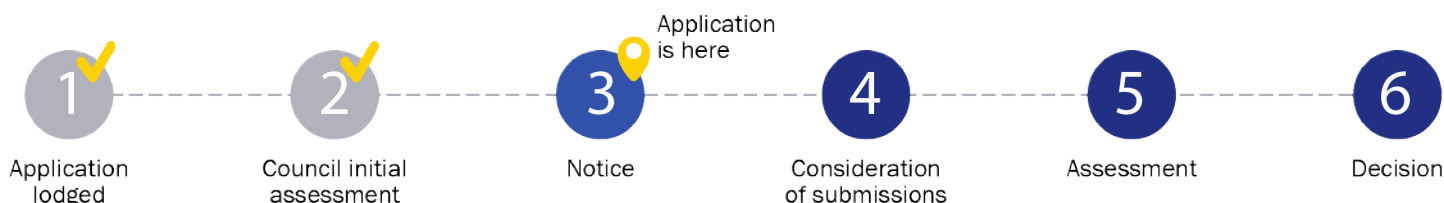


Notice of Application for a Planning Permit

The land affected by the application is located at:	L1 LP92136 112 Stoney Creek Road, Beaconsfield Upper VIC 3808	
The application is for a permit to:	Buildings and Works (Alteration and Extension to an Existing Dwelling and Associated Earthworks)	
A permit is required under the following clauses of the planning scheme:		
35.05-5	Construct a building or construct or carry out works associated with a use in Section 2 (Dwelling)	
35.05-5	Construct a building within nominated setbacks	
44.06-2	Construct a building or construct or carry out works associated with (Dwelling)	
42.01-2	Construct a building or construct or carry out works	
APPLICATION DETAILS		
The applicant for the permit is:	West Gippsland Planning Services	
Application number:	T240255	
<p>You may look at the application and any documents that support the application at the office of the responsible authority:</p> <p>Cardinia Shire Council, 20 Siding Avenue, Officer 3809.</p> <p>This can be done during office hours and is free of charge.</p> <p>Documents can also be viewed on Council's website at cardinia.vic.gov.au/advertisedplans or by scanning the QR code.</p>		
HOW CAN I MAKE A SUBMISSION?		
<p>This application has not been decided. You can still make a submission before a decision has been made. The Responsible Authority will not decide on the application before:</p>		25 April 2025
<p>WHAT ARE MY OPTIONS?</p> <p>Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority.</p> <p>If you object, the Responsible Authority will notify you of the decision when it is issued.</p>	<p>An objection must:</p> <ul style="list-style-type: none"> • be made to the Responsible Authority in writing; • include the reasons for the objection; and • state how the objector would be affected. 	<p>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 on the application.</p>



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Planning Enquiries
Phone: 1300 787 624
Web: www.cardinia.vic.gov.au

Office Use Only

Application No.:

Date Lodged: / /

Application for a Planning Permit

If you need help to complete this form, read MORE INFORMATION at the end of this form.

Any material submitted with this application, 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*. If you have any questions, please contact Council's planning department.

Questions marked with an asterisk (*) must be completed.

If the space provided on the form is insufficient, attach a separate sheet.

Click for further information.

Clear Form

The Land

Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No.:

St. No.:

St. Name:

Suburb/Locality:

Postcode:

Formal Land Description *

Complete either A or B.

This information can be found on the certificate of title.

If this application relates to more than one address, attach a separate sheet setting out any additional property details.

A

Lot No.:

☐ Lodged Plan

☐ Title Plan

☐ Plan of Subdivision

No.:

OR

B

Crown Allotment No.:

Section No.:

Parish/Township Name:

The Proposal

You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

For what use, development or other matter do you require a permit? *

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Provide additional information about the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

Cost \$

You may be required to verify this estimate. Insert '0' if no development is proposed.

If the application is for land within **metropolitan Melbourne** (as defined in section 3 of the *Planning and Environment Act 1987*) and the estimated cost of the development exceeds \$1 million (adjusted annually by CPI) the Metropolitan Planning Levy **must** be paid to the State Revenue Office and a current levy certificate **must** be submitted with the application. Visit www.sro.vic.gov.au for information.

Estimated cost of any development for which the permit is required *


Existing Conditions

Describe how the land is used and developed now *

For example, vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Existing Dwelling onsite

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 Provide a plan of the existing conditions. Photos are also helpful.

Title Information

Encumbrances on title *

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

- ☐ Yes (If 'yes' contact Council for advice on how to proceed before continuing with this application.)
- ☐ No
- ☒ Not applicable (no such encumbrance applies).

 Provide a full, current copy of the title for each individual parcel of land forming the subject site. The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments', for example, restrictive covenants.

Applicant and Owner Details

Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit.

Please provide at least one contact phone number *

Where the preferred contact person for the application is different from the applicant, provide the details of that person.

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Name:

Title:

First Name:

Surname:

Organisation (if applicable): West Gippsland Planning

Postal Address:

If it is a P.O. Box, enter the details here:

Unit No.:

St. No.: 72

St. Name: Kamanari Ct

Suburb/Locality: Drouin

State: VIC

Postcode: 3818

Title:

First Name:

Surname:

Organisation (if applicable):

Postal Address:

If it is a P.O. Box, enter the details here:

Unit No.:

St. No.:

St. Name:

Suburb/Locality:

State:

Postcode:

day / month / year

Need help with the Application?

General information about the planning process is available at planning.vic.gov.au

Contact Council's planning department to discuss the specific requirements for this application and obtain a planning permit checklist. Insufficient or unclear information may delay your application.

Has there been a pre-application meeting with a council planning officer?

☐ No ☐ Yes

If 'Yes', with whom?:

Date:


day / month / year

Checklist

Have you:

☐ Filled in the form completely?

☐ Paid or included the application fee?

 Most applications require a fee to be paid. Contact Council to determine the appropriate fee.

 Provided all necessary supporting information and documents?

☐ A full, current copy of title information for each individual parcel of land forming the subject site.

☐ A plan of existing conditions.

☐ Plans showing the layout and details of the proposal.

☐ Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.

☐ If required, a description of the likely effect of the proposal (for example, traffic, noise, environmental impacts).

☐ If applicable, a current Metropolitan Planning Levy certificate (a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office and then cannot be used). Failure to comply means the application is void.

☐ Completed the relevant council planning permit checklist?

☐ Signed the declaration?

Lodgement

Lodge the completed and signed form, the fee and all documents with:

Cardinia Shire Council
PO Box 7
Pakenham VIC 3810

Contact information:

Telephone: 1300 787 624

Fax: (03) 5941 3784

Email: mail@cardinia.vic.gov.au

DX: 81006

Deliver application in person, by post or by electronic lodgement.

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MORE INFORMATION

The Land

Planning permits relate to the use and development of the land. It is important that accurate, clear and concise details of the land are provided with the application.

How is land identified?


Land is commonly identified by a street address, but sometimes this alone does not provide an accurate identification of the relevant parcel of land relating to an application. Make sure you also provide the formal land description - the lot and plan number or the crown, section and parish/township details (as applicable) for the subject site. This information is shown on the title.

See **Example 1**.

The Proposal

Why is it important to describe the proposal correctly?


The application requires a description of what you want to do with the land. You must describe how the land will be used or developed as a result of the proposal. It is important that you understand the reasons why you need a permit in order to suitably describe the proposal. By providing an accurate description of the proposal, you will avoid unnecessary delays associated with amending the description at a later date.

 Planning schemes use specific definitions for different types of use and development. Contact the Council planning office at an early stage in preparing your application to ensure that you use the appropriate terminology and provide the required details.

How do planning schemes affect proposals?

A planning scheme sets out policies and requirements for the use, development and protection of land. There is a planning scheme for every municipality in Victoria. Development of land includes the construction of a building, carrying out works, subdividing land or buildings and displaying signs.

Proposals must comply with the planning scheme provisions in accordance with Clause 61.05 of the planning scheme. Provisions may relate to the State Planning Policy Framework, the Local Planning Policy Framework, zones, overlays, particular and general provisions. You can access the planning scheme by either contacting Council's planning department or by visiting Planning Schemes Online at planning-schemes.delwp.vic.gov.au

 You can obtain a planning certificate to establish planning scheme details about your property. A planning certificate identifies the zones and overlays that apply to the land, but it does not identify all of the provisions of the planning scheme that may be relevant to your application. Planning certificates for land in metropolitan areas and most rural areas can be obtained by visiting www.landata.vic.gov.au Contact your local Council to obtain a planning certificate in Central Goldfields, Corangamite, Macedon Ranges and Greater Geelong. You can also use the free Planning Property Report to obtain the same information.

See **Example 2**.


Estimated cost of development

In most instances an application fee will be required. This fee must be paid when you lodge the application. The fee is set down by government regulations.

To help Council calculate the application fee, you must provide an accurate cost estimate of the proposed development. This cost does not include the costs of development that you could undertake without a permit or that are separate from the permit process. Development costs should be calculated at a normal industry rate for the type of construction you propose.

Council may ask you to justify your cost estimates. Costs are required solely to allow Council to calculate the permit application fee. Fees are exempt from GST.

 Costs for different types of development can be obtained from specialist publications such as Cordell Housing: Building Cost Guide or Rawlinsons: Australian Construction Handbook.

 Contact the Council to determine the appropriate fee. Go to planning.vic.gov.au to view a summary of fees in the Planning and Environment (Fees) Regulations.

Metropolitan Planning Levy refer Division 5A of Part 4 of the *Planning and Environment Act 1987* (the Act). A planning permit application under section 47 or 96A of the Act for a development of land in metropolitan Melbourne as defined in section 19 of the Act may be a leviable application. If the cost of the development exceeds the threshold of \$1 million (adjusted annually by consumer price index) a levy certificate must be obtained from the State Revenue Office after payment of the levy. A valid levy certificate must be submitted to the responsible planning authority (usually council) with a leviable planning permit application. Refer to the State Revenue Office website at www.sro.vic.gov.au for more information. A leviable application submitted without a levy certificate is void.

Existing Conditions

How should land be described?

You need to describe, in general terms, the way the land is used now, including the activities, buildings, structures and works that exist (e.g. single dwelling, 24 dwellings in a three-storey building, medical centre with three practitioners and 8 car parking spaces, vacant building, vacant land, grazing land, bush block).

Please attach to your application a plan of the existing conditions of the land. Check with the local Council for the quantity, scale and level of detail required. It is also helpful to include photographs of the existing conditions.

See **Example 3**.

Title Information

What is an encumbrance?

An 'encumbrance' is a formal obligation on the land, with the most common type being a 'mortgage'. Other common examples of encumbrances include:

- **Restrictive Covenants:** A 'restrictive covenant' is a written agreement between owners of land restricting the use or development of the land for the benefit of others, (eg. a limit of one dwelling or limits on types of building materials to be used).
- **Section 173 Agreements:** A 'section 173 agreement' is a contract between an owner of the land and the Council which sets out limitations on the use or development of the land.
- **Easements:** An 'easement' gives rights to other parties to use the land or provide for services or access on, under or above the surface of the land.
- **Building Envelopes:** A 'building envelope' defines the development boundaries for the land.

Aside from mortgages, the above encumbrances can potentially limit or even prevent certain types of proposals.

What documents should I check to find encumbrances?

Encumbrances are identified on the title (register search statement) under the header 'encumbrances, caveats and notices'. The actual details of an encumbrance are usually provided in a separate document (instrument) associated with the title. Sometimes encumbrances are also marked on the title diagram or plan, such as easements or building envelopes.

What about caveats and notices?

A 'caveat' is a record of a claim from a party to an interest in the land. Caveats are not normally relevant to planning applications as they typically relate to a purchaser, mortgagee or chargee claim, but can sometimes include claims to a covenant or easement on the land. These types of caveats may affect your proposal.

Other less common types of obligations may also be specified on title in the form of 'notices'. These may have an effect on your proposal, such as a notice that the building on the land is listed on the Heritage Register.

What happens if the proposal contravenes an encumbrance on title?

Encumbrances may affect or limit your proposal or prevent it from proceeding. Section 61(4) of the *Planning and Environment Act 1987* for example, prevents a Council from granting a permit if it would result in a breach of a registered restrictive covenant. If the proposal contravenes any encumbrance, contact the Council for advice on how to proceed.

You may be able to modify your proposal to respond to the issue. If not, separate procedures exist to change or remove the various types of encumbrances from the title. The procedures are generally quite involved and if the encumbrance relates to more than the subject property, the process will include notice to the affected party.

⚠ You should seek advice from an appropriately qualified person, such as a solicitor, if you need to interpret the effect of an encumbrance or if you seek to amend or remove an encumbrance.

Why is title information required?

Title information confirms the location and dimensions of the land specified in the planning application and any obligations affecting what can be done on or with the land.

As well as describing the land, a full copy of the title will include a diagram or plan of the land and will identify any encumbrances, caveats and notices.

What is a 'full' copy of the title?

The title information accompanying your application must include a 'register search statement' and the title diagram, which together make up the title.

In addition, any relevant associated title documents, known as 'instruments', must also be provided to make up a full copy of the title.

Check the title to see if any of the types of encumbrances, such as a restrictive covenant, section 173 agreement, easement or building envelope, are listed. If so, you must submit a copy of the document (instrument) describing that encumbrance. Mortgages do not need to be provided with planning applications.

⚠ Some titles have not yet been converted by Land Registry into an electronic register search statement format. In these earlier types of titles, the diagram and encumbrances are often detailed on the actual title, rather than in separate plans or instruments.

Why is 'current' title information required?

It is important that you attach a current copy of the title for each individual parcel of land forming the subject site. 'Current' title information accurately provides all relevant and up-to-date information.

Some councils require that title information must have been searched within a specified time frame. Contact the Council for advice on their requirements.

⚠ Copies of title documents can be obtained from Land Registry: Level 10, 570 Bourke Street, Melbourne; 03 8636 2010; www.landata.vic.gov.au – go direct to "titles & property certificates".

Applicant and Owner Details

This section provides information about the permit applicant, the owner of the land and the person who should be contacted about any matters concerning the permit application.

The applicant is the person or organisation that wants the permit. The applicant can, but need not, be the contact person.

In order to avoid any confusion, the Council will communicate only with the person who is also responsible for providing further details. The contact may be a professional adviser (e.g. architect or planner) engaged to prepare or manage the application. To ensure prompt communications, contact details should be given.

Check with Council how they prefer to communicate with you about the application. If an email address is provided this may be the preferred method of communication between council and the applicant/contact.

The owner of the land is the person or organisation who owns the land at the time the application is made. Where a parcel of land has been sold and an application made prior to settlement, the owner's details should be identified as those of the vendor. The owner can, but need not, be the contact or the applicant.

See **Example 4**.

Declaration

The declaration should be signed by the person who takes responsibility for the accuracy of all the information that is provided. This declaration is a signed statement that the information included with the application is true and correct at the time of lodgement.

The declaration can be signed by the applicant or owner. If the owner is not the applicant, the owner must either sign the application form or must be notified of the application which is acknowledged in the declaration.

⚠ Obtaining or attempting to obtain a permit by wilfully making or causing any false representation or declaration, either orally or in writing, is an offence under the *Planning and Environment Act 1987* and could result in a fine and/or cancellation of the permit.

Need help with the Application?

If you have attended a pre-application meeting with a Council planner, fill in the name of the planner and the date, so that the person can be consulted about the application once it has been lodged.

Checklist

What additional information should you provide to support the proposal?

You should provide sufficient supporting material with the application to describe the proposal in enough detail for the Council to make a decision. It is important that copies of all plans and information submitted with the application are legible.

There may be specific application requirements set out in the planning scheme for the use or development you propose. The application should demonstrate how these have been addressed or met.

The checklist is to help ensure that you have:

- provided all the required information on the form
- included payment of the application fee
- attached all necessary supporting information and documents
- completed the relevant Council planning permit checklist
- signed the declaration on the last page of the application form

⚠ The more complete the information you provide with your permit application, the sooner Council will be able to make a decision.

Lodgement

The application must be lodged with the Council responsible for the planning scheme in which the land affected by the application is located. In some cases the Minister for Planning or another body is the responsible authority instead of Council. Ask the Council if in doubt.

Check with Council how they prefer to have the application lodged. For example, they may have an online lodgement system, prefer email or want an electronic and hard copy. Check also how many copies of plans and the size of plans that may be required.

Contact details are listed in the lodgement section on the last page of the form.

⚠ Approval from other authorities: In addition to obtaining a planning permit, approvals or exemptions may be required from other authorities or Council departments. Depending on the nature of your proposal, these may include food or health registrations, building permits or approvals from water and other service authorities.

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EXAMPLES

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Example 1

The Land

Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No.: 4

St. No.: 26

St. Name: Planmore Avenue

Suburb/Locality: HAWTHORN

Postcode: 3122

Formal Land Description *
Complete either A or B.

This information can be found on the certificate of title.

If this application relates to more than one address, attach a separate sheet setting out any additional property details.

A

Lot No.: 2

☐ Lodged Plan ☐ Title Plan ☒ Plan of Subdivision

No.: LP93562

OR

B

Crown Allotment No.:

Section No.:

Parish/Township Name:

Example 2

For what use, development or other matter do you require a permit? *

Construction of two, double-storey dwellings and construction of two new crossovers.

Provide additional information about the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

Example 3

Existing Conditions

Describe how the land is used and developed now *

For example, vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Single dwelling.

Provide a plan of the existing conditions. Photos are also helpful.

Example 4

Applicant and Owner Details

Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit.

Please provide at least one contact phone number *

Where the preferred contact person for the application is different from the applicant, provide the details of that person.

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Name:

Title: Mr

First Name: Len

Surname: Browning

Organisation (if applicable): Responsible Developers P/L

Postal Address: If it is a P.O. Box, enter the details here:

Unit No.: 4

St. No.: 12

St. Name: Ardour Lane

Suburb/Locality: Wycheproof

State: Vic

Postcode: 3527

Contact information for applicant OR contact person below

Business phone: 9123 4567

Email: tcpl@bigpond.net.au

Mobile phone: 0412 345 678

Fax: 9123 4567

Contact person's details* Same as applicant ☐

Name:

Title: Mr

First Name: Andrew

Surname: Hodge

Organisation (if applicable): Town Planning Consultants

Postal Address: If it is a P.O. Box, enter the details here:

Unit No.:

St. No.:

St. Name: PO Box 111

Suburb/Locality: Parkdale

State: Vic

Postcode: 3194

Same as applicant ☒

Name:

Title:

First Name:

Surname:

Organisation (if applicable):

Postal Address: If it is a P.O. Box, enter the details here:

Unit No.:

St. No.:

St. Name:

Suburb/Locality:

State:

Postcode:

Owner's Signature (Optional):

Date:

day / month / year

Application for a Planning Permit | Metropolitan Council

Addendum

PLANNING PROPERTY REPORT

From www.planning.vic.gov.au at 01 May 2024 08:39 PM

PROPERTY DETAILS

Address: **112 STONEY CREEK ROAD BEACONSFIELD UPPER 3808**
Lot and Plan Number: **Lot 1 LP92136**
Standard Parcel Identifier (SPI): **1\LP92136**
Local Government Area (Council): **CARDINIA**
Council Property Number: **1811855000**
Planning Scheme: **Cardinia**
Directory Reference: **Melway 211 A7**

www.cardinia.vic.gov.au

[Planning Scheme - Cardinia](#)

UTILITIES

Rural Water Corporation: **Southern Rural Water**
Melbourne Water Retailer: **South East Water**
Melbourne Water: **Inside drainage boundary**
Power Distributor: **AUSNET**

STATE ELECTORATES

Legislative Council: **SOUTH-EASTERN METROPOLITAN**
Legislative Assembly: **BERWICK**

OTHER

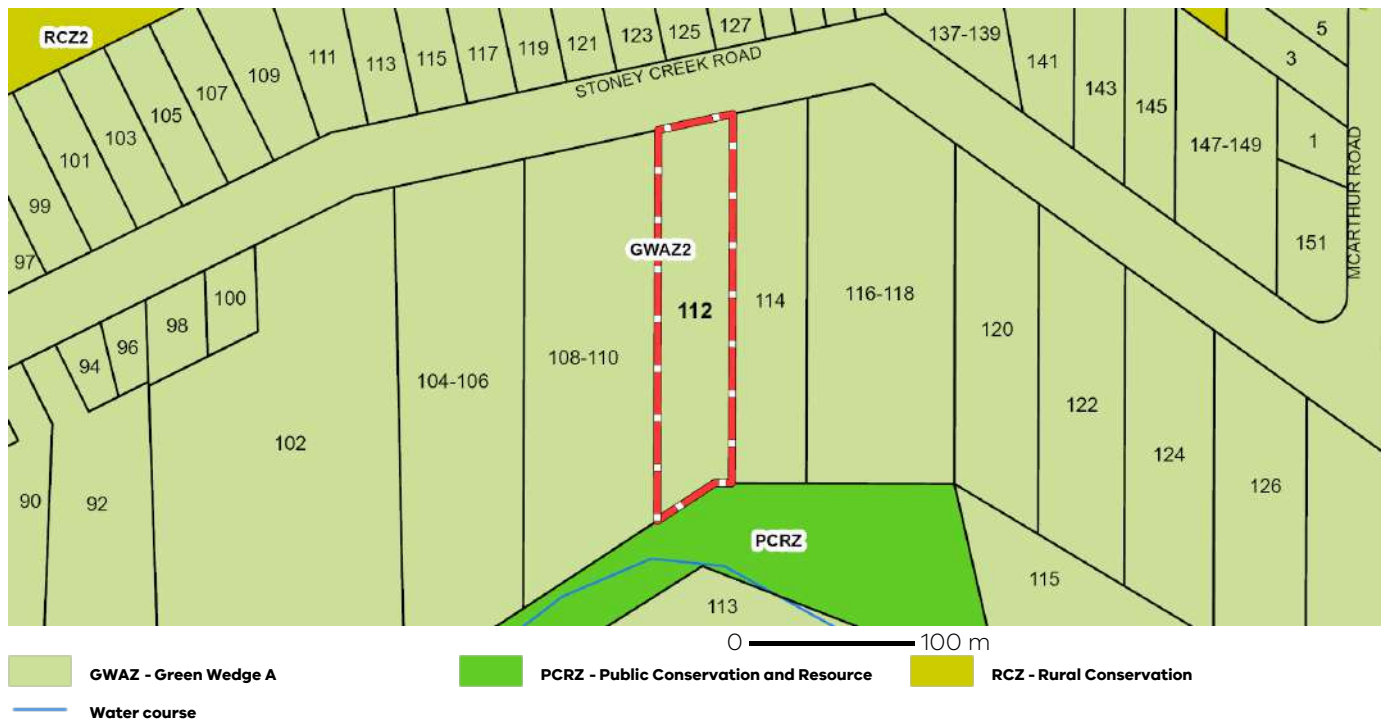
Registered Aboriginal Party: **Bunurong Land Council Aboriginal Corporation**

[View location in VicPlan](#)

Planning Zones

[GREEN WEDGE A ZONE \(GWAZ\)](#)

[GREEN WEDGE A ZONE - SCHEDULE 2 \(GWAZ2\)](#)

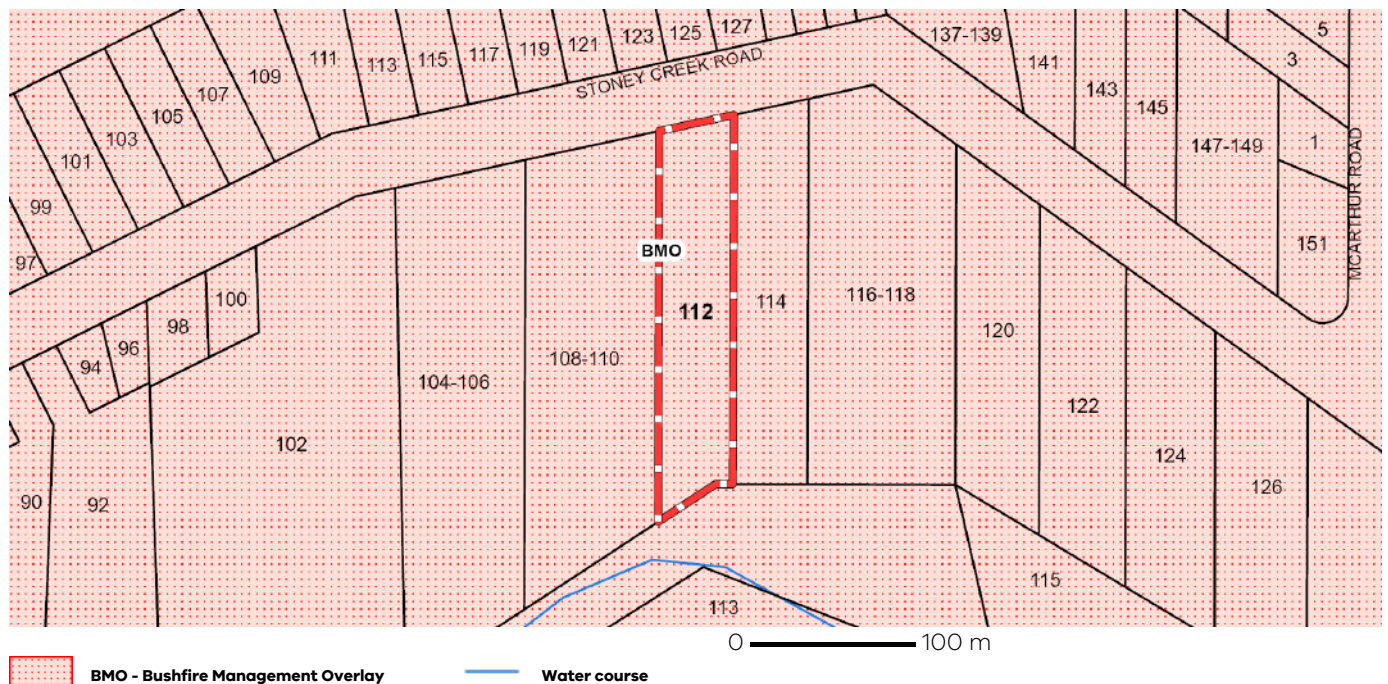


Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

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Planning Overlays

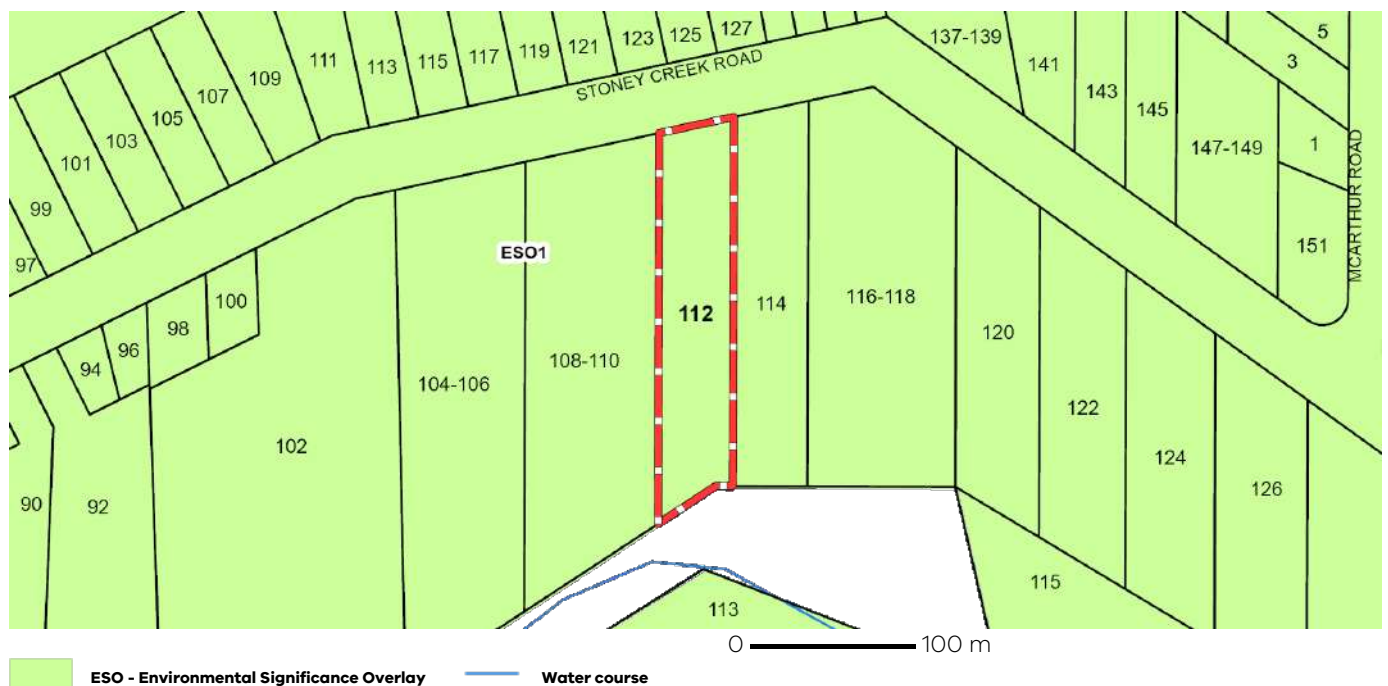
BUSHFIRE MANAGEMENT OVERLAY (BMO)



Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

ENVIRONMENTAL SIGNIFICANCE OVERLAY (ESO)

ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1 (ESO1)



Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

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Further Planning Information

Planning scheme data last updated on 7 December 2023.

A **planning scheme** sets out policies and requirements for the use, development and protection of land.

This report provides information about the zone and overlay provisions that apply to the selected land.

Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council

or by visiting <https://www.planning.vic.gov.au>

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the **Planning and Environment Act 1987**.

It does not include information about exhibited planning scheme amendments, or zonings that may affect the land.

To obtain a Planning Certificate go to Titles and Property Certificates at Landata - <https://www.landata.vic.gov.au>

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit

<https://mapshare.maps.vic.gov.au/vicplan>

For other information about planning in Victoria visit <https://www.planning.vic.gov.au>

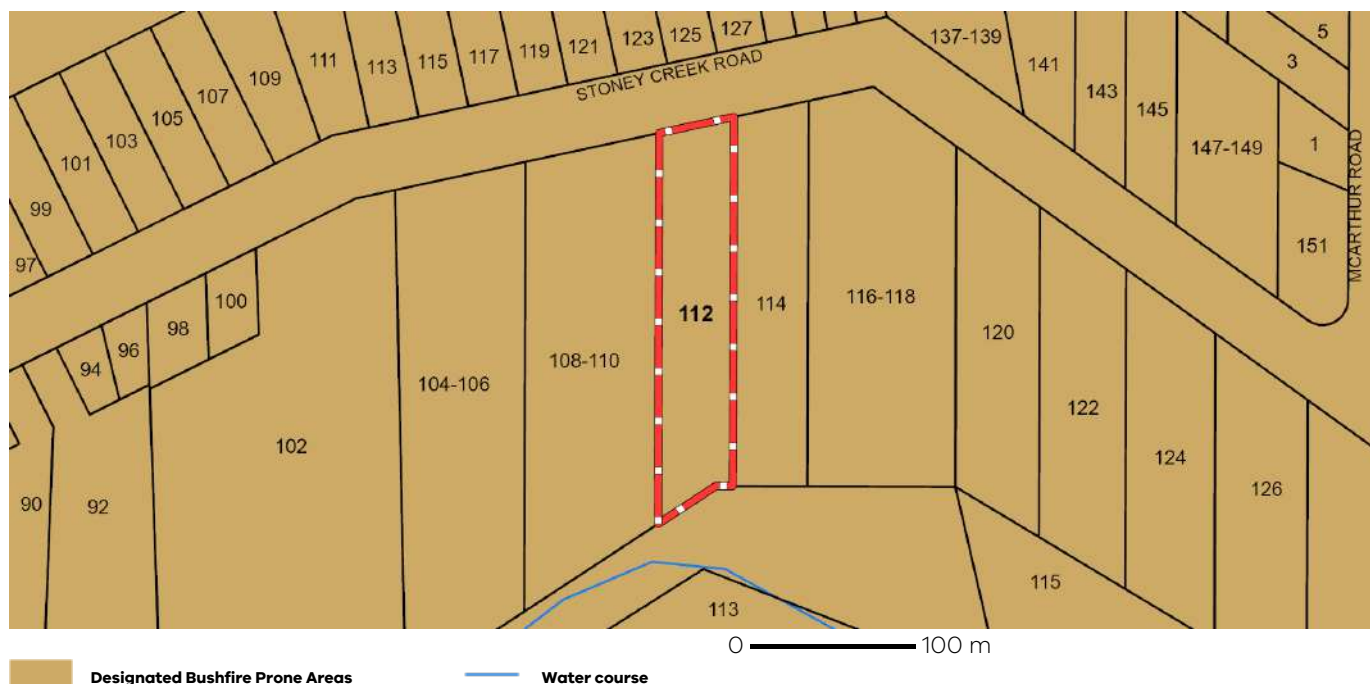
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Designated Bushfire Prone Areas

This property is in a designated bushfire prone area. Special bushfire construction requirements apply to the part of the property mapped as a designated bushfire prone area (BPA). Planning provisions may apply.

