



Reference number 3278

Member of the Fire Protection Association of Australia

## **Lot 4C, DP 13374, 1058 Barrenjoey Road, Palm Beach, NSW 2108.**

Friday, 19 March 2021

Prepared and certified by:	Matthew Willis <i>BPAD – Level 3 Certified Practitioner</i> Certification No: BPD-PA 09337		19/03/2021
Can this proposal comply with AS3959-2018 (inc section 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019)?	<b>Yes</b>		
What is the recommended AS 3959-2018 level of compliance?	<b>BAL-29</b>		
Is referral to the RFS required?	<b>At the discretion of Council</b>		
Can this development comply with the requirements of PBP?	<b>Yes</b>		
Plans by "Rapid Plans" (Appendix 1) dated.	<b>4/3/21</b>		

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# **Bushfire Risk Assessment**

*Friday, 19 March 2021*

### **Contact**

*Carly Tracy*

*Rapid Plans*

*PO Box 6193*

*Frenchs Forest NSW 2086*

*9905 5000*

### **Subject Property**

*Lot 4C, DP 13374*

*1058 Barrenjoey Road*

*Palm Beach NSW 2108*

## BUSHFIRE RISK ASSESSMENT CERTIFICATE

**THIS FORM IS TO BE COMPLETED BY A RECOGNISED CONSULTANT IN BUSHFIRE RISK ASSESSMENT IN ACCORDANCE WITH SECTION 79BA 1(b) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 NO 203**

Property Address	Lot 4C, DP 13374, number 1058 Barrenjoey Road Palm Beach
Description of the Proposal	Alterations and additions to an existing dwelling
Plan Reference	4/3/21
BAL Rating	BAL-29
Does the Proposal Rely on Alternate Solutions?	<b>Yes</b>

I, **Matthew Willis of Bushfire Planning Services Pty Ltd** have carried out a bushfire risk assessment on the above-mentioned proposal and property. A detailed Bushfire Assessment Report is attached which includes the submission requirements set out in Planning for Bushfire Protection 2019 together with recommendations as to how the relevant Specifications and requirements are to be achieved.

I hereby advise, in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203:

1. That I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment; and

2. That subject to the recommendations contained in the attached Bushfire Risk Assessment Report the proposed development conforms to the relevant specifications and requirements\*

\*The relevant specifications and requirements being specifications and requirements of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other document as prescribed by Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203.

I am aware that the Bushfire Assessment Report, prepared for the above-mentioned site is to be submitted in support of a development application for this site and will be relied upon by Northern Beaches Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with Planning for Bushfire Protection 2019.

<b>REPORT REFERENCE</b>	<i>Friday, 19 March 2021</i>
<b>REPORT DATE</b>	<i>Friday, 19 March 2021</i>
<b>CERTIFICATION NO/ACCREDITED SCHEME</b>	<i>FPA A BPAD A BPD-PA 09337</i>

**Attachments:**

- Bushfire Risk Assessment Report
- Recommendations

**SIGNATURE:** ---  ----- **DATE:** ----Friday, 19 March 2021

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# 1 Executive Summary.

Bushfire Planning Services has been requested by Carly Tracy from Rapid Plans to supply a bushfire compliance report on lot 4C, DP 13374, 1058 Barrenjoey Road, Palm Beach.

The works proposed for the subject lot are for the alterations and additions to an existing dwelling, see attached plans for details.

The subject lot is on the eastern side of Barrenjoey Road and at its closest point to the hazard the proposed new work has a separation distance to the east of approximately 15.5m.

The vegetation that is considered to be the hazard to this proposal is situated on land that slopes up slope away from the property at an angle greater than 10 degrees.

For the purposes of this assessment this vegetation is considered to be Forest.

The remaining vegetation within the study area is contained within the boundaries of established allotments and is managed land and of low threat to this proposal.

The calculations and assumptions outlined in this report show that the development will be required to comply with the construction requirements of AS 3959-2018 BAL-29 and any additional construction requirements contained within section 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019.

The following table is a summary of the pertinent findings of this assessment.

