND FLOOR R2.25 ADDED THERMAL WALLS R2.8 ADDED THERMAL

INSULATION PLUS SISALATION

- <u>CEILING</u> MINIMUM R5.1 ADDED THERMAL INSULATION PLUS SARKING - DOOR SEALS BRUSH SEALS TO UTILITY ROOM DOORS, SILL SEALS TO EXTERNAL HINGED DOORS. - DRAFT EXCLUSION WEATHER SEAL WITH TAPED HORIZONTAL AND

VERTICAL JOINTS. SEALED GAPS WINDOW CONFIGURATION AND DIMENSIONS TO BE CONFIRMED BETWEEN AROUND WINDOWS AND EXTERNAL DOORS. CLIENT AND THE MANUFACTURER PRIOR - EXHAUST FANS DRAFT PREVENTION



Proposed West Elevation

SCALE 1 - 100

PROPOSED NEW DWELLING

Job No:22198

Proposed Elevations TP502 7

Date: MAR. 2024 Scale: As indicated Drawn by: Description
Preliminary Town Planning Permit Issue 01 Date 04-09-2023 Preliminary Town Planning Permit Issue 02 06-10-2023 Preliminary Town Planning Permit Issue 03 23-10-2023 08-01-2024 Preliminary Town Planning Permit Issue 04 Preliminary Town Planning Permit Issue 06

91 Old Gembrook Road, Pakenham Upper, VIC 3810





Image Focus: Light Well Passageway

Image Focus: Cantilevered Dwelling with 'Corten' Style Cladding



Image Focus: Contemporary Pavillion Design Inspiration

BLK-01 BLOCKWORK: AUSTRAL - 'GB Honed - Porcelain' or similar



Image Focus: 'Surfmist' Standing Seam Cladding

GAR-01 GARAGE DOOR: Powdercoated - Colorbond Steel 'Surfmist' or similar



PAV-01 PAVING: Porcelain Tile - 1800 x 900mm External Tile or similar



RGT-01 GUTTER: Pressed Metal - Colorbond Steel 'Surfmist' or similar



SHR-01 SHROUD: Pressed Metal - Colorbond Steel 'Monument' or similar



CLM-01 METAL CLADDING: Vertical - 'Standing Seam' Cladding Profile or similar - Powdercoated Colorbond Steel 'Surfmist' or similar



GAR-02 GARAGE DOOR: Powdercoated - Colorbond Steel 'Terrain' or similar



RBX-01 BOX GUTTER: Pressed Metal - Colorbond Steel 'Surfmist' or similar



RGT-02 GUTTER: Pressed Metal - Colorbond Steel 'Terrain' or similar



WIN-01 WINDOWS & DOORS: Powdercoated Aluminium - Colorbond 'Surfmist' or similar



CLM-02 METAL CLADDING: Vertical - 'Interlocking Panel' Cladding Profile or similar - 'NEXTEEL - Weathering Steel (Corten) or similar



LAW-01 LOUVERED AWNING: Powdercoated Aluminium - Colorbond 'Surfmist' or similar



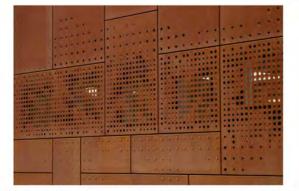
RCP-01 ROOF PARAPET CAPPING: Pressed Metal - Colorbond Steel 'Surfmist' or similar



RSH-01 ROOF SHEETING: Pressed Metal - Colorbond Steel 'Surfmist' or



WIN-02 WINDOWS & DOORS: Powdercoated Aluminium - Colorbond 'Monument' or similar



CLM-03 METAL CLADDING: Corten or similar - Perforated Corten Steel Sheet MTX-01 METAL CLADDING: JAMES HARDIE - 'Matrix Cladding' Profile or Panel or similar



similar - Powdercoated Colorbond Steel 'Surfmist' or similar



RFA-01 FASCIA: Pressed Metal - Colorbond Steel 'Surfmist' or similar



RSH-02 ROOF SHEETING: 'Interlocking Panel' Profile or similar - Pressed Metal - 'NEXTEEL - Weathering Steel (Corten) or similar

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



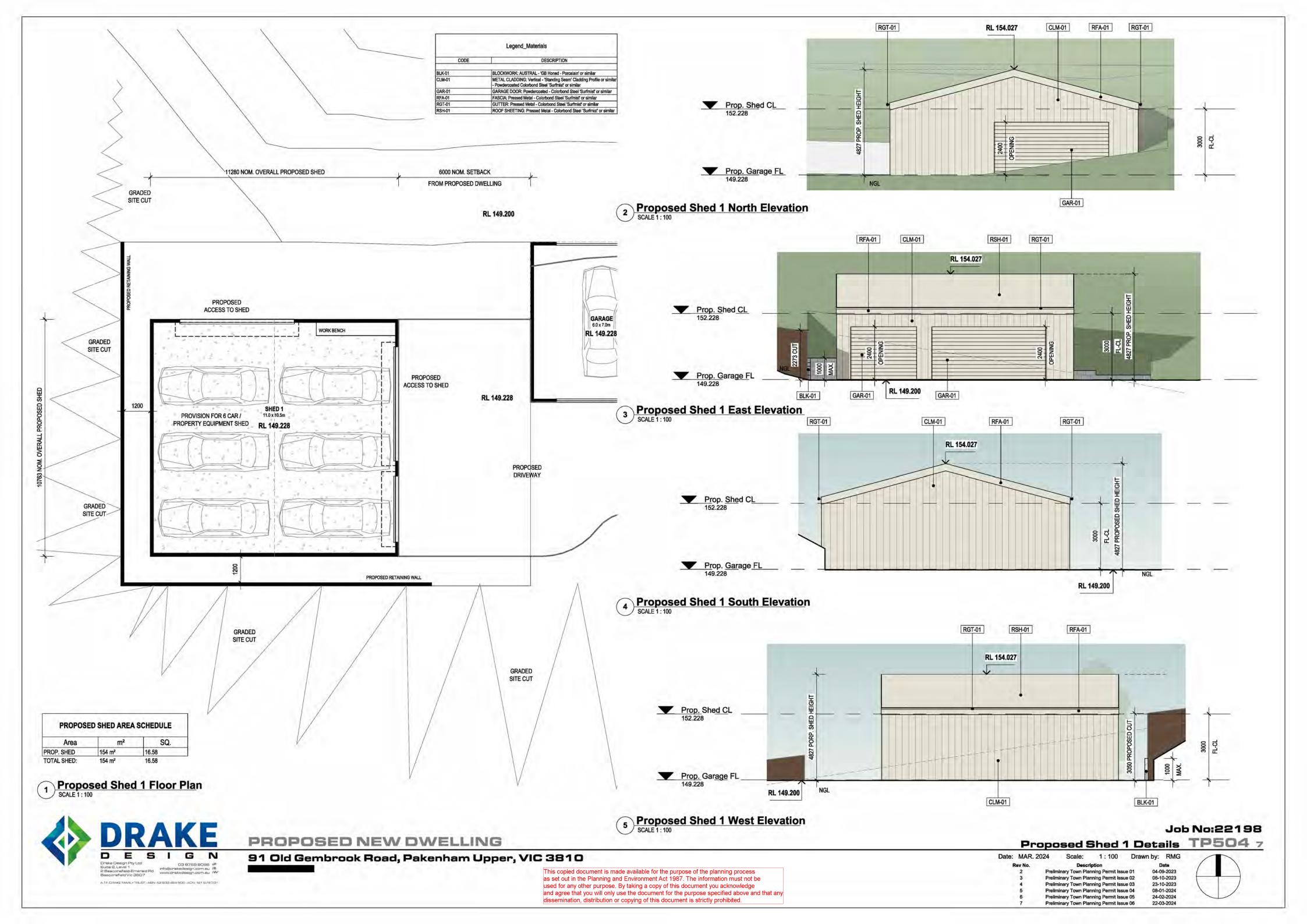
PROPOSED NEW DWELLING

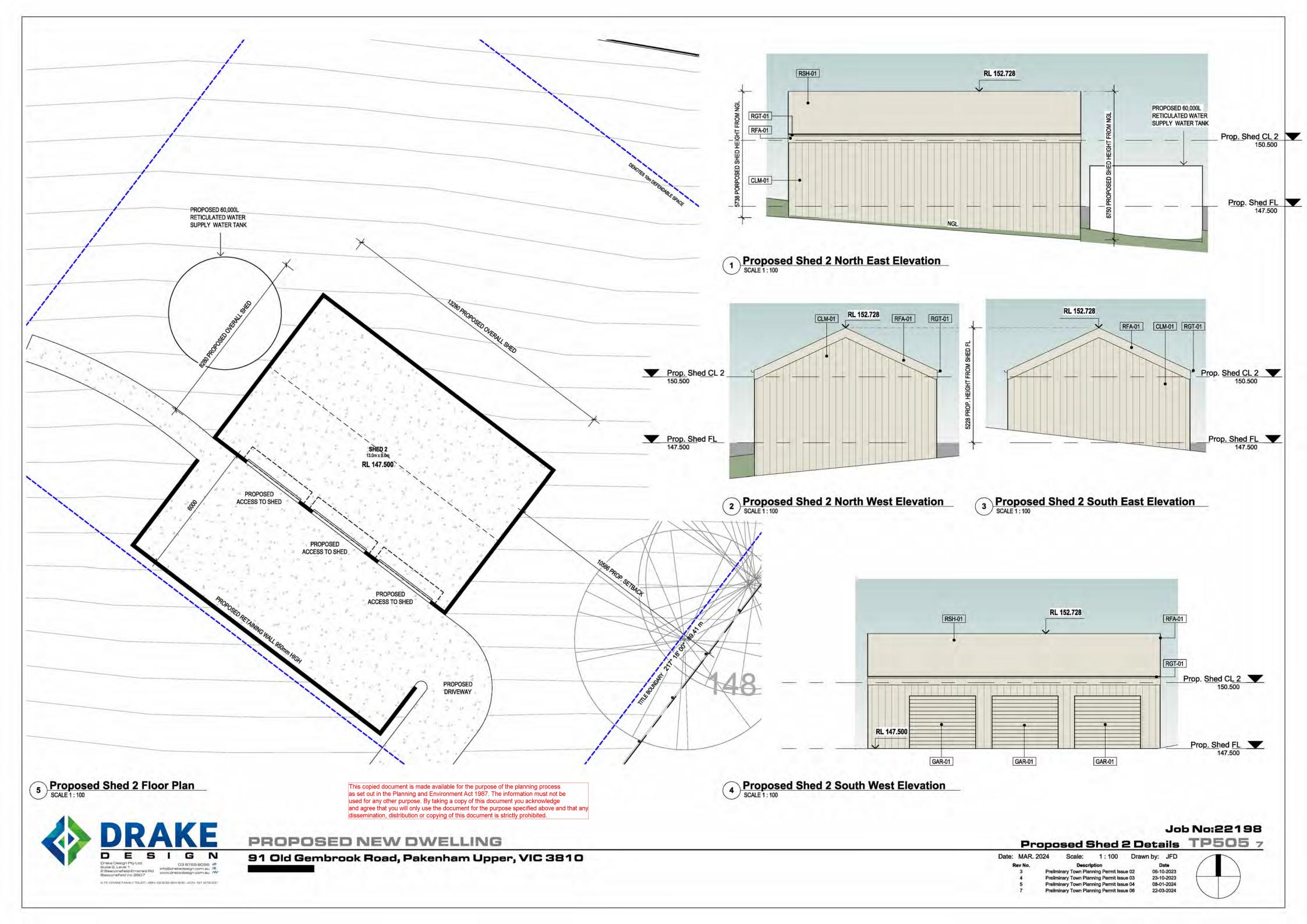
Proposed Materials Schedule TP503 7

08-01-2024 22-03-2024

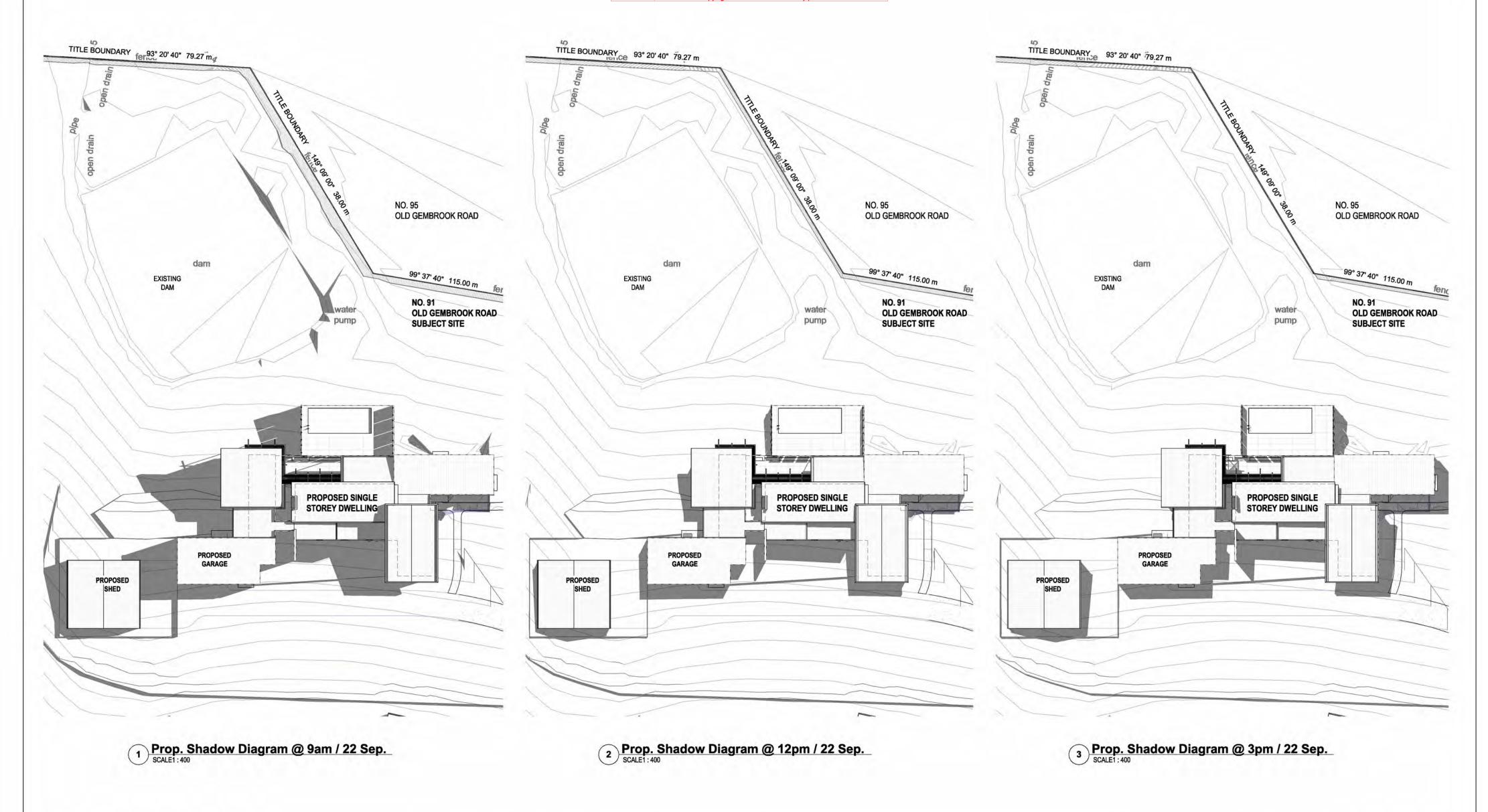
Job No:22198

Preliminary Town Planning Permit Issue 04 Preliminary Town Planning Permit Issue 06





This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.





PROPOSED NEW DWELLING

91 Old Gembrook Road, Pakenham Upper, VIC 3810

Job No:22198 Proposed Shadow Diagrams TP701 7

 Date:
 MAR. 2024
 Scale:
 1:400
 Drawn by:
 RMG

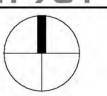
 Rev No.
 Description
 Date

 3
 Preliminary Town Planning Permit Issue 02
 06-10-2023

 4
 Preliminary Town Planning Permit Issue 03
 23-10-2023

 5
 Preliminary Town Planning Permit Issue 04
 08-01-2024

 7
 Preliminary Town Planning Permit Issue 06
 22-03-2024



# Bushfire Management Statement Pathway 2

**Property Address:** 

91 Old Gembrook Road

Pakenham Upper 3810

Prepared

Date: April 2024

Ref# 24016ab/3.0









91 Old Gembrook Road Pakenham Upper 3810

M 0450 770 778

T 03 9478 8991

Email paul@keystonealliance.com.au

0





#### 1 **Executive Summary**

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

The property was assessed in January 24 to determine the bushfire attack level (BAL).

The site is a residential lot in a Green Wedge A Zone of Cardinia Shire

The parcel to be developed has a total area of approximately 1.987 Ha.

We are seeking development approval to construct buildings (dwelling).

On-site and surrounding area vegetation within the 150m assessment area is classified as forest.

Classified vegetation forest on a 0° slope or upslope constructing with a BAL19 defendable space around the building is 35m or to the property boundary, whichever is lesser, but due to landscape assessment construction will comply with a BAL 29.

The area close to the site has no bushfire history, and in the event of a bushfire, the impact to the dwelling will be from ember attack and radiant heat.

There are several designated NSP in Cardinia Shire the Gembrook Community Centre Carpark is the closest one.

A 10,000 -litre water tank will be required for firefighting purposes,

Access can meet BMO's access requirements (Appendix 4).

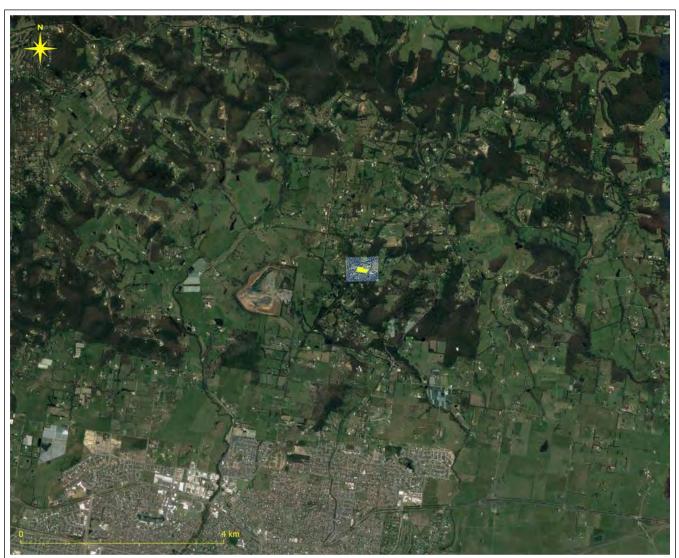


Figure 1 Aerial view of site highlighted parcel to be developed QGIS, data.vic.gov.au, google maps & nearmap







## 2 Introduction

The proposal seeks development approval to **construct buildings (dwelling)** on the land known as; **91 Old Gembrook Road Pakenham Upper 3810**. The property comprises of one parcel as seen in *Figure 1& Figure 2* 

Keystone Alliance Bushfire Assessments has been engaged by:
provide a Bushfire Management Statement in accordance with Clause 44.06 Bushfire
Management Overlay and 53.02 Bushfire Planning Requirements at which is to
accompany the planning permit application lodged with **Cardinia Shire**.

This assessment describes the subject site and surrounding area in relation to the risk associated with the Bushfire Attack Level (BAL), together with the relevant planning controls, namely, Australian Standard 3959-2009, "Construction of buildings in bushfire-prone areas."

The parcel to be developed has **an irregular** shape and an area of approx. **1.987 Ha** it is located approximately **6.5 km** via road, **north-east from Packenham's township** in one of **Cardinia Shire** semi-rural areas. The property's static water supply will be from water tanks, it is provided with telecommunication services, and is connected to the sealed road network. Vehicular access to the land is via **Old Gembrook Road**. (as in Figures 1 & 2)

The purpose of the report is to assist in a decision of issuing a planning permit for the construction of the proposed development in a Bushfire Management Overlay.