Where part of the property is mapped as BPA, if no part of the building envelope or footprint falls within the BPA area, the BPA construction requirements do not apply.

Note: the relevant building surveyor determines the need for compliance with the bushfire construction requirements.



Designated BPA are determined by the Minister for Planning following a detailed review process. The Building Regulations 2018, through adoption of the Building Code of Australia, apply bushfire protection standards for building works in designated BPA.

Designated BPA maps can be viewed on VicPlan at <https://mapshare.vic.gov.au/vicplan/> or at the relevant local council.

Create a BPA definition plan in [VicPlan](#) to measure the BPA.

Information for lot owners building in the BPA is available at <https://www.planning.vic.gov.au>.

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website <https://www.vba.vic.gov.au>. Copies of the Building Act and Building Regulations are available from <http://www.legislation.vic.gov.au>. For Planning Scheme Provisions in bushfire areas visit <https://www.planning.vic.gov.au>.

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see [Native Vegetation \(Clause 52.17\)](#) with local variations in [Native Vegetation \(Clause 52.17\) Schedule](#).

To help identify native vegetation on this property and the application of Clause 52.17 please visit the Native Vegetation Information Management system <https://nvim.delwp.vic.gov.au/> and [Native vegetation \(environment.vic.gov.au\)](https://www.environment.vic.gov.au) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit [NatureKit \(environment.vic.gov.au\)](https://www.environment.vic.gov.au)

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

Page 1 of 1

VOLUME 08929 FOLIO 244

Security no : 124115686784Y

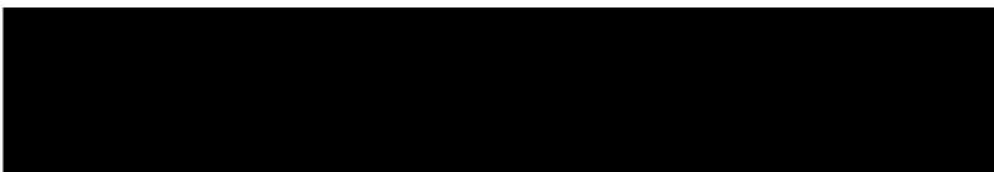
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LAND DESCRIPTION

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Lot 1 on Plan of Subdivision 092136.
PARENT TITLE Volume 08562 Folio 282
Created by instrument LP092136 19/06/1972

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 or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE LP092136 FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

-----END OF REGISTER SEARCH STATEMENT-----

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

Street Address: 112 STONEY CREEK ROAD BEACONSFIELD UPPER VIC 3808

ADMINISTRATIVE NOTICES

NIL

eCT Control 16977H ST GEORGE BANK
Effective from 27/02/2023

DOCUMENT END

Imaged Document Cover Sheet

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LP92136
EDITION 1
APPROVED 4/15/12

PLAN OF SUBDIVISION OF PART OF CROWN ALLOTMENT 15 SECTION D PARISH OF GEMBROOK COUNTY OF MORNINGTON

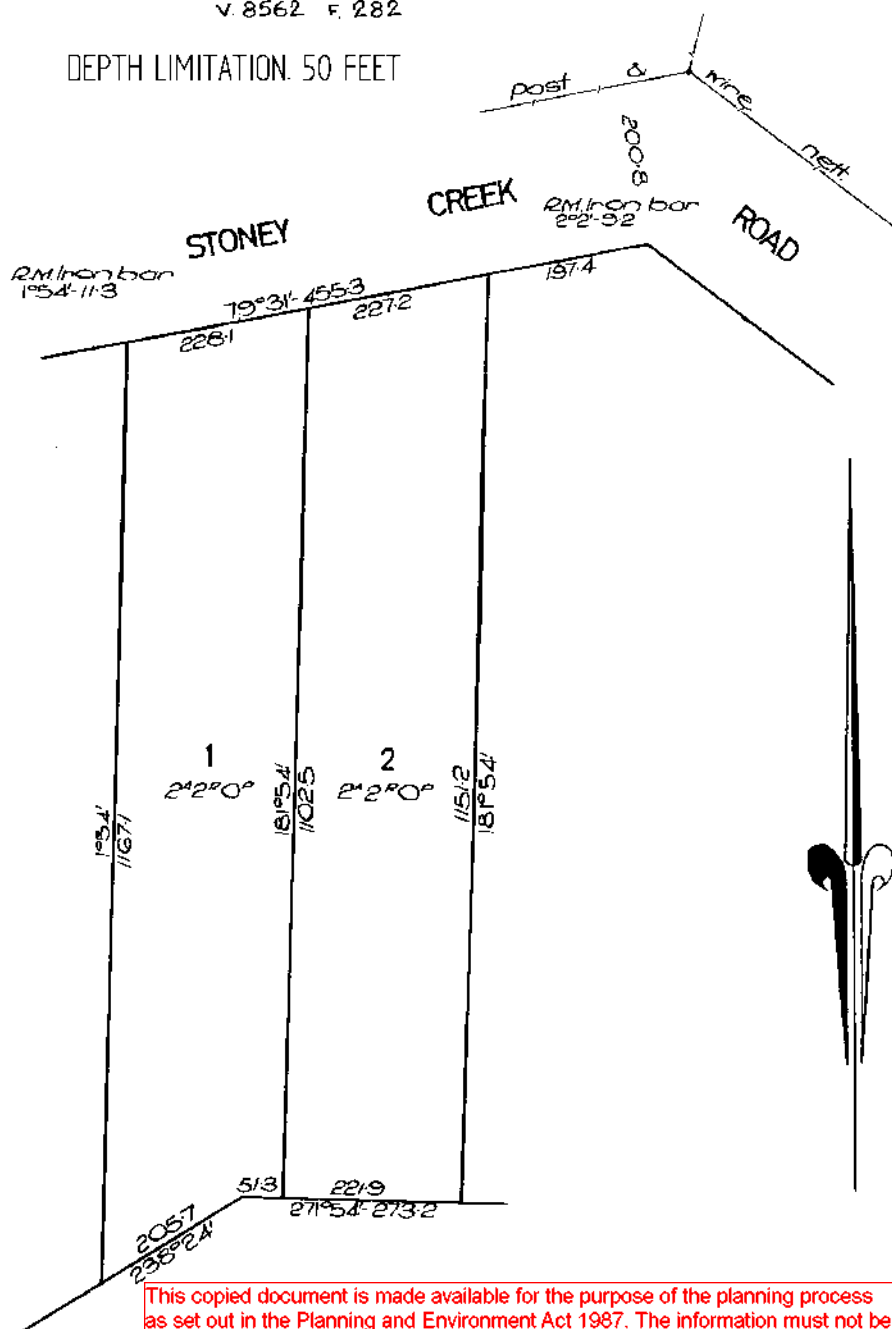
SCALE 150 0 150 300 450 LINKS

CHART NO. 6

LINKS 150 0 100 200 300
METRES 30 0 20 40 60

V. 8562 F. 282

DEPTH LIMITATION: 50 FEET



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PLANNING PERMIT APPLICATION



**Alterations and extensions to existing dwelling
at 112 Stoney Creek Road,
Beaconsfield Upper**

1. INTRODUCTION

This Planning report provides an assessment of the proposal against the relevant provisions of the Cardinia Planning Scheme.

The application seeks approval for partial demolition and alterations and extensions of the existing dwelling including upper floor addition and an attached outbuilding.

- Removal of existing veranda roof to make way for balcony on the upper floor.
- Partial removal of the wall and roof areas for the existing bedroom 1, ensuite and walk-in wardrobe, laundry and walls of the existing garage to make room for the first floor extension works. Please refer to attached plans.
- Demolition of the existing outbuilding.

[illegible]

Page 2

The proposed extension include as follows:

- New veranda, guest room with ensuite on the ground floor of the existing dwelling.
- The upper floor will comprise of a master bedroom, dressing room and attached balcony, gym and storage areas. The total height of the development is set at 9.90m from natural ground level. The exterior materials will include *corten vertical cladding* (rust finish) to match existing dwelling.
- A new outbuilding, double storey in design, constructed at the same location as the existing outbuilding. This building includes a storage area for domestic tools and machinery, an undercover garage and associated storage areas, whilst the upper floor will be used as a studio. The outbuilding measures 13.37m x 12.78m with a maximum height of 9.15m

The overall floor area of the proposed development is as follows:

FLOOR AREAS SCHEDULE			
1	EXISTING DWELLING	294	31.64 SQ
2	EXIST GARAGE	47	5.05 SQ
3	EXIST. ALFRESCO	87	9.36 SQ
4	EXIST. PORCH	9	0.96 SQ
5	PROPOSED GARAGE/STORAGE	154	16.57 SQ
6	PROPOSED FIRST FLOOR	201	21.63 SQ
7	PROPOSED LOFT	157	16.89 SQ
8	PROPOSED BALCONY	18	1.93 SQ
		967 m²	104.09 SQ

The proposed outbuilding will have a slightly increased setback from the closest side (western) boundary of 3.10m whilst the front setback is set at 9.40m

The proposed extensions attached to the dwelling will be 5.50m from the western boundary of the site.

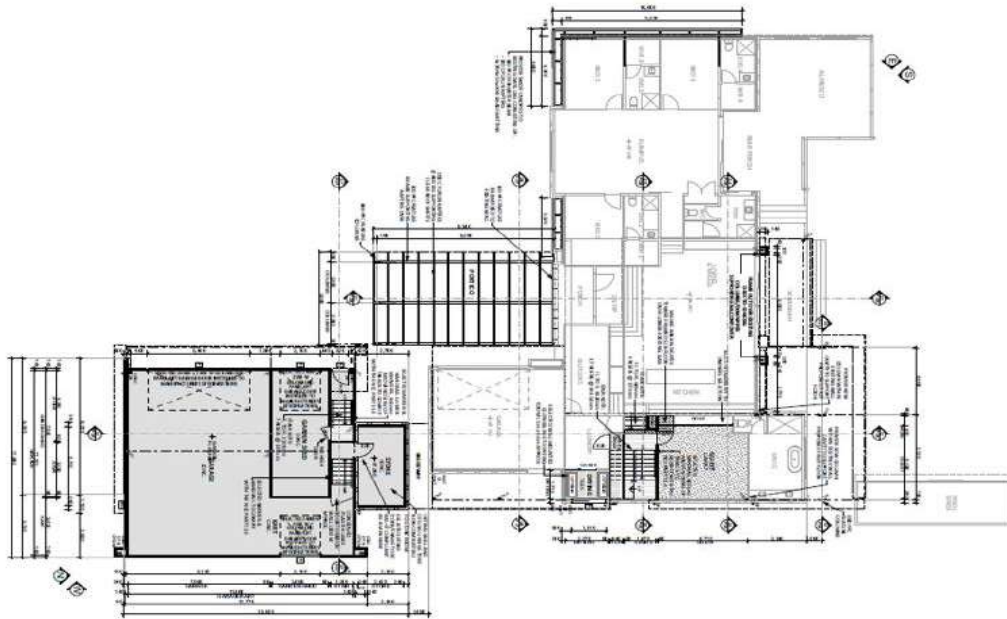


Image 2 – proposed ground floor layout.

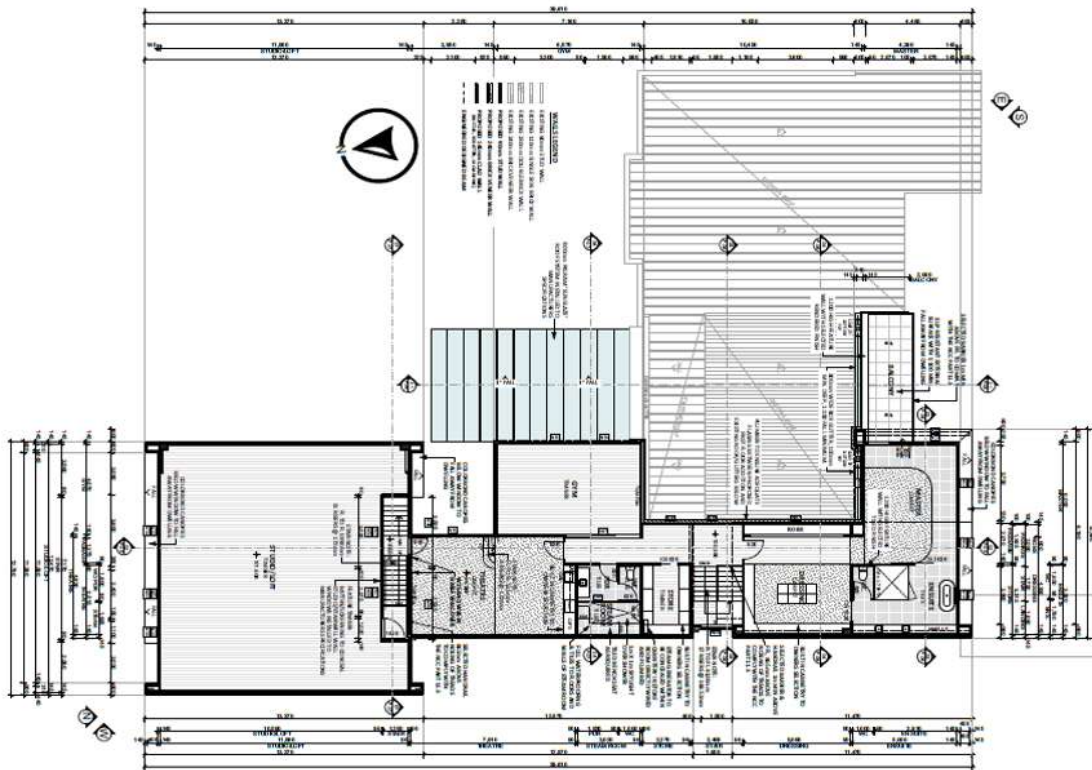


Image 3 – proposed first floor layout.

3. SUBJECT SITE

The subject site is located on the southern side of Stoney Creek Road in Beaconsfield Upper. The land is more formally described as Lot 1 LP92136.

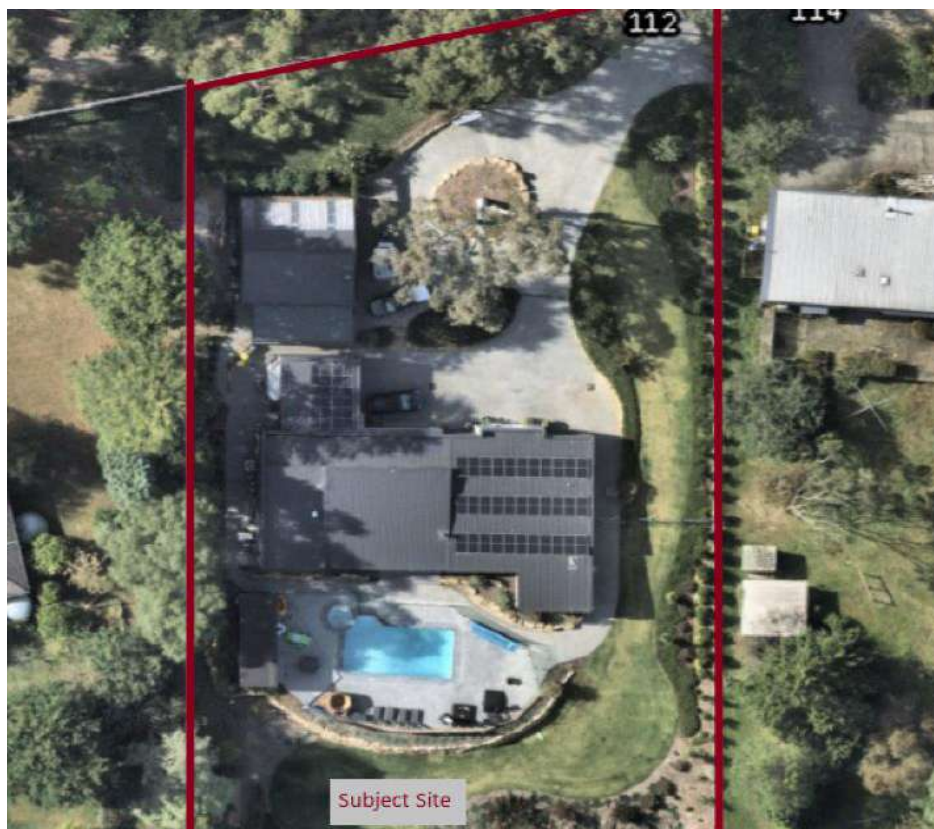


Image 4 – aerial view of the location of proposed development.

The registered title of the land does not contain any restrictive covenants, agreements or easement attached to it. A recent copy of the Certificate of Title & Plan of Subdivision is attached to this application.

The site is approximately rectangular in shape and is accessed via a gravel driveway located along the north eastern side of the site. The site has a dimension of 45.89 metres along Stoney Creek Road, a depth of 221.7 metres and 234.7 metres along the eastern and western boundaries respectively with a combined length of 51.6 metres along the southern boundary, resulting in an overall site area of 10,115 square metres.

The site contains a single storey dwelling with swimming pool and a tennis court at the rear. The site is very well maintained and used for rural living lifestyle purposes.

There is planted vegetation along the common boundary with adjoining properties. It is submitted that none of these trees will require removal to facilitate the proposed dwelling.

The site has an average slope of approximately 27 metres (6 degrees) across its entire depth.

The site is within the Green Wedge Zone Schedule 2 (GWAZ2) and affected by Bushfire Management Overlay and the Environmental Significance Overlay (ESO1).

Surrounding properties

The property to the east is 114 Stoney Creek Road. The site is similar to the subject site in terms of dimensions and depth. The site is occupied by a single storey dwelling developed towards the Stoney Creek Road frontage.

The property to the west (108 – 110 Stoney Creek Road) appears to be occupied by two dwellings. While the first dwelling is towards the Stoney Creek Road, the second dwelling is developed to the rear of the site.

The site and surrounding land to the east, north and west are located within the Green Wedge Zone of Cardinia Planning Scheme, while land located to the south is within the Public Conservation and Resource Zone.

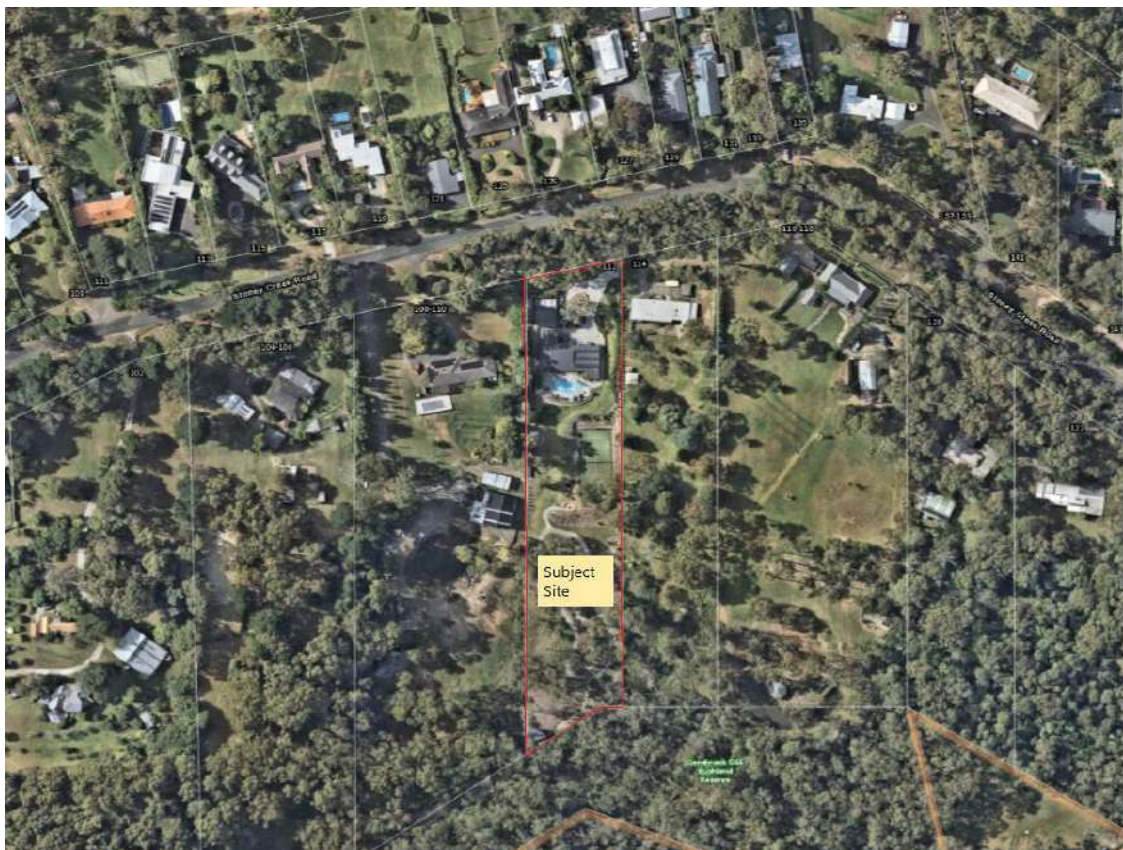


Image 5 – aerial view of the site and surrounding areas.

The site is not located within a Cultural Heritage Sensitive Area.

4. PLANNING CONTROLS

The following policies are considered relevant this application.

11.01-1R Green wedges- Metropolitan Melbourne

Objective

To protect the green wedges of Metropolitan Melbourne from inappropriate development.

Strategies

- Promote and encourage the key features and related values of each green wedge area.
- Support development in the green wedge that provides for environmental, economic and social benefits.
- Consolidate new residential development in existing settlements and in locations where planned services are available and green wedge values are protected.
- Plan and protect major state infrastructure and resource assets, such as airports and ports with their associated access corridors, water supply dams, water catchments and waste management and recycling facilities.
- Protect important productive agricultural areas such as Werribee South, the Maribyrnong River flats, the Yarra Valley, Westernport and the Mornington Peninsula.
- Support existing and potential agribusiness activities, forestry, food production and tourism.
- Protect areas of environmental, landscape and scenic value such as biodiversity assets, national and state parks, Ramsar wetlands and coastal areas.
- Protect significant resources of stone, sand and other mineral resources for extraction purposes.
- Provide opportunities for renewable energy generation.

The proposed alterations and additions are associated with existing dwelling on the site and will not impact any major state infrastructure and resource assets, such as airports and ports with their associated access corridors, water supply dams, water catchments and waste management and recycling facilities.

11.03-3S Peri-urban areas

Objective

To manage growth in peri-urban areas to protect and enhance their identified valued attributes.

Strategies

- Identify and protect areas that are strategically important for the environment, biodiversity, landscape, open space, water, agriculture, energy, recreation, tourism, environment, cultural heritage, infrastructure, extractive and other natural resources.
- Provide for development in established settlements that have capacity for growth having regard to complex ecosystems, landscapes, agricultural and recreational activities including in Warragul-Drouin, Bacchus Marsh, Torquay-Jan Juc, Gisborne, Kyneton, Wonthaggi, Kilmore, Broadford, Seymour and Ballan and other towns identified by Regional Growth Plans as having potential for growth.
- Establish growth boundaries for peri-urban towns to avoid urban sprawl and protect agricultural land and environmental assets. Enhance the character, identity, attractiveness and amenity of peri-urban towns.
- Prevent dispersed settlement and provide for non-urban breaks between urban areas.
- Ensure development is linked to the timely and viable provision of physical and social infrastructure. Improve connections to regional and metropolitan transport services.

It is submitted that the proposed extensions are associated with the existing dwelling and will not result in any form of sprawl of developments in this area.

Clause 12 Environmental and Landscape Values

The clause sought that –

- Planning should help to protect the health of ecological systems and the biodiversity they support (including ecosystems, habitats, species and genetic diversity) and conserve areas with identified environmental and landscape values.
- Planning must implement environmental principles for ecologically sustainable development that have been established by international and national agreements. Foremost amongst the national agreements is the Intergovernmental Agreement on the Environment, which sets out key principles for environmental policy in Australia. Other agreements include the National Strategy for Ecologically Sustainable Development, National Greenhouse Strategy, the National Water Quality Management Strategy, Australia's Strategy for Nature 2019-2030, the National Forest Policy Statement and National Environment Protection Measures.

- Planning should protect, restore and enhance sites and features of nature conservation, biodiversity, geological or landscape value.

It is submitted that the proposed alterations and additions are not in contrast to the requirements of this clause and will not cause any detrimental impact on the landscape value of the area.

13.02-1S Bushfire Planning

Objective

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

Strategies

Protection of human life Give priority to the protection of human life by:

- Prioritising the protection of human life over all other policy considerations.
- Directing population growth and development to low-risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire.
- Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision making at all stages of the planning process.

It is submitted that the proposed alterations and additions are associated with existing dwelling. The site is affected by Bushfire Overlay. A response to Bushfire will be discussed in the later part of this report.

14.01-1S Protection of agricultural land

Objective

To protect the state's agricultural base by preserving productive farmland.

Strategies

Strategies among others include:

- Identify areas of productive agricultural land, including land for primary production and intensive agriculture.
- Avoid permanent removal of productive agricultural land from the state's agricultural base without consideration of the economic importance of the land for the agricultural production and processing sectors.
- Protect productive farmland that is of strategic significance in the local or regional context.

- Protect productive agricultural land from unplanned loss due to permanent changes in land use.
- Protect strategically important agricultural and primary production land from incompatible uses.
- Avoid the subdivision of productive agricultural land from diminishing the long-term productive capacity of the land.

The proposed alteration and addition are located towards the frontage of the site where no agricultural activities are taking place, hence it will not result into removal of productive agricultural land. In addition, the proposal does not include any subdivision that could fragment agricultural land.

The land is a small rural living type allotment and mostly covered with infrastructure and vegetation, which further reduces any intensive agricultural potential of the land.

15.01.6S Design for rural areas

Objective

To ensure development respects valued areas of rural character.

Strategies

- Ensure that the siting, scale and appearance of development protects and enhances rural character.
- Protect the visual amenity of valued rural landscapes and character areas along township approaches and sensitive tourist routes by ensuring new development is sympathetically located.
- Site and design development to minimise visual impacts on surrounding natural scenery and landscape features including ridgelines, hill tops, waterways, lakes and wetlands.

The scale and appearance of the proposed additions will not dominate the Stoney Creek Roads rural character. The view to the additions will be limited by the dense vegetation along the frontage of the site.

In addition, the proposed additions achieve an overall height of 8.3 metres along the northern elevation fronting Stoney Creek Road and will be of muted colour finish which will mostly blend in with the existing development on the land. In addition to this, the site slopes away from Stoney Creek Road which assist in a reduced outlook of the proposed buildings and works.

16.01-3S Rural residential development

Objective

To identify land suitable for rural residential development.

Strategies

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- Manage development in rural areas to protect agriculture and avoid inappropriate rural residential development.
- Encourage the consolidation of new housing in existing settlements where investment in physical and community infrastructure and services has already been made.
- Demonstrate need and identify locations for rural residential development through a housing and settlement strategy.
- Ensure planning for rural residential development avoids or significantly reduces adverse economic, social and environmental impacts by:
 - Maintaining the long-term sustainable use and management of existing natural resource attributes in activities including agricultural production, water, mineral and energy resources.
 - Protecting existing landscape values and environmental qualities such as water quality, native vegetation, biodiversity and habitat.
 - Minimising or avoiding property servicing costs carried by local and state governments.
 - Maintaining an adequate buffer distance between rural residential development and animal production.
- Ensure land is not zoned for rural residential development if it will encroach on high quality productive agricultural land or adversely impact on waterways or other natural resources.
- Discourage development of small lots in rural zones for residential use or other incompatible uses.
- Encourage consolidation of existing isolated small lots in rural zones.
- Ensure land is only zoned for rural residential development where it:
 - Is located close to existing towns and urban centres, but not in areas that will be required for fully serviced urban development.
 - Can be supplied with electricity, water and good quality road access.

The proposal is to extend an existing dwelling and is not expected to detrimentally impact on the amenity of the area. The subject and surrounding land in this area allows for rural living lifestyle properties. As the 'use' of the land has already been established, it is not considered that the proposed development will take land out from its rural use.

The land is also serviced by reticulated services and well maintained roads.

5. LOCAL PLANNING POLICY FRAMEWORK

Clause 21.03-4 recognised Upper Beaconsfield as one of the large rural township within Cardia Council.

In response to the above provisions, the following are relevant to the subject site.

- *The proposed alteration is considered modest in terms of siting and bulk and will complement the rural character of the area. It's modest form ensures that the additions does not dominate the landscape or surrounding built form character.*
- *The proposal does not include any additional dwelling and does not propose any subdivision.*
- *The proposed alteration and addition will complement the rural living of the dwelling without compromising any landscape or any agricultural land.*

21.02-4 Bushfire management

Objective

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

Strategies

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

The proposal is associated with existing dwelling. Bushfire risk associated with the dwelling is not considered to be increased as a result of the proposed addition. Also, the dwelling is provided with all-weather crushed rock accessway which can easily accommodate emergency vehicles if required.

21.03-5 Rural residential and rural living development

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

21.07-4 Upper Beaconsfield

Local area implementation

- Ensure that any proposed use or development within or around the Upper Beaconsfield township is generally consistent with the *Upper Beaconsfield Township Strategy, July 2009*,

Residential development

- Maintain and enhance the ‘hill-top bushland character’ of Upper Beaconsfield through the retention of larger lots, the retention of existing remnant vegetation (particularly canopy trees and also ground covers where appropriate) and the use of building materials and colours which complement the natural environment of the area.
- Consider as appropriate the Precinct Character Guidelines set out in the Upper Beaconsfield Township Strategy, July 2009.
- Avoid residential development where the land has a slope greater than 20% or is designated ‘very poor’ in the Land Capability Study for the Cardinia Shire, 1997.

The proposed addition will not impact on or require removal of any vegetation. The proposal is within a relatively flat section of the subject site which is already being used for domestic purposes.

In addition to the above, it is understood that the landowner can remove vegetation adjoining the existing dwelling under the bushfire exemption provisions.

6. ZONE

CLAUSE 35.05 – GREEN WEDGE A ZONE (GWAZ) SCHEDULE 2

The property is identified within the Cardinia Planning Scheme as being located within the Green Wedge Zone Schedule 2 (GWAZ2). The surrounding land to the north, east and west are also zoned as GWAZ2



Image 6 – land use zone map for site and surrounding areas.

The purpose of GWAZ is:

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

In accordance with Clause 35.05-5 of the Green Wedge A Zone Schedule 2, a permit is required for alterations or extensions to an existing dwelling with a floor area of no more than 50 square metres and as in this case, the proposed alteration with associated extensions exceeds 50 square metres and therefore a permit is triggered.

The overall floor area of the existing dwelling is 437sqm, while the gross floor area of the addition including the upper floor and outbuilding is 53sqm, totalling 967sqm. This is over 50% of the gross floor area of the existing dwelling and therefore a permit is required under the zone provisions.

In addition to the above, it is further submitted that a permit is triggered under the following clauses of the zone provisions –

- A building which is within any of the following setbacks (as relevant):
 - 10 metres from any other road.
 - 5 metres from any other boundary.
 - 30 metres from a dwelling not in the same ownership.

The overall height of the addition is more than 7 metres above the natural ground level.

