Notice of Application for a Planning Permit



The land affected by		L1 TP18764	L1 TP187644		
application is located at:		19 Hope Str	eet, Bunyip VIC 38	315	
The application is for a permit to:		land into five	Development of the land for five (5) dwellings, subdivision of the land into five (5) lots and a waiver of the visitor car parking requirement		
A permit is required	under the follo	owing clauses of	of the planning sch	neme:	
32.08-3 Subdiv	vide land				
32.08-7 Constr	ruct two or mo	re dwellings or	n a lot		
52.06-3 Reduc	e the number	of car parking	spaces required		
		APPLICA	ION DETAILS		
The applicant for the	e permit is:	Huntsyn Pty L	td atf Huntsyn Prop.	erty Unit Trust	
Application number:		T240407	T240407		
Documents can also be viewed on Council's website at <u>cardinia.vic.gov.au/advertisedplans</u> or by scanning the QR code.					
	НО	W CAN I MAI	KE A SUBMISSI	ON?	
This application has not before a decision has be on the application before	en made. The R			27 June 2025	
Any person who may be affected by the granting of the permit may object or make other submissions • in		objection must: be made to the R	esponsible	The Responsible Authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision or	
		Authority in writin include the reaso objection; and	g;		
If you object, the Respor Authority will notify you o decision when it is issue	of the	state how the obj affected.	ector would be	the application.	
1	2)	App is he	lication ere	6	
	cil initial essment	Notice	Consideration of submissions		

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ePlanning

Application Summary

Portal Reference	A32468ZY
Basic Information	
Proposed Use	Five lot subdivision and development of five new dwellings
Current Use	Single Dwelling
Cost of Works	\$1,800,000
Site Address	19 Hope Street Bunyip 3815

Covenant Disclaimer

Does the proposal breach, in any way, an encumbrance on title such as restrictive covenant, section 173	Not Applicable, no such encumbrances
agreement or other obligation such as an easement or building envelope?	apply.

Contacts

Туре	Name	Address	Contact Details
Applicant	Huntsyn Pty Ltd atf Huntsyn Property Unit Trust	PO BOX 247, Croydon VIC 3136	W: 03-8720-9500 E: planning@millarmerrigan.com.au
Owner	Huntsyn Pty Ltd	60 Wrights Road, Warragul VIC 3820	W: 03-8720-9500 E: planning@millarmerrigan.com.au
Preferred Contact	Duncan van Rooyen Millar Merrigan	PO BOX 247, Croydon VIC 3136	W: 03-8720-9500 E: planning@millarmerrigan.com.au

Fees

Regulation Fee Condition		Amount	Modifier	Payable
9 - Class 13	More than \$1,000,000 but not more than \$5,000,000	\$3,764.10	100%	\$3,764.10
9 - Class 20	To subdivide land (5 Lots)	\$1,453.40	50%	\$726.70
		Total		\$4,490.80

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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 8.30am– 5pm Phone: 1300 787 624 After Hours: 1300 787 624 Fax: 03 5941 3784

Documents Uploaded

Date	Туре	Filename
19-08-2024	A Copy of Title	Title Vol 09089 Fol 907.pdf
19-08-2024	Explanatory Letter	240819 Cover Letter.pdf
19-08-2024	Additional Document	Set of Plans.pdf
19-08-2024	Additional Document	Survey Plan.pdf
19-08-2024	Additional Document	19 Hope Street, Bunyip-SDA v0.pdf
19-08-2024	Additional Document	Arborist Report.pdf
19-08-2024	Additional Document	Landscape Plans.pdf
19-08-2024	Additional Document	MPL26471.pdf
19-08-2024	Additional Document	Neighbourhood and Site Plan.pdf
19-08-2024	Additional Document	Planning Report.pdf
19-08-2024	Additional Document	Storm Report and Roof Plan.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 By

Site User	Hayley Scott-Smith Millar Merrigan	2/126 Merrindale Drive, Croydon South VIC 3136	W: 8720-9500 E: hscott-smith@millarmerrigan.com.au
Submission Date	19 August 2024 - 01:41:PM		

Declaration

By ticking this checkbox, I, Duncan van Rooyen, 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.

E

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Cardinia Shire Council

Request to amend a current planning permit application

Cardinia

This form is used to request an amendment to an application for a planning permit that has already been lodged with Council, but which has not yet been decided. This form can be used for amendments made before any notice of the application is given (pursuant to sections 50 / 50A of the *Planning and Environment Act* 1987) or after notice is given (section 57A of the Act).

PERMIT APPLICATION DETAILS

Application No.:	
Address of the Land:	

APPLICANT DETAILS

Name:	
Organisation:	
Address:	
Phone:	
Email:	

AMENDMENT TYPE

Under which section of the Act is this amendment being made? (select one)		
Section 50 – Amendment to application at request of applicant before notice:		
Section 50A - Amendment to application at request of responsible authority before notice:		
Section 57A – Amendment to application after notice is given:		

AMENDMENT DETAILS

What is being amended? (select all that apply)				
What is being applied for	Plans / other documents	Applicant / owner details		
Land affected	Other			
Describe the changes. If you need more space, please attach a separate page.				

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Specify the estimated cost of any development for which the permit is required:				
Not applicable	Unchanged 🖌	New amount \$		

DECLARATION

I declare that all the information in this request is true and correct and the owner (if not myself) has been notified of this request to amend the application.

Name:	
Signature:	(on behalf of Millar Merrigan)
Date:	

LODGEMENT

Please submit this form, including all amended plans/documents, to mail@cardinia.vic.gov.au

You can also make amendments to your application via the Cardinia ePlanning Portal at https://eplanning.cardinia.vic.gov.au/

If you have any questions or need help to complete this form, please contact Council's Statutory Planning team on 1300 787 624.

IMPORTANT INFORMATION

It is strongly recommended that before submitting this form, you discuss the proposed amendment with the Council planning officer processing the application.

Please give full details of the nature of the proposed amendments and clearly highlight any changes to plans (where applicable). If you do not provide sufficient details or a full description of all the amendments proposed, the application may be delayed.

No application fee for s50/s50A requests unless the amendment results in changes to the relevant class of permit fee or introduces new classes of permit fees. The fee for a s57A request is 40% of the relevant class of permit fee, plus any other fees if the amendment results in changes to the relevant class (or classes) of permit fee or introduces new classes of permit fees. Refer to the *Planning and Environment (Fees) Regulations 2016* for more information.

The amendment may result in a request for more under section 54 of the Act and/or the application requiring notification (or re-notification). The costs associated with notification must be covered by the applicant.

Council may refuse to amend the application if it considers that the amendment is so substantial that a new application for a permit should be made.

Any material submitted with this request, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the *Planning and Environment Act* 1987.

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The Votorian Government addressingers the Traditional Owners of Votoria and pays respects to their origining connection to their Country, History and Gallare. The Votorian Government extensis this respect to their Extens, pass, present and energing.

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

Page 1 of 1

VOLUME 09089 FOLIO 907

Security no : 124117542742D Produced 19/08/2024 12:06 PM

LAND DESCRIPTION

Lot 1 on Title Plan 187644T. PARENT TITLE Volume 03704 Folio 747 Created by instrument F349951 20/06/1974

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.

DIAGRAM LOCATION

SEE TP187644T FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

Additional information: (not part of the Register Search Statement)

Street Address: 19 HOPE STREET BUNYIP VIC 3815

DOCUMENT END

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Document Type	Plan
Document Identification	TP187644T
Number of Pages	1
(excluding this cover sheet)	
Document Assembled	19/08/2024 12:06

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TITLE P	PLAN			EDITION 1	TP 1876	0441
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Township Sention:						
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Crowe Portion						
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Land Development Consultants

In reply quote: 30927/3.1 dvh:ls Document Id: 240619 to council - RFI

24 April 2025

Planning Department mail@cardinia.vic.gov.au

Attention

Dear

Re: L1 TP187644, 19 Hope Street, Bunyip VIC 3815 Application No. T240407 PA

Further to your request for further information on the 24th of March 2025, please find attached the following supporting documents:

- Section 50 Form
- Overall Site Plan (ref 30927P2_V3)
- Ground Floor Plan (ref 30927P3_V3) Sheet 1 & 2
- Building Elevations (ref 309270P4_V3) Sheet 1 & 2
- Shadow Diagrams (ref 309270P5_V3)
- PPOS (ref 30927P6_V3)
- Garden Area Plan (ref 30927P7_V3)
- Landscape Plan (ref 30927L01_V3 Sheets 1-4
- Car Turn Diagram (ref 30927P11 V3) Sheet 1 & 2

In response to the request for further information, please note the following responses:

- A completed S50 form has been attached alongside this submission, identifying the permit trigger for a proposed carriageway easement.
- 2. Plans have been amended to show SPOS areas that are under 3m as POS area.
- Development summary box has been amended to indicates accurate POS and SPOS. See attached Overall Site Plan for further information.
- In response to the overlooking concerns present from unit 3 and 4 we have now amended our plans to include a proposed 1.8m high paling fence atop the retaining wall with a proposed 0.3m and 0.35m high free standing trellis.

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Figure 1: Extract from the Overall Site Plan showing overlooking

5. Landscaping Plan have been amended to show 'An' label on landscape plans as Acaena novaezelandiae. See below extract.

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STRAPPY LEAF PLANTS & GROUNDCOVERS

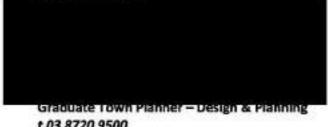
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6. A section 50 Form has been attached identifying the permit trigger for a proposed carriageway easement.

Yours faithfully Millar | Merrigan



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t 03 8720 9500

e lsolomon@millarmerrigan.com.au Enc.

Land Development Consultants

In reply quote: 30927/3.1 dvh:ls Document Id: 240619 to council - RFI

24 February	2025
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Planning Department mail@cardinia.vic.gov.au

Attention

Dear

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Re: L1 TP187644, 19 Hope Street, Bunyip VIC 3815 Application No. T240407 PA

Further to your request for further information dated 16 September 2024, please find attached the following supporting documents:

- Overall Site Plan (ref 30927P2_V2)
- Ground Floor Plan (ref 30927P3_V2) Sheet 1 & 2
- Building Elevations (ref 309270P4_V2) Sheet 1 & 2
- Shadow Diagrams (ref 309270P5_V2)
- PPOS (ref 30927P6_V2)
- Garden Area Plan (ref 30927P7_V2)
- Car Turn Diagram (ref 30927P11_V2) Sheet 1 & 2
- Landscape Plan (ref 30927L01_V2 Sheets 1-4
- Arborist Report
- Storm Rating Report
- Waste Management Plan
- Roof Area Plan (ref30927E 00 F1-F2)

In response to the request for further information, please note the following responses:

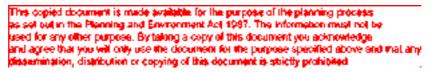
- 1. The attached Town Planning Report has been amended to include:
 - a. A written response to Clause 53.18 (Stormwater Management in Urban Development).
 - A detailed response to the Bunyip Township Strategy, with particular regard to the precinct character guidelines; and,
 - c. Whether the power meter box is proposed to serve all dwellings.
- A detailed STORM report has been completed. Achieving a 60% percent STORM rating) in accordance with Clause 55.03-4 (Permeability and stormwater management objectives) and Clause 53.18 (Stormwater Management in Urban Development).
- A waste management plan (WMP) has been prepared by a suitably qualified professional which includes the following information:

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- Plan that clearly shows 120lt garbage (mandatory) + 240lt recycling (mandatory) + 120
 OR 240lt green waste bin (mandatory)+ Glass bin (optional) + hard waste collection location, that is three (3) bin plus hard waste presentation.
- b. Bin storage area that allows a minimum of 4 bins per dwelling.
- c. The bin storage area currently exceeds 40 meters from bin presentation area by a minor 10m. The only other option would be positioning the bins storage area along the southern boundary within the common property. Although meeting the preferred 40m distance from the bin presentation area this outcome would be less than beneficial resulting in the bins being directly in front of the proposed dwelling on lot 2 as well as taking away from an area that would be better used for landscaping. Additionally this would also mean the residents of Lot 4 will need to walk 10m away from their property to put rubbish in their bins as opposed to their bins being within there SPOS area as generally preferred.
- d. Presentation area that provides space for a minimum of 3 bins to be presented kerbside at the same time per dwelling.
- e. Maps of sufficient size (to scale 1:100 and/or 1:200) showing:
 - i. Adequate access and turning circles for Councils waste Vehicles for Aus Roads 8.8 Service vehicle.
 - ii. Location, type, size and number of dwellings proposed at the site, including the number of bedrooms within each dwelling.
 - iii. Location of waste and recycling for storage and collection (specifying number and size of bins).
 - iv. Collection hazards on street, e.g. traffic slow point device, or nearby intersections.
 - v. Existing or proposed parking bays (both within property and/or on street).
 - vi. Existing or proposed parking signage (both within property and/or on street).
 - vii. Any other existing or proposed feature(s) or hazard(s) that has or will have the potential to affect waste & recycling collections in any way, whether within the property, on the nature strip or the roadway.
 - viii. Designated hard waste collection area.

Requested

- 4. An updated Arborist Report prepared by Damien Burgess (DB Horticulture) has been submitted alongside this application.
- 5. See response in Preliminary concerns "private open space".
- 6. Garden area plan has been updated and now provides dimensions of all areas shown to contribute to garden area in metres and square metres. The plan excludes all areas not included in the garden area calculations in accordance with the definition of Garden Area at <u>Clause 73.01 (General Terms)</u>.



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7. PPOS plans have been updated to show all boundaries, dimensions, easements, common property and lot sizes.

Information required as part of the Site Plan/s

Fully dimensioned plans drawn to a set scale (preferably A3 in size), clearly showing the following have been included:

8. Internal dimensions of each room.

9. All proposed power meter boxes/panels clearly shown (if meter box in common property does not serve all dwellings.)

10. Swept path diagrams demonstrating that a B85/B99 vehicle can access car parking spaces has been shown in the attached Car Turn Diagrams.

11. Setbacks of all habitable room windows of the 'Master Bedroom' to Dwelling 4 from the southern boundary. (Not applicable as dwelling have been updated)

12. The overall dimensions and sill heights for all habitable room windows on the northern and southern sides of the development.

Information required as part of the Elevation Plans

Fully dimensioned plans drawn to a set scale (preferably A3 in size), clearly showing the following:

- 13. All proposed power meter boxes/panels clearly shown.
- 14. Overlooking diagrams for south windows on Lot 3-5.

In response to the preliminary issues based on the initial assessment of the proposal, we provide the following comments:

Car parking reduction trigger and additional fees

A section 50 form has been submitted to now include the permit trigger for a reduction in number of car parking spaces required under <u>Clause 52.06-5</u>. No visitor parking space has been provided for this development as there is suitable on street parking available as well as three of the dwellings having their own private driveways. This will allow for tandem parking to be achieved on their respective lots. Town planning report has been amended to include this permit trigger.

Standard B6 - Street Setback

Standard B6 states "Porches, pergolas and verandahs that are less than 3.6 metres high and eaves may encroach not more than 2.5 metres into the setbacks of this standard."

The building heights of both the porches that front Hope and Petunia Street have been appropriately lowered to meet the 3.60m at the point of encroachment requirement and therefore may encroach on the front setback by 2.5m. See porch heights below.

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Standard B26 – On-Site Amenity and Facilities

The proposed dwellings on lot 2, 3 and 4 are appropriately identifiable from the street with each respective lots mailboxes located along the street frontage. Lots 3 and 4 are both identifiable from the street frontage looking down each of their respective driveways. It is not a requirement under <u>*Clause 55.05-1*</u> for a pedestrian pathway to be provided from the street frontage. The dwellings at 37 Hope Street are all of a similar arrangement.



Photograph 1: Existing subdivision at 37 Hope Street, Bunyip

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Croydon 2/126 Merrindale Drive, Croydon VIC 3136 Morwell 156 Commercial Road, Morwell VIC 3840 Yarrawonga 91 Belmore Street, Yarrawonga VIC 3730

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Standard B28 - Private Open Space

Areas of SPOS & POS have now been clearly shown in the overall site plan in yellow. Each dwelling is provided with an appropriate amount of open space meeting the requirements of <u>*Clause 55.05-4*</u> which stipulates 40sqm with one part of the private open space to be consistent of SPOS at the side or rear of the dwelling with a minimum of 25smq and a minimum dimension of 3m. Lot 1 is provided with 105sqm of POS and 35sqm of SPOS, lot 2 is provided with 109sqm of POS with 88sqm of SPOS, lot 3 is provided with 110sqm of POS and 76sqm of SPOS, lot 4 is provided with 104sqm of POS and 52sqm of SPOS and lot 5 is provided with 124sqm of POS and 29sqm of SPOS.

Garden Area

The attached Garden Area Plan has been amended to accurately include all dimensions, be reflective of the existing lot sizes and not be rounded to the next whole number. With a total lot size of 2024sqm the total garden area it 708sqm which equates to 35%.

Vegetation Impacts

A Construction Impact Assessment has been submitted within the Arborist report. See attached report for further information in regard to T6, T8, T10 and T12 (Can all be viably retained) as well as mitigation methods for neighbouring trees.

STORM Report and BESS

An updated Storm Report has been attached showing in line with the BESS report within the Sustainable Design Assessment (SDA) prepared by Frater Consulting Services.

Crossovers and Vehicle Access

The access to the subject site via Petunia Street has been amended from having two crossovers to now only having one double crossover. This crossover provided efficient access to both lots 4 & 5 and is more in line with Bunyips rural township in which the established neighbourhood character encourages the minimisation of crossovers.

The proposal for two crossovers along Hope Street will be retained with one being an existing crossover and the other being a proposed single crossover. Both are deemed necessary to provide appropriate access to 3 different lots. Similar crossover arrangements exist within the area such as no.26 Hope Street, no.25 Princess Street and 27 Princess Street, Bunyip. As such this proposal is in keeping with the emerging neighbourhood character of the area.

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Photograph 2: No.26 Hope Street, Bunyip



Photograph 3:No.25 Princess Street, Bunyip



Photograph 4:No.27 Princess Street, Bunyip

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Number of Dwellings/Lots

This proposal offers a sufficient layout design for medium density dwelling on this site. The front and side setbacks of each dwelling are of an appropriate length ranging from a minimum of 1m at its side and rear. This space allows ample space for landscaping to occur as seen in the proposed landscape plan where a canopy tree is proposed in each lots front and rear yard.

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We believe the proposal of five dwellings is a more appropriate use and outcome of the site given its location and in meeting the growing need for housing, housing diversity and affordable housing on current underutilised land in an established urban area, that is generally unconstrained.

Other lots within the area, which are already established such as 11 & 13 Petunia Street and 39 Hope Street both comprise of lots with a similar density. By providing smaller varying lot sizes such as these and the proposed we are able to provide a diversity of lot sizes to meet the changing and varying needs of the population and provide lower maintenance lots for those wishing to have small gardens.

Additionally, this proposal is considered in line with the Bunyip Township Strategy for the following reasons:

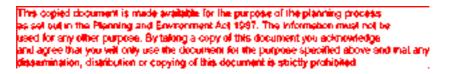
- The Front setbacks over 7m are proposed to ensure that the built form of the proposed dwellings does not become dominant on the street.
- A proposed landscape plan will be incorporated to ensure that a mixture of native trees and large shrubs remains a strong feature within the site.
- A maximum building coverage of 46% is proposed ensuring that there is adequate space for landscaping to occur on the site.
- Although a lot of density of 1:404.8sqm is proposed it is seen as necessary to facilitate the growth of residential development desired within the area.



Figure 1: Land checker image showing surrounding lot sizes and subdivisions

Internal Referrals

We propose to relocate the exiting light pole within the road reserve of Petunia Street as opposed to removal.



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Yours faithfully Millar | Merrigan

t 03 8720 9500 e <u>Isolomon@millarmerrigan.com.au</u> Enc.

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Planning Report

19 HOPE STREET, BUNYIP



Five (5) lot subdivision and development of five (5) new dwellings

Reference: 30927

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Land Development Consultants

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Millar & Merrigan Pty Ltd trading as Millar Merrigan ACN 005 541 668

Metro:

2/126 Merrindale Drive, PO Box 247 Croydon, 3136 Telephone 03 8720 9500 Facsimile 03 8720 9501

Regional:

156 Commercial Road Morwell, 3840 email@millarmerrigan.com.au www.millarmerrigan.com.au

Site Address:

19 Hope Street, Bunyip

Formal Land Description:

Lot 1 TP187644

Proposal:

Five (5) lot subdivision and development of five (5) new dwellings

Responsible Authority:

Cardinia Shire Council

Document Status:

Version: Date	Description	Prepared by	Checked by
No 1: July/2024	Planning Application		
No 2: February 2025	Amended according to RFI		

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Executive Summary

Millar Merrigan have been engaged to lodge this planning application for a *Five (5) lot subdivision* and development of five (5) new dwellings at 19 Hope Street, Bunyip.

The site is a standard residential allotment developed with a single dwelling. It is zoned <u>General</u> <u>Residential Zone, Schedule 1</u> and is not impacted by any overlays. The site is contained within an established residential neighbourhood that is within close proximate to local facilities and services such as Bunyip station which is only 700m away.

The proposal is for a staged development where stage 1 will involve the development of 3 single storey dwellings on lots 1, 2 and 3 and stage 2 which will involve the development of 2 additional single storey dwellings on the remaining lots 4 and 5. Overall five new dwellings are proposed, all of which are designed to respect the neighbourhood character and provide a diversity of housing types and housing growth is an appropriate form of infill development.

The site is located in a designated Bushfire Prone Area (BPA). Future building construction and planning controls apply to developments in BPAs and aim to improve bushfire protection for residential buildings and other sensitive land uses.

The Metropolitan Planning Levy applies to this site given it is covered by the Cardinia Planning Scheme. A MPL certificate is attached and submitted as a part of this application.

The proposal has been designed to meet the objectives and standards of <u>Clause 55: Two or more</u> <u>dwellings in a lot</u> and <u>Clause 56: Subdivision</u>.

This report seeks to demonstrate how the subdivision and development is appropriate in terms of achieving State and Local planning objectives.

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1 Site & Neighbourhood Analysis

1.1 Site Description

The following components provide a description of the existing site conditions:

Size, shape, orientation and easements	 Total size is 2024m² Rectangular in shape Located on the western side of Hope Street with abuttal to Petunia Street to the rear East (Hope Street) - 20.12m West (Petunia Street) - 20.12m North- 100.48m South- 100.48m
Existing development and fencing	 Single dwelling, cubby, gravel driveway and concrete path and outbuilding. Paling fencing ranging in height from 1m to 1.8m present along sections of the northern and southern boundaries. Irregular star picket and wire fence is present at the rear along Petunia Street and a 4m high screen hedge is available along the frontage to Hope Street.
Access and car parking	 A double crossover shared with the neighbouring property along the easter boundary off Hope street provides access to a gravel driveway. No vehicle access to Petunia Street.
Topography and earthworks	The site falls 7.43m from east to westNo known cut or fill present
Vegetation	 The site has a number of trees along the northern and southern aspect, within and overhanging the site. One street tree is present along the Hope street frontage. An arborist report is provided with full details of all trees on site and within the street reserve.
Views, noise and services	 Views to the site from Hope Street, Camellie Drive, Petunia Street and Webb Street. No significant views from the site. No noticeable noise is apparent All services are available to the site

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Figure 1: Aerial view of the subject site

1.2 Site Photographs



Photograph 1: View looking into the subject site from Hope Street



Photograph 2: The rear view of the existing dwelling on the subject site



Photograph 3: View along the southern boundary of the subject site



Photograph 4: View towards Petunia Street from the subject site

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1.3 Neighbourhood Description

The following components contribute to the character of the neighbourhood:

Land	use	and
devel	opm	ent

- Land is zoned for residential purposes
- A mix of original lot sizes are present in the area. •
- pattern
- There is also an increasing number of subdivided lots and proposed developments emerging (see figure 2).



Figure 2: Extract from Vic Plan showing lot sizes and developments within the surrounding area.

	 Dwellings date from the 1970's to current day Dwellings are detached or semi-detached. Roof styles are pitched in tiles or Colorbond
Access and car parking	• Car parking structures are generally located within rear yards or are attached to the sides of dwellings.
Landscape	 Front setbacks and road reserves contain grassed lawns and small planted vegetation. Walls on one side boundary, particularly in newer developments.
and street	 Topography across the neighbourhood is gently sloping. The site falls 7.43 from east to west. Lot sizes vary with no particular pattern that warrants preservation. Roads are generally bitumen and contain concrete footpaths along both sides
Locality to existing infrastructure	• Plan Melbourne (2017-2050) is a strategic document that aims to guide the growth of metropolitan Melbourne. A key direction is to create a '20-minute neighbourhood', where housing, educational facilities, shops, public transport, recreational reserves and employment opportunities are concentrated around nominated activity centres. The subject site is within close proximity to a variety of facilities & services including Bunyip Station (700m away), Bunyip Primary School (500m away), Bunyip Recreation Reserve (1.2km away) and Columba Catholic Primary School (450m away) (see figure 3).





Figure 3: Map of nearby facilities and services.

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1.4 Neighbourhood Photographs



Photograph 5: Existing Subdivision at 9 Hope Street, Bunyip



Photograph 6: Existing Subdivision at 5 Hope Street, Bunyip



Photograph 7: Existing Subdivision at 39 Hope Street, Bunyip

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2 Proposal

Given the particular site conditions, the existing building on site, the surrounding neighbourhood character and the applicable planning controls, it was considered appropriate to subdivide the land into five lots, remove the existing dwelling and construct five new dwellings one to front Hope Street, one to front Petunia Street and the remainder addressing the internal driveway. This is proposed to be completed as a staged development where stage 1 will involve the development of dwellings on lots 1, 2 and 3 and stage 2 which will involve the development of dwellings on the remaining Lots 4 and 5.

The following should be read in conjunction with the accompanying suite of plans.

2.1 Development / Subdivision Layout

2.1.1 Site Layout & Lot Sizes

Each allotment is proposed to contain a modest single storey family home that comprises of three bedrooms amongst other features including:

- Front porch and entries.
- Combined open plan kitchen, living and dining areas.
- Powder room, bathroom and laundry areas.
- Master bedroom with ensuites.
- Two additional bedrooms.
- Outdoor paving or decking, accessed from the living areas.
- Double garages.

Dwelling 1 is designed to face Hope Street where it is setback 9m from the frontage and accessed via a private driveway. Dwellings 2 and 3 are situated to the rear of dwelling 1 with a common accessway off Hope Street.

Dwelling 5 is designed to address Petunia Street where it is setback 7m from the frontage and accessed via a private driveway. Dwelling 4 is situated to the rear of dwelling 5 where it offers a battle axe shaped allotment with a private driveway off Petunia Street.

The lots range in size from 285sqm to 457sqm.

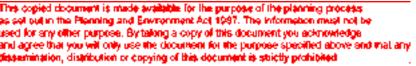
2.1.2 Building Materials & Colours

- Each dwelling is to be constructed of brick with stone posts on the porch with a tiled roof.
- Each dwelling utilises a grey and brown colour scheme of neutral tones.

2.1.3 Access Arrangement & Car Parking

- Hope Street: A single crossover will provide access to dwelling 1 via a driveway located along the north boundary and an additional single crossover will provide access to dwellings 2 and 3 via a common property driveway located along the south boundary.
- Petuina Street: A single crossover will provide access to dwelling 5 via a driveway located along the northern boundary and an additional single crossover will provide access to dwelling 4 via driveway located along the southern boundary.
- Each of the driveways are a minimum of 3m wide.
- The driveways for lots 2, 3 and 4 have been designed to allow vehicles to turn around and leave in a forwards direction.

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2.1.4 Vegetation Removal/Retention & Landscape Design

An Arboricultural Assessment Report (DB Horticulture August 2024) has been prepared for the site and include trees within vicinity of the proposed works and in the street reserve. The following can be concluded:

- Tree 19, Tree 15, Tree 16 and Groups of trees 14, 17 and 18 are proposed for removal to facilitate the proposed development.
- Each of the proposed dwellings maintain generous boundary setbacks to allow for substantial landscaping to occur across the entire site.
- A total of 10 new canopy trees are to be introduced to the site, including 2 in the front setback to Hope street and 2 in the front setback to Petunia Street to improve views into the site from the street and filter views of the built form.
- Landscaping alongside each of the driveways will soften the appearance of the hardscaped areas.
- The proposed understorey will add visual interest and colour to the site through the seasons.

2.1.5 Infrastructure Servicing

- All reticulated services are available within the abutting road reserves.
- Council have advised that the drainage discharge point for the site is to the existing drainage infrastructure within Petunia Street.

3 Specialist Reports

3.1.1 Arboricultural Assessment

An Arboricultural Assessment Report (DB Horticulture December 2024) has been prepared for the site and include trees within vicinity of the proposed works and in the street reserve. Included within this is a Construction Impact Assessment.

3.1.1 Storm Rating Report

A Storm Rating Report was completed by Melbourne Water and given an overall Storm rating of 60%.

3.1.2 Waste Management Plan

Waste collection is discussed in detail in a Waste Management Plan prepared by Frater Construction Services.

It is proposed that all bins will be stored in each townhouses respective garage or POS. This will make it easy for residents to store or roll out bins to their respective collection points on collection day.

Sufficient kerbside space is available to present all bins with minimum 300mm spacing between each bin. A maximum of six bins will utilize Hope Street and four will utilise Petunia Street.

4 Sustainable Design Assessment

A Sustainable Design Assessment has been provided by Frater.

A STORM rating of 60% can be achieved using 2,000L water tanks on each dwelling.

Please refer to the Frater report for more information.

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5 Planning Assessment

The following is an outline of the planning policy framework relevant to the site. A comprehensive analysis of the proposal against this matrix of applicable policy is provided below.

Zoning	
Clause 32.08	General Residential Zone – Schedule 1
Overlays	
Planning Policy Fra	mework
PPF Clause 11 Clause 11.01 Clause 11.01-1S Clause 11.01-1R	Settlement Vicotria Settlement Settlement -Metropolitan Melbourne
Clause 15 Clause 15.01 Clause 15.01-2S Clause 15.01-3S Clause 15.01-5S	Built Environment and Heritage Built Environment Building Design Sustainable Design Neighbourhood Character
Clause 16 Clause 16.01 Clause 16.01-1S Clause 16.01-1R Clause 16.01-2S	Housing Residential Development Housing Supply Housing Supply – Metropolitan Melbourne Housing Affordability
LPPF Clause 21.01 Clause 21.03 Clause 21.03-4 Clause 21.03-5 Clause 21.08	Cardinia Shire Key Issues and Strategic Vision Settlement and Housing Rural Township Rural Residential and Rural Living Development Local Areas – Western Port Region (Bunyip)
Particular Planning	
Clause 52.06 Clause 53.01 Clause 55 Clause 56 Clause 65	Car Parking Public Open Space Contribution Two or more Dwellings on a Lot and Residential Buildings Residential Subdivision Decision Guidelines

5.1 Permit Triggers

The following table outlines the permit triggers that apply to the proposal:

Planning control	Permit trigger
Clause 32.08 – GRZ1	To subdivide LandTo construct two or more dwellings on a lot

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5.2 Zoning

General Residential Zone, Schedule 1 (Clause 32.08)

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To encourage development that respects the neighbourhood character of the area.
- To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.

Pursuant to <u>*Clause 32.08-3*</u> a permit is required for subdivision. An application to subdivide land must meet the requirements of <u>*Clause 56*</u>.

Pursuant to <u>*Clause 32.08-4*</u> an application to construct or extend a dwelling, small second dwelling or residential building must provide a minimum garden area of 35% for sites above 650m².

Pursuant to <u>*Clause 32.08-7*</u> a permit is required to construct a dwelling if there is at least one dwelling existing on the lot. A development must meet the requirements of <u>*Clause 55*</u>.