# 3 Site Description

# 3.1 Site shape, dimensions, size and planning controls

Local government: Cardinia Shire

Lot and Plan Number: Lot 2 PS712083

The shape of the site is: | irregular

The dimensions of the site are: Please refer to Image 2 Site area

The site has a total area of: Approximately 1.987 Ha

The zoning of the site is: GREEN WEDGE A ZONE (GWAZ)

**BMO & ESO** 

GREEN WEDGE A ZONE - SCHEDULE 2 (GWAZ2)

The overlays that apply to the site are:

Effected:

Assessed by: Paul Apostolos Oikonomidis



Figure 2 Property's area

QGIS data.vic.gov.au, google maps & nearmap







# **Bushfire hazard site assessment**

A vegetation hazard assessment was carried out within a 150m radius from the proposed

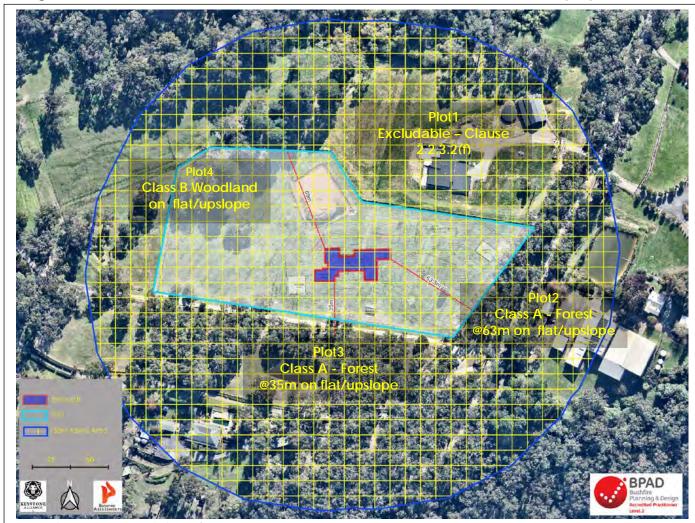


Figure 3 Site assessment 150m radius







#### **Hazard Assessment** 4.1

The proposed development has been assessed under Victoria's Planning Provisions Clause 44.06, 53.02 and AS 3959 - 2018 "Construction of buildings in bushfire prone areas."

Plot	Vegetation Classification		ctive Slope degrees)	Separation (m)	BAL	Defendable Space (m)
1	Excludable - Clause 2.2.3.2(f)	N/A	N/A	N/A	BAL – LOW	35m or PB
2	Class A - Forest	N/A	flat/upslope	35	BAL – 19	35
3	Class A - Forest	N/A	flat/upslope	35	BAL – 19	35
4	Class B Woodland	N/A	flat/upslope	69	BAL – 12.5	33

## PB= property boundary

An assessment of the site conditions has categorized this site as BAL19 fire risk but due to landscape assessment construction will comply with a BAL-29 and defendable space around the building of 35m or to the property boundary, whichever is lesser.

#### Vegetation 4.2

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### Low Threat Vegetation

Excluded vegetation and non-vegetated areas

Areas of low threat vegetation and non-vegetated areas have been excluded under one or more of the following AS 3959-2018 exclusion criteria (Standards Australia, 2018):

- i. Vegetation more than 150m from the site.
- ii. Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.
- iii. Low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

#### Woodland

Heathland ecosystems are characterised by a dense layer of small-leafed shrubs, usually 1-2 m tall, over a ground layer of sedges, coarse lilies, rope-rushes, prostrate shrubs and herbs. In most places there are occasional small, short-trunked, spreading trees, to 15m tall, which may form a sparse canopy on deeper soils. The commonest tree species is Eucalyptus viminalis subsp. pryoriana (Coast Manna Gum) in the eastern part of the range, Eucalyptus baxteri (Brown Stringybark), Eucalyptus arenacea (Wimmera Scentbark) and Eucalyptus willisii (Shining Peppermint) in the west and south-east, and Eucalyptus pauciflora (Snow Gum) along the margins in the high country. Where the soils are relatively dry the dominant shrubs are usually teatrees (Leptospermum) and stunted she-oaks (Allocasuarina); where the soils are waterlogged, paperbarks (Melaleuca) and large sedges (Gahnia, Lepidopserma) form dense thickets with occasional small trees such as Eucalyptus cephalocarpa (Mealy Stringybark) and Eucalyptus conspicua (Silver Swamp Stringybark). In the high country wet heathlands are dominated by a range of heaths (Epacris) and rope rushes (Restionaceae).

Trees 10-30 metres high with foliage cover in the range of 30 per cent to 70 per cent at maturity, predominantly dominated by Eucalypts. Sclerophyllous understorey (vegetation that has hard leaves and short internodes [the distance between leaves along the stem]), small trees, tall scrubs or tall shrubs. Forests generally have several layers of tiered vegetation arranged vertically extending from the surface to the canopy including a pronounced shrubby middle layer in addition to a taller canopy and an underlying layer of grasses, herbs or sedges. AS 3959 Method 1 cannot differentiate between open, closed, tall or short forest. It should all be classified as Class A Forest. Includes plantations, which are classified as Class A Forest.







# 4.3 Photos of Assessment Area



PLOT1 Northern vegetation



PLOT2 Eastern vegetation









PLOT3 Southern vegetation



PLOT4 Western vegetation.







# **Bushfire Hazard Landscape Assessment**

#### 5.1 **Location description**

The area surrounding the subject site is known for its rural and semi-rural character, characterized by a mix of residential properties, farmland, and natural landscapes is located in an area of Victoria, known for its lush forests and natural beauty. The region experiences a temperate climate, with warm summers and cool winters. During the summer months, the area can be prone to bushfires, especially if dry conditions and strong winds are present.

When assessing the bushfire risk at any given time, it is important to consider factors such as weather conditions, topography, and the types of vegetation in the vicinity. From a bushfire perspective, the site is situated in an area that may be susceptible to bushfire risk due to its surroundings and the vegetation present in the region. It is known for its diverse landscapes, including farmland and bushland. Bushland regions contain a significant amount of fuel for fires, including trees, undergrowth, and leaf litter. The region experiences a climate with hot, dry summers and cool, wet winters, which can contribute to the potential for bushfires during the summer months.

Considering the siting of the proposal within the landscape, likelihood of a bushfire event is considered **possible**; signifying the threat could take place sometime in the future. The consequences from a bushfire event are indicated as insignificant, no injuries, little or no damage, little or no financial loss.

Due to the type & extent of vegetation surrounding the proposal a potential fire run can take place in extreme weather conditions. A landscape fire is possible approaching from the north or the south.

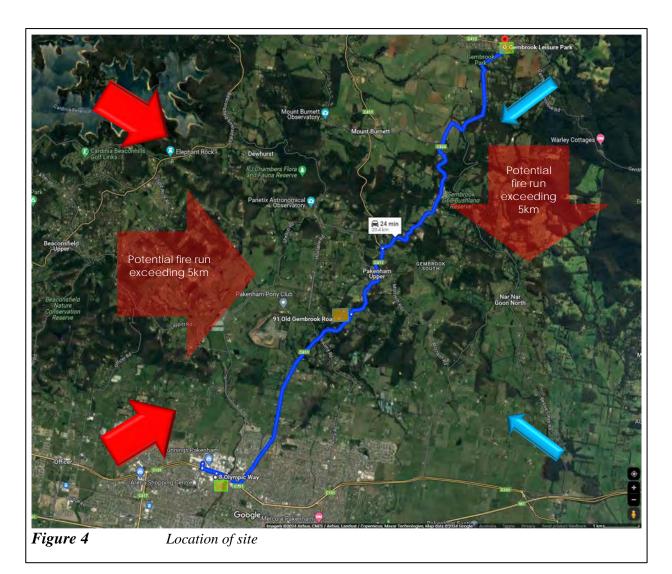
The main driveway access into the site is from **Old Gembrook Road**. This is a dual carriageway, linking Pakenham Upper's closest CFA Fire Station located 1.5 km via road on 2 Bourkes Creek Road north of the entrance driveway.







# **Location & Landscape Assessment**



This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any



Cardinia Shire has several designated Neighbourhood Safe Places (NSP). The Gembrook Community Centre Carpark or Toomuc Recreation Reserve are the closest NSP at approx.11km and 9km respectively as you can see in Figure 4 above.

dissemination, distribution or copying of this document is strictly prohibited.







#### 5.1.1 Landscape risk

Clause 13.05 stipulates that new development is only permitted where 'the risk to human life, property and community infrastructure from bushfire can be reduced to an acceptable level'. To assist in defining the risk, four 'broader landscape types', representing different risk levels are described in "Planning Permit Applications Bushfire Management Overlay Technical Guide Sep. 2017".

The four types range from low risk landscapes where there is little hazardous vegetation beyond 150m of the site and extreme bushfire behaviour is not credible, to extreme risk landscapes with limited or no evacuation options.

The Technical Guide outlines four Landscape Types. The local landscape character surrounding the property is most attributable to Landscape Type 2;

Table 1- Landscape risk

Broader	Broader Landscape	Broader Landscape	Broader Landscape
Landscape Type 1	Type 2	Type 3	Type 4
<ul> <li>There is little vegetation beyond 150m of the site (except grasslands and low-threat vegetation).</li> <li>Extreme bushfire behaviour is not possible.</li> <li>The type and extent of vegetation is unlikely to result in neighbourhood-scale destruction of property.</li> <li>Immediate access is available to a place that provides shelter from bushfire.</li> </ul>	<ul> <li>The type and extent of vegetation located more than 150 metres from the site may result in neighbourhood-scale destruction as it interacts with the bushfire hazard on and close to a site.</li> <li>Bushfire can only approach from one aspect and the site is located in a suburban, township or urban m area managed in a minimum fuel condition.</li> <li>Access is readily available to a place that provides shelter from bushfire. This will often be the surrounding developed area.</li> </ul>	<ul> <li>The type and extent of vegetation located more than 150 metres from the site may result in neighbourhood-scale destruction as it interacts with the bushfire hazard on and close to a site.</li> <li>Bushfire can approach from more than one aspect.</li> <li>The site is in an area that is not managed in a minimum fuel condition.</li> <li>Access to an appropriate place that provides shelter from bushfire is not certain.</li> </ul>	The broader landscape presents an extreme risk. Evacuation options are limited or not available.



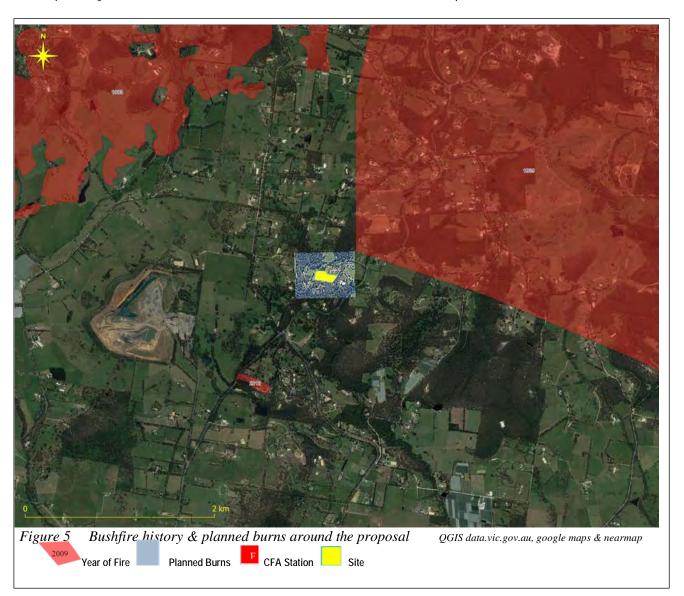




# 5.2 Bushfire History

Cardinia Shire areas are prone to bushfires, the area has been impacted by bushfires in the recent history, bushfires have been recorded in the wider area and in the immediate area surrounding the subject site.

Controlled burns have taken place and a wildfire history has been recorded in the wider areas surrounding the proposal as you can see on Map 2. The immediate area has a fire history, and the publicly available database indicates that the site itself has experienced bushfire in 1939.









#### 5.3 Bushfire Scenario

The most likely bushfire scenarios are those typically associated with the direction of the wind on severe or higher, fire danger days i.e. approach of bushfire from the north, northwest, west or southwest.

Hazard vegetation in this occasion is located **north & south** from the proposal, the development site will be impacted upon by a **local low-moderate** fire approaching from the **north, northwest. or south**. A fire from these directions would approach through the **forested** areas of driven by hot, dry **north, north-western** winds commonly experienced during summer or after a wind change from the south.

Whilst the **north & south forested** areas may intemperate the speed and intensity of the fire before it impacted the site, under the BMO conditions of low humidity, elevated temperatures and fierce winds, the development could be subjected to significant ember attack and possibly radiant heat. The cleared areas around the development are a considerable asset in this scenario and substantially reduce the threat of radiant heat and flame impacts.

The **forested** areas to the **north & south** of the site are a potential hazard to the development and could result in a fire approaching from the **north & south**, generating significant ember attack and radiant heat.

Whilst the **forested** area, can cause substantial amounts of embers and burning material to be blown long distances, the development site is sufficiently setback from the **hazard** such that it will be able to provide appropriate defendable space, commensurate with the risk and proposed construction standard of the building.







# **6** Bushfire Management Statement

# 6.1 Landscape, siting and design objectives

- Development is appropriate having regard to the nature of the bushfire risk arising from the surrounding landscape.
- Development is sited to minimise the risk from bushfire.
- Development is sited to provide safe access for vehicles, including emergency vehicles. Building design minimises vulnerability to bushfire attack.

Compliance with these objectives at Clause 53.02-4.1 is proposed via the following Approved measures.

### 6.1.1 Approved measure 2.1 Landscape

'The bushfire risk to the development from the landscape beyond the site can be mitigated to an acceptable level'.

As identified in Section 5 the landscape is **not one** of extreme bushfire risk. Whilst a landscape scale bushfire could impact the site, the speed and intensity of a fire approaching from the **north**, will be somewhat moderated by residential land managed to low fuel levels surroundings of the proposal and of areas of low threat and/or non-vegetated areas.

To the **north at a distance** there are large contiguous **forested** areas and the possibility of a potential fire run in extreme weather conditions of high temperatures and low humidity is feasible.

It is proposed that the risk can be mitigated to an acceptable level by implementing bushfire protection measures in compliance with the BMO requirements including BAL construction standard, commensurate defendable space, provision of a water supply for firefighting, ensuring good access and egress are available for occupants and emergency services and, most importantly, management planning in the form of a Bushfire Emergency Management Plan.

# 6.1.2 Approved measure 2.2 Siting

A building is sited to ensure the site best achieves the following:

- The maximum separation distance between the building and the bushfire hazard.
- The building is in close proximity to a public road.
- Access can be provided to the building for emergency service vehicles.

The proposed development is sited to have maximum distance from hazard vegetation from all aspects. Sufficiently distant to achieve **BAL-29** defendable space.

The building will be sufficiently distant from hazardous vegetation such that 'Table 2' to Clause 53.02-5 setbacks are achieved (please refer to Defendable Space Map 3).

The proposed development is close to a main public road enabling access and egress in compliance with BMO requirements for emergency vehicles and occupants/visitors.







## 6.1.3 Approved measure 2.3 Design

A building is designed to be responsive to the landscape risk and reduce the impact of bushfire on the building.

All BAL standards above BAL-Low are deemed to satisfy the building code requirement that buildings be designed and constructed to reduce the risk of ignition from a bushfire, appropriate to the:

- (a) 'potential for ignition caused by embers, radiant heat or flame generated by a bushfire; and
- (b) intensity of the bushfire attack on the building (Building Code of Australia 2016).

The design of the buildings will aim to facilitate wind flow over the building and easy maintenance (e.g. cleaning of gutters) and avoid complex roof lines which may allow build-up of debris (e.g. accumulation of leaves and bark) and trap embers. Walls and eaves should similarly avoid or minimise re-entrant corners and other features that may trap debris and embers. The proposal will be constructed with a **BAL-29**.



## 6.2 Defendable space and construction objectives

'Defendable space and building construction mitigate the effect of flame contact, radiant heat and embers on buildings'.

Compliance with this objective is proposed via the following Approved and Alternative measures.

**Approved measure 3.1 (AM 3.1)** requires that: 'A building used for a dwelling (including an extension or alteration to a dwelling), a dependant person's unit, industry, office or retail premises is provided with defendable space in accordance with:

- Column A, B or C of Table 2 to Clause 53.02-5 wholly within the title boundaries of the land; or If there are significant siting constraints,
- · Column D of Table 2 to Clause 53.02-5.

The building is constructed with a **BAL-29** the bushfire attack level that corresponds to the defendable space of **35m or to the property boundary**, **whichever is lesser**provided in accordance with Clause53.02-5 Table 2.







#### 6.2.1 Building defendable space

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited

The habitable building will be constructed with a BAL-29 vegetation classified as forest on an effective slope of flat/upslope, required defendable space from classified vegetation is 35m or to the property boundary, whichever is lesser from the edges of the proposal as shown in Figure 6 corresponding to Clause 53.02-5 Table 2.



**Figure 6** Defendable Space is within **adjacent** property complying with Table 6 standards.

## Adjoining property defendable space

#### Alternative measures 3.3 (AltM 3.3)

Adjoining land may be included as defendable space where there is a reasonable assurance that the land will remain or continue to be managed in that condition as part of the defendable space.

Required vegetation setback of 35m or to the property boundary, whichever is lesserare achieved within adjacent property where vegetation is maintained to low fuel levels as in Clause 53.02-5 Table 6 standards.



#### 6.3 Water supply and access objectives

'A static water supply is provided to assist in protecting the property. Vehicle access is designed and constructed to enhance safety in the event of a bushfire'.

These objectives can be achieved via Approved measures 4.1 (AM 4.1):

'A building used for a dwelling (including an extension or alteration to a dwelling), a dependant person's unit, industry, office or retail premises is provided with:

- A static water supply for firefighting and property protection purposes specified in Table 4 to Clause 53.02-5.
- Vehicle access that is designed and constructed as specified in Table 5 to Clause 53.02-5'.

The water supply may be in the same tank as other water supplies if a separate outlet is reserved for firefighting water supplies.

It is proposed that a minimum total capacity of 10,000-litres be provided as a dedicated static water supply for bushfire firefighting only.

#### Access

Internal roads will provide access in accordance with the vehicle access design and construction specifications in Table 5 to Clause 53.02-5 (detail provided as Appendix 4).







## 7 Clause 13.02-1S Bushfire

Clause 13.02-1S Bushfire has the objective to "strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life". This clause applies to land within the Bushfire Prone Area (BPA), BMO or proposed to be used or developed in a way that may create a bushfire hazard. Clause 13.02-1S contains five strategies to meet the objective, being:

- Protection of human life.
- Bushfire hazard identification and assessment.
- Settlement planning.
- Areas of high biodiversity conservation value; and
- Use and development control in a BPA.

This development addresses the requirements of Clause 13.02-1S in several ways. It is considered that the development can appropriately prioritise the protection of human life by ensuring that the proposed building within the development will not be exposed to a radiant heat flux of more than **29** kilowatts/square metre, which is commensurate to a BAL **29** construction standard.

The lot is **1.987 Ha** and is required to provide a minimum static water supply of **10,000** - litres as per Table 4 to Clause 53.02-5. Vehicles can easily access the development since it is on a main public road.

This report identifies the bushfire hazard and applies the standard site assessment methodology used in AS3959-2018 and Clause 53.02, which is applied to developments in the BMO and is based on the best available science. The bushfire modelling inputs that form the basis for this methodology factor in vegetation type (e.g., Woodland, Grassland), potential fuel-loads in a long-unburnt vegetation community, weather conditions on higher bushfire risk days (e.g. wind speed, fuel moisture content, days since last rainfall) and the effect of slope gradient on the way fire travels through unmanaged vegetation. The site assessment process and desktop assessment using GIS software has determined the most appropriate vegetation type and commensurate slope category for each section/aspect of unmanaged vegetation.

Non-vegetated areas such as dwellings, roads, driveways and footpaths are considered part of a landscape in which a building would be rated as BAL-LOW (AS3959- 2018). Occupants will be able to move towards areas rated as BAL-LOW by travelling in a generally **southern** direction into a highly urbanised area, or at the more localised scale, directly **north or south** on **Old Gembrook Road** respectively leading to the closest NSP in **Gembrook Community Centre Carpark** or Toomuc Recreation Reserve.