Before deciding on an application to construct a building or construct or carry out works, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

General issues

- How the use or development relates to agricultural land use, rural diversification and natural resource management.
- Whether the site is suitable for the use or development and whether the proposal will have an adverse impact on surrounding land uses.
- The need to protect the amenity of existing residents.
- The need to minimise adverse impacts on the character and appearance of the area or features of architectural, scientific or cultural heritage significance, or of natural scenic beauty or importance.
- The potential for accommodation to be adversely affected by vehicular traffic, noise, blasting, dust and vibration from an existing or proposed extractive industry operation if it is located within 500 metres from the nearest title boundary of land on which a work authority has been applied for or granted under the *Mineral Resources (Sustainable Development) Act 1990*.

Rural issues

- The maintenance of agricultural production and the impact on the local rural economy.
- The need to prepare an integrated land management plan.
- The impact on the existing and proposed rural infrastructure.
- The potential for the future expansion of the use or development and the impact of this on adjoining and nearby agricultural and other land uses.
- Protection and retention of land for future sustainable agricultural activities.

Environmental issues

- The impact of the use or development on the flora and fauna on the site and its surrounds.
- An assessment of the likely environmental impact on the natural physical features and resources of the area and in particular any impact caused by the proposal on soil and water quality and by the emission of effluent, noise, dust and odours.
- The need to protect and enhance the biodiversity of the area, including the retention of vegetation and fauna habitat and the revegetation of land including riparian buffers along waterways, gullies, ridge lines, property boundaries and saline recharge and discharge areas.
- How the use or development relates to sustainable land management and the need to prepare a sustainable land management plan.
- The location of onsite effluent disposal areas to minimise impact of nutrient loads on waterways and native vegetation.

Design and siting issues

- The need to minimise adverse impacts of the siting, design, height, bulk, colours and materials to be used on major roads, landscape features and vistas.
- The location and design of existing and proposed infrastructure services including gas, water, drainage, telecommunications and sewerage facilities which minimise the visual impact on the landscape.
- The location and design of existing and proposed roads and their impact on the landscape and whether the use or development will require traffic management programs.
- The need to locate and design buildings used for accommodation to avoid or reduce the impact from vehicular traffic, noise, blasting, dust and vibration from an existing or proposed extractive industry operation if it is located within 500 metres from the nearest title boundary of land on which a work authority has been applied for or granted under the *Mineral Resources (Sustainable Development) Act 1990*.

The proposal satisfies the above decision guidelines for the following reasons:

- The proposal is not for a new use. The use of the land as a dwelling, has already been established. The existing dwelling is occupied by the land owner.
- The amenity of the existing and adjoining residents will not be detrimentally impacted by the proposed additions as the extensions are in keeping with the existing dwellings design and built form.
- The site does not adjoin any area of scientific or cultural heritage significance.

- The proposed alterations are associated with existing dwelling with all works being conducted towards the front of the dwelling. The proposed additions will not impact on any rural infrastructure.
- The additions will not impact on future expansion of the rural use on adjoining and nearby agricultural and other land uses.
- The siting of the additions is within areas already developed on the land. The proposed colour and material for construction has been selected to be of muted colour and will not impact on the landscape features and vista of the surrounding land.
- Due to the size of the subject and surrounding land, any intensive agricultural potential of the land is minimum to nil.

CLAUSE 42.01 ENVIRONMENTAL SIGNIFICANCE OVERLAY SCHEDULE 1 (NORTHERN HILLS)

The purpose of the overlay is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To identify areas where the development of land may be affected by environmental constraints.*
- *To ensure that development is compatible with identified environmental values.*

Clause 42.01-2, a permit is required to construct or carry out works. This does not apply if a schedule to this overlay specifically states that a permit is not required.

Statement of environmental significance

The hills to the northern part of the municipality (generally to the north of the Princes Highway) is an area with significant landscape and environmental values. The area is characterised by a geology of Devonian Granitic and Sulrian Sediment origin, moderate to steep slopes, and areas of remnant vegetation. These characteristics contribute to environmental values including landscape quality, water quality, and habitat of botanical and zoological significance. These characteristics are also a significant factor in terms of environmental hazards including erosion and fire risk.

The vegetation supports the ecological processes and biodiversity of this area by forming core habitat areas within a complex network of biolink wildlife corridors. Sites containing threatened flora and fauna are defined as being of botanical and zoological significance. Development within and around these sites need to be appropriately managed to ensure the long term protection, enhancement and sustainability of these ecological processes and the maintenance of biodiversity.

Permit requirement

A permit is not required to construct a building or construct or carry out works provided all of the following requirements are met:

- *Building materials must be non-reflective or subdued colours which complement the environment to the satisfaction of the responsible authority.*
- *The height of any dwelling must not exceed seven metres above natural ground level and the height of all other buildings must not exceed 4 metres above natural ground level.*
- *The works must not involve the excavation of land exceeding 1 metre or filling of land exceeding 1 metre and any disturbed area must be stabilised by engineering works or revegetation to prevent erosion.*
- *The slope of the land on which the buildings or works are undertaken must not exceed 20%.*
- *The buildings and works must not result in the removal or destruction of native vegetation (including trees, shrubs, herbs, sedges and grasses) within an area of botanical or zoological significance as shown on the mapped information provided by the Department of Sustainability and Environment, with the exception of Sweet Pittosporum (*Pittosporum undulatum*).*
- *If the building is an extension to an existing dwelling that is less than 50 percent of the floor area of the existing building.*
- *If the building is an outbuilding ancillary to a dwelling, the gross floor area of all outbuildings on the land must not exceed 120 square metres.*
- *If the building is in a Green Wedge or Rural Conservation Zone and is associated with the existing use of the land for the purposes of agriculture, the gross floor area of the building must not exceed 160 square metres.*

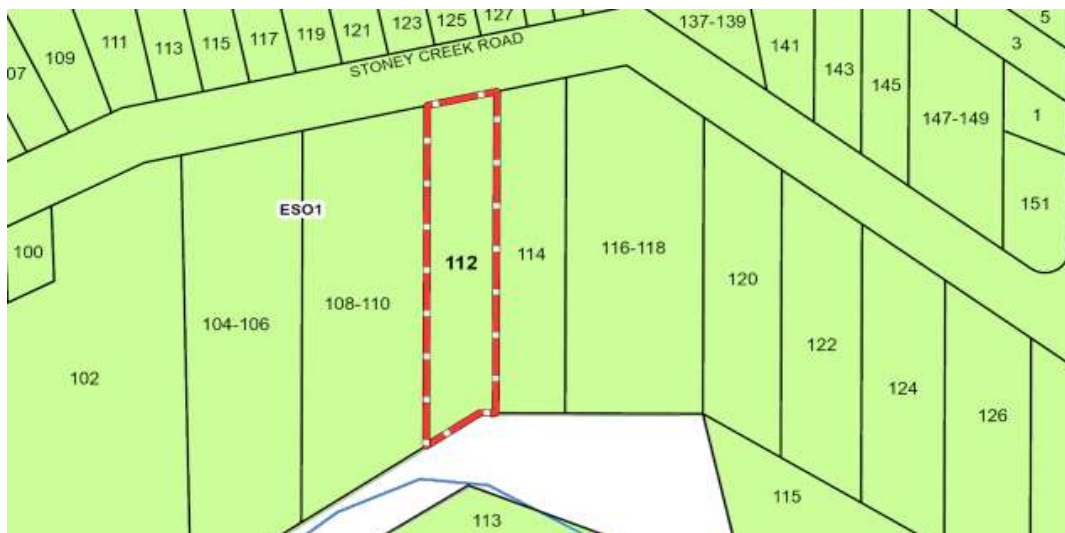


Image 7 – subject site and surrounding land affected by ESO1.

A permit is required under the overlay provisions.

The proposed upper floor addition achieves a maximum height of 9.90 metres for the dwelling.

The proposal is submitted to be consistent with the requirements of the overlay provisions given the following:

- The upper floor addition will be mostly screened from view from Stoney Creek Road given the dense mature vegetation along the road reserve and frontage of the site. Therefore, the development is not expected to create any adverse impact on the landscape character of the area, including prominent ridgelines and significant views.
- The proposed materials and finishing of the proposal (including the siting, height, scale, materials, colours and design of the proposed buildings and works) have been designed to visually blend in with the environment and landscape of the area. Most of these materials will match that of the existing dwelling.
- The upper floor addition will require some cut and fill however this is only with a small section on the land and therefore will continue to meet the environmental objectives of this schedule, having regard to the size and topography of the land, retention of vegetation and the form and nature of the proposed buildings and works.
- The reconstruction of the outbuilding will require some cut and fill, however, given that there was an existing outbuilding located in this area, it has been decided to replace this outbuilding as it is not of a sufficient size to meet the landowners needs.
- Overall, no tree is proposed for removal to facilitate the additions nor will there be any works within the tree protection zones of any significant trees.

Clause 44.06 Bushfire Management Overlay

The purpose of Bushfire Management Overlay is:

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

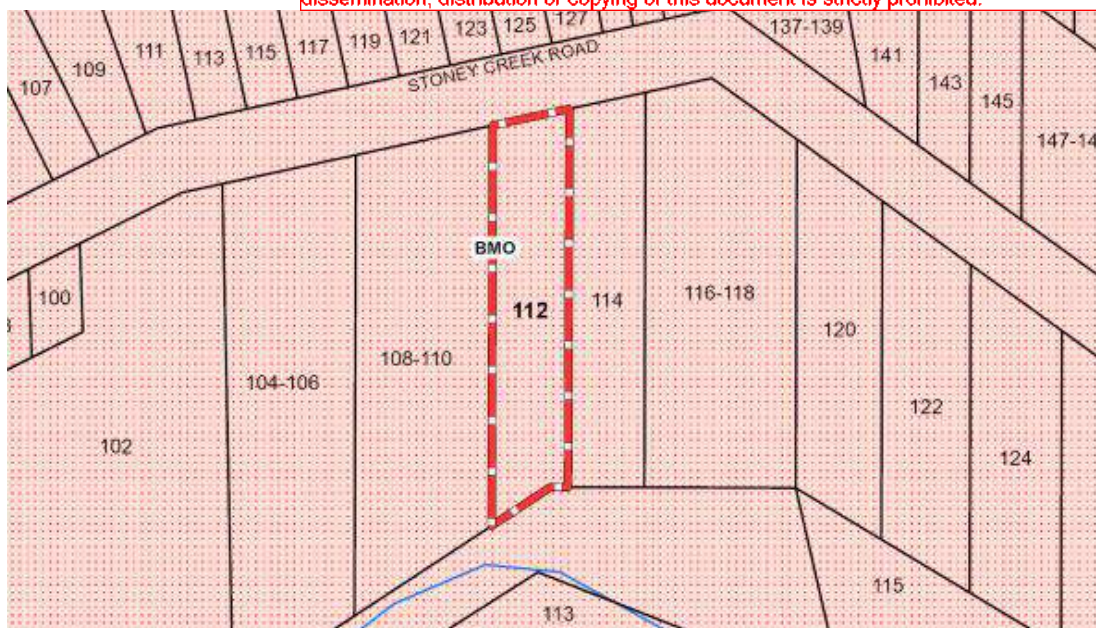


Image 8 – subject site and surrounding land affected by BMO.

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

However, planning permit is not required if an alteration or extension to an existing building used for a dwelling is less than 50 percent of the gross floor area of the existing building.

In support of the application and given the total area of the outbuilding exceeds 100sqm, a bushfire management plan and statement has been prepared and is attached for Councils and CFA's consideration and approval.

7. CONCLUSION

The proposal is considered to be consistent with the relevant provisions of the planning policies and all other relevant provisions of the Cardinia Planning Scheme. The location, height materials and finishing of the proposed additions are submitted to be appropriate for the site and will not cause any amenity impact on the landscape significance of the area and the design and built form of the area.

As such, it is requested that Council supports this application and issues a permit with appropriate conditions.

8. SITE PHOTOS



Image 9 – access to the site



Image 10 – existing outbuilding proposed for demolition.



Image 11 – existing dwelling as viewed from crossover.



Image 12 – front elevation of the dwelling.



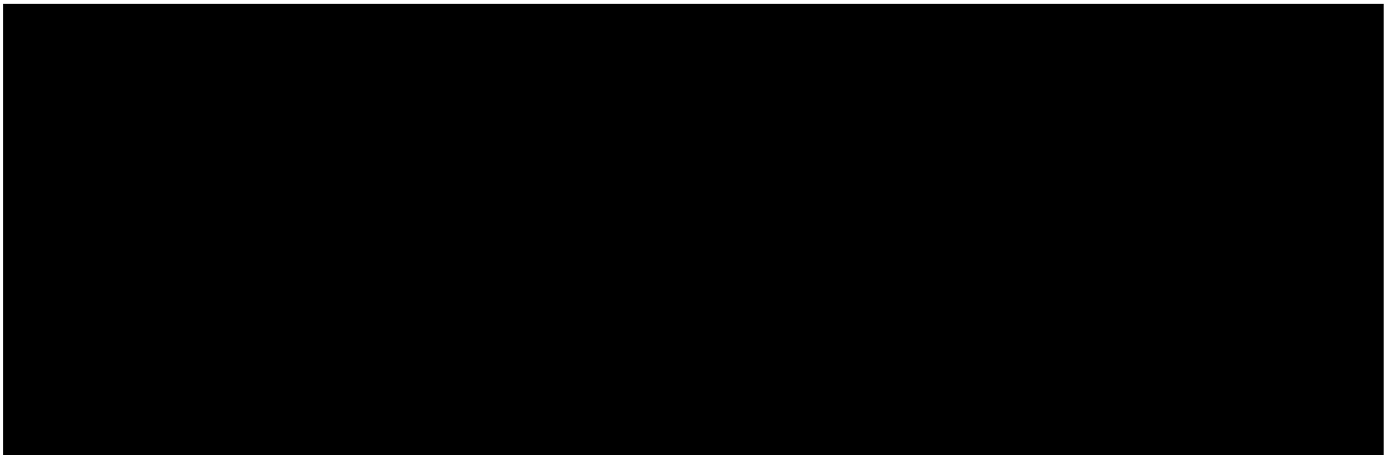
Image 13 – north east elevation of the dwelling



Image 14 – rear view of the dwelling.

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**PLANNING FOR BUSHFIRE AT
112 STONEY CREEK ROAD
BEACONSFIELD UPPER
30/05/24**



1.0 INTRODUCTION

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As requested, I have developed the following assessments and appropriate management statement in accordance with Clause 44.06 (Bushfire Management Overlay, refer Figure 1), and thereby Clause 53.02 of the State's Planning Policy Framework for bushfire management planning purposes. This assessment is for a proposed new dwelling extension on a **Green Wedge property**, refer Figures 1-5. This new dwelling extension requires a planning permit that is compliant with the bushfire management overlay planning provisions.

2.0 PURPOSE

The purpose of this document is to help the owner build, maintain and prepare for bush fire in an acceptable manner as outlined in Clauses 53.02 of the State's Planning Policy Framework. It should be noted that all recommended Bushfire Attack Level (BAL) construction standards in this report, are those Standards found in the latest version of AS3959 and any overriding variations as recommended by Clauses 53.02.

3.0 APPLICATION

This application is for a new dwelling on a rural property in a BMO and **Green Wedge Zone**; refer Figures 1 & 2. Consequently Clause 53.02-4 applies.

4.0 CLAUSE 53.02-4

Bushfire Protection objectives

These objectives are met as follows:

4.1 CLAUSE 44.06-3

A Bushfire Hazard Site Assessment:

The landscape within 150m of the assessment

A typical photograph and contour plan of the terrain within 150m of the proposed development is shown in Figures 4. This **Rural** property is located at **112 Stoney Creek Road** (i.e., a Public Road), and the proposed extension to the existing building at this site is located with a semi-cleared forested residential with downward 5-10° sloping landscape to the south, refer Figures 4.

A BAL FZ defensible space can be achieved, as shown in Figure 5. This very poor rating is derived by the relatively thick cover of trees on the properties to the east and west of this property. If these trees were to be sufficiently removed, then this and the neighbouring properties would have a safer bushfire rating. The access road to the proposed house extension site is from the North. It has an existing 3.5 m wide driveway that is ~80 m long, with an average grade that is

<14%, refer Figures 3B. A 10,000 L CFA recommended firefighting tank is recommended for this rural site.

The proposed development however is located within a moderate-Low CFA rated Type 2 landscape due to its relatively close location to the township of Beaconsfield Upper. However due to the closeness of the trees on the neighbouring property, the proposed building extension should have a BAL FZ rating, with a BAL FZ defendable space and alternative management measure 3.5.

4.2 Bushfire protection objectives

Landscape, siting and design objectives

Approval Measure 2.1

- The Bushfire risk to the development from the landscape beyond the site cannot be mitigated to an acceptable level, hence it does have impacting the proposed building. In this case it is recommended that the proposed build have BAL FZ rating, with a BAL FZ defendable space as described in Section 4.1 above, and in Figure 5. A alternative to this recommendation is to organise with the neighbours to clear some nearby vegetation on the neighbouring properties to allow for a safer BAL rating outcome, for this and the neighbouring properties.

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Approval Measure 2.2

- The building extension site is located in a position that allows the maximum possible separation distance between the building extension and bushfire hazard possible, refer Figure 5. Unfortunately this still results in a BAL FZ rating.
- The proposed building extension is in a close proximity to a public road (e.g., **112 Stoney Creek Road**), refer Figures 1-4.
- Access can be provided to the building from the road for emergency service vehicles. It should be further noted that the average existing access road grade is <14%, and it is 3.5 m wide x ~80 m long.

Approval Measure 2.3

- The proposed house extension site is located in a position that allows it to achieve a BAL FZ constructed house and BAL FZ defendable space, refer Figure 5. Also refer to Section 4.1 above for more information.

4.3 Approval Measures 3.1

- As the proposed building must have a BAL FZ building and defendable space, Alternative Measure 3.5 applies. Refer to Figure 5 and Section 4.1 above for more information.

Alternative Measure 3.5

- This lot has access to urban, township or other areas where:
 - Protection can be provided from the impact of extreme bushfire behaviour, e.g. Upper Beaconsfield is only 2-3 minutes' drive away, refer Figure
 - All fuel within this property boundary can be managed within the required minimum defendable space, refer Figure 4.
 - Fuel can be managed in a minimum fuel condition. This includes trimming back overhanging branches from trees planted on neighbouring properties.
 - There is sufficient distance or shielding to protect people from direct flame contact or harmful levels of radiant heat... As required by Table 1 of 35.02-05.
- Less defendable space and a higher construction standard is appropriate having regard to the bushfire hazard landscape hazard. Note that the surrounding vegetation thins out beyond that of the vegetation that is near the proposed extension. This will reduce the intensity of BAL FZ rating.
- The dwelling is constructed to a bushfire attack level of BAL FZ.

4.4 Water supply and access objectives

Approval Measure 4.1

- A static water supply of 10,000 L is required for firefighting purposes in accordance with Clause 53.02-5, refer Figure 5.
- The major access requirements to the proposed dwelling and firefighting tank is such that length of driveway is <100 m, it is 3.5m in width, <14.4% in grade, the access road is <4m from the firefighting tank. These and other minor requirements are shown in Figure 5.

Approval Measure 4.2

- Not applicable.

4.6 CLAUSE 44.06-3

A Bushfire Hazard Landscape Assessment

The landscape greater than 150m from the assessment

A typical aerial photograph of the terrain greater than 150m from the proposed development is shown in Figure 5. There is only 1 safe access and escape routes to this property along the Stoney Creek Road to the South West; to the township of Beaconsfield Upper (~2-3 mins.) or Beaconsfield further afield. This route travels mostly through a combination of grassland, modified vegetation and forest along the way, refer Figure 5. Alternatively, flee north to Bushfire refuge in Emerald... Worrell Reserve, 402 Belgrave-Gembrook Road, Emerald. It should be noted that the dominant wind direction during the mid-summer bushfire season is from the South West. Hence it is desirable that occupants decide to flee early at the slightest hint of a bushfire, refer Figure 5.

Consequently, this hazardous situation can be best managed as follows:

1. Where there are surrounding bushfires, do not rely on the CFA to be at your residence to help put out the fire.
2. To help minimise the fire risk, it is recommended that the defensible space around the proposed build be maintained like that suggested in **Figure 5**, particularly during the Summer bushfire season.
3. Have in place plans to be aware of fire outbreak reports on high fire danger days (e.g., by radio, senses, computer, CFA phone app. etc.) and then consider your fight or flee response.
4. If a flee response is considered, plan to leave early via the safest route possible if there is any hint of bushfire, refer Figure 6. It should be noted that if it is left too late, it is highly probable that the smoke from the fire will make it too difficult to see and safely navigate any proposed escape route. It is further recommended that the owner/occupier of the property become fully familiar with all road escape routes. In the end, the safest route will depend on the circumstances of the day; or
5. If you are planning to stay and defend the house on your property, it is recommended that a motorised firefighting pump and hose system; in good working order, be available for this purpose. Typically, initially use this system to wet the surrounding house area and put out any ember-initiated fires, stow the pump system and take shelter in the house as the fire front passes by, and then use this system again to put out any fire front initiated fires. It is recommended that people wear natural fibred clothing and use plenty of water for dousing to cool down, and drink for preventing dehydration when undertaking this type of strenuous activity.
6. Where the clearing of hazardous vegetation on neighbouring properties is beyond the control of the property owner, and this vegetation may hinder access to this property for safe firefighting purposes, or the safety of the buildings on this property, then it is recommended that Council policy measures such as those recommended in Section 5 of this report are to be adopted.

5.0 CLAUSE 53.02-3.1 DECISION GUIDELINES

This clause is for the Council to decide on with this application, taking into account a whole range of these and broader issues. It should be noted that many of the provisions in these bushfire management plans are relatively new and many properties have not been set up or cleared of hazardous vegetation for safe access along private driveways and public roads, or safe living conditions in leafy urban townships. In addition to this, there is currently no regulation preventing the neighbours from planting new vegetation that will degrade the neighbourhood's bushfire hazard risk.

There are a number of ways of viewing and managing this predicament as far as approving individual applications from a regulatory viewpoint. If a black and white stand is taken on approving

applications, then very few new applications would be approved. A more realistic and prudent standpoint on approving applications would involve a 5-point strategy approach:

1. Ensure each new application complies with this fire management provision within its own boundary; and where possible make well any nearby fire hazard on public land that is deemed a fire hazard to the proposed new development. In addition to this, the Council may consider ensuring that each property complies with minimum BAL requirements of AS3959 or Clause 53.02; in particular safe firefighting access requirements under a modified Section 32 of the "Sale of land act" each time a property is sold. This action will eventually ensure that the whole municipality will slowly but surely begin to become better prepared for bushfire.
2. As a minimum due diligent, duty of care precautionary measure it is recommended that the Council conduct a public education campaign to help residents to be aware of the bushfire danger and indicate to them what is required to make their property safer in accordance with modern best day practices, e.g., BAL requirements of AS3959 or Clause 53.02 where applicable for bushfire management.
3. By example the Council initiates the removal of fire hazard vegetation from road reserves and nature strips within built up areas, from last resort community assembly areas and public land immediately adjoining built up residential areas; thus, allowing safe and unimpeded access for firefighting vehicles.

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4. Council's initiate a scheme with the insurance industry to give monetary incentives to those new and existing property holders who have a gone to the trouble of having at least a BAL assessment and then modifying their house and/or high fire risk vegetation around their dwelling.
5. In any event, Council's should implement measures to ensure that the recommendations of this report are put in place.

6.0 CONCLUSION

CLAUSE 44.06-3

Bushfire management statement

This proposed property development on can be built and managed as required under Clauses 44.06, and 53.02 of the State's Planning Policy Framework for bushfire management within the property boundary.

The proposed methods of management that address the bushfire dangers at this site, includes the construction and maintenance of a new BAL FZ building extension and BAL FZ defensible space, a new 10,000 L firefighting tank that complies with CFA access requirements, refer Figure 5.

On high fire danger days, it is recommended that the owners and occupants of the proposed house put into place their plans to be informed, and then be prepared to fight or flee any bushfire, refer Figure 6.

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It is recommended that the proposed onsite fire mitigation measures recommended in this application be approved by the CFA and Council. In addition to this it is recommended that Council consider adopting the suggested fire mitigation measures (or similar to those suggested in Section 5) for those applicable properties, beyond this property.



BUSHFIRE MANAGEMENT OVERLAY (BMO)

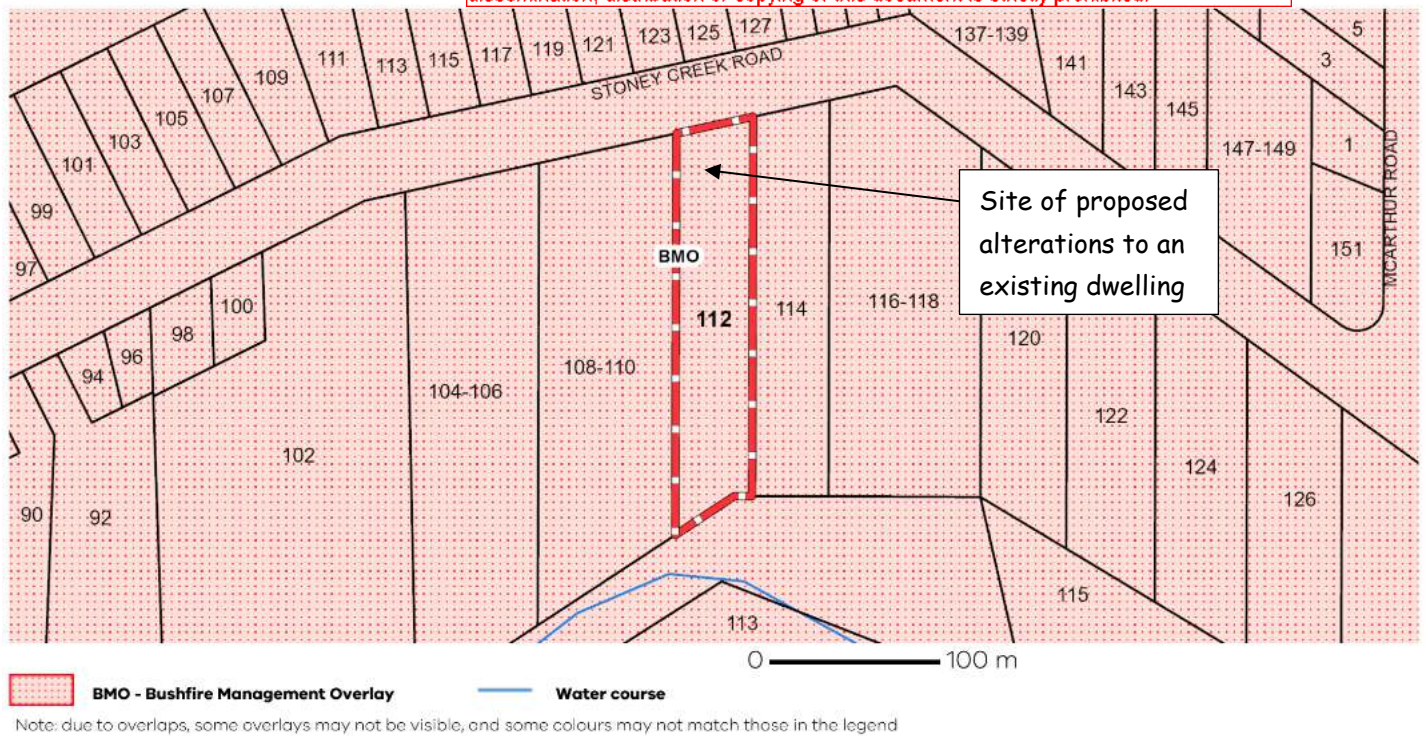


FIGURE 1
Planning Scheme
 - BMO overlay

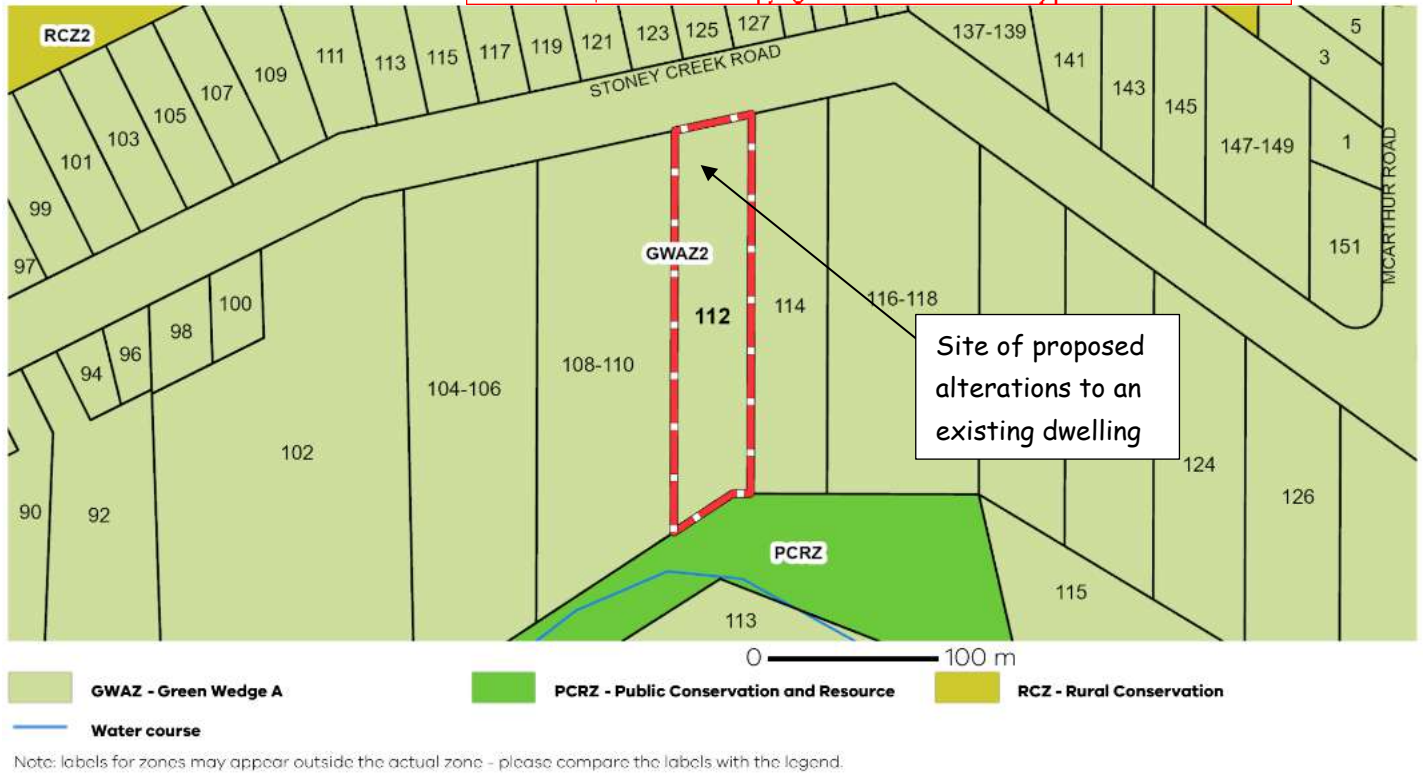


FIGURE 2
Planning Scheme
- Town Planning overlay

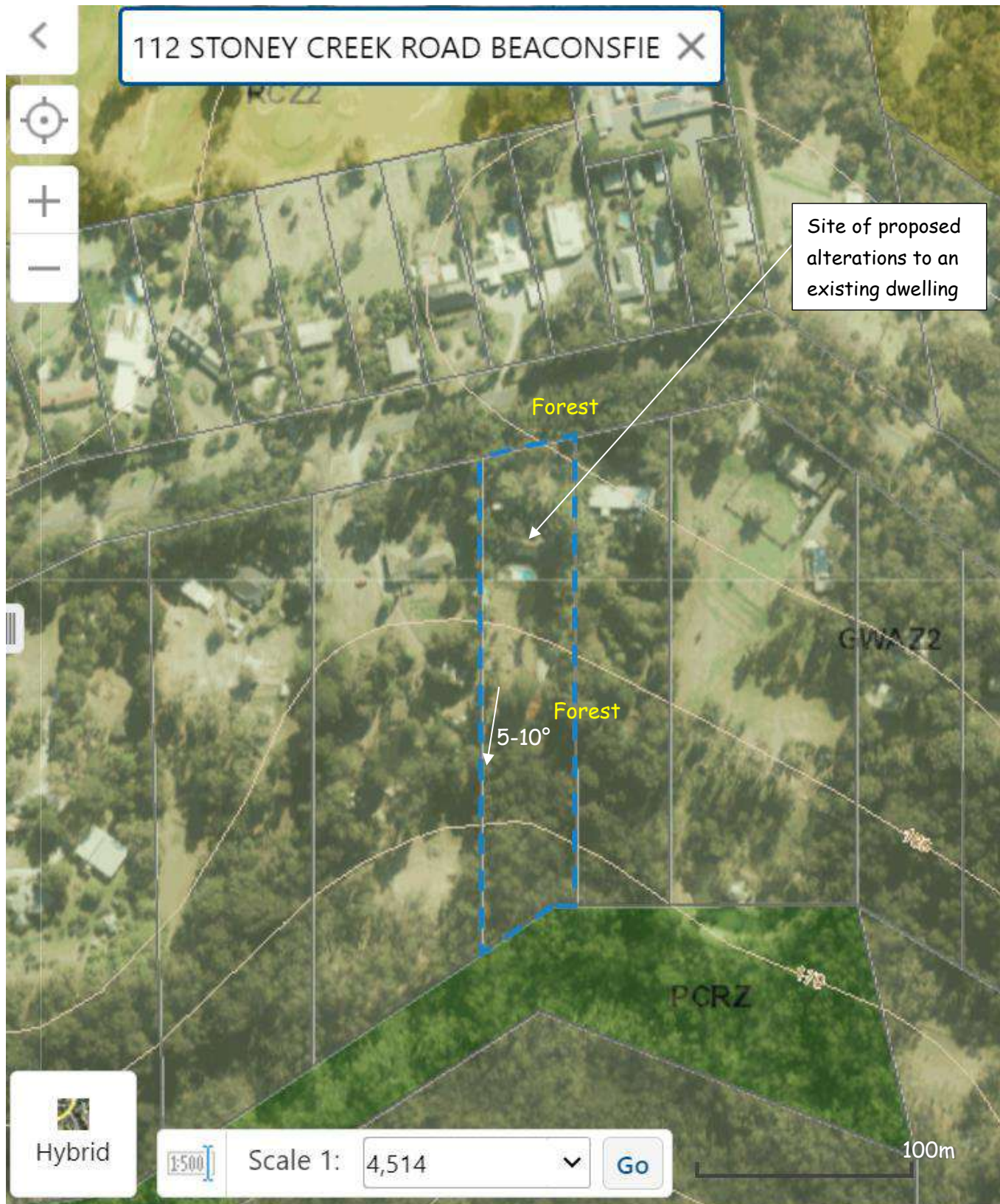


FIGURE 3A:
AERIAL PLAN OF EXISTING PROPERTY WITHIN 150 m

NB:

1. To scale as shown
2. 10 m contours.
3. Metre dimensions unless stated otherwise.
4. To be read in conjunction with attached report.