Pursuant to <u>*Clause 32.08-11*</u> a building must not be constructed for use as a dwelling or residential building that: exceeds the maximum building height specified in a schedule to this Zone or 11 metres, or more than 2 storeys at any point.

Response – GRZ1:

- The proposal is designed to accord with the intent and requirements of the General Residential Zone. It provides for more affordable housing opportunities on smaller allotments that are within walking distance to a range of services and facilities, making it a prime location for residential development.
- The proposed density of 1:404.8sqm is considered appropriate and in keeping with the housing density emerging in the immediate area.
- The proposed setbacks, and low scale-built form, of single storey dwellings respond appropriately to the surrounding neighbourhood character, particularly the front setback which reflects the neighbouring dwelling on either side of the subject site
- The proposal achieves a 'garden area' of 35% which exceeds the minimum requirement for a site of this size.
- A permit is triggered under the Zone to both subdivide land and construct a dwelling if there is at least one dwelling existing on the lot.
- An assessment against the objectives of <u>Clause 55 Two or more dwellings on a lot</u> and <u>Clause 56 – Residential Subdivision</u> is provided further below.
- The maximum building height proposed is 6.07 metres which is well below the 11 metre limit.

5.3 Overlays

No Overlays Applicable

5.4 Planning Policy Framework

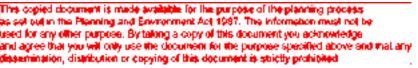
The Planning Policy Framework is structured around the following themes; those relevant to this application are discussed below:

5.4.1 Settlement (Clause 11)

<u>Settlement (Clause 11.01-1S)</u>

Objective

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To facilitate the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.

5.4.1 Cardinia Shire Key Issues and Strategic Vision (Clause 21.01)

Key Issues (Clause 21.01-3)

Settlement and Housing

- The management of urban growth including urban pressures on the rural hinterland and the Western Port Green Wedge.
- The sustainable development of the Urban Established Areas, Urban Growth Area, and rural townships.
- The integration of health into planning communities to allow people to choose to be active in an environment that is convenient, safe and pleasant.

Particular Use and Development

- Encouraging an attractive, functional and sustainable built form in existing and future development.
- The integration of community safety with new and existing use and development.

Response – Settlement:

- The proposal is appropriate in terms of location, given it is within an existing urban area, is zoned for residential purposes and is within the Metropolitan Melbourne urban growth boundary.
- It responds to site and neighbourhood conditions by increasing density and will aid in provision of more affordable housing opportunities within proximity to local facilities and services.
- It promotes good design and a high level of amenity, which helps to enhance the individual character within the Bunyip area, making it an attractive addition to the neighbourhood.

5.4.2 Environmental Risks & Amenity (Clause 13)

Bushfire Planning (Clause 13.02-1S)

Objective

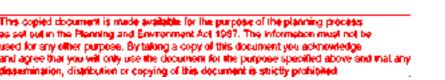
To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.

Response – Environmental Risks & Amenity:

- Only a portion of the subject site is located within a Bushfire Prone Area; however, no Bushfire Management Overlay is applicable indicating the immediate surrounds present an acceptable risk.
- The surrounding landscape is made up primarily of developed land that is appropriately managed to limit bushfire risk.
- Any bushfire requirements can be assessed at building permit stage for the future construction of dwellings as considered necessary.

5.4.3 Built Environment & Heritage (Clause 15)

Building Design (Clause 15.01-2S)



Objective

To achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.

Subdivision Design (Clause 15.01-3S)

Objective

To ensure the design of subdivisions achieves attractive, safe, accessible, diverse and sustainable neighbourhoods.

Neighbourhood Character (Clause 15.01-5S)

Objective

To recognise, support and protect neighbourhood character, cultural identity, and sense of place.

Response – Built Environment and Heritage:

- The proposal has been designed to ensure an appropriate outcome in terms of built form. It responds to the identified opportunities and constraints of the land and respects the character of the neighbourhood.
- The proposed dwelling is to be mostly constructed of brick and has a tiled roof consistent to that of the surrounding built form of dwellings.
- The development will be finished in a modern style and with that are neutral tones of grey and brown.
- The proposed dwellings are low in scale, provide good articulation, are well positioned, and maintain appropriate setbacks to all boundaries. Their low scale nature is consistent with the surrounding area and respects the amenity of adjoining properties.
- A landscape plan accompanies the application, that includes a full landscape design within the front yard which includes, canopy trees, shrubs and ground covers.

5.4.4 Housing (Clause 16)

Housing Supply (Clause 16.01-1S)

Objective

To facilitate well-located, integrated and diverse housing that meets community needs.

Housing Affordability (Clause 16.01-2S)

Objective

To deliver more affordable housing closer to jobs, transport and services.

5.4.5 Settlement and Housing (Clause 21.03)

Housing (Clause 21.03-1)

Key Issues

- Providing for a diversity of housing types and densities, including increased housing density around activity centres.
- Recognising the need for affordability and availability of housing choice for different income levels in both the rental and purchaser markets.

- Recognising the demand for specialist design housing including housing for the aged, people with a disability or mobility issues.
- Providing opportunity for development of 'Affordable Housing'.

Objective 1

• To encourage a diversity in housing to meet the needs of existing and future residents.

Objective 2

• To encourage the provision of housing to cater for groups within the community with specific housing requirements.

Rural Township (Clause 21.03-4) Bunyip is included as a Large Rural Township

Key Issues

Key principles for development include:

- Retaining and enhancing the existing rural township character.
- Setting clear limits for development for the townships.
- Acknowledging that the capacity for growth varies depending on the environmental and infrastructure capacities of each of the towns.
- Designing with regard to the surrounding unique characteristics of the townships.
- To deliver arts and cultural facilities.

Objective 1

 To provide for the sustainable development of townships in the municipality having regard to environmental and servicing constraints.

Included within the reference documents under <u>Clause 21.03-4</u> are the Cardinia Township Character Assessment & Bunyip Township Strategy. In accordance with these documents the subject site is within an <u>Established Residential Area & Residential Precinct 1</u>.

Precinct 1 – Established residential area preferred character

The established residential areas will retain a reasonable proportion of large lots, wide nature strips and roads, and street trees throughout the area. Significant views particularly to the south will be protected. There will be some unit development near the town centre. Development will integrate with the undulating landform which is a defining characteristic of the area. The strong legible grid layout of roads is a precedent for future development. The existing mixture of native trees and large shrubs will also be a feature of new developments.

The following objectives are stipulated:

- Facilitate growth of residential development in Bunyip to a population of approximately 3,500 people.
- Ensure that the long-term residential capacity and township boundaries are clearly defined.
- Ensure the long-term sustainability of the community by providing residential development for a range of lifestyle opportunities.
- Ensure that infill residential development is integrated and respects the existing character of the township.
- Maintain generous street, footpath and easement width in new developments.

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Rural Residential and Rural Living Development (Clause 21.03-5)

Key Issues

- Integrating rural residential and rural living development with an urban area or township.
- Recognising that rural residential and rural living development impacts on the environmental characteristics and constraints of the area.
- Recognising the impact of rural residential and rural living development encroaching on agricultural land.

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.

Objective 2

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

Response – Housing:

- The proposal has been designed to provide an appropriate response to the objectives for housing location, density, and diversity.
- It is noted that the site is identified as an 'Established Residential Area' which supports infill residential growth that respects the neighbourhood character. This proposal seeks to provide an additional housing in a low scale, respectful manner.
- The proposed density of 1:404.8m² is consistent with the emerging neighbourhood character. It allows a minor intensification of an under-utilised site through development of an additional dwelling, whilst respecting the character of the area.
- The proposal of additional houses helps housing affordability and provides more family homes for a growing diverse population in a growth area.
- The subject site is close to existing services and infrastructure that can be utilised by future residents.

5.4.6 Local Areas-Western Port Region (Clause 21.08-2)

Bunyip (Clause 21.08-2)

Residential Development Objective

- Retain wide road verges in the approach to the township. Maintain the existing street grid pattern within the township.
- Maintain generous street, footpath and easement widths in new developments.
- Ensure protection and conservation of native vegetation including street trees and roadside vegetation.
- Consider as appropriate the Precinct Character Guidelines set out in the Bunyip Township Strategy, September 2009.

Bunyip Township Strategy

In accordance with the <u>Precinct Character Guidelines</u> set out within the <u>Bunyip Township Strategy</u> the subject site is within <u>**Residential Precinct 1**</u>.

<u>Precinct 1 – Established residential area</u> preferred character The established residential areas will retain a reasonable proportion of large lots, wide nature strips and roads, and street trees

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throughout the area. Significant views particularly to the south will be protected. There will be some unit development near the town centre. Development will integrate with the undulating landform which is a defining characteristic of the area. The strong legible grid layout of roads is a precedent for future development. The existing mixture of native trees and large shrubs will also be a feature of new developments.

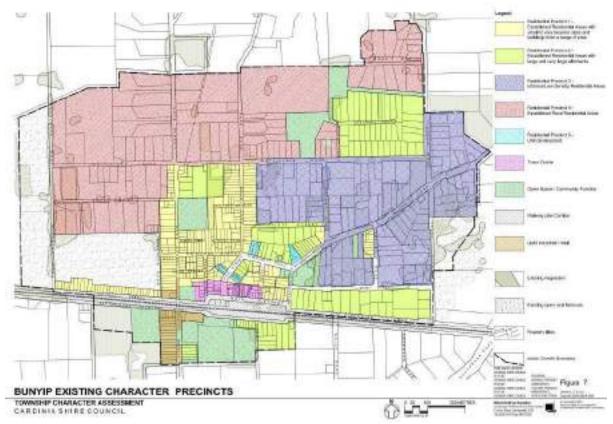
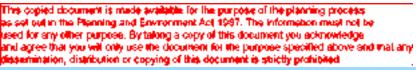


Figure 4: Bunyip Existing Character Precincts

Response – Local Areas-Western Port Region:

This proposal is in accordance with the Neighbourhood character set out within the Bunyip Township Strategy.

- The proposal of five dwellings is a more appropriate use and outcome of the site given its location and in meeting the growing need for housing, housing diversity and affordable housing on current underutilised land in an established urban area, that is generally unconstrained
- Front setbacks over 7m are proposed to ensure that the built form of the proposed dwellings does not become dominant on the street.
- A proposed landscape plan will be incorporated to ensure that a mixture of native trees and large shrubs remains a strong feature within the site.
- A maximum building coverage of 46% is proposed ensuring that there is adequate space for landscaping to occur on the site.
- Although a lot density of 1:404.8sqm is proposed it is seen as necessary to facilitate the growth of residential development desired within the area. There are also similar developments within the area that reflect this density, showing that the character once preferred is changing.
- The dwellings at 11 & 13 Petunia Street as well as 39 Hope Street both comprise of lots with a similar density.



5.5 Particular Provisions

5.5.1 Car Parking (Clause 52.06)

This Clause seeks:

- To ensure that car parking is provided in accordance with the State Planning Policy Framework and Local 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; and
- 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 <u>*Clause 52.06-5*</u>, a dwelling with three or more bedrooms is to be provided with 2 car spaces whilst a dwelling with up to two bedrooms is to be provided with a single car space. 1 visitor parking is required for every 5 dwellings for developments of 5 or more dwellings.

Pursuant to <u>*Clause 52.06-1</u>* a permit is required to reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay.</u>

This Clause also outlines design standards which cover accessways, car parking spaces, gradients, urban design, safety and landscaping.

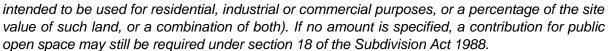
Response – Car Parking:

- Each of the dwellings contains three or more bedrooms and such each is provided with a double garage meeting the requirements of the Clause.
- A permit is required for the reduction of 1 visitor parking required for developments of five. It is proposed that there is suitable on street parking available as well as three of the dwellings having their own private driveways. This will allow for tandem parking to be achieved on their respective lots.
- The garages are integrated into the design to lessen the impact of parking facilities on the view from the street.
- Appropriately dimensioned turning spaces are provided to ensure vehicles on lots 2, 3 and 4 are able to exit the site in a forward manner.
- The car parking spaces provide appropriate width, length and headroom.
- The proposed accessways are a minimum 3 metres wide and provide a corner splay or area at least 50 per cent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road.

5.5.2 Public Open Space Contribution (Clause 53.01)

This Clause states that:

A person who proposes to subdivide land must make a contribution to the council for public open space in an amount specified in the schedule to this clause (being a percentage of the land



The Schedule to this clause specifies a 8% site value cash in accordance with being the subdivision of land for urban residential purposes.

Response – Public Open Space Contribution:

• It is noted that a public open space contribution may be applicable should a permit be issued.

5.5.3 Stormwater Management in Urban Development (Clause 53.18)

This Clause seeks:

 To ensure that stormwater in urban development, including retention and reuse, is managed to mitigate the impacts of stormwater on the environment, property and public safety, and to provide cooling, local habitat and amenity benefits.

Pursuant to Clause 52.18-3, An application to subdivide land:

- Must meet all of the objectives of Clauses 53.18-4 and 53.18-6.
- Should meet all of the standards of Clauses 53.18-4 and 53.18-6.

An application to construct a building or construct or carry out works:

- Must meet all of the objectives of Clauses 53.18-5 and 53.18-6.
- Should meet all of the standards of Clauses 53.18-5 and 53.18-6.

An application must be accompanied by details of the proposed stormwater management system, including drainage works and retention, detention and discharges of stormwater to the drainage system.

Response – Stormwater Management in Urban Development:

• A Storm Rating Report from Melbourne Water has been produced with the proposed development achieving a Storm Rating of 60%. See attached report for further details.

5.5.4 Two or More Dwellings on a Lot & Residential Buildings (Clause 55)

The Clause has the following purpose:

- To implement the Municipal Planning Strategy and Planning Policy Framework.
- To achieve residential development that respects the existing neighbourhood character, or which contributes to a preferred neighbourhood character.
- To encourage residential development that provides reasonable standards of amenity for existing and new residents.
- To encourage residential development that is responsive to the site and the neighbourhood.

An application for development:

- <u>must</u> meet all of the objectives included in the Clauses specified in the zone and
- <u>should</u> meet all of the standards included in the Clauses specified in the zone.

CLAUSE 55 WRITTEN STATEMENT - 19 Hope Street BUNYIP - 30927 -

Clause 55.01 includes the following application requirement:

A written statement outlining which standards are met and which are not met. If a standard is not met, the written statement must include an explanation of how the development meets the corresponding objective having regard to the corresponding decision guidelines.

If any applicable aspect of a standard is not met, then the development is not deemed to comply with the standard.

VCAT objector appeal rights:

An application is exempt from the review rights of section 82(1) of the Act if all the applicable standards under Clauses 55.02, 55.04-1, 55.04-2, 55.04-3, 55.04-4 and 55.05-2 are met.

Mandatory requirements of the zone (NRZ and GRZ)

Requirement	Is this requirement met	Clearly shown on plan no. (Reference	Objector right of appeal
Check as applicable		drawing number)	
Building height			
□NRZ: 9 metres / 2 storeys	⊠Yes	Elevations	No
GRZ: 11 metres / 3 storeys	Single Storey, Max. Height 6.07m		
\Box N/A not in NRZ or GRZ.			
Garden area			
400 square metres 0%	⊠Yes	Garden Area Plan	No
□400 – 500: 25%	35% Garden Area Provided		
□500 – 650: 30%			
⊠650+: 35%			
\Box N/A not in NRZ or GRZ.			

55.02 Neighbourhood charater

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
B2-1 Street setback			,	
Walls of buildings are set back from streets:	⊠Yes □No	Required 6m, Provided 9m	Overall Site Layout Plan	Yes, if standard not met
 □ At least the distance specified in a schedule to the zone if the distance specified in the schedule is less than the distance specified in Table B2-1; or ∞ If no distance is specified in a schedule to the zone, the distance specified in Table B2-1. 				
Table B2-1				
☑ There is an existing building on one abutting allotment facing the same street and no existing building on the other abutting allotment facing the same street, and the site is not on a corner. Minimum front setback □ The same distance as the lesser front wall				

Standard Check as applicable	ls this standard	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on	Objector right of
	fully		plan no.	appeal
	met?		(Reference	
			drawing	
			number)	
setback of the existing				
buildings on the abutting				
allotments facing the front				
street or				
\boxtimes 6 metres, whichever is				
the lesser.				
\boxtimes Porches, pergolas and				
verandahs that are less				
than 3.6 metres high and				
eaves encroach not more				
than 2.5 metres into the				
setbacks of this standard.				
B2-2 Building height				
⊠The maximum building	⊠Yes	Refer Zone provision above	Elevations	Yes, if
height does not exceed the	□No			standard
maximum height specified				not met
in the zone, schedule to				
the zone or an overlay that				
applies to the land.				
\Box If no maximum height is				
specified in the zone,				
schedule to the zone or an				
overlay, the maximum				
building height does not				
exceed 9 metres, unless				
the slope of the natural				
ground level at any cross				

Standard Check as applicable	ls this standard	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on	Objector right of
	fully		plan no.	appeal
	met?		(Reference	
			drawing	
			number)	
section wider than 8				
metres of the site of the				
building is 2.5 degrees or				
more, in which case the				
maximum building height				
does not exceed 10				
metres.				
B2-3 Side and rear				
setbacks				
oxtimesA new building not on or	⊠Yes		Elevations	Yes, if
within 200mm of a	□No			standard
boundary is set back from				not met
side or rear boundaries in				
accordance with either B2-				
3.1 or B2-3.2.				
Standard B2-3 is met if the				
building is setback in				
accordance with either B2-				
3.1 or B2-3.2, rather than				
needing to comply with				
both of these provisions:				
B2-3.1: The building is				
setback at least 1 metre, plus 0.3 metres for every				
metre of height over 3.6				
metres up to 6.9 metres,				
plus 1 metre for every				
metre of height over 6.9				
metres.				

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference	Objector right of appeal
			drawing number)	
□ B2-3.2: If the boundary is not to the south of the building, the building is setback at least 3 metres up to a height not exceeding 11 metres and at least 4.5 metres for a				
height over 11 metres.				
south 30 degrees east.				

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
□Landings that have an area of not more than 2 square metres and less than 1 metre high, stairways, ramps, pergolas, shade sails and carports encroach into the side and rear setbacks.			numberj	
B2-4 Walls on boundaries A new wall constructed on or within 200mm of a side or rear boundary of a lot or a carport constructed on or within 1 metre of a side or rear boundary of a lot does not abut the boundary for a length that exceeds the greater of the following distances:	⊠Yes ⊡No		Ground Floor Plan and Elevations	Yes, if standard not met
 ☑ 10 metres plus 25 per cent of the remaining length of the boundary of an adjoining lot, or □ The length of existing or simultaneously constructed walls or carports abutting the 				

Standard	Is this	If the standard is not met, explanation of how the development meets the objective	Clearly	Objector
Check as applicable	standard	having regard to the decision guidelines	shown on	right of
	fully		plan no.	appeal
	met?		(Reference	
			drawing	
			number)	
boundary on an abutting				
lot.				
oxtimesA new wall or carport				
fully abuts a side or rear				
boundary where slope and				
retaining walls or fences				
would result in the				
effective height of the wall				
or carport being less than 2				
metres on the abutting				
property boundary.				
□ A building on a boundary				
includes a building set				
back up to 200mm from a				
boundary.				
oxtimesThe height of a new wall				
constructed on or within				
200mm of a side or rear				
boundary or a carport				
constructed on or within 1				
metre of a side or rear				
boundary does not exceed				
an average of 3.2 metres				
with no part higher than 3.6				
metres unless abutting a				
higher existing or				

Standard Check as applicable	Is this standard fully met?	having regard to the decision guidelines		Clearly shown on plan no. (Reference drawing number)	Objector right of appeal	
simultaneously constructed wall.						
B2-5 Site coverage ⊠The site area covered by buildings does not exceed: The maximum site coverage specified in a schedule to the zone; or If no maximum site coverage is specified in a schedule to the zone, the percentage specified in Table B2-5. □ NRZ 60% □ GRZ 65% □ RGZ 70% □ HCTZ 70%	⊠Yes ⊡No	Site Coverage (buildings): Impervious Surfaces: Buildings - Driveways & paving - Total impervious - Permeable area:	926m ² = 46% 926m ² 336m ² 1247m ² = 62% 38%		Overall Site Layout Plan	Yes, if standard not met
☐ If the maximum site coverage is specified in a schedule to a zone, it must be greater than the percentage specified in Table B2-5.						
B2-6 Access						
The width of accessways or car spaces (other than to a rear lane) does not exceed:	⊠Yes ⊡No	Hope Street Frontage = 20.1m Accessway width = 3m + 3m Accessways Street Frontage = 29.9%			Overall Site Layout Plan	Yes, if standard not met

Standard	ls this	If the standard is not met, explanation of how the development meets the objective	Clearly	Objector
Check as applicable	standard	having regard to the decision guidelines	shown on	right of
	fully		plan no.	appeal
	met?		(Reference	
			drawing	
			number)	
\Box 33 per cent of the street				
frontage; or		Petunia Street Frontage =20.1m		
oxtimes40 per cent of the street		Accessway width = 3.5m		
frontage if the width of the		Accessways Street Frontage = 17.4%		
street frontage is less than				
20 metres.				
⊠The number of access				
points to a road in a				
Transport Zone 2 or a				
Transport Zone 3 is not				
increased.				
\boxtimes The location of a vehicle				
crossover or accessway				
does not encroach the tree				
protection zone of an				
existing tree, that is				
proposed to be retained in				
a road by more than 10 per				
cent or				
oxtimesNo existing tree in a road				
proposed to be retained.				
B2-7 Tree canopy				
Provide a minimum canopy	□Yes	Written statement - 55.02-7 Tree Canopy objectives	Landscape	Yes, if
cover as specified in Table	⊠No	This proposal is considered to meet the Tree Canopy objectives as outlined below.	plan	standard
B2-7.1.				not met
		Decision guidelines		
☐ Site area 1,000sqm or		Before deciding on an application, the responsible authority must consider:		
less 10%.		Response:		

Standard Check as applicable	Is this standard fully met?	having regard to the decision guidelines		Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
 Site area more than 1,000sqm 20%. Existing trees to be retained meet all of the following: Has a height of at least 5 metres, Has a trunk circumference of 0.5 metres or greater at 1.4 metres above ground level, Has a trunk that is located at least 4 metres from proposed buildings. No existing trees to be retained. 		 DECISION GUIDELINES Any relevant neighbourhood character objective, policy or statement set out in this scheme. Cardinia Planning Scheme Clause 15.01-5S - Neighbourhood character contains the following relevant objectives/policies and statements: Ensure development responds to its context and reinforces a sense of place and the valued features and characteristics of the local environment and place by respecting the: Underlying natural landscape character and significant vegetation. The site context and design response. 	The proposed development demonstrates results in more trees planted on the site than are currently accommodated and introduces a well designed landscape plan, enhancing the underlying natural landscape character of the area. Specifically: The proposal includes the removal of 6 trees, of which 5 are considered to be of low retention value. It is noted that a permit is required for tree removal. • A total of 10 new canopy trees are to be introduced to the site,		
 □ The minimum canopy cover is met using any combination of trees specified in Table B2-7.2. Existing trees that are retained can be used in calculating canopy cover. ⊠ Provide at least one new or retained tree in the front 		 The extent to which the existing and proposed canopy trees contribute to a greener environment and reduce urban heat Whether the growth characteristics of existing trees and proposed canopy trees will provide the required canopy cover. The suitability of the planting location, deep soil areas and planter soil volume for proposed canopy trees. 	 including 2 in the front setback to Hope Street and 2 in the front setback to Petunia Street to improve views into the site from the street and filter views of the built form. Landscaping alongside each of the driveways will soften the appearance of the hardscaped areas. 		

Standard Check as applicable	Is this standard fully met?			Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
setback and the rear setback. Trees are located in either: An area of deep soil as specified in Table B2-7.2; or Aplanter as specified in Table B2-7.2. Any tree required to be planted under this standard must be of species to the satisfaction of the responsible authority, having regard to the location and relevant geographic factors. Guidance on tree species to the satisfaction of Merri- bek City Council can be found in the Merri-bek Tree Finder Tool.		Whether the species of canopy tree is suited to the soil conditions of the site.	 The proposed understorey will add visual interest and colour to the site through the seasons. Each of the proposed dwellings maintain generous boundary setbacks to allow for substantial landscaping to occur across the entire site. 		
B2-8 Front fences A front fence within 3 metres of a street is: The maximum height specified in a schedule to the zone, or	⊠Yes ⊡No	No Front Fences Proposed		Overall Site Plan	Yes, if standard not met

Standard	ls this	If the standard is not met, explanation of how the development meets the objective	Clearly	Objector
Check as applicable	standard	having regard to the decision guidelines	shown on	right of
	fully		plan no.	appeal
	met?		(Reference	
			drawing	
			number)	
\Box If no maximum height is				
specified in a schedule to				
the zone, the maximum				
height specified in Table				
B2-8.				
\Box Streets in a Transport				
Zone 2 - 2 metres				
□Other streets - 1.5				
metres				

55.03 Liveability

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
B3-1 Dwelling diversity				
Developments include at least:	□Yes			No
\Box One dwelling that contains a kitchen, bath or shower, bedroom and a toilet	□No			
and wash basin at ground floor level for every 10 dwellings.	⊠N/A less			
\Box One dwelling that includes no more and no less than 2 bedrooms for every 10	than 10			
dwellings.	dwellings			
\Box One dwelling that includes no more and no less than 3 bedrooms for every 10	proposed			
dwellings.				
B3-2 Parking location				

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
Habitable room windows with sill heights of less than 3 metres above ground	⊠Yes		Ground	No
level are setback from accessways and car parks by at least:	□No		Floor Plans	
⊠1.5 metres; or			and	
$oxed{\boxtimes}$ If there is a solid fence with a height of at least 1.5 metres between the			Elevations	
accessway or car park and the window, 1 metre; or				
oxtimes1 metre where window sills are at least 1.5 metres above ground level.				
oxtimesThis standard is met if an accessway or relevant car parking space is used				
exclusively by the resident of the building with the habitable room.				
B3-3 Street integration				
Where a development fronts a street, a vehicle accessway or abuts public open	⊠Yes	Note: Fences / Screens not	Ground	No
space:	□No	provided.	Floor Plans	
\boxtimes Passive surveillance is provided by a direct view from a balcony or a habitable		Lighting is not shown on the pans	and	
room window to each street, vehicle accessway and public open space.		(that were drafted for the	Elevations	
oxtimes The total cumulative width of all site services to be located within 3 metres of		previous Cluse 55 requirements.		
a street, do not take up more than 20 per cent of the width of the frontage and		Lighting can easily be		
are screened from view from the street or located behind a fence.		accommodated and required by		
\Box Screens or fences are to provide no more than 25 per cent transparency.		permit condition.		
\Box Lighting is provided to all external accessways and paths.				
oxtimesMailboxes are provided for each dwelling and can be communally located.				
B3-4 Street entry				
oxtimes Dwellings (other than a dwelling in or forming part of an apartment	⊠Yes		Ground	No
development) and residential buildings	□No		Floor Plans	
Each dwelling and each residential building has a ground level entry door that:			and	
oxtimesHas a direct line of sight from a street, accessway or shared walkway.			Elevations	
$oxed{\boxtimes}$ Is not accessed through a garage.				

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
\boxtimes Has an external covered area of at least 1.44 square metres with a minimum dimension of least 1.2 metres over the entry door.				
 Apartment development and residential building with a shared entry An apartment development and each residential building has: A ground level entry door, gate or walkway with a direct line of sight from a street, accessway or shared walkway. An external covered area of at least 1.44 square metres with a minimum dimension of least 1.2 metres over the entry door to the building. Shared corridors and common areas have at least one source of natural light and natural ventilation. 				
B3-5 Private open space				
 □ A dwelling or residential building has private open space of an area and dimensions specified in a schedule to the zone. If no area or dimension is specified in a schedule to the zone, a dwelling or residential building has private open space with direct access from a living area, dining area or kitchen consisting of: ○ An area of 25 square metres of secluded private open space, with a minimum dimension of 3 metres width; or ○ A balcony with at least the area and dimensions specified in Table B3-5; or ○ An area on a podium or similar of at least 15 square metres, with a minimum dimension of 3 metres width; or 	⊠Yes ⊡No		Ground Floor Plans and Landscape Plans	No
\Box An area on a roof of at least 10 square metres, with a minimum dimension of 2 metres width.				
If the area and dimensions of the private open space or secluded private open space is specified in a schedule to the zone; The area and dimensions specified in the schedule must be 25 square metres or less; and				

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
□The area and dimensions specified for a podium, balcony or an area on a roof must be less than the area and dimensions specified in this standard.				
\Box If a cooling or heating unit is located in the secluded private open space or private open space the required area is increased by 1.5 square metres.				
\boxtimes Where ground level private open space is provided an area for clothes drying is provided.				
Table B3-5 Private open space for a balcony Orientation of dwelling				
\Box North (between north 20 All 8 square metres 1.7 metres				
degrees west to north 30degrees east)				
Minimum area 8 square metres				
Minimum dimension 1.7 metres				
Orientation of dwelling				
\Box South (between south degrees west to south 20 degrees east)				
Minimum area 8 square metres				
Minimum dimension 1.2 metres				
Orientation of dwelling				
□ All other orientations				
□Studio or 1 bedroom				
□ Minimum area 8 square metres				
□ Minimum dimension 1.8 metres				
2 bodroom dwolling				
 2 bedroom dwelling Minimum area 8 square metres 				

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Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
Minimum dimension 2 metres				
B3-6 Solar access to open space				
\Box The southern boundary of secluded private open space is set back from any wall on the north of the space at least (2 + 0.9h) metres, where 'h' is the height of the wall.	⊠Yes □No	There are no walls to the north of any POS.	Ground Floor Plan	No
B3-7 Functional layout				
Bedrooms: Meet the minimum internal room dimensions specified in Table B3-7.1; and Provide an additional area of at least 0.8 square metres to accommodate a wardrobe.	⊠Yes ⊡No		Ground Floor Plan	No
Table B3-7.1 Bedroom dimensionsMain bedroom⊠ Minimum width 3 metres⊠ Minimum depth 3.4 metres				
All other bedrooms				
Minimum width 3 metres				
⊠Minimum depth 3 metres				
⊠Living areas (excluding dining and kitchen areas) meet the minimum internal room dimensions specified in Table B3-7.2.				
Table B3-7.2 Living area dimensions				
□Studio and 1 bedroom dwelling				
Minimum width 10 metres				
□Minimum area 10 square metres				
2 or more bedroom dwelling				
⊠Minimum width 3.6 metres				

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Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
⊠Minimum area 12 square metres				
B3-8 Room depth				
 The depth of a single aspect habitable room does not exceed 2.5 times the ceiling height measured from the external surface of the habitable room window to the rear wall of the room. The depth of a single aspect, open plan, habitable room may be increased to 9 metres if all the following requirements are met: The room combines the living area, dining area and kitchen; and The kitchen is located furthest from the window; and The ceiling height is at least 2.7 metres measured from finished floor level to finished ceiling level, this excludes where services are provided above the kitchen; and An overhang extends no more than 2m beyond the window of the single aspect habitable room. In Clause 55.03-8 a single aspect habitable room is a habitable room with 	⊠Yes □No		Ground Floor Plan and Elevations	No
windows on only one wall.				
B3-9 Daylight to new windows			Flovetions	No
 Dwelling (other than a dwelling in or forming part of an apartment development) ☑ A window in an external wall of the building is provided to all habitable rooms. Habitable rooms in a dwelling have a window that faces: ☑ An outdoor appear clear to the play or a light court with a minimum area of 2 	⊠Yes ⊡No		Elevations	No
 An outdoor space clear to the sky or a light court with a minimum area of 3 square metres and minimum dimension of 1 metre clear to the sky, not including land on an abutting lot; or A verandah provided it is open for at least one third of its perimeter; or A carport provided it has two or more open sides and is open for at least one third of its perimeter. 				