The CFA specify that areas where development should not proceed could include:

- Isolated settlements where the size and/or configuration of the settlements will be insufficient to modify fire behaviour and provide protection from a bushfire.
- Where bushfire protection measures will not reduce the risk to an acceptable level.
- Where evacuation (access) is severely restricted.
- Where the extent and potential impact of required bushfire protection measures may be incompatible with other environmental objectives or issues, e.g., vegetation protection, land subject to erosion or landslip' (CFA, 2015).

None of these criteria or characteristics are applicable to the area of the proposed.







#### **Overall Conclusion** 8

The proposed development has been assessed under Clause 53.02 & AS 3959 - 2018.

An assessment of the site conditions & adjoining property has categorised this site as "BAL 29" fire risk, with Sections 3 & 7 utilised for the building construction under AS3959 and is subject to the recommendations outlined above.

The proposed development has been sited and designed to avoid on and off-site constraints. AS3959 2018' Construction of buildings in a bushfire prone area' describes risk category for:

- BAL 12.5 as: "Ember Attack"
- BAL 19 as: "Increasing levels of Ember Attack and burning debris ignited by wind borne embers with increasing heat flux between 12.5-19KW"
- BAL 29 as: "Increasing levels of Ember Attack and burning debris ignited by wind borne embers with increasing heat flux between 19-29KW"
- BAL 40 as: "Increasing levels of Ember Attack and burning debris ignited by wind borne embers with increasing heat flux with the increased likelihood of exposure to flames.
- BAL FZ as: Direct exposure to flames from fire front in addition to heat flux and ember attack.

The final categorization of this site is subject to the relevant fire authority (CFA/MFB) review and approval.

Overall, the proposed development meets the requirements of the BMO and Clause 53.02-Bushfire Protection: Planning requirements.







## Appendix 1: BMO vegetation management standards

#### Clause 53.02.5 Table 6 Vegetation management requirement

Vegetation management requirement

Defendable space is provided and is managed in accordance with the following requirements:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3 metres of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 square metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 5 metres.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

Unless specified in a schedule or otherwise agreed in writing to the satisfaction of the relevant fire authority.







## Apendix 2: BMO static water supply requirements

Table 4 from Clause 53.02-5

#### Table 4 Water supply

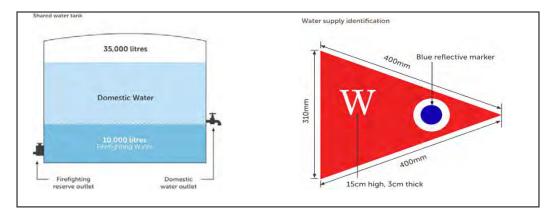
Lot sizes (square meters)	Hydrant available	Capacity (litres)	Fire authority fittings and access required	Water
Less than 500	Not applicable	2,500	No	tank
500-1,000	Yes	5,000	No	
500-1,000	No	10,000	Yes	
1,001 and above	Not applicable	10,000	Yes	_

Note 1: A hydrant is available if it is located within 120 metres of the rear of the building

Note 2: Fittings must be in accordance with the published requirements of the relevant fire authority.

requirements
'The water
supply should

be stored in an above ground water tank constructed of concrete, steel or corrugated iron. The water supply should be identified. The water supply may be provided in the same water tank as other water supplies



provided they are separated with different outlets'.

#### CFA Fittings (CFA, 2014b)

'If specified within Table 4 to Clause 53.02-5 (if fire brigade access to your water supply is required), CFA's standard BMO permit conditions require the pipe work, fittings and tank outlet to be a minimum size of 64 mm.

65 mm BSP (British Standard Pipe) is the most common size available. A 65mm fitting is equivalent to the old 21/2 inch. A 65 mm BSP (21/2 inch) fitting exceeds CFA's requirements and will therefore comply with CFA's standard permit conditions for the BMO.

Diagram1 below shows some common tank fittings available at most plumbing suppliers which meet the connection requirements. It includes a 65mm tank outlet, two 65 mm ball or gate valves with a 65mm male to 64 mm CFA 3 threads per inch male coupling. This is a special fitting which allows the CFA fire truck to connect to the water supply. An additional ball or gate valve will provide access to the water supply for the resident of the dwelling'









# Diagram 1 CFA Standard permit conditions for water supply, in FRV areas pls check if they use same fittings or Storz Fitting apply.

#### Conditions required for all applications

'Show [xx litres] of effective water supply for firefighting purposes which meets the following requirements:

- Is stored in an above ground water tank constructed of concrete or metal.
- All fixed above-ground water pipes and fittings required for firefighting purposes must be made of corrosive resistant metal'.

Additional conditions to apply if CFA fittings and access is required 'The water supply must also -

- Incorporate a ball or gate valve (British Standard Pipe (BSP) 65mm) and coupling (64 mm CFA 3 thread per inch male fitting).
- The outlet/s of the water tank must be within 4m of the access way and be unobstructed.
- Be readily identifiable from the building or appropriate identification signage to the satisfaction of CFA must be provided.
- Any pipework and fittings must be a minimum of 65 mm (excluding the CFA coupling).





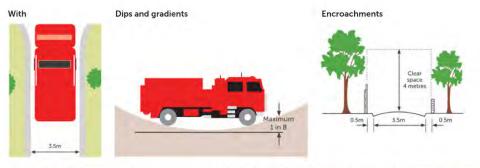


#### Appendix 3: BMO access requirements

Where the length of access is greater than 30 metres the following design and construction requirements apply:

- Curves must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5%) (7.1°) entry and exit angle.
- A load limit of at least 15 tonnes and be of all-weather construction.

- Provide a minimum trafficable width of 3.5 metres
- Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.
- A cleared area of 0.5 metres is required to allow for the opening of vehicle doors along driveways.



Practice Note 65 | Preparing and Assessing a Planning Application Under the Bushfire Provisions in Planning Schemes

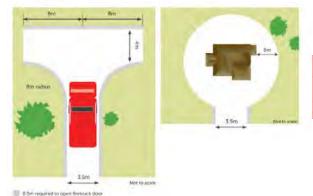
#### Access between 100 metres to 200 metres in length

In addition to the above:

A turning area for fire fighting vehicles must be provided close to the building by one of the following:

 a turning circle with a minimum radius of 8 metres

- · a driveway encircling the dwelling
- other vehicle turning heads such as a T or Y head which meet the specification of Austroad Design for an 8.8 metre service vehicle.

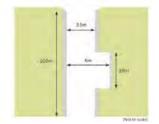


This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### Access greater than 200 metres in length

In addition to the above, passing bays are required at least every 200 metres that are:

- · a minimum of 20 metres long
- · with a minimum trafficable width of 6 metres



development.

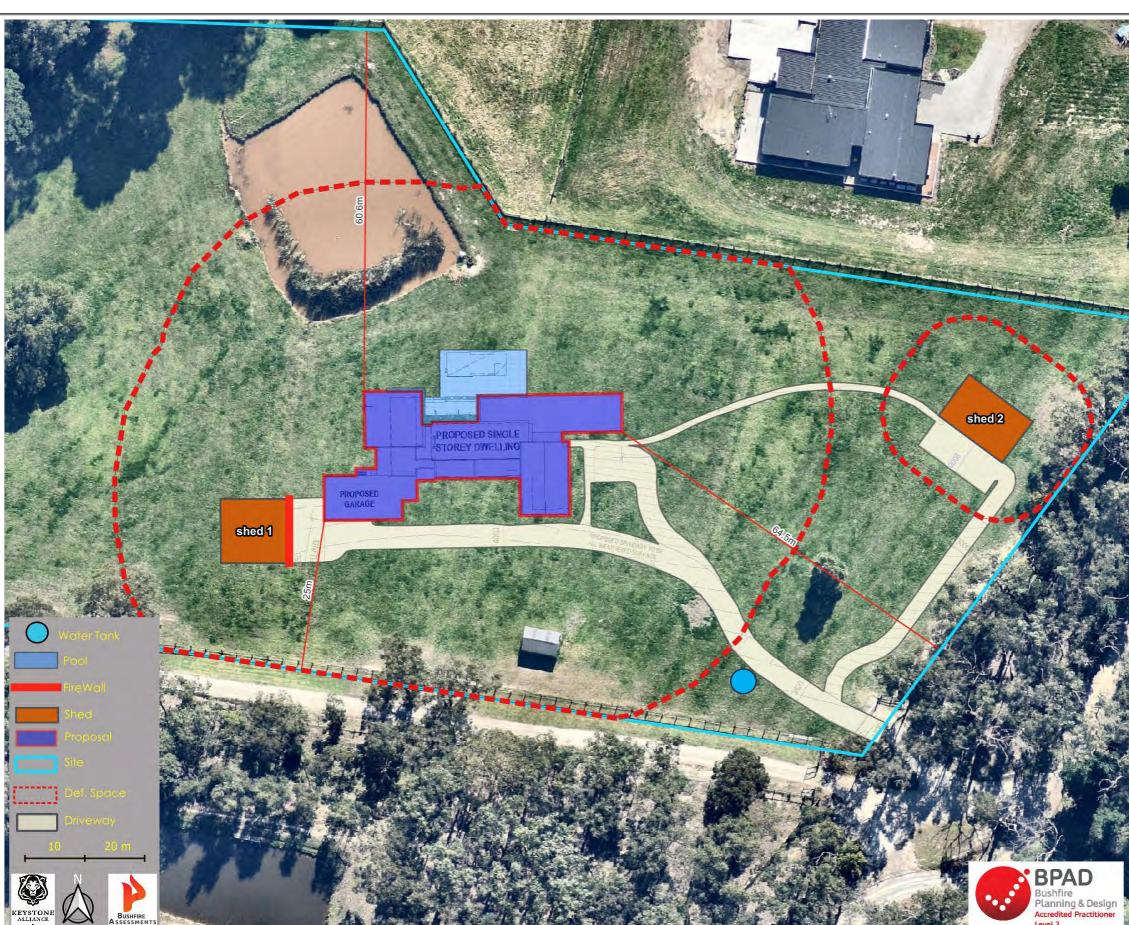
## EYSTONE ALLIANCE

**Appendix 4 BMP** 

Bushfire Management Plan

## 91 Old Gembrook Road Pakenham Upper 3810

Apr-2024 Ref# Bab/3.0



#### **Bushfire Protection Measures**

#### Mandatory Condition

The bushfire protection measures forming part of this permit or shown on the endorsed plans, including those relating to construction standards, defendable space, water supply and access, must be maintained to the satisfaction of the responsible authority on a continuing basis. This condition continues to have force and effect after the development authorised by this permit has been completed.

#### a) Construction Standard

Building designed and constructed to a minimum Bushfire Attack Level of BAL 29

#### b) Defendable Space

Defendable space is provided for a distance around the building of **35m or to the property boundary**, **whichever is lesser** and managed in accordance with the following:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 5 meters.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

#### c) Water Supply

The following requirements apply:

- An effective capacity of 10,000 litres
- Be stored in an above ground water tank constructed of concrete or metal.
- Have all fixed above ground water pipes and fittings required for firefighting purposes made of corrosive resistant metal.
- Include a separate outlet for occupant use.
- Be readily identifiable from the building or appropriate identification signage to the satisfaction of the relevant fire authority.
- Be located within 60 metres of the outer edge of the approved building.
- The outlet/s of the water tank must be within 4 metres of the accessway and unobstructed.
- Incorporate a separate ball or gate valve (British Standard Pipe (BSP 65 millimetre) and coupling (64-millimetre CFA 3 thread per inch male fitting).
- Any pipework and fittings must be a minimum of 65 millimetres (excluding the CFA

#### Access

#### Access Required: Yes

The following design and construction requirements apply:

- All-weather construction.
- A load limit of at least 15 tonnes.
- Provide a minimum trafficable width of 3.5 metres.
- Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.
- Curves must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum grade of nom more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5%) (7.10) entry and exit angle.

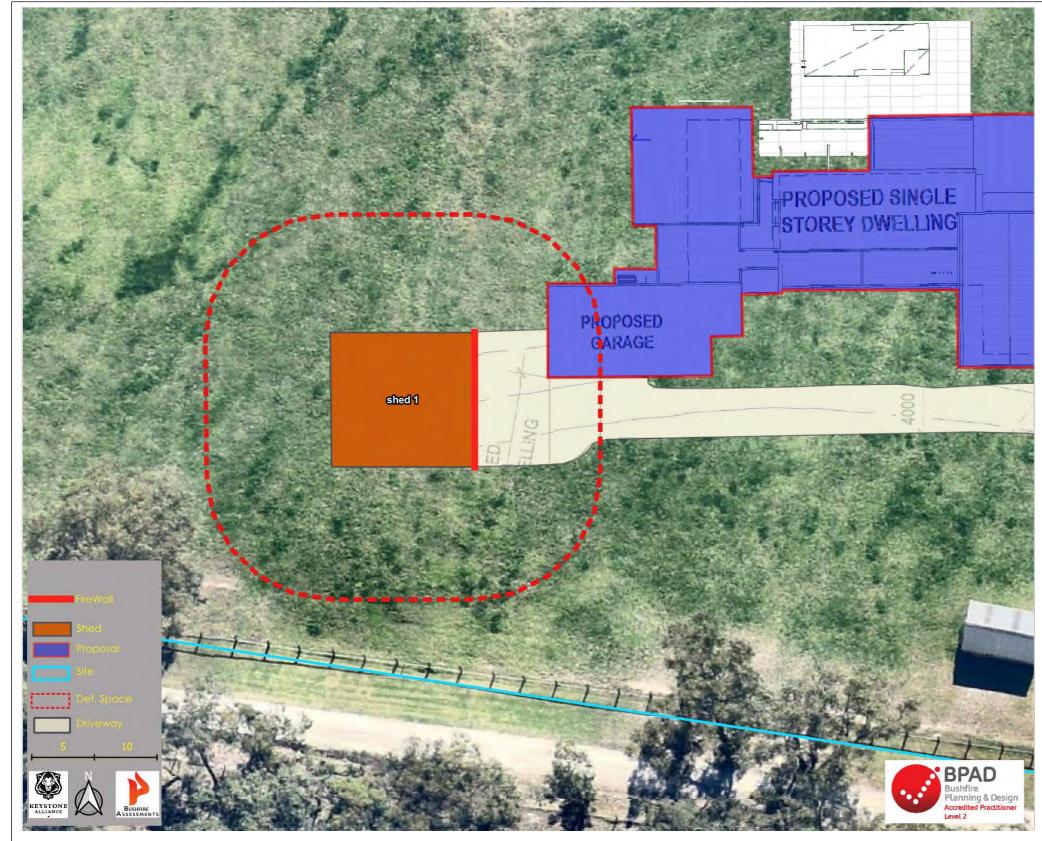
#### Length of access is greater 100 metres: No

- A turning circle with a minimum radius of eight metres, or
- A driveway encircling the building, or
- The provision of other vehicle turning heads such as a T or Y Head-which meet the specification of Austroad Design for an 8.8 metre service vehicle.

#### Length of driveway is greater than 200 metres: No

Where length of access is greater than 100 metres the following design and construction requirements apply:

 Passing bays are required at least every 200 metres that are a minimum 20 metres long and a minimum trafficable width of 6 metres.



#### **Bushfire Protection Measures**

#### a) Defendable Space

Defendable space is provided for a distance around the building of **10m** or to the property boundary, whichever is lesser and managed in accordance with the following:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 2 meters.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

#### b) Construction Standard

- 1 Non habitable building 'shed2' ancillary to a dwelling is more than 10m from a dwelling has no construction requirements.
- Non habitable building 'shed1' ancillary to a dwelling is less than 10m from a dwelling must meet the construction requirements of Table 7.

#### Table 7 Outbuilding construction requirement

#### **Building construction condition**

The proposed outbuilding is separated from the adjacent building by a wall that extends to the underside of a non-combustible roof covering and:

- has a FRL of not less than 60/60/60 for loadbearing walls and -/60/60 for non-load bearing walls when tested from the attached structure side, or
- is of masonry, earth wall or masonry-veneer construction with the masonry leaf of not less than 90 millimetres in thickness.

Any openings in the wall shall be protected in accordance with the following:

- i. Doorways by FRL -/60/30 self-closing fire doors
- . Windows by FRL -/60/- fire windows permanently fixed in the closed position
- iii. Other openings by construction with a FRL of not less than -/60/-

Note: Control and construction joints, subfloor vents, weepholes and penetrations for pipes and conduits need not comply with Item iii.

### **Mandatory Condition**

The bushfire protection measures forming part of this permit or shown on the endorsed plans, including those relating to construction standards, defendable space, water supply and access, must be maintained to the satisfaction of the responsible authority on a continuing basis. This condition continues to have force and effect after the development authorised by this permit has been completed



### **Bushfire Protection Measures**

#### a) Defendable Space

Defendable space is provided for a distance around the building of **10m** or to the property boundary, whichever is lesser and managed in accordance with the following:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 2 meters.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

#### b) Construction Standard

- 1 Non habitable building 'shed2' ancillary to a dwelling is more than 10m from a dwelling has no construction requirements.
- 2 Non habitable building 'shed1' ancillary to a dwelling is less than 10m from a dwelling must meet the construction requirements of Table 7.

#### Table 7 Outbuilding construction requirement

#### **Building construction condition**

The proposed outbuilding is separated from the adjacent building by a wall that extends to the underside of a non-combustible roof covering and:

- has a FRL of not less than 60/60/60 for loadbearing walls and -/60/60 for non-load bearing walls when tested from the attached structure side, or
- is of masonry, earth wall or masonry-veneer construction with the masonry leaf of not less than 90 millimetres in thickness.

Any openings in the wall shall be protected in accordance with the following:

- i. Doorways by FRL -/60/30 self-closing fire doors
- . Windows by FRL -/60/- fire windows permanently fixed in the closed position
- iii. Other openings by construction with a FRL of not less than -/60/-

Note: Control and construction joints, subfloor vents, weepholes and penetrations for pipes and conduits need not comply with Item iiii

#### **Mandatory Condition**

The bushfire protection measures forming part of this permit or shown on the endorsed plans, including those relating to construction standards, defendable space, water supply and access, must be maintained to the satisfaction of the responsible authority on a continuing basis. This condition continues to have force and effect after the development authorised by this permit has been completed



This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that an dissemination, distribution or copying of this document is strictly prohibited.

91 OLD GEMBROOK ROAD PAKENHAM UPPER 173 BAYVIEW ROAD PAGE 2024 DECEMBER 2017

#### 2. Site Context

The subject site consists of a land area of 1.987 hectares on the western side of Old Gembrook Road in Pakenham Upper.

Old Gembrook Road is an unsealed public road managed by Cardinia Shire Council.

The land is formerly described as Lot 2 on PS712083Y on Certificate of Title Vol. 12282 Fol. 847. A copy of the certificate of title is enclosed in this planning application.

The site consists of an open pasture and an existing small shed and large dam.

There is an existing vehicle access through a gate towards the south eastern corner of the subject site.

There are trees along the north eastern and southern perimeter of the site and towards the north western corner of the subject site and 2 scattered trees within the site.

The perimeter of the site consists of timber rural fencing.

The land is unencumbered of any easements.

The topography of the land falls in a south to north direction on an approximate 15% slope as shown on the enclosed Levels & Features Plan prepared by One Plan Lan Development Group

### 2.1 Planning History

Planning Permit No. T120695 was issued for a 3 lot subdivision at 89 Old Gembrook Road, included this subject site and the land to the north and west/south of the site. The original decision was issued on the  $5^{th}$  April 2016 and the Plan of Subdivision was registered on the  $2^{nd}$  February 2021.

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### 2.2 Section 173 Agreement

The Certificate of Title Vol. 12282 Fol. 847 is encumbered by Section 173 Agreement Instrument AT820383V and this agreement was registered on the certificate of title on the 1st December 2020.

The following building and works are restricted on the subject site:

#### 2. Covenants

The Owners covenant and agree with the Council that:

- That it has been prepared for the purpose of an exemption from a planning permit under Clause 44.06-1 of this planning scheme for the construction of a dwelling/dependant persons unit on proposed lots 1 & 2 only.
- Specify that any new dwelling or dependent person's unit constructed on proposed lots 1 & 2 in the subdivision must be constructed:
  - Inside the building envelope designated on the BUSHFIREMANAGEMENT PLAN endorsed under this permit and attached to this agreement.
  - To the Bushfire Attack Level (BAL) specified under this permit and in accordance with the relevant sections of AS3959-2009.
- Specify that all land shown as 'Defendable Space' on the BUSHFIRE MANAGEMENT PLAN endorsed under this permit and attached to this Agreement must at all times, and

regardless of whether a dwelling is located on the land, be maintained to the defendable space requirements of this permit.