Aspect	North	East	South	West
<b>Vegetation type</b>	Managed land	Managed land/forest	Managed land	Managed land
<b>Slope</b>	N/A	All Upslope and Flat Land	N/A	N/A
<b>Setback within lot 4C</b>	N/A	15.5m	N/A	N/A
<b>Setback outside lot 4C</b>	N/A	0m	N/A	N/A
<b>Total setback</b>	N/A	15.5m	N/A	N/A
<b>Bal level</b>	N/A	BAL-29 <sup>1</sup>	N/A	N/A

*Note: The above table is a summary of the significant variables used to determine the highest BAL for this proposal. THIS TABLE IS NOT INTENDED FOR CONSTRUCTION! Only the highest BAL level is shown, aspects marked as N/A will still have a BAL. Refer to section 11 for construction requirements for these other aspects.*

<sup>1</sup> By method 2 calculations.

---

## 2 General.

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This proposal relates to the alterations and additions to an existing dwelling on the subject lot and its ability to comply with the rules and regulations for building in a bushfire prone area.

The methodology used on this report is based on Planning for Bushfire Protection 2019 (PBP) as published by the New South Wales Rural Fire Service.

Any wording that appears in *blue italics* is quotes from Planning for Bushfire Protection 2019. Some of the measurements used in this report have been taken from aerial photographs and as such are approximate only.

## 3 Block Description.

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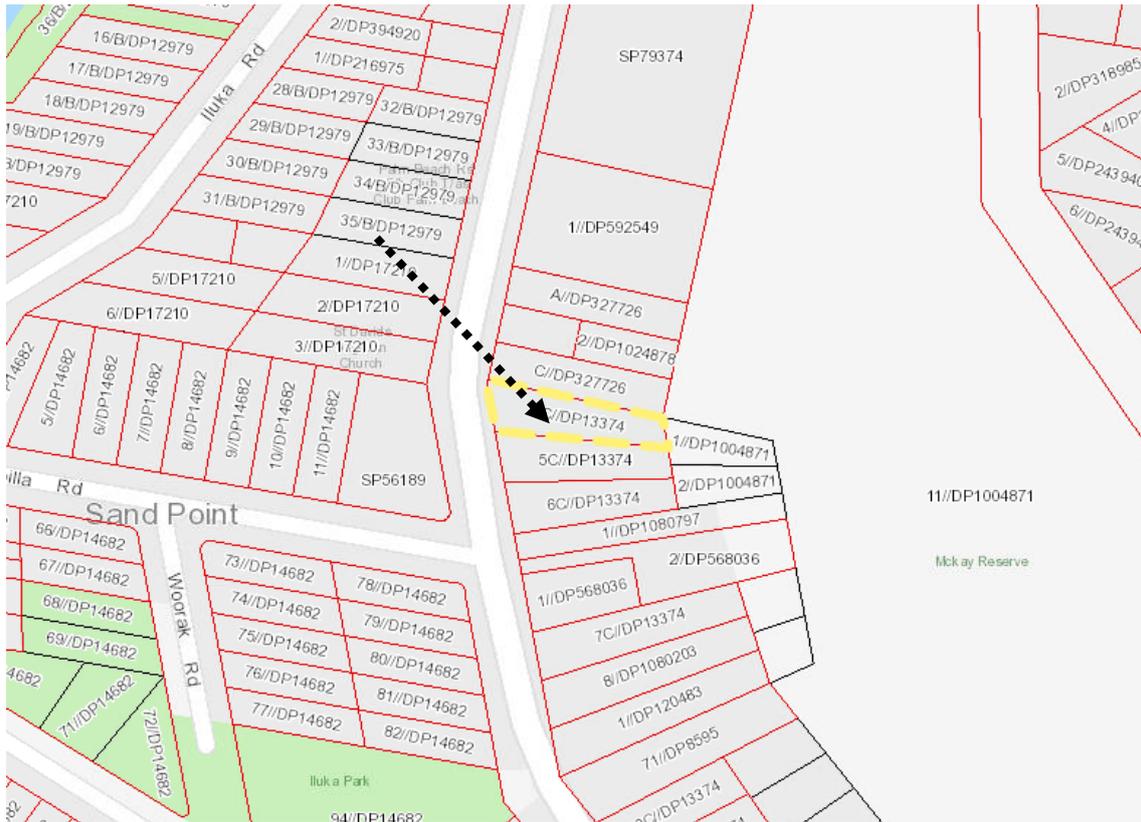
The subject block is situated on the eastern side of Barrenjoey Road in an established area of Palm Beach.

The lot currently contains a multi-level class 1 dwelling.