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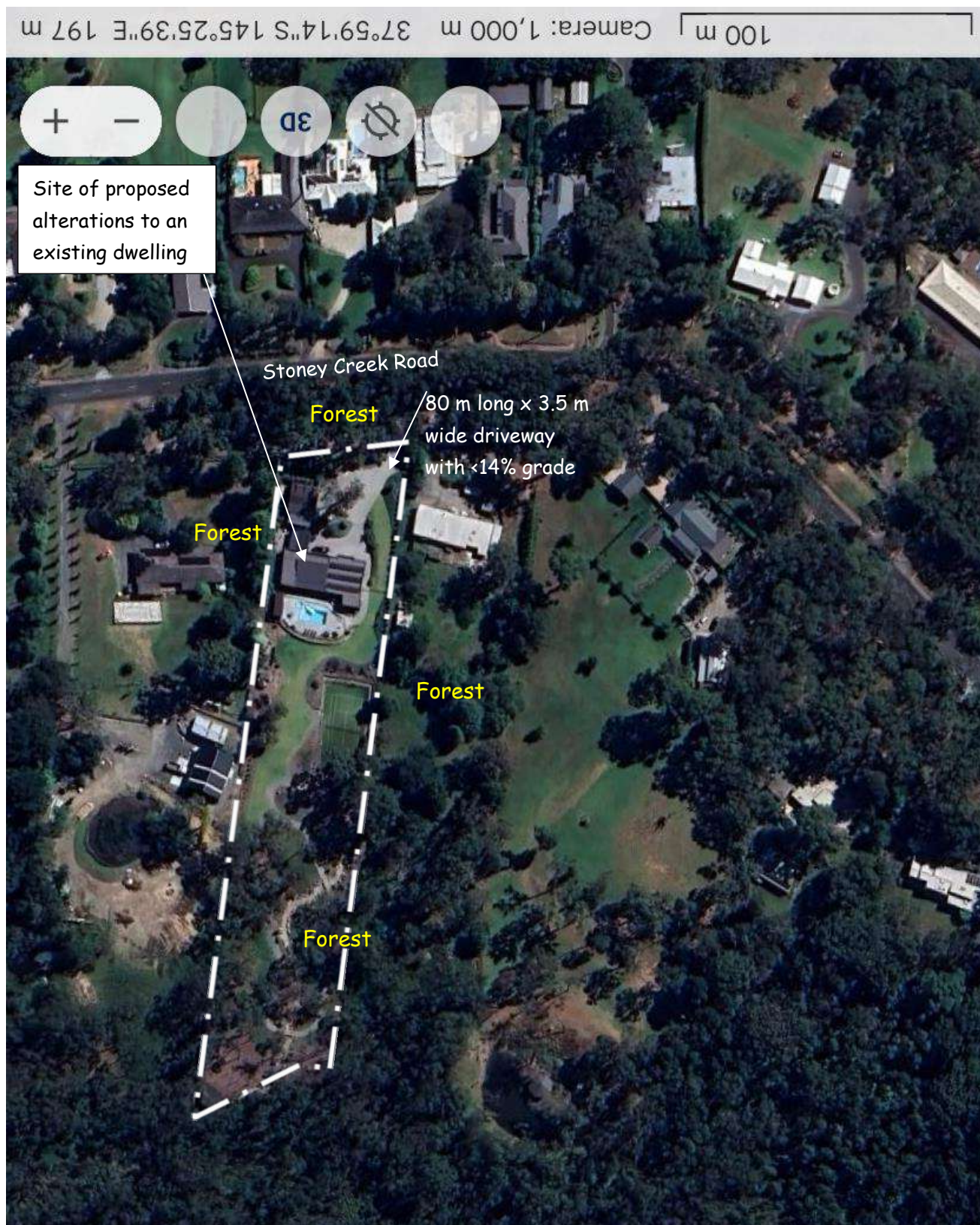


FIGURE 3B:
AERIAL RECENT PLAN OF EXISTING PROPERTY WITHIN 150 m
NB:

1. To scale as shown
2. Metre dimensions unless stated otherwise.
3. To be read in conjunction with attached report.

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FIGURE 4

Bushfire Management Plan

- Metre dimensions

Building

The proposed buildings are to be constructed to AS3959 building and BAL standards recommended in this figure.

Fire Fighting Access

The following design and construction requirements apply:

- All-weather construction.
- A load limit of at least 15 tonnes.
- Provide a minimum trafficable width of 3.5 metres.
- Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.
- Curves must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum grade of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than 1 in 8 (12.5%) (7.1°) entry and exit angle.

Defendable space management

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals

during the declared fire danger period.

- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts (e.g. windows) of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 5 metres.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

Water supply for firefighting purposes

Unless otherwise agreed in writing by the relevant fire authority, the water supply must:

- Be stored in an above ground water tank constructed of concrete or metal.
- Have all fixed above ground water pipes and fittings required for firefighting purposes made of corrosive resistant metal.

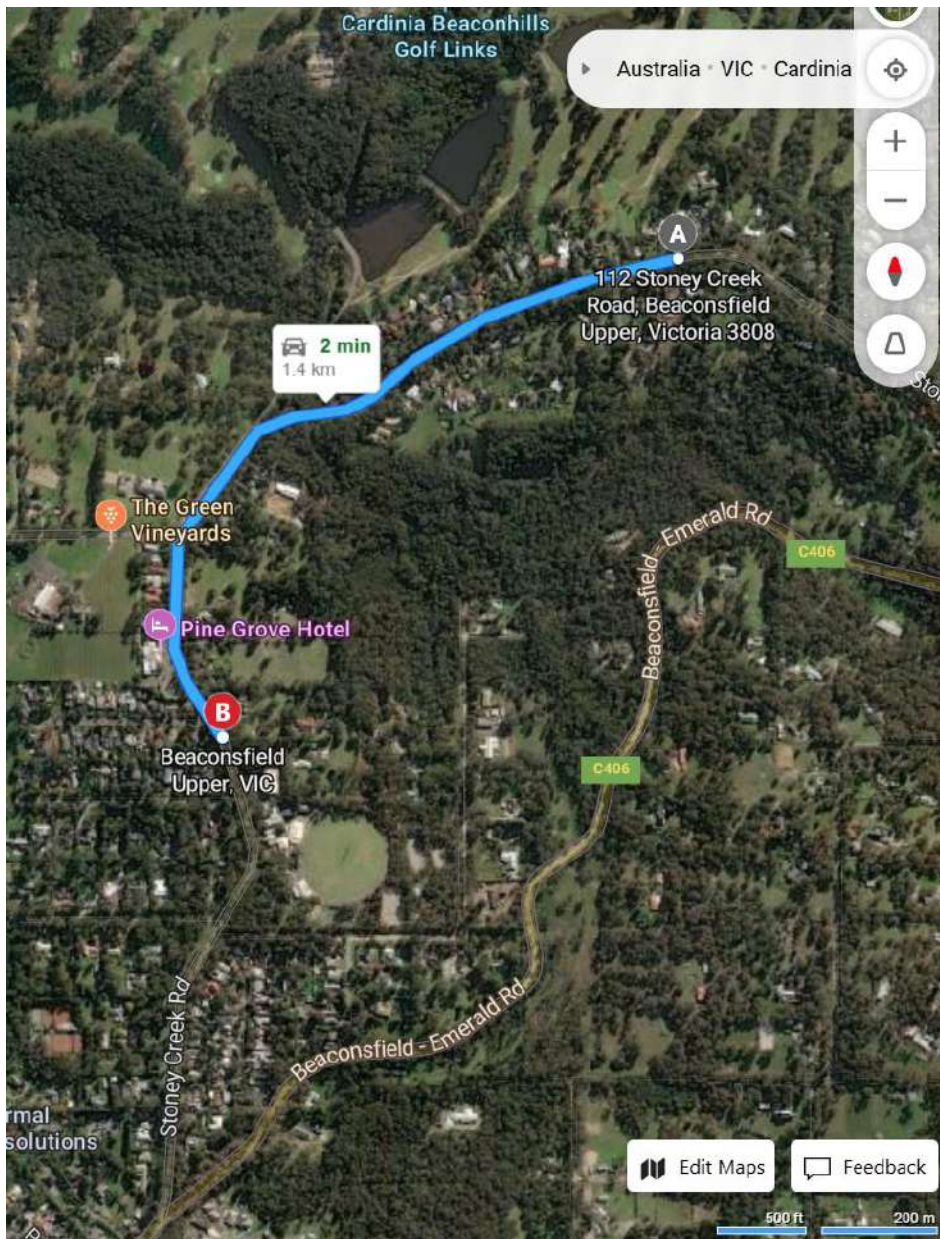
A 10,000 L water supply is required, fire authority fittings and access must be provided as follows:

- Be readily identifiable from the building or appropriate identification signs to the satisfaction of the relevant fire authority.
- Be located within 60 metres of the outer edge of the approved building.
- The outlet/s of the water tank must be within 4 m of the accessway and unobstructed.
- Incorporate a separate ball or gate valve (British Standard Pipe BSP 65 millimetre) and coupling (64 millimetre CFA 3 thread per inch male fitting).
- Any pipework and fittings must be a minimum of 65 millimetres (excluding the CFA coupling).
- The water supply may be in the same tank as other water supplies provided that a separate outlet is reserved for firefighting water supplies.

Building construction requirement

- The proposed building is to be constructed to **BAL FZ** standards, and have a **BAL FZ** defendable space around it.

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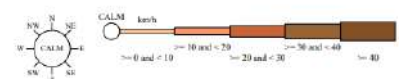
Rose of Wind direction versus Wind speed in km/h (01 Aug 1971 to 11 Aug 2023)
Custom times selected, refer to attached note for details

MOORABBIN AIRPORT

Site No: 086077 • Opened Jul 1950 • Still Open • Latitude: -37.99° • Longitude: 145.0962° • Elevation 12m

An asterisk (*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.



3 pm Jan
1091 Total Observations

Calm *

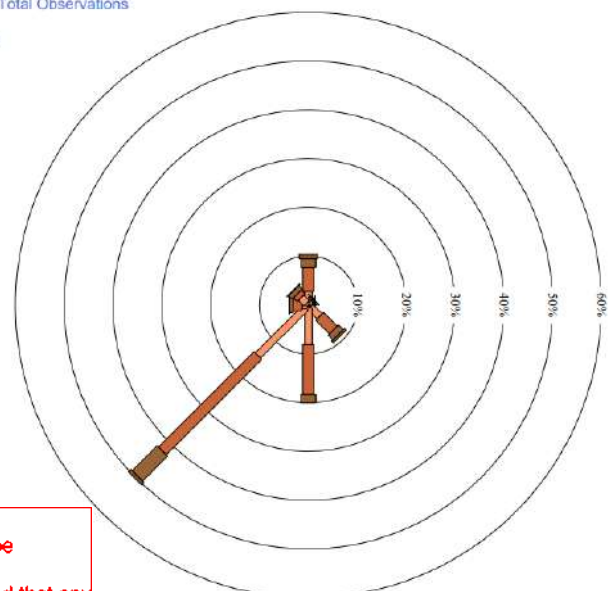


FIGURE 5

**Bushfire Management Plan for the landscape >>
150m from the proposed development site**

NOTE:

1. It is recommended that the Owner/Occupier become familiar with all escape and access routes.
2. The proposed house is located within a CFA rated, Moderate-Low hazardous Type 2 landscape.
3. The dominant wind direction for the house during the mid-bushfire season is from the South-West.

Greenwood Consulting ^{P/L}

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Email: Nicole.v@rgc.net.au
A.B.N. 54 170 171 876
Web: www.rgc.net.au



For



Site location

112 Stoney Creek Road, Beaconsfield Upper

Report type

Arboricultural Construction Impact Assessment

Prepared by



**Graduate Certificate of Arboriculture
Bachelor of Applied Science (Planning) Hons**

Wednesday 20th November 2024

Ref: 8125 241120 CIR Wilson Stoney Creek Beaconsfield Upper 112 Rd.Docx

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1. Document control

File reference	File type	Modifications	Author	Date
8125 241120	CIR	Original document. Construction impact assessment for 5 trees.	NLV	20/11/2024

2. Introduction

This report was commissioned by Design Unity to assess the condition of 5 trees located on or adjacent to 112 Stoney Creek Road, Beaconsfield Upper and to evaluate the impacts on these trees arising from the proposed development on this site.

Specifically the report addresses the following issues:

- The health and structural condition of the trees.
- The suitability of these trees for retention on the site in light of the proposed development.
- The impact of the development on these trees.
- Recommendations for the protection of these trees.

This report is based, in part, on the plans provided and the accuracy of these plans is assumed. Inaccuracies in the plans provided may invalidate all or parts of this report.

The location of services within the site is not known and the possible impact of any services installation on the retained trees at this site is not included within this report.

The site was inspected by Nicole Vickridge of this office on Wednesday 20th November 2024.

3. Documents reviewed

The following documents were reviewed in the preparation of this report.

Date	Title	Author	Company
9 July 2024	Application No.: T240255 PA Address: L1 LP92136, 112 Stoney Creek Road, Beaconsfield Upper VIC 3808 Further Information Required	Hamish Mival	Cardinia Shire Council
10/04/2024	PROPOSED ADDITION 112 STONEY CREEK RD, BEACONSFIELD UPPER, VIC, 3808	Not stated	Design Unity
Provided via e-mail on 11/11/2024	Site plan, ground floor and first floor plans (provided as .dwg files)		Design Unity

4. Scope

At the direction of the client, the assessment was limited to significant trees in the front setback and road reserve that are adjacent to the existing garage (which is proposed to be demolished, and construction within an expanded footprint) – as the first-floor extension will not impact vegetation.

Significant trees are generally those that are greater than five metres in height and/or with a Diameter at Breast Height (DBH) of greater than 15 cm.

This report does not include any assessment of vegetation against the provisions of the Bushfire Management Overlay.

5. Site context

This site is located in a Green Wedge Zone A (Schedule 2) in Cardinia Shire Council.

The following overlays – relevant to vegetation removal apply to this site:

1. Bushfire Management Overlay
2. Environmental Significance Overlay – Schedule 1

6. Methodology

This assessment was carried out from the ground and will generally include assessment of trees within the subject site, on the road reserve/s and on adjoining properties as set out in Section 5 Scope.

The following fields of information were documented:

1. Genus / species & common name.
2. Height, width and DBH (Diameter at Breast Height).
3. Origin of the species (Native, endemic, or exotic).
4. Assessment of health, structure, and general condition.
5. Estimate of Useful Life Expectancy (ULE).
6. Assessment of the amenity value to the site and canopy form.

Digital images were captured of each tree on site.

DBH measurements were taken using a diameter tape.

Distances and tree heights were measured using a laser range finder and inclinometer.

7. Notes

1. No plan of survey was provided. All trees have been added to the enclosed site plans based on a visual estimation of their location.
 - a. The location of these trees and the estimation of construction impact for these trees are approximate only.
2. The column label “ID” is used in all the tables throughout this report. This refers to the tree identification number and to the tree numbering found on the “Site plan”. This number is the same as the “Tree ID” found in the “Tree data” section of the report.

9. Tree summary data

This table contains a summary of data pertaining to all trees shown and numbered on the enclosed feature and levels survey.

Underlined and italicised species names have not been assessed. Generally these trees are <5m tall, not found or stumps. The construction impact values are blank for these records.

1. **Retention value:** The retention value of the tree to the site.
 - a. Tree number and species name are **Bold** for High and Very high values trees.
2. **Retained?:** Indicates whether the tree is proposed to be retained on the site.
3. **Construction impact:** Indicates the impact of the proposed development on the tree.
 - a. **None:** Works do not intrude onto the tree's TPZ.
 - b. **Low:** Construction intrusion is less than 10% of TPZ and contiguous area exists to compensate for any loss.
 - c. **Moderate:** Construction intrusion exceeds 10% of TPZ but construction methods or other factors make tree retention possible.
 - d. **High:** Construction intrusion is excessive and tree retention is generally considered not possible within the development as currently proposed.
 - e. **Blank:** The tree has not been assessed.
4. **Location:** Whether the tree is located on the site or adjacent to the site.
 - a. **Site:** the tree is located on the site.
 - b. **Off site:** the tree is located on land adjoining the site.
 - i. Trees in this category should generally be preserved without significant impact.

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
1	Eucalyptus sp.	High	Retained	None	Site	3	9.1	22/239
2	Quercus palustris	High	Retained	None	Off site	2.5	5.4	25/141
3	Cedrus deodara	High	Retained	None	Off site	2.2	4.2	20/110
4	Eucalyptus obliqua	High	Retained	None	Off site	3.2	9.8	20/258
5	Eucalyptus obliqua	Moderate	Retained	None	Off site	2.5	5.8	18/151

Total number of tree/s referred to in this report(Total): 5

10. Construction impacts

All five trees are regarded as being suitable for retention and are unlikely to suffer any significant impact from the proposed development.

ID	Genus / species	DBH	SRZ	TPZ:	mTPZ	ConP	Ret Value	Retained
The following 5 tree/s are shown as Retained on the plans provided.								
1	<i>Eucalyptus sp.</i>	76	3	9.1	= TPZ	9.1	High	Retained
2	<i>Quercus palustris</i>	45	2.5	5.4	= TPZ	5.4	High	Retained
3	<i>Cedrus deodara</i>	35	2.2	4.2	= TPZ	5.6	High	Retained
4	<i>Eucalyptus obliqua</i>	82	3.2	9.8	= TPZ	9.8	High	Retained
5	<i>Eucalyptus obliqua</i>	48	2.5	5.8	= TPZ	12	Moderate	Retained
SRZ: Structural Root Zone. TPZ: Tree Protection Zone. mTPZ: Tree Protection Zone.(Canopy) ConP: Construction Proximity.								
Number of trees in this section Total):		5						

11. Trees shown as removed

No trees are shown as removed based on the plans provided.

12. Trees recommended for removal

No trees are recommended for removal on this site.

13. Works required

No works are recommended on the trees to be retained on this site.

14. Weed species

No arboreal weed species were assessed on this site.

15. References

- Coder, K.D 1996, Construction Damage Assessments, University of Georgia.
<http://www.forestry.uga.edu/warnell/service/library/for96-039a/index.html>
- Harris, R.W., Clark, J.R. & Matheny, N.P. 2004, *Arboriculture: Integrated management of landscape trees, shrubs and vines*, 4th edn., Prentice Hall, New Jersey, USA.
- Hitchmough, J. D. 1994, *Urban Landscape Management*, Inkata Press, Chatswood, NSW.
- Society for Growing Australian Plants Maroondah, 1991, *Flora of Melbourne, a guide to the indigenous plants of the greater Melbourne area*, Society for Growing Australian Plants, Maroondah.
- Mattheck, C., Bethge, K. & Weber, K., 2015, *The body language of trees*, Karlsruhe Institute of Technology – Campus North, KS Druck GmbH, Germany.
- Standards Australia, 2009, *AS 4970 - 2009 Protection of trees on development sites*, Standards Australia, Sydney.

16. Appendix 1 - Tree protection guidelines

The following tree protection guidelines should be observed as appropriate. Where it is not possible to comply with these recommendations alternative arrangements should be decided with a qualified arborist.

1. A site specific Tree Protection Report should be commissioned prior to the commencement of construction to guide construction activity around any retained trees on or adjacent to the site.
2. Clearly marked as being retained on the site to avoid confusion during the tree removal phase.
3. The stumps of removed trees should be ground out rather than pulled to avoid injury to adjacent trees.
4. Construction specifications should include the plan location of those trees that are to be retained.
5. Penalties should be included in the construction specifications for damage to trees that are to be retained.
6. The trees to be retained should be enclosed with a 1.8 meter high chain link fence supported on steel posts driven 0.6 meters into the ground.
 - 6.1. Tree protection fencing should be established as shown.
 - 6.1.1. If tree protection fencing is not detailed in the report it should enclose, at a minimum, the entire **Structural Root Zone** and as much of the **Tree Protection Zone** as possible.
 - 6.2. Access should be provided by a single gate that should be kept locked at all times except when required for tree inspection or maintenance.
 - 6.3. Tree protection fencing should be installed following the removal of trees and prior to any other works being commenced.
 - 6.4. The area inside the fence should be mulched to a depth of 0.15 meters with general arboricultural wood chip mulch or similar.

7. Where construction clearance is required and areas of the Tree Protection Zone cannot be fenced the ground in these areas should be protected from compaction with **Ground Protection**.
 - 7.1. **Ground Protection** can consist of any constructed platform that prevents point loads on the soil within the **Tree Protection Zone**. These could include:
 - 7.1.1. Industrial pallets joined together to form a platform.
 - 7.1.2. 12 mm plywood joined together to form a platform.
 - 7.1.3. Planks of timber joined together to form a platform.
 - 7.2. **Ground Protection** should be constructed with sufficient strength to allow it to survive the entire construction process.
 - 7.3. **Ground Protection** should be installed following the removal of trees and prior to any other works being commenced.
8. Excavation within the **Structural Root Zone** should be avoided unless absolutely necessary.
 - 8.1. Any excavation within the **Structural Root Zone** should be performed by hand.
 - 8.2. Any excavation within or tunnelling under the **Structural Root Zone** should be supervised by a qualified arborist.
 - 8.3. Any roots encountered from the retained trees should be pruned carefully and cleanly, preferably back to a branch root.
 - 8.4. Before any roots are pruned the effect of such pruning on the health and structural stability of the tree should be evaluated by a qualified arborist.
9. Excavation within the **Tree Protection Zone** should be avoided where possible.
 - 9.1. Any excavation within the **Tree Protection Zone** should be performed carefully to minimise root injury.
 - 9.2. Any roots encountered from the retained trees should be pruned carefully and cleanly, preferably back to a branch root.
 - 9.3. Before any excavation occurs the effect of such excavation on the health and structural stability of the tree should be evaluated by a qualified arborist.
10. Concrete and other washout or waste disposal areas should be kept well away from trees to be retained.
11. Where automatic irrigation systems are installed the amount of irrigation that is applied should be checked against the requirements of the existing trees on the site.
12. Any pruning works that are required to facilitate construction should be performed by a qualified arborist.

Adapted from Harris, Clark and Matheny (2004)

17. Appendix 2 - Tree data

Note: Where **Retention value** = "Remove" only the arboricultural attributes of the tree (i.e. health, structure and ULE) are considered. Other factors that may affect the decision to retain or remove the tree are not considered.

- Where the 'Construction Proximity' is larger than the 'Tree Protection Zone (TPZ)' it is probable that the development will have **no significant impact on the health and longevity** of the tree.
- Where the 'Construction Proximity' is larger than the 'Structural Root Zone (SRZ)' it is probable that the development will have **no significant impact on the stability** of the tree.
- The following information should be read in conjunction with the 'Explanation of Terms' and the 'Glossary / Notes' sections found later in this report.

SRZ (m):	AS 4970-2009 Protection of trees on development sites. (Radius)	Total Number of trees
TPZ (m):	AS 4970-2009 Protection of trees on development sites (Radius)	5
mTPZ (m):	Modification to TPZ as required to protect canopy	
Construction Proximity:	0.1 indicates construction over or immediately adjacent to the tree	

Tree ID: 1

Genus / species: *Eucalyptus sp.*

Evergreen Gum

Height (m): 22 **Structure:** Default
Width (m): 12 **Health:** Good
DBH (cm): 76 Measured **Maturity:** Mature
Origin: Australian **ULE (years):** 30 - 60
Retained?: Retained **Form:** Fair
Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: N/A.



SRZ (m): 3 **Works priority:** N/A
TPZ (m): 9.1 **Construction Proximity:** 9.1
mTPZ (m): = TPZ

Tree ID: 2

Genus / species: *Quercus palustris*

Deciduous Pin Oak

Height (m): 25 **Structure:** Good
Width (m): 12 **Health:** Good
DBH (cm): 45 Estimated **Maturity:** Mature
Origin: Exotic **ULE (years):** 30 - 60
Retained?: Retained **Form:** Good
Retention Value: High
Removal / retention reason: Adjoining property.
Amenity value: High
Works Required: N/A.



SRZ (m): 2.5 **Works priority:** N/A
TPZ (m): 5.4 **Construction Proximity:** 5.4
mTPZ (m): = TPZ

Tree ID: 3

Genus / species: *Cedrus deodara*

Evergreen Deodar Cedar

Height (m): 20 **Structure:** Good
Width (m): 14 **Health:** Good
DBH (cm): 35 Measured **Maturity:** Mature
Origin: Exotic **ULE (years):** 30 - 60
Retained?: Retained **Form:** Good

Retention Value: High

Removal / retention reason: Adjoining property.

Amenity value: High

Works Required: N/A.

SRZ (m): 2.2 **Works priority:** N/A
TPZ (m): 4.2 **Construction Proximity:** 5.6
mTPZ (m): = TPZ



Tree ID: 4

Genus / species: *Eucalyptus obliqua*

Evergreen Messmate

Height (m): 20 **Structure:** Good
Width (m): 11 **Health:** Good
DBH (cm): 82 Measured **Maturity:** Mature
Origin: Melbourne **ULE (years):** 30 - 60
Retained?: Retained **Form:** Good

Retention Value: High

Removal / retention reason: Road reserve.

Amenity value: High

Works Required: N/A.

SRZ (m): 3.2 **Works priority:** N/A
TPZ (m): 9.8 **Construction Proximity:** 9.8
mTPZ (m): = TPZ



Tree ID: 5

Genus / species: *Eucalyptus obliqua*

Evergreen Messmate

Height (m): 18 **Structure:** Good
Width (m): 9 **Health:** Good
DBH (cm): 48 Measured **Maturity:** Mature
Origin: Melbourne **ULE (years):** 30 - 60
Retained?: Retained **Form:** Good

Retention Value: Moderate

Removal / retention reason: Road reserve.

Amenity value: Moderate

Works Required: N/A.

SRZ (m): 2.5 **Works priority:** N/A
TPZ (m): 5.8 **Construction Proximity:** 12
mTPZ (m): = TPZ



18. Appendix 3 – Arboricultural information

The following sections are presented to provide an introduction to the process of tree root system protection. A trees root system is the critical element to be protected during the development process and if the trees roots are adequately protected then the rest of the tree will generally survive without significant injury.

18.1. Root plate estimation

One of the primary purposes of this report is to estimate the impact of the development on the trees on this site. This is mainly achieved by estimating the extent of the root plate area of the trees that are proposed to be retained and the proportion of this area that is likely to be excised or affected during the construction process.

In this report two elements of the tree root area are described. These are:

18.2. Structural Root Zone

This is an estimate of the radius that is likely to encompass the major scaffold roots of the tree. These roots are critical to anchoring the tree and damage to these roots will increase the risk of entire tree failure (i.e. uprooting). This radius is based on AS 4970-2009.

18.3. Tree Protection Zone

This is an estimate of the radius that is likely to encompass enough of the smaller absorbing roots to allow the tree to obtain sufficient nutrients and water to allow it to survive in the long term. This radius is based on AS 4970-2009 and is based on the size of the tree.

Estimation of the likely root plate radius for both methods are based on the DBH (Diameter at Breast Height) of each tree. This is usually measured but where the tree is inaccessible or has numerous trunks a visual estimation may be used. Whether the DBH is estimated or measured is noted within the "Tree Data" section of the report.

The two elements of each trees' root zone is transposed over the site survey and building footprint and the degree of root injury is calculated from this.

18.4. Tree rooting patterns

Contrary to common belief, trees usually have a broad flat plate of roots that may extend 1.5 – 3 times the radius of the canopy (Harris, Matheny & Clark, 1999; Coder, 1996; Hitchmough, 1994). Relatively few trees have deep roots and Harris, Matheny and Clark (2004) note that most tree roots will be found in the top 1.0 metre of the soil profile.

While the models used to approximate the size of tree root plates assume a uniformly radial root system, in highly disturbed urban soils root systems often develop in a highly asymmetric manner (Matheny & Clarke, 2004). This may require the modification of the models used where it is likely that the root system is asymmetric.

18.5. Construction impacts

Construction in the vicinity of trees can have several negative impacts on their health, longevity and structural stability. Harris, Matheny and Clark (2004) note that some level of tree root injury or root zone change is almost inevitable during construction around trees and maintain that the goal of tree preservation is to reduce the injury or change to a level that will enable the long term preservation of the retained trees.

Negative impacts can include:

- Root severance from trenching and grading activities. Damage to the transport and absorbing root system may deprive the tree of the ability to absorb nutrients and water and damage to the structural scaffold roots that support the tree may result in instability and uprooting. Depending on the percentage of the root plate affected and proximity to the tree, the affects can range from minor degradation of health through to total root plate failure (i.e. uprooting).
- Compaction and root injury. Most trees require a well aerated and friable soil to allow normal physiological processes to occur and to allow root growth. Soil compaction from pedestrian or vehicular traffic can result in direct injury to the roots, indirect injury through soil drainage changes, reduced soil aeration or decreased soil penetrability. If severe enough soil compaction can lead to a rapid decline in many tree species and may eventually result in instability and uprooting.
- Changes in drainage patterns. Changes in drainage patterns may result from hard surfacing, trenching, land shaping and other construction activities. These can result in either drought stress or waterlogging, both of which can cause a rapid decline in trees and may result in instability and uprooting.

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- Changes in drainage patterns. Changes in drainage patterns may result from hard surfacing, trenching, land shaping and other construction activities. These can result in either drought stress or waterlogging, both of which can cause a rapid decline in trees and may result in instability and uprooting.

19. Appendix 4 - AS 4970 -2009

This report generally conforms to *AS 4970 – 2009 Protection of Trees on Development Sites* except in the following areas.