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
Dwelling in or forming part of an apartment development				
Where daylight to a bedroom is provided from a smaller secondary area within the bedroom, the secondary area is to have:				
\Box A minimum width of 1.2 metres.				
\Box A maximum depth of 1.5 times the width, measured from the external surface				
of the window.				
\Box A window clear to the sky.				
B3-10 Natural ventilation				
Dwelling (other than a dwelling in or forming part of an apartment	⊠Yes		Ground	No
development)	□No		Floor Plans	
oxtimesDwellings have openable windows, doors or other ventilation devices in				
external walls of the building that provide:				
oxtimesA maximum breeze path through the dwelling of 18 metres.				
oxtimesA minimum breeze path through the dwelling of 5 metres.				
\boxtimes Ventilation openings with approximately the same size.				
Dwelling in or forming part of an apartment development				
At least 40 per cent of dwellings have openable windows, doors or other				
ventilation devices in external walls of the building that provide:				
\Box A maximum breeze path through the dwelling of 18 metres.				
\Box A minimum breeze path through the dwelling of 5 metres.				
\Box Ventilation openings with approximately the same size.				
The breeze path is measured between the ventilation openings on different orientations of the dwelling.				
B3-11 Storage				

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
Dwelling (other than a dwelling in or forming part of an apartment development)	⊠Yes □No		Ground Floor Plan	No
\Box Minimum storage volume within the dwelling 12 cubic metres				
B3-12 Accessibility for apartment developments				No
At least 50 per cent of dwellings in or forming part of an apartment development have: A clear opening width of at least 850mm at the entrance to the dwelling and main bedroom.	□Yes □No			No

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
\Box A clear path with a minimum width of 1.2 metres that connects the dwelling	⊠N/A not an			
entrance to the main bedroom, an adaptable bathroom and the living area.	apartment			
\Box A main bedroom with access to an adaptable bathroom.	development			
\Box At least one adaptable bathroom that meets all of the requirements of either				
Design A				
\Box or Design B specified in Table B3-12.				

55.04 External amenity

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
		_	number)	
B4-1 Daylight to existing windows				
Buildings opposite an existing habitable room window provide for a light court	⊠Yes		Ground	Yes, if
to the existing window that has a minimum area of 3 square metres and	□No		Floor Plan	standard
minimum dimension of 1 metre clear to the sky. The calculation of the area may			and	not met
include land on the abutting lot.			Elevations	
⊠Walls or carports more than 3 metres in height opposite an existing habitable				
room window are set back from the window at least 50 per cent of the height of				
the new wall if the wall is within a 55 degree arc from the centre of the existing				
window. The arc may be swung to within 35 degrees of the plane of the wall				
containing the existing window.				

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
	-	objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
Where the existing window is above ground floor level, the wall height is				
measured from the floor level of the room containing the window.				
B4-2 Existing north facing windows				
Where a north-facing habitable room window of a neighbouring dwelling or small	⊠Yes			Yes, if
second dwelling is within 3 metres of a boundary on an abutting lot:	□No			standard
	⊠N/A no			not met
\boxtimes A new building is to be set back from the boundary by at least 1 metre, plus	neighbouring			
0.6 metres for every metre of height over 3.6 metres up to 6.9 metres, plus 1	existing north			
metre for every metre of height over 6.9 metres. This setback is to be provided	facing			
for a distance of at least 3 metres from the edge of each side of the window.	habitable			
E Francisco havitalia estable tara estable. Obras devel DO O O estable e la abas havitalia e is	room			
For new buildings that meet the Standard B2-3.2 setback, the building is	windows			
setback at least 6 metres up to a height not exceeding 11 metres and at least 9 metres for a height over 11 metres between south 30 degrees west to south 30				
degrees east. This setback is to be provided for a distance of at least 3 metres				
from the edge of each side of the window.				
For this standard a north-facing window is a window with an axis perpendicular				
to its surface oriented from north 20 degrees west to north 30 degrees east.				
B4-3 Overshadowing open space				
The area of secluded private open space that is not overshadowed by the new	⊠Yes		Shadow	Yes, if
development is greater than:	□No		Diagrams	standard
⊠50 per cent, or				not met
\Box 25 square metres with a minimum dimension of 3 metres, whichever is the				
lesser area, for a minimum of five hours between 9 am and 3 pm on 22				
September.				
If existing sunlight to the secluded private open space of an existing dwelling				
or small second dwelling is less than the requirements of this standard, the				
amount of sunlight will not be further reduced.				

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
B4-4 Overlooking				
In Clause 55.04-4 a habitable room does not include a bedroom.	⊠Yes		Overall Site	Yes, if
	□No		layout plan	standard
oxtimesA habitable room window, balcony, podium, terrace, deck or patio is located			and	not met
and designed to avoid direct views into the secluded private open space of an			Elevations	
existing dwelling or small second dwelling within a horizontal distance of 9				
metres (measured at ground level) of the window, balcony, terrace, deck or				
patio. Views are measured within a 45 degree angle from the plane of the				
window or perimeter of the balcony, terrace, deck or patio, and from a height of				
1.7 metres above floor level.				
\Box A habitable room window, balcony, terrace, deck or patio that is located with a				
direct view into a habitable room window of an existing dwelling or small second				
dwelling within a horizontal distance of 9 metres (measured at ground level) of				
the window, balcony, terrace, deck or patio:				
\Box Is offset a minimum of 1.5 metres from the edge of one window to the edge of				
the other; or				
\boxtimes Has sill heights of at least 1.7 metres above floor level; or				
\Box Has fixed, obscure glazing in any part of the window below 1.7 metre above				
floor level; or				
Has permanently fixed external screens to at least 1.7 metres above floor level				
and be no more than 25 per cent transparent; or				
\Box Has fixed elements that prevent the direct view, such as horizontal ledges or				
vertical fins.				
Obscure glazing in any part of the window below 1.7 metres above floor level				
may be openable provided that there are no direct views as specified in this				
standard.				
Screens used to obscure a view are:				

Standard	ls this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
\Box Perforated panels or trellis with a maximum of 25 per cent openings or solid				
translucent panels.				
\Box Permanent, fixed and durable.				
\Box Designed and coloured to blend in with the development.				
This standard does not apply to a new habitable room window, balcony, terrace,				
deck or patio which faces a property boundary where there is a visual barrier at				
least 1.8 metres high and the floor level of the habitable room, balcony, terrace,				
deck or patio is less than 0.8 metres above ground level at the boundary.				
B4-5 Internal views				
In Clause 55.04-5 a habitable room does not include a bedroom.	⊠Yes	Single Storey Dwellings, with		No
	□No	fencing protecting internal views		
Within the development, a habitable room window, balcony, terrace, deck or				
patio that is located with a direct view into the secluded private open space of				
another dwelling:				
\Box Is offset a minimum of 1.5 metres from the edge of the secluded private open				
space; or				
\Box Has a sill height of at least 1.7 metres above floor level; or				
\Box Has a fixed, visually obscure balustrade to at least 1.7 metre above floor level;				
or				
\Box Has permanently fixed external screens to at least 1.7 metres above floor				
level; or				
\Box Has fixed elements that prevent the direct view, such as horizontal ledges or				
vertical fins.				
Direct views are measured at a height of 1.7 metres above floor level and within:				
A 45 degree horizontal angle from the edge of the new window or balcony.				
A 45 degree angle in the downward direction.				1

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
Screens provided for overlooking are no more than 25 per cent transparent.				
Screens may be openable				
provided that this does not allow direct views as specified in this standard.				

55.05 Sustainability

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
B5-1 Permeability and stormwater management				No
oxtimesThe site area covered by the pervious surfaces is at least 20 percent of the	⊠Yes		Overall Site	
site.	□No		Plan &	
			SWMP	
The development includes a stormwater management system designed to:				
oxtime Meet the best practice quantitative performance objectives for stormwater				
quality specified in the Urban stormwater management guidance (EPA				
Publication 1739.1, 2021) of:				
oxtimesSuspended solids 80% reduction in mean annual load.				
oxtimesTotal phosphorus and Total Nitrogen 45% reduction in mean annual load.				
⊠Litter 70% reduction of mean annual load.				
A certificate generated from a stormwater assessment tool including				
Stormwater Treatment Objective - Relative Measurement (STORM), Model for				
Urban Stormwater Improvement Conceptualisation (MUSIC) or an equivalent				
product accepted by the responsible authority may be used to demonstrate the				
performance objectives for stormwater quality are met.				

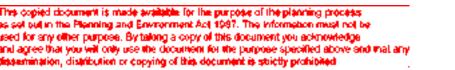
Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
oxtimesDirect flows of stormwater into treatment areas, garden areas, tree pits and				
permeable surfaces, with drainage of residual flows to the legal point of				
discharge.				
B5-2 Overshadowing domestic solar energy systems				
Any part of a new building that will reduce the sunlight at any time between 9am	⊠Yes	Single storey dwellings	Shadow	Yes, if
and 4 pm on 22 September to an existing domestic solar energy system on the	□No		Diagrams	standard
roof of a building on an adjoining lot be set back from the boundary to that lot by	□N/A not in			not met
at least 1 metre at 3.6 metres above ground level, plus 0.3 metres for every	NRZ or GRZ.			
metre of building height over 3.6 metres up to 6.9 metres, plus 1 metre				
for every metre of height over 6.9 metres.				
This standard applies to an existing building in a General Residential Zone or				
Neighbourhood Residential Zone.				
In Clause 55.05-2 domestic solar energy system means a domestic solar energy				
system that existed at the date the application was lodged.				
B5-3 Rooftop solar energy generation area				
In Clause 55.05-3 rooftop solar energy area means an area provided on the roof	⊠Yes		Shadow	No
of a dwelling to enable the future installation of a solar energy system.	□No		Diagrams	
	□N/A			
oxtimesAn area on the roof is capable of siting a rooftop solar energy area for each	apartments or			
dwelling which:	residential			
🛛 Has a minimum dimension of 1.7 metres.	building			
oxtimesHas a minimum area in accordance with Table B5-3.				
$oxed{\boxtimes}$ Is oriented to the north, west or east.				
$oxed{\boxtimes}$ Is positioned on the top two thirds of a pitched roof.				
Can be a contiguous area or multiple smaller areas.				
oxtimes Is free of obstructions on the roof of the dwelling within twice the height of				
each obstruction (H), measured horizontally (D) from the centre point of the				
base of the obstruction to the nearest point of the rooftop solar energy area.				

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
Obstructions located south of all points of the rooftop solar energy area are not				
subject to the horizontal distance requirements.				
Table B5-3 Minimum rooftop solar energy generation area				
□1 bedroom dwelling Minimum roof area 15 square metres				
⊠2 or bedroom dwelling Minimum roof area 26 square metres				
\Box 4 or more bedroom dwelling Minimum roof area 34 square metres				
This standard does not apply to apartments and residential buildings.				
B5-4 Solar protection to new north-facing windows				
oxtimesNorth facing windows are shaded by eaves, fixed horizontal shading devices	⊠Yes		Ground	No
or fixed awnings with a minimum horizontal depth of 0.25 times the window	□No		Floor Plan	
height.			and	
			Elevations	
B5-5 Waste and recycling				
Dwelling (other than a dwelling in or forming part of an apartment	⊠Yes		Landscape Plan	No
development)	□No		Plan	
⊠The development includes an individual bin storage area for each dwelling, or				
\Box A shared bin storage area for use by each dwelling, of at least the applicable				
area, depth and height specified in Table B5-5.1.				
Table B5-5.1 Bin storage				
□ Individual bin storage area for a dwelling				
□Minimum area 1.8 square metres				
☐ Minimum depth 0.8 metre				
☐ Minimum height 1.8 metres.				
Shared bin storage area for 3 dwellings or less				
Minimum area 5.4 square metres				

Standard Check as applicable	Is this standard fully met?	If the standard is not met, explanation of how the development meets the objective having regard to the decision guidelines	Clearly shown on plan no. (Reference drawing number)	Objector right of appeal
□Minimum depth 0.8 metre				
☐Minimum height 1.8 metres.				
Shared bin storage area for 4 or more dwellings Minimum area 1 square metre per dwelling plus 4 square metres Minimum depth 0.8 metre Minimum height 1.8 metres.				
If the development includes a shared bin storage area:				
The shared bin storage area:				
\Box Is located within 40 metres of a kerbside collection point.				
□Includes a tap for bin washing.				
There is a continuous path of travel free of steps and obstructions from				
dwellings to the bin storage area. \Box Where access is provided for private bin collection on the land the design of				
access ways must allow the vehicle to enter and exit in a forward direction.				
\Box Each dwelling includes an internal waste and recycling storage space of at least 0.07 cubic metres with a minimum depth of 250 millimetres.				
Dwelling in or forming part of an apartment development				
The development includes a shared bin storage area for use by each dwelling				
of at least the applicable area, depth and height specified in Table B5-5.2.				
15 dwellings or less				
Minimum area 0.7 square metres per dwelling in a shared waste storage area				
\square Minimum depth 0.8 metre				
\Box Minimum height 2.7 metres.				
16 to 55 dwellings				

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
\Box Minimum area 0.5 square metres per 1 dwelling, plus 5 square metres in a				
shared waste storage area				
Minimum depth 1 metre				
☐Minimum height 2.7 metres.				
56 or more dwellings				
\Box Minimum area 0.5 square metres per 1 dwelling in a shared waste storage				
area				
□Minimum depth 1 metre				
☐Minimum height 2.7 metres.				
Enclosed bin storage areas are ventilated by:				
\Box Natural ventilation openings to the external air with an area of at least 5 per				
cent of the area for bin storage area; or				
\Box A mechanical exhaust ventilation system.				
\Box A tap and drain is provided to wash bins.				
\Box A continuous path of travel is provided from each dwelling to bin storage				
areas.				
oxtimesEach dwelling includes an internal waste and recycling storage space of at				
least 0.07 cubic metres with a minimum depth of 250 millimetres.				
B5-6 Noise impacts				
\Box Mechanical plant, including mechanical car storage and lift facilities are not	□Yes	Not Applicable		No
located immediately adjacent to bedrooms of new or existing dwellings or small	□No			
second dwellings, unless a solid barrier is in place to provide a line of sight				
barrier to transmission of noise and the location of all relevant bedrooms.				<u> </u>
B5-7 Energy efficiency for apartments				

Standard	Is this	If the standard is not met,	Clearly	Objector
Check as applicable	standard	explanation of how the	shown on	right of
	fully met?	development meets the	plan no.	appeal
		objective having regard to the	(Reference	
		decision guidelines	drawing	
			number)	
Dwellings in or forming part of an apartment development located in a climate	□Yes			No
zone identified in Table B5-7 do not exceed the maximum NatHERS annual	□No			
cooling load.	□N/A not an			
	apartment			
Table B5-7 Climate zone and cooling load	development			
Climate zone 21 Melbourne (Fitzroy North)				
NatHERS maximum cooling load 30 MJ/M2 per annum				
\Box Climate zone 60 Tullamarine (all other Merri-bek suburbs)				
NatHERS maximum cooling load 22 MJ/M2 per annum				





5.5.5 Residential Subdivision (Clause 56)

The Clause has the following purpose:

- To implement the Municipal Planning Strategy and Planning Policy Framework;
- To create livable and sustainable neighbourhoods and urban places with character and identify;
- To achieve residential subdivision outcomes that appropriately respond to the site and its context for:
 - Metropolitan Melbourne growth areas;
 - Infill sites within established residential areas; and
 - Regional cities and towns.
 - To ensure residential subdivision design appropriately provides for:
 - Policy implementation;
 - Livable and sustainable communities;
 - Residential lot design;
 - Urban landscape;
 - Access and mobility management;
 - Integrated water management;
 - Site management; and
 - Utilities.

Pursuant to this clause, an application to subdivide land <u>must</u> meet all of the objectives included in the clauses specified in the zone and <u>should</u> meet all of the standards included in the clauses specified in the zone.

Clause 56: Residential Subdivision – 5 Lots					
Clause 56.03-5 Neighbourhood Character	Standard C6				
To design subdivisions that respond to neighbourhood character.	 Subdivision should: Respect the existing neighbourhood character or achieve a preferred neighbourhood character consistent with any relevant neighbourhood character objective, policy or statement set out in this scheme. Respond to and integrate with the surrounding urban environment. Protect significant vegetation and site features. 				
 ✓ Complies □ Not Compliant 	 ✓ Completely complies □ Partially Complies □ Not Compliant 				
Response The proposal respects the existing neighbourhood character whilst responding to the features of the site. It offers an increase in density whilst respecting the neighbourhood character. The proposed density is 1:404.8sqm and is consistent with the emerging housing density of the area.					
Clause 56.04-1 Lot Diversity and Distribution	Standard C7				

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To achieve housing densities that support compact and walkable neighbourhoods and the efficient provision of public transport services.	
To provide higher housing densities within walking distance of activity centres. To achieve increased housing densities in designated growth areas.	Lot sizes and mix should achieve the average net residential density specified in any zone or overlay that applies to the land or in any relevant policy for the area set out in this scheme.
To provide a range of lot sizes to suit a variety of dwelling and household types.	 A range and mix of lot sizes should be provided including lots suitable for the development of: Single dwellings. Two dwellings or more. Higher density housing. Residential buildings and Retirement villages.
	Unless the site is constrained by topography or other site conditions, lot distribution should provide for 95 per cent of dwellings to be located no more than 400 metre street walking distance from the nearest existing or proposed bus stop, 600 metres street walking distance from the nearest existing or proposed tram stop and 800 metres street walking distance from the nearest existing or proposed railway station.
	Lots of 300 square metres or less in area, lots suitable for the development of two dwellings or more, lots suitable for higher density housing and lots suitable for Residential buildings and Retirement villages should be located in and within 400 metres street walking distance of an activity centre.
 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant

Response The proposal offers a range of lot sizes to suit a variety of dwelling types to cater for the changing needs of the population. It offers 5 allotments with a good mix of standard detached housing lots.

Clause 56.04-2 Lot Area and Building	Standard C8
Envelopes To provide lots with areas and dimensions that enable the appropriate siting and construction of a dwelling, solar access, private open space, vehicle access and parking, water management, easements and the retention of significant vegetation and site features.	 An application to subdivide land that creates lots of less than 300 square metres should be accompanied by information that shows: That the lots are consistent or contain building envelope that is consistent with a development approved under this scheme, or That a dwelling may be constructed on each lot in accordance with the requirements of this scheme.

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	 Lots of between 300 square metres and 500 square metres should: Contain a building envelope that is consistent with a development of the lot approved under this scheme, or If no development of the lot has been approved under this scheme, contain a building envelope and be able to contain a rectangle measuring 10 metres by 15 metres, or 9 metres by 15 metres if a boundary wall is nominated as part of the building envelope. 	
	If lots of between 300 square metres and 500 square metres are proposed to contain dwellings that are built to the boundary, the long axis of the lots should be within 30 degrees east and 20 degrees west of north unless there are significant physical constraints that make this difficult to achieve.	
	Lots greater than 500 square metres should be able to contain a rectangle measuring 10 metres by 15 metres, and may contain a building envelope.	
	 A building envelope may specify or incorporate any relevant siting and design requirement. Any requirement should meet the relevant standards of Clause 54, unless: The objectives of the relevant standards are met, and The building envelope is shown as a restriction on a plan of subdivision registered under the Subdivision Act 1988, or is specified as a covenant in an agreement under Section 173 of the Act. 	
	 Where a lot with a building envelope adjoins a lot that is not on the same plan of subdivision or is not subject to the same agreement relating to the relevant building envelope: The building envelope must meet Standards A10 and A11 of Clause 54 in relation to the adjoining lot, and The building envelope must not regulate siting matters covered by Standards A12 to A15 (inclusive) of Clause 54 in relation to the adjoining lot. This should be specified in the relevant plan of subdivision or agreement. 	
	Lot dimensions and building envelopes should protect: Solar access for future dwellings and support the siting and design of dwellings that achieve the energy	

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	 rating requirements of the Building Regulations. Existing or proposed easements on lots. Significant vegetation and site features.
 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant
Response The proposed lots are 362m², 285m², 3 accommodate the proposed dwellings, as is The proposed density of 1:404.8sqm is cons	
Clause 56.04-3 Solar Orientation of Lots	Standard C9
To provide good solar orientation of lots and solar access for future dwellings.	Unless the site is constrained by topography or other site conditions, at least 70 percent of lots should have appropriate solar orientation.
	 Lots have appropriate solar orientation when: The long axis of lots are within the range north 20 degrees west to north 30 degrees east, or east 20 degrees north to east 30 degrees south. Lots between 300 square metres and 500 square metres are proposed to contain dwellings that are built to the boundary, the long axis of the lots should be within 30 degrees east and 20 degrees west of north. Dimensions of lots are adequate to protect solar access to the lot, taking into account likely dwelling size and the relationship of each lot to the street.
 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant
Response The site is well orientated to achieve suitabl	e solar access to all lots.
Clause 56.04-4 Street Orientation	Standard C10
To provide a lot layout that contributes to community social interaction, personal safety and property security.	 Subdivision should increase visibility and surveillance by: Ensuring lots front all roads and streets and avoid the side or rear of lots being oriented to connector streets and arterial roads. Providing lots of 300 square metres or less in area and lots for 2 or more dwellings around activity centres and public open space.

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	 Ensuring streets and houses look onto public open space and avoiding sides and rears of lots along public open space boundaries. Providing roads and streets along public open space boundaries.
 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant
Response The proposed lots are designed to front the is ample passive surveillance from all lots to	internal common property driveways. There o ensure a safe and secure neighbourhood.
Clause 56.04-5 Common Area	Standard C11
To identify common areas and the purpose for which the area is commonly held.	An application to subdivide land that creates common land must be accompanied by a plan and a report identifying:
To ensure the provision of common area is appropriate and that necessary management arrangements are in place.	 The common area to be owned by the body corporate, including any streets and open space.
To maintain direct public access throughout the neighbourhood street network.	 The reasons why the area should be commonly held. Lots participating in the body corporate. The proposed management arrangements including maintenance standards for streets and open spaces to be commonly held.
 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant
landscaped to soften views into the site. Both lots 2 and 3 shall have an equal share a is considered to be easy.	des access to dwellings 2 and 3 and be and be responsible for the maintenance that
Clause 56.05-1 Integrated Urban	Standard C12
Landscape To provide attractive and continuous landscaping in streets and public open spaces that contribute to the character and identity of new neighbourhoods and urban places or to existing or preferred neighbourhood character in existing urban areas.	An application for subdivision that creates streets or public open space should be accompanied by a landscape design.
	The landscape design should: Implement any relevant streetscape, landscape, urban design or native vegetation precinct plan, strategy or policy for the area set out in this
To incorporate natural and cultural features in the design of streets and public open space	scheme. Create attractive landscapes that

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To protect and enhance native habitat and liscourage the planting and spread of noxious veeds. To provide for integrated water management ystems and contribute to drinking water onservation.	 Respond to the site and context description for the site and surrounding area. Maintain significant vegetation where possible within an urban context. Take account of the physical features of the land including landform, soil and climate. Protect and enhance any significant natural and cultural features. Protect and link areas of significant local habitat where appropriate. Support integrated water management systems with appropriate landscape design techniques for managing urban run-off including wetlands and other water sensitive urban design features in streets and public open space. Promote the use of drought tolerant and low maintenance plants and avoid species that are likely to spread into the surrounding environment. Ensure landscaping supports surveillance and provides shade in streets, parks and public open space. Develop appropriate landscapes for the intended use of public open space. Develop appropriate landscapes for the intended use of public open space. Provide for walking and cycling networks that link with community facilities. Provide appropriate pathways, signage, fencing, public lighting and street furniture. Create low maintenance, durable landscapes that are capable of a long life. The landscape design must include a maintenance responsibilities, requirements and costs.
 Complies Not Compliant 	 Completely complies Partially Complies

Response

The Landscape Master Plan identifies a landscape treatment for the public domain that will build upon the local character and provide an attractive and functional landscape outcome for the residential development. The design responds to the topography, and views of the surrounding environment. The tree selection considers both access for vehicles and the provision of shade offering year-round appeal.

 Clause
 56.06-4
 Neighbourhood
 Street
 Standard C17

 Network
 The neighbourhood street network must:

M M

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To provide for direct, safe and easy movement through and between neighbourhoods for pedestrians, cyclists, public transport and other motor vehicles using the neighbourhood street network.

- Take account of the existing mobility network of arterial roads, neighbourhood streets, cycle paths, shared paths, footpaths and public transport routes.
- Provide clear physical distinctions between arterial roads and neighbourhood street types.
- Comply with the Head, Transport for Victoria's arterial road access management policies.
- Provide an appropriate speed environment and movement priority for the safe and easy movement of pedestrians and cyclists and for accessing public transport.
- Provide safe and efficient access to activity centres for commercial and freight vehicles.
- Provide safe and efficient access to all lots for service and emergency vehicles.
- Provide safe movement for all vehicles.
- Incorporate any necessary traffic control measures and traffic management infrastructure.

The neighbourhood street network should be designed to:

- Implement any relevant transport strategy, plan or policy for the area set out in this scheme.
- Include arterial roads at intervals of approximately 1.6 kilometres that have adequate reservation widths to accommodate long term movement demand.
- Include connector streets approximately halfway between arterial roads and provide adequate reservation widths to accommodate long term movement demand.
- Ensure connector streets align between neighbourhoods for direct and efficient movement of pedestrians, cyclists, public transport and other motor vehicles.
- Provide an interconnected and continuous network of streets within and between neighbourhoods for use by pedestrians, cyclists, public transport and other vehicles.
- Provide an appropriate level of local traffic dispersal.
- Indicate the appropriate street type.
- Provide a speed environment that is appropriate to the street type.

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 ✓ Complies □ Not Compliant 	 Provide a street environment that appropriately manages movement demand (volume, type and mix of pedestrians, cyclists, public transport and other motor vehicles). Encourage appropriate and safe pedestrian, cyclist and driver behaviour. Provide safe sharing of access lanes and access places by pedestrians, cyclists and vehicles. Minimise the provision of culs-de-sac. Provide for service and emergency vehicles to safely turn at the end of a dead-end street. Facilitate solar orientation of lots. Facilitate the provision of the walking and cycling network, integrated water management systems, utilities and planting of trees. Contribute to the area's character and identity. Take account of any identified significant features. Completely complies
Response No public roads are proposed within this ap	□ Not Compliant plication.
Clause 56.06-8 Lot Access	Standard C21
To provide for safe vehicle access between roads and lots.	Vehicle access to lots abutting arterial roads should be provided from service roads, side or rear access lanes, access places or access streets where appropriate and in accordance with the access management requirements of the relevant roads authority.
	Vehicle access to lots of 300 square metres or less in area and lots with a frontage of 7.5 metres or less should be provided via rear or side access lanes, places or streets.
	The design and construction of a crossover should meet the requirements of the relevant road authority.
 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant

The driveway will be a minimum 3m wide with turning areas, to allow all vehicles to exit the site safely in a forward direction.



Clause 56.07-1 Drinking Water Supply	Standard C22						
To reduce the use of drinking water.	The supply of drinking water must be: Designed and constructed						
To provide an adequate, cost-effective supply of drinking water.	 Designed and constructed in accordance with the requirements and to the satisfaction of the relevant water authority. Provided to the boundary of all lots in the subdivision to the satisfaction of the relevant water authority. 						
 ✓ Complies □ Not Compliant 	 ✓ Completely complies □ Partially Complies □ Not Compliant 						
Response Reticulated water is currently available to th lots, making more efficient use of existing in	e site and can be utilised to service the new nfrastructure.						
Clause 56.07-2 Reused and Recycled Water	Standard C23						
To provide for the substitution of drinking water for non-drinking purposes with reused and recycled water.	 Reused and recycled water supply systems must be: Designed, constructed and managed in accordance with the requirements and to the satisfaction of the relevant water authority, Environment Protection Authority and Department of Health. Provided to the boundary of all lots in the subdivision where required by the relevant water authority. 						
 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant 						
Response A water tank is proposed for each lot for t reduce the use of potable water.	he use of recycled water for irrigation, and						
Clause 56.07-3 Waste Water Management	Standard C24						
To provide a waste water system that is adequate for the maintenance of public health and the management of effluent in an environmentally friendly manner.	 Waste water systems must be: Designed, constructed and managed in accordance with the requirements and to the satisfaction of the relevant water authority and the Environment Protection Authority. Consistent with a domestic waste water management plan adopted by the relevant council. 						
	Reticulated waste water systems must be provided to the boundary of all lots in the subdivision where required by the relevant water authority						

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water authority.

dissemination, distribution or copying of this document is ✓ Complies ☐ Not Compliant	 Completely complies Partially Complies Not Compliant 						
Response The subject site has reticulated sewer available and will be connected to all lots.							
Clause 56.07-4 Stormwater Management	Standard C25						
To minimise damage to properties and nconvenience to residents from stormwater. To ensure that the street operates adequately during major storm events and provides for bublic safety. To minimise increases in stormwater and protect the environmental values and physical characteristics of receiving waters from degradation by stormwater. To encourage stormwater management that maximises the retention and reuse of stormwater. To encourage stormwater management that contributes to cooling, local habitat mprovements and provision of attractive and enjoyable spaces.	 The stormwater management system must be: Designed and managed in accordance with the requirements and to the satisfaction of the relevant drainage authority. Designed and managed in accordance with the requirements and to the satisfaction of the water authority where reuse of stormwater is proposed. Designed to meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater - Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999). Designed to ensure that flows downstream of the subdivision site are restricted to pre-development levels unless increased flows are approved by the relevant drainage authority and there are no detrimental downstream impacts. Designed to contribute to cooling, improving local habitat and providing attractive and enjoyable spaces. The stormwater flows should be contained within the drainage ession Stormwater flows should be contained within the drainage system to the requirements of the relevant authority. Ponding on roads should not occur for longer than 1 hour after the cessation of rainfall. 						

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	 flood protection where agreed by the relevant floodplain management authority. Ensure that streets, footpaths and cycle paths that are subject to flooding meet the safety criteria da Vave < 0.35 m2/s (where, da = average depth in metres and Vave = average velocity in metres per second).
	 The design of the local drainage network should: Ensure stormwater is retarded to a standard required by the responsible drainage authority. Ensure every lot is provided with drainage to a standard acceptable to the relevant drainage authority. Wherever possible, stormwater should be directed to the front of the lot and discharged into the street drainage system or legal point of discharge. Ensure that inlet and outlet structures take into account the effects of obstructions and debris build up. Any surcharge drainage pit should discharge into an overland flow in a safe and predetermined manner. Include water sensitive urban design features to manage stormwater in streets and public open space. Where such features are provided, an application must describe maintenance responsibilities, requirements and costs.
	Any flood mitigation works must be designed and constructed in accordance with the requirements of the relevant floodplain management authority.
 Complies Not Compliant 	 Completely complies Partially Complies Not Compliant

It is submitted that the proposal will not result in damage or inconvenience to residents from urban run-off.

Clause 56.08-1 Site Management	Standard C26
	 A subdivision application must describe how the site will be managed prior to and during the construction period and may set out requirements for managing: Erosion and sediment. Dust. Run-off.



To encourage the re-use of materials from the site and recycled materials in the construction of subdivisions where practicable.	 Litter, concrete and other construction wastes. Chemical contamination. Vegetation and natural features planned for retention.
	Recycled material should be used for the construction of streets, shared paths and other infrastructure where practicable.
 ✓ Complies □ Not Compliant 	 ✓ Completely complies □ Partially Complies □ Not Compliant

Response

The site will be managed to the satisfaction of the responsible authority prior to and during any construction works.

Clause 56.09-1 Shared Trenching	Standard C27					
To maximise the opportunities for shared trenching.	Reticulated services for water, gas, electricity and telecommunications should be provided in shared trenching to minimise construction					
To minimise constraints on landscaping within street reserves.	costs and land allocation for underground services.					
 Complies 	 Completely complies 					
Not Compliant	Partially Complies					
	Not Compliant					

Response

Any new servicing will utilise shared trenching where possible.