- Specify that before the occupation of a dwelling starts on Lot 1 or Lot 2 a static water supply must be provided on the lot which complies with the requirements of this permit.
- Include the BUSHFIRE MANAGEMENT PLAN endorsed under this permit as an annexure to the agreement.
- Specify that the bushfire protection measures in the Bushfire Management Plan which
  form part of the section 173 agreement and the planning permit and endorsed plans,
  including those relating to construction standards (BAL), defendable space, water supply
  and access must be maintained to the satisfaction of the Responsible Authority on a
  continuing basis.
- The construction of any new dwelling or dependent person's unit on Lots 1 & 2 in the subdivision must be to a Bushfire Attack Level (BAL) of BAL-29 in accordance with the relevant sections to AS3959-2009.

As required in Condition 6 of Planning Permit T120695.

The above Section 173 Agreement has been assessed against the location and size of the proposed dwelling. The proposed dwelling/building envelope will be constructed in a slightly different location to the building envelope endorsed in the enclosed Section 173 Agreement. As shown on the Proposed Building Envelope Plan prepared by Drake Design, the location of the dwelling/envelope will be located, as follows:

- 61.39 metres from the frontage. The building envelope will be further recessed by 13.393 metres from the frontage than the building envelope endorsed under the Section 173 Agreement.
- 20 metres from the northern boundary. The building envelope matches the building envelope endorsed under the Section 173 Agreement.
- 25 metres from the southern boundary. The building envelope will be closer to the southern boundary by 5 metres than the building envelope endorsed in the Section 173 Agreement.

The size of the building will be altered as follows:

- The eastern and western side of the building envelope will be approx. 38.57 metres and therefore the sides will increase by 5.71 metres in length than the building envelope endorsed in the Section 173 Agreement.
- The northern and southern side of the building envelope will be 50 metres and therefore maintaining the length as shown on the building envelope endorsed in the Section 173 Agreement.

The changes to the size and location of the building envelope is required for the layout of the proposed dwelling and also provide space for the secondary treatment subsurface irrigation system.

Therefore, a new Bushfire Management Statement has been prepared by Keystone Alliance and a planning permit is required for the construction of the proposed dwelling under Clause 44.06.

Based on the assessment, the BAL rating 29 can be applied to construction of the proposed dwelling, instead of the BAL rating 29 under Section 2 in the Section 173 Agreement. The development will meet the 10,000 litre water supply requirement.

A defendable space of 35 metres and/or whichever is less to the property boundary has been recommended in the Bushfire Management Statement, instead of 39 metres as endorsed under the Section 173 Agreement.

#### 3. Surrounding Context

The subject site is situated within a rural residential area of Pakenham Upper, located 8 kilometres from the Pakenham township and 68.3 kilometres from Melbourne CBD.

The properties on the western side of Old Gembrook Road range in lot sizes between 1.3 to 5 hectares, located in a Green Wedge A Zone and the eastern side of the Old Gembrook Road consists of lot sizes ranging between 1.5 to 13 hectares being located in a Rural Conservation Zone and therefore comprising larger landholdings.

The dwellings in the immediate area present a contemporary architectural style, presenting a mix of single storey built form that include brick or cladding facades with medium & large glazed windows and pitched, skillion or flat roof form. These dwellings mainly include attached 2 or 3 car garages and all weathered gravel driveways. There are associated rural sheds, storing rural equipment to manage the respective landholdings.

The vegetation throughout these properties are predominantly native remnant vegetation that are consistently along the perimeters of the lots, obscuring views from the roadside and some of the adjacent dwellings. Post and wire or timber rural fencing is a common feature along the perimeter of these properties.

The site comprises of the following immediate interfaces:

**To the north** is a rural residential property at 95 Old Gembrook Road, consisting of a land area of 2.02 hectares. The property comprises of a contemporary single storey dwelling towards the south of the property and a barn styled outbuilding to the north of the property. There is a gravel driveway at the centre of the frontage, providing access from Old Gembrook Road to the dwelling and shed. The remaining property consists of an open pasture, except towards the north western part of the site, comprising of a cluster of remnant trees and also along the northern perimeter. The entire perimeter comprises of timber post & frame & wire.

**To the east** is the rural property at 90 Old Gembrook Road, consisting of a land area of 1.964 hectares. A single storey dwelling and large outbuildings are clustered in the middle of the property. There are also large sheds towards the frontage of the site. There is a large dam towards the north western part of the site. A gravel driveway provides vehicle access from Old Gembrook Road to the buildings on the property. There are clusters of trees along the frontage; the southern perimeter; surrounding the dwelling and along the driveway. The perimeter consists of post & wire fencing.

**To the south** is part of the driveway to 89 Old Gembrook Road and to the south of 89 Old Gembrook Road is the property at 85 Old Gembrook Road.

The property at 85 Old Gembrook Road is an irregular shaped lot and consists of a land area of 2.924 hectares. A ranch styled single storey dwelling resides on this property towards the north west and includes a gravel driveway along the southern boundary, providing vehicle access to Old Gembrook Road. The remaining site comprises of clusters of remnant trees surrounding the dwelling and along the perimeter. There is a dam towards the frontage of the site and the perimeter comprises of timber post & framing.

**To the west** is a rural living property at 89 Old Gembrook Road is a battle axe lot, consisting of a land area of 3.934 hectares. The property comprises of a contemporary single storey dwelling towards the south western part of the property and has a gravel driveway running along the southern boundary, providing vehicle access to Old Gembrook Road. The remaining site consists of clusters of remnant trees surrounding the dwelling and particularly

towards the northern part of the site. The perimeter comprises of timber post & framing or wire.

Figure 1 shows an aerial view of the subject site and some of the surrounding properties as described above.

In terms of the site's wider context, the subject site is located within 1.7 kilometres to the local General Store and 8 kilometres from Pakenham Place Shopping Centre; providing retail, commercial and community facilities.

The site is within 430 metres to Pakenham Road, the main road network in this area that connects into the main transport network of Princes Highway.

Educational facilities are within a 6 kilometre radius of the subject site, including Beaconshill College, Pakenham Secondary College and St Patrick Catholic Church & School.

The closest passive public open spaces to the site is Nar Nar Goon Bushland Reserve within 478 metres to the subject site.

Figure 2 below shows the site's locality to the above amenities.



Figure 1: Aerial map of the site and its surrounding context (REA Group Ltd).

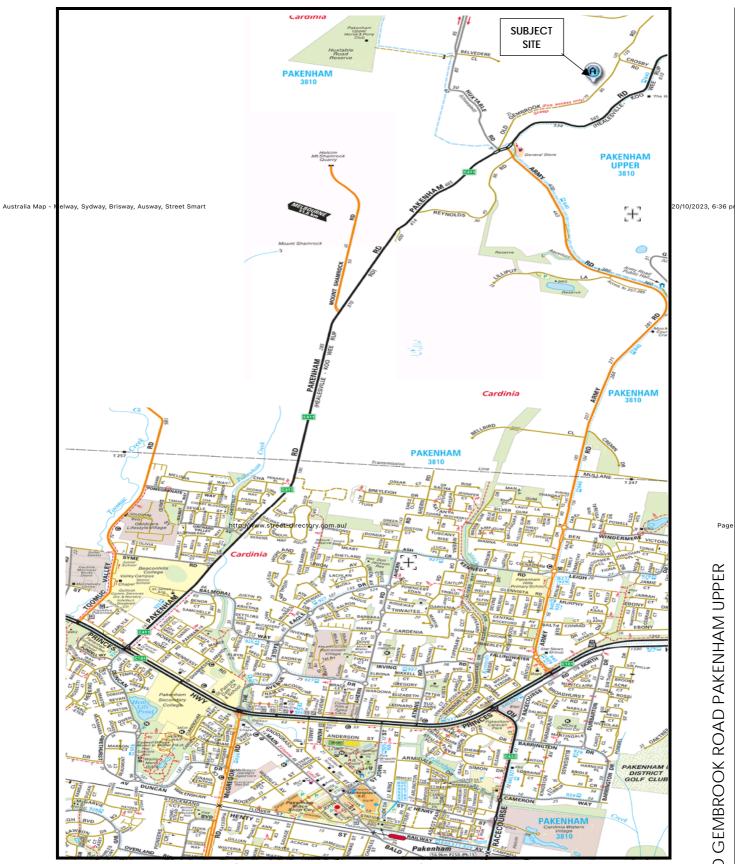


Figure 2: Locality Map (PSMA Australia Limited, 2023)

#### 4. Proposed Development

The proposed development is the construction of a single storey dwelling and associated works.

The proposed dwelling will be constructed 62 metres north west of Old Gembrook Road, that will be constructed on the slope of the land.

The proposed dwelling will present a high-quality contemporary design as shown on the planning drawings prepared by Drake Design. The dwelling will be constructed to a BAL rating 29.

The built form will present a low profile in the upper landscape of this site to a maximum building height of 5.894 metres. The façade will consist of a mix of non-combustible blockwork and metal cladding. The colour palette of the dwelling is depicted by rustic and raw tones, complementing the landscape. The roof form will be a combination of flat & skillion creating a low profile. The medium & large windows and doors will meet the BAL rating standard and the windows & doors, particularly along the northern side of the dwelling will allow the internal habitable spaces to maximise solar access to the north. A detailed description of all building materials and colour schedule are shown on the elevation plan and also on the propose materials schedule plan.

The dwelling will comprise of 7 bedrooms. All living spaces, including the kitchen and dining will be orientated towards the north of the dwelling, maximising solar access. An outdoor entertaining area, including a swimming pool adjoining the dining area and living area will maximise northern aspects of the site. There will be a theatre room under the ground floor level of Bedrooms 6 & 7 and the bathroom towards the north eastern part of the dwelling.

The dwelling will also comprise of an attached 2 car garage.

The existing small shed on site will be retained. There are 2 sheds proposing to be constructed towards the south west of the proposed garage and towards the north east of the site. Shed 1 located to the south west of the garage will store 6 vehicles. Shed 2 located to the north east of the site and will be used for storing rural machinery and garden equipment to manage the land.

The site has an existing gravel driveway next to the south eastern boundary that will extend to the west, providing vehicle access to the dwelling, garage and outbuildings.

A 10,000 litre water tank for fire management purposes will be installed within 4 metres of the driveway that will provide accessibility for emergency vehicles as shown on the Proposed Site Plan.

A 60,000 litre water tank for water supply to the dwelling will be installed near Shed 2.

A Land Capability Assessment has been prepared by A.C. Geotechnical recommending a 710 square metre secondary treatment subsurface irrigation system to manage wastewater on site. However, the development proposes a 720 square metre effluent disposal envelope to be located in the front setback on the downward slope of the land.

The dwelling will also connect into the existing electricity supply along Old Gembrook Road. All existing trees on site will be retained as identified on the development plans.

#### 5. Zoning

#### Clause 35.05 - Green Wedge A Zone (GWAZ)

The subject site is within a Green Wedge A Zone (GWAZ2) as shown in Figure 3 below.

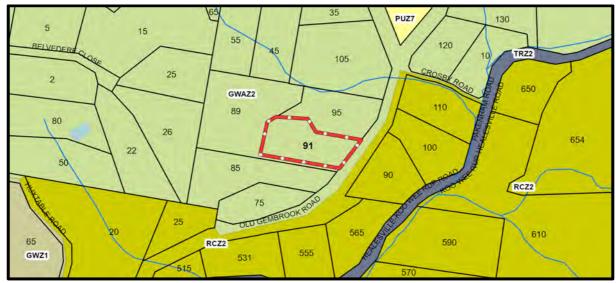


Figure 3: The subject site identified with a red dashed line and shown to be located within the Green Wedge A Zone (Department of Transport & Planning, 2023).

The purpose of the zone is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To provide for the use of land for agriculture.
- To protect, conserve and enhance the biodiversity, natural resources, scenic landscapes and heritage values of the area.
- To ensure that use and development promotes sustainable land management practices and infrastructure provision.
- To protect, conserve and enhance the cultural heritage significance and the character of rural and scenic non-urban landscapes.
- To recognise and protect the amenity of existing rural living areas.

The following planning provisions apply to this proposal:

Clause 35.05-1 – A permit (Section 2 use) is required to use the land for a dwelling based on the condition that there is only one dwelling on the lot and the development must meet the requirements under Clause 35.05-2.

The proposed development is the construction of one dwelling on the subject site and will meet the requirements as explained under Clause 35.05-2 below.

Clause 35.05-2 - A lot used for a dwelling must meet the following requirements:

 Access to the dwelling must be provided via an all-weather road with dimensions adequate to accommodate emergency vehicles.

- The dwelling must be connected to reticulated sewerage, if available. If not available, all wastewater must be treated and retained within the lot in accordance with the requirements of the Environment Protection Regulations under the Environment Protection Act 2017 for the construction, installation or alteration of an on-site wastewater management system.
- The dwelling must be connected to a reticulated potable water supply or have an alternative potable water supply with adequate storage for domestic use as well as for firefighting purposes.
- The dwelling must be connected to a reticulated electricity supply or have an alternative energy source.

There will be an all-weather pervious driveway providing access to the dwelling and sheds on site as shown on the Proposed Overall Site Plan prepared by Drake Design.

A 720 square metre secondary treatment subsurface irrigation system to retain wastewater on site will be located within the front setback as recommended in the enclosed Land Capability Assessment prepared by A.C. Geotechnical.

There will be a 60,000 litre water tank for water supply to installed on the north western side of shed 2.

There are existing cable conduits for electricity supply along Old Gembrook Road and the proposed dwelling will connect into this service in accordance to Ausnet.

#### Clause 35.05-5 Buildings and works

A permit is required to construct or carry out any of the following:

A building or works associated with a use in Section 2 of Clause 35.05-1.

The proposed dwelling is a Section 2 use under Clause 35.05-1 and therefore a permit will be required for the construction of the dwelling and two sheds.

This does not apply to a rainwater tank

A 10,000 water tank will be located within 4 metres of the driveway and approximately 19.29 metres from the frontage.

A 60,000 litre water tank will be installed on the north western side of shed 2.

Earthworks specified in a schedule to this zone, if on land specified in a schedule.

There will be earthworks required for the construction of the dwelling and the two sheds as shown on the enclosed development plans. The site cut is shown on the Existing/Demo Site Plan.

A building which is within any of the following setbacks:

• 10 metres from any other road.

The proposed shed 2 to the north east of the site will be setback 10.586 metres from the frontage. The proposed dwelling will be setback a minimum of 61.393 metres from the frontage.

Therefore, a permit is not required for the construction of these buildings.

• 5 metres from any other boundary.

The proposed buildings will be setback as follows:

- The proposed dwelling will be setback a minimum of 25.167 metres from the northern boundary, 25.634 metres from the south boundary and 101.43 metres to the rear boundary.
- The swimming pool area will be setback 20 metres from the northern boundary and 116.43 metres from the rear boundary.
- Shed 1 will be setback a minimum of 79.29 metres from the northern boundary, 15.843 metres from the south boundary and 85.29 metres to the rear boundary.
- Shed 2 will be setback a minimum of 13.57 metres from the northern boundary and 205 metres from the rear boundary.

Therefore, a permit is not required for the above buildings.

• 30 metres from a dwelling not in the same ownership.

The proposed dwelling will be setback by 42.257 metres and Shed 2 will be setback by 30.827 metres for the adjacent dwelling at 95 Old Gembrook Road, which will be the closest existing dwelling to the proposed development.

Therefore, a permit is not required for the above buildings.

100 metres from a waterway, wetlands or designated flood plain.

Not applicable.

#### Clause 35.05-6 Decision guidelines

Before deciding on an application to use or subdivide land, lease or license a portion of a lot for a period of more than 10 years if the portion is to be leased or licensed for the purpose of Accommodation, construct a building or construct or carry out works, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

#### General issues

The Municipal Planning Strategy and the Planning Policy Framework.

Refer to Sections 12 to 15 in this report.

Any Regional Catchment Strategy and associated plan applying to the land.

#### Not applicable.

The capability of the land to accommodate the proposed use or development, addressing site quality attributes including soil type, soil fertility, soil structure, soil permeability, aspect, contour and drainage patterns.

The dwelling will be constructed on the slope of this property. The slope at this section of the property is less than 15%. The soil type on site is identified as clay and this soil type will be able to withstand the weight of the building based on the proposed footings. Drainage will be managed on site in accordance to the engineering requirements.

How the use or development relates to agricultural land use, rural diversification and natural resource management.

The land is currently an open pasture. The proposed dwelling will allow the owners to live on site and also manage the property.

Whether the site is suitable for the use or development and whether the proposal will have an adverse impact on surrounding land uses.

This area is zoned as Green Wedge A Zone for its land size and rural living aspects and therefore the proposed development is an acceptable development and use for this site. The proposed dwelling will not have an impact on the rural living aspects of the adjacent properties to the north, east or west of the site. The dwelling will be located on the elevated section of the property and will be located more than 30 metres from any dwelling in the adjacent properties. The proposed dwelling will be significantly setback from all boundaries.

The need to protect the amenity of existing residents.

The development will not impact the amenity of existing residents. The side setbacks of the proposed dwelling to adjacent dwellings exceed the permit requirements under Clause 35.05-5.

The need to minimise adverse impacts on the character and appearance of the area or features of architectural, scientific or cultural heritage significance, or of natural scenic beauty or importance.

The proposed dwelling will present a low-profile contemporary design with a maximum building height of 5.894 metres. The façade will consist of rustic & raw textures of block work and metal cladding that will integrate into this rural landscape.

The potential for accommodation to be adversely affected by vehicular traffic, noise, blasting, dust and vibration from an existing or proposed extractive industry operation if it is located within 500 metres from the nearest title boundary of land on which a work authority has been applied for or granted under the Mineral Resources (Sustainable Development) Act 1990.

Not applicable.

#### **Environmental issues**

The impact of the use or development on the flora and fauna on the site and its surrounds.

The construction of the single dwelling, outbuildings and the other associated works will be located in the open pasture area will not have significant impact on the flora and fauna on site and its surrounding. The dwelling and shed 1 will be constructed on the elevated part of the site and shed 2 towards the lower part of the site. The dwelling will be located towards the centre of the site, which will allow the land towards the rear of the site to remain as an open pasture and retaining the existing trees on site.

An assessment of the likely environmental impact on the natural physical features and resources of the area and in particular any impact caused by the proposal on soil and water quality and by the emission of effluent, noise, dust and odours.

Not applicable.

The need to protect and enhance the biodiversity of the area, including the retention of vegetation and fauna habitat and the revegetation of land including riparian buffers along waterways, gullies, ridge lines, property boundaries and saline recharge and discharge areas.

The dwelling will be constructed the elevated slope of the land that is relatively clear of vegetation and is the best location to construct a dwelling for this reason.

How the use or development relates to sustainable land management and the need to prepare a sustainable land management plan.

#### Not applicable.

The location of onsite effluent disposal areas to minimise impact of nutrient loads on waterways and native vegetation.

The secondary treatment subsurface irrigation system will be located on the eastern side of the dwelling and will be located on the slope of the land. There is one tree that will be located within the effluent disposal envelope, however the tree will be able to be retained based on the irrigation being located on a downward slope and will be setback 2 metres from the tree base as explained in the Land Capability Assessment.

#### Design and siting issues

The need to minimise adverse impacts of the siting, design, height, bulk, colours and materials to be used on major roads, landscape features and vistas.

The proposed dwelling will present a low-profile contemporary design with a maximum building height of 5.894 metres. The proposed dwelling and outbuildings will have limited views from Old Gembrook Road, based on the existing remnant trees along road reserve. It should be noted that Old Gembrook Road is not a major road.

The façade of the dwelling will consist of rustic & raw texture building materials of block work and metal cladding. The outbuildings will be typical rural outbuildings as seen throughout this rural area. The colour palette of the dwelling & outbuildings will integrate well in the landscape and compliment the adjacent dwellings and outbuildings in this area.

The location and design of existing and proposed infrastructure services including gas, water, drainage, telecommunications and sewerage facilities which minimise the visual impact on the landscape.