1. AS 4970 notes that the project arborist should verify the accuracy of feature survey for the subject site.
 - a. This is generally not feasible and the feature survey is taken as being an accurate representation of the features of the site.
 - b. However, if trees are found on the site that are not represented in the feature survey then these trees will be added to the report plans based on a visual estimation of their location.
 - i. Accordingly, the location of these trees may not be sufficiently accurate for the purposes of the report.
 - ii. The location of these trees should be verified by a qualified surveyor where appropriate.
2. *AS 4970-2009 Protection of Trees on Development Sites* makes no differentiation between the Tree Protection Zone (TPZ) derived from the trees DBH and the modified TPZ derived from the trees canopy where it extends past the DBH derived TPZ. As the two forms of TPZ are independent a differentiation between the two forms of TPZ needs to be made. In this report:
 - a. “TPZ” refers to the DBH derived Tree Protection Zone (12 x DBH) and “mTPZ” pertains to the TPZ where it is modified to account for a canopy that extends beyond the DBH derived TPZ.
 - b. The modified Tree Protection Zone (mTPZ) for all trees is taken as being identical to the Tree Protection Zone (TPZ) except where the canopy of the tree extends beyond the TPZ. Where this is the case the TPZ is shown on the site plans and any tree canopy impacts are addressed as required within the report. Otherwise, the mTPZ is recorded within this report as “= TPZ”.

20. Appendix 2 - Explanation of terms

The assessment of Health, Structure, Condition, U.L.E. (Useful Life Expectancy), Origin, Maturity, Form and Retention value are based on the following definitions. In the case of health and structure these definitions encompass only the more common indicators for these assessments. Other indicators not included in these definitions may lead to the ascribing of a particular health or structure category.

20.1. Origin

The notation of “Origin” is based on the following categories.

1. Category	Description
2. Melbourne	Native to the greater Melbourne metropolitan area as defined by Flora of Melbourne (S. G. A. P. M., 1991).
3. Victorian	Native to Victoria but not the greater Melbourne Metropolitan area.
4. Australian	Native to Australia but not Victoria.
5. Exotic	Not native to Australia.

20.2. Maturity

The notation of “Maturity” is based on the following categories.

1. Category	Description
2. Immature	Less than 20% of the life expectancy for the species within the geographical area.
3. Mature	20 – 80% of the life expectancy for the species within the geographical area.
4. Over mature	> 80% of the life expectancy for the species within the geographical area.

20.3. Works required

The works required listed in this report are of a general nature only and should be reviewed following the completion of any works on the site.

Where a tree is recommended for removal (Recommendation) it is not listed in the Works required section of the report.

20.4. Priority

The priority accorded particular works is based on a projected increased site usage following the completion of a development on the site. The priority is of a general nature only and should be reviewed following the completion of any works on the site.

“Priority” is based on the following categories.

<u>Category</u>	<u>Description</u>
1. N/A.	No tree works are required
2. Very low	Tree works are optional and could be performed at any time.
3. Low	Works should be performed within five years.
4. Moderate	Works should be performed within 3 years.
5. High	Works should be performed within 12 months.
6. Urgent	Works should be performed immediately.

20.5. Retention value (RV) explanation

The Retention value ascribed to each tree in this report is not definitive and should be used as a guide only. Many factors influence the comparative value of a tree, and a number of these factors are outside the scope of arboricultural assessment. These factors cannot therefore be addressed in a single rating system.

Retention value is comprised of two parts. These are the Amenity Value of the tree rated as Very Low to Very high and the Useful Life Expectancy (ULE) rating of the tree.

The Amenity Value of the tree relates to the contribution of the tree to the aesthetic amenity of the area. The primary determinants of amenity value are tree health, size and form. Amenity value does not consider tree structure. In the context of Retention Value structure is considered in the ULE.

The Amenity Value is then modified by the ULE of the tree with short ULE values reducing the RV of the tree and long ULE values increasing the RV of the tree.

Trees that are listed on a register of heritage or significant trees are not accommodated within this rating system as these values are often independent of the arboricultural attributes of the tree. Heritage and significant trees may be ascribed a very low retention value despite their listing on any register. Where known, any heritage or significant tree register listing it will be noted in the report.

RV is assessed on each tree as a single entity. The value of a group of trees is not considered in this context and each tree within the group is assessed as an individual specimen.

20.6. Amenity value

Amenity value is based on the following categories and is ascribed an Amenity Value (AVV) ranging from 2 - 10.

<u>Category</u>	<u>Example</u>	<u>AVV</u>
1. Very high	Generally, a very large tree that exhibits excellent health and/or form or a tree that is listed on a heritage or significant tree register and taller than 25 metres tall.	10
2. High	Generally, a large tree that exhibits good health and/or form and between 15 and 25 metres tall.	8
3. Medium	Generally, a medium tree that exhibits good health and/or form and between 10 - 15 metres tall. May be a large tree that exhibits fair health and/or form.	6
4. Low	Generally, a small tree that exhibits good health and/or form and between 5 - 10 metres tall. May be a large or medium tree that exhibits fair or poor health and/or form..	4
5. Very low	Generally, a small tree that exhibits poor health and/or form. May be a large or medium tree that exhibits poor, or worse, health and/or form.	2

20.7. ULE

U.L.E. is based on the following categories each of which have a modifier (ULEM) ranging from 0 – 12.

<u>Category</u>	<u>Example</u>	<u>ULEM</u>
1. 0	The tree is dead or almost dead or constitutes an immediate and unacceptable risk of harm.	0
2. 1 – 5	The tree is unlikely to provide useful amenity for longer than 5 years. The tree is in serious decline, poses an unacceptable risk of harm and/or requires a level of maintenance disproportionate with its value.	4
3. 5 – 15	The tree is likely to provide useful amenity for between 5 and 15 years. The tree may be in serious decline, be a very short lived species and/or require excessively high levels of maintenance.	7
4. 15 – 30	The tree is likely to provide useful amenity for between 15 and 30 years. The tree may be in moderate decline and/or a short lived species.	10
5. 30 – 60	The tree is likely to provide useful amenity for between 30 and 60 years. The tree may be in fair to good condition, have a moderate life-span, present a low to moderate level of hazard and/or require moderate levels of maintenance.	11
6. > 60	The tree is likely to provide useful amenity for greater than 60 years. The tree may be in good to excellent condition, a long lived species, present a low level of hazard and/or require low levels of maintenance.	12

20.8. Retention value

Retention value is then derived from the multiplication of AVV by ULEM and the resulting score is categorised as Very high to Very low.

Retention value is only intended to guide arboricultural actions within the proposed report tree population and is not definitive in any way.

<u>Category</u>	<u>Example</u>	<u>RV value</u>
1. Very high	Every effort should be made to preserve trees in this category	96 - 120
2. High	These trees should be retained if at all possible	72 - 95
3. Moderate	These trees should be retained if they do not overly constrain development on the site.	48 - 71
4. Low	These trees should not create a material constraint on development of the site. These trees should be removed where they conflict with development of the site.	24 - 47
5. Very low	Generally, a small tree that exhibits poor health and/or form. May be a large or medium tree that exhibits poor, or worse, health and/or form. These trees should generally be removed.	1 – 23
6. Remove	These trees are not suitable for retention within the site and are recommended to be removed.	0

20.9. Health

Pertains to the health and vigour of the tree.

The notation of “Health” is based on the following categories.

<u>Category</u>	<u>Example</u>
1. Good	<p>Crown full, with good foliage density. Foliage is entire with average colour, minimal or no pathogen damage. Above average growth indicators such as extension growth, leaf size and canopy density. Little or no canopy die-back. Generally no dead wood on the perimeter of the canopy. Good wound wood development.</p> <p>Tree exhibits above average health and no works are required.</p>
2. Fair	<p>Tree may have more than 30% dead wood, or may have minor canopy dieback. Foliage density may be slightly below average for the species. Foliage colour may be slightly lower than average and some discolouration may be present. Typical growth indicators, e.g. extension growth, leaf size, canopy density for species in location. Average wound wood development.</p> <p>The tree exhibits below average health and remedial works may be employed to improve health.</p>
3. Poor	<p>Tree may have more than 30% dead wood and canopy die back may be present. Leaves may be discoloured and/or distorted, often small, and excessive epicormic growth may be present. Pathogens and/or stress agents may be present that could lead, or are leading to, the decline of tree. Poor wound wood development.</p> <p>The tree exhibits low health and remedial works or removal may be required.</p>
4. Very poor	<p>The tree has more than 30% dead wood. Extensive canopy die back is present. Canopy is very sparse. Pathogens and/or stress agents are present that are leading to the decline of the tree. Very poor wound wood development.</p> <p>The tree exhibits very poor health and remedial works or removal are required.</p>
5. Dead	Tree is dead and generally should be removed.

20.10. Structure

Pertains to the physical structure of the tree including the main scaffold branches and roots. Structure includes those attributes that may influence the probability of major trunk, root or limb failure.

The notation of “Structure” is based on the following categories.

<u>Category</u>	<u>Example</u>
1. Good	<p>The tree has a well-defined and balanced crown. The tree exhibits generally defect free scaffold branches, trunk/s and root plate. The tree is very unlikely to suffer root plate, trunk/s or branch failure under normal conditions.</p> <p>The tree is considered a good example of the species.</p>
2. Fair	<p>The tree has some minor structural defects of the scaffold branches, trunk or root plate.</p> <p>These defects are not likely to result in catastrophic root plate, trunk or branch failure although some branch failure may occur under normal conditions.</p>
3. Poor	<p>The tree has significant defects within the scaffold branches, trunk or root plate.</p> <p>These defects may predispose the tree to major trunk or branch failure.</p>
4. Very poor	<p>The tree has very significant defects within the scaffold branches, trunk or root plate.</p> <p>These defects are likely to predispose the tree to root plate, trunk or scaffold limb failure.</p>

20.11. Form

The notation of “Form” pertains to the aesthetic qualities of the trees live canopy. Generally good form is indicative of a symmetrical, well-balanced canopy although this is dependent on the particular species. Some species naturally develop an asymmetric canopy and in this case a highly irregular canopy might be described as good.

The form of a tree is considered assuming that the tree stands in isolation from any surrounding trees. This may mean that a group of trees that exhibit good form as a group, may be described as having poor form as individuals.

The notation of “Form” is based on the following categories.

<u>Category</u>	<u>Example</u>
1. Very good	<p>An outstanding specimen of that species.</p> <p>Generally, a very evenly balanced and symmetrical canopy with no deformation.</p> <p>If the development of that species is naturally irregular then an outstanding specimen of that species.</p>
2. Good	<p>A good specimen of that species.</p> <p>Generally, a well balanced and symmetrical canopy with minor deformation.</p> <p>If the development of that species is naturally irregular then a good specimen of that species.</p>
3. Fair	<p>An average specimen of that species.</p> <p>Generally, a balanced canopy with some minor to moderate asymmetry.</p> <p>If the development of that species is naturally irregular then an average specimen of that species.</p>
4. Poor	<p>A below average specimen of that species.</p> <p>Generally, a moderate to high degree of asymmetry.</p> <p>If the development of that species is naturally irregular then a poor specimen of that species.</p>
5. Very poor	<p>A very poor specimen of that species.</p> <p>Generally, a high to extreme degree of asymmetry.</p> <p>If the development of that species is naturally irregular then a very poor specimen of that species.</p>

21. Glossary / notes

<u>Tree Protection Zone (TPZ)</u>	Is based on AS 4970-2009 <i>Protection of trees on development sites</i> and defines the soil volume that is likely to be required to encompass enough of the trees absorbing root system to ensure the long term survival of the tree. The radius specified as the TPZ is an estimate of the minimum distance from the tree that excavation or other activities that might result in root damage should occur to avoid negative impacts on the health and longevity of the tree. AS 4970 states that intrusion of up to 10% of the surface area of the TPZ may occur without further assessment or analysis.
<u>Structural Root Zone (SRZ)</u>	Is based on AS 4970-2009 (Protection of trees on development sites) and defines the likely spread of the trees scaffold root system. These roots are the primary anchoring roots for the tree and damage to these roots may render the tree liable to uprooting. SRZ is based on measurement of the trunk above the root flair (AS 4970) However in this report SRZ is based on the measured or estimated DBH and there should be taken as an estimate only. Additional measurement may be required if construction near the SRZ is expected to occur.
<u>Modified Tree Protection Zone (mTPZ)</u>	Is based on the TPZ and includes any requirement to protect the above ground parts of the tree that project beyond the TPZ. However generally the mTPZ will be equal to the TPZ. TPZ extension beyond the TPZ to protect the tree canopy will be shown on the site plan but will not be reflected in the TPZ radius measurements quoted in this report.
<u>Diameter at Breast Height (DBH)</u>	Is the diameter of the tree at approximately 1.4 meters above ground level and is used to calculate TPZ. Where a trunk is divided at or near 1.4 meters above ground the DBH is generally measured at the narrowest point of the trunk between ground level and 1.4 meters. Alternatively, where a higher level of accuracy is required with multi stemmed trees, DBH is derived from the combined cross sectional area of all trunks. The DBH of all accessible trees is measured unless otherwise stated in the Tree Data section of this report. The DBH of trees on adjoining properties is measured where access can be readily gained to the property, otherwise it is estimated.
<u>Diameter above Buttress (DaB)</u>	Diameter of the trunk or trunks above root flare and is used to calculate the SRZ for significant trees. This is generally the diameter of the trunk immediately above the root flare at ground level. DaB is generally only measured for significant trees and for smaller or otherwise low retention value trees DBH + 5% is used to calculate SRZ.
<u>Measured</u>	Indicates whether the DBH has been measured or estimated. DBH may be estimated for small low value multi stem trees or trees that are inaccessible.

Retained?	Indicates whether the tree is shown as being removed or retained on the plans provided. This is generally derived from the site plans provided but the removal or retention of trees might be communicated to the author by other means.
Recommendation reason	Pertains to the reason that removal or retention or other works are recommended. Other than trees on adjoining properties or road reserves a reason for retention is usually not given. In this case N/A is used.
Tree height & width	Tree height is generally measured for moderate, high and very high value trees using an infrared range finder / clinometer. The height of low and very low value trees is usually estimated. Canopy width is estimated unless otherwise stated.
Genus / species	The identification of trees is based on accessible visual characteristics and given that key identifying features are often not available at the time of assessment the accuracy of identification is not guaranteed. Where the species of any tree is not known, sp. is used.

22. Assumptions & limiting conditions

1. R. Greenwood Consulting Pty Ltd (herein after referred to as Greenwood Consulting) contracts with you on the basis that you promise that all legal information which you provide, including land title and ownership of other property, are correct. Greenwood Consulting is not responsible for verifying or ascertaining any of these issues.
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3. Greenwood Consulting will take all reasonable care to obtain necessary information from reliable sources and to verify data. However Greenwood Consulting neither guarantees nor is responsible for the accuracy of information provided by others.
4. If, after delivery of this report, you later require a representative of Greenwood Consulting to attend court to give evidence or to assist in the preparation for a hearing because of this report, you must pay an additional hourly fee at our then current rate for expert evidence.
5. Alteration of this report invalidates the entire report.
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7. The contents of this report represent the professional opinion of the consultant. Greenwood Consulting's consultancy fee for the preparation of this report is in no way contingent upon the consultant reporting a particular conclusion of fact, nor upon the occurrence of a subsequent event.
8. Sketches, diagrams, graphs and photographs in this report are intended as visual aids, are not to scale unless stated to be so, and must not be construed as engineering or architectural reports or as surveys.
9. Unless expressly stated otherwise:
 - 9.1. The information in this report covers only those items which were examined and reflects the condition of those items at the time of the inspection.
 - 9.2. Our inspection is limited to visual examination of accessible components without dissection, excavation or probing. There is no warranty or guarantee, express or implied, that even if they were not present during our inspection, problems or defects in plants or property examined may not arise in the future.
10. This agreement supersedes all prior discussions and representations between Greenwood Consulting and the client on the subject, and is the entire agreement and understanding between us.

Yours sincerely,



Nicole Vickridge

Graduate Certificate of Arboriculture

International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ)

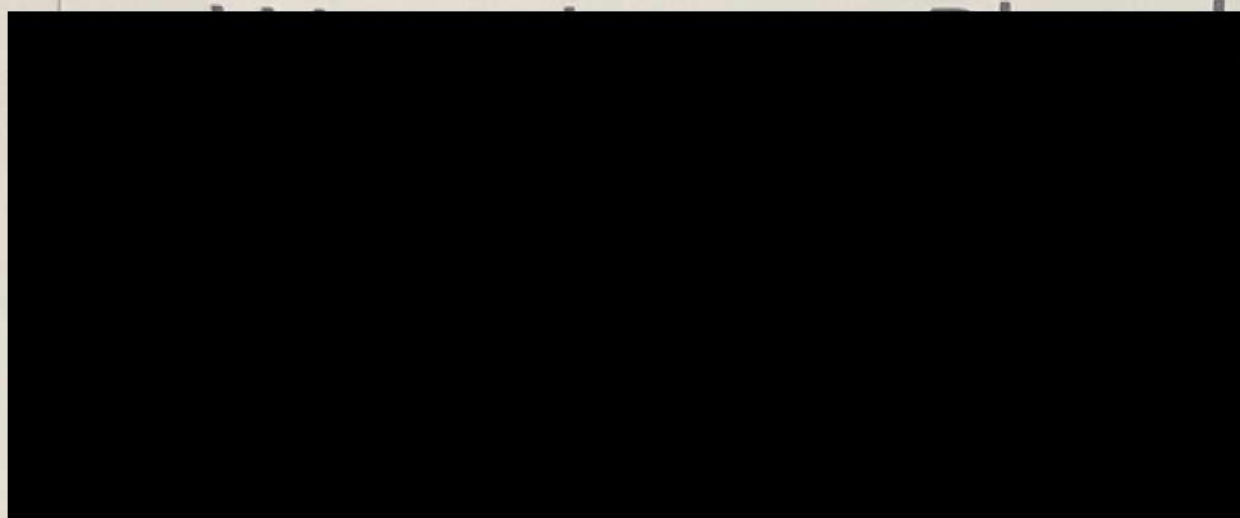
Bachelor of Applied Science (Planning) Hons.

Subject: Septic inspection

Please find attached copy of the report on your septic system.

Cheers,

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RE:	112 Stoney Creek Rd Upper Beaconsfield
REFERRED:	
DATE OF INSPECTION:	5/10/24

TESTS CARRIED OUT:

STORM WATER:

CCTV camera inspection to storm water line -	N/A
--	-----

SEPTIC

CCTV camera and visual inspection to septic -	Passed
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RESULTS AND FINDINGS

The subject property is approximately 3-4 years old.

SEPTIC: The septic system incorporates a 3200lt concrete tank, a sand filter, a 900mm diameter filter outlet point) and an absorption trench discharge system, which is gravity fed from the collection tank. The absorption trenches have concrete distribution pits at the start of each run. The trenches are 300mm in width. All drains are PVC.

The system is in very good condition, as would be expected for the age. The owner informed me the tank is pumped every couple of years, as such there is no build up of sludge, etc. in any part of the system. It is our opinion that the system will easily cope with the potential load increase of the proposed development. Please see attached pictures for reference.

-There are no drainage system works planned or in progress.

2

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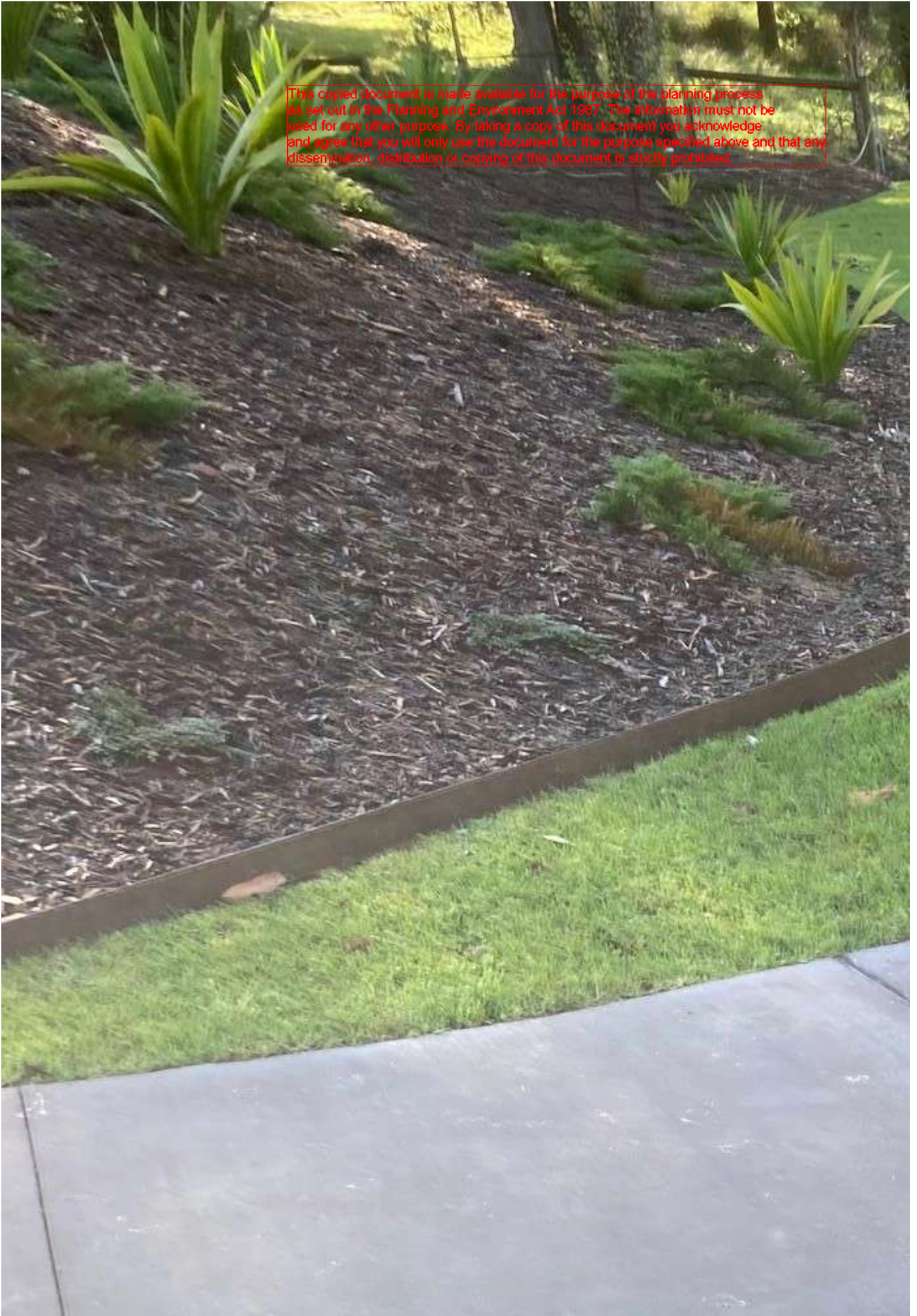
Should any point remain in doubt please do not he

[REDACTED]

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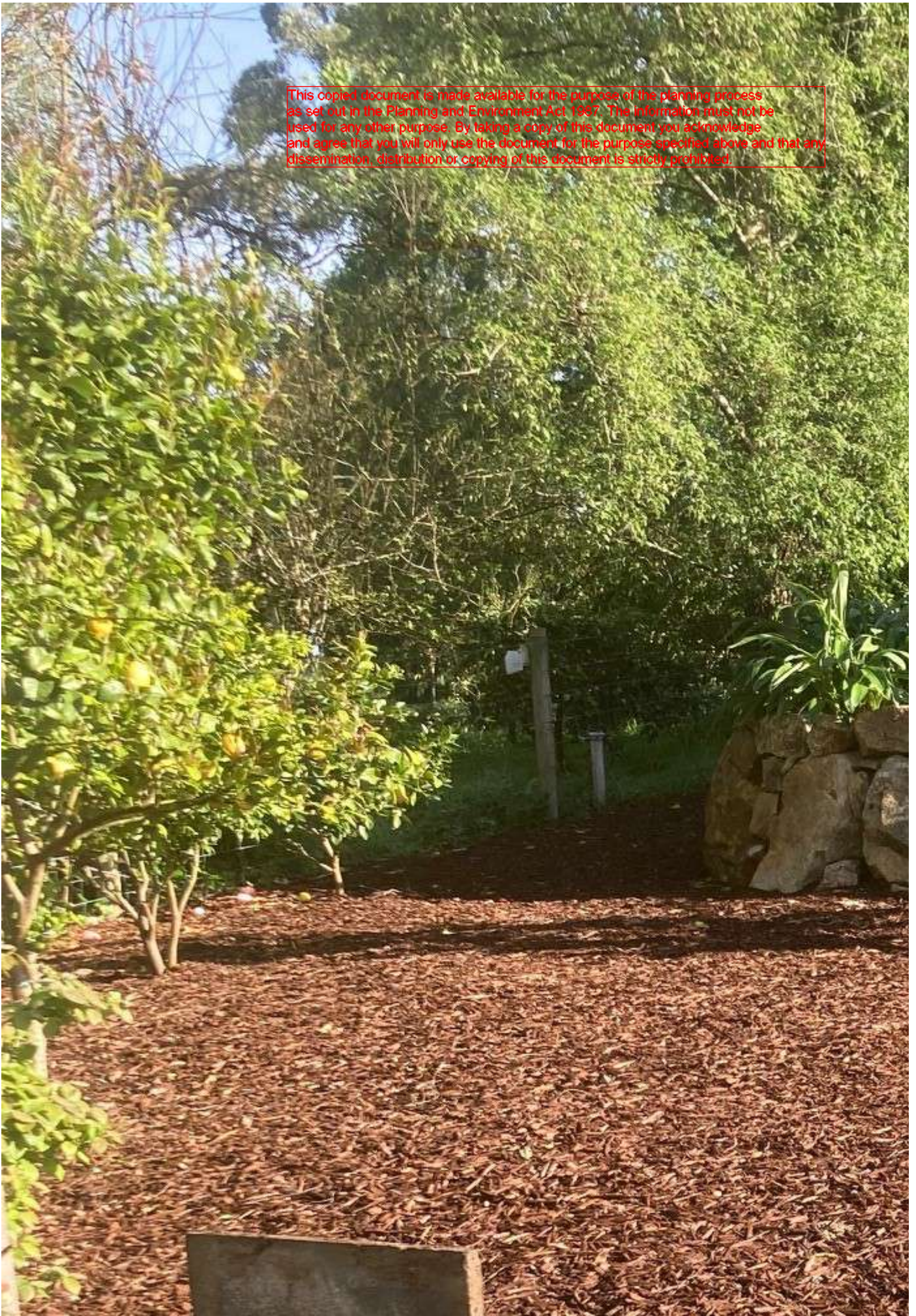
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- ARRANGEMENTS SHALL BE MADE WITH THE RELEVANT ELECTRICAL SUPPLY AUTHORITY FOR THE DISCONNECTION OF ELECTRICAL SUPPLY TO THE PART OF THE BUILDING WHERE DEMOLITION IS PROPOSED, THE LICENSED ELECTRICAL CONTRACTOR SHALL SATISFY THE RELEVANT ELECTRICAL SUPPLY AUTHORITY THAT THE PORTION OF THE BUILDING TO BE DEMOLISHED HAS BEEN SAFELY DE-ENERGIZED PRIOR TO BEFORE DEMOLITION IS COMMENCED, AND ALSO DURING THE PROGRESS OF SUCH WORKS, ALL ELECTRICAL CABLE OR APPARATUS THAT ARE LIABLE TO BE A SOURCE OF DANGER - OTHER THAN CABLE OR APPARATUS USED FOR THE DEMOLITION WORKS - SHALL BE REMOVED.
- THE DEMOLISHER SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF ALL TELECOMMUNICATION SUPPLIES.
- THE DEMOLISHER SHALL BE RESPONSIBLE FOR CUTTING AND SEVERING ANY STORM WATER, SEWER PIPES, WATER SERVICES, GAS SERVICES AND THE LIKE.
- THE DEMOLISHER SHALL CAP AND SEVER STORM WATER DRAIN, SEAL-OFF WATER SUPPLY LINES, GAS SUPPLY LINES AND THE LIKE SHALL BE CLEARLY MARKED ON THE SITE.
- DEMOLITION SHALL BE EXECUTED STOREY BY STOREY, COMMENCING AT THE ROOF AND WORKING DOWNWARDS. ALL PRACTICABLE PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO ADJACENT BUILDINGS AND STRUCTURES.
- A FRAMED OR PARTIALLY-FRAMED BUILDING IS REMOVED.

ANY SWIMMING Pools, PONDS OR THE LIKE - EITHER ON THE DEMOLITION SITE OR ON A NEIGHBOURING ALLOTMENT - MUST BE ABANDONED AND THE WATER MUST BE ADEQUATELY AND DULY SAFED SO AS TO COMPLY WITH AS15926, PARTS 1 & 2, AND TO CONFORMANCE OF ANY DEMOLITION WORKS.

ALL PRACTICABLE MEASURES SHALL BE IMPLEMENTED TO MINIMIZE DUST AND NOISE. THE BUILDER MAY USE A CONSTRUCTION WASTE RECOVERY SERVICE, OR SORT AND TRANSPORT RECYCLABLE MATERIALS TO THE APPROPRIATE REGISTERED RECYCLER.

A SITE MANAGEMENT PLAN SHALL BE IMPLEMENTED DURING DEMOLITION TO CONTROL SEDIMENT RUN-OFF IN ACCORDANCE WITH [INSERT RELEVANT STATE/COUNTY GUIDELINES OR REGULATION]. PROVIDE "PROPEX" OR EQUIVALENT SILT FENCES TO THE LOW SIDE OF THE DEMOLITION SITE. PROVIDE "PROPEX" OR EQUIVALENT WATER/INLET PITS / SUMPS AND INSTANT SILT STOP FILTER BAGS OVER ALL STORM WATER ENTRY PITS DURING DEMOLITION WORKS. PLACE "SUPERGO" OR EQUIVALENT EROSION CONTROL FABRIC OVER GARDEN BEDS TO PREVENT SURFACE EROSION.

DUST-CREATING MATERIAL, UNLESS THOROUGHLY DAMPENED DOWN, SHALL NOT BE THROWN OR DROPPED FROM THE BUILDING, BUT RATHER SHALL BE LOWERED BY HOISTING TO THE GROUND.

The diagram shows a horizontal beam of length 12m. A triangular load is applied to the beam, starting at 0 kN/m at the left end and increasing linearly to 12 kN/m at the right end. Two reaction forces are shown: a vertical force 'E' acting upwards at the left end, and a vertical force 'S' acting downwards at the right end.