Clause 56.09-2	Electricity and	Standard C28					
Telecommunications To provide public utilitie efficient and cost effect To reduce greenhous supporting generation from renewable source	tive manner. se gas emissions by and use of electricity	The electricity supply system must be designed in accordance with the requirements of the relevant electricity supply agency and be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant electricity authority. Arrangements that support the generation or					
		Arrangements that support the generation or use of renewable energy at a lot or neighbourhood level are encouraged.					
		The telecommunication system must be designed in accordance with the requirements of the relevant telecommunications servicing agency and should be consistent with any approved strategy, policy or plan for the provision of advanced telecommunications infrastructure, including fibre optic technology. The telecommunications system must be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant telecommunications servicing authority.					
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 ✓ Complies □ Not Compliant 	 Completely complies Partially Complies Not Compliant 						
desponse desponse: Services that are available to the site will be supplied to each lot in accordance with the requirements of the relevant authorities.							
Clause 56.09-3 Fire Hydrants	Standard C29						
To provide fire hydrants and fire plugs in positions that enable fire fighters to access water safely, effectively and efficiently.	 Fire hydrants should be provided: A maximum distance of 120 metres from the rear of the each lot. No more than 200 metres apart. 						
	Hydrants and fire plugs must be compatible with the relevant fire service equipment. Where the provision of fire hydrants and fire plugs does not comply with the requirements of standard C29, fire hydrants must be provided to the satisfaction of the relevant fire authority.						
✓ Complies □ Not Compliant	 Completely complies Partially Complies Not Compliant 						
Response Fire hydrants can be installed if considered	necessary						
Clause 56.09-4 Public Lighting	Standard C30						
To provide public lighting to ensure the safety of pedestrians, cyclists and vehicles. To provide pedestrians with a sense of personal safety at night.	footpaths, public telephones, public transport stops and to major pedestrian and cycle paths including public open spaces that are likely to be well used at night to assist in providing safe						
To contribute to reducing greenhouse gas emissions and to saving energy.	passage for pedestrians, cyclists and vehicle Public lighting should be designed accordance with the relevant Australia Standards.						
	Public lighting should be consistent with any strategy, policy or plan for the use of renewable energy and energy efficient fittings.						
✓ Complies ☐ Not Compliant	 Completely complies Partially Complies Not Compliant 						
Response No public lighting is proposed or required sufficient to illuminate the development.	I. Lighting within private allotments will be						
NB: Some matters covered by the objectives a subdivision has been issued, through a condition	and standards can occur after a permit for the on of permit.						
	g assessment to occur at an appropriate time in provide for faster, more cost-effective decision						

making.

5.5.6 Decision Guidelines (Clause 65)

Before deciding on an application or approval of a plan, the responsible authority must consider a series of matters seeking to ensure good decision making. In addition to consideration of applicable policies and strategies as outlined in this report, the responsible authority must make a judgement on whether a proposal presents an appropriate outcome with respect to amenity, land use conflicts, environmental aspects and the orderly planning of the wider area.

It is submitted that this proposal responds to policy requirements and specific opportunities and constraints to offer an outcome that will make a positive contribution to the municipality. There are no fundamental shortfalls in the matters to be considered and as such we consider approval of this application to be an example of good decision making.

6 Conclusion

We submit that the proposed subdivision and development is appropriate for the following reasons:

- The proposal is consistent with the <u>General Residential Zone, Schedule 1 (GRZ1)</u> as it marginally increases housing density and diversity and respects the emerging neighbourhood character.
- The proposal is consistent with the Municipal Planning Strategy and Planning Policy Framework and particularly with the Cardinia Shire Council's local policies.
- The proposal meets the objectives of <u>Clause 55: Two or More Dwellings on a Lot and</u> <u>Residential Buildings</u> and the objectives of <u>Clause 56: Subdivision</u>; and
- The proposal is consistent and complies with the decision guidelines stated within <u>Clause</u> <u>65.</u>

Millar I Merrigan

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ARBORICULTURAL & IMPACT ASSESSMENT REPORT

19 HOPE STREET, BUNYIP

REPORT PREPARED FOR: MILLAR MERRIGAN

REPORT PREPARED BY CONSULTING ARBORIST - DB HORTICULTURE PTY LTD.

UPDATED: 20/12/2024



www.dbhorticulture.com.au

20 Glen Avenue, Croydon Vic 3136 | phone: 0422 999 754 | email: damien@dbhorticulture.com.au

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1. Brief

Millar Merrigan has requested an Arboricultural & Impact Assessment Report for specified trees within and nearby to the property at 19 Hope Street, Bunyip.

2. Overview

The property contains a single dwelling and is in the Cardinia Council area, Planning Scheme Zone GRZ1. A multilot subdivision is proposed.

3. Methodology

A visual site inspection of the trees took place on February 23rd, 2024. The trees were not climbed nor was any soil excavation or diagnosis of the internal or below ground components of the trees undertaken.

The trees were photographed on site using an iphone. Height and Spread of trees was recorded via visual estimation. Diameter at Breast Height (DBH) was taken at 1.4 metres above ground level using a diameter tape.

A Retention Value for each tree has been determined using tree condition factors and values as listed on Page 13 of this report.

4. Tree Protection Zones (TPZ's)

Where appropriate, Tree Protection Zones and Structural Root Zones have been applied as per AS4970-2009, 'Protection of Trees on Development Sites'.

Tree Protection Zones are determined by multiplying the Trunk Diameter @ Breast Height (DBH) x 12. TPZ's are measured from the centre of the trunk.

Structural Root Zones are the area required for tree stability and are only necessary where major encroachment into the TPZ is to occur. The SRZ radius = (Diameter x 50) $^{0.42}$ x 0.64.

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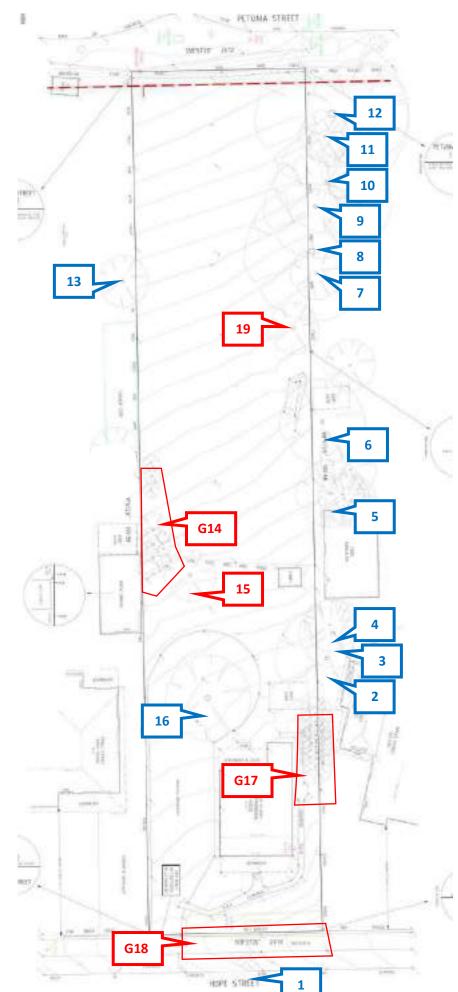
5. Tree Assessment Table

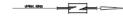
3 Hakea si 3 Hakea si 4 Fortunei 5 Eucalypti 6 Schinus 7 Allocasu verticilla 8 Eucalypti 9 Eucalypti 10 Eucalypti 11 Acacia b 12 Eucalypti	uca armillaris salicifolia ella japonica ptus sp. s molle suarina lata ptus globulus	Bottlebrush Honey Myrtle Willow Hakea Kumquat Eucalypt Peppercorn She-Oak Southern Blue Gum	N N E N E N	3 12 9 5 12 12 7	1 9 4 4 6 9	6 35/30 45 12/12/12 40	2.0 5.5 5.4 2.5	 1.5 2.6 2.5 2.0 	SM M M	L S	G F	G H	G F	P F	L	Street tree Neighbouring tree, split/decayed trunks,
3 Hakea si 3 Hakea si 4 Fortunei 5 Eucalypti 6 Schinus 7 Allocasu verticilla 8 Eucalypti 9 Eucalypti 10 Eucalypti 11 Acacia b 12 Eucalypti	salicifolia ella japonica otus sp. s molle suarina lata otus globulus	Willow Hakea Kumquat Eucalypt Peppercorn She-Oak Southern Blue Gum	N E N E N	9 5 12 12	4 4 6	45 12/12/12 40	5.4 2.5	2.5			F	Н	F	F	L	Neighbouring tree, split/decayed trunks,
4Fortune5Eucalypt6Schinus7Allocasu verticilla8Eucalypt9Eucalypt10Eucalypt11Acacia b12Eucalypt	ella japonica ptus sp. s molle suarina lata ptus globulus	Kumquat Eucalypt Peppercorn She-Oak Southern Blue Gum	E N E N	5 12 12	4	12/12/12 40	2.5		М							hazardous
5 Eucalypt 6 Schinus 7 Allocasu verticilla 8 Eucalypt 9 Eucalypt 10 Eucalypt 11 Acacia b 12 Eucalypt	otus sp. s molle suarina lata otus globulus	Eucalypt Peppercorn She-Oak Southern Blue Gum	N E N	12 12	6	40		2.0		L	G	F	F	Р	L	Neighbouring tree
6 Schinus 7 Allocasu verticilla 8 Eucalypt 9 Eucalypt 10 Eucalypt 11 Acacia b 12 Eucalypt	s molle suarina lata otus globulus	Peppercorn She-Oak Southern Blue Gum	E N	12	-		10		Μ	L	G	F	F	Р	L	Neighbouring tree
7Allocasu verticilla8Eucalypt9Eucalypt10Eucalypt11Acacia b12Eucalypt	suarina lata ptus globulus	She-Oak Southern Blue Gum	N		9	60	4.8	2.5	М	L	F	Р	Р	Р	L	Neighbouring tree
verticilla8Eucalypt9Eucalypt10Eucalypt11Acacia b12Eucalypt	lata otus globulus	Southern Blue Gum		7		60	7.2	2.8	Μ	Μ	Ρ	F	G	Р	L	Neighbouring tree
9 Eucalypt 10 Eucalypt 11 Acacia b 12 Eucalypt		Gum	Ν	1	4	30	3.6	2.3	М	L	G	F	F	Ρ	L	Neighbouring tree
10Eucalypt11Acacia b12Eucalypt	ntuc lohmanii			16	11	60	7.2	2.9	М	L	G	G	G	G	Н	Neighbouring tree
11 Acacia b 12 Eucalypt	otus iemmunni	Bushy Yate	Ν	4	6	20	2.4	2.0	М	L	F	F	F	Р	L	Neighbouring tree
12 Eucalypt	otus globulus	Southern Blue Gum	N	15	8	50	6.0	2.7	М	L	G	F	F	F	М	Neighbouring tree
	baileyana	Cootamundra Wattle	N	8	6	20	2.4	2.0	М	Μ	F	F	F	Р	L	Neighbouring tree
13 Pyrus co	otus globulus	Southern Blue Gum	N	16	10	60	7.2	2.9	М	L	G	G	G	G	Η	Neighbouring tree
19 19145 66	communis	Common Pear	Е	5	5	12/15/13	2.8	1.9	М	L	G	F	G	Р	L	Neighbouring tree, south side
Group Cupress 14 semperv		Tuscan Cypress	E	5	1	18	2.2	1.8	М	L	Ρ	Ρ	Ρ	Ρ	L	Same species, size and condition - assessed as a group - Lopped
15 Pyrus co	communis	Common Pear	Е	10	6	29/26	4.7	2.3	М	L	G	F	G	F	L	
16 Phoenix	x canariensis	Canary Islands Date Palm	E	14	7		4.5		М	L	G	G	G	F	Μ	If location is problematic it can be easily transplanted outside or elsewhere within site if required
Group Hibiscus	ıs sp.	Hibiscus	E	5	4	14	2.0	1.6	М	L	G	F	F	Р	L	Same species, size and condition - assessed as a group
Group Cupress 18 macroco		Monterey Cypress	E	4	2	25/25	4.2	2.3	М	L	G	F	G	Ρ	L	Hedge, assessed as a group
19 Malus d		Apple	Е	6	8	16/14/14	3.1	2.3	М	L	G	F	G	Р	L	

DB Horticulture Pty Ltd.

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6. Site Plan (existing)







Tree 1 & Group 18



Tree 16

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Group 17



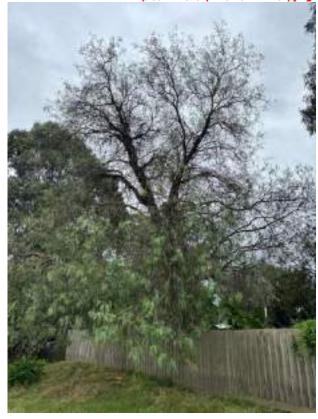






Tree 15

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Tree 6





Tree 13

Trees 7, 8, 9 & 19



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Trees 9, 10, 11 & 12

8. Preliminary Discussion / Recommendations

Street Trees

Tree 1 is a small Bottlebrush located centrally on the naturestrip. If the existing driveway crossing is to be retained in-situ, this tree will not be affected.

Neighbouring Trees

Trees 2 to 12 are located within the neighbouring property to the north. Tree types include Honey Myrtle, Peppercorn, Kumquat, Southern Blue Gum, Cootamundra Wattle, She-Oak and Willow Hakea. Tree 13 is a Common Pear located within the neighbouring property to the south. Any potential encroachment into the TPZ's of these trees should not exceed 10%.

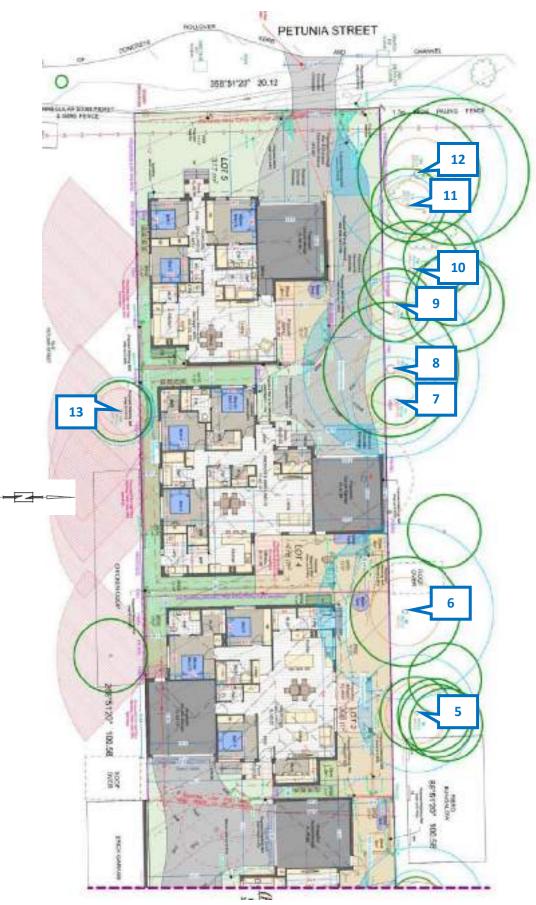
Trees in Subject Property

Trees/Groups 14 to 19 are within the subject property. Tree types include Common Pear, Apple, Canary Islands Date Palm, Hibiscus and a Cypress Hedge at the front of the site. The only tree with any retention value is Tree 16, the Canary Islands Date Palm. Ideally the design should aim to preserve this tree; however, this species can easily be transplanted elsewhere within the site or off site if required.

February 23rd, 2024

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9. Site Plan (proposed)





10. Construction Impact Assessment

- Tree 1: TPZ = 2.0m. There will be no encroachment into the TPZ of this tree. It will be unaffected.
- **Tree 2:** TPZ = 5.5m. Dwelling 2 will encroach into the TPZ of this tree by 9.7%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the north to compensate for this loss. **This tree can be viably retained.**
- Tree 3: TPZ = 2.5m. Dwelling 2 will encroach into the TPZ of this tree by 5.6%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the north to compensate for this loss. This tree can be viably retained.
- **Tree 4:** TPZ = 4.8m. Dwelling 2 will encroach into the TPZ of this tree by 5.6%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the north to compensate for this loss. **This tree can be viably retained.**
- **Tree 5:** TPZ = 7.2m. An alfresco area for Dwelling 3 will encroach into the TPZ of this tree by 7.1%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the north to compensate for this loss. **This tree can be viably retained.**
- **Tree 6:** TPZ = 7.2m. Dwelling 3 will encroach into the TPZ of this tree by 8.5%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the north to compensate for this loss. **This tree can be viably retained.**
- **Tree 7:** TPZ = 3.6m. A driveway is proposed within the TPZ of this tree. This must be constructed above grade, without excavation, using permeable concrete. **This tree can be viably retained.**
- **Tree 8:** TPZ = 7.2m. A driveway is proposed within the TPZ of this tree. This must be constructed above grade, without excavation, using permeable concrete. A fence and section of concrete driveway will encroach into the TPZ of this tree by 8%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the north to compensate for this loss. **This tree can be viably retained.**
- **Tree 9:** TPZ = 2.4m. A driveway is proposed within the TPZ of this tree. This must be constructed above grade, without excavation, using permeable concrete. **This tree can be viably retained.**
- **Tree 10:** TPZ = 6.0m. A driveway is proposed within the TPZ of this tree. This must be constructed above grade, without excavation, using permeable concrete. **This tree can be viably retained.**
- **Tree 11:** TPZ = 2.4m. There will be no encroachment into the TPZ of this tree. It will be unaffected.
- **Tree 12:** TPZ = 7.2m. A retaining wall is proposed within the TPZ of this tree which will result in encroachment of 7%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the north to compensate for this loss. **This tree can be viably retained.**
- **Tree 13:** TPZ = 2.8m. A retaining wall is proposed within the TPZ of this tree which will result in encroachment of 9.3%. Under the guidelines of AS4970-2009, 'Protection of Trees on Development Sites', this is classified as minor encroachment; and there is adequate permeable surface contiguous with the TPZ to the south to compensate for this loss. **This tree can be viably retained.**

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11. Tree Descriptors

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Age

Y	Young Tree is juvenile or recently planted		
SM	Semi-mature Tree is established and actively growing		
М	Mature Tree has reached expected maximum size		
OM	Over Mature	Tree is over mature and in decline	

Condition

G	Good	Full crown, free of disease, good colour, good extension growth of twigs, no dieback			
F	Fair	Tree shows one or more of the following: <25% deadwood, dieback,			
P	Poor	unbalanced canopy, minor pathogens Tree shows one or more of the following: >25% deadwood, major			
•		pathogen presence, structural faults			
D	Dead	Tree is dead			

Structure

G	Good	Good branch attachments and no structural defects present, no co- dominant stems, good branch and trunk taper, good buttressing at base of trunk
F	Fair	Some minor structural defects or cavities may be present
Р	Poor	Major defects to trunk, branches or roots, poor attachment points, missing bark, likely points of failure
Н	Hazardous	Tree poses immediate danger and should be removed

Form

G	Good	Full and balanced canopy	
F	Fair	Minor asymmetry in canopy shape	
Р	Poor	Major asymmetry, unbalanced appearance	

Amenity Value

G	Good	Attractive tree which contributes significantly to the surrounding	
		landscape and public realm, may provide good screening and shade	
		qualities	
F	Fair	Tree contributes to its immediate surroundings, may be one of a group	
		of trees and/or provide moderate screening and shading qualities	
Р	Poor	Tree does not make a positive contribution to the landscape and could	
		be considered for removal	

Safe Useful Life Expectancy (SULE)

L	Long	Tree appears retainable for 40+ years		
Μ	Medium	Tree appears retainable for 15 – 40 years		
S	Short	Tree appears retainable for 5 – 15 years		
R	Removal	Tree should be removed		
MO	Move or Replaced	Trees which can be readily moved or replaced		

Retention Value

L	Low	An assessment rating which incorporates all the above criteria
М	Moderate	
Н	High	

12. References

- Barrell, J. (2001), SULE, its use and status into the new millennium, NAAA Conference proceedings
- Clark, J.R. & Matheny N.P. (1998), *Trees and Development: A Technical guide to preservation of trees during land development*, ISA Publishing
- Standards Australia (2009), AS4970-2009 Protection of Trees on Development Sites, Standards Australia

Consulting Arborist/Director DB Horticulture Pty Ltd.

Grad. Cert. Arboriculture (AQF 8) Cert. Horticulture ISA TRAQ

December 20th, 2024

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Unless expressed otherwise; the information contained in this report covers only those items that were covered in the project brief or that were examined during the assessment and reflect the condition of those items at the time of inspection; and the inspection undertaken as part of the preparation of this report was limited to visual examination of accessible components of any tree without climbing the tree or removal of any part of the tree or any dissection, excavation or probing unless otherwise stipulated.

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Waste Management Plan 19 Hope Street, Bunyip VIC

30/01/2025

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Frater Consulting Services

Waste Management Plan (WMP)

Proposed Residential Development

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DOCUMENT VERSION

Version	Date	Changelog	Author	Review
0	15/01/25	Issued for Client Review	HH	LA
1	30/01/25	Updated Waste Storage Description	HH	-

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Frater Consulting Services***

PURPOSE OF THE WASTE MANAGEMENT PLAN

The purpose of the waste management plan (WMP) is to:

- Demonstrate the development of an effective waste management system that is compatible with the design of the development (residential or commercial) and the adjacent built environment. An effective waste management system is hygienic, clean and tidy, minimises waste going to landfills, and maximises recycling
- Provide a waste management system that is supported by scaled drawings to ensure the final design and construction are compliant with the WMP and are verifiable
- Form a document that achieves effective communication of the waste management system so that all stakeholders can be properly informed of its design, and the roles and responsibilities involved in its implementation
- Stakeholders are defined (but not limited to): owners, occupiers, body corporate, property managers/real estate agents, Council, neighbours and collection contractors
- Ensure residents of MUDs are not disadvantaged in their access to recycling and other responsible waste management options
- Avoid existing legacy issues that plague many MUD's due to poor design and insufficient consideration for waste management.

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Frater Consulting Services

INTRODUCTION

Frater Consulting Services has been engaged to undertake a Waste Management Plan for the proposed townhouse development located at 19 Hope Street, Bunyip.

We have reviewed the plans for the proposed development and have, where necessary, undertaken research in the relevant field of waste management.

SITE DESCRIPTION

The proposed site is located at 19 Hope Street, Bunyip. The site is currently occupied by a house that is proposed to be demolished before the construction of the proposed development. It is located within an established residential area approximately 73 km southeast of the Melbourne CBD.

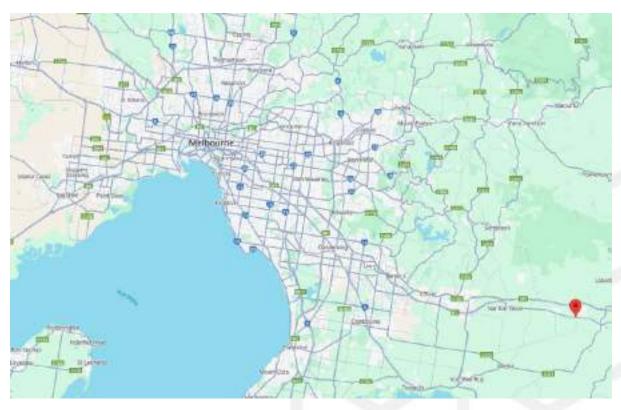


Figure 1: Location of the proposed development in Bunyip in relation to Melbourne CBD (Source, Google <u>Maps)</u>

PROPOSED DEVELOPMENT

The proposal consists of the development of the site into 5 townhouses with two common driveways opening on Hope Street and Petunia Street. The area of the site is approximately 2,024m².

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TYPES OF WASTE GENERATED

The following types of waste are most commonly generated within a residential development:

- General landfill rubbish;
- Recyclables such as glass, paper, cardboard, cartons, plastics with ID Codes 1 to 7, steel & aluminium cans;
- Compostable organic material (food scraps);
- Hard rubbish such as broken furniture and large objects; and
- Sundry waste types such as electronic waste.

This list of waste types to be separately treated is expected to expand by 2030 in line with the Victoria State Government's Recycling Victoria Policy. This will include separate treatment of FOGO and glass waste for a 4-stream system.

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WASTE GENERATION RATES

Listed below are the waste generation estimates for the development in accordance with the Sustainability Victoria guidelines based on Melbourne City generation rates.

For each dwelling as per SV's guidelines and Melbourne City generation rates:

Space type	Rubbish Generation	Comingled Recyclables	FOGO Waste*
3-Bedroom or more	78 L/week	120 L/week	42 L/week

* Based on the audit carried by Sustainability Victoria which found that approximately 35% of the garbage bin is made of food waste.

Separate Glass Waste

The development will also be provided with an allocation for a future glass stream service. This is to be in line with the State of Victoria's recycling targets for 2030. Please note there are no set glass waste generation rates however the glass waste generation has been estimated to represent not more than 50% of a commingled recyclable mix. The allocation for one future 80L bin for glass will be provided within the dedicated bin storage area. Glass collection services will be required to be provided once it is compulsory to start offering the service.

Based on the proposed 5 townhouses the total waste generated by the development is therefore:

		Comingled Recyclables	Food Waste
5 Dwellings 390 L/week		600L/week	210 L/week
Proposed Bin Type	120 L	240 L	120 L
Number of Bins	5	5	5
Collection Once per week Frequency (Council collection)		Once per fortnight (Council collection)	Once per fortnight (Council collection)

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BIN TYPES

Bin Storage	Capacity	Colour	Waste Type	Comments
Туре	80L	Purple lid, Dark green body	Glass (Future provision)	The average dimensions are: Height 0.84m, Width 0.45m, Depth 0.51m Total floor area required: 0.23m²/bin
	5×120L	Red lid, Dark green body	Rubbish	The average dimensions are: Height 0.93m, Width 0.48m, Depth 0.545m Total floor area required: 0.26m²/bin
T	5×120L	Light green lid, Dark green body	FOGO	The average dimensions are: Height 0.93m, Width 0.48m, Depth 0.545m Total floor area required: 0.26m²/bin
Ĩ	5×240L	Yellow lid, Dark green body	Commingled Recyclables	The average dimensions are: Height 1.06m, Width 0.585m, Depth 0.73m Total floor area required: 0.42m²/bin

Below are the types of bins that the Council will provide with the common dimensions:

The Council once engaged will provide the bins for the development.

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SIGNAGE

Signage is recommended to **encourage correct recycling and reduce waste** going to landfill. **Printable signage can be found on Sustainability Victoria s website**.

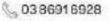
http://www.sustainability.vic.gov.au and can installed on the underside of the bin's lid. These visual prompts (such as Figure 2 below) will assist in the proper disposal of the different types of waste.



Figure 2: Example signage from the Sustainability Victoria waste signage library.

GLASS ONLY

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WASTE STORAGE

5 x 120L bins for general rubbish, 5 x 240L bins for recycling, and 5 x 120L bins for FOGO will be provided for the development by the Council. Space provision for additional 5 x 80L bins for glass waste will also be provided.



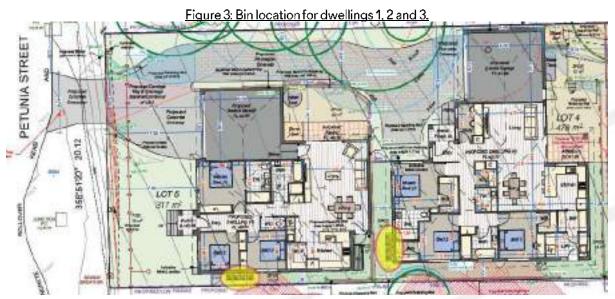


Figure 4: Bin location for dwellings 4 and 5.

All bin types will be stored in each townhouse's respective garage or POS. This will make it easy for the residents to store and roll out the bins to their respective collection point on the collection day. Occupants will not be permitted to store bins in front of the townhouses to protect the visual amenity of the common areas.

Please note the waste storage area for Dwelling 3 is longer than 40 metres, exceeding the standard distance from the storage to presentation area by approximately 5 metres. This extension is necessary to ensure the protection for the visual amenity of the common area and to keep the storage area out of sight from the street.

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WASTECOLLECTION & DISPOSAL

Council collection is proposed for the development.

Residents will roll out their bins to the kerbside on the evening prior to collection day and put the bins back once empty. **Sufficient kerbside space is available to present all bins with minimum 300mm spacing between each bin as shown in the following mark-up – A** maximum of six bins for Hope Street and a maximum of four bins for Petunia Street will be **presented for collection as recycling and organic waste will be collected on alternate** fortnight:

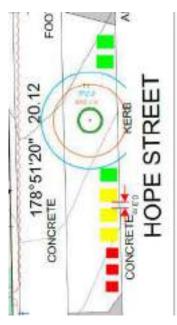


Figure 4: Bin presentation on the kerbside of Hope Street for council collection.

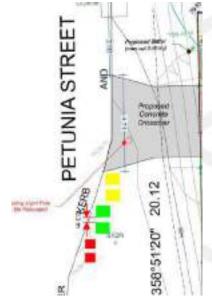


Figure 6: Bin presentation on the kerbside of Petunia Street for council collection.

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As per the RFI from Shire of Cardinia on the 17th September, 2024 – presentation area depicts a minimum of 3 bins per dwelling however a maximum of 6 bins for Hope street and 4 bins for Petunia Street will be collected due to alternating fortnightly cycles between commingled recyclables and FOGO.

The collection will require separate trucks for each waste stream.

All waste streams will be collected by Council, with pickups made once per week for general waste and fortnightly for recycling and food waste.

The collection will occur outside of peak traffic hours and will be in accordance with EPA and the Shire of Cardinia requirements, to minimise any traffic disturbance for residents or visitors entering or exiting the site.

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OTHER WASTE TYPES

Residents will have access to Council hard waste collection services. Council provides two free hard waste and recycling collections for Cardinia residents each year:

- Each Cardinia household can book 2 free collections per year.
- This service is for large/bulky household items that can't be reused and only for residential properties with a Council kerbside waste service.
- You must book your collection **before** putting any waste out.
- Hard waste piles must not be larger than 2 cubic metres (2m x 1m x 1m) for a single booking, or 4 cubic metres (4m x 1m x 1m) for a double booking.

For more information please visit https://www.cardinia.vic.gov.au/hardwaste

E-Waste has been banned from landfill since 1st July **2019.** Occupants will be required to dispose of their E-waste at their nearest drop-off point. The nearest e-waste recycling drop-off point can be found on Planet Ark's *Recycling Near You at* <u>https://recyclingnearyou.com.au/electrical</u>.

The following section is sourced from the Shire of Cardinia Waste and Recycling web page. Apart from the collection of recyclables from the bins provided, the residents can actively donate/dispose of other non-regular rubbish such as electronic waste and large objects at the nearby Waste Transfer Station listed below:

Pakenham Waste Transfer Station

Address: 30-32 Exchange Drive, Pakenham, Victoria 3810

Phone: 13 RECYCLING (13 73 29)

Opening Hours: Monday to Friday 7:30 am to 4.00 pm, Saturday 8 am to 2:30 pm. Closed Sunday, Christmas Day, Good Friday, New year's day and ANZAC day.