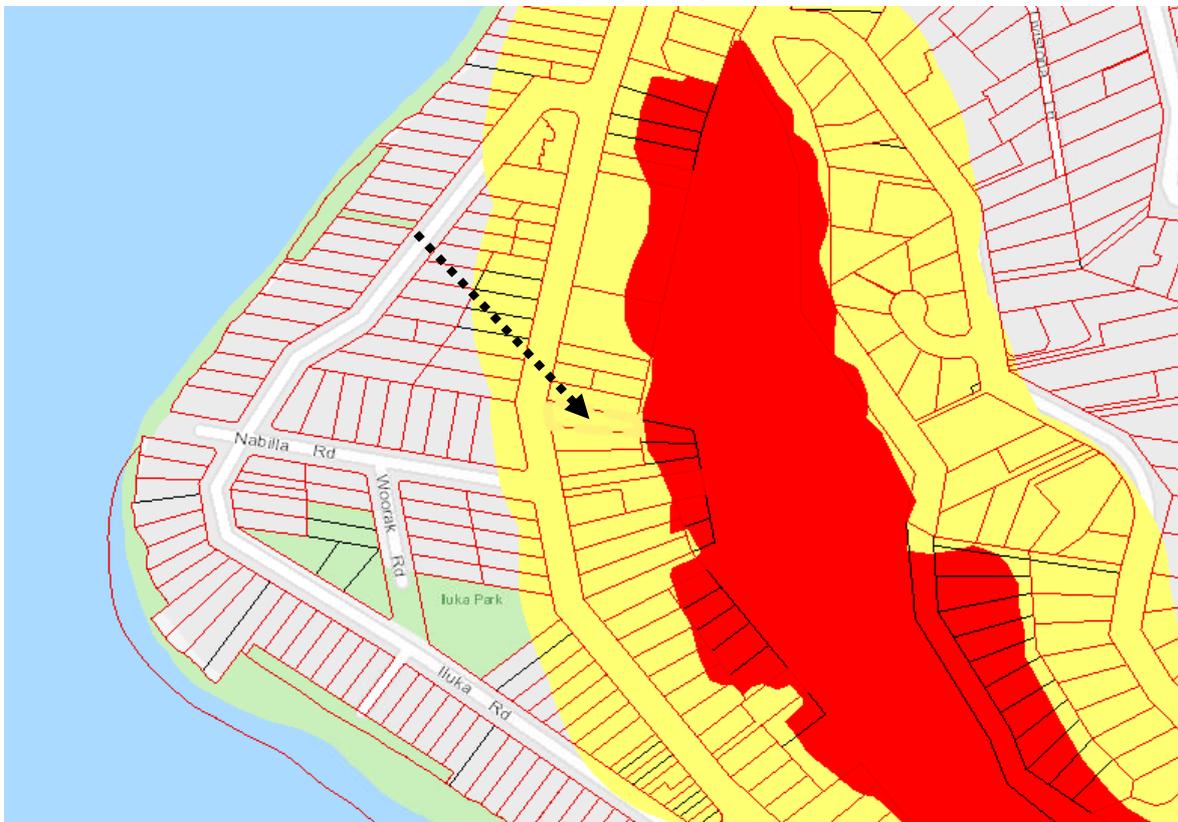
The lands surrounding the proposed site on the subject lot to a distance of at least 15.5m contain existing development or land that is otherwise not considered to be a significant bushfire hazard.

- Lot; 4C
- DP; 13374.
- LGA; Northern Beaches.
- Area; 821.2m<sup>2</sup>.
- Address; 1058 Barrenjoey Road, Palm Beach.

*This section has been left blank.*



Map 1 shows the cadastral layout around the subject lot.



Map 2 is an extract from the councils' bushfire prone land map. The map shows lot 4C to be within the buffer zone of category 1 bushfire vegetation.