- _____



FLOOR AREAS SCHEDULE			
1	EXISTING DWELLING	294	31.64 SQ
2	EXIST GARAGE	47	5.05 SQ
3	EXIST. ALFRESCO	87	9.36 SQ
4	EXIST. PORCH	9	0.96 SQ
5	PROPOSED GARAGE/STORAGE	154	16.57 SQ
6	PROPOSED FIRST FLOOR	201	21.63 SQ
7	PROPOSED LOFT	157	16.89 SQ
8	PROPOSED BALCONY	18	1.93 SQ
		967 m²	104.09 SQ

PROPOSED ADDITION



- SAFETY OF BUILDING USERS**
- WHERE STAIRS, RAMPS AND BALUSTRADES ARE TO BE CONSTRUCTED, THESE SHALL COMPLY WITH ALL PROVISIONS OF BCA 11.2.
 - OTHER THAN SPIRAL STAIRS
 - RISERS SHALL BE 150MM MAX AND 115MM MIN
 - GOINGS SHALL BE 355MM MAX AND 240MM MIN
 - 2NG SHALL BE 700MM MAX AND 550MM MIN
 - THERE SHALL BE LESS THAN 125MM GAP BETWEEN OPEN TREADS.
 - ALL TREADS, LANDINGS AND THE LIKE SHALL HAVE A SLIP RESISTANCE CLASSIFICATION OF P3 OR R10 FOR DRY SURFACE CONDITIONS AND P4 OR R11 FOR WET SURFACE CONDITIONS, OR A NOSING STRIP WITH A SLIP-RESISTANCE CLASSIFICATION OF P3 FOR DRY SURFACE CONDITIONS AND P4 FOR WET SURFACE CONDITIONS.
 - BARRIERS SHALL BE PROVIDED WHERE IT IS POSSIBLE TO FALL 2M OR MORE FROM THE LEVEL OF THE TRAFFICABLE SURFACE TO THE SURFACE BENEATH. SUCH BARRIERS (OTHER THAN TENSIONED WIRE BARRIERS) SHALL BE:
 - 1000MM MIN ABOVE FINISHED STAIR LEVEL (FSL) OF BALCONIES, LANDINGS ETC; AND
 - 855MM MIN ABOVE FSL OF STAIR NOSING OR RAMP; AND
 - VERTICAL, WITH GAPS OF NO MORE THAN 125MM.
 - WHERE THE FLOOR BELOW A BEDROOM WINDOW IS 2M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.7.
 - WHERE THE FLOOR BELOW A WINDOW OTHER THAN IN A BEDROOM IS 4M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.8.
 - WHERE A BEDROOM WINDOW IS 2M OR MORE ABOVE THE SURFACE BENEATH, OR IT IS POSSIBLE TO FALL 4M OR MORE FROM THE LEVEL OF ANY TRAFFICABLE SURFACE TO THE SURFACE BENEATH, ANY HORIZONTAL ELEMENT WITHIN A BARRIER BETWEEN 150MM AND 750MM ABOVE THE FLOOR SHALL NOT FACILITATE CLIMBING.
 - HANDRAILS SHALL BE CONTINUOUS, WITH TOPS SET 965MM VERTICALLY ABOVE STAIR NOSING AND FLOOR SURFACE OF RAMPS.
 - WIRE BARRIERS SHALL COMPLY WITH BCA 11.3.4 AND 11.3.6.
 - A GLASS BARRIER OR WINDOW SERVING AS A BARRIER SHALL COMPLY WITH BCA H208.
 - CLASS 1 BUILDINGS WITH AIR PERMEABILITY OF NOT MORE THAN 5 M³/HR.M² AT 50 PA SHALL BE PROVIDED WITH A MECHANICAL VENTILATION SYSTEM COMPLYING WITH H63. INWARD-OPENING SLIDING DOORS TO FULLY ENCLOSED SANITARY COMPARTMENTS SHALL COMPLY WITH BCA CLAUSE 10.4.2.
 - ALL SHOWER WALLS AND WALLS ADJACENT TO TOILET SHALL BE BRACED WITH 12MM FLOOR FUTURE GRAB RAILS OR SUPPLY NODGINGS WITH A THICKNESS OF AT LEAST 25MM IN ACCORDANCE WITH RECOMMENDATIONS OF LIVEABLE HOUSING DESIGN GUIDELINES.
 - FLOORING IN WET AREAS, LAUNDRY AND KITCHEN SHALL BE SLIP RESISTANT.
 - DOOR HARDWARE SHALL BE INSTALLED 900MM - 1100MM ABOVE THE FINISHED FLOOR.
 - THERE SHALL BE A LEVEL TRANSITION BETWEEN ABUTTING INTERNAL SURFACES (A MAXIMUM VERTICAL TOLERANCE OF 5MM BETWEEN ABUTTING SURFACES IS ALLOWABLE PROVIDED THE LIP IS ROUNDED OR BEVELLED).
- PROTECTION OF THE BUILDING FABRIC**
- THE BUILDER SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE STABILITY AND GENERAL WATER TIGHTNESS OF ALL NEW AND/OR EXISTING STRUCTURES DURING ALL WORKS.
 - WINDOWS, DOORS AND SERVICE PENETRATIONS SHALL BE FLASHED ALL AROUND.
 - ALL PLIABLE MEMBRANES SHALL BE INSTALLED TO COMPLY AND BE IN ACCORDANCE WITH BCA 10.8.1.
 - GUTTERS AND DRAINAGE SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH AS3502.3.
 - ANTI-PONDING DEVICES/BOARDS SHALL BE INSTALLED ACCORDING TO BCA 7.3.5.
 - DAMP-COURSES WITH WEEPHOLES AND CAVITY FLASHINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS4773.2.
 - SURFACES AROUND THE PERIMETER OF A RESIDENTIAL SLAB SHALL FALL AWAY FROM THAT SLAB BY NOT LESS THAN 50MM OVER THE FIRST 1M. WHERE NOT STIPULATED IN THE GEOTECHNICAL REPORT, FREEBOARD SHALL BE NOT LESS THAN 50MM FROM AN IMPERMEABLE SURFACE OR 150MM FROM A PERMEABLE SURFACE.
 - SUBFLOOR VENTS SHALL BE LOCATED >600MM FROM CORNERS AND BE INSTALLED BELOW BEARERS. SUCH VENTS SHALL PROVIDE A RATE PER 1000MM RUN OF EXTERNAL OR INTERNAL CROSS WALLS OF:
 - 7,500MM² CLEAR VENTILATION WHERE PARTICULATE BOARD FLOORING IS USED; OR
 - 6,000MM² FOR OTHER SUBFLOOR TYPES.
 - WHERE A BUILDING OTHER THAN DETACHED CLASS 10 IS LOCATED IN A TEMPE-PRONE AREA THE BUILDING SHALL BE PROVIDED WITH A TERMITE MANAGEMENT SYSTEM COMPLIANT WITH AS3660.1 OR AS3660.2.
 - IN SALINE OR INDUSTRIAL ENVIRONMENTS, MASONRY UNITS, MORTAR, AND ALL BUILT-IN COMPONENTS SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF TABLE 4.1 OF AS4773.1, PART 1: DESIGN.
 - BUILDING TIE-DOWNS SHALL BE APPROPRIATE FOR THE SITE WIND CLASSIFICATION AND PROVIDED IN ACCORDANCE WITH BCA 5.6.6.
 - CORROSION PROTECTION SHALL BE SUITED TO THE SITE CONTEXT AND PROVIDED FOR BUILT-IN STRUCTURAL STEEL MEMBERS SUCH AS STEEL LINTELS, SHELF ANGLES, CONNECTORS, ACCESSORIES (OTHER THAN WALL TIES) IN ACCORDANCE WITH TABLE 4.1 OF AS4773.1 MASONRY IN SMALL BUILDINGS, PART 1: DESIGN.
 - SHEET ROOFING SHALL BE PROTECTED FROM CORROSION IN A MANNER APPROPRIATE TO THE SITE CONTEXT, IN ACCORDANCE WITH BCA TABLE 7.2.2A.
 - SINGLE LEAF MASONRY WALLS SHALL BE WEATHERPROOFED PER BCA 5.7.6.
 - (IN CLIMATE ZONES 6, 7 AND 8) UNLESS EXCLUDED BY BCA 10.8.3(2) ROOFS SHALL BE PROVIDED WITH VENTILATION OPENINGS PER BCA 10.8.3.
 - EXTERNAL WATERPROOFING FOR ON FLAT ROOFS, ROOF TERRACES, BALCONIES AND TERRACES AND OTHER SIMILAR HORIZONTAL SURFACES LOCATED ABOVE INTERNAL SPACES OF A BUILDING SHALL COMPLY WITH BCA H208.
 - WATERPROOFING OF WET AREAS - BEING BATHROOMS, SHOWERS, SHOWER ROOMS, LAUNDRIES, SANITARY COMPARTMENTS AND THE LIKE - SHALL BE PROVIDED IN ACCORDANCE WITH BCA 10.2.
 - BALCONY WATERPROOFING SHALL BE INSTALLED IN ACCORDANCE WITH AS4654.1 & AS4654.2.

NOTES:

THE DOOR TO A FULLY ENCLOSED SANITARY COMPARTMENT MUST-
(A) OPEN OUTWARDS; OR
(B) SLIDE; OR
(C) BE READILY REMOVABLE FROM THE OUTSIDE OF THE COMPARTMENT, UNLESS THERE IS A CLEAR SPACE OF AT LEAST 1.2M BETWEEN THE CLOSET PAN WITHIN THE SANITARY COMPARTMENT AND THE NEAREST PART OF THE DOORWAY.

NOTE:
WATERPROOFING TO ENCLOSED SHOWER (TILED & WP MEMBRANE) WATER RESISTANT TO REMAINING (ENS & BATHROOM) WET AREA FLOOR (POLISHED CONCRETE) REQUIREMENTS AS PER NCC TABLE 3.8.1.1

NOTE:
ARTICULATION JOINTS BETWEEN MASONRY ELEMENTS MUST HAVE A WIDTH NOT LESS THAN 10mm AND BE PROVIDED IN STRAIGHT, CONTINUOUS WALLS HAVING NO OPENINGS; AT NOT MORE THAN 6m CENTRES AND NOT CLOSER THAN THE HEIGHT OF THE WALL AWAY FROM CORNERS; AND WHERE THE HEIGHT OF THE WALL CHANGES BY MORE THAN 20% AT THE POSITION OF CHANGE IN HEIGHT; AND WHERE OPENINGS MORE THAN 900x900 MM OCCUR, AT NOT MORE THAN 6m CENTRES, AND POSITIONED IN LINE WITH ONE EDGE OF THE OPENING; AND WHERE WALLS CHANGE IN THICKNESS; AND AT CONTROL OR CONSTRUCTION JOINTS IN FOOTING SLABS; AND AT JUNCTIONS OF WALLS CONSTRUCTED OF DIFFERENT MASONRY MATERIALS; AND AT DEEP CHASES (REBATES) FOR SERVICE PIPES. REFER TO SOIL BY INTRAX FOR SOIL DETAILS

NOTES:

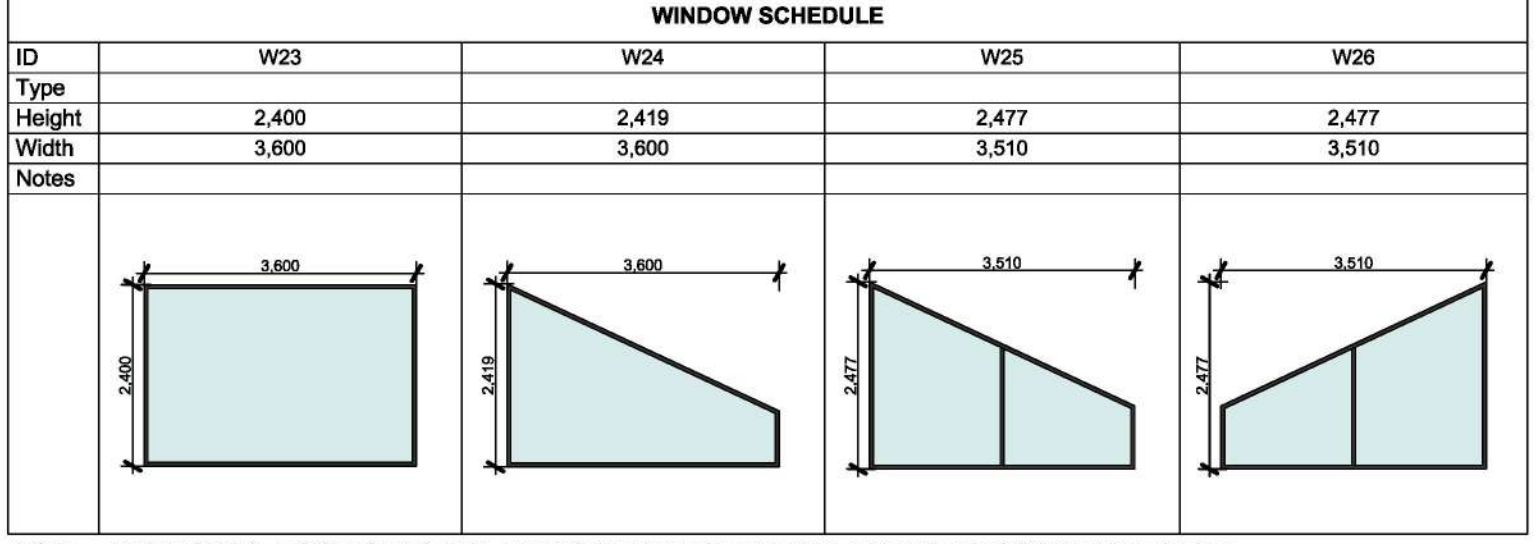
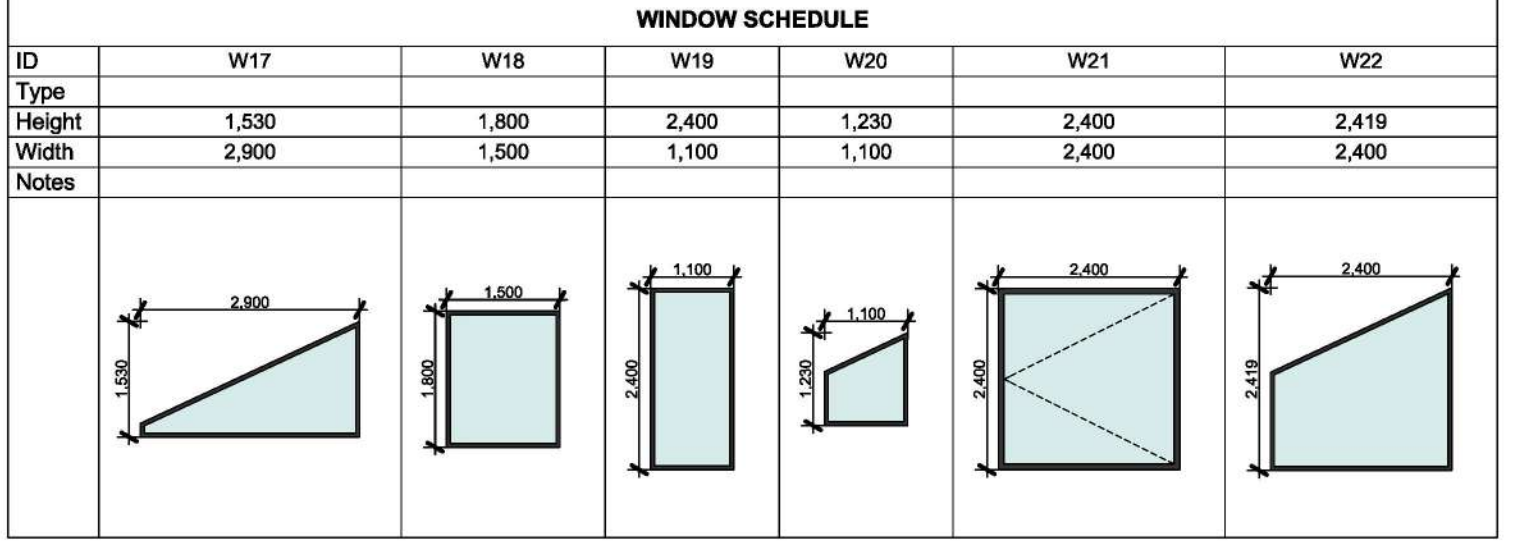
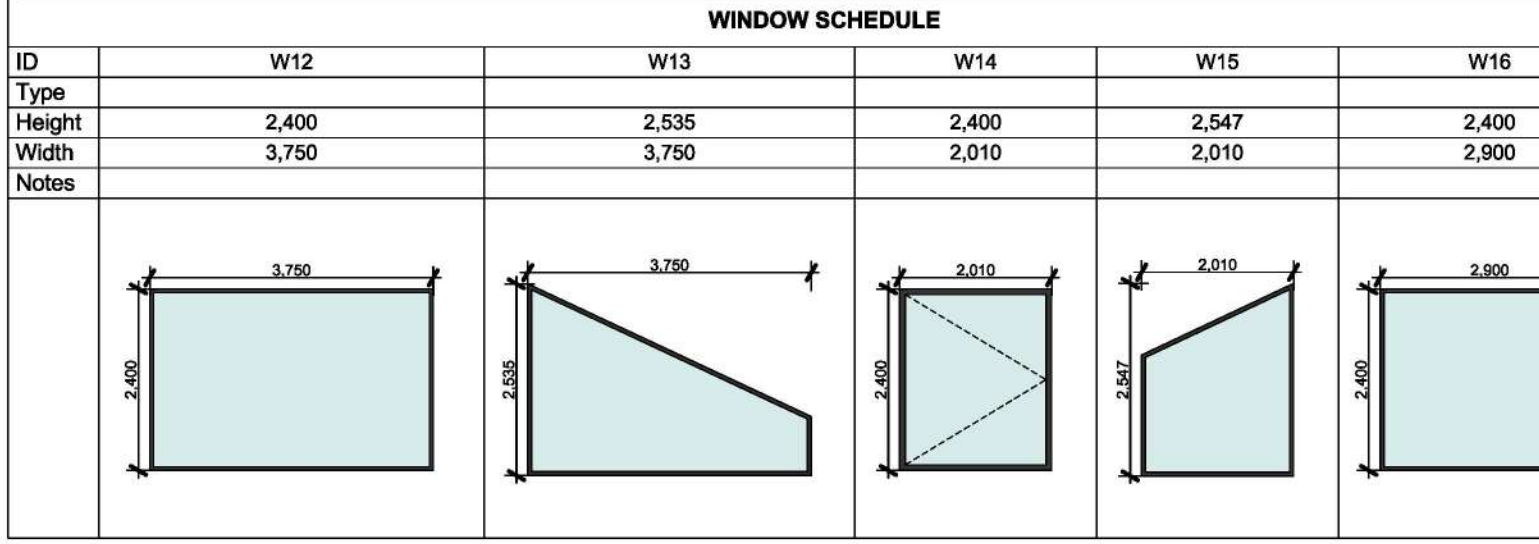
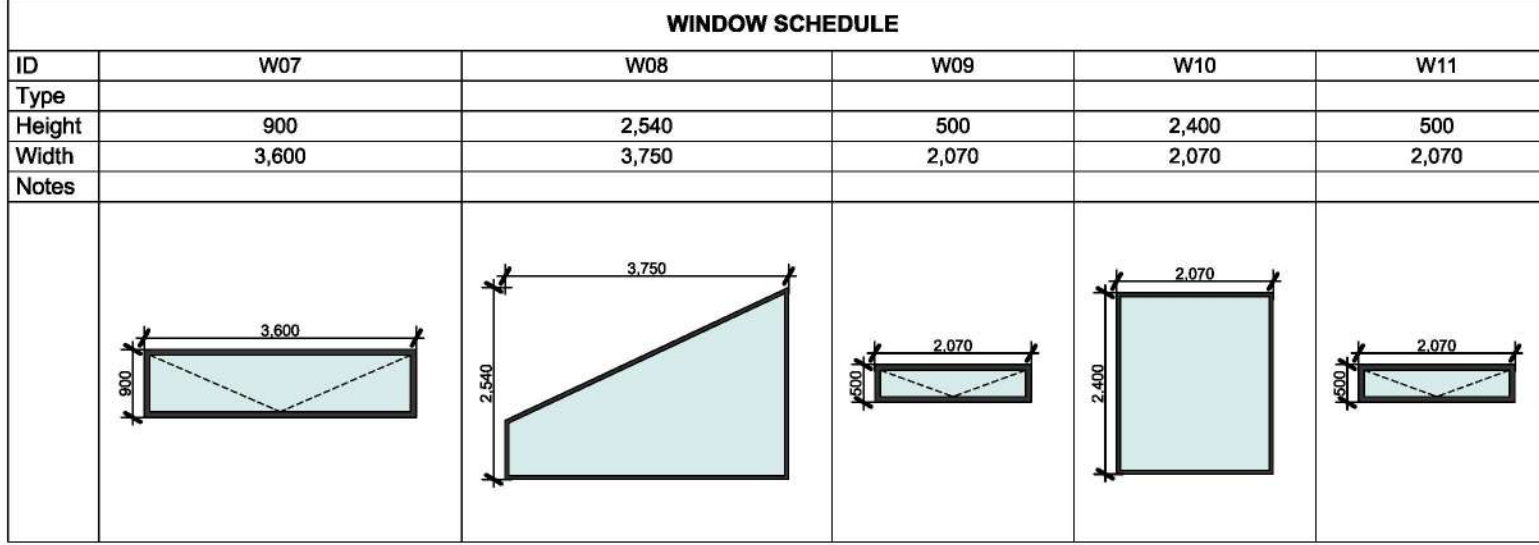
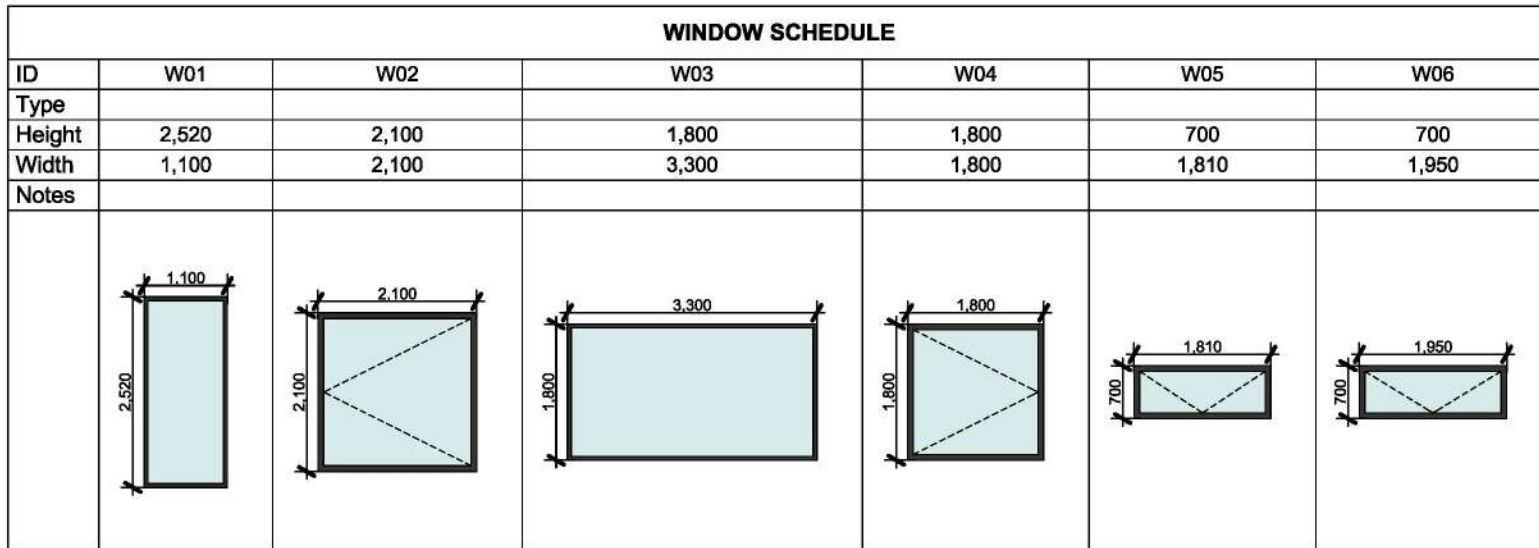
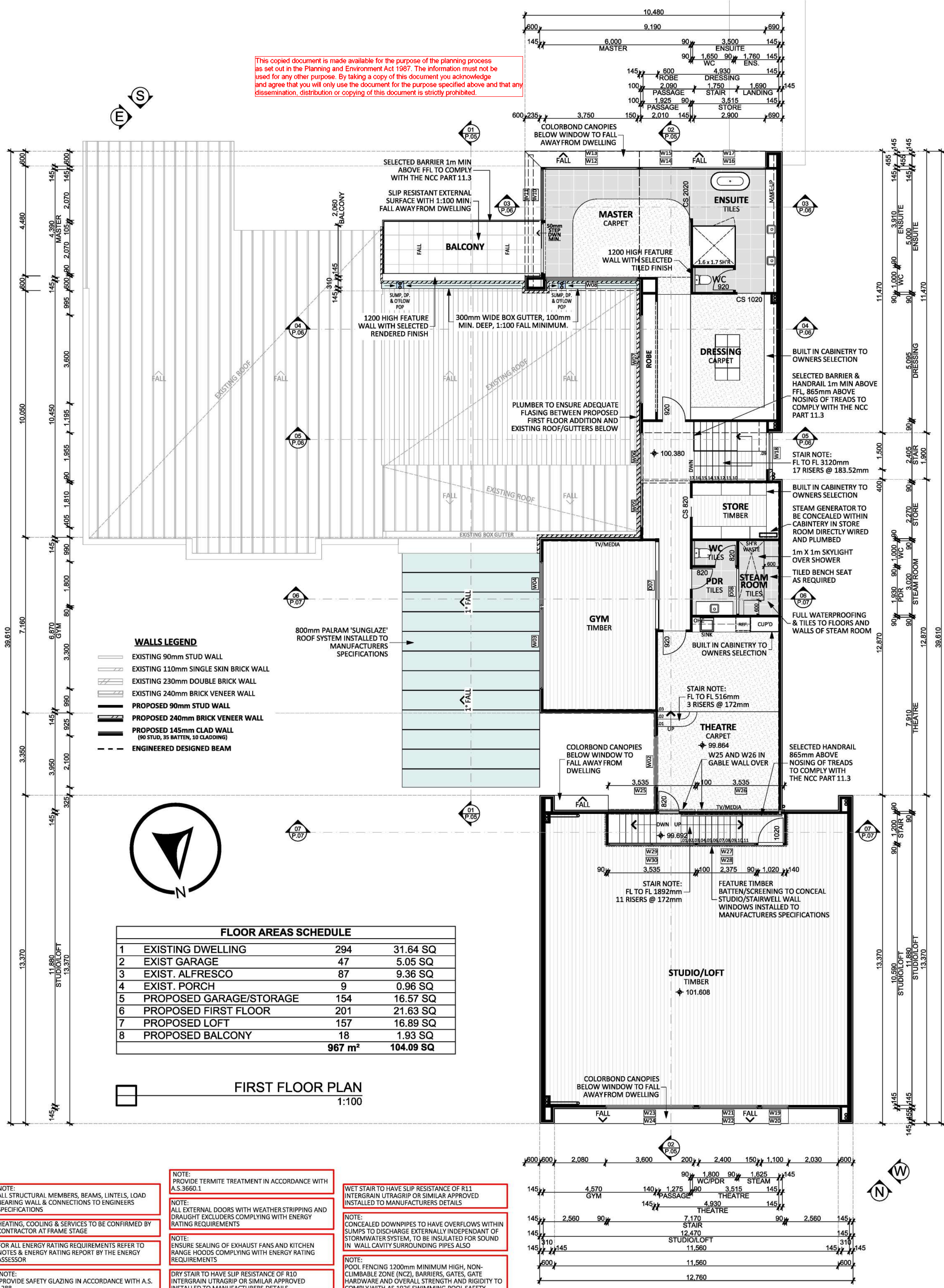
- HARDWIRED SMOKE ALARM WITH BATTERY BACKUP AS PER B.C.A REQUIREMENTS
- SELECTED DOWNPIPE CONNECTED TO WATER TANKS TO THE RELEVANT AUTHORITIES APPROVAL
- ALL WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- W.C DOORS TO OPEN OUT OR TO HAVE LIFT OFF HINGES.
- CEILING EXHAUST FAN (SELF SEALING)
- PROVIDE ARTICULATION JOINTS SPACED AS RECOMMENDED BY ENGINEER/SON REPORT
- PROVIDE FLYSCREENS TO ALL OPENABLE WINDOWS

BAL 12.5 CONSTRUCTION AS PER AS3959-2009

- 5.4.1 WALLS - PART OF AN EXTERNAL WALL SURFACE THAT IS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE OF NON COMBUSTIBLE MATERIAL OR 6MM MINIMUM F/C SHEET CLADDING OR BUSHFIRE RESISTING TIMBER.
- 5.4.2 JOINTS - ALL JOINTS TO EXTERNAL SURFACES TO BE LESS THAN 3MM, ALTERNATIVELY SARKING MAY BE APPLIED TO THE OUTER FACE OF FRAME PRIOR TO FIXING ANY EXTERNAL CLADDING.
- 5.4.3 VENTS & WEEPHOLES IN EXTERNAL WALLS SHALL BE SCREENED WITH A MESH WITH A MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM, EXCEPT WHERE THE WEEPHOLES ARE LESS THAN 3MM.
- 5.5.2 WINDOWS - FOR WINDOWS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, FRAME AND JOINTS SHALL BE OF A BUSHFIRE RESISTING TIMBER OR METAL EXTERNALLY FITTED HARDWARE SHALL BE METAL. GLAZING LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE GRADE A SAFETY GLASS MINIMUM 4MM, OR GLASS BLOCK WITH NO RESTRICTION ON GLAZING METHOD.
- 5.5.3 DOORS - DOORS SHALL BE NON-COMBUSTIBLE OR SOLID TIMBER 35MM THICK MINIMUM. GLASS IN DOORS SHALL COMPLY WITH GLAZING REQUIREMENTS THAT OF WINDOW. FRAME AROUND GLAZING SHALL BE OF A NON COMBUSTIBLE MATERIAL OR BUSHFIRE RESISTING TIMBER. DOORS SHALL BE TIGHT FITTING TO THE DOORFRAME AND ABUTTING DOORS, ANY PART OF THE DOOR ASSEMBLY LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, AND JOINTS SHALL BE OF A BUSHFIRE RESISTING TIMBER OR METAL. WEATHER STRIPS/SEALS SHALL BE INSTALLED AT THE BASE OF ALL HUNG DOORS.
- 5.5.4 GARAGE DOORS - ANY PART OF THE GARAGE DOOR LESS THAN 400MM FROM THE GROUND WHEN CLOSED SHALL BE MADE FROM A NON COMBUSTIBLE MATERIAL OR 6MM MINIMUM F/C SHEET CLADDING OR BUSHFIRE RESISTING TIMBER. PANEL/TIMBER SIDING HUNG DOORS SHALL BE FITTED WITH SUITABLE WEATHER STRIPS/SEALERS. ROLLER DOORS SHALL BE FITTED WITH GUIDE TRACKS THAT INCLUDE A NYLON BRUSH THAT IS IN CONTACT WITH THE TRACK. MAXIMUM GAPS NO GREATER THAN 3MM. SHEET ROOFING SHALL BE NON COMBUSTIBLE. ROOF/WALL JUNCTIONS ARE TO BE FITTED WITH EMBER GUARDS OF A NON COMBUSTIBLE MATERIAL WITH A MAXIMUM APERTURE OF 2MM. ROOFS SHALL BE FULLY SARKED, EXCEPT THAT SOIL BACKED INSULATION MAY BE INSTALLED FOR SHEET ROOFS.
- 5.6.4 VERANDAH/CARPORT ROOFS - VERANDAH OR CARPORT ROOFS THAT FORM PART OF THE MAIN ROOF SPACE SHALL MEET THE REQUIREMENTS OF THE MAIN ROOF. VERANDAH OR CARPORT ROOFS THAT ARE SEPARATED FROM THE MAIN ROOF SHALL HAVE A NON-COMBUSTIBLE ROOF COVERING. NO LINING REQUIRED TO UNDERLIE A VERANDAH OR CARPORT THAT IS SEPARATED FROM THE MAIN ROOF.
- 5.6.5 ROOF PENETRATIONS - ROOF PENETRATIONS SHALL BE ADEQUATELY SEALED TO PREVENT GAPS GREATER THAN 3MM. MAINTENANCE USED TO SEAL THE PENETRATIONS SHALL BE NONCOMBUSTIBLE. ALL OVERHEAD GLAZING SHALL BE MADE A LAMINATED LAMINATED SAFETY GLASS COMPLYING WITH AS1288. VENTS MADE FROM PVC ARE PERMITTED.
- 5.6.6 EAVES UNITS, GABLES AND GABLES ARE TO COMPLY THE SAME AS PER WALLS. EAVES PENETRATIONS SHALL BE TREATED THE SAME AS ROOF PENETRATIONS. VENTS SHALL BE FITTED WITH EMBER GUARDS WITH A MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM. JOINTS IN EAVES OR GABLES MAY BE FITTED WITH PLASTIC JOINING STRIPS OR TIMBER STOP MOULDS.
- 5.6.7 GUTTERS & DOWNPIPES - IF INSTALLED, GUTTER AND VALLEY LEAF GUARDS SHALL BE NON-COMBUSTIBLE. BOX GUTTERS AND ASSOCIATED FLASHINGS SHALL BE OF A NON-COMBUSTIBLE MATERIAL.
- 5.7.2.4 DECKING - DECKING LESS THAN 300MM MEASURED HORIZONTALLY FROM ANY GLAZED ELEMENTS THAT ARE WITHIN 400MM MEASURED VERTICALLY FROM THE DECK ARE TO BE A NON COMBUSTIBLE MATERIAL OR A BUSHFIRE RESISTING TIMBER.
- 5.8 WATER & GAS SUPPLY - ABOVE GROUND, EXPOSED WATER AND GAS SUPPLY PIPES SHALL BE METAL.