Free Disposal: E-waste, scrap metal, batteries and liquid pain (Pakenham and Bayside Only)

Waste Transfer Station			
Item	General / Timber Waste	Green Waste	Cardboard Waste
Wheelie Bin (small)	\$31.00	\$21.00	\$14.00
Wheelie Bin (large)	\$38.00	\$27.00	\$20.00
Car Boot	\$65.00	\$47.00	\$33.00
Station Wagon	\$95.00	\$59.00	\$44.00
Ute (small)	\$189.00	\$117.00	\$79.00
Ute (medium)	\$218.00	\$142.00	\$81.00
Ute (large)	\$290.00	\$179.00	\$116.00
Trailer 6x4 (level)	\$117.00	\$79.00	\$59.00

Summary of the charges for a different types of waste:

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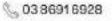
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Trailer 6x4 (heaped)	\$158.00	\$104.00	\$70.00
Trailer 6x4 (caged)	\$222.00	\$134.00	\$92.00
Trailer 8x5 (level)	\$189.00	\$117.00	\$79.00
Trailer 8x5 (heaped)	\$235.00	\$154.00	\$88.00
Trailer 8x5 (caged)	\$317.00	\$196.00	\$127.00
Trailer 10x5 (level)	\$209.00	\$134.00	\$89.00
Trailer 10x5 (heaped)	\$293.00	\$184.00	\$123.00
Trailer 10x5 (caged)	\$392.00	\$245.00	\$160.00
Trailer 12x7 (level)	\$229.00	\$149.00	\$97.00
Trailer 12x7 (heaped)	\$352.00	\$213.00	\$149.00
Trailer 12x7 (caged)	\$466.00	\$292.00	\$195.00
Misc. (truck, van, float per cubic metre)	\$189.00	\$114.00	\$77.00
Additional Prices-Material	Price	Material	Price
Oil (per Litre)	\$2.00	Motorbike Tyre (off rim)	\$16.00
Mattress / Base (inc. springs)	\$80.00	Motorbike Tyre (on rim)	\$25.00
Gas Bottle (small)	\$33.00	Car Tyre (off rim)	\$34.00
Gas Bottle (large)	\$45.00	Car Tyre (on rim)	\$54.00
Car Gas Cylinder	\$71.00	4x4 Tyre (off rim)	\$51.00
Fridges	\$21.00	4x4 Tyre (on rim)	\$81.00
Clean Fill (max 0.5 cubic metre)	\$190.00	Truck / Tractor Tyre	\$129.00
Concrete (per cubic metre)	\$178.00	Excavator Tyre (min 0.5 cubic metre)	\$1,583.00 (per tonne)
Polystyrene (min 0.5 cubic metre)	\$558.00		

Please note that other tips are located within the site. Please visit

https://futurerecycling.com.au/waste-transfer/opening-hours/formore information.

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Other Recycling Options

The following recycling options may also be useful:

Waste Exchange Database: Allows communication between generators of waste and potential recyclers.

Ziitch: Simple online recycling of unwanted goods.

Freecycle: A non-profit portal for exchanging unwanted goods for free.

Reverse Art Truck Inc., A non-profit organisation that collects seconds and factory offcuts for reuse as art materials. Free pick up.

Ozrecycle: Another way to give and get things for free instead of sending them to landfill.

FreeTreasure: Free Treasure is developing to become one of Australia's best communities to find free stuff.

The Sharehood: Helps you share resources within your neighbourhood.

Other recycling services such as St Vincent de Paul, Brotherhood of St Laurence, The Smith Family and The Salvation Army accept a range of household items.

PREVENTATIVE MEASURES

Disposal Procedures

Residents are to ensure that all internal general rubbish bin bags are tied up securely before being placed in the bins. They will also ensure that recyclables are placed in the yellow-lidded bins in a way that minimises potential litter and overflow (for example crushing boxes, cans and plastic bottles).

Maintenance

As a minimum, residents will be required to keep the bins neatly placed in their garages. To further reduce the risk of litter, residents will be asked to make sure bins are not overfilled and to keep the lids closed. The above measures will minimise the dispersion of site litter and the risk of vermin. The resident will be required to conduct periodic maintenance of their bins such as wash-downs and any necessary repairs/replacements will need to be organised with the Council.

SUMMARY

Correct implementation and resident induction to the WMP will ensure that all waste streams are correctly disposed of and sorted into their proper bins. Proper bin management will ensure that all waste is stored & collected efficiently and effectively without compromising the amenity, capacity and tidiness of the storage areas. The council will supply the bins and will be responsible for bin collection.

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Sustainable Design Assessment 19 Hope Street, Bunyip VIC

24/07/2024

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Sustainable Design Assessment (SDA) Proposed Residential Development

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DOCUMENT VERSION

Version	Date	Changelog	Author	Review
0	24/07/24	Issued for Client Review	IA	DG

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Frater Consulting Services***

INITIATIVES TO BE MARKED ON DRAWINGS

Water & Stormwater Management

- WSUD catchment plan showing roof catchment to tank permeable area and impermeable area in line with the WSUD report – If required, the use of charged pipe system will be explicitly acknowledged on the drawings and charged pipes will not be running underneath the building footprint
- Location and size of each Rainwater tank proposed
- Note showing connection to the toilets
- Note showing the use of native or drought-tolerant species for landscaped areas.
 Watering will not be required after an initial period when plants are getting established.
 If irrigation is required, it will be connected to rainwater tanks
- Note showing WELS rating for water fittings/fixtures (refer to report) Fixtures (e.g. dishwasher) provided as part of base building work have to be chosen within one WELS star of best available at the time of purchase

Energy Efficiency

- Note showing commitment to 4W/m² lighting density in the dwellings.
- Retractable external clothes drying line
- Lighting sensors for external lighting (motion detectors, timers etc.)
- Commitment to 7.0 Star minimum energy rating for the development (on planning and construction drawings)
- Fossil-fuel free development

Indoor Environment Quality

- Note showing double glazing on all habitable rooms (floor plans and elevations)
- Openable windows of living rooms and bedrooms of all units

Transport

Bike space location for each dwelling- not installed over the bonnet.

Waste

Three bins system including rubbish, recycling and organic/garden waste as well as future glass waste provision.

Urban Ecology

Show the extent of vegetated areas around the site (including lawn)

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INTRODUCTION

Frater Consulting Services has been engaged to undertake a Sustainable Design Assessment for the proposed townhouse development located at 19 Hope Street, Bunyip, This has been prepared to address the Cardinia Shire Council's sustainability requirements Planning Policy Clause 12,04-1S Environmentally Sustainable Development

Within Clause 12 04-1S, the City of Cardinia has identified the following key categories to be addressed:

- Energy Performance;
- Water Resources;
- Stormwater Management;
- Indoor Environment Quality;
- Construction, Building & Waste Management;
- Building Materials;
- Transport; and
- Urban Ecology

The site has been assessed using the BESS tool. BESS was developed by an association of councils led by the Merri-bek City Council. This tool assesses the energy and water efficiency, thermal comfort and overall environmental sustainability performance of new buildings or alterations. It was created to demonstrate how new development can meet sustainability requirements as part of a planning permit application for the participating council.

Each target area within the BESS tool generally receives a score of between 1% and 100%. A minimum score of 50% is required for the energy, water, stormwater and IEQ areas. An overall score of 50% represents 'Best Practice' while a score over 70% represents 'Excellence'. The result of the BESS assessment is included in Appendix D.

The Stormwater Treatment Objective – Relative Measure (STORM) calculator which addresses stormwater quality considerations has been used for the development to ensure that stormwater management best practice requirements have been achieved. The result of the STORM assessment **prepared by Millar Merrigan** is included in Appendix A.



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SITE DESCRIPTION

The proposed site is located at 19 Hope Street, Bunyip, The 2,024m² site is currently occupied by a single-storey house which is proposed to be demolished prior to construction of the development. It is located approximately 83kms southeast of the Melbourne CBD.

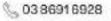


Figure 1. Location of the proposed development in Bunyipin relation to Melbourne CBD (Source, Google <u>Maps)</u>

PROPOSED DEVELOPMENT

The proposal consists of the development of the site into five single-storey townhouses (5 x 3-bedroom). The area of the site is 2,024m². Each townhouse will be provided with an undercover garage and individual driveway for Units 1, 4 & 5 have individual driveways and common driveways for rest of the Units opening on Hope Street.

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ENERGY EFFICIENCY

Energy and its key elements should be integrated into the design of the proposed development. These elements contribute to reducing greenhouse gas emissions by utilising energy-efficient appliances, energy conservation measures and renewable energy.

Thermal Performance

Full energy ratings will be carried out at the building approval stage. All dwellings will achieve minimum 7.0 Stars each. This will be achieved using appropriate insulation levels in all external walls, roofs and floors as well as the use of double-glazing windows throughout habitable rooms. For the purpose of BESS assessment, minimum compliance figures have been assumed which will be met at the building approval stage.

Heating and Cooling Systems

Heating and cooling systems can account for up to 40% of a household's energy use. Therefore, to reduce energy consumption heating and cooling will be provided by energy-efficient air conditioners chosen with 3-Star rating minimum (cooling and heating) or within one star of the best available product in the range at the time of purchase whichever is greater.

COP/EER 85% or better than the most efficient equivalent capacity unit available if no star rating is available.

Please note that 3 Star energy rating has been entered in BESS as an average however actual star rating will depends on the product range.

Hot Water Heating

Hot water for the townhouses will be provided with an efficient electric heat pump system.

Fossil Fuel-Free Development

No gas connection will be provided for the development. This will reduce reliance on fossil fuels and will be in line with local and state targets of decarbonisation.

Internal Lighting

Energy consumption from artificial lighting within the townhouses will be reduced by using LED lighting. A lighting level of 4W/m² will not be exceeded in the townhouses. The use of light internal colours will improve daylight penetration thus reducing the need for artificial lighting.

External Lighting

External lighting for the townhouses and common areas (driveway/pathway) will be LED and will include controls such as motion detectors or timers to minimise consumption during off-peak times.

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<u>Clothes</u> Drying

External retractable clothes drying lines or racks will be provided for each townhouse within the identified private open spaces.

WATER EFFICIENCY & STORMWATER MANAGEMENT

Water saving-use and reuse and its key elements should be integrated into the design of the proposed development. These principles contribute to reducing the water demand in addition to promoting water reuse. Stormwater management and its key elements should be integrated into the design of the proposed development. These principles contribute to ensuring natural systems are protected and enhanced whilst promoting on-site retention and aim to reduce runoff or peak flows.

Water Efficient Fittings

The development will include efficient fittings and fixtures to reduce the volume of mains water used in the development. The following WELS star ratings will be specified:

- Toilets 4 Star;
- Taps (bathroom and kitchen) 5 Star;
- Showerhead 4 Star with seration device (6.0-7.5L/min); and
- Dishwasher 5 Star.

Bainwater Collection & Use

Rainwater runoff from part of the roof area of each townhouse will be collected and stored in rainwater tanks¹. Dwelling 1&5 will be provided with a 2,000L tank for each and dwellings 2,3 &4 will be provided with a 3,000L tank for each.

If required, a charged pipe system or multiple tanks will be installed to collect water from part of the roof of each dwelling.

In the case of a charged pipe system, the charged pipes will not be running underneath the building footprint (slab) and the stakeholders (builder/developer/architect) will be required to explicitly acknowledge this solution and have the capacity to install it.

Rainwater collected will be used for toilet flushing in each townhouse. These initiatives will reduce significantly the stormwater impacts of the development and help achieve compliance with the STORM calculator (See Appendix A).

Water Efficient Appliances

All appliances if provided in the development as part of the base building work (e.g. dishwasher) will be chosen within one WELS star of the best available.

¹ Please note that any stormwater detention volume requirement for the site will be in addition to the proposed rainwater retention and that the proposed tank will not be directly topped up by mains water.



Water Efficient Landscaping

Native or drought-tolerant plants will be implemented for the landscaped areas on site. Use of water or irrigation will not be required after an initial period when plants are getting established.

INDOOR ENVIRONMENT QUALITY

Indoor Environment Quality and its key elements should be integrated into the design of the proposed development. These elements play a significant role in the health, well-being and satisfaction of the development occupants. Facilitating a good (IEQ) design provides a naturally comfortable indoor environment and less dependence on building services such as artificial lighting, mechanical ventilation and heating and cooling device.

Volatile Organic Compounds

All paints, adhesives and sealants and flooring will have low VOC content. Alternatively, products will be selected with no VOCs. Paints such as eColour, or equivalent should be considered. Please refer to Appendix C for VOC limits.

Formaldehyde Minimisation

All engineered wood products will have 'low' formaldehyde emissions, certified as EO or better. Alternatively, products will be specified with no Formaldehyde. Products such as ecological panels – 100% post-consumer recycled wood (or similar) will be considered for use within the development. Please refer to Appendix C for formaldehyde limits.

Daylight Levels

Daylight penetration will be enhanced with the use of light internal colours to improve daylight reflection. All bedrooms and living rooms will be provided with windows to allow for natural sunlight and ventilation. There are no bedrooms that rely on borrowed daylight. Installation of mirrored wardrobe doors could improve even further the daylight spread within the bedrooms.

Double Glazing

Glazing will be chosen in accordance with the energy rating requirements at the building approval stage. However, as a minimum, double glazing will be provided to all living areas and bedrooms. This will provide better thermal performance and reduce condensation which helps prevent the formation of mould within the dwellings.

Task Lighting

A higher illuminance level (300Lux) will be provided for all task areas (e.g. kitchen bench, bathroom basin) to ensure appropriate light is provided to do any tasks in these areas.

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CONSTRUCTION, BUILDING & WASTE MANAGEMENT

Building Management and its key elements should be integrated into the design of the proposed development. These principles contribute to ensuring efficient and effective ongoing building performance. Waste management and its key elements should be integrated into the design of the proposed development. These principles contribute to ensuring minimal waste is transported to landfill through disposal, recycling and on-site waste storage and/or collection methods.

Metering and Monitoring

Separate utility meters (water and electricity) will be provided for each townhouse. This will allow residents to monitor and reduce their consumption.

Construction Waste Management

A waste management plan will be introduced to all on-site staff at a site orientation session to ensure that the waste generated on-site is minimised and disposed of correctly. A minimum of 80% of all construction and demolition waste generated on-site will be reused or recycled.

Construction Environmental Management

The builder will identify environmental risks related to construction and include management strategies such as maintaining effective erosion and sediment control measures during construction and operation and ensure that appropriate staging of earthworks (e.g. avoid bare earthworks in high-risk areas of the site during dominant rainfall period).

Operational Waste

Each townhouse will be provided with bins for general, recycling waste and garden/organic waste and provision for future glass waste bins.



Figure 2. bins for each stream including future glass bin

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Recycling bins will be provided next to general waste bins in the kitchen.



Figure 3. Examples of kitchen receptacles for general waste and recycling.

TRANSPORT

Bicycle Parking - Residents and Visitors

Residents will be able to securely park their bicycles within each townhouse's garage. This will provide for a total of at least 5 bicycle spaces provided for residents and their visitors. The bike spaces will not be installed over the bonnet.

BUILDING MATERIALS

Materials selection should be integrated into the design of the proposed development. The ontena for appropriate materials used are based on economic and environmental costs.

<u>Timber</u>

All timber used in the development will be Forest Stewardship Council (FSC) or Program for the Endorsement of Forest Certification (PEFC) certified, or recycled/reused.

Flooring

The use of timber flooring will be preferred for all living areas and bedrooms. Wherever possible, flooring will be selected from products/materials certified under any of the following:

- Carpet Institute of Australia Limited, Environmental Certification Scheme (ECS);
- Global Green Tag <u>https://www.globalgreentag.com/</u>; and/or
- Good Environmental Choice (GECA).

Alternatively, flooring must be durable, include some eco-preferred content, be modular and/or come from a manufacturer with a product stewardship program and ISO14001 certification.



Joinery

Wherever possible, joinery will be manufactured from materials/products certified under any of the following:

- Global Green Tag <u>https://www.globalgreentag.com/;</u> and/or
- Good Environmental Choice (GECA).

Steel

Wherever possible, steel for the development will be sourced from a Responsible Steel Maker², Reinforcing steel for the project will be manufactured using energy-reducing processes commonly used by large manufacturers such as Bluescope or OneSteel.



URBAN ECOLOGY

In highly urbanised environments, such as metropolitan Melbourne, it is important to recognise the importance of maintaining and increasing the health of our urban ecosystems to improve living conditions not only for the fauna but also ourselves. We can improve our urban ecosystem through the incorporation of vegetation through landscaping for both new and existing developments.

Vegetation

A large landscaped area will be provided around the site and within the private open spaces. It will provide the occupants with a pleasant surrounding environment. The design will incorporate a mix of native species to help maintain local biodiversity.

Insulant ODP

All thermal insulation used in the development will not contain any ozone-depleting substances and will not use any in its manufacturing.

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² A Responsible Steel Maker must have facilities with a currently valid and certified ISO 14001 Environmental Management System (EMS) in place, and be a member of the World Steel Association's (WSA) Climate Action Program (CAP).



IMPLEMENTATION & MONITORING

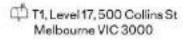
The proposed development will meet the best practice requirement of the City of Cardinia through the different initiatives described in this report such as a thermally efficient building envelope, efficient air conditioning and hot water system and sustainable materials. An appropriate implementation and monitoring of the initiatives outlined within this report will be required.

Implementation of the ESD initiatives outlined in this report requires the following processes:

- Full integration with architectural plans and specifications.
- Full integration with building services design drawings and specifications.
- Endorsement of the ESD Report with town planning drawings.
- ESD initiatives to be included in plans and specifications for building approval

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APPENDIX A - WSUD REPORT / STORM ASSESSMENT

New development must comply with the best practice performance targets for suspended solids, total phosphorous and total nitrogen, as set out in the Urban Stormwater Best Practice Environmental Management Guidelines, Victoria Stormwater Committee 1999. Currently, these water quality performance targets require:

- Suspended Solids 80% retention of typical urban annual load.
- Total Nitrogen 45% retention of typical urban annual load.
- Total Phosphorus 45% retention of typical urban annual load.
- Litter 70% reduction of typical urban annual load.

The STORM tool, an industry-accepted tool, was used to assess the development and ensure that the best practice targets described above are met. A minimum compliance score of 100% is required to achieve for the development.

Site Delineation

For the purpose of the assessment, the development has been delineated into the following surface types:

- Site area of 2,024m²;
- Part of the roof area runoff of dwelling 1 of 144.0m² which will be diverted into rainwater tank(s);
- Part of the roof area runoff of dwelling 2 of 178.0m² which will be diverted into rainwater tank(s):
- Part of the roof area runoff of dwelling 3 of 186.0m² which will be diverted into rainwater tank(s);
- Part of the roof area runoff of dwelling 4 of 194.0m² which will be diverted into rainwater tank(s):
- Part of the roof area runoff of dwelling 5 of 97 0m² which will be diverted into rainwater tank(s);
- Permeable area of 660.0m² comprised of landscaped area, permeable paving and other pervious surfaces in the backyards;
- Remainder of impervious areas of 565m² comprised of unconnected roof areas and other impervious areas around the site.

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Stormwater initiatives

<u>Rainwater Tank</u> (Rainwater tank for toilet flushing for each dwelling)

The roof catchment area of each townhouse (as described above) will be diverted to 2,000L rainwater tanks for townhouse 1&5 for each and 3,000L rainwater tanks for townhouse 2,384 for each. The rainwater collected will be used for toilet flushing all townhouses.

If required, a charged pipe system or multiple tanks will be installed to collect water from part of the roof of each dwelling.

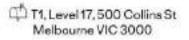
In the case of a charged pipe system, the charged pipes will not be running underneath the slab and the stakeholders (builder/developer/architect) will be required to explicitly acknowledge this solution and have the capacity to install it.

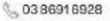
The remainder of impervious areas will directly be released at the legal point of discharge on site.

Permeable areas are excluded from the STORM assessment.

It should be noted that permeable areas have been maximised in the development which will reduce the overall stormwater outflows from the site. Vegetated areas are provided in the proposed development reducing the heat island effect and improving the local habitat.

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Stormwater Results

The initiatives and areas described above have been applied to the STORM calculator and the proposed development has achieved a score of 51%.

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lunicipality:	CARDINIA					
ainfall Station:	CARDINIA					
ddress:	19 Hope Street					The planning process information must not be
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sessor:	Patrick Deed	(deg-g-ex-men) a	ation, distribution o	r copying of the	s document is s	arcañ brandweg
velopment Type:	Residential - Subd	livision				
otment Site (m2):	2,024.00					
ORM Rating %:	51					
Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
t 1 Roof Area Treated	144.00	Rainwater Tank	2,000.00	3	85.80	92.40
t 1 Roof Area streated	28.00	None	0.00	0	0.00	0.00
t 1 Driveway Area ntreated	34.00	None	0.00	0	0.00	0.00
ot 2 Roof Area Treated	178.00	Rainwater Tank	3,000.00	3	83.50	96.60
ot 2 Roof Area Intreated	25.00	None	0.00	0	0.00	0.00
ot 3 Roof Area Treated	186.00	Rainwater Tank	3,000.00	3	83.10	96.60
ot 3 Roof Area Intreated	43.00	None	0.00	0	0.00	0.00
ommon Property iveway Area htreated	182.00	None	0.00	0	0.00	0.00
t 4 Roof Area Treated	194.00	Rainwater Tank	3,000.00	3	77.80	98.20
t 4 Roof Area treated	30.00	None	0.00	0	0.00	0.00
t 4 Driveway Area streated	114.00	None	0.00	0	0.00	0.00



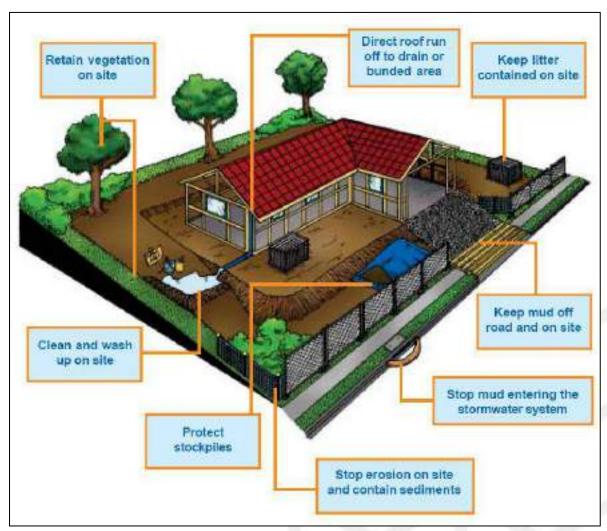
Melbourne STORM Rating Report

TransactionID:	0						
Municipality:	CARDINIA						
Rainfall Station:	CARDINIA						
Address:	19 Hope Street						the planning process
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Assessor:	Patrick Deed		(second s	tion, distribution or	copying or may		acal brandoning
Development Type:	Residential - Subo	fivision					
Allotment Site (m2):	2,024.00						
STORM Rating %:	51						
Description	Impervious Area (m2)	Treat	ment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Lot 5 Roof Area Treated	97.00	Rainwater	Tank	2,000.00	3	115.60	87.70
Lot 5 Roof Area Untreated	80.00	None		0.00	0	0.00	0.00
Lot 5 Driveway Area Untreated	29.00	None		0.00	0	0.00	0.00



Stormwater Management at Construction Site

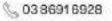
To manage stormwater management in the construction stage, measures will be put in place to minimise the likelihood of contaminating stormwater. This will mean ensuring buffer strips are in place, sediment traps are installed, and the site will be kept clean from any loose rubbish. The builder will follow the process outlined in "Keeping Our Stormwater Clean – A Builder's Guide" by Melbourne Water.

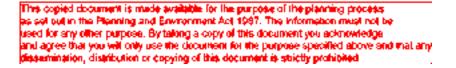


Copies of "Keeping Our Stormwater Clean – A Builder's Guide" booklet can be downloaded from the following website.

https://www.clearwatervic.com.au/resource-library/guidelines-andstrategy/keeping-our-stormwater-clean-a-builders-guide.php

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VICES

APPENDIX B – WSUD MAINTENANCE & INSTALLATION

Installation

Rainwater Tank(s)

The rainwater tank(s) will be installed above ground. Its manufacturer or material has not been nominated. It will be installed with a mesh insect cover over the inlet pipe to ensure the tank does not become a breeding ground for pests. Mesh needs to be installed over overflow pipes and if a manhole is present it needs to be properly sealed.

Please refer to the architectural drawings for the location of the rainwater tank.

Pumps

The pumps required either to divert the stormwater runoff to the rainwater tank or to distribute the collected water to the end use (toilets) will be required to be installed as per the chosen manufacturer specifications.

Inspection Requirements

Bainwater Tanks

Inspections of roof areas and gutters leading to the tank should take place every 6 months. Rainwater in the tanks should be checked every 6 months for mosquito infestation.

The rainwater tank should be examined every 2 years for studge buildup.

Ensure the monitoring system (be it digital or a simple float system) is functioning properly by checking the water level in the rainwater tanks.

Pumps

The pumps required will be required to be routinely inspected by listening for the day-today operation of the pumps. Unusual noise or no noise should be investigated. Inspection should occur as per the chosen manufacturer's specifications.

Clean Out / Maintenance Procedure

Bainwater Tank, Roof and Gutters

Rainwater tanks will require the roof and gutters onsite to be maintained: gutters should be checked, maintained and cleaned every six months to avoid blockages from occurring. If a leaf-blocking system is installed this can be completed annually.

Any trees onsite should be maintained every 6 months with branches overhanging the roof removed.

Water ponding in gutters should be avoided as this provides a breeding ground for mosquitos: tanks should also not become breeding grounds for mosquitoes. If mosquitoes are detected in the tank remedial steps need to occur to prevent breeding. If mosquitoes or other insects are found in rainwater tanks, the point of entry should be

Page 18

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located and repaired. As well as preventing further access, this will prevent the escape of emerging adults. Gutters should be inspected to ensure they do not contain ponded water and be cleaned if necessary.

Please refer to <u>https://www.health.vic.gov.au/sites/default/files/2022-11/Keeping-</u> your-rainwater-tank-safe-from-mosquitos.pdf for more information on mosquito control.

Rainwater tanks should be checked by a regular maintenance person every 3-6 months to ensure that connection to the building is maintained and there are no blockages.

A simple way to ensure the tank is operating as intended would be through the installation of a smart monitoring device (e.g. OneBox*). These systems allow users to operate tanks remotely from the internet or smartphone, monitor and control the tanks in real time, allow the automatic release of stored water before storm events, alert users if there is any blockage and view tank history and usage patterns.

Alternatively, onsite tank gauges can help those familiar with the tank know if the tank is not working correctly.

Pumps

Maintenance should occur as per the chosen manufacturer's specifications. All strainers and filters should be cleaned every 6 months. Good quality pumps should provide trouble-free service for up to 10 years.

Commissioning

Rainwater Tank

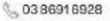
All rainwater tanks should be washed or flushed out before use. All inlets and outlets should be correctly sealed to prevent insects from entering. Connection to all toilets in the development should be tested (dye test or equivalent).

Please note if new roof coating or paint is to be installed then the first few run-offs after installation need to be discarded.

Pumps

Commissioning should occur as per the chosen manufacturer's specifications.

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Summary

The following needs to occur onsite to ensure compliance with WSUD requirements and maintain the operation of the rainwater tank and connections onsite.

Task	When?	Requirement
Inspect Rainwater tanks	Every 6 months	 Check for any
		damage/compression
		 Mosquitoes infestation
	Every 2 years	 Sludge Build up – if
		sludge build-up occurs a
		vacuum tank needs to be
		called out to the site.
Inspect roofs & gutters	Every 6 months	 Clean out of
		leaves/debris.
		Remove any overhanging
		branches onsite

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APPENDIX C – VOC & FORMALDEHYDE EMISSION LIMITS

The following table is an extract of the Green Star Design and as-built submission guidelines:

Product Category	Max TVOC content in grams per litre (g/L) of ready to use product.
General purpose adhesives and sealants	50
Interior wall and ceiling paint, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100

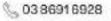
Table 13.1.1: Maximum TVOC Limits for Paints, Adhesives and Sealants

The product complies with the Total VOC (TVOC) limits specified in the Table below.

Carpet Test Standards and TVOC Emissions Limits

Test protocol	Limit
ASTM D5116 - Total VOC limit	0.5mg/m ² per hour
ASTM D5116 - 4-PC (4-Phenylcyclohexene)	0.05mg/m ² per hour
ISO 16000 / EN 13419 - TVOC at three days	0.5 mg/m ² per hour
ISO 10580 / ISO/TC 219 (Document N238) - TVOC at 24 hours	0.5mg/m ² per hour

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Test Protocol	Emission Limit/ Unit of Measurement
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11 2005 method 10 for Plywood	≤1mg/ L
AS/NZS 1859 1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5 mg/L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1mg/ L
AS/NZS 4357.4 - Laminated Veneer Lumber (LVL)	≤1mg/ L
Japanese Agricultural Standard MAFF Notification No.701 Appendix Clause 3 (11) - LVL	≤1mg/ L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A 5905:2003 - MDF, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A1901 (not applicable to Plywood, applicable to high pressure laminates and compact laminates)	≤0,1 mg/m²hr*
ASTM D5116	≤0.1 mg/m²hr
(applicable to high pressure laminates and compact laminates)	
ISO 16000 part 9, 10 and 11 (also known as EN 13419), applicable to high pressure laminates and compact laminates	≤0.1 mg/m²hr (at 3 days
ASTM D6007	≤0.12mg/m ^{a**}
ASTM E1333	≤0.12mg/m³***
EN 717-1 (also known as DIN EN 717-1)	≤0.12mg/m ⁸
EN 717-2 (also known as DIN EN 717-2)	≤3.5mg/m²hr

Table 13.2: Formaldehyde Emission Limit Values for Engineered Wood Products

"mg/m*hr may also be represented as mg/m*/hr.