A 60,000 litre water tank for water supply will be installed on the north western side of shed 2. A 720 square metre secondary treatment subsurface irrigation system will be installed on the downward slope on the eastern side of the dwelling and should have minimal visual impact from Old Gembrook Road. A 10,000 litre water tank for bushfire management purposes will be installed within 4 metres of the proposed driveway and approximately 19.29 metres from the frontage. Any other utilities should be installed in underground trenches along the driveway.

The location and design of existing and proposed roads and their impact on the landscape and whether the use or development will require traffic management programs.

Not applicable.

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### 6. Overlays

The subject site is within the following overlays:

- Bushfire Management Overlay (BMO)
- Environmental Significance Overlay
   Schedule 1 to the Environmental Significance Overlay (ESO1)

#### Clause 44.06 - Bushfire Management Overlay

The subject site is within a Bushfire Management Overlay as shown in Figure 4 below.

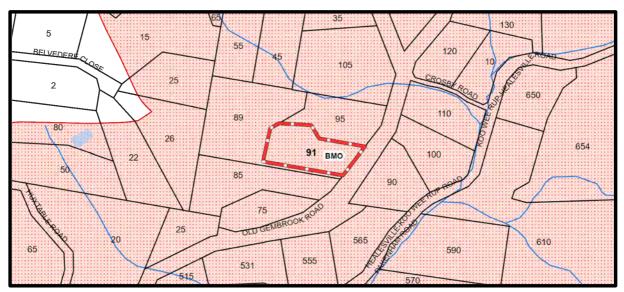


Figure 4: The subject site identified with a red dashed line and shown to be located in a Bushfire Management Overlay (Department of Transport & Planning, 2023).

The purpose of the Bushfire Management Overlay is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.
- To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.
- To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

Pursuant to Clause 44.06-2, a permit is required to construct a building or construct or carry out works associated with accommodation.

This does not apply to any of the following a building or works consistent with an agreement under Section 173 of the Act prepared in accordance with a condition of permit issued under the requirements of Clause 44.06-5.

The proposed dwelling will be located outside of the building envelope that was endorsed in the Section 173 Agreement Instrument AT820383V as described under Section 2.2 in this

report. A Bushfire Management Statement/Plan has been prepared by Keystone Alliance for the dwelling. The BAL rating will be 29. The defendable space will be 35 metres and/or the property boundary, whatever is less.

A 10,000 litre rainwater tank will be installed within 4 metres of the driveway.

There have been separate Bushfire Management Plans prepared for the proposed sheds.

Requirements of Clause 53.02 (Clause 44.06-4)

An application must meet the requirements of Clause 53.02 unless the application meets all of the requirements specified in a schedule to this overlay.

There is no schedule under this overlay, therefore requirements set out under Clause 53.02 have been assessed under the enclosed Bushfire Management Statement/Plans prepared by Keystone Alliance.

#### Clause 44.06-8 - Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 53.02 and Clause 65, the responsible authority must consider, as appropriate:

• The Municipal Planning Strategy and the Planning Policy Framework.

Refer to Sections 12 to 15 in this report.

• Any other matters specified in a schedule to this overlay.

No applicable.

#### Clause 42.01 Environmental Significance Overlay

The subject site is within an Environmental Significance Overlay as shown in Figure 5 below.

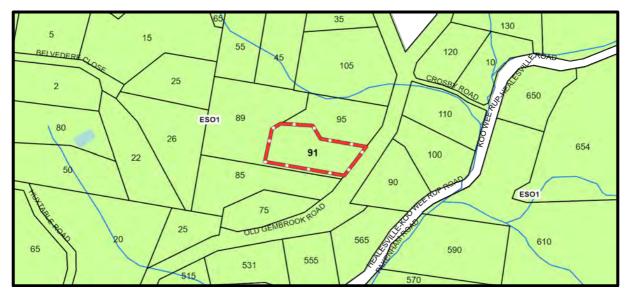


Figure 5: The subject site identified with a red dashed line and shown to be located within an Environmental Significance Overlay – Schedule 1 (Department of Transport & Planning, 2023).

The purpose of the Environmental Significance Overlay is:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To identify areas where the development of land may be affected by environmental

Copyright © - State Government of Victoria
Disclaimer. This content is provided for information purposes only. No claim is made as to the accuracy or authenticity of the content. The Victorian Government does not accept any liability to any person for the information provided.

Read the full disclaimer at <a href="https://www.delwp.vic.gov.au/disclaimer">https://www.delwp.vic.gov.au/disclaimer</a>

Notwithstanding this disclaimer, a vendor may rely on the information in this report for the purpose of a statement that land is in a bushfire prone area as required by section 32C (b) of the Sale of Land 1962 (Vic).

PLANNING PROPERTY REPORT: 91 OLD GEMBROOK ROAD PAKENHAM UPPER 3810

Page 2 of 4

• Construct a building or construct or carry out works. This does not apply if a schedule to this overlay specifically states that a permit is not required.

The earthworks proposed for the dwelling & sheds and the construction of both sheds will trigger a permit under this overlay. Refer to Schedule 1 to this overlay below.

• Remove, destroy or lop any vegetation, including dead vegetation.

Not applicable.

#### Clause 42.01-5 - Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

The Municipal Planning Strategy and Planning Policy Framework.

Refer to Sections 12 to 15 in this report.

The statement of environmental significance and the environmental objective contained in a schedule to this overlay.

Refer to the Design Guidelines under Schedule 1 to this overlay below.

The need to remove, destroy or lop vegetation to create a defendable space to reduce the risk of bushfire to life and property.

Not applicable.

Any other matters specified in a schedule to this overlay.

Refer to Schedule 1 to the Overlay below.

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### Schedule 1 to the Environmental Significance Overlay - Northern Hills

The Environmental objective to be achieved:

- To protect and enhance the significant environmental and landscape values in the northern hills area including the
- retention and enhancement of indigenous vegetation.
- To ensure that the siting and design of buildings and works does not adversely impact on environmental values including the diverse and interesting landscape, areas of remnant vegetation, hollow bearing trees, habitat of botanical and zoological significance and water quality and quantity.
- To ensure that the siting and design of buildings and works addresses environmental hazards including slope, erosion and fire risk, the protection of view lines and maintenance of vegetation as the predominant feature of the landscape.
- To protect and enhance biolinks across the landscape and ensure that vegetation is suitable for maintaining the health of species, communities and ecological processes, including the prevention of the incremental loss of vegetation.

Pursuant to Clause 3.0, a permit is not required for the following requirements in the table below. An assessment of these requirements against the proposed development are addressed in the following table:

Permit requirement	Assessment
Buildings and works	
A permit is not required to construct a building or construct or carry out works provided all of the following requirements are met:	
Building materials must be non-reflective or subdued colours which complement the	A permit is not required.
environment to the satisfaction of the responsible authority.	Refer to the materials schedule on the Development Plans prepared by Drake Design.
The height of any dwelling must not exceed 7	A permit is required for the sheds.
metres above natural ground level and the height of all other buildings must not exceed 4 metres above natural ground level.	The maximum building height of the dwelling will be 5.894 metres.
	The maximum building height of shed 1 will be 4.827 metres and shed 2 will be 6.75 metres.
The works must not involve the excavation of land exceeding 1 metre or filling of land	A permit is required.
exceeding 1 metre and any disturbed area must be stabilised by engineering works or revegetation to prevent erosion.	The maximum excavation works on site based on the building and works required to shed 1 will be 3.05 metres.
The slope of the land on which the buildings or	A permit is not required.
works are undertaken must not exceed 20%.	The slope of the land where the entire development will be located will be 15%.
The buildings and works must not result in the	A permit is not required.
removal or destruction of native vegetation (including trees, shrubs, herbs, sedges and grasses) within an area of botanical or zoological significance as shown on the mapped information provided by the Department of	The existing native trees shown on the development plans will be retained.

Sustainability and Environment, with the exception of Sweet Pittosporum (Pittosporum undulatum).	
If the building is an extension to an existing dwelling that is less than 50 percent of the floor area of the existing building.	Not applicable.
If the building is an outbuilding ancillary to a dwelling, the gross floor area of all outbuildings	A permit is required.
on the land must not exceed 120 square metres.	The overall area of the proposed sheds 1 & 2 will be 231.37 square metres.
	Shed 1 will be used for storing vehicles for the residents one site and Shed 2 will be used for storing rural machinery and garden equipment to manage the land.
If the building is in a Green Wedge or Rural	Not applicable.
Conservation Zone and is associated with the existing use of the land for the purposes of	
agriculture, the gross floor area of the building	
must not exceed 160 square metres.	
If a building envelope is registered on the plan of	Not applicable.
subdivision, any building must be located within the building envelope.	

#### Clause 5.0 Decision Guidelines

The following decision guidelines apply to an application for a permit under Clause 42.01, in addition to those specified in Clause 42.01 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:

Whether the removal of any vegetation has been avoided and/or minimised.

Not applicable.

The Land Capability Study for the Cardinia Shire (February 1997).

A 720 square metre secondary treatment subsurface irrigation system to retain wastewater on site will be located within the front setback as recommended in the enclosed Land Capability Assessment prepared by A.C. Geotechnical.

The protection and enhancement of the natural environment and character of the area.

The trees along the front perimeter of the site and the road reserve will be retained and partially obscure the dwelling and outbuildings from the road. All trees on site are proposing to be retained. The dwelling and the outbuildings will be constructed in the open pastures.

The design and built form of the dwelling and the selected materials & colour palette will allow this dwelling to integrate into the landscape as it will be sited with a low profile and the materials & colours adopted will fit in well with the surrounding rural structures. The proposed sheds will be consistent with other rural shed seen in this area.

The retention, protection and enhancement of remnant vegetation and habitat, and the need to plant vegetation along waterways, gullies, ridgelines and property boundaries.

All trees on site are proposing to be retained. The dwelling and the outbuildings will be constructed in the open pastures.

The impact of any buildings and works on areas of remnant vegetation, and habitat of botanical and zoological significance and threatened species.

The location of the proposed dwelling & outbuildings is situated in an area that is relatively clear of trees, there is clustered trees along the frontage and towards the north western corner of the site and scattered trees throughout, however these trees should not be significantly impacted by this proposed development.

The impact of proposed buildings and works on the landscape character of the area, including prominent ridgelines and significant views.

The proposed dwelling & shed 1 will be located on the elevated part of the slope and shed 2 will be located on the lower elevation towards the north eastern corner of the site.

A building envelope was endorsed in the Section 173 Agreement in a similar location to where the proposed dwelling is to be constructed, so this location has previously been assessed by council.

The buildings will be obscured from Old Gembrook Road by the existing trees along the road reserve.

The location of the development is not considered to be located on a ridge line or a place of significant views.

Whether the siting, height, scale, materials, colours and form of the proposed buildings and works have been designed to have the least visual impact on the environment and landscape.

The proposed dwelling will present a low-profile single storey built form on the elevated part of the property, however it will be obscured from the front perimeter of the site based on the existing trees in the road reserve. The maximum building height of the dwelling will be 5.894 metres, which will be sited lower than the existing canopy trees in the area. The scale of the dwelling will be elongated, which is a familiar design for dwellings in this area.

The façade will comprise of rustic & raw texture building materials of block work & metal cladding. The colour palette of the dwelling will integrate well into the slope and complement other rural structures seen in this area.

The proposed sheds on site are typical rural sheds seen throughout this area.

The availability of other alternative sites, alternative building designs or alternative construction practices for the proposed buildings and works that minimise cut and fill and would better meet the environmental objectives of this schedule, having regard to the size and topography of the land, retention of vegetation and the form and nature of the proposed buildings and works.

The area proposed for construction is relatively clear of vegetation and the lot has a natural slope and therefore any cuts on site is unavoidable. The proposed dwelling will be below the height specified under this overlay, however the sheds will be above the requirement. This is not unusual for rural sheds in this area.

Measures to address environmental hazards or constraints including slope, erosion, drainage, salinity and fire.

The dwelling will be constructed on footings to manage the slope of the land. There will be retaining walls required around the sheds to manage the slope.

The drainage will be managed on site in accordance to engineering design. The trees and other vegetation on site will be managed in accordance to the Outbuilding Bushfire Management Plan.

The protection of waterways and water quality through the appropriate management of effluent disposal, erosion and sediment pollution.

Not applicable.

## 7. Provisions that Apply only to a Specified Area

#### Clause 51.02 - Metropolitan Green Wedge Land: Core Planning Provisions

The purpose of the provision is:

- To protect metropolitan green wedge land from uses and development that would diminish its agricultural, environmental, cultural heritage, conservation, landscape natural resource or recreation values.
- To protect productive agricultural land from incompatible uses and development.
- To ensure that the scale of use is compatible with the non-urban character of metropolitan green wedge land.
- To encourage the location of urban activities in urban areas.
- To provide transitional arrangements for permit applications made to the responsible authority before 19 May 2004.
- To provide deeming provisions for metropolitan green wedge land.

Clause 51.02-1 specifies that these provisions apply to land in Metropolitan Melbourne that is outside an Urban Growth Boundary as shown on a planning scheme map in this scheme.

Pursuant to Clause 51.02-2, the table of uses listed under this clause states a dwelling as a prohibited use, unless it meets the following condition:

Must be the only dwelling on the lot. This does not apply to the replacement of an existing dwelling if the existing dwelling is removed or altered (so it can no longer be used as a dwelling) within one month of the occupation of the replacement dwelling.

The proposed development will be the construction of a single dwelling on site. There is no existing dwelling on this property. Therefore, the proposed dwelling will not be considered as a prohibited use.

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### 8. Provisions that Require, Enable or Exempt a Permit

#### Clause 52.06 - Car parking

The purpose of the provision is:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

Pursuant to Clause 52.06-3, a permit is required to provide some or all of the car parking spaces required under Clause 52.06-5.

Table 1 under Clause 52.06-5 specifies that 2 car parking spaces are required for a dwelling of three or more bedrooms, including a study.

The dwelling will comprise of 7 bedrooms. There will be an attached double car garage and additional shed to store 6 vehicles, therefore the proposed development complies with the requirements under Clause 52.06-5.

Clause 52.06-9 Design standards for car parking

Plans prepared in accordance with Clause 52.06-8 must meet the design standards of Clause 52.06-9 unless the responsible authority agrees otherwise.

An assessment has been prepared of the relevant design standards. Design standards 1, 3, 6 and 7 do not apply to an application to construct one dwelling on a lot and therefore these standards have not been assessed under this application. Design Standard 4 & 5 has not been assessed under this development is not proposing mechanical parking and the site is not identified as urban to be relevant for assessment.

Design standard 2 - Car parking spaces

Car spaces in garages or carports must be at least 6 metres long and 3.5 metres wide for a single space and 5.5 metres wide for a double space measured inside the garage or carport.

The double car garage will provide a width of 7.5 metres and a length of 7 metres.

Shed 1 will to store 6 vehicles and will provide a width of 10.5 metres and length of 11 metres.

## 9. General Requirements and Performance Standard

## Clause 53.02 Bushfire Planning

The purpose of the provision is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.
- To ensure that the location, design and construction of development appropriately responds to the bushfire hazard.
- To ensure development is only permitted where the risk to life, property and community infrastructure from bushfire can be reduced to an acceptable level.
- To specify location, design and construction measures for a single dwelling that reduces the bushfire risk to life and property to an acceptable level.

This provision applies to an application under Clause 44.06 - Bushfire Management Overlay.

An assessment of the measures and requirements under Clause 53.02-4 have been prepared in the enclosed Bushfire Management Statement/Plan & the Outbuilding Bushfire Management Plan prepared by Keystone Alliance for both sheds.

The proposed dwelling will be constructed in a similar area to the endorsed building envelope under Section 173 Agreement and the dwelling proposes to be constructed at a BAL rating 29, a 10,000 litre water tank will be installed within 4 metres of the proposed driveway. The dwelling will include a defendable space of 35 metres and/or to the title boundary, whichever is less.

## 10. Summary of the planning permit triggers in this development

The following table provides a summary of the planning permit triggers in this proposed development.

Clauses	Permit Trigger	Development assessment			
Clause 35.05 - Green Wedge A Zone (GWAZ2)					
Clause 35.05-1	A permit is required for a dwelling as it is a Section 2 Use and must meet the conditions under the table.	The proposal is the construction of a single dwelling and it will comply with the requirements under Clause 35.05-2.			
Clause 35.05-5	<ul> <li>A permit is required to construct or carry out any of the following:</li> <li>A building or works associated with a use in Section 2 of Clause 35.05-1.</li> <li>Earthworks</li> </ul>	A permit is required for the construction of the single dwelling as the use of the dwelling is defined as a Section 2 use.  There will be earthworks required for the construction of the dwelling, all sheds and driveway on site.			
Clause 42.10 - Enviro	nmental Significance Overlay (ESO	1)			
Clause 42.01-2	Construct a building or construct or carry out works. This does not apply if a schedule to this overlay specifically states that a permit is not required.	A permit is required for the construction of the sheds and earthworks.			
Clause 44.06 - Bushfir	re Management Overlay				
Clause 44.06-2	A permit is required to construct a building or construct or carry out works associated to Accommodation.	A permit is required for construction of the dwellings and sheds.			
	Clause 52.06 - Car parking				
Clause 52.06-3	A permit is required to provide some or all of the car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay on another site.	The dwelling is a new use on the subject site. The site will be able to store more than 2 vehicles and therefore it will meet the requirement in the Table under Clause 52.06-5.			

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

## 11. Design Guidelines - Approval of an application or plan

Because a permit can be granted does not imply that a permit should or will be granted. The responsible authority must decide whether the proposal will produce acceptable outcomes in terms of the decision guidelines of this clause.

D . O . I !	
Design Guidelines The matters set out in section 60 of the Act.	Assessment These matters have been assessed and explained in this report.
Any significant effects the environment, including the contamination of land, may have on the use or development.	Not applicable
The Municipal Planning Strategy and the Planning Policy Framework.	Refer to Sections 12 & 14 in this report. An assessment of these policies is under Section 15 in this report.
The purpose of the zone, overlay or other provision.	Refer to Sections 5 to 9 in this report.
Any matter required to be considered in the zone, overlay or other provision.	Refer to Sections 5 to 9 in this report.
The orderly planning of the area.	The area has orderly planning as explained in this report.
The effect on the environment, human health and amenity of the area.	No applicable.
The proximity of the land to any public land.	The closest reserve within the walking distance to the subject site is the Nar Nar Goon Bushland Reserve. This reserve is approximately 478 metres from the subject site.
Factors likely to cause or contribute to land degradation, salinity or reduce water quality.	Not applicable.
Whether the proposed development is designed to maintain or improve the quality of stormwater within and exiting the site.	Stormwater will be designed and constructed in accordance to the engineering design and will be retained on site.
The extent and character of native vegetation and the likelihood of its destruction.	All native trees will be retained on site.

Whether native vegetation is to be or can be protected, planted or allowed to regenerate.	All native trees will be retained on site.
The degree of flood, erosion or fire hazard associated with the location of the land and the use, development or management of the land so as to minimise any such hazard.	The development will be constructed and managed in accordance to the relevant Bushfire Management Plans.
The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.	Not applicable.
The impact the use or development will have on the current and future development and operation of the transport system.	Not applicable.

## 12. Planning Policy Framework

The Planning Policy Framework seeks to ensure that the objectives of planning in Victoria are fostered through appropriate land use and development planning policies and practices which integrate relevant environmental, social and economic factors in the interests of net community benefit and sustainable development.

The following planning policies are relevant to this proposed development:

Clause 11.01-1R (Green wedges - Metropolitan Melbourne) strategy to consolidate new residential development in existing settlements and in locations where planned services are available and green wedge values are protected.

**Clause 12.05-2S (Landscapes)** seeks to ensure development does not detract from the natural qualities of significant landscape areas.

Clause 13.02-1S (Bushfire Planning) objective is to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life. Refer to Section 14 of this report for further assessment of the requirements for Designated Bushfire Prone Areas.

Clause 15.01-6S (Design for rural areas) strategy is to ensure that the siting, scale and appearance of development protects and enhances rural character.

Clause 16.01-5S (Rural Residential Development) seeks to ensure land is only zoned for rural residential development where it:

- Is located close to existing towns and urban centres, but not in areas that will be required for fully serviced urban development.
- Can be supplied with electricity, water and good quality road access.

These policies have been considered in preparation of this proposal and are addressed under **Planning Considerations** in this report

#### 13. Local Planning Policy Framework

The Local Planning Policy Framework (LPPF) comprises of the Municipal Strategic Statement (MSS) and are summarised in the following policies relevant to this proposed development.