THESE NOTES ARE NEITHER EXHAUSTIVE NOR A SUBSTITUTE FOR REGULATIONS, STATUTORY REQUIREMENTS, BUILDING PRACTICE OR CONTRACTUAL OBLIGATION, UNLESS EXPRESSLY STATED OTHERWISE, ARE PROVIDED ONLY AS GUIDELINES. NO RESPONSIBILITY IS ACCEPTED FOR THEIR USE

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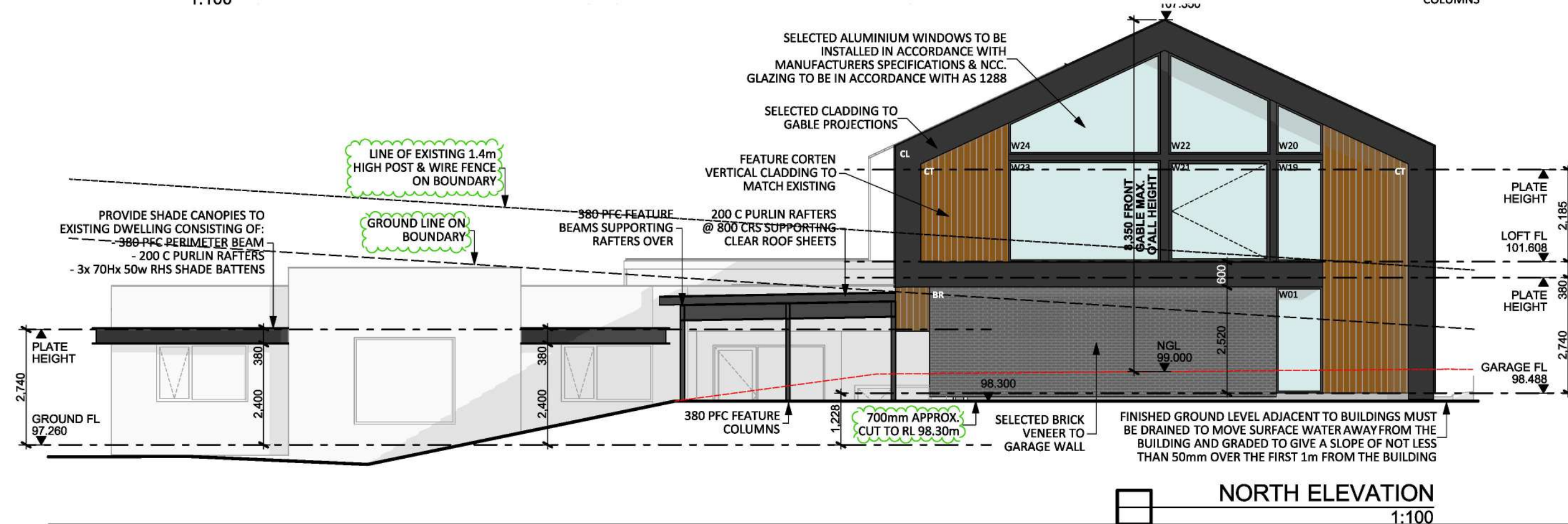
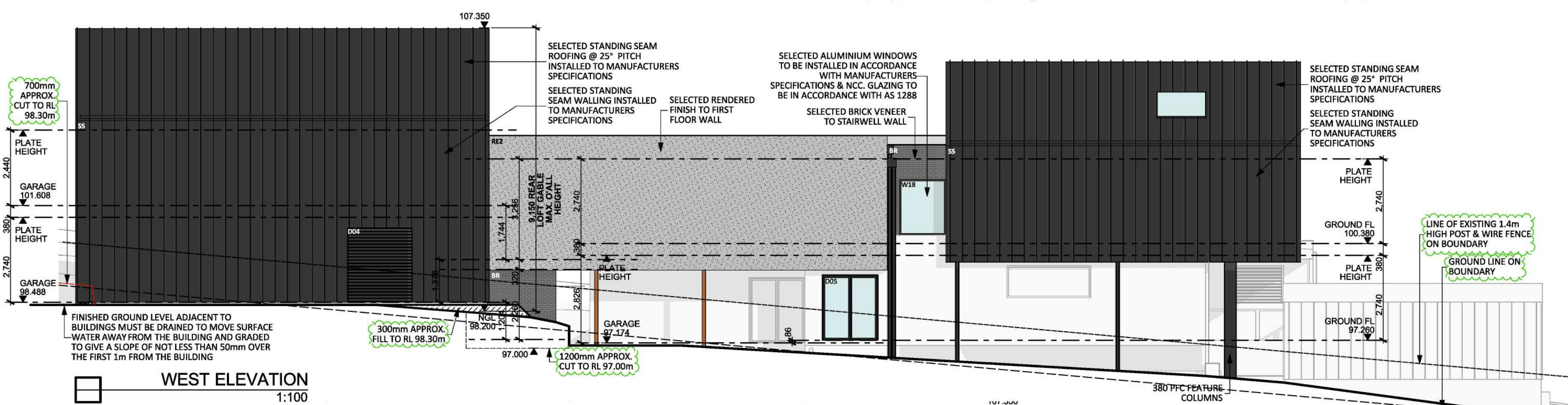
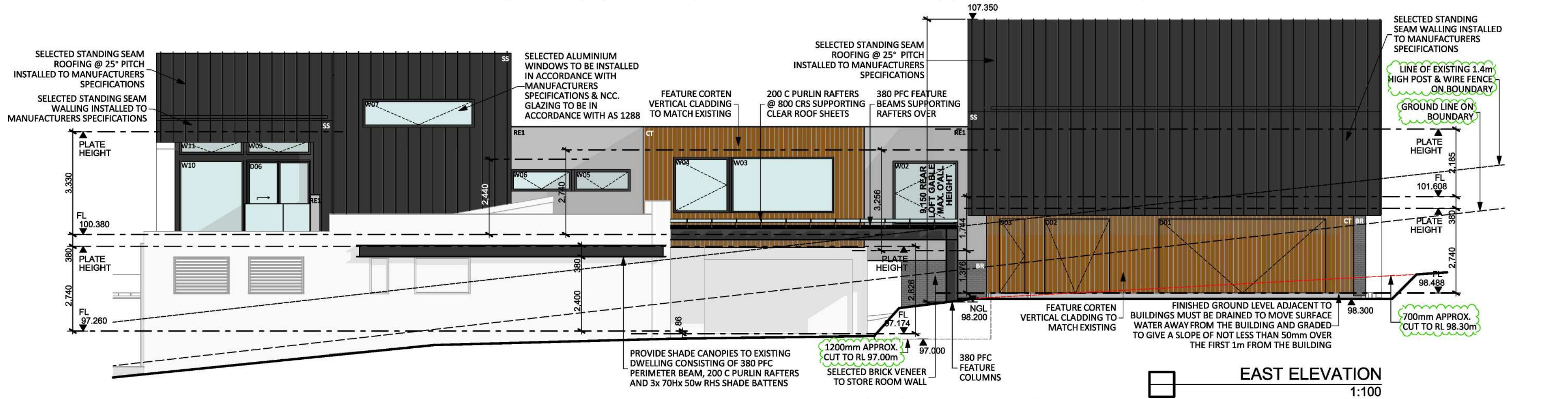
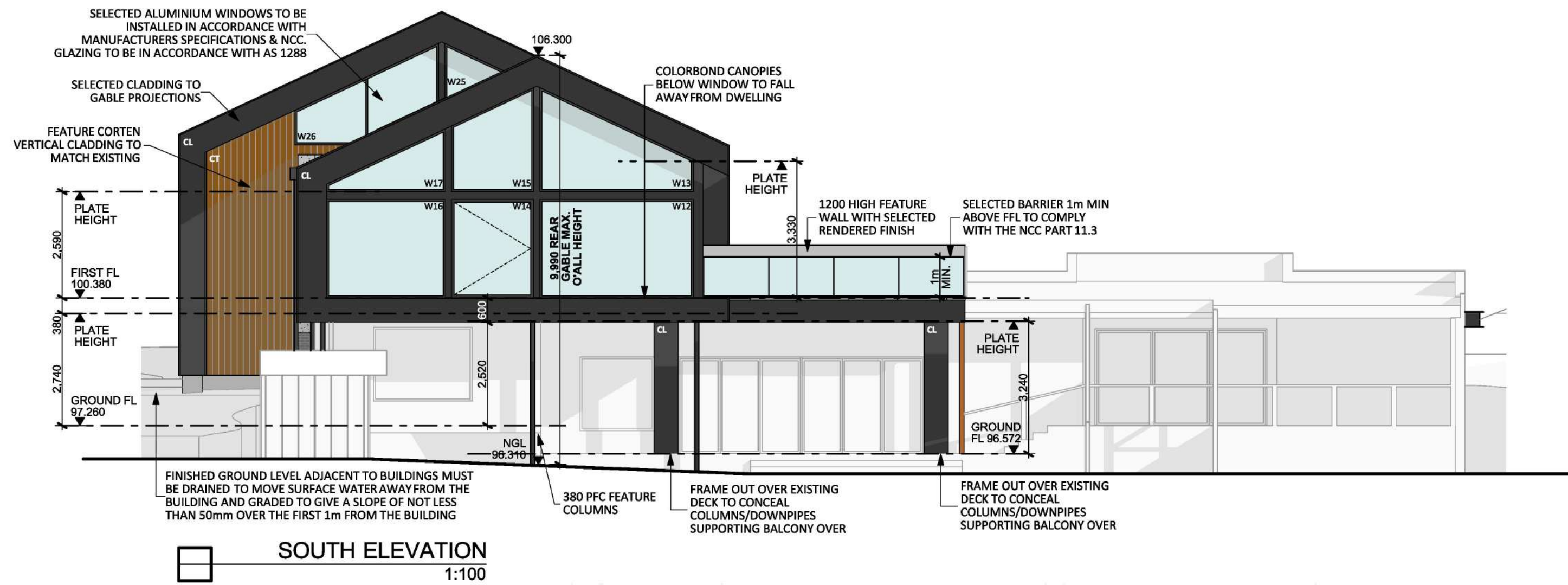







NOTE - WINDOW & DOOR SIZES ARE APPROXIMATE ONLY AND ARE TO BE CONFIRMED WITH WINDOW MANUFACTURER/BUILDER ON SITE. ALL OPENABLE PANES ARE TO HAVE FLYSCREENS. FIRST FLOOR WINDOWS TO HAVE RESTRICTED OPENINGS TO 125mm MAXIMUM.



Rear Perspective

- WHERE STAIRS, RAMPS AND BALUSTRADES ARE TO BE CONSTRUCTED, SHALL COMPLY WITH ALL PROVISIONS OF BCA 11.2.
- OTHER THAN SPIRAL STAIRS:
- RISERS SHALL BE 150MM MAX AND 115MM MIN
 - GOINGS SHALL BE 355MM MAX
 - AND 400MM MIN
 - 2945 SHALL BE 700MM MAX AND 550MM MIN
 - THERE SHALL BE LESS THAN 125MM GAP BETWEEN OPEN TREADS.
- ALL SURFACES OF THE TREADS AND GOINGS SHALL HAVE A SLIP RESISTANCE CLASSIFICATION OF P3 OR R10 FOR DRY SURFACE CONDITIONS AND FOR P4 OR R11 FOR WET SURFACE CONDITIONS, OR A NOSING STRIP WITH A SLIP-RESISTANCE CLASSIFICATION OF P4 OR R11 FOR WET SURFACE CONDITIONS.
- BARRIERS SHALL BE PROVIDED WHERE IT IS POSSIBLE TO FALL FROM THE EDGE OF THE TREAD OR GOING TO THE SURFACE BENEATH. SUCH BARRIERS (OTHER THAN TENSIONED WIRE BARRIERS) SHALL:
- 1000MM MIN ABOVE FINISHED STAIR LEVEL
 - BE 100MM MIN THICK, UNLESS LAMINATE, GLASS, OR 855MM MIN ABOVE FSL OF STAIR
 - RESIST NO RAMP; AND
 - VERTICAL, WITH GAPS OF NO MORE THAN 125MM.
- WHERE THE FLOOR BELOW A BEDROOM WINDOW IS 2M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.7.
- WHERE THE FLOOR BELOW A WINDOW OTHER THAN IN A BEDROOM IS 2M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.8.
- WHERE A BEDROOM OR IT IS 25M OR MORE ABOVE THE SURFACE BENEATH, OR IT IS POSSIBLE TO FALL OR MORE FROM THE WINDOW, OR IF ANY TRAFFICABLE SURFACE WITHIN THE SURFACE BENEATH, ANY HORIZONTAL ELEMENT WITHIN A BARRIER BETWEEN 150MM AND 760MM ABOVE THE FLOOR IS NOT PROTECTED BY ANOTHER BARRIER.
- HANDRAILS SHALL BE CONTINUOUS, WITH TOPS SET +865MM VERTICALLY ABOVE STAIR NOSING AND FLOOR SURFACE OF RAMPS.
- WHERE BARRIERS SHALL COMPLY WITH BCA 11.3.4 AND 11.3.6.
- GLASS BARRIERS SHALL COMPLY SERVING AS A BARRIER SHALL COMPLY WITH BCA H108.
- CLASS 1 BUILDINGS WITH AN PERMEABILITY OF NOT MORE THAN 5 MPa/M AT 0.1 MPa SHALL BE PROVIDED WITH A MECHANICAL PENETRATION SYSTEM COMPLYING WITH HG3.1 UNLESS INTEGRATED SAVING DOORS TO FULLY ENCLOSED SANITARY COMPARTMENTS SHALL COMPLY WITH BCA CLAUSE 19.2.
- ALL SHOWER WALLS AND WALLS ADJACENT TO TOILET SHALL BE BRACED WITH 12MM PLIP VERTICAL GRAB RAILS AND SUPPORT NOGGINGS WITH A THICKNESS OF AT LEAST 25MM IN ACCORDANCE WITH RECOMMENDATIONS OF LIVABLE HOUSING DESIGN GUIDELINES.
- FLOORING IN WET AREAS, LAUNDRY AND KITCHEN SHALL BE SLIP RESISTANT.
- DOOR SILL THRESHOLD SHALL BE INSTALLED 900MM - 1100MM ABOVE THE FINISHED FLOOR.
- THERE SHALL BE A LEVEL TRANSITION BETWEEN ABUTTING INTERNAL SURFACES (A MAXIMUM VERTICAL TOLERANCE OF 10MM) AND BETWEEN EXTERNAL SURFACES (A MAXIMUM PROVIDED THE UP IS ROUNDED OR REVEALED).
- PROTECTION OF THE BUILDING FABRIC
- THE BUILDER SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE BUILDING FABRIC IS PROTECTED FROM WEAR, DAMAGE AND/OR EXISTING STRUCTURES DURING ALL WORKS.
- WINDOWS, DOORS AND SERVICE PENETRATIONS SHALL BE FLASHED.
- ALL PLUMB MEMBRANES SHALL BE INSTALLED TO COMPLY AND BE IN ACCORDANCE WITH BCA 10.8.1
- GUTTERS AND DRAINAGE SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH AS5500.3.
- ANTI-CRACK MEMBRANES SHALL BE INSTALLED ACCORDING TO BCA 7.3.5.
- DAMP-COULRES WITH WEEPHOLES AND CAVITY FLASHINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS4747.3.2.
- ALL EXTERIOR WALLS AND GENERAL WATER-TIGHTNESS OF ALL NEW AND/OR EXISTING STRUCTURES DURING ALL WORKS.
- ALL WINDOWS, DOORS AND SERVICE PENETRATIONS SHALL BE FLASHED.
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- ANTI-CRACK MEMBRANES SHALL BE INSTALLED ACCORDING TO BCA 7.3.5.
- DAMP-COULRES WITH WEEPHOLES AND CAVITY FLASHINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS4747.3.2.
- ALL EXTERIOR WALLS AND



MATERIALS SCHEDULE		
NAME/ CODE	COLOR	PHOTO
RENDER RE1	SMOOTH CONCRETE	
RENDER RE2	LIGHT GREY	
STANDING SEAM SS	MONUMENT	
BRICK VENEER (TO MATCH EXIST.) BR	CHARCOAL/ DARK GREY	
CORTEN PANELS (TO MATCH EXIST.) CT	RUST	
HIDDEN ROOFING	COLORBOND KLIP-LOK MONUMENT	
WINDOW FRAMES/ CAPPINGS & FLASHINGS	MONUMENT	

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BAL 12.5 CONSTRUCTION AS PER AS3959-2009

4.1 WALLS - PART OF ANTERIAL WALL SURFACE THAT IS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE OF NON-COMBUSTIBLE MATERIAL. MINIMUM HEIGHT OF CARPORT ROOF SHALL BE 2.7M.

5.4.2 JOINTS - ALL JOINTS TO EXTERNAL SURFACES TO BE LESS THAN 3MM, ALTERNATIVELY SARKING MAY BE APPLIED TO THE OUTER FACE OF FRAME PRIOR TO FIXING ANY EXTERNAL CLADDING.

5.5 EAVES - EAVES DROPPINGS & WEATHER STRIPS SHALL BE INSTALLED WITH A MESH WITH A MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM, EXCEPT WHERE THE WEEPHOLES ARE LESS THAN 3MM.

5.5.2 WINDOWS - FOR WINDOWS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, JOINERY SHALL BE OF A BUSHIFIRE RESISTING TIMBER OR METAL. EXTERNALLY FITTED HARDWARE SHALL BE METAL. GLAZING LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE GLASS NOT LESS THAN 6MM THICK, OR GLASS-GLASS UNIT WITH NO RESTRICTION ON GLAZING METHOD.

5.5.3 DOORS - DOORS SHALL BE NON-COMBUSTIBLE OR SOLID TIMBER 35MM THICK. ALUMINIUM, GLASS OR OTHER MATERIALS MAY BE USED IF THEY CAN PROVE TO BE EQUIVALENT TO SOLID TIMBER.

GLAZING SHALL BE OF A NON COMBUSTIBLE MATERIAL OR BUSHIFIRE RESISTING TIMBER. DOORS SHALL BE TIGHT FITTING TO THE DOORFRAME AND ABUTTING DOORS, ANY PART OF A DOOR ASSEMBLY EXPOSED TO THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, AND JOINRY SHALL BE OF A BUSHIFIRE RESISTING TIMBER OR METAL. WEATHER STRIPS/SEALS SHALL BE INSTALLED AT THE BASE OF ALL HUNG DOORS.

5.5.4 ROOFING - THE ROOFING OF THE GARAGE SHALL BE OF A BUSHIFIRE RESISTING MATERIAL WHEN CLOSED SHALL BE MADE FROM A NON COMBUSTIBLE MATERIAL OR 6MM MINIMUM F/C SHEET CLADDING OR BUSHIFIRE RESISTING TIMBER. PANEL/TILT UP SIDE HUNG ROOFS SHALL BE FITTED WITH SUITABLE WEATHER STRIPS/SEALERS. ROLLER DOORS SHALL BE FITTED WITH GUIDE TRACKS THAT WILL PREVENT OPENINGS GREATER THAN 3MM. SIDE HUNG ROOFS SHALL BE FITTED WITH SUITABLE WEATHER STRIPS/SEALS GREATER THAN 3MM. STEEP ROOFING SHALL BE OF A NON-COMBUSTIBLE. ROOF/WALL JUNCTIONS ARE TO BE SEALED TO PREVENT OPENINGS GREATER THAN 3MM. ROOF VENTILATION OPENINGS SHALL BE OF A NON-COMBUSTIBLE MATERIAL. A NON COMBUSTIBLE MATERIAL WITH A MAXIMUM APERTURE OF 2MM. ROOFS SHALL BE FULLY SARKED, ACCEPT THAT BACK LAPPED INSULATION MAY BE INSTALLED FOR SHIRT ROOFS.

5.6 MAIN ROOF /CARPORT ROOFS - VERANDAH OR CARPORT ROOFS THAT FORM PART OF THE MAIN ROOF SPACE SHALL MEET THE REQUIREMENTS OF THE MAIN ROOF. VERANDAH OR CARPORT ROOFS THAT ARE SEPERATED FROM THE MAIN ROOF SHALL HAVE A NON-COMBUSTIBLE ROOF COVERING, NO LINING REQUIRED TO UNDERLIE VERANDAH OR CARPORT THAT IS SEPERATED FROM THE MAIN ROOF.

5.6.5 ROOF PENETRATIONS - ROOF PENETRATIONS SHALL BE ADEQUATELY SEALED TO PREVENT GAPS WHICH COULD BE USED TO PASS FLAMES OR HOT PARTICLES INTO THE MAIN ROOF SPACE.

OVERHEAD GLAZING SHALL BE MADE A LAMINATED LAMINATED SAFETY GLASS COMPLYING WITH AS1288. VENT PIPES MADE FROM PVC ARE PERMITTED.

5.6.6 EAVES LININGS - GABLES AND GABLES - GABLES ARE TO COMPLY THE SAME AS PER WALLS. EAVES LININGS SHALL BE MADE FROM THE SAME AS PER WALLS. PENETRATIONS, VENTS SHALL BE FITTED WITH EMERALD'S WITH MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM. JOINTS IN EAVES OR GABLES MAY BE FITTED WITH PLASTIC JOINING STRIPS OF 2MM MAXIMUM APERTURE.

5.6.7 GUTTERS & DOWNPIPES - IF INSTALLED, GUTTER AND VALLEY LEAD GUARDS SHALL BE NON-COMBUSTIBLE. GUT BOXTERS AND ASSOCIATED FLASHINGS SHALL BE OF A NON-COMBUSTIBLE MATERIAL.

5.7.2.4 DECKING - DECKING LESS THAN 300MM MEASURED HORIZONTALLY FROM ANY GLAZED ELEMENTS THAT ARE WITHIN 400MM MEASURED VERTICALLY FROM THE DECK ARE TO BE A NON COMBUSTIBLE MATERIAL. WEATHER STRIPS/SEALS SHALL BE OF A BUSHIFIRE RESISTING MATERIAL.

5.8 WATER & GAS SUPPLY - ABOVE GROUND, EXPOSED WATER AND GAS SUPPLY PIPES SHALL BE METAL.

THESE NOTES ARE NEITHER EXHAUSTIVE NOR A SUBSTITUTE FOR REGULATIONS, STATUTORY REQUIREMENTS, BUILDING PRACTICE OR CONTRACTUAL OBLIGATION, UNLESS EXPRESSLY STATED OTHERWISE, ARE PROVIDED ONLY AS GUIDELINES. NO RESPONSIBILITY IS ACCEPTED FOR THEIR USE

DOOR SCHEDULE						
ID	D01	D02	D03	D04	D06	D17
Type						
Height	2,400	2,400	2,400	2,400	2,400	2,401
Width	5,400	2,100	820	2,100	2,070	2,400
Notes						

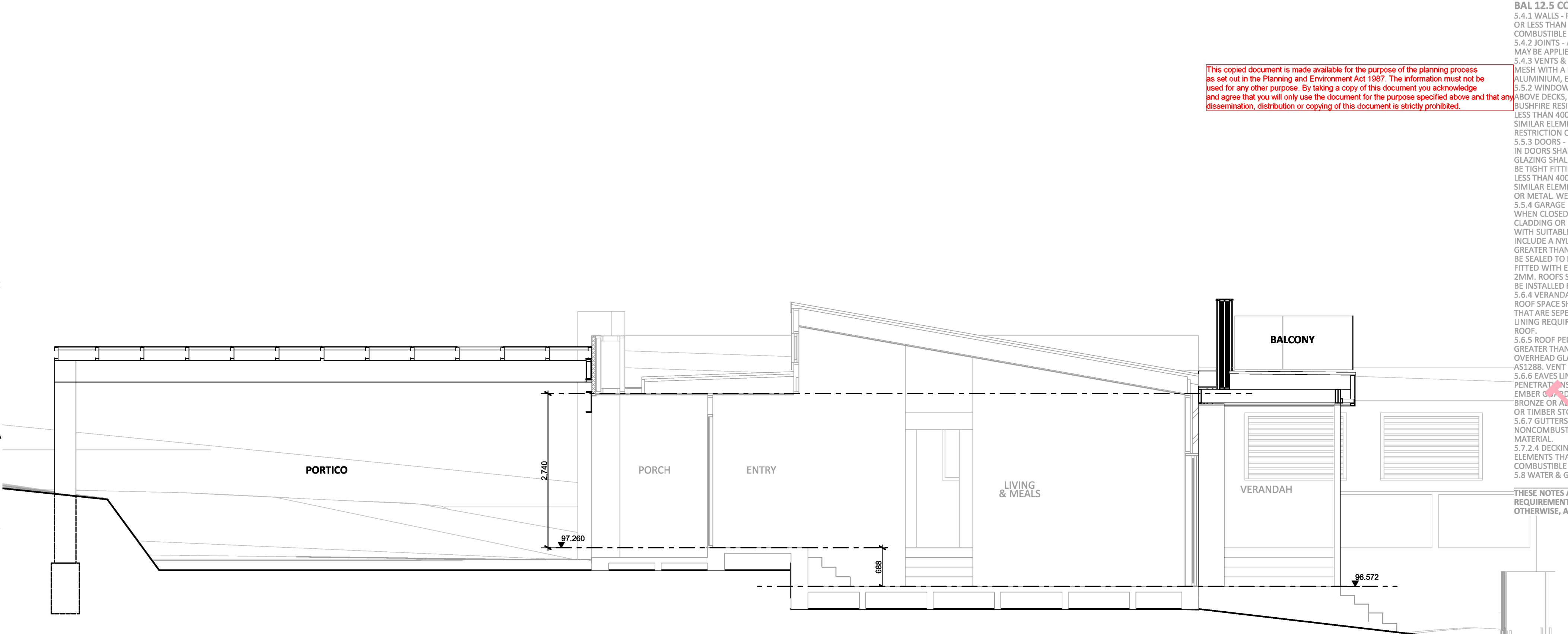
NOTE - WINDOW & DOOR SIZES ARE APPROXIMATE ONLY AND ARE TO BE CONFIRMED WITH WINDOW MANUFACTURER/INLUDER ON SITE. ALL OPENABLE PANES ARE TO HAVE FLYSCREENS

- SAFETY OF BUILDING USERS

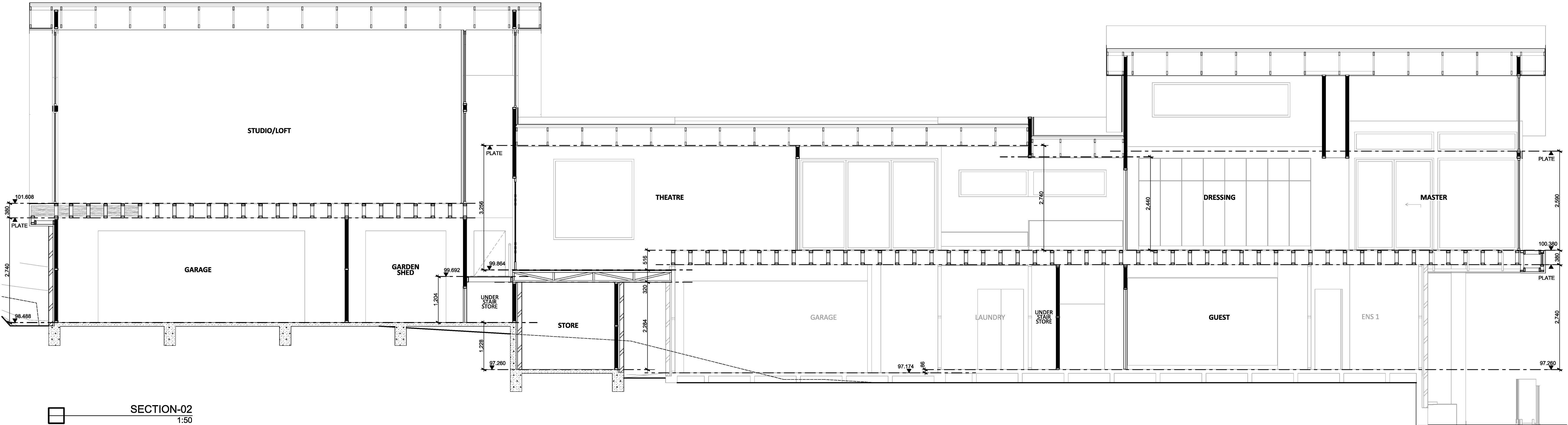
 - WHERE STAIRS, RAMPS AND BALUSTRADES ARE TO BE CONSTRUCTED, THESE SHALL COMPLY WITH ALL PROVISIONS OF BCA 11.2.
 - OTHER THAN SPIRAL STAIRS
 - RISERS SHALL BE 190MM MAX AND 115MM MIN
 - GOINGS SHALL BE 355MM MAX AND 240MM MIN
 - 2NGS SHALL BE 700MM MAX AND 550MM MIN
 - THERE SHALL BE LESS THAN 125MM GAP BETWEEN OPEN TREADS.
 - ALL TREADS, LANDINGS AND THE LIKE SHALL HAVE A SLIP RESISTANCE CLASSIFICATION OF P3 OR R10 FOR DRY SURFACE CONDITIONS AND P4 OR R11 FOR WET SURFACE CONDITIONS, OR A NOSING STRIP WITH A SLIP-RESISTANCE CLASSIFICATION OF P3 FOR DRY SURFACE CONDITIONS AND P4 FOR WET SURFACE CONDITIONS.
 - BARRIERS SHALL BE PROVIDED WHERE IT IS POSSIBLE TO FALL 1M OR MORE FROM THE LEVEL OF THE TRAFFICABLE SURFACE TO THE SURFACE BENEATH. SUCH BARRIERS (OTHER THAN TENSIONED WIRE BARRIERS) SHALL BE:
 - 1000MM MIN ABOVE FINISHED STAIR LEVEL
 - FSL OF BALCONIES, LANDINGS ETC; AND
 - 865MM MIN ABOVE FSL OF STAIR NOSING OR RAMP; AND
 - VERTICAL, WITH GAPS OF NO MORE THAN 125MM.
 - WHERE THE FLOOR BELOW A BEDROOM WINDOW IS 2M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.7.
 - WHERE THE FLOOR BELOW A WINDOW OTHER THAN IN A BEDROOM IS 4M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.8.
 - WHERE A BEDROOM WINDOW IS 2M OR MORE ABOVE THE SURFACE BENEATH, OR IT IS POSSIBLE TO FALL 4M OR MORE FROM THE LEVEL OF ANY TRAFFICABLE SURFACE TO THE SURFACE BENEATH, ANY HORIZONTAL ELEMENT WITHIN A BARRIER BETWEEN 150MM AND 760MM ABOVE THE FLOOR SHALL NOT FACILITATE CLIMBING.
 - HANDRAILS SHALL BE CONTINUOUS, WITH TOPS SET +865MM VERTICALLY ABOVE STAIR NOSING AND FLOOR SURFACE OF RAMPS.
 - WIRE BARRIERS SHALL COMPLY WITH BCA 11.3.4 AND 11.3.6.
 - A GLASS BARRIER OR WINDOW SERVING AS A BARRIER SHALL COMPLY WITH BCA H208.
 - CLASS 1 BUILDINGS WITH AIR PERMEABILITY OF NOT MORE THAN 5 M³/HR.M² AT 50 PA SHALL BE PROVIDED WITH A MECHANICAL VENTILATION SYSTEM COMPLYING WITH HGV3 INWARD-OPENING SWING DOORS TO FULLY ENCLOSED SANITARY COMPARTMENTS SHALL COMPLY WITH BCA CLAUSE 10.4.2.
 - ALL SHOWER WALLS AND WALLS ADJACENT TO TOILET SHALL BE BRACED WITH 12MM PLY FOR FUTURE GRAB RAILS OR SUPPLY NODGINGS WITH A THICKNESS OF AT LEAST 25MM IN ACCORDANCE WITH RECOMMENDATIONS OF LIVEABLE HOUSING DESIGN GUIDELINES.
 - FLOORING IN WET AREAS, LAUNDRY AND KITCHEN SHALL BE SLIP RESISTANT.
 - DOOR HARDWARE SHALL BE INSTALLED 900MM - 1100MM ABOVE THE FINISHED FLOOR.
 - THERE SHALL BE A LEVEL TRANSITION BETWEEN ABUTTING INTERNAL SURFACES (A MAXIMUM VERTICAL TOLERANCE OF 5MM BETWEEN ABUTTING SURFACES IS ALLOWABLE PROVIDED THE LIP IS ROUNDED OR BEVELLED).