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APPENDIX D - BESS ASSESSMENT

S 03 8691 6928

BESS Report

Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at 19 Hope St Bunyip Victoria 3815. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Cardinia Shire Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

				Be	st practice		Excelle	ence			5	80	%)
% 10%	20%	30%	40%	50%	60%	70%	80%	90%	100%				_	
Project detai	ils													
Address Project no BESS Version		19 Hope 237576 BESS-8		Victoria 3	3815							35		
Site type Account Application no.			velling (dual terconsultir			use, villa	unit etc)				Ř	D	8	
Site area	-	2,024.0) m ²											
Building floor a	area	921.00		ied doo	amerii is	made :	av andarite	e for li	e purpo	se of th	e plann	ng proc	445	
Building floor a Date Software versio			Ens cop as set ou 2024 Used for and agre	d in the any olfi e thai y	Plenning	g and E se, By 1 Wy use	ownern talong a the doo	nent A. Kopy xumeni	of 1997. of this d i for the	The lof ocumer purpose	orimetace it you ac specifi	n muştır Xnovde ed abov	not be	nal a
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Date Software version Performance	on e by ca Weight	23 July 2.0.0-B. Itegory Score F	Vised for and agree dissection Yo Pass	d in the any office that y ation, d	Planning ter purpo tou will of distributio	g and E se. By 1 Wy use n or co	ovrono talong a the doc pying o	nent Au copy xumoni f this c	of 1997. of this d i for the	The lof ocumer purpose	orimetace it you ac specifi	n muştır Xnovde ed abov	not be	nal a
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Date Software version Performance Category Management	on e by ca Weight 5% 9%	23 July 2.0.0-B. htegory Score F 0% 60%	Pres cop pos and put used for any agree pessantin • Yo Pass • Vo • Yo • Yo • Yo	d in the any office that y ation, d	Planning ter purpo tou will of distributio	g and E se. By 1 Wy use n or co	ovrono talong a the doc pying o	nent Au copy xumoni f this c	of 1997. of this d i for the	The lof ocumer purpose	orimetace it you ac specifi	n muştır Xnovde ed abov	not be	nal a
Date Software version Performance Category M Management Water Energy	on e by ca Weight 5% 9% 28%	23 July 2.0.0-B. ttegory Score F 0% 60% 70%	Pres cop Res and Nu Used for any agree Statement Provide Statement	d in the any office that y ation, d	Planning ter purpo tou will of distributio	g and E se. By 1 Wy use n or co	ovrono talong a the doc pying o	nent Au copy xumoni f this c	of 1997. of this d i for the	The lof ocumer purpose	orimetace it you ac specifi	n muştır Xnovde ed abov	not be	nat a
Date Software version Performance Category M Management Water Energy Stormwater	on e by ca Weight 5% 9% 28% 14%	23 July 2.0.0-B. Itegory Score F 0% 60% 70% 100%	Pres cop Res and Nu Used for any agree Statement Provide Statement	d in the any office that y ation, d	Planning ter purpo tou will of distributio	g and E se. By 1 Wy use n or co	ovrono talong a the doc pying o	nent Au copy xumoni f this c	of 1997. of this d i for the	The lof ocumer purpose	orimetace it you ac specifi	n muştır Xnovde ed abov	not be	nata
Date Software version Performance Category M Management Water Energy Stormwater IEQ	on e by ca Weight 5% 9% 28% 14% 17%	23 July 2.0.0-B. ttegory Score F 0% 60% 70% 100% 80%	Pres cop Res and Nu Used for any agree Statement Provide Statement	d in the any office that y ation, d	Planning ter purpo tou will of distributio	g and E se. By 1 Wy use n or co	ovrono talong a the doc pying o	nent Au copy xumoni f this c	of 1997. of this d i for the	The lof ocumer purpose	orimetace it you ac specifi	n muştır Xnovde ed abov	not be	nal a
Date Software version Performance Category M Management Water Energy Stormwater IEQ Transport	on by ca Weight 5% 9% 28% 14% 17% 9%	23 July 2.0.0-B. Itegory Score F 0% 60% 70% 100% 80% 33%	Pres cop Res and Nu Used for any agree Statement Provide Statement	d in the any office that y ation, d	Planning ter purpo tou will of distributio	g and E se. By 1 Wy use n or co	ovrono talong a the doc pying o	nent Au copy xumoni f this c	of 1997. of this d i for the	The lof ocumer purpose	orimetace it you ac specifi	n muştır Xnovde ed abov	not be	nal a

Dwellings & Non Res Spaces

Dwellings				
Name	Quantity	Area	% of total area	
Townhouse				
Dwelling 4	1	203 m ²	22%	
Dwelling 3	1	211 m ²	22%	
Dwelling 2	1	176 m ²	19%	
Dwelling 5	1	168 m ²	18%	
Dwelling 1	1	163 m ²	17%	
Total	5	921 m ²	100%	

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Water 3.1	Annotation: Water efficient garden details		-
Energy 3.3	Annotation: External lighting controlled by motion sensors		-
Energy 3.4	Location of clothes line (if proposed)		-
Stormwater 1.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)		-
IEQ 2.2	Annotation: Dwellings designed for 'natural cross flow ventilation' (If not all dwellings, include a list of compliant dwellings)		-
IEQ 3.1	Annotation: Glazing specification (U-value, SHGC)		-
IEQ 3.3	North-facing living areas		-
Transport 1.1	Location of residential bicycle parking spaces		-
Waste 2.1	Location of food and garden waste facilities		-
Urban Ecology 2.1	Location and size of vegetated areas		-

Supporting evidence

Requirement	Response	Status
Average lighting power density and lighting type(s) to be used		-
STORM report or MUSIC model		-
A list of dwellings with natural cross flow ventilation		-
Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)		-
Reference to the floor plans showing living areas orientated to the north		-
	Average lighting power density and lighting type(s) to be used STORM report or MUSIC model A list of dwellings with natural cross flow ventilation Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)	Average lighting power density and lighting type(s) to be used STORM report or MUSIC model A list of dwellings with natural cross flow ventilation Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)

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Credit summary

Management Overall contribution 4.5%

	0%	
1.1 Pre-Application Meeting	0%	
2.2 Thermal Performance Modelling - Multi-Dwelling Residential	0%	
4.1 Building Users Guide	0%	

Water Overall contribution 9.0%

	Minimum required 50% 60%		 Pass 		
1.1 Potable Water Use Reduction			52%		
3.1 Water Efficient Landscaping			100%		

Energy Overall contribution 27.5%

	Minimum required 50% 70% 🖌 Pass
1.2 Thermal Performance Rating - Residential	0% 🗸 Achieved
2.1 Greenhouse Gas Emissions	100%
2.6 Electrification	100%
2.7 Energy consumption	100%
3.3 External Lighting	100%
3.4 Clothes Drying	100%
3.5 Internal Lighting - Houses and Townhouses	100%
4.4 Renewable Energy Systems - Other	N/A 💠 Scoped Out
	No other (non-solar PV) renewable energy is in use.
4.5 Solar PV - Houses and Townhouses	0% Ø Disabled
	No solar PV renewable energy is in use.

Stormwater Overall contribution 13.5%

		Minimum required 100%	100%	 Pass
1.1 St	ormwater Treatment		100%	

IEQ Overall contribution 16.5%

	Minimum required 50%	80% 🗸 Pass	
2.2 Cross Flow Ventilation		100%	
3.1 Thermal comfort - Double Glazing		100%	
3.2 Thermal Comfort - External Shading		0%	
3.3 Thermal Comfort - Orientation		100%	
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Transport Overall contribution 9.0%

	33%
1.1 Bicycle Parking - Residential	100%
1.2 Bicycle Parking - Residential Visitor	0%
2.1 Electric Vehicle Infrastructure	0%

Waste Overall contribution 5.5%

	50%	
1.1 - Construction Waste - Building Re-Use	0%	
2.1 - Operational Waste - Food & Garden Waste	100%	

Urban Ecology Overall contribution 5.5%

		25%	
2.1 Vegetation		50%	
2.2 Green Roofs		0%	
2.3 Green Walls and Facades		0%	
2.4 Private Open Space - Balcony / Courtyard Ecology		0%	
3.1 Food Production - Residential		0%	

Innovation Overall contribution 9.0%

		0%
1.1 Innovation		0%

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Credit breakdown

Management Overall contribution 0%

1.1 Pre-Application Meeting	0%
Score Contribution	This credit contributes 50% towards the category score.
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic
	design to construction? AND Has the ESD professional been involved in a pre-
	application meeting with Council?
Question	Criteria Achieved ?
Project	No
2.2 Thermal Performance Modelling Residential	g - Multi-Dwelling 0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Have preliminary NatHERS ratings been undertaken for all thermally unique dwellings?
Question	Criteria Achieved ?
Townhouse	No
4.1 Building Users Guide	0%
Score Contribution	This credit contributes 16.7% towards the category score.
Criteria	Will a building users guide be produced and issued to occupants?
Question	Criteria Achieved ?
Project	No

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Water Overall contribution 5% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the built in calculation tools
Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes
Fixtures, fittings & connections profile	
Showerhead: All	4 Star WELS (>= 6.0 but <= 7.5)
Bath: All	Medium Sized Contemporary Bath
Kitchen Taps: All	>= 5 Star WELS rating
Bathroom Taps: All	>= 5 Star WELS rating
Dishwashers: All	>= 5 Star WELS rating
WC: All	>= 4 Star WELS rating
Urinals: All	Scope out
Washing Machine Water Efficiency: All	>= 5 Star WELS rating
Which non-potable water source is the dwelling/space connected to?:	
Dwelling 1	RWT 1
Dwelling 2	RWT 2
Dwelling 3	RWT 3
Dwelling 4	RWT 4
Dwelling 5	RWT 5
Non-potable water source connected to Toilets: All	Yes
Non-potable water source connected to Laundry (washing machine): All	No
Non-potable water source connected to Hot Water System:	All No
Rainwater tank profile	
What is the total roof area connected to the rainwater tank?:	
RWT 1	144 m ²
RWT 2	178 m ²
RWT 3	186 m ²
RWT 4	194 m²
RWT 5	97.0 m ²
Tank Size:	
RWT 1	2,000 Litres
RWT 2	3,000 Litres
RWT 3	3,000 Litres
RWT 4	3,000 Litres
RWT 5	2,000 Litres

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RWT 1	-		
RWT 2	-		
RWT 3	-		
RWT 4	-		
RWT 5	-		
Is connected irrigation area a v	vater efficient garden?:		
RWT 1	No		
RWT 2	No		
RWT 3	No		
RWT 4	No		
RWT 5	No		
Other external water demand of	connected to tank?:		
RWT 1			
RWT 2	-		
RWT 3	-		
RWT 4	-		
RWT 5	-		
1.1 Potable Water Use Reduc	stion 52%		
Score Contribution	This credit contributes 83.3% towards the category score.		
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliance		
	rainwater use and recycled water use? To achieve points in this credit there must I		
	>25% potable water reduction.		
Output	Reference		
Project	1118 kL		
Output	Proposed (excluding rainwater and recycled water use)		
Project	830 kL		
Output	Proposed (including rainwater and recycled water use)		
Project	731 kL		
Output	% Reduction in Potable Water Consumption		
Project	34 %		
Output	% of connected demand met by rainwater		
Project	100 %		
Output	How often does the tank overflow?		
Project	Very Often		
Output	Opportunity for additional rainwater connection		
Project	296 kL		
3.1 Water Efficient Landscapi	ing 100%		
Score Contribution	This credit contributes 16.7% towards the category score.		
Criteria	Will water efficient landscaping be installed?		
Question	Criteria Achieved ?		
Project	Yes		
il ins d	copied document is made available for the purpose of the planning process		

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Energy Overall contribution 20% Minimum required 50%

Dwellings Energy Approach		
What approach do you want to use	for Dwellings?:	Use the built in calculation tools
Project Energy Profile Question		
Are you installing any solar photovo	ltaic (PV) system(s)?:	No
Are you installing any other renewable energy system(s)?:		No
Energy Supply:		All-electric
Dwelling Energy Profiles		
Below the floor is: All		Ground or Carpark
Above the ceiling is: All		Outside
Exposed sides: All		4
NatHERS Annual Energy Loads - H	eat: All	71.0 MJ/sqm
NatHERS Annual Energy Loads - C	ool: All	20.0 MJ/sqm
NatHERS star rating: All		7.0
Type of Heating System: All		Reverse cycle space
Heating System Efficiency: All		3 Stars (2019 MEPS)
Type of Cooling System: All		Refrigerative space
Cooling System Efficiency: All		3 Stars (2019 MEPS)
Type of Hot Water System: All		Electric Heat Pump Band 1
Clothes Line: All		Private outdoor clothesline
Clothes Dryer: All		Occupant to install
1.2 Thermal Performance Rating	- Residential	0% 🗸 Achiev
Score Contribution	This credit contrib	utes 17.6% towards the category score.
Criteria	What is the average	ge NatHERS rating?
Output		S Rating (Weighted)
Townhouse	7.0 Stars	
2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contrib	utes 17.6% towards the category score.
Criteria		uction in annual greenhouse gas emissions against the benchmark
Output		g with Reference Services (BCA only)
Townhouse	16,957 kg CO2	
		g with Proposed Services (Actual Building)
Output Townhouse		g with Proposed Services (Actual Building)
	12,162 kg CO2	
Output Townhouse	% Reduction in G	
2.6 Electrification	20 70	100%
2.6 Electrification		100%
Score Contribution	This credit contrib	utes 17.6% towards the category score.
Criteria	Is the developmer	nt all-electric?
Question	Criteria Achieved?	
Project	Yes	

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2.7 Energy consumption	100%	
Score Contribution	This credit contributes 23.5% towards the category score.	
Criteria	What is the % reduction in annual energy consumption against the benchmark?	
Output	Reference Building with Reference Services (BCA only)	
Townhouse	147,595 MJ	
Output	Proposed Building with Proposed Services (Actual Building)	
Townhouse	51,510 MJ	
Output	% Reduction in total energy	
Townhouse	65 %	
3.3 External Lighting	100%	
Score Contribution	This credit contributes 2.9% towards the category score.	
Criteria	Is the external lighting controlled by a motion detector?	
Question	Criteria Achieved ?	
Townhouse	Yes	
3.4 Clothes Drying	100%	
Score Contribution	This credit contributes 5.9% towards the category score.	
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a	
	combination of clothes lines and efficient driers against the benchmark?	
Output	Reference	
Townhouse	3,100 kWh	
Output	Proposed	
Townhouse	620 kWh	
Output	Improvement	
Townhouse	80 %	
3.5 Internal Lighting - Houses and	Townhouses 100%	
Score Contribution	This credit contributes 2.9% towards the category score.	
Criteria	Does the development achieve a maximum illumination power density of 4W/sqm	or
	less?	
Question	Criteria Achieved?	
Townhouse	Yes	
4.4 Renewable Energy Systems - C	Other N/A \diamond Scope	d Out
This credit was scoped out	No other (non-solar PV) renewable energy is in use.	
4.5 Solar PV - Houses and Townho	uses 0% O Dis	abled
This credit is disabled	No solar PV renewable energy is in use.	

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Stormwater Overall contribution 14% Minimum required 100%

Which stormwater mod	delling software are you using?:	Melbourne Water STORM tool
1.1 Stormwater Treatr	ment	100%
Score Contribution	This credit contr	ibutes 100% towards the category score.
Criteria	Has best practic	e stormwater management been demonstrated?
Question	STORM score a	chieved
Project	100	
Output	Min STORM Sco	pre
Project	100	

IEQ Overall contribution 13% Minimum required 50%

2.2 Cross Flow Ventilation	100%
Score Contribution	This credit contributes 20% towards the category score.
Criteria	Are all habitable rooms designed to achieve natural cross flow ventilation?
Question	Criteria Achieved ?
Townhouse	Yes
3.1 Thermal comfort - Double Glazing	100%
Score Contribution	This credit contributes 40% towards the category score.
Criteria	Is double glazing (or better) used to all habitable areas?
Question	Criteria Achieved ?
Townhouse	Yes
3.2 Thermal Comfort - External Shadii	ng 0%
3.2 Thermal Comfort - External Shadin Score Contribution	This credit contributes 20% towards the category score.
Score Contribution	This credit contributes 20% towards the category score.
Score Contribution Criteria	This credit contributes 20% towards the category score. Is appropriate external shading provided to east, west and north facing glazing?
Score Contribution Criteria Question	This credit contributes 20% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ?
Score Contribution Criteria Question Townhouse	This credit contributes 20% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ? No
Score Contribution Criteria Question Townhouse 3.3 Thermal Comfort - Orientation	This credit contributes 20% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ? No 100%
Score Contribution Criteria Question Townhouse 3.3 Thermal Comfort - Orientation Score Contribution	This credit contributes 20% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ? No 100% This credit contributes 20% towards the category score.

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1.1 Bicycle Parking - Residential	1	100%
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	How many secure and undercover bicycle spaces are there for residents?	
Question	Bicycle Spaces Provided ?	
Townhouse	5	
Output	Min Bicycle Spaces Required	
Townhouse	5	
1.2 Bicycle Parking - Residential Visi	tor	0%
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	How many secure bicycle spaces are there for visitors?	
Question	Visitor Bicycle Spaces Provided ?	
Townhouse	0	
2.1 Electric Vehicle Infrastructure		0%
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	Are facilities provided for the charging of electric vehicles?	
Question	Criteria Achieved ?	
Project	No	

Waste Overall contribution 3%

1.1 - Construction Waste - Bui	ilding Re-Use 0%		
Score Contribution	This credit contributes 50% towards the category score.		
Criteria	If the development is on a site that has been previously developed, has	s at least 30% of	
	the existing building been re-used?		
Question	Criteria Achieved ?		
Project	No		
2.1 - Operational Waste - Food	d & Garden Waste 100%		
Score Contribution	This credit contributes 50% towards the category score.		
Criteria	Are facilities provided for on-site management of food and garden was	Are facilities provided for on-site management of food and garden waste?	
Question	Criteria Achieved ?		
Project	Yes		

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Urban Ecology Overall contribution 1%

2.1 Vegetation		50%
Score Contribution	This credit contributes 50% towards the c	category score.
Criteria	How much of the site is covered with vege	etation, expressed as a percentage of the
	total site area?	
Question	Percentage Achieved ?	
Project	10 %	
2.2 Green Roofs		0%
Score Contribution	This credit contributes 12.5% towards the	e category score.
Criteria	Does the development incorporate a gree	n roof?
Question	Criteria Achieved ?	
Project	No	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 12.5% towards the	e category score.
Criteria	Does the development incorporate a gree	n wall or green façade?
Question	Criteria Achieved ?	
Project	No	
2.4 Private Open Space - Balo	ony / Courtyard Ecology	0%
Score Contribution	This credit contributes 12.5% towards the	e category score.
Criteria	Is there a tap and floor waste on every ba	lcony and courtyard (including any roof
	terraces)?	
Question	Criteria Achieved ?	
Townhouse	No	
3.1 Food Production - Resider	ntial	0%
Score Contribution	This credit contributes 12.5% towards the	e category score.
Criteria	What area of space per resident is dedica	ted to food production?
Question	Food Production Area	
Townhouse	-	
	Min Food Production Area	
Output	WIITT OOUT TOULCTION Area	

Disclaimer

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The Built Environment Sustainability Scorecard (BESS) has been provided for the purpose of information and communication. While we make every effort to ensure that material is accurate and up to date (except where denoted as 'archival'), this material does in no way constitute the provision of professional or specific advice. You should seek appropriate, independent, professional advice before acting on any of the areas covered by BESS.

(n)

BESS, 19 Hope St, Bunyip VIC 3815, Australia 19 Hope St, Bunyip 3815

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Melbourne STORM Rating Report

TransactionID:	
Municipality:	
Rainfall Station:	
Address:	

CARDINIA CARDINIA 19 Hope Street

	Bunyip	
	VIC	3815
Assessor:		
Development Type:	Residential - S	Subdivision
Allotment Site (m2):	2,024.00	
STORM Rating %:	60	

0

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Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Lot 1 Roof Area Treated	144.00	Rainwater Tank	4,000.00	3	105.80	97.90
Lot 1 Roof Area Untreated	28.00	None	0.00	0	0.00	0.00
Lot 1 Driveway Untreated	34.00	None	0.00	0	0.00	0.00
Lot 2 Roof Area Treated	178.00	Rainwater Tank	4,000.00	3	91.00	98.50
Lot 2 Roof Area Untreated	25.00	None	0.00	0	0.00	0.00
Lot 3 Roof Area Treated	186.00	Rainwater Tank	4,000.00	3	89.80	98.20
Lot 3 Roof Area Untreated	43.00	None	0.00	0	0.00	0.00
Common Property Driveway Untreated - Lots 2 & 3	182.00	None	0.00	0	0.00	0.00
Lot 4 Roof Area Treated	212.00	Rainwater Tank	4,500.00	3	85.60	99.40
Lot 4 Roof Area Untreated	24.00	None	0.00	0	0.00	0.00
Lot 4 Driveway Untreated	26.00	None	0.00	0	0.00	0.00
Date Generated:	17-Dec-2024				Program Version	1.0.0



TransactionID:	0
Municipality:	CARDINIA
Rainfall Station:	CARDINIA
Address:	19 Hope Street

	Bunyip	
	VIC	3815
Assessor:		
Development Type:	Residential - Subd	livision
Allotment Site (m2):	2,024.00	
STORM Rating %:	60	
Description	Impervious Area (m2)	Treatment
Lot 5 Roof Area Treated	60.00	Rainwater Tank
Lot 5 Roof Area Untreated	117.00	None
		64070Z

Type Treatment Occupants / Treatment % Tank Water Area/Volume Number Of Supply (m2 or L) Bedrooms Reliability (%) 3,000.00 3 170.00 82.00 k 0.00 0.00 0.00 0 0.00 0 0.00 0.00 Lot 5 Driveway 26.00 None Untreated

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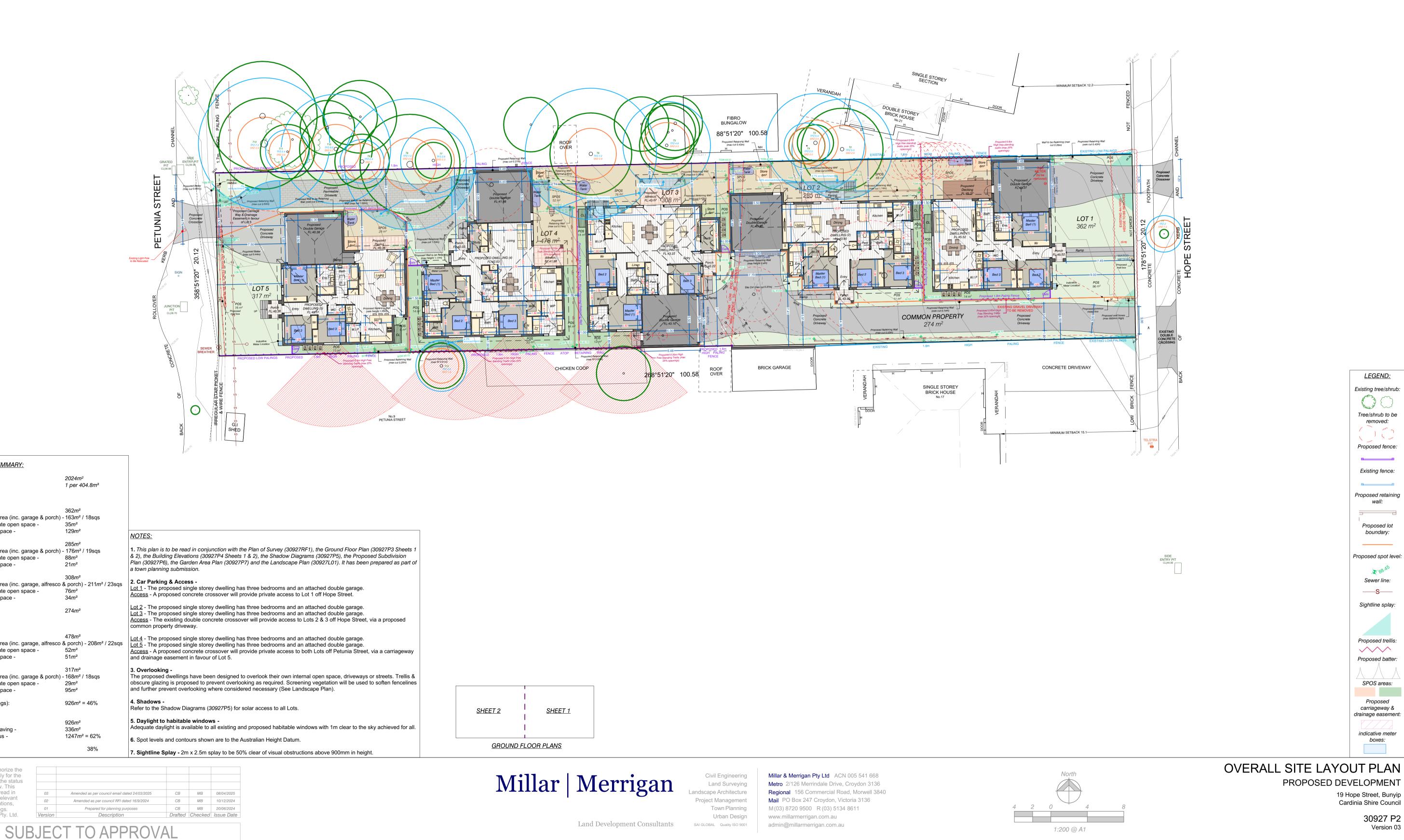




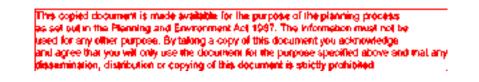


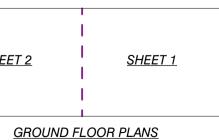


	LEGENI)	
1	Opportunity		Easement, sewer line
2	Constraint	SS DS BV	Single/double storey, brick veneer,
*	Secluded private open space	WB REN FP SB:9m	weatherboard, render, fibro panel, approximate front setback
	Potential for overlooking neighbouring private open space/habitable windows	NH D OBS	Non-habitable window (NH), habitable window, door (D), obscured window (OBS), Garage, carport, garage door, roller door
LP •	Light pole		Surage, surport, garage door, roller door
(T1 •	Tree (no. relates to Arboricultural Report)	+88. 699	Corner levels & contours to AHD, 0.2m intervals on site, 1m intervals in surrounding area
\circ	Hedge/shrub		
	Views to site	TP0 SEP ☐ S0 SB0 JP ☐ GP1 GM+ WM×	Service: telstra pit, side entry pit, sign, sewer breather, junction pit, grated pit, gas meter, water meter

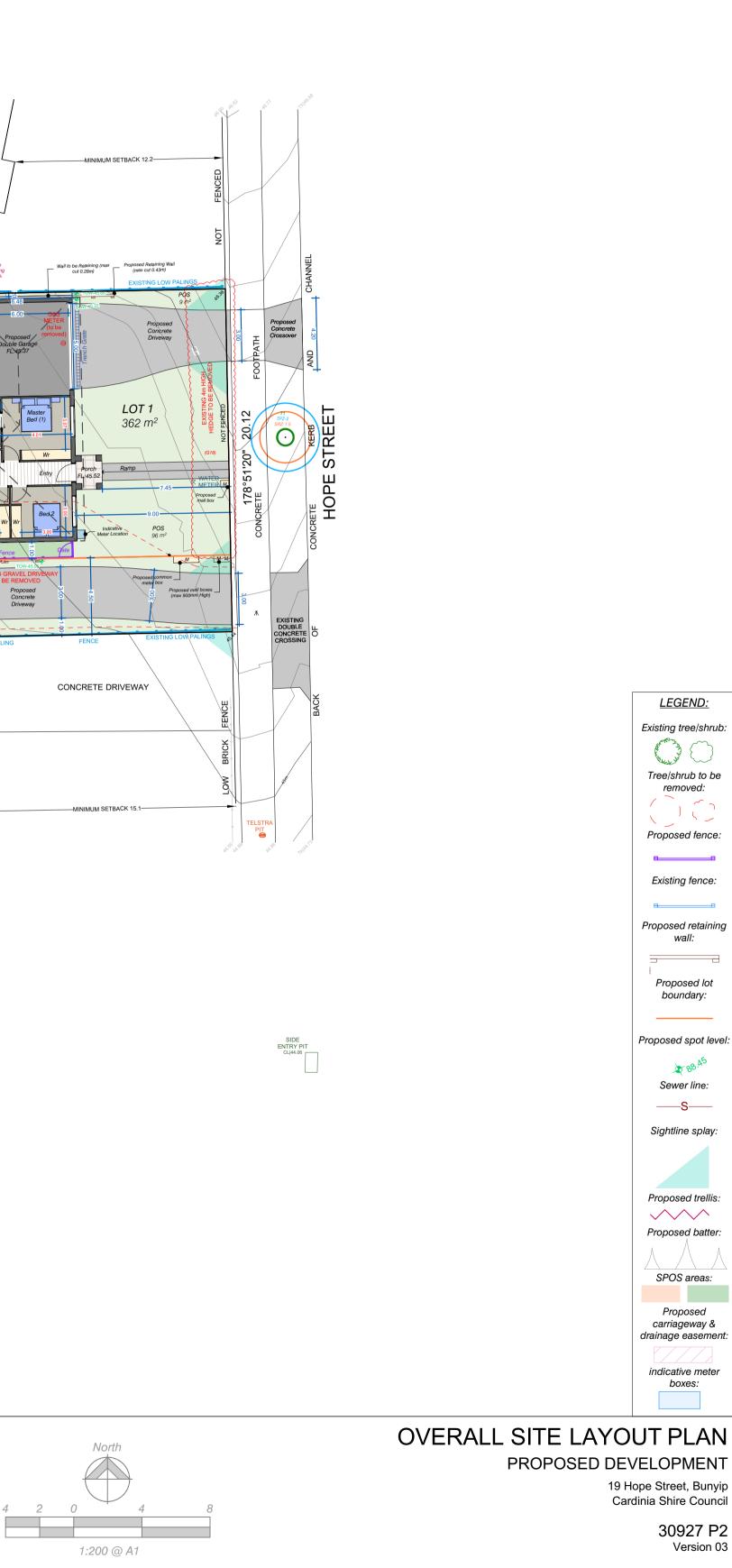


DEVELOPMENT SUMMARY:						
Site Area: Proposed density:	2024m² 1 per 404.8m²					
<u>STAGE 1:</u>						
Lot 1: Area - Ground floor area (inc. garage & porch Secluded private open space - Private open space - Lot 2: Area - Ground floor area (inc. garage & porch Secluded private open space - Private open space -	35 <i>m</i> ² 129 <i>m</i> ² 285 <i>m</i> ²	& 2), the Build Plan (30927P a town planni	ding Elevati 6), the Garo ng submiss	ions (309 den Area sion.	27P4 Sheets	he Plan of Survey (30927RF1), the Ground Floor Plan (30927P3 Sheets 1 : 1 & 2), the Shadow Diagrams (30927P5), the Proposed Subdivision P7) and the Landscape Plan (30927L01). It has been prepared as part of
Ground floor area (inc. garage, alfresco Secluded private open space - Private open space -	o & porch) - 211 <i>m</i> ² / 23sqs 76 <i>m</i> ² 34 <i>m</i> ²		oposed sin	igle store		as three bedrooms and an attached double garage. provide private access to Lot 1 off Hope Street.
Common Property: <u>STAGE 2:</u>	Lot 2 - The proposed single storey dwelling has three bedrooms and an attached double garage. Lot 3 - The proposed single storey dwelling has three bedrooms and an attached double garage. Access - The existing double concrete crossover will provide access to Lots 2 & 3 off Hope Street, via a proposed common property driveway.					
Lot 4: Area - Ground floor area (inc. garage, alfresco Secluded private open space - Private open space -	478 <i>m</i> ² b & porch) - 208 <i>m</i> ² / 22sqs 52 <i>m</i> ² 51 <i>m</i> ²	Lot 5 - The pr	oposed sin	ngle store	y dwelling ha	as three bedrooms and an attached double garage. as three bedrooms and an attached double garage. provide private access to both Lots off Petunia Street, via a carriageway
Lot 5: Area - Ground floor area (inc. garage & porch Secluded private open space - Private open space -	317 <i>m</i> ²) - 168 <i>m</i> ² / 18sqs 29 <i>m</i> ² 95 <i>m</i> ²	obscure glazi	d dwellings ng is propo	sed to pr	event overlo	to overlook their own internal open space, driveways or streets. Trellis & oking as required. Screening vegetation will be used to soften fencelines ered necessary (See Landscape Plan).
Site Coverage (buildings):	926 <i>m</i> ² = 46%	4. Shadows		arams (3	20027 D 5) for	solar access to all Lots.
Impervious Surfaces: Buildings - Driveways & paving - Total impervious -	926m² 336m² 1247m² = 62%	5. Daylight to Adequate day	habitable /light is ava	e windov ailable to	/s - all existing a	nd proposed habitable windows with 1m clear to the sky achieved for all.
Permeable area:	38%	7. Sightline S	Splay - 2m	x 2.5m s	play to be 50	0% clear of visual obstructions above 900mm in height.
Millar & Merrigan authorize the use of this drawing only for the purpose described by the status stamp shown below. This drawing should be read in conjunction with all relevant contracts, specifications, reports & drawings. 03	Amended as per council email da Amended as per council RFI da Prepared for planning pu	ted 16/9/2024	CB CB CB	MB MB MB	08/04/2025 10/12/2024 20/06/2024	
© Millar & Merrigan Pty. Ltd. Version	Description		Drafted	Checked	Issue Date	