#### 13.1 Municipal Strategic Statement

The Municipal Strategic Statement (MSS) sets out Council's strategic planning objectives and underpins the land-use and development provisions of the Cardinia Planning Scheme.

#### Clause 21.01 Cardinia Shire Key Issues and Strategic Vision

#### Clause 21.01-5 Strategic framework plan

The Cardinia Shire Strategic Framework Plan sets out the general pattern for land use and development to respond to the key influences and issues to achieve the strategic vision for the municipality.

The purpose of the framework plan is to provide an overview of land use in the Cardinia Shire and to identify locations where specific land use outcomes will be supported and promoted.

The site is within a location of areas identified as having environmental and landscape significance as a major strategic direction identified in the Cardinia Shire Strategic Framework Plan.

#### Clause 21.02 Environment

#### Clause 21.02-2 Landscape

**Objective -** To recognise and protect the diverse landscape and areas of significant landscape value.

#### **Strategies**

#### Landscape values

- Recognise the landscape values associated with rural land including areas south of the Princes Highway.
- Recognise the contribution of drains and bridges to the character of the rural landscape.
- Minimise the fragmentation of land and removal of vegetation in areas of high landscape value.

#### Design and built form

- Require the use of building materials and colours which are in context with the surrounding environment in areas of landscape significance and in rural residential and rural living areas.
- Ensure the sensitive siting of buildings and other structures having regard to the protection of prominent ridgelines, significant views and areas of remnant vegetation.

#### Clause 21.02-4 Bushfire management

**Objective** - To recognise that areas in the municipality are prone to bushfire and to minimise the potential risk to life, property and the environment.

#### **Strategies**

#### Siting and design

- Ensure that the siting and design of houses and other accommodation in high risk bushfire areas minimises the potential risk of loss of life or property from wildfire, particularly in terms of the existing slope, aspect and vegetation.
- Ensure all development has appropriately designed access for emergency vehicles.
- Ensure development provides adequate access to water.
- Encourage the use of roads as a buffer between housing and bushland.

#### **Fuel reduction**

- Encourage the use of controlled burning to reduce ground fuel levels and to help maintain healthy and diverse forests and woodlands consistent with the Ecological Vegetation Class (EVC).
- Support the implementation of the Cardinia Municipal Fire Prevention Plan, 2016 and Cardinia Municipal Wildfire Preparedness Plan 2005.

#### Clause 21.03 Settlement and Housing

#### Clause 21.03-5 Rural residential and rural living development

#### Overview

Rural residential development is defined as the development of single dwellings on lots of between 0.4 hectare and 2.0 hectares. Rural living is defined as residential development on lots between 2 hectares and 16 hectares. The Land Capability Study of the Cardinia Shire,1997 undertaken for the Cardinia Shire Council recognises that the indiscriminate development of land for small lot rural and rural residential purposes may result in extensive land and water degradation, loss of high-quality agricultural land and unnecessarily high development and maintenance costs.

**Objective 1 -** To recognise the demand for rural residential and rural living development, and to provide for this development where it is closely integrated with an existing township or urban area.

#### **Strategies**

• Ensure that rural residential and rural living development is appropriately located to minimise its impact on surrounding agricultural land.

**Objective 2 -** To ensure development reflects a high quality of design and does not result in environmental degradation.

#### **Strategies**

- Ensure subdivisions and developments are designed to take into account the constraints of the area and limit detrimental impacts to the surrounding environment.
- Ensure that rural residential and rural living development on land affected by environmental hazards and constraints is undertaken in a manner which prevents environmental degradation and minimises any risk from hazards.
- Ensure that any proposal for rural residential and rural living development is assessed in relation to its ability to contain all wastewater within the site.
- Ensure that proposed development will not increase and will adequately control pest plants and pest animals on site.

These policies have been considered in preparation of this proposal and are addressed under **Planning Considerations** in this report.

#### 14. Designated Bushfire Prone Area

The subject site is located in a designated bushfire prone area as shown in Figure 6.

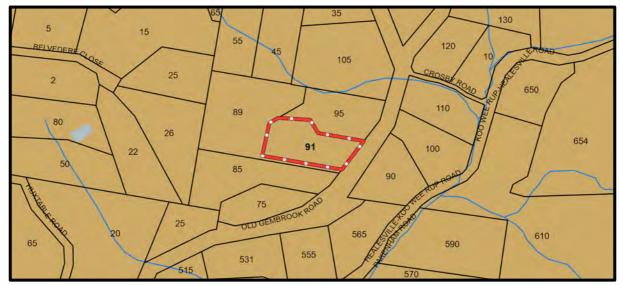


Figure 6: The subject site is shown marked with a red dashed line identify it is located in a Designated Bushfire Prone Area (Department of Transport & Planning, 2023)

The policy under Clause 13.02-1S (Bushfire planning) must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land that is within a designated bushfire prone area. In a bushfire prone area designated in accordance with regulations made under the Building Act 1993, bushfire risk should be considered when assessing planning applications for accommodation.

When assessing a planning permit application for the above uses and development:

Consider the risk of bushfire to people, property and community infrastructure.

The subject site adjoins Old Gembrook Road, which is a fire track road, however is close to Pakenham Road, which is the main road in this area. The driveway will be an all-weather surface to providing appropriate access for emergency vehicles and allow residents to easily egress from the site, should there be any bushfire threat.

A defendable space of 35 metres wide and/or to the title boundary, whichever is less will be provided around the proposed dwelling. An 10 metre wide defendable space will be provided around the sheds.

There will also be further bushfire protection measures implemented as described below to ensure the safety and protection of the residents and property.

Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk.

Copyright © - State Government of Victoria Disclaimer:

Bisclaimer: This content is provided for information purposes only. No claim is made as to the accuracy or authenticity of the content. The Victorian Government does not accept any liability to any person for the information provided.

Read the full disclaimer at https://www.delwp.vic.aov.au/disclaimer

Notwithstanding this disclaimer, a vendor may rely on the information in this report for the purpose of a statement that land is in a bushfire prone area as required by section 32C (b) of the Sale of Land 1962 (Vic).

PLANNING PROPERTY REPORT: 91 OLD GEMBROOK ROAD PAKENHAM UPPER 3810

Page 4 of 4

Management of the defendable space and the pastures, particular through the summer season will contribute to reducing bushfire risk around the dwelling and sheds.

There will be a 10,000 litre water tank installed within 4 metres of the driveway for the purpose of bushfire management.

The driveway will be constructed as an all-weather surface to ensure emergency vehicles can access the site.

Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts.

Not applicable.

#### 15. Planning Considerations

- The subject site is located in Green Wedge A Zone that is recognised for its rural living attributes, whilst ensuring the protection of the land's agriculture and landscape, which this development has considered and complies with Clause 11.01-1R.
- The architecture and design of the development will integrate well into the landscape based on the low profile and the raw colour & texture of the mix of building materials, complimenting the rural landscape and complying with Clauses 12.05-2S & 15.01-6S.
- The dwelling will be constructed to a BAL rating 29 and provide a 35 metre defendable space around the dwelling and/or to the title boundary, whichever is less. The proposed sheds will provide a defendable space of 10 metres in width. The provision of a 10,000 litre water tank will be used for the purpose of bushfire management exclusively. The tank will be within 4 metres of the driveway. The open pastures will be managed, particularly during the summer months. The driveway will also be an all-weather pervious driveway to provide accessibility to the dwelling and outbuildings. The development will comply with Clauses 13.02-15, 21.02-2 & 21.02-4.
- The development will not impact the adjoining properties to the north, west and south of the site as these properties are mainly used for rural living purpose and therefore, the proposed development should meet Clause 21.03-5.
- The development will be able to connect to the existing electricity services along Old Gembrook Road. A 60,000 litre water tank will provide water supply for the dwelling. The land capability assessment recommends a secondary wastewater treatment system that will be able to manage the wastewater on site. These utilities will comply with Clauses 16.01-55 & 21.03-5.
- The existing remnant trees on site will be retained and protected during the construction of this development and comply with Clauses 21.02-2 & 21.03-5.



# **Land Capability Assessment** 91 Old Gembrook Road, Pakenham Upper



Report Number: 23241\_002



#### 1. SUMMARY

The following summary table should be read in conjunction with the entire report.

Designs wastewater load	7 Bedroom dwelling	1200 L/day
Soils characteristics	<u>Horizon A</u>	<u>Horizon B</u>
Soil category	4b Clay Loam	5b Light clay
Indicative permeability	0.12-0.5 m/d	<0.06 m/d
Critical site features	Onsite dam.	
	<ul> <li>High annual rainfall</li> </ul>	
	<ul> <li>Low permeable clay soils</li> </ul>	
	<ul> <li>Large wastewater load</li> </ul>	
Minimum treatment requirements	Seconda	ary
Disposal system	<u>Suitability</u>	Area required
Absorption trenches	Not suitable	N/A
Subsurface Irrigation	Suitable	720 m²
ETA Beds	Suitable	150 m²
Mound	Suitable	90 m²
Wastewater can be sus	stainably disposed to land	Yes



#### 2. INTRODUCTION:

A.C. Geotechnical Pty Ltd (AC) have been engaged to undertake a Land Capability Assessment (LCA) at 91 Old Gembrook Road, Pakenham Upper.

The objectives of the assessment was to determine the following:

- Sub-surface ground profile and geological setting.
- The depth to groundwater (if encountered).
- The permeability of the soil profile.
- The capability of the site to sustainably manage wastewater within the allotment boundaries.
- A management program that should be put into place to minimise health and environmental impacts of on-site wastewater management, including the impact on surface water and groundwater.

#### 2.1 Proposed Development:

It is proposed to construct a new seven (7) bedroom residence on the site.

#### 3. SITE DESCRIPTION:

#### 3.1 Site Location:

The subject site is located on the west side of Old Gembrook Road, approximately 250 south of the junction with Crosby Road. The site is surrounded by similar size properties, the assumed land use of these properties is summarised in **Table 3.1**.

Table 3.1 -Surrounding land use

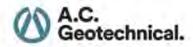
North	Low density residential	
South	Low density residential	
East	Low density residential	
West	Low density residential	

#### 3.2 Site Topography and Condition:

The site has a gentle to moderate slope down to the north. A large dam is located close to the north boundary.

Vegetation on the site comprises open pasture with a few isolated trees.

Site photographs are included in **Appendix B.** 



#### 3.3 Key Site Information:

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

A summary of site characteristic and wastewater loading are included in Table 3.3.

Site Address	91 Old Gembrook Road, Pakenham Upper
Owner/Applicant	
Local Council	Cardinia
Zoning	Green Wedge A (GWAZ)
Total Land Area	Approximately 1.99 ha
Domestic Water Supply	Reticulated/Tank
Anticipated wastewater loads (Litres/day)	EPA Code of practice - onsite wastewater management (2016) Household with full water reduction fixtures: 150 L / person / day. Persons = no. bedrooms + 1 (7 + 1 = 8 persons)  Design wastewater load 8 x 150 = 1200 L / day
Organic Material Loading Design Rates	EPA Code of practice - onsite wastewater management (2016) 60 g per person per day (8 x 60) = 480 g/day
Availability of sewer	Sewer is not likely to become available to this area in the near future
Groundwater Quality	Groundwater is classified as Potable (500-1000 mg/L TDS) www.vvg.org.au
Water Table	Local registered bores in the area suggest the ground water is held approximately 50 m below the surface
Climate	Average annual rainfall 1009.0 mm
Flood Potential	Outside a 1 in 100-year flood event
Water catchment area	N/A
Proximity to waterways	Onsite dam
Vegetation	Pasture grasses, scattered trees
Exposure	Generally open north facing slopes
Slope	Gentle to moderate slope down to the north
Landform	Hills
Erosion Potential	Negligible
Surface Drainage	Good
Rocks and Rock Outcrop	None



#### 3.4 Site Geology:

According to the Geological Survey of Victoria, the site is in an area of Devonian aged metamorphic hornfel. An extract from GeoVic 3 is included in **Figure 3.4**.

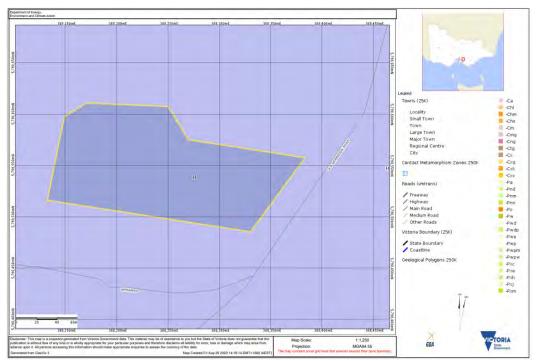


Figure 3.4 Extract of Geological from GeoVic 3

#### 4. SOIL ASSESSMENT AND CONSTRAINTS:

#### 4.1 Soil Profile:

The soil profile encountered during the investigation consisted of grey clayey silt overlaying orange/brown, medium plasticity, silty clay with minor gravels.

The critical soil horizon are the medium plasticity silty clay.

No groundwater was encountered during this investigation.

No abnormal moisture conditions were identified through this assessment.

Borelogs are included in **Appendix C.** 

#### 4.2 Site Exposure:

A general assessment of the site exposure is as follows:

The site is exposed to the prevailing winds. The proposed effluent disposal area is generally exposed to sun and wind all year round.



#### 4.3 Soil Assessment:

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Laboratory analysis on each sample collected included the following:

- Texture Analysis using ribboning technique.
- Modified Emerson Analysis.
- Electrical Conductivity.
- pH analysis.

A summary of the analysis is included in Table 4.3

Table 4.3 -Summary of soil assessment

BORE HOLE 1	SAMPLE DEPTH: 200mm	SAMPLE DEPTH: 600mm
SOIL ASSESSMENT (AS1547-2012)	SOIL HORIZON: A	SOIL HORIZON: B
Soil Colour	Grey	Orange/brown
Soil Texture	Clay loam	Light clay
Coarse Fragments (%)	None	<10%
Soil Structure	Weak	Moderate
Soil Dispersion	Non-dispersive	Non-dispersive
Soil Permeability	0.12-0.5 mm/d	0.06-0.12 mm/d
Soil Category	4b	5b
pH 1:5 Ratio Electronic Method	5.92	6.01
<b>Electrical Conductivity</b>	0.062 dS/m	0.078 dS/m
Salinity Hazard	Non-saline	Non-saline



Figure 4.3 Laboratory Analysis



#### 4.4 Field Assessed Permeability:

Insitu permeability testing with a constant head permeameter was undertaken in multiple locations across the site, see site plan for locations in **Attachment A**, in accordance with AS 1547-2012 using the constant-head test method. The field assessed permeability was calculated using the Talsma-Hallam constantly maintained head of water equation identified in AS 1547-2012.

$$K_{sat} = \frac{4.4 \text{ Q } [0.5 \text{sinh}^{-1}(\text{H/2r}) - \sqrt{(r/\text{H})^2 + 0.25} + r/\text{H}]}{2\pi \text{H}^2}$$

#### Where:

 $K_{sat}$  = saturated hydraulic conductivity of the soil in cm/min.

4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation.

Q = rate of loss of water from the reservoir in cm<sup>3</sup>/min.

H = depth of water in the test hole in cm.

r = radius of the test hole in cm.

A summary of permeability results are included in Table 4.4. Permeability Calculations are included in Appendix D.

Table 4.4 -Summary of insitu permeability

#### **Constant Head Permeability**

#### Indicative permeability (Ksat)

0.09m/day

Note: The results in the table above are based on average readings taken from the test holes.

The corresponding Ksat value of 0.09 m/day in EPA Onsite Wastewater Management – Code of Practice Publication No. 891.4 July 2016 Appendix A Table 9 is category 5 (Light clay soil).

#### 4.5 Critical site Features:

The critical site features are:

- Onsite dam.
- High annual rainfall
- Low permeable clay soils
- Large wastewater load



#### 5. LAND CAPABILITY ASSESSMENT MATRIX:

**Table 5.1** and **Table 5.2** includes a Land Capability Assessment (LCA) matrix in accordance with EPA Publication 746.1. The LCA has been developed for the whole site however soils information relates to soils within the vicinity of the proposed Land Application Area (LAA).

Table 5.1 -Land capability assessment matrix - Site

Land Features	Land Capability Class Rating					Site Rating	Comments	Mitigation	
	Very Good (1)	Good (2)	Fair (3)	Poor (4)	Very Poor (5)				
	C	General Ch	aracteristic	cs					
Site drainage	No visible signs of dampness	Moist soil but no standing water		Visible signs of dampness i.e. water tolerant plants	Water ponding on surface	1	No abnormal moisture conditions	N/A	
Runoff	None	Low	Moderate	High	Very High	2	Low runoff potential	Minimum setback distances can be maintained	
Flood / inundation potential (yearly return exceedance)	Nev	ver	< 1 in 100	>1 in 100 to <1 in 20	> 1 in 20	1	No floor potential	N/A	
Proximity to water courses	> 60 m	netres		< 60 m	netres	4	Onsite dam	Secondary treatment of wastewater required and 30 m setback to dam	
Slope (%)	0 - 2	2 - 8	8 – 12	12 – 20	> 20	3	Gentle to moderate slope down to the north	N/A	



Landslip	No potential for failure		Low potential for failure	High potential for failure	Present or Past Failure			
Groundwater table (m) seasonal watertable depth	>5.0	2.5 – 5.0	2.0 – 2.5	1.5 – 2.0	<1.5	1	Groundwater held at approximately 50 m below the surface	N/A
Rock Outcrops (% of land surface containing rocks >200mm)	0%	<10%	10-20%	20-50%	>50%	1	None	N/A
Erosion Potential	No erosion potential	Minor	Moderate	High	Severe erosion potential	1	Negligible	Maintain current level of surface cover where practical
Exposure	High sun and wind exposure		Moderate	Low sun and wind exposure		1	North facing open slope	N/A
Landform	Hill crests, convex side slopes and plains		Concave side slopes and foot slopes		Floodplai ns and incised channels	1	Hills	N/A
Vegetation Type (land application area)	Turf or pasture				Dense Forest	1	Open pasture	N/A
Fill	No Fill present		Fill Present			1	No fill encountered	N/A
Rainfall (mm/yr) <sup>2</sup>	<450	450 - 650	650 – 750	750 - 1000	>1000	5	Average annual rainfall of 1009.0 mm	LAA size to be determined by water balance calculations
Pan evaporation (mm/yr) <sup>3</sup>	>1500	1250 - 1500	1000 – 1250	-	<1000	3	Annual evaporation of 1063.4 mm	LAA size to be determined by water balance calculations



Table 5.2 -Land capability assessment matrix - Soils

	Soi	l Profile C						
Profile depth	>2.0m	1.5–2.0m	-	1.0-1.5m	<1.0m	5	Deep soil profile	N/A
Shrinkage* (%)	Low <4%	Moderate 4-12%	High 12-20%	Very High >20%		2	Medium plasticity clay soils	N/A
Permeability* (m/d)	0.15-0.30		0.06-0.08 0.60-1.50	- 1.50-2.00	<0.06 >2.00	3	Light clay soils	LAA size to be determined by water balance calculations
Soil Permeability Category 1	2 and 3	4		5	1 and 6	4	Light clay soils	LAA size to be determined by water balance calculations
Coarse fragments* (%)	<10	10-20	20-40		>40	1	<10%	N/A
Emerson Test* (dispersion / slaking)	4,6,8	5	7	2,3	1	1	Non-dispersive	N/A
Electrical Conductivity (Ece) (dS/m)	<0.3	0.3-0.8	0.8-2.0	2.0-4.0	>4.0	1	Non-saline	N/A
рН	6-8		4.5-6		<4.5, >8	3	Slightly acidic	N/A

<sup>&</sup>lt;sup>1</sup> Source: AS1547-2012

<sup>&</sup>lt;sup>2</sup> Source BOM station – Beaconsfield Upper (086261)

<sup>&</sup>lt;sup>3</sup> Source BOM station – Scoresby Research Institute (086104) 2019

<sup>\*</sup> Relevant to soil layer(s) associated with wastewater application



#### 6. MANAGEMENT PROGRAM:

The onsite wastewater system design and management program must suit the capability of the site and will consider the proposed development. The following sections discuss the inputs used to assess the suitability and requirements of EPA approved land based systems. Detailed design for the system is beyond the scope of this study.