PROTECTION OF THE BUILDING FABRIC

 - THE BUILDER SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE STABILITY AND GENERAL WATER TIGHTNESS OF ALL NEW AND/OR EXISTING STRUCTURES DURING ALL WORKS.
 - WINDOWS, DOORS AND SERVICE PENETRATIONS SHALL BE FLASHED ALL AROUND.
 - ALL PLIABLE MEMBRANES SHALL BE INSTALLED TO COMPLY AND BE IN ACCORDANCE WITH BCA 10.8.1.
 - GUTTERS AND DRAINAGE SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH AS3509.3.
 - ANTI-PONDING DEVICES/BOARDS SHALL BE INSTALLED ACCORDING TO BCA 7.3.5.
 - DAMP COURSES WITH WEEP HOLES AND CAVITY FLASHINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS4773.2.
 - SURFACES AROUND THE PERIMETER OF A RESIDENTIAL SLAB SHALL FALL AWAY FROM THAT SLAB BY NOT LESS THAN 50MM OVER THE FIRST 1M, WHERE NOT STIPULATED IN THE GEOTECHNICAL REPORT, FREETBOARD SHALL BE NOT LESS THAN 50MM FROM AN IMPERMEABLE SURFACE OR 150MM FROM A PERMEABLE SURFACE.
 - SUBFLOOR VENTS SHALL BE LOCATED +600MM FROM CORNERS AND BE INSTALLED BELOW BEARERS. SUCH VENTS SHALL PROVIDE A RATE PER 1000MM RUN OF EXTERNAL OR INTERNAL CROSS WALLS OF:
 - 7,500MM² CLEAR VENTILATION WHERE PARTICLE BOARD FLOORING IS USED; OR
 - 6,000MM² FOR OTHER SUBFLOOR TYPES.
 - WHERE A BUILDING OTHER THAN DETACHED CLASS 10 IS LOCATED IN A TERMITE-PRONE AREA THE BUILDING SHALL BE PROVIDED WITH A TERMITE MANAGEMENT SYSTEM COMPLIANT WITH AS3660.1 OR AS3660.2.
 - IN SALINE OR INDUSTRIAL ENVIRONMENTS, MASONRY UNITS, MORTAR, AND ALL BUILT-IN COMPONENTS SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF TABLE 4.1 OF AS4773.1, PART 1: DESIGN.
 - BUILDING TIE-DOWNS SHALL BE APPROPRIATE FOR THE SITE WIND CLASSIFICATION AND PROVIDED IN ACCORDANCE WITH BCA 5.6.6.
 - CORROSION PROTECTION SHALL BE SUITED TO THE SITE CONTEXT AND PROVIDED FOR BUILT-IN STRUCTURAL STEEL MEMBERS SUCH AS STEEL LINTELS, SHELF ANGLES, CONNECTORS, ACCESSORIES (OTHER THAN WALL TIES) IN ACCORDANCE WITH TABLE 4.1 OF AS4773.1 MASONRY IN SMALL BUILDINGS, PART 1: DESIGN.
 - SHEET ROOFING SHALL BE PROTECTED FROM CORROSION IN A MANNER APPROPRIATE TO THE SITE CONTEXT, IN ACCORDANCE WITH BCA TABLE 7.2.2A.
 - SINGLE LEAF MASONRY WALLS SHALL BE WEATHERPROOFED PER BCA 5.7.6.
 - IN CLIMATE ZONES 6, 7 AND 8 UNLESS EXCLUDED BY BCA 10.8.3(2) ROOFS SHALL BE PROVIDED WITH VENTILATION OPENINGS PER BCA 10.8.3.
 - EXTERNAL WATERPROOFING FOR ON FLAT ROOFS, ROOF TERRACES, BALCONIES AND TERRACES AND OTHER SIMILAR HORIZONTAL SURFACES LOCATED ABOVE INTERNAL SPACES OF A BUILDING SHALL COMPLY WITH BCA H208.
 - WATERPROOFING OF WET AREAS - BEING BATHROOMS, SHOWERS, SHOWER ROOMS, LAUNDRIES, SANITARY COMPARTMENTS AND THE LIKE - SHALL BE PROVIDED IN ACCORDANCE WITH BCA 10.2.
 - BALCONY WATERPROOFINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS4654.1 & AS4654.2.



SECTION-01
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SECTION-02
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- BAL 12. 5 CONSTRUCTION AS PER AS3959-2009
- 5.4.1 WALLS - PART OF AN EXTERNAL WALL SURFACE THAT IS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE OF NON COMBUSTIBLE MATERIAL OR 6MM MINIMUM F/C SHEET CLADDING OR BUSHFIRE RESISTING TIMBER.

5.4.2 JOINTS - ALL JOINTS TO EXTERNAL SURFACES TO BE LESS THAN 3MM, ALTERNATIVELY SARKING MAY BE APPLIED TO THE OUTER FACE OF FRAME PRIOR TO FIXING ANY EXTERNAL CLADDING.

5.4.3 VENTS & WEEPHOLES - VENTS & WEEPHOLES IN EXTERNAL WALLS SHALL BE SCREENED WITH A MESH WITH A MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM, EXCEPT WHERE THE WEEPHOLES ARE LESS THAN 3MM.

5.5.2 WINDOWS - FOR WINDOWS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, FRAME AND JOINERY SHALL BE OF A BUSHFIRE RESISTING TIMBER OR METAL. EXTERNALLY FITTED HARDWARE SHALL BE METAL. GLAZING LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE GRADE A SAFETY GLASS MINIMUM 4MM, OR GLASS BLOCK WITH NO RESTRICTION ON GLAZING METHOD.

5.5.3 DOORS - DOORS SHALL BE NON-COMBUSTIBLE OR SOLID TIMBER 35MM THICK. MINIMUM GLASS IN DOORS SHALL COMPLY WITH GLAZING REQUIREMENTS THAT OF WINDOW. FRAMING AROUND GLAZING SHALL BE OF A NON COMBUSTIBLE MATERIAL OR BUSHFIRE RESISTING TIMBER. DOORS SHALL BE TIGHT FITTING TO THE DOORFRAME AND ABUTTING DOORS, ANY PART OF A DOOR ASSEMBLY LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, AND JOINERY SHALL BE OF A BUSHFIRE RESISTING TIMBER OR METAL. WEATHER STRIPS/SEALS SHALL BE INSTALLED AT THE BASE OF SLUNG HUNG DOORS.

5.5.4 GARAGE DOORS - ANY PART OF THE GARAGE DOOR LESS THAN 400MM FROM THE GROUND WHEN CLOSED SHALL BE MADE FROM A NON COMBUSTIBLE MATERIAL OR 6MM MINIMUM F/C SHEET CLADDING OR BUSHFIRE RESISTING TIMBER. PANEL/TILT UP SLIDE HUNG DOORS SHALL BE FITTED WITH SUITABLE WEATHER STRIPS/SEALERS. ROLLER DOORS SHALL BE FITTED WITH GUIDE TRACKS THAT INCLUDE A NYLON BRUSH THAT IS IN CONTACT WITH THE DOOR. MAXIMUM GAPS NO GREATER THAN 3MM. SHEET ROOFING SHALL BE NON-COMBUSTIBLE. ROOF/WALL JUNCTIONS ARE TO BE SEALED TO PREVENT OPENINGS GREATER THAN 3MM. ROOF VENTILATION OPENINGS SHALL BE FITTED WITH EMBER GUARDS OF A NON COMBUSTIBLE MATERIAL WITH A MAXIMUM APERTURE OF 2MM. ROOFS SHALL BE FULLY SARKED, EXCEPT THAT DIL BACKED INSULATION MAY BE INSTALLED FOR SHEET ROOFS.

5.6.4 VERANDAH/CARPORT ROOFS - VERANDAH OR CARPORT ROOFS THAT FORM PART OF THE MAIN ROOF SPACE SHALL MEET THE REQUIREMENTS OF THE MAIN ROOF. VERANDAH OR CARPORT ROOFS THAT ARE SEPERATED FROM THE MAIN ROOF SHALL HAVE A NON-COMBUSTIBLE ROOF COVERING. NO LINING REQUIRED TO UNDERLIE A VERANDAH OR CARPORT THAT IS SEPERATED FROM THE MAIN ROOF.

5.6.5 ROOF PENETRATIONS - ROOF PENETRATIONS SHALL BE ADEQUATELY SEALED TO PREVENT GAPS GREATER THAN 3MM. MAXIMUM GAP USED TO SEAL THE PENETRATIONS SHALL BE NONCOMBUSTIBLE ALL OVERHEAD GLAZING SHALL BE GRADE A LAMINATED LAMINATED SAFETY GLASS COMPLYING WITH AS1288. VENT PIPES MADE FROM PVC ARE PERMITTED.

5.6.6 EAVES LININGS, FASCIAS AND GABLES - GABLES ARE TO COMPLY THE SAME AS PER WALLS. EAVES PENETRATIONS SHALL BE TREATED THE SAME AS ROOF PENETRATIONS. VENTS SHALL BE FITTED WITH EMBER GUARDS WITH A MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM. JOINTS IN EAVES OR GABLES MAY BE FITTED WITH PLASTIC JOINING STRIPS OR TIMBER STOP MOULDS.

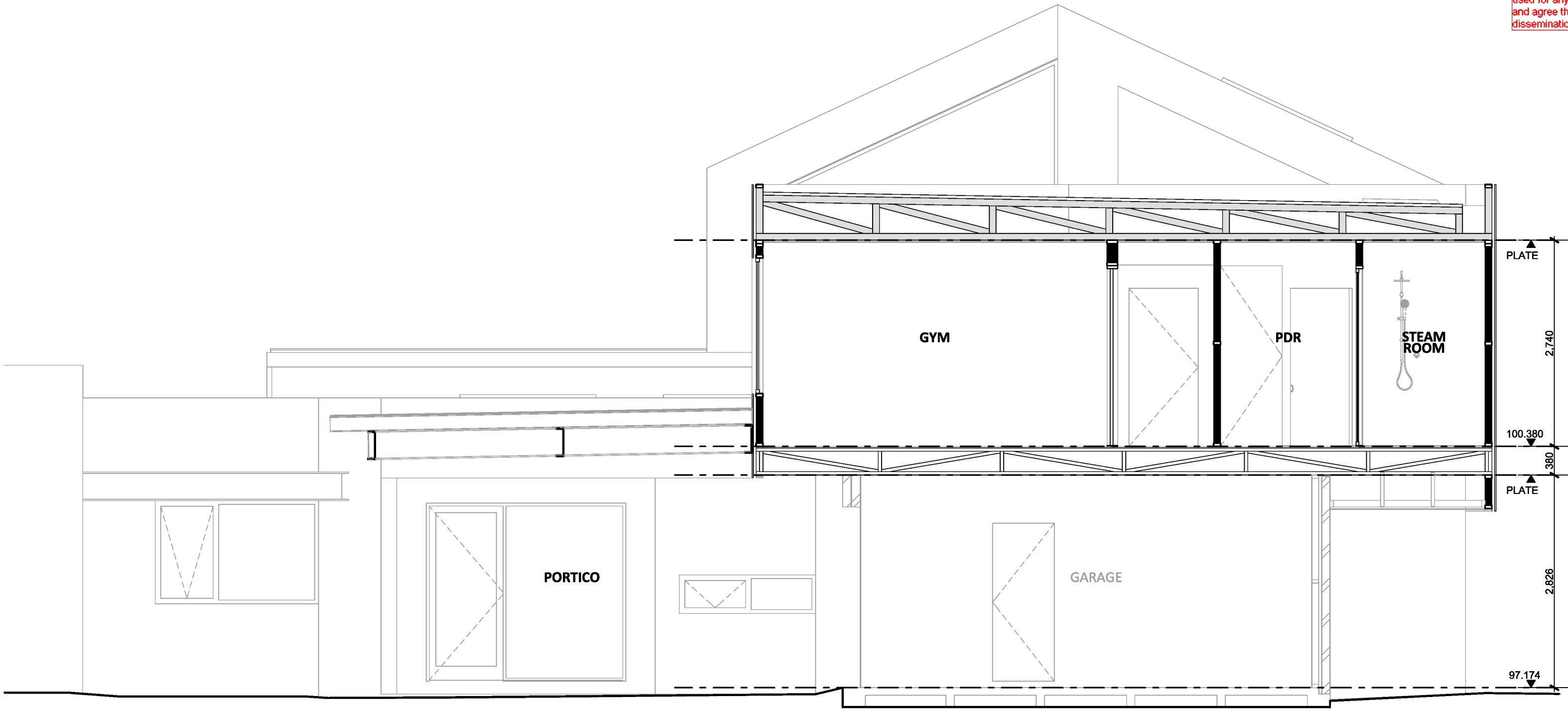
5.6.7 GUTTERS & DOWNPIPES - IF INSTALLED, GUTTER AND VALLEY LEAF GUARDS SHALL BE NONCOMBUSTIBLE. BOX GUTTERS AND ASSOCIATED FLASHINGS SHALL BE OF A NON-COMBUSTIBLE MATERIAL.

5.7.2.4 DECKING - DECKING LESS THAN 300MM MEASURED HORIZONTALLY FROM ANY GLAZED ELEMENTS THAT ARE WITHIN 400MM MEASURED VERTICALLY FROM THE DECK ARE TO BE A NON COMBUSTIBLE MATERIAL OR A BUSHFIRE RESISTING TIMBER.

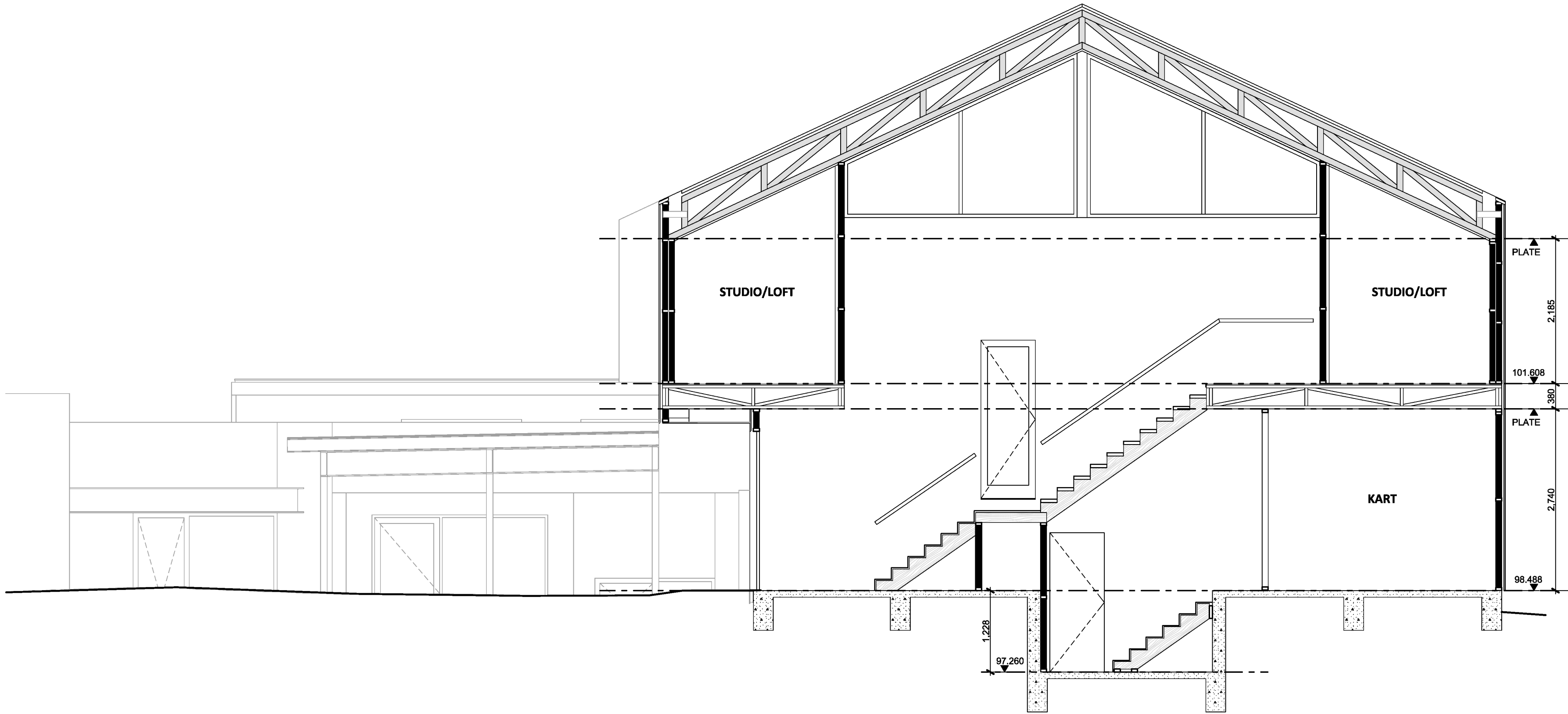
5.8 WATER & GAS SUPPLY - ABOVE GROUND, EXPOSED WATER AND GAS SUPPLY PIPES SHALL BE METAL.
- THESE NOTES ARE NEITHER EXHAUSTIVE NOR A SUBSTITUTE FOR REGULATIONS, STATUTORY REQUIREMENTS, BUILDING PRACTICE OR CONTRACTUAL OBLIGATION, UNLESS EXPRESSLY STATED OTHERWISE, ARE PROVIDED ONLY AS GUIDELINES. NO RESPONSIBILITY IS ACCEPTED FOR THEIR USE

- SAFETY OF BUILDING USERS
- WHERE STAIRS, RAMPS AND BALUSTRADES ARE TO BE CONSTRUCTED, THESE SHALL COMPLY WITH ALL PROVISIONS OF BCA 11.2.
 - OTHER THAN SPIRAL STAIRS
 - RISERS SHALL BE 190MM MAX AND 115MM MIN
 - GOINGS SHALL BE 355MM MAX AND 240MM MIN
 - 2NGS SHALL BE 700MM MAX AND 550MM MIN
 - THERE SHALL BE LESS THAN 125MM GAP BETWEEN OPEN TREADS.
 - ALL TREADS, LANDINGS AND THE LIKE SHALL HAVE A SLIP RESISTANCE CLASSIFICATION OF P3 OR R10 FOR DRY SURFACE CONDITIONS AND P4 OR R11 FOR WET SURFACE CONDITIONS, OR A NOSING STRIP WITH A SLIP-RESISTANCE CLASSIFICATION OF P3 FOR DRY SURFACE CONDITIONS AND P4 FOR WET SURFACE CONDITIONS.
 - BARRIERS SHALL BE PROVIDED WHERE IT IS POSSIBLE TO FALL 1M OR MORE FROM THE LEVEL OF THE TRAFFICABLE SURFACE TO THE SURFACE BENEATH. SUCH BARRIERS (OTHER THAN TENSIONED WIRE BARRIERS) SHALL BE:
 - 1000MM MIN ABOVE FINISHED STAIR LEVEL
 - (F5L) OF BALCONIES, LANDINGS ETC; AND
 - 865MM MIN ABOVE F5L OF STAIR NOSING OR RAMP; AND
 - VERTICAL, WITH GAPS OF NO MORE THAN 125MM.
 - WHERE THE FLOOR BELOW A BEDROOM WINDOW IS 2M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.7.
 - WHERE THE FLOOR BELOW A WINDOW OTHER THAN IN A BEDROOM IS 4M OR MORE ABOVE THE SURFACE BENEATH, THE WINDOW SHALL COMPLY WITH BCA CLAUSE 11.3.8.
 - WHERE A BEDROOM WINDOW IS 2M OR MORE ABOVE THE SURFACE BENEATH, OR IT IS POSSIBLE TO FALL 4M OR MORE FROM THE LEVEL OF ANY TRAFFICABLE SURFACE TO THE SURFACE BENEATH, ANY HORIZONTAL ELEMENT WITHIN A BARRIER BETWEEN 150MM AND 760MM ABOVE THE FLOOR SHALL NOT FACILITATE CLIMBING.
 - HANDRAILS SHALL BE CONTINUOUS, WITH TOPS SET 865MM VERTICALLY ABOVE STAIR NOSING AND FLOOR SURFACE OF RAMPS.
 - WIRE BARRIERS SHALL COMPLY WITH BCA 11.3.4 AND 11.3.6.
 - A GLASS BARRIER OR WINDOW SERVING AS A BARRIER SHALL COMPLY WITH BCA H208.
 - CLASS 1 BUILDINGS WITH AIR PERMEABILITY OF NOT MORE THAN 5 M³/HR.M² AT 50 PA SHALL BE PROVIDED WITH A MECHANICAL VENTILATION SYSTEM COMPLYING WITH HGV3 INWARD-OPENING SWING DOORS TO FULLY ENCLOSED SANITARY COMPARTMENTS SHALL COMPLY WITH BCA CLAUSE 10.4.2.
 - ALL SHOWER WALLS AND WALLS ADJACENT TO TOILET SHALL BE BRACED WITH 12MM PLF FOR FUTURE GRAB RAILS OR SUPPLY NODGINGS WITH A THICKNESS OF AT LEAST 25MM IN ACCORDANCE WITH RECOMMENDATIONS OF LIVEABLE HOUSING DESIGN GUIDELINES.
 - FLOORING IN WET AREAS, LAUNDRY AND KITCHEN SHALL BE SLIP RESISTANT.
 - DOOR HARDWARE SHALL BE INSTALLED 900MM - 1100MM ABOVE THE FINISHED FLOOR.
 - THERE SHALL BE A LEVEL TRANSITION BETWEEN ABUTTING INTERNAL SURFACES (A MAXIMUM VERTICAL TOLERANCE OF 5MM BETWEEN ABUTTING SURFACES IS ALLOWABLE PROVIDED THE LIP IS ROUNDED OR BEVELLED).

- PROTECTION OF THE BUILDING FABRIC
- THE BUILDER SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE STABILITY AND GENERAL WATER TIGHTNESS OF ALL NEW AND/OR EXISTING STRUCTURES DURING ALL WORKS.
 - WINDOWS, DOORS AND SERVICE PENETRATIONS SHALL BE FLASHED ALL AROUND.
 - ALL PLIABLE MEMBRANES SHALL BE INSTALLED TO COMPLY AND BE IN ACCORDANCE WITH BCA 10.8.1
 - GUTTERS AND DRAINAGE SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH AS3501.3
 - ANTI-PONDING DEVICES/BOARDS SHALL BE INSTALLED ACCORDING TO BCA 7.3.5.
 - DAMP COURSES WITH WEEPHOLES AND CAVITY FLASHINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS473.2
 - SURFACES AROUND THE PERIMETER OF A RESIDENTIAL SLAB SHALL FALL AWAY FROM THAT SLAB BY NOT LESS THAN 50MM OVER THE FIRST 1M, WHERE NOT STIPULATED IN THE GEOTECHNICAL REPORT. FREEBOARD SHALL BE NOT LESS THAN 50MM FROM AN IMPERMEABLE SURFACE OR 150MM FROM A PERMEABLE SURFACE.
 - SUBFLOOR VENTS SHALL BE LOCATED 600MM FROM CORNERS AND BE INSTALLED BELOW BEARERS. SUCH VENTS SHALL PROVIDE A RATE PER 1000MM RUN OF EXTERNAL OR INTERNAL CROSS WALLS OF:
 - 7,500MM² CLEAR VENTILATION WHERE PARTICLE BOARD FLOORING IS USED; OR
 - 6,000MM² FOR OTHER SUBFLOOR TYPES.
 - WHERE A BUILDING OTHER THAN DETACHED CLASS 10 IS LOCATED IN A TERMITE-PRONE AREA, THE BUILDING SHALL BE PROVIDED WITH A TERMITE MANAGEMENT SYSTEM COMPLIANT WITH AS3660.1 OR AS3660.2.
 - IN SALINE OR INDUSTRIAL ENVIRONMENTS, MASONRY UNITS, MORTAR, AND ALL BUILT-IN COMPONENTS SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF TABLE 4.1 OF AS4773.1, PART 1: DESIGN.
 - BUILDING TIE-DOWNS SHALL BE APPROPRIATE FOR THE SITE WIND CLASSIFICATION AND PROVIDED IN ACCORDANCE WITH BCA 5.6.6.
 - CORROSION PROTECTION SHALL BE SUITED TO THE SITE CONTEXT AND PROVIDED FOR BUILT-IN STRUCTURAL STEEL MEMBERS SUCH AS STEEL LINTELS, SHELF ANGLES, CONNECTORS, ACCESSORIES (OTHER THAN WALL TIES) IN ACCORDANCE WITH TABLE 4.1 OF AS4773.1 MASONRY IN SMALL BUILDINGS, PART 1: DESIGN.
 - SHEET ROOFING SHALL BE PROTECTED FROM CORROSION IN A MANNER APPROPRIATE TO THE SITE CONTEXT, IN ACCORDANCE WITH BCA TABLE 7.2.2A.
 - SINGLE LEAF MASONRY WALLS SHALL BE WEATHERPROOFED PER BCA 5.7.6.
 - (IN CLIMATE ZONES 6, 7 AND 8) UNLESS EXCLUDED BY BCA 10.8.3(2) ROOFS SHALL BE PROVIDED WITH VENTILATION OPENINGS PER BCA 10.8.3.
 - EXTERNAL WATERPROOFING FOR ON FLAT ROOFS, ROOF TERRACES, BALCONIES AND TERRACES AND OTHER SIMILAR HORIZONTAL SURFACES LOCATED ABOVE INTERNAL SPACES OF A BUILDING SHALL COMPLY WITH BCA H208.
 - WATERPROOFING OF WET AREAS - BEING BATHROOMS, SHOWERS, SHOWER ROOMS, LAUNDRIES, SANITARY COMPARTMENTS AND THE LIKE - SHALL BE PROVIDED IN ACCORDANCE WITH BCA 10.2.
 - BALCONY WATERPROOFING SHALL BE INSTALLED IN ACCORDANCE WITH AS4654.1 & AS4654.2.



SECTION-06
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SECTION-07
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BAL 12.5 CONSTRUCTION AS PER AS3959-2009

- 5.4.1 WALLS - PART OF AN EXTERNAL WALL SURFACE THAT IS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE OF NON COMBUSTIBLE MATERIAL OR 6MM MINIMUM F/C SHEET CLADDING OR BUSHFIRE RESISTING TIMBER.
- 5.4.2 JOINTS - ALL JOINTS TO EXTERNAL SURFACES TO BE LESS THAN 3MM, ALTERNATIVELY SARKING MAY BE APPLIED TO THE OUTER FACE OF FRAME PRIOR TO FIXING ANY EXTERNAL CLADDING.
- 5.4.3 VENTS & WEEPHOLES - VENTS & WEEPHOLES IN EXTERNAL WALLS SHALL BE SCREENED WITH A MESH WITH A MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM, EXCEPT WHERE THE WEEPHOLES ARE LESS THAN 3MM.
- 5.5.2 WINDOWS - FOR WINDOWS LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, FRAME AND JOINERY SHALL BE OF A BUSHFIRE RESISTING TIMBER OR METAL EXTERNALLY FITTED HARDWARE SHALL BE METAL. GLAZING LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS SHALL BE GRADE A SAFETY GLASS MINIMUM 4MM, OR GLASS BLOCK WITH NO RESTRICTION ON GLAZING METHOD.
- 5.5.3 DOORS - DOORS SHALL BE NON-COMBUSTIBLE OR SOLID TIMBER 35MM THICK. MINIMUM. GLASS IN DOORS SHALL COMPLY WITH GLAZING REQUIREMENTS THAT OF WINDOWS. FRAMING AROUND GLAZING SHALL BE OF A NON COMBUSTIBLE MATERIAL OR BUSHFIRE RESISTING TIMBER. DOORS SHALL BE TIGHT FITTING TO THE DOORFRAME AND ABUTTING DOORS. ANY PART OF A DOOR ASSEMBLY LESS THAN 400MM FROM THE GROUND, OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS AND SIMILAR ELEMENTS, AND JOINERY SHALL BE OF A BUSHFIRE RESISTING TIMBER OR METAL. WEATHER STRIPS/SEALS SHALL BE INSTALLED AT THE BASE OF ALL HUNG DOORS.
- 5.5.4 GARAGE DOORS - ANY PART OF THE GARAGE DOOR LESS THAN 400MM FROM THE GROUND WHEN CLOSED SHALL BE MADE FROM A NON COMBUSTIBLE MATERIAL OR 6MM MINIMUM F/C SHEET CLADDING OR BUSHFIRE RESISTING TIMBER. PANEL/TILT UP SIDE HUNG DOORS SHALL BE FITTED WITH SUITABLE WEATHER STRIPS/SEALERS. ROLLER DOORS SHALL BE FITTED WITH GUIDE TRACKS THAT INCLUDE A NYLON BRUSH THAT IS IN CONTACT WITH THE DOOR. MAXIMUM GAPS NO GREATER THAN 3MM. SHEET ROOFING SHALL BE NON-COMBUSTIBLE. ROOF/WALL JUNCTIONS ARE TO BE SEALED TO PREVENT OPENINGS GREATER THAN 3MM. ROOF VENTILATION OPENINGS SHALL BE FITTED WITH EMBER GUARDS OF A NON COMBUSTIBLE MATERIAL WITH A MAXIMUM APERTURE OF 2MM. ROOFS SHALL BE FULLY SARKED, EXCEPT THAT DIL BACKED INSULATION MAY BE INSTALLED FOR SHEET ROOFS.
- 5.6.4 VERANDAH/CARPORT ROOFS - VERANDAH OR CARPORT ROOFS THAT FORM PART OF THE MAIN ROOF SPACE SHALL MEET THE REQUIREMENTS OF THE MAIN ROOF. VERANDAH OR CARPORT ROOFS THAT ARE SEPERATED FROM THE MAIN ROOF SHALL HAVE A NON-COMBUSTIBLE ROOF COVERING. NO LININGS REQUIRED TO UNDERLIE A VERANDAH OR CARPORT THAT IS SEPERATED FROM THE MAIN ROOF.
- 5.6.5 ROOF PENETRATIONS - ROOF PENETRATIONS SHALL BE ADEQUATELY SEALED TO PREVENT GAPS GREATER THAN 3MM. MAXIMUM. USED TO SEAL THE PENETRATIONS SHALL BE NONCOMBUSTIBLE ALL OVERHEAD GLAZING SHALL BE GRADE A LAMINATED LAMINATED SAFETY GLASS COMPLYING WITH AS1288. VENT PIPES MADE FROM PVC ARE PERMITTED.
- 5.6.6 EAVES LININGS, FASCIAS AND GABLES - GABLES ARE TO COMPLY THE SAME AS PER WALLS. EAVES PENETRATIONS SHALL BE TREATED THE SAME AS ROOF PENETRATIONS. VENTS SHALL BE FITTED WITH EMBER GUARDS WITH A MAXIMUM APERTURE OF 2MM MADE OF CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM. JOINTS IN EAVES OR GABLES MAY BE FITTED WITH PLASTIC JOINING STRIPS OR TIMBER STORM MOULDS.
- 5.6.7 GUTTERS & DOWNPIPES - IF INSTALLED, GUTTER AND VALLEY LEAF GUARDS SHALL BE NONCOMBUSTIBLE. BOX GUTTERS AND ASSOCIATED FLASHINGS SHALL BE OF A NON-COMBUSTIBLE MATERIAL.
- 5.7.2.4 DECKING - DECKING LESS THAN 300MM MEASURED HORIZONTALLY FROM ANY GLAZED ELEMENTS THAT ARE WITHIN 400MM MEASURED VERTICALLY FROM THE DECK ARE TO BE A NON COMBUSTIBLE MATERIAL OR A BUSHFIRE RESISTING TIMBER.
- 5.8 WATER & GAS SUPPLY - ABOVE GROUND, EXPOSED WATER AND GAS SUPPLY PIPES SHALL BE METAL.

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