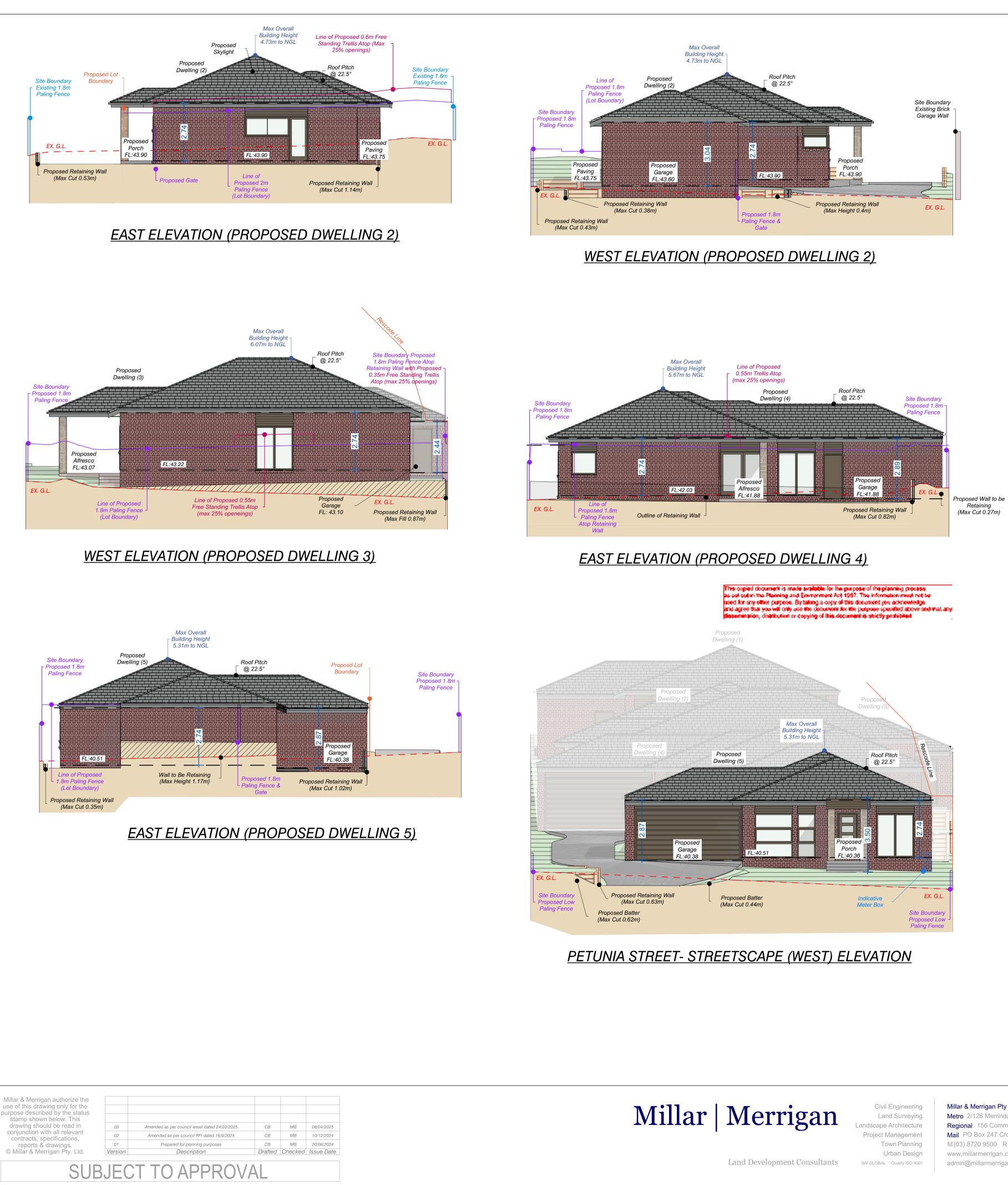


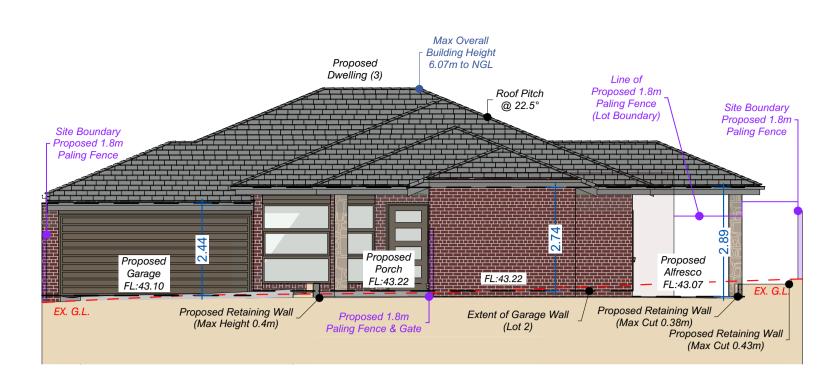




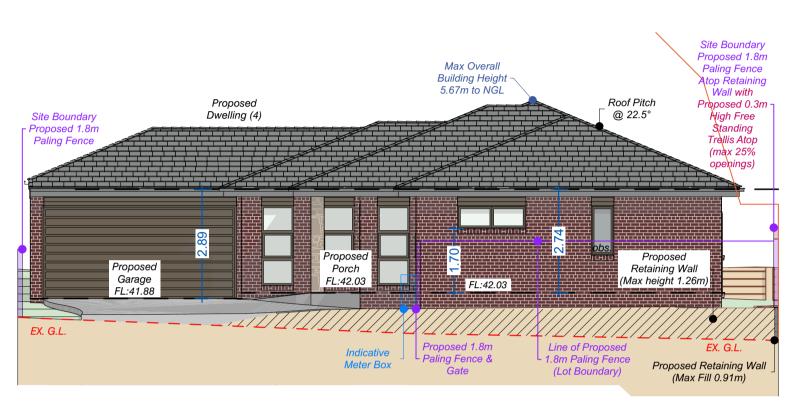




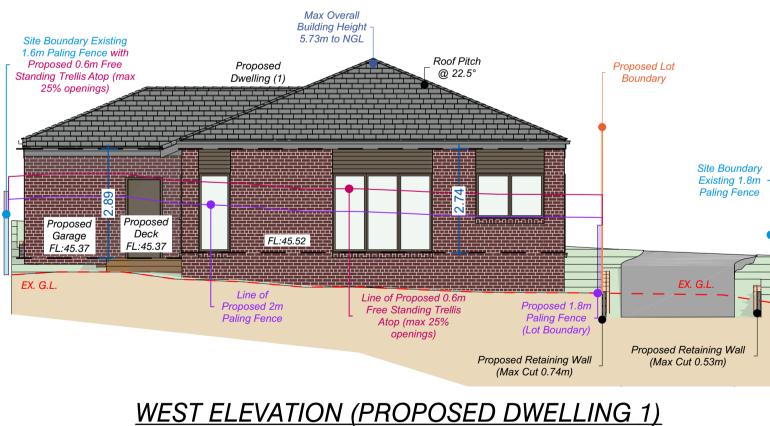




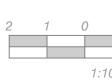
EAST ELEVATION (PROPOSED DWELLING 3)



WEST ELEVATION (PROPOSED DWELLING 4)



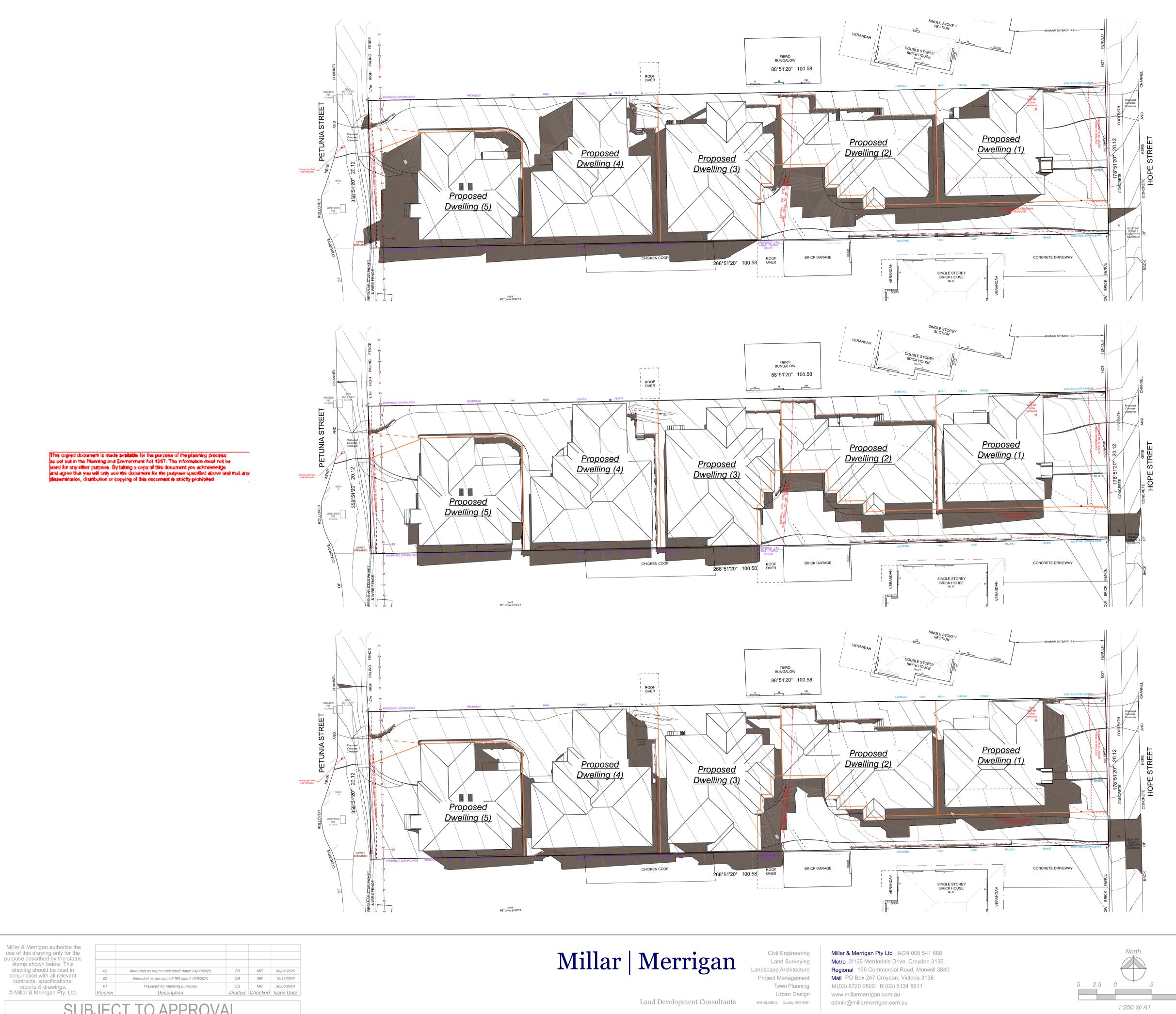
Millar & Merrigan Pty Ltd ACN 005 541 668 Metro 2/126 Merrindale Drive, Croydon 3136 Regional 156 Commercial Road, Morwell 3840 Mail PO Box 247 Croydon, Victoria 3136 M(03) 8720 9500 R(03) 5134 8611 www.millarmerrigan.com.au admin@millarmerrigan.com.au



BUILDING ELEVATIONS PROPOSED DEVELOPMENT 19 Hope Street, Bunyip Cardinia Shire Council

30927 P4 Version 03 Sheet 2 of 2

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<u>9am</u>

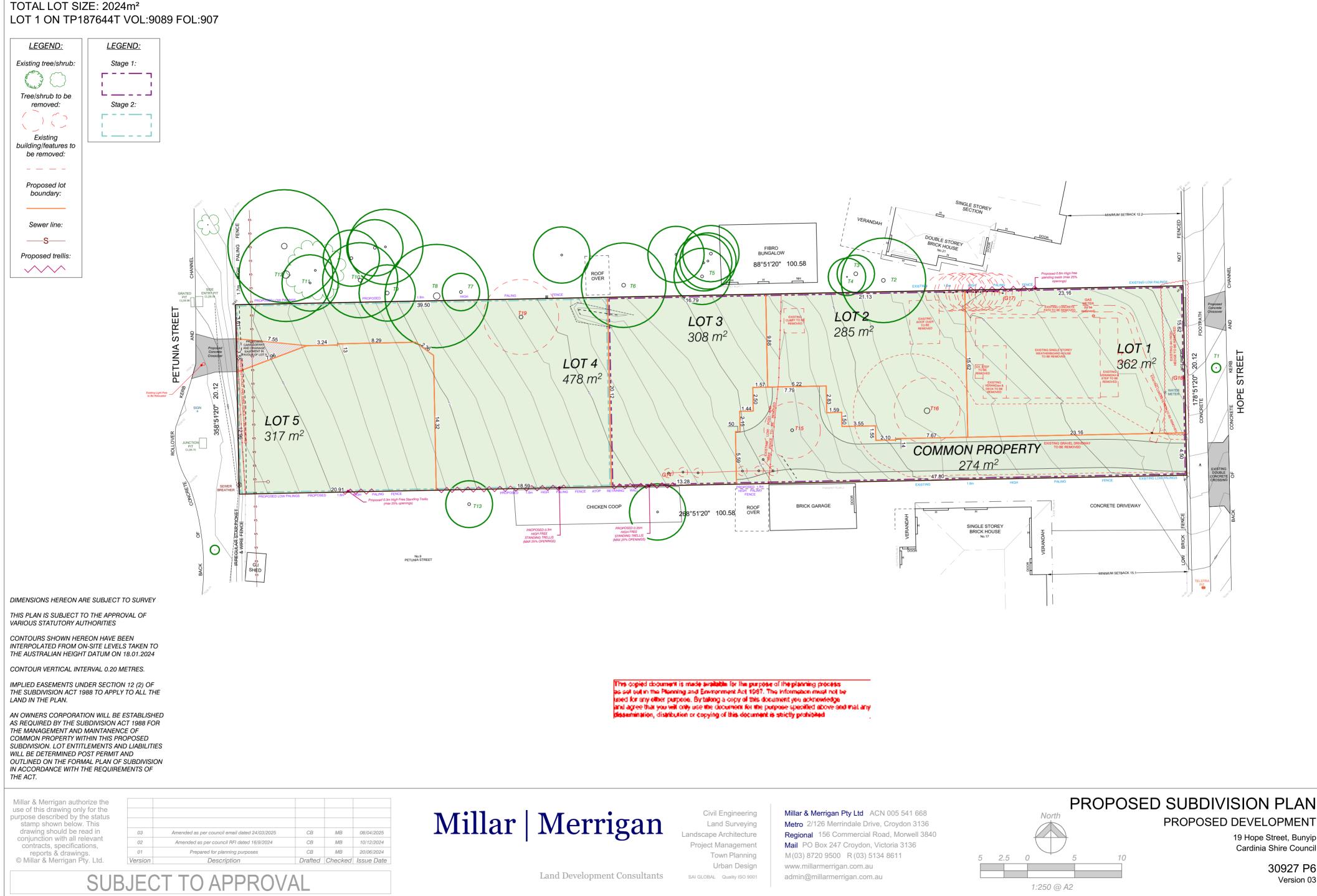
<u>12 Noon</u>

<u>3pm</u>

<u>NOTES:</u> 1. Angle of shadows taken at 22nd September 2. Shadows of fences not shown

SHADOW DIAGRAMS PROPOSED DEVELOPMENT 19 Hope Street, Bunyip Cardinia Shire Council

30927 P5 Version 03



PROPOSED SUBDIVISION PLAN

19 Hope Street, Bunyip

Cardinia Shire Council

30927 P6 Version 03



Total Lot Size: 2024m²

Total Garden Area: 708m² = 35%

Garden Area

<u>NOTES:</u>

Garden area is defined as: Any area on a lot with a minimum dimension of 1 metre that does not include:

a) a dwelling or residential building, except for: an eave, fascia or gutter that does not exceed a total width of 600mm; a pergola; unroofed terraces, patios, decks, steps or landings less than 800mm in height; a basement that does not project above ground level; any outbuilding that does not exceed a gross floor area of 10 square metres; and domestic services normal to a dwelling or residential building; b) a driveway; or c) an area set aside for car parking

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stamp shown below. This					
drawing should be read in	03	Amended as per council email dated 24/03/2025	CB	MB	08/04/2025
conjunction with all relevant contracts, specifications,	02	Amended as per council RFI dated 16/9/2024	CB	MB	10/12/2024
reports & drawings.	01	Prepared for planning purposes	CB	MB	20/06/2024
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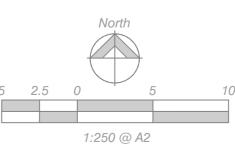


Civil Engineering Land Surveying Landscape Architecture Project Management Town Planning Urban Design SAI GLOBAL Quality ISO 9001

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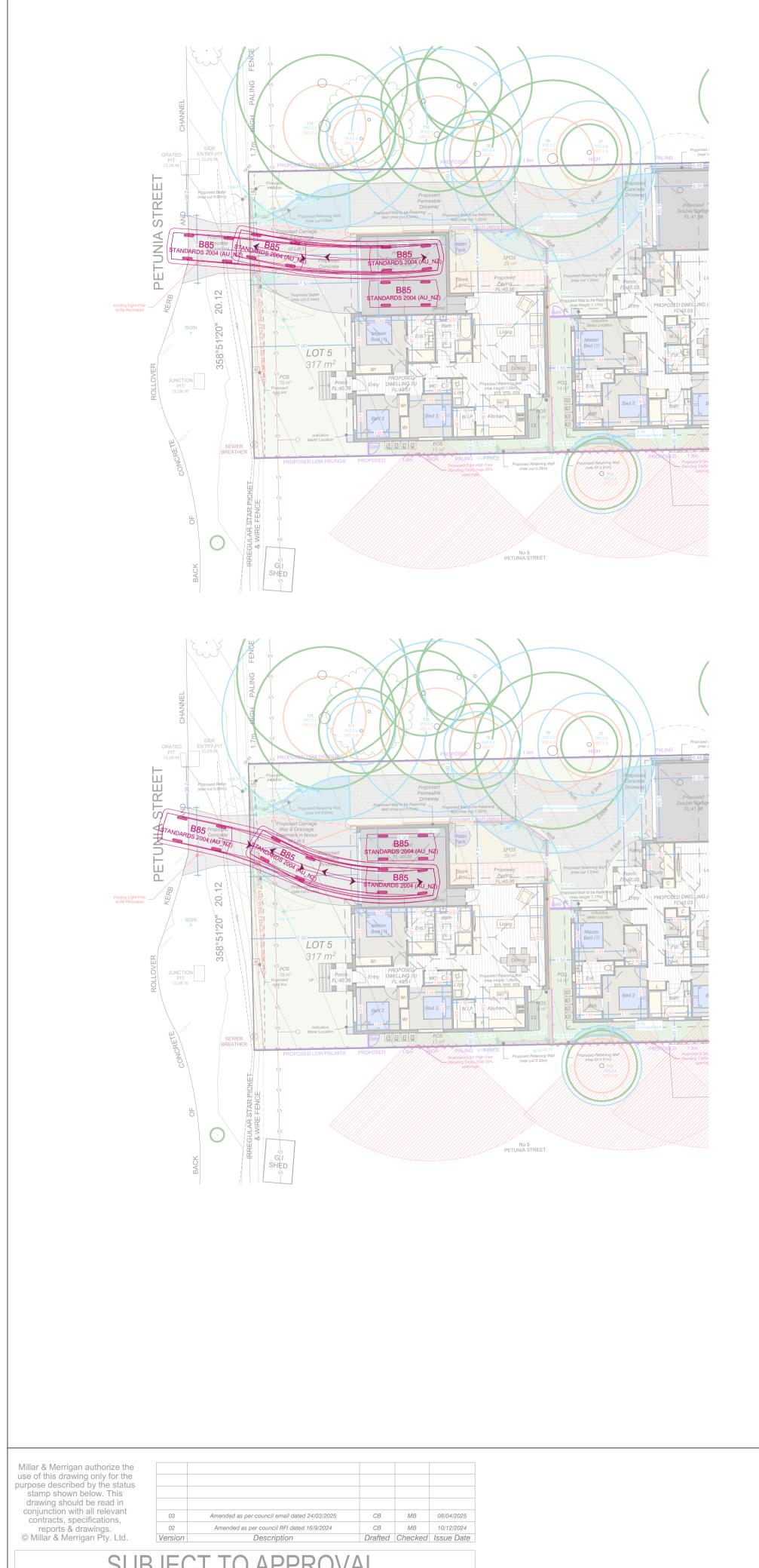


GARDEN AREA PLAN

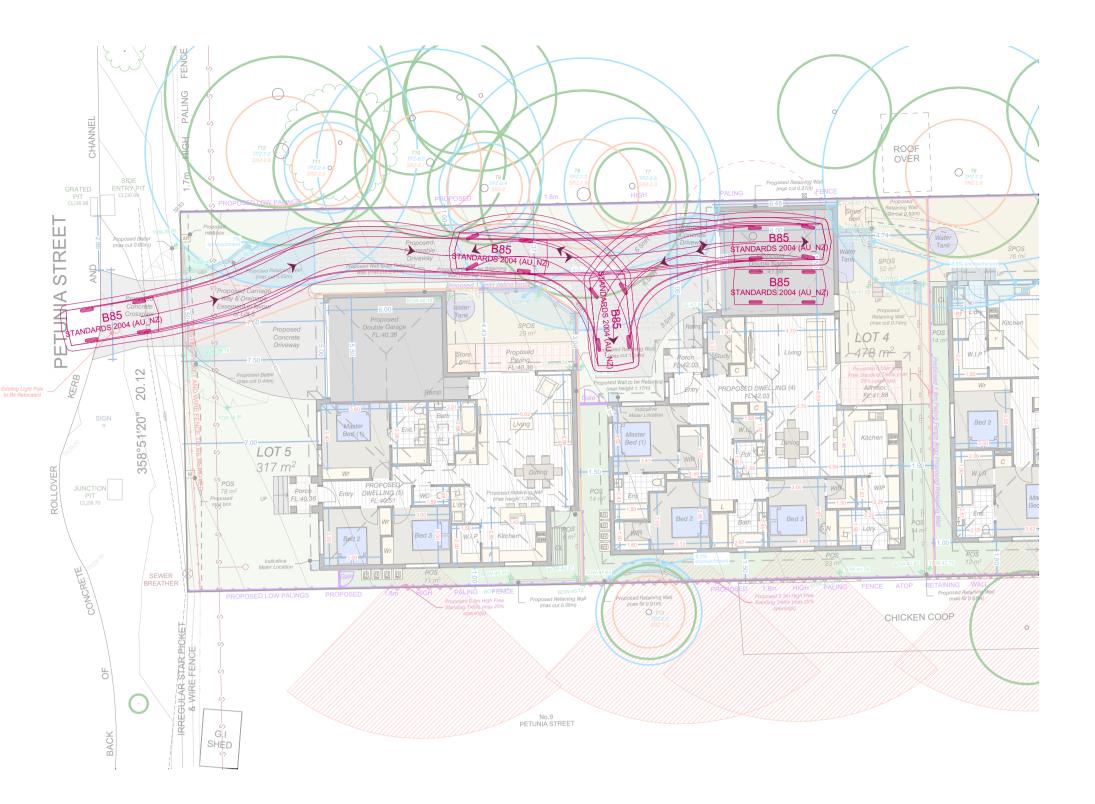
PROPOSED DEVELOPMENT

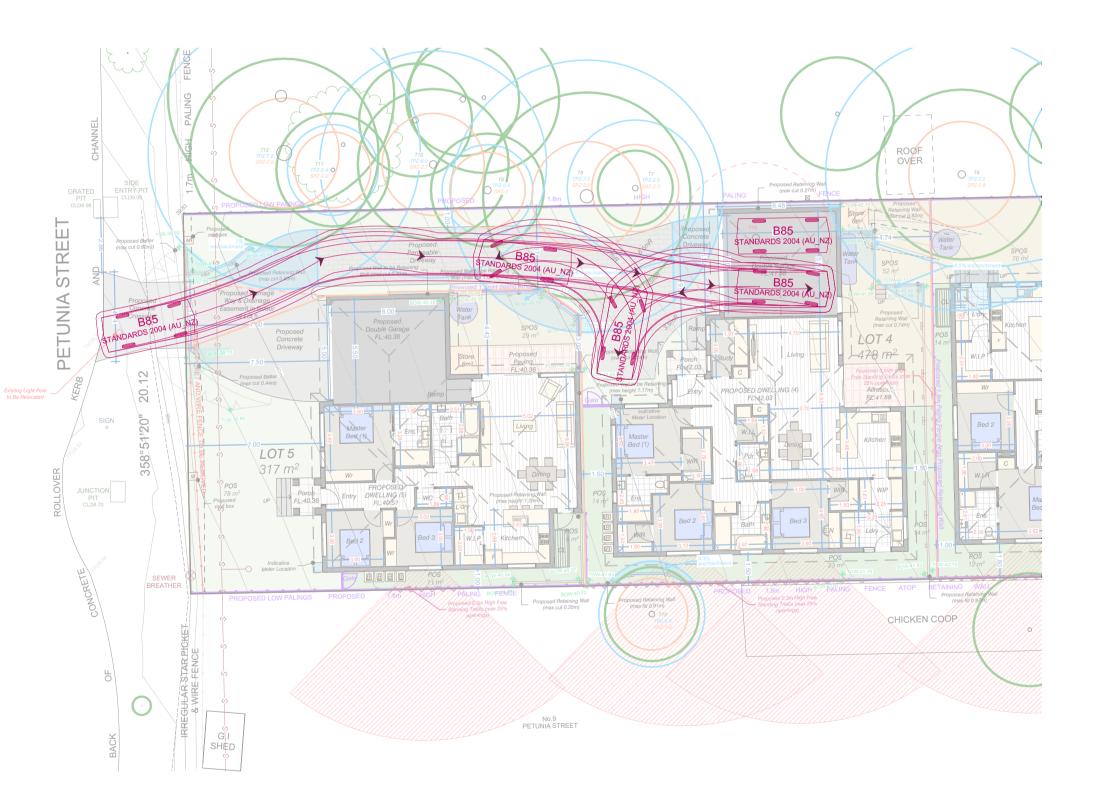
19 Hope Street, Bunyip Cardinia Shire Council

> 30927 P7 Version 03



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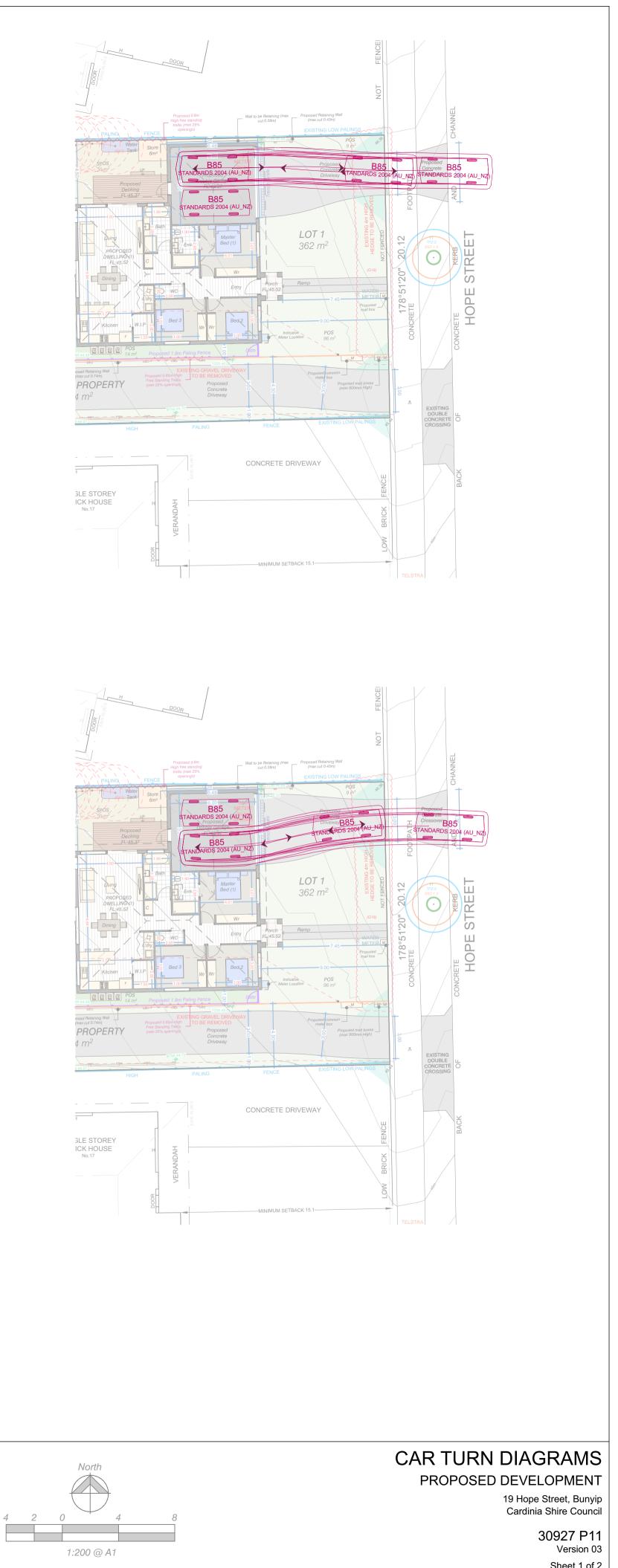


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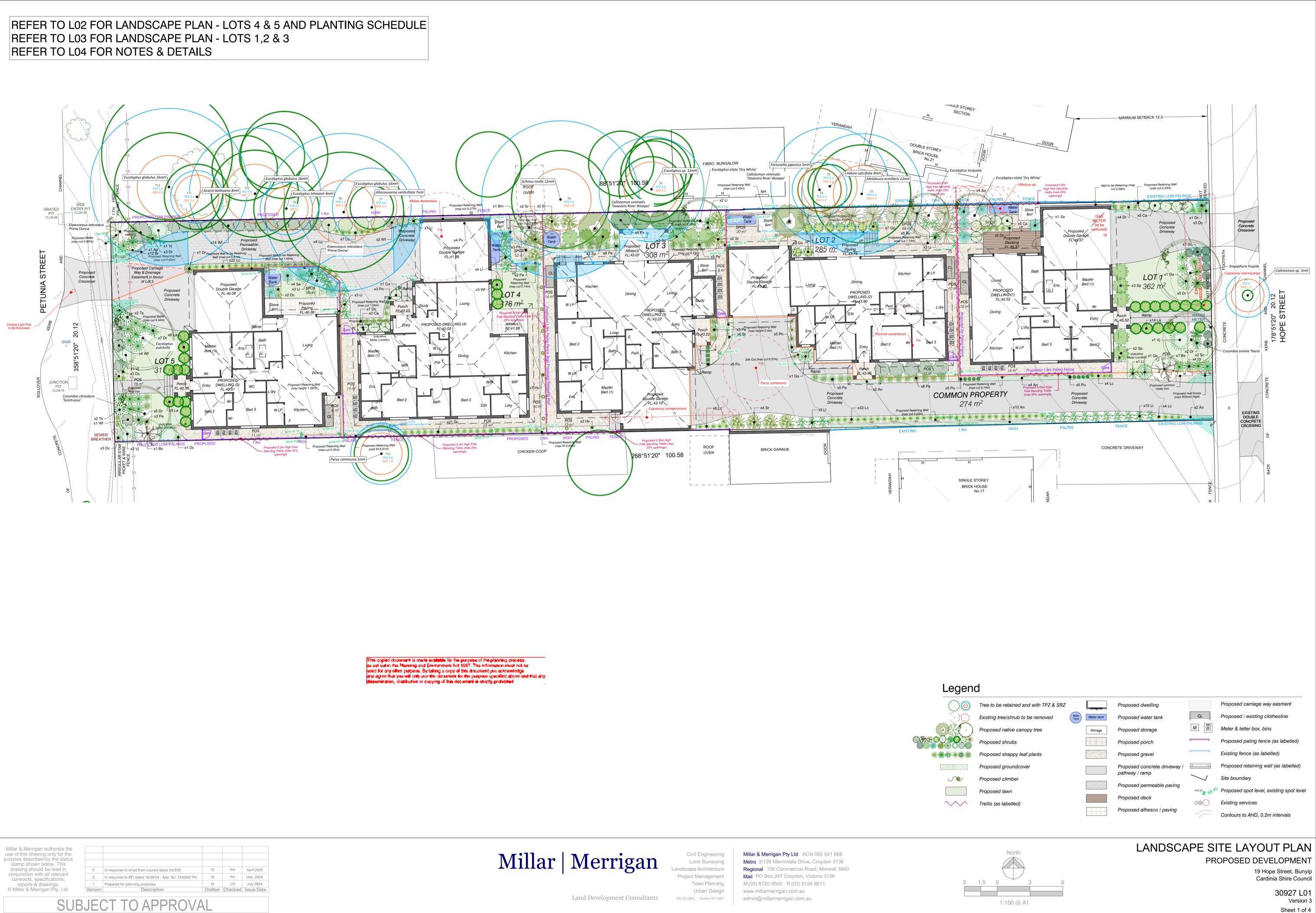
Sheet 1 of 2