#### **6.1** Treatment System:

Based on site conditions and constraints outlined in the previous sections, secondary treatment of effluent is considered necessary for sustainable management of wastewater.

Untreated domestic wastewater typically has values of 200-300mg/L biochemical oxygen demand (BOD5) and 200-300mg/L total suspended solids (TSS). Indicative target effluent quality for secondary treatment systems are < 20mg/L BOD5, < 30mg/L TSS and <10cfu/100mL E.Coli.

The two most common options capable of achieving the desired performance are, aerated wastewater treatment systems (AWTS) and single pass sand filters. A summary of these systems is outlined below.

#### 6.1.1 Aerated Wastewater Treatment System (AWTS):

AWTS are pre-fabricated or pre-engineered treatment systems designed to treat small wastewater flows. They are tank-based systems that typically employ the following processes:

- Settling of solids and flotation of scum in an anaerobic primary chamber.
- Oxidation and consumption of organic matter through aerobic biological processes.
- Clarification secondary settling of solids; and
- Disinfection prior to disposal.

Good maintenance of AWTS (e.g. removal of sludge) is essential to ensure a consistently high level of performance. By law, AWTS are required to be serviced quarterly by an approved maintenance contractor.

#### 6.1.2 Sand Filters:

Sand filters provide advanced secondary treatment to water that has already undergone primary treatment in a septic tank or similar device. They contain approximately 600mm depth of filter media (usually medium to coarse sand, but other media can be incorporated) within a lined excavation containing an underdrain system. Selection of the filter media is critical, and a carefully designed distribution network is necessary. A dosing well and pump is normally used to allow periodic dosing. Depending on the desired level of treatment, sand filters can be single pass or may incorporate partial recirculation.

#### **6.2** Treatment System Location:

Based on requirements of EPA 891.4, above-ground and in-ground treatment systems must comply with the same setback distances to building footings and boundary fences as land application systems.



#### 6.2.1 Septic Tank Sizing:

The minimum septic tank size should be 3,000 L.

#### **6.3** Land Application:

A range of possible land application systems have been considered, such as absorption trenches/beds, evapotranspiration/absorption (ETA) beds, mound systems and sub-surface irrigation. AS1547:2012 outlines factors affecting the construction and operation of common land application systems and a guide to selecting a system taking into consideration site features, subsurface soil conditions and identified constraints. The suitability of EPA approved land based systems are discussed in **Table 6.3.** 

**Table 6.3 Land Application System** 

Land Application	Description	Site Suitability
Absorption Trenches	Trenches are the most common type of land application	Not considered suitable, due to large
	system and are generally used on lots which are reasonably	setback distances requires to onsite
	flat and where water soaks into the soil readily in all weather	dam and large wastewater load
	conditions. Commonly, distribution pipes, self-supporting arch	
	trenching or box trenching are laid in trenches filled with	
	aggregate/rock. Effluent then soaks into the surrounding soil.	
ETA Beds	Beds are shallower forms of trenches. Because beds have	Suitable
	smaller sidewall area compared with trenches, the absorption	
	provided by sidewall loading is reduced. This is compensated	
	for by reducing the design loading rate.	
Mound System	A mound system permits the absorption area to be sited in a	Suitable
	location where the natural water table or impermeable rock	
	approaches the ground surface. The mound is filled with	
	medium-grade sand to provide suitable filtering before	
	intercepting the natural soils. A pump/siphon dosing system	
	distributes effluent uniformly through a bed of aggregate	
	placed at the top of the mound.	
	The sand media in the mound system acts as a secondary	
	treatment system, removing the need for a separate sand	
	filter or AWTS	
Sub-surface Irrigation	Subsurface drip irrigation requires secondary treated effluent	Suitable
	dosing lines buried in the topsoil at shallow depth. Irrigation	
	systems operate by both soil absorption and	
	evapotranspiration from plants/trees	

#### 6.3.1 Disposal systems:

Water balance modelling has been undertaken to calculate the minimum size of the LAA. The water balance takes into account the average annual rainfall, evaporation data, the daily effluent load, the design irrigation/loading rates for secondary treated effluent, the seasonal crop factor and the retained rainfall. The water balance model is designed so that the land application area is based upon a depth of saturated soil (i.e. water stored within indicative soil porosity) that meets the upper limits of acceptance for each land application method. The water balance must ensure that the soil can sustain growth during the summer months. The design system parameters used for the water balance calculations are summarised in **Table 6.3.1**.



Table 6.3.1 Design System Parameter

Treatment system	Application System	DIR / DLR	Runoff coefficient	Maximum depth	storage
Primary treatment	Absorption trenches		Not Suitable		
Secondary treatment	ETA Beds	8	25%	0 mm	
	Mound System*	8	25%	0 mm	
	Sub-surface irrigation	3.5	25%	0 mm	

<sup>\*</sup> Mound disposal system incorporates a secondary treatment sand media, removing the requirement for a separate secondary treatment system

#### **6.4** Land Application Outputs:

Minimum Land Application Area (LAA) sizing for each application method was calculated using water balance calculations. LAA sizing calculations are included in **Appendix D**. The minimum required disposal area for each system is summarised in **Table 6.4**.

Table 6.4 Required Land Application Area (LAA)

Disposal system	Minimum LAA required	
Wastewater output	1200 L / day	
Absorption trenches	<u>Not Suitable</u>	
Subsurface irrigation	710 m <sup>2</sup>	
ETA Beds	150 m <sup>2</sup>	
Mound	90 m²	

#### **6.5** Preferred System:

The preferred system for this site included secondary treatment of all wastewater via an AWTS, worm farm or sand filter with disposal to land via subsurface irrigation with a minimum distribution area of  $710 \text{ m}^2$ .

#### **6.6** Designated Area:

The Land Application Area (LAA) shall be located in a designated area to enhance evapotranspiration and shall:

- Not be used for purposes that compromise the effectiveness of the system or access for maintenance.
- Be used only for effluent application.
- Have boundaries clearly delineated by appropriate vegetation or other type of border.
- Have no run-off seepage or effluent beyond the designated area.

The site plan in **Appendix A** presents several potential areas suitable for LAA placement as well as setback areas from site features which must be maintained. Please note that the final LAA placement is the responsibility of the owner and should be included in a detailed design providing the minimum LAA and setback distances are maintained.



The required LAA will be smaller than that marked on the site plan. An appropriately sized LAA, as discussed in **Section 6.4**, must be located entirely within the area nominated on the site plan.

Setback distances for secondary treated wastewater disposal are included in **Section 6.6.1**.

#### 6.6.1 Setback Distances:

The minimum setback distances for secondary treated wastewater are summarised in **Table 6.6.1.** The proposed LAA must adhere to these minimum setback distances.

**Table 6.6.1 Minimum Setback Distances** 

Landscape feature or structure	Setback distance (m) (secondary treated wastewater)
Building	
Wastewater field up-slope of building	3
Wastewater field down-slope of building	1.5
Wastewater field up-slope of cutting/escarpment	15
Allotment boundary	
Wastewater field up-slope of Allotment boundary	3
Wastewater field down-slope of Allotment boundary	1.5
<u>Services</u>	
Water supply pipe	1.5
Wastewater field up-slope of potable supply channel	150
Wastewater field down-slope of potable supply channel	10
Gas supply pipe	1.5
In-ground water tank	7.5
Stormwater drain	3
Recreational areas	
Children's grassed playground	3
In-ground swimming pool	3
<u>Surface water – up-slope of</u>	
Waterway, non-potable creeks, dams, channels	30
<u>Groundwater bores</u>	
Category 2b to 6 soils	20

#### **6.7** Monitoring, Operation and Maintenance:

The septic tank is de-sludged every 3 years; however, this frequency may vary depending on the following conditions.

- whether the tank is an adequate size for the daily wastewater flow
- the composition of the household and personal care products
- the amount of organic matter, fat, oil and grease washed down the sinks
- the use of harsh chemicals such as degreasers
- overuse of disinfectants and bleaches
- the use of antibiotics and other drugs, especially dialysis and chemotherapy drugs
- whether any plastic or other non-organic items are flushed into the tank.



After pump-out, tanks must not be washed out or disinfected. They should be refilled with water to reduce odours and ensure stability of plumbing fixtures. A small residue of sludge will always remain and will assist in the immediate re-establishment of bacterial action in the tank.

To ensure the treatment systems function adequately, residents must:

- Use soapy water (made from natural unscented soap), vinegar and water or bi-carbonate of soda and water to clean toilets and other water fixtures and fittings.
- Read labels to learn which bathroom and laundry products are suitable for septic tanks.
   Generally plain, noncoloured, unscented and unbleached products will contribute to a well-functioning septic tank.
- Use detergents with low levels of salts (e.g. liquid detergents), sodium absorption ratio, phosphorus and chlorine (see www.lanfaxlabs.com.au).
- Wipe oils and fats off plates and saucepans with a paper towel and dispose of in the kitchen compost bin.
- Use a sink strainer to restrict food scraps entering the septic system.
- Ensure no structures such as pavements, driveways, patios, sheds or playgrounds are constructed over the tank or absorption trench area.
- Ensure the absorption trench area is not disturbed by vehicles or machinery.
- Engage a service technician to check the sludge and scum levels, pumps and alarms annually.
- Keep a record of the location of the tank and the trenches and all maintenance reports (including the dates of tank pump-outs, tank inspections and access openings) and ensure the service technician sends a copy of the maintenance report to the local Council.
- Have the tank desludged when the combined depth of the scum and sludge is equal to the depth of the middle-clarified layer.

Indications of failing septic tanks and soil absorption trenches

- Seepage along effluent absorption trench lines in the soil.
- Lush green growth down-slope of the soil absorption trench lines.
- Lush green growth down-slope of the septic tank.
- Inspection pits and/or the soil absorption trenches consistently exhibiting high water levels.
- Soil absorption trench lines become waterlogged after storms.
- General waterlogging around the land disposal area.
- Presence of dead and dying vegetation (often native vegetation) around and down-slope of the land disposal areas.
- A noxious odour near the tank and the land disposal area.
- Blocked water fixtures inside the house, with sewage overflowing from the relief point.
- High sludge levels within the primary tank (within about 150 mm of inlet pipe).
- Flow obstructed and not able to pass the baffle in the tank.
- The scum layer blocking the effluent outflow.



#### 6.7.1 Storm Water Management:

All stormwater must be disposed of to the legal point of discharge.

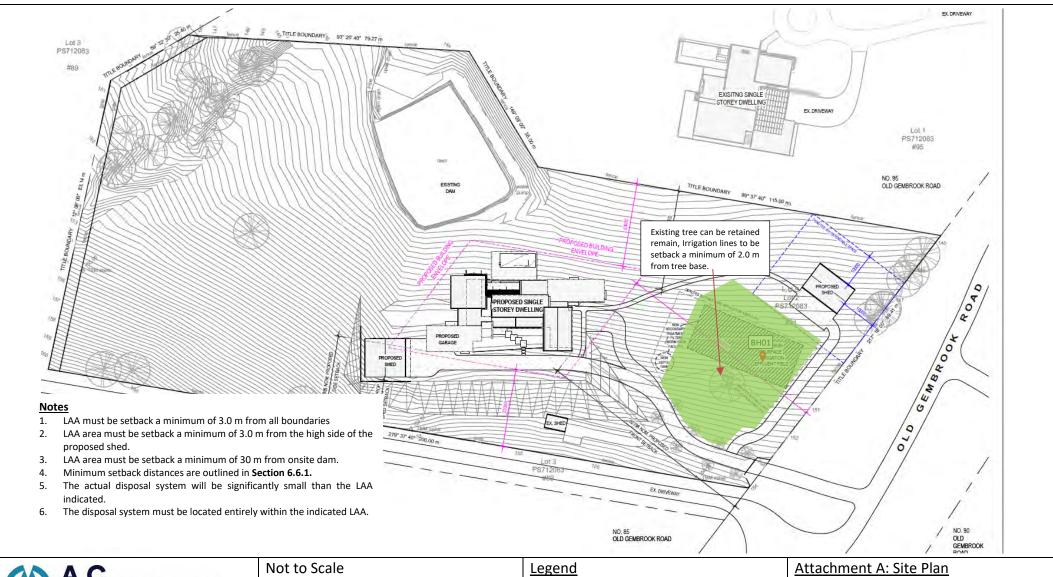
**Note:** An agricultural drain (AG) must be installed on the high side of the wastewater envelope. The drain is to be installed a minimum of 100mm into the naturally occurring clay soils and allow sufficient fall to intercept and drain all overland and subsurface run-off to a legal point of discharge. If a legal point of discharge cannot be obtained, the drainage line may discharge directly to the surface soils, a minimum distance of 10 metres beyond the wastewater disposal area.

#### 7. CONCLUSIONS:

From this investigation it is concluded that the use of an on-site wastewater treatment and disposal system is environmentally sustainable if the recommendations made in this report are followed.

#### 8. REFERENCES:

- Environmental Protection Authority Guidelines for Environmental Management Code of Practice – Onsite Wastewater Management, July 2016 ~ Publication 891.4
- Municipal Association Victoria (MAV) January 2014, Model Land Capability Assessment Framework
- Australian/New Zealand Standard AS/NZS 1547-2012 On-site domestic wastewater management.
- A.C. Geotechnical Pty Ltd Field and Laboratory data (where applicable) collected and recorded.
- Environmental Protection Authority "Code of Practice Septic Tanks", March 1996" ~ Publication 451.
- Environmental Protection Authority, Information Bulletin- "Land Capability Assessment for onsite Domestic Wastewater Management", March 2003 ~ Publication 746.1.





Investigation locations are approximate



**Investigation Location** Suitable disposal area

91 Old Gembrook Road Pakenham Upper















		Borehole Record BH01	A.C. Geotec	chnical. Page 1/1
Project	Number	23241_002	Date	15/08/2023
	ject	Land Capability Assessment	Drilling Method	HA
	ation	91 Old Gembrook Road, Pakenham Upper	Logged	AC
Depth				
(m)		Description		
0.00	Clayey SILT (N	/IL): Grey, firm, moist.		
			Dist	curbed sample - 0.2 m
0.50	Silty CLAY (CI)	: medium plasticity, orange/brown, stiff, moist, near plast	tic limit.	
				turbed sample - 0.6 m
2.00		Borehole terminated - target depth achieved		
2.00		Borenole terminateu - target deptir achieveu		

# INSITU CONSTANT HEAD PERMEABILITY



Project Address:		91 Old Gembro	ook Road			Project Number:	23241			
Location:		Pakenham Up	per			Date:	25/08/202	23		
Client:								2014-25-C		
				INPUT DATA						
1	Borehole					Reservoi				
Borehole diameter		100	cm		Diameter		97 mm			
Borehole Depth		500	cm		Base area		295.4426 mm2			
Water level from surface		250	cm							
Depth of water in hole		250	cm							
				FIELD DATA						
	Test 1	Test 2	Test 3	Test 4						
Time intervals (min)		Water depti	n in reservoir							
Initial Depth	200	200	200	200						
5										
10										
15										
20	192	191	195	193	Average					
Q (cm2/min)	11.817704	13.294917	7.386065	10.340491	10.70979425					
Ksat (cm/min	0.007595333	0.00854475	0.004747083	0.006645917	0.006883271					
Ksat (m/d)	0.109372798	0.123044398	0.068357999	0.095701199	0.099119099					

## WATER BALANCE ETA BEDS



Project Address:		91 Old (	embroo	k Road				Project	Number	-	23241			
Location:		Pakenha	m Uppe					Date:			25/08/2	023		
Client:														
		- 6		INPL	T DATA									
Daily flow allowance (per person		150	Ļ											
Daily wastewater volume		1200	L											
Effluent quality		Seco	ndary											
Effective rainfall		0.75	%											
Soil texture		Ligh	clay											
Soil structure		Mod	erate											
Soil category		0.06	-0.12											
Indicative Permeability		0.06-0.1	Ksat											
				ETA	BEDS									
DLR		10	mm/d											
Porosity		40	%											
Maximum Storage Depth		200	mm											
Crop Factor - standard pasture		0.85	0.85	0.85	0.6	0.6	0.6	0.6	0.6	0.6	0.85	0.85	0.85	
crop factors -Lucene		0.95	0.9	0.85	0.8	0.7	0.55	0.55	0.65	0.75	0.85	0.95	1	
Crop factor - Shade		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Crop factor - woodlot		1	1	1	1	1	1	1	1	1	1	1	1	
Rainfall Data	Beaconsfiel	ld Upper (08	6261)											
Evaporation Data	Scoresby Re	esearch Inst	tute (086	5104)										
Parameter	Unit	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Days in month		31	28	31	30	31	30	31	31	30	31	30	31	365
Rainfall (mm)		65.6	61.9	69.5	81.3	89.1	88.4	89.1	96.3	98.4	97.9	92	79.5	1009
Evaporation (mm)		164.4	125.3	109.7	73	46.4	26	34.9	50.2	70.9	97.1	124.4	141.1	1063.4
Output														
Evapotranspiration (mm)		139.74	106.51	93.245	43.8	27.84	15.6	20.94	30.12	42.54	82,535	105.74	119.94	828.54
Percolation (mm)		310	280	310	300	310	300	310	310	300	310	300	310	3650
Total Output (mm)		449.74	386.51	403.25	343.8	337.84	315.6	330.94	340.12	342.54	392.54	405.74	429.94	4478.5
Inputs														
Effective Rainfall (mm)		49.2	46.425	52.125	60.975	66.825	66.3	66.825	72.225	73.8	73.425	69	59.625	756.75
Application Rate (mm)		248	224	248	240	248	240	248	248	240	248	240	248	2920
Total Inputs (mm)		297.2	-386.5	300.13	300.98	314.83	306.3	314.83	320.23	313.8	321.43	309	307.63	3676.8
Storage Calculations														
Waste Loading (mm)		400.54	340.08	351.12	282.83	271.02	249.3	264.12	267.9	268.74	319.11	336.74	370.31	
Volume of Wastewater (mm)		37200	33600	37200	36000	37200	36000	37200	37200	36000	37200	36000	37200	438000
Cumulative Storage (mm)		0	0	0	0	0	0	0	0	0	0	0	0	
Area													150	m2
Width													3	m
Length													30	m

## WATER BALANCE SUBSURFACE IRRIGATION



Project Address:		91 Old G	iembrool	k Road				Project	Number		23241			
Location:		Pakenha	ım Uppeı					Date:			25/08/2	023		
Client:														
		-		INPU	T DATA									
Daily flow allowance (per person		150	L											
Daily wastewater volume		1200	L											
Effluent quality		Seco	ndary											
Effective rainfall		0.75	%											
Soil texture		Clay	loam											
Soil structure		We	akly											
Soil category		4	ь											
Indicative Permeability		0.12-0.5	Ksat											
			SU	BSURFAC	E IRRIGA	TION								
DLR		3	mm/d											
Porosity		45	%											
Maximum Storage Depth		20	mm											
Crop Factor - standard pasture		0.85	0.85	0.85	0.6	0.6	0.6	0.6	0.6	0.6	0.85	0.85	0.85	
crop factors -Lucene		0.95	0.9	0.85	0.8	0.7	0.55	0.55	0.65	0.75	0.85	0.95	1	
Crop factor - Shade		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Crop factor - woodlot		1	1	1	1	1	1	1	1	1	1	1	1	
Rainfall Data	Beaconsfield	d Upper (08	6261)											
Evaporation Data	Scoresby Re	search Insti	tute (086	5104)										
Parameter	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Days in month		31	28	31	30	31	30	31	31	30	31	30	31	365
Rainfall (mm)		65.6	61.9	69.5	81.3	89.1	88.4	89.1	96.3	98.4	97.9	92	79.5	1009
Evaporation (mm)		164.4	125.3	109.7	73	46.4	26	34.9	50.2	70.9	97.1	124.4	141.1	1063.4
Output														
Evapotranspiration (mm)		139.74	106.51	93,245	43.8	27.84	15.6	20.94	30.12	42.54	82.535	105.74	119.94	828.54
Percolation (mm)		93	84	93	90	93	90	93	93	90	93	90	93	1095
Total Output (mm)		232.74	190.51	186.25	133.8	120.84	105.6	113.94	123.12	132.54	175.54	195.74	212.94	1923.5
Inputs														
Effective Rainfall (mm)		49.2	46.425	52.125	60.975	66.825	66.3	66.825	72.225	73.8	73.425	69	59.625	756.75
Application Rate (mm)		52.394	47.324	52.394	50.704	52.394	50.704	52.394	52.394	50.704	52.394	50.704	52.394	616.9
Total Inputs (mm)		101.59	-190.5	104.52	111.68	119.22	117	119.22	124.62	124.5	125.82	119.7	112.02	1373.7
Storage Calculations														
Waste Loading (mm)		183.54	144.08	134.12	72.825	54.015	39.3	47.115	50.895	58.74	102.11	126.74	153.31	
Volume of Wastewater (mm)		37200	33600	37200	36000	37200	36000	37200	37200	36000	37200	36000	37200	438000
Cumulative Storage (mm)		0	0	0	0	0	11.404	16.684	18.183	10.147	0	0	0	
Land area required													710	m2