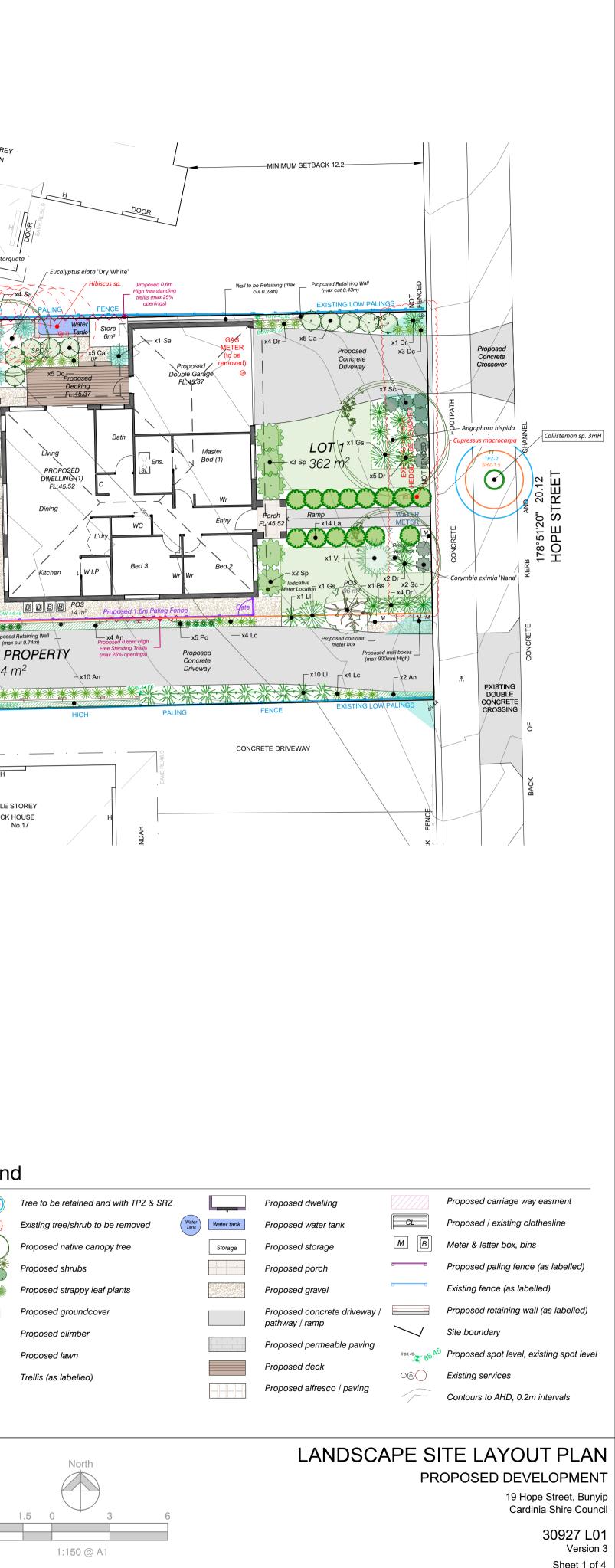
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CAR TURN DIAGRAMS PROPOSED DEVELOPMENT 19 Hope Street, Bunyip Cardinia Shire Council

30927 P11 Version 03 Sheet 2 of 2

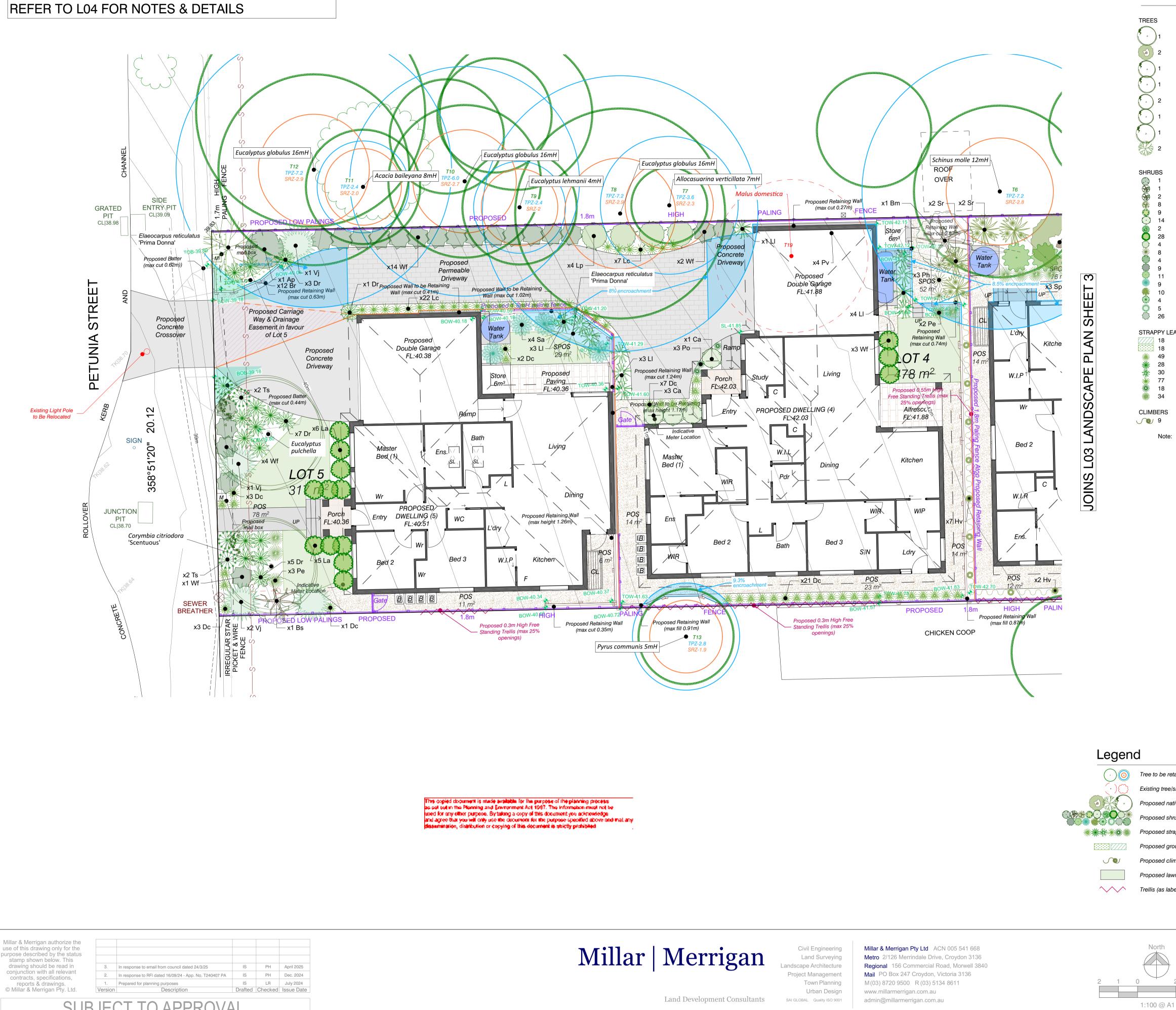


an authorize the					
wing only for the bed by the status n below. This uld be read in <i>v</i> ith all relevant pecifications, drawings.					
	3.	In response to email from council dated 24/3/25	IS	PH	April 202
	2.	In response to RFI dated 16/09/24 - App. No. T240407 PA	IS	PH	Dec. 202
	1.	Prepared for planning purposes	IS	LR	July 202
rrigan Pty. Ltd.	Version	Description	Drafted	Checked	Issue D



Sheet 1 of 4

REFER TO L01 FOR LANDSCAPE SITE LAYOUT PLAN REFER TO L03 FOR LANDSCAPE PLAN - LOTS 1,2 & 3 **REFER TO L04 FOR NOTES & DETAILS**



SUBJECT TO APPROVAL

Planting Schedule

Sym Qty

Code	Botanical Name	Common Name	H x W (m)	Pot Size
named	Angophora hispida	Dwarf Apple Gum	8.0 x 6.0	16L
named	Callistemon 'Dawson River Weeper'	Bottlebrush cultivar	5.0 x 4.0	16L
named	Corymbia eximia 'Nana'	Dwarf Yellow Bloodwood	10.0 x 5.0	16L
named	Corymbia citriodora 'Scentuous'	Dwarf Pink	8.0 x 5.0	16L
named	Eucalytpus elata 'Dry White'	Dwarf River Peppermint Gum	7.0 x 4.0	16L
named	Eucalyptus torquata	Coral Gum	7.0 x 4.0	16L
named	Eucalyptus pulchella	White Peppermint	10.0 x 6.0	16L
named	Eleocarpus reticulatus 'Prima Donna'	Blueberry Ash	7.0 x 4.0	16L
Ар	Acacia paradoxa*	Hedge Wattle	3.0 x 2.0	tube
Bm	Banksia marginata*	Silver Banksia	5.0 x 3.0	tube
Bs	Banksia spinulosa var. cunninghammii*	Hairpin Banksia	4.0 x 2.5	tube
Bu	, Bursaria spinosa subsp. spinosa*	Sweet Bursaria	4.0 x 2.0	tube
Go	Goodenia ovata*	Hop Goodenia	1.5 x 1.5	tube
Ca	Correa alba	White Correa	1.5 x 1.5	150mm
Gs	Grevillea 'Pink Surprise'	Pink Surprise	2.0 x 1.5	140mm
La	Lavandula angustifolia	English lavender	1.0 x 1.0	150mm
Lp	Leucopogon parviflorus*	Coast Beard-heath	2.5 x 1.5	150mm
Ph	Pimelea humilis*	Common Rice-flower	0.5 x 0.8	tube
Pv	Prostanthera ovalifolia	Purple Mint-bush	2.5 x 2.0	150mm
Sc	Santolina chamaecyparissus	Cotton Lavendar	0.6 x 1.0	150mm
Sp	Spyridium parvifolium*	Dusty Miller	1.5 x 1.5	tube
Sa	Syzygium australe 'SAN01' Straight & Narrow	Lilly Pilly cultivar	4.0 x 1.2	200mm
Sr	Syzygium australe 'Resilience'	Lilly Pilly cultivar	4.0 x 1.5	200mm
Ts	Thryptomene saxicola 'FC Payne'	Rock Thryptomene cultivar	0.8 x 1.0	150mm
Vj	Viminaria juncea*	Golden Spray	3.0 x 2.0	tube
Wf	Westringia fruiticosa	Coastal Rosemary	1.0 x 1.5	150mm
	S & GROUNDCOVERS			
An	Acaena novae-zelandiae*	Bidgee-widgee	0.1 x pros.	tube
Br	Brachyscome multifida*	Cut-leaf Daisy	0.4 x 0.6	tube
Dc	Dianella caerulea 'Little Jess'	Little Jess	0.6 x 0.6	140mm
Dr	Dianella revoluta*	Black-anther Flax-lily	0.8 x 1.0	tube
LI	Lomandra longifolia subsp. longifolia*	Spiny-headed Mat-rush	1.2 x 1.0	tube
Lc	Lomandra confertifolia spp rubiginosa 'Mist'	Spiny headed mat-rush cultivar	0.6 x 0.6	150mm
Po Pe	Patersonia accidentalis* Poa ensiformis*	Long Purple-flag Purple-sheath Tussock-grass	0.4 x 0.4 0.5 x 0.8	tube tube
Hv	Hardenbergia violacea*	Purple Coral-pea	0.2 x pros.	150mm
Indigeno · Cardinia · Green C · Koo We · Bushwa · Cardina · Consen · Friends · Friends	arked * are to be local provenance stock, purch us plant nurseries able to provide local provena a Environment Coalition Nursery - Deep Creek R Circle Plant Nursery - 1 Halford St, Upper Beacon ee Rup Trees & Shrubs - 10 Bethunes Rd, Koo W alk Native Nursery - 640 Cranbourne-Frankston F a View - 81-83 Buchanan Road, Berwick - Ph 976 vation Collective - 52 Westernport Hwy, Somervi of Cranbourne Botanic Gardens, 1000 Ballarto I of the Helmeted Honeyeater Inc.Nursery - 1217 rn Dandenongs Community Nursery Inc 217 M	nce plant stock include: leserve, Pakenham - Ph 5947 7871 nsfield - Ph 0407 304 061 /ee Rup - Ph 5997 1839 Rd, Cranbourne Sth - Ph 9782 2986 9 9887 Ile - Ph 0457 001 784 Rd, Cranbourne - Ph 5974 1750 Macclesfield Rd, Yellingbow - Ph 0438		

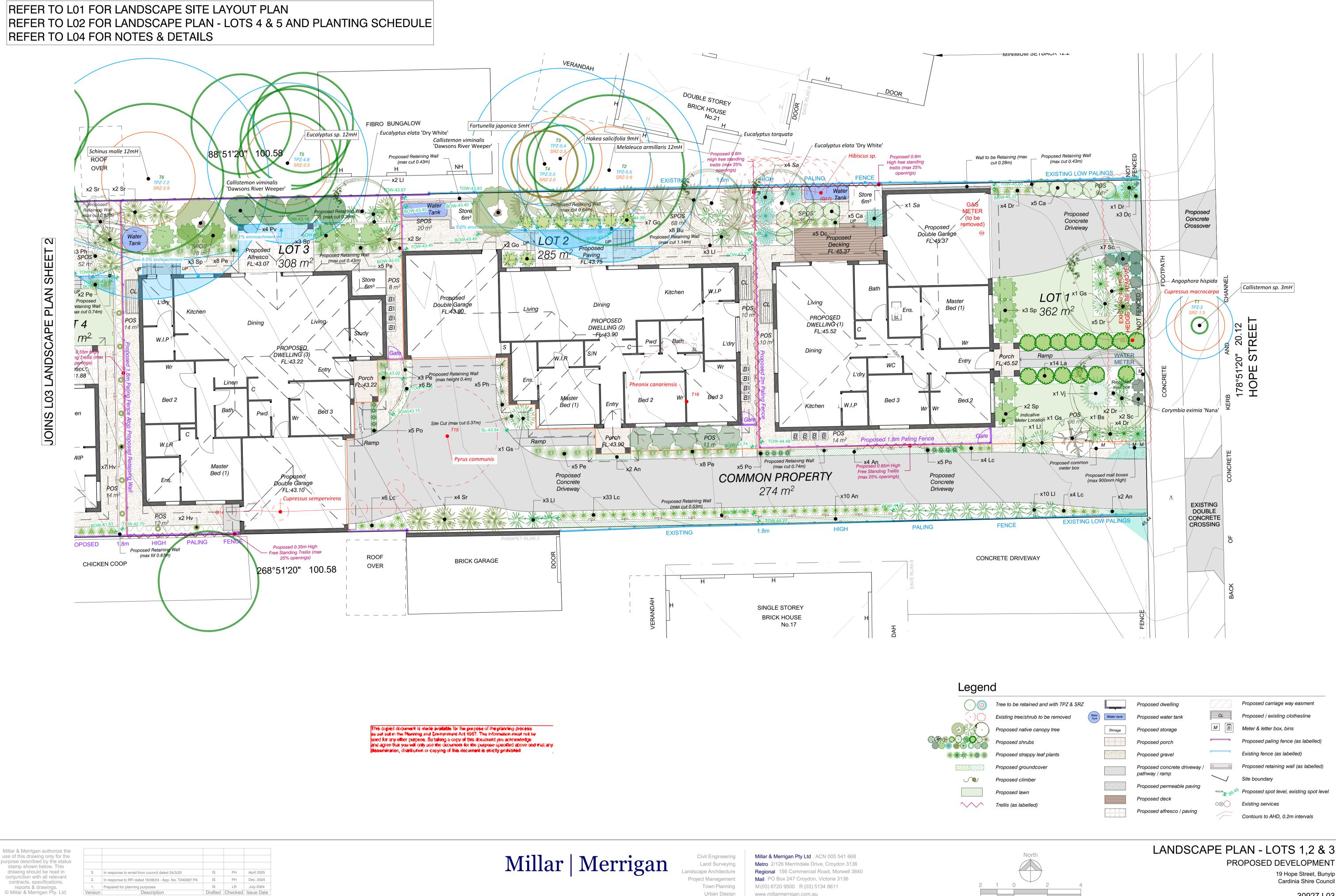
Tree to be retained and with TPZ & SRZ		Proposed dwelling		Proposed carriage way easment
Existing tree/shrub to be removed	Water tank	Proposed water tank	CL	Proposed / existing clothesline
Proposed native canopy tree	Storage	Proposed storage	M	Meter & letter box, bins
Proposed shrubs		Proposed porch		Proposed paling fence (as labelled)
Proposed strappy leaf plants		Proposed gravel		Existing fence (as labelled)
Proposed groundcover		Proposed concrete driveway /		Proposed retaining wall (as labelled)
Proposed climber		pathway / ramp	\searrow	Site boundary
Proposed lawn		Proposed permeable paving	+63.45 88.45	Proposed spot level, existing spot level
Trellis (as labelled)		Proposed deck	00	Existing services
		Proposed alfresco / paving		Contours to AHD, 0.2m intervals

LANDSCAPE PLAN - LOTS 4 & 5 PROPOSED DEVELOPMENT

19 Hope Street, Bunyip Cardinia Shire Council

> 30927 L02 Version 3 Sheet 2 of 4

REFER TO L01 FOR LANDSCAPE SITE LAYOUT PLAN REFER TO L02 FOR LANDSCAPE PLAN - LOTS 4 & 5 AND PLANTING SCHEDULE **REFER TO L04 FOR NOTES & DETAILS**



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30927 L03 Version 3 Sheet 3 of 4

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Notes

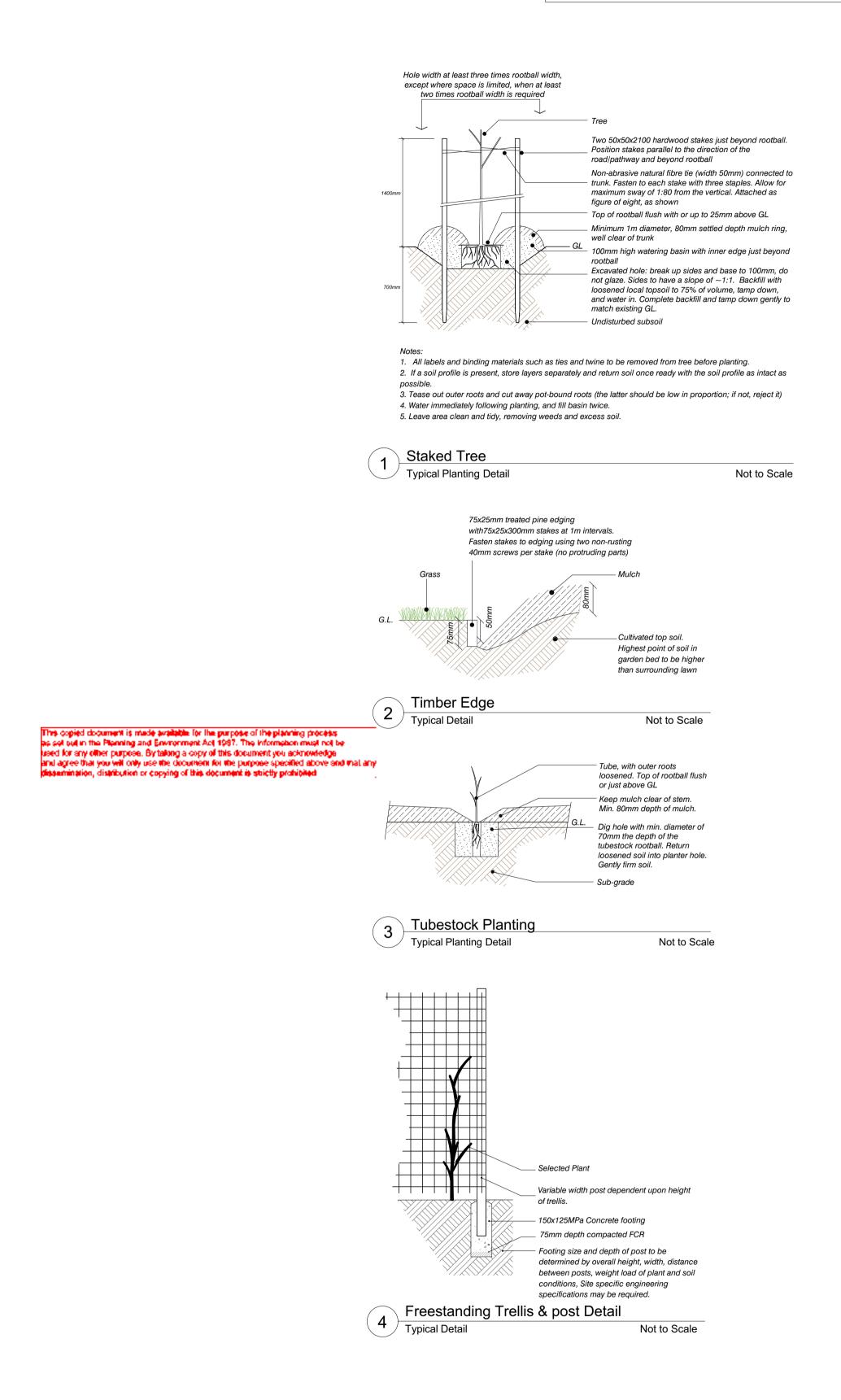
This plan is to be read in conjunction with the Survey Plan 30927F1, Neighbourhood and Site Plan 30927P1, Development Plans 30927P2-P18, Arboricultural & Impact Assessment Report prepared by DB Horticulture dated 20th December 2024, request for further information from Cardinia Shire Council - dated 16th September 2024 - Application No. T240407 PA and email from A. Van Diem dated 24th March 2025.

- 1. WARNING!! The location of underground services shown on this plan are design locations only. Engage a service location company preferably or contact the appropriate service authorities for as-built locations.
- 2. Plant Setout: Plants indicated on the drawing are set out to scale.
- 3. Tree Protection Zones: To ensure protection of trees to be retained:
- The Tree Protection Zone (TPZ) should be as recommended in the Arboricultural & Impact Assessment Report prepared by DB Horticulture dated
 20th December 2024.
- The Tree Protection Zone is indicated on the plan as a blue circle.
 The TPZ also blue (conservation of all all blue of a 100 protection)
- The TPZ should be fenced and clearly marked at all times. A 100mm layer of organic mulch should be spread over the TPZ for the construction duration.
- The fence should be a minimum of 1.5m of parawebbing with 1.5m star pickets every 3-4 metres and single strand support wires top and bottom.
 If temporary access is required through the TPZ this may be carried out using sheets of heavy plywood. The TPZ should be reinstated immediately afterwards.
- Any underground service installations should be bored within the TPZ.
- Soil level should not be altered within the TPZ. This includes storage of existing or imported soils.
- No building materials should be stockpiled or stored within the TPZ
 No fuel, oil dumps, chemicals, materials, equipment or temporary buildings shall be allowed in the TPZ and the servicing and re-fuelling of equipment and vehicles should be carried out away from tree root zones. Nothing whatsoever should be attached to the tree including temporary service wires, nails, screws or any other fixing device.
- Supplementary watering should be provided to all trees through any dry periods during and after the construction process.
- Any pruning required must be carried out by a trained and competent Arborist to comply with AS 4373 2007 Pruning of Amenity Trees.
- All root excavation should be carried out by hand digging or with the use of 'Air Excavation' techniques and roots should be severed by saw cutting or with a sharp axe and not with a backhoe or any machinery or blunt instrument. Any roots greater than 50mm in diameter must not be severed. If possible excavate under roots to create bridging roots.
- 4. Environmental Weeds: No environmental weeds were identified on site.
- 5. General Note on Soil: Do not work soil when it is wet.
- 6. Garden bed preparation: Spray area with a broad-leafed plant glyphosate-based herbicide if weeds are present. Wait two weeks and respray if all weeds are not dead. Remove spent weeds off-site. Remove any topsoil and store. Ensure no subsoil gets mixed in with the material stored (if no topsoil present, remove ~75mm subsoil) and cultivate subsoil to 150-200mm, mixing in gypsum at 1 kg/sqm. Replace stockpiled topsoil, with gypsum also mixed in (1kg/sqm). Shape soil, ensuring drainage is away from buildings. Final soil level should be 50mm above the normal (non garden bed) grade. Plant out garden bed, using 5-10g Osmocote or similar (slow-release form) ensure the fertiliser used is the correct one for the plant species i.e. if there are indigenous/native plants ensure that the fertiliser used has the correct NPK ratio.
- 7. Garden edging: Garden edging is to be installed between garden beds, gravel paths and lawn areas. Edging is to be a timber edge product or similar and is to be fixed in place with stakes. Where available use recycled and/or sustainable products.
- 8. **Tubestock & Shrub Planting Procedure**: Ensure rootballs are moist before planting. Plant tubestock and shrubs as per detail. Place suitable slow release fertiliser in base of hole and mix thoroughly with broken up soil. Water well immediately after planting and ensure all ties, labels etc attached to the plant are removed.
- 9. Tree Planting Procedure: Ensure rootballs are moist before planting. Plant trees as per detail. Add 10-15g Terracottem or equivalent slow-release fertiliser at the time of planting, again ensuring the correct fertiliser for the trees selected is used. Trees are to be watered in well immediately after planting. Importing topsoil for tree planting is to be avoided. Ensure all ties, labels or any other item attached to the trees are removed prior to planting.
- 10. Mulch: Mulch may be either a non-leafy mulch such as pine-bark or Euca mulch or a non-combustible mulch such as sustainably sourced pebbles, recycled bricks or similar. Timber mulch must conform with AS 4454-2003, and have 80% of particles in the size range 6-10mm in plan, and 5-10mm in thickness. No particle is to exceed 25mm in plan and avoid the use of rare timbers as mulch. Evenly spread 80mm (min.) depth of approved mulch to all garden beds, and tree watering basins after planting operations. Mulch to be kept away from tree trunks and plant stems to prevent collar-rot. It is recommended that rock based mulch is to be used around the dwelling as it reduces the fire risk.
- 11. Lawn repair: Aerate and top dress existing lawn with 10mm sandy loam (optional) and rake out flat. Sow grass using a hardy non invasive blend (with added fertiliser) to product specifications. Use environmentally friendly and sustainable products.
- 12. Lawn: Loosen soil to minimum 150mm depth. Ensure no ponding and that drainage is away from dwellings/buildings. Top dress with 20mm sandy loam and sow seed (with added fertiliser) using a hardy non invasive species or blend (with added fertilizer). Recommended species include but are not restricted to *Festuca arundinaceae* Tall Fescue, *Poa pratensis* Kentucky Blue-grass, *Dicantheum sericeum* Queensland Blue-grass, *Microlaena stipoides* Weeping Grass or *Bothriochloa macra* Red-leg Grass. Use environmentally friendly and sustainable products.
- **13. Fencing:** Proposed paling fences are indicated between dwellings as labelled.
- 14. **Trellis:** All sections of paling fence where trellis are proposed must include freestanding treated pine or recycled plastic trellis fence extensions to the height nominated on the plan above the existing fence to increase the extent of screening and reduce views into & out of adjoining properties.
- **15. Screening:** With minimum 25mm hole sizes.
- 16. Retaining walls: Are proposed to be sustainably sourced sleepers or alternative products such as brick blocks.
- 17. Gravel pathways: Are proposed using sustainably sourced materials.
- 18. Water Tanks: All water tanks located off dwelling walls are to be charged. Water tanks to be a minimum 2000L in capacity or specified on plan.
- 19. Irrigation: No irrigation is proposed. Plants selected are water wise and are a mix of native and indigenous species selected from the Cardinia Shire Council Indigenous Plan Guide Zone 5. Additional watering may be required during initial planting and extended dry periods. The provision of water tanks will harvest and supply rainwater to be utilised for this purpose.
- 20. Maintenance: Is required on all landscaping works for a period of 2 years. Maintenance includes but is not restricted to regular weeding, watering, pruning, re-staking and re-tying of trunks, regular replacement of dead stock, edging and mowing of all grassed areas. Mulch is to be topped up as necessary. Trees are to be healthy, straight, well formed and structured, disease free with a strong central leader.

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use of this drawing only for the					
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drawing should be read in conjunction with all relevant contracts, specifications, reports & drawings. © Millar & Merrigan Pty. Ltd.	3.	In response to email from council dated 24/3/25	IS	PH	April 2025
	2.	In response to RFI dated 16/09/24 - App. No. T240407 PA	IS	PH	Dec. 2024
	1.	Prepared for planning purposes	IS	LR	July 2024
	Version	Description	Drafted	Checked	Issue Date

SUBJECT TO APPROVAL

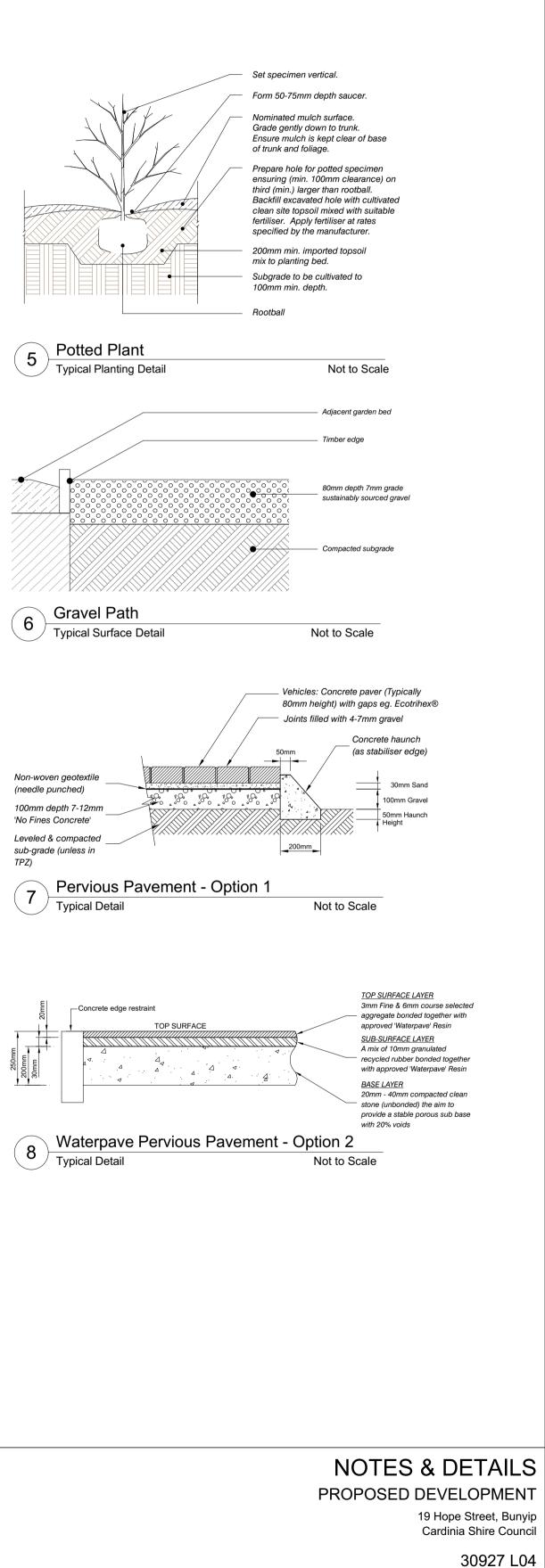
REFER TO L01 FOR LANDSCAPE SITE LAYOUT PLAN REFER TO L02 FOR LANDSCAPE PLAN LOTS 4 & 5 AND PLANTING SCHEDULE REFER TO L03 FOR LANDSCAPE PLAN LOTS 1,2 & 3



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Civil Engineering Land Surveying Landscape Architecture Project Management Town Planning Urban Design Millar & Merrigan Pty Ltd ACN 005 541 668 Metro 2/126 Merrindale Drive, Croydon 3136 Regional 156 Commercial Road, Morwell 3840 Mail PO Box 247 Croydon, Victoria 3136 M (03) 8720 9500 R (03) 5134 8611 www.millarmerrigan.com.au admin@millarmerrigan.com.au

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