## WATER BALANCE MOUND SYSTEM



Project Address:		91 Old 6	iembroo	k Road				Project I	Number		23241			
Location:		Pakenha	Pakenham Upper			Date:				25/08/2	023			
Client:														
				INPU	T DATA									
Daily flow allowance (per person		150	L											
Daily wastewater volume		1200	L											
Effluent quality		Seco	ndary											
Effective rainfall		0.75	%											
Soil texture		Clay	loam											
Soil structure		We	akly											
Soil category		4	b											
Indicative Permeability		0.12-0.5	Ksat											
				MOUN	D SYSTEM	/i								
DLR		16	mm/d											
Porosity		40	%											
Storage Depth		Ó	mm											
Crop Factor - standard pasture		0.85	0.85	0.85	0.6	0.6	0.6	0.6	0.6	0.6	0.85	0.85	0.85	
crop factors -Lucene		0.95	0.9	0.85	0.8	0.7	0.55	0.55	0.65	0.75	0.85	0.95	1	
Crop factor - Shade		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Crop factor - woodlot		1	1	1	1	1	1	1	1	1	1	1	1	"
Rainfall Data	Beaconsfie	eld Upper (08	6261)											
Evaporation Data	Scoresby F	Research Insti	tute (086	5104)										
Parameter	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Days in month		31	28	31	30	31	30	31	31	30	31	30	31	36
Rainfall (mm)		65.6	61.9	69.5	81.3	89.1	88.4	89.1	96.3	98.4	97.9	92	79.5	100
Evaporation (mm)		164.4	125.3	109.7	73	46.4	26	34.9	50.2	70.9	97.1	124.4	141.1	1063.
Output														
Evapotranspiration (mm)		139.74	106.51	93,245	43.8	27.84	15.6	20.94	30.12	42.54	82.535	105.74	119.94	828.5
Percolation (mm)		496	448	496	480	496	480	496	496	480	496	480	496	584
Total Output (mm)		635.74	554.51	589.25	523.8	523.84	495.6	516.94	526.12	522.54	578.54	585.74	615.94	6668.
Inputs														
Effective Rainfall (mm)		49.2	46.425	52.125	60.975	66.825	66.3	66.825	72.225	73.8	73.425	69	59.625	756.7
Application Rate (mm)		413.33	373.33	413.33	400	413.33	400	413.33	413.33	400	413.33	400	413.33	4866.
Total Inputs (mm)		462.53	-554.5	465.46	460.98	480.16	466.3	480,16	485.56	473.8	486.76	469	472.96	5623.
Storage Calculations														
Waste Loading (mm)		586.54	508.08	537.12	462.83	457.02	429.3	450.12	453.9	448.74	505.11	516.74	556.31	
Volume of Wastewater (mm)		37200	33600	37200	36000	37200	36000	37200	37200	36000	37200	36000	37200	43800
Cumulative Storage (mm)		0	0	0	0	0	0	0	0	0	0	0	0	
Basal Area													90	m2

### **NUTRIENT BALANCE**



Project Address: Location: Client:	91 Old Gembrook Road Pakenham Upper			Project Number: Date:	23241 25/08/2023
	Nitro	geb Balance -Nitro	ogen		
Hydraulic Loading		1200	l/day		
Effluent N concentration		25	mg/l		
Daily N loading		30000	mg/day		
Annual N loading		10950000	mg/year		
Denitrification loss		20	%		
Denitrification loss		8760000	mg/year		
Total annual N loading		8.76	kg/year		
Plant uptake		220	kg/ha/year		
Minimum area for uptake		398	m2		



Copyright State of Victoria. No part of this publication may be reproduced except as permitted by the Copyright Act 1968 (Cth), to comply with a statutory requirement or pursuant to a written agreement. The information is only valid at the time and in the form obtained from the LANDATA REGD TM System. None of the State of Victoria, its agents or confractors, accepts responsibility for any subsequent publication or reproduction of the information.

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, next, present and emerging

# REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

Page 1 of 1

VOLUME 12282 FOLIO 847

Security no: 124109991512M Produced 24/10/2023 10:01 AM

#### LAND DESCRIPTION

Lot 2 on Plan of Subdivision 712083Y. PARENT TITLE Volume 06648 Folio 566 Created by instrument PS712083Y 02/02/2021

#### REGISTERED PROPRIETOR



#### **ENCUMBRANCES, CAVEATS AND NOTICES**

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

AGREEMENT Section 173 Planning and Environment Act 1987 AT820383V 01/12/2020

#### **DIAGRAM LOCATION**

SEE PS712083Y FOR FURTHER DETAILS AND BOUNDARIES

#### ACTIVITY IN THE LAST 125 DAYS

NIL
-----END OF REGISTER SEARCH STATEMENT----Additional information: (not part of the Register Search Statement)
Street Address: 91 OLD GEMBROOK ROAD PAKENHAM UPPER VIC 3810

#### ADMINISTRATIVE NOTICES

NIL

DOCUMENT END

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Title 12282/847 Page 1 of 1

### PLAN OF SUBDIVISION

#### EDITION 1

## PS 712083 Y

#### LOCATION OF LAND

PARISH: Nar Nar Goon

TOWNSHIP: ---SECTION: ---

CROWN ALLOTMENT: 80F CROWN PORTION: ---

TITLE REFERENCE: Vol. 6648 Fol. 566

LAST PLAN REFERENCE: TP 277797 Q

POSTAL ADDRESS: 89 Old Gembrook Road, Pakenham Upper 3810

(at time of subdivision)

MGA CO-ORDINATES: (of approx centre of land in plan)

E: 368 200 N: 5 790 600

ZONF: 55

GDA 94

Council Name: Cardinia Shire Council

Council Reference Number: S18-056 Planning Permit Reference: T120695 SPEAR Reference Number: S119349V

Certification

This plan is certified under section 6 of the Subdivision Act 1988

Public Open Space

A requirement for public open space under section 18 of the Subdivision Act 1988

**NOTATIONS** 

has not been made

Digitally signed by: Simone Norbury for Cardinia Shire Council on 25/06/2020

Statement of Compliance issued: 07/12/2020

#### VESTING OF ROADS AND/OR RESERVES

**IDENTIFIER** COUNCIL/BODY/PERSON Nil Nil

This is a Spear Plan

#### **NOTATIONS**

DEPTH LIMITATION: 15.24m Below the Surface

This plan is based on survey.

STAGING:

This is not a staged subdivision.

Planning Permit No.

This survey has been connected to permanent marks No(s). ---In Proclaimed Survey Area No. ---

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### **EASEMENT INFORMATION**

R - Encumbering Easement (Road) LEGEND: A - Appurtenant Easement E - Encumbering Easement

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
E-1	Power Line	17.50	Sec. 88 of the electricity industry act 2000	AusNet Electricity Services P/L

**NOBELIUS LAND SURVEYORS** 



P.O. BOX 461 PAKENHAM 3810 Ph 03 5941 4112 mail@nobelius.com.au SURVEYORS FILE REF: 10670

Digitally signed by: Timothy Deane Walker, Licensed

Surveyor's Plan Version (Version B). 15/04/2020, SPEAR Ref: S119349V **PLAN REGISTERED** 

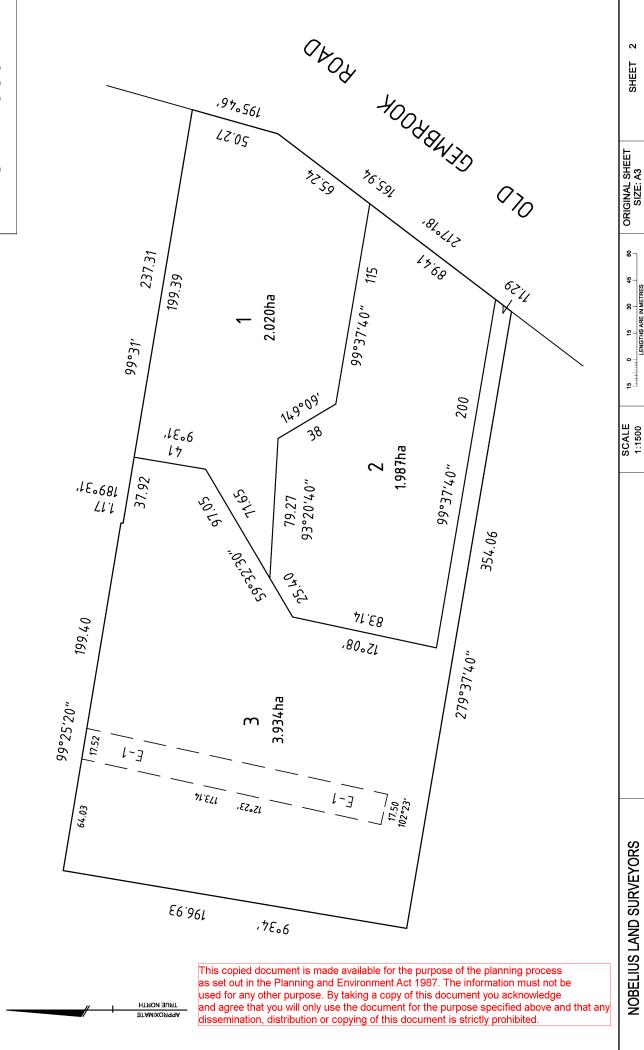
ORIGINAL SHEET

SIZE: A3

TIME: 10.50AM DAT GARY M ROBERTSON DATE: 02/02/2021

SHEET 1 OF 2

Assistant Registrar of Titles



Amended by: Timothy Deane Walker, Licensed Surveyor 02/02/2021

P.O. BOX 461 PAKENHAM 3810 Ph 03 5941 4112 mail@nobelius.com.au

Digitally signed by: Cardinia Shire Council, 25/06/2020, SPEAR Ref: S119349V

Digitally signed by: Timothy Deane Walker, Licensed Surveyor, Surveyor's Plan Version (Version B), 15/04/2020, SPEAR Ref: S119349V

LENGTHS ARE IN METRES

Delivered by LANDATA®, timestamp 24/10/2023 10:04 Page 1 of 7

State of Victoria. This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act 1968 (Cth) and for the purposes of Section 32 of the Sale of Land Act 1962 or pursuant to a written agreement. The information is only valid at the time and in the form obtained from the LANDATA® System. None of the State of Victoria, LANDATA®, Secure Electronic Registries Victoria Pty Ltd (ABN 86 627 986 396) as trustee for the Secure Electronic Registries Victoria Trust (ABN 83 206 746 897) accept responsibility for any subsequent release, publication or reproduction of the information.

### Application by a responsible authority for the making of a recording of an agreement

Section 181 Planning and Environment Act 1987

## AT820383V

#### **Privacy Collection Statement**

The information in this form is collected under statutory authority and used for the purpose of maintaining publicly searchable registers and indexes.

Lodged by

Name:

**DUFFY & SIMON** 

Phone:

0359455220

Address:

DX81001 Pakenham

Reference: DI Customer code:

DDTP207190 18030P

The responsible authority having made an agreement referred to in section 181(1) of the Planning and Environment Act 1987 requires a recording to be made in the Register.

Land:(volume and folio)

CERTIFICATE OF TITLE VOLUME 6648 FOLIO 566

Responsible authority:(full name and address, including postcode)

CARDINIA SHIRE COUNCIL, MUNICIPAL OFFICES, 20 SIDING AVENUE, OFFICER VIC 3809

Section and act under which agreement is made:

SECTION 173 OF THE PLANNING AND ENVIRONMENT ACT 1987

A copy of the agreement is attached to this application:



35271702A

**181PEA** 

Page 1 of 2

THE BACK OF THIS FORM MUST NOT BE USED

Land Use Victoria contact details: see www.delwp.vic.gov.au/property>Contact us

# Application by a responsible authority for the making of a recording of an agreement Section 181 Planning and Environment Act 1987

#### **Privacy Collection Statement**

The information in this form is collected under statutory authority and used for the purpose of maintaining publicly searchable registers and indexes.



This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

35271702A

**181PEA** 

Page 2 of 2

THE BACK OF THIS FORM MUST NOT BE USED

Land Use Victoria contact details: see www.delwp.vic.gov.au/property>Contact us

This Agreement is made on the

day of

2020

#### Between

Cardinia Shire Council of 20 Siding Avenue, Officer, Victoria 3809 ("the Council")

and

("the Owner/s")

#### Recitals

- A. The Owners are registered as owners of the land in Certificate of Title Volume 6648 Folio 566, being Crown Allotment 80F, Parish of Nar Nar Goon and known as 89 Old Gembrook Road, Pakenham Upper. ("the Land").
- B. The Council is the Responsible Authority under the Planning and Environment Act 1987.
- C. Nobelius Land Surveyors on behalf of the Owners, made application to the Responsible Authority for a permit to undertake a three lot subdivision.
- D. The Responsible Authority granted Planning Permit No. T120695 ("the Permit") on 15 December 2015 for the Land to be realigned subject to a condition.
- E. Condition 8 of the Permit provides that before a Statement of Compliance is issued under the Subdivision Act 1988, the owners must enter into an agreement with the Responsible Authority under Section 173 of the Planning & Environment Act 1987 and make application to the Registrar of Titles to have the agreement registered on the title to the land under Section 181 of the Act. To the effect that:
  - a) It has been prepared for the purpose of an exemption from a planning permit under Clause 44.06-1 of this planning scheme for the construction of a dwelling/dependant persons unit on proposed lots 1 & 2 only.
  - b) Specify that any new dwelling or dependent person's unit constructed on proposed lots 1 & 2 in the subdivision must be constructed:
    - Inside the building envelope designated on the BUSHFIREMANAGEMENT PLAN endorsed under this permit and attached to this agreement.
    - To the Bushfire Attack Level (BAL) specified under this permit and in accordance with the relevant sections of AS3959-2009.
  - c) Specify that all land shown as 'Defendable Space' on the BUSHFIRE MANAGEMENT PLAN endorsed under this permit and attached to this Agreement must at all times, and regardless of whether a dwelling is located on the land, be maintained to the defendable space requirements of this permit.

- d) Specify that before the occupation of a dwelling starts on Lot 1 or Lot 2 a static water supply must be provided on the lot which complies with the requirements of this permit.
- e) Include the BUSHFIRE MANAGEMENT PLAN endorsed under this permit as an annexure to the agreement.
- f) Specify that the bushfire protection measures in the Bushfire Management Plan which form part of the section 173 agreement and the planning permit and endorsed plans, including those relating to construction standards (BAL), defendable space, water supply and access must be maintained to the satisfaction of the Responsible Authority on a continuing basis.
- g) The construction of any new dwelling or dependent person's unit on Lots 1 & 2 in the subdivision must be to a Bushfire Attack Level (BAL) of **BAL-29** in accordance with the relevant sections to AS3959-2009.

The land owner must pay the reasonable costs of the preparation, execution and registration of the Section 173 agreement.

The Agreement

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

#### 1. Agreement to be binding on owners and their successors

- (1) The parties acknowledge and agree that this Agreement is made under Section 173 of the Planning and Environment Act 1987.
- (2) The obligations imposed on the Owners are binding on the successors, purchasers, transferees, mortgagees and assigns of the Owners and on any person obtaining possession of the Land or any part of the Land as if each of those persons had individually executed this Agreement.
- (3) The Owners must not sell, transfer, dispose of or part with possession of the Land or any part of it without first disclosing the existence and nature of this Agreement.

#### 2. Covenants

The Owners covenant and agree with the Council that:

- o That it has been prepared for the purpose of an exemption from a planning permit under Clause 44.06-1 of this planning scheme for the construction of a dwelling/dependant persons unit on proposed lots 1 & 2 only.
- Specify that any new dwelling or dependent person's unit constructed on proposed lots 1 &
   2 in the subdivision must be constructed:
  - Inside the building envelope designated on the BUSHFIREMANAGEMENT PLAN endorsed under this permit and attached to this agreement.
  - To the Bushfire Attack Level (BAL) specified under this permit and in accordance with the relevant sections of AS3959-2009.
- Specify that all land shown as 'Defendable Space' on the BUSHFIRE MANAGEMENT PLAN endorsed under this permit and attached to this Agreement must at all times, and

regardless of whether a dwelling is located on the land, be maintained to the defendable space requirements of this permit.

- Specify that before the occupation of a dwelling starts on Lot 1 or Lot 2 a static water supply must be provided on the lot which complies with the requirements of this permit.
- Include the BUSHFIRE MANAGEMENT PLAN endorsed under this permit as an annexure to the agreement.
- o Specify that the bushfire protection measures in the Bushfire Management Plan which form part of the section 173 agreement and the planning permit and endorsed plans, including those relating to construction standards (BAL), defendable space, water supply and access must be maintained to the satisfaction of the Responsible Authority on a continuing basis.
- The construction of any new dwelling or dependent person's unit on Lots 1 & 2 in the subdivision must be to a Bushfire Attack Level (BAL) of BAL-29 in accordance with the relevant sections to AS3959-2009.

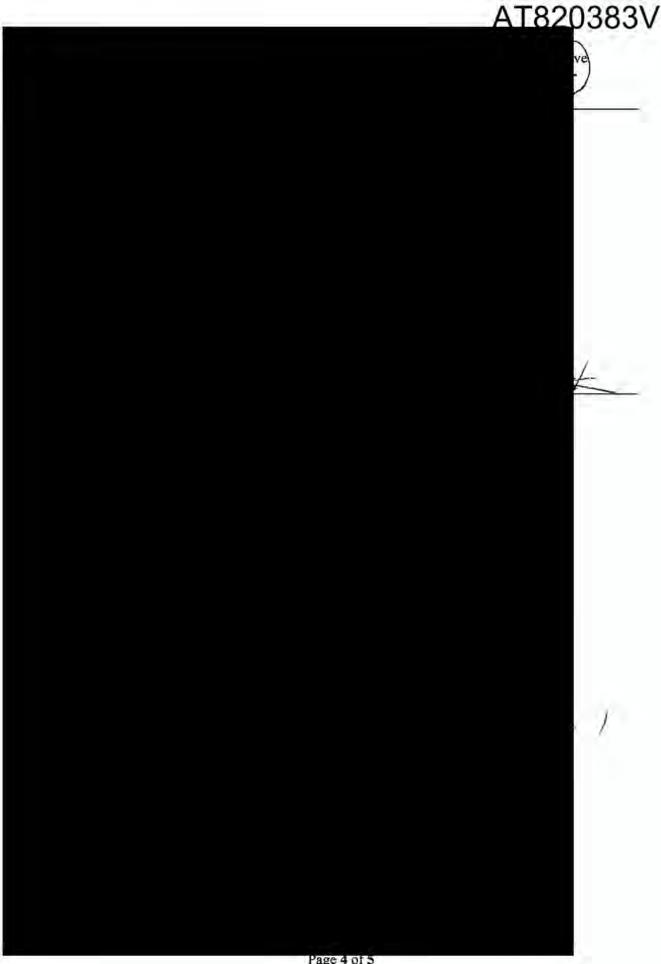
As required in Condition 6 of Planning Permit T120695.

#### 3. Terms and registration of this Agreement

- (1) The terms of this Agreement come into force immediately on execution, and runs with the Land.
- (2) The Owner/s must use their best endeavours to have a memorandum of this Agreement registered on the title to the Land by the Registrar of Titles in accordance with Section 181 of the Planning and Environment Act 1987.

#### 4. Cost

The Owner/s must bear the cost of and incidental to the making and the registration of this Agreement.



Page 4 of 5

Appendix 1. Bushfire Management Plan