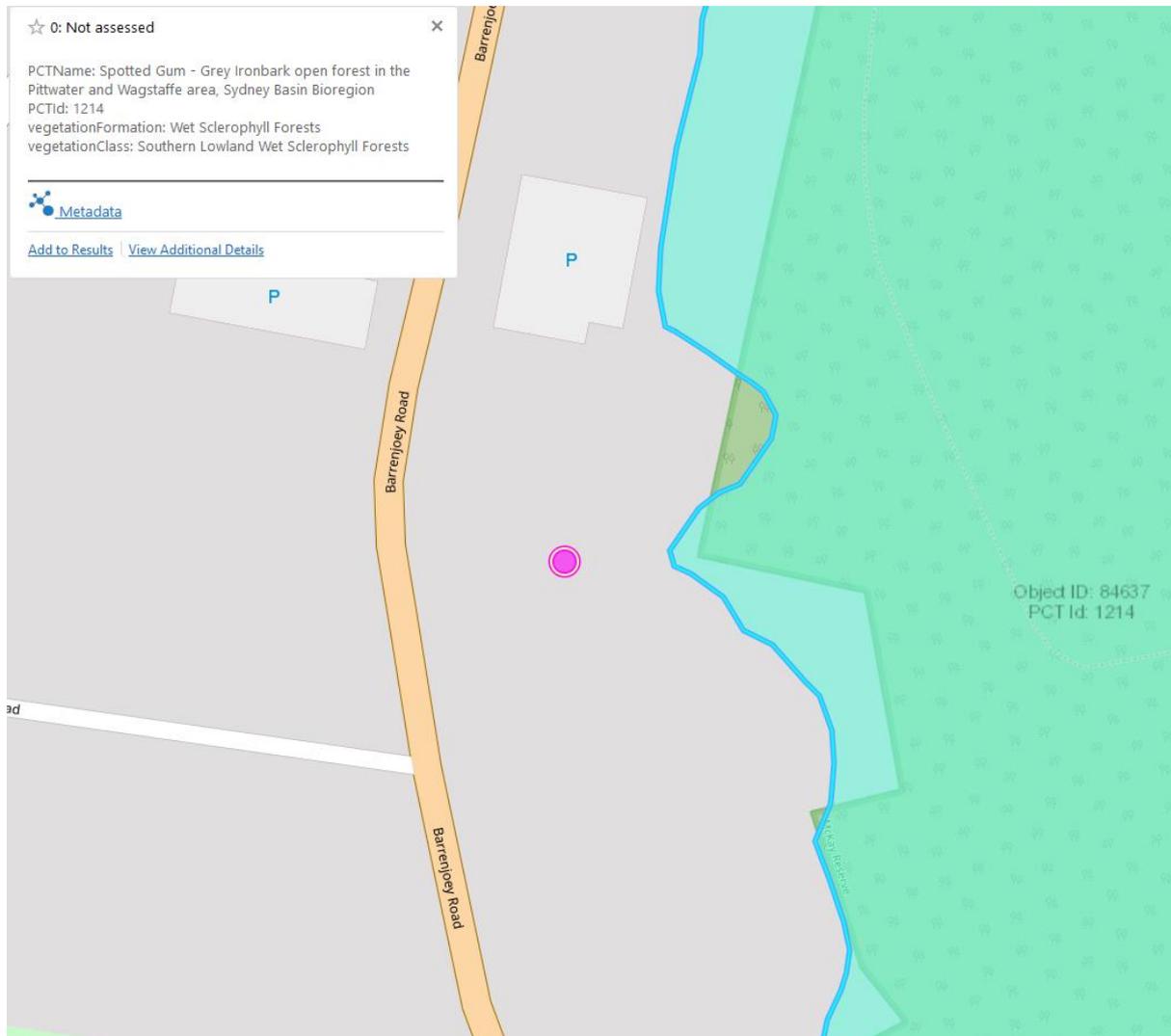
## 4 Vegetation.

The study area for the vegetation is 140m surrounding the subject block.

The vegetation within the study area for this development is considered to be largely managed land.

The major potential hazard to this development is the vegetation within an area of undeveloped land to the east.

This vegetation has been identified as Southern Lowland Wet Sclerophyll forest. The following image is from the NSW Government “Seed” database.





### *Description*

*Stands of spotted gum (Corymbia maculata) mark this distinctive forest on the foreshores and escarpments of the Pittwater peninsula. These trees form a tall open forest that may also include grey ironbark (Eucalyptus paniculata) and broad-leaved white mahogany (Eucalyptus umbra).*

*At the lower heights of the eucalypt stratum it is common to find an open cover of forest oak (Allocasuarina torulosa). The midstory usually comprises a mixed layer of mesic and dry shrub species and occasional palms. Shrub species include blueberry ash (Elaeocarpus reticulatus), scentless rosewood (Synoum glandulosum subsp. glandulosum), narrow-leaved geebung (Persoonia linearis) and mountain holly (Podolobium ilicifolium).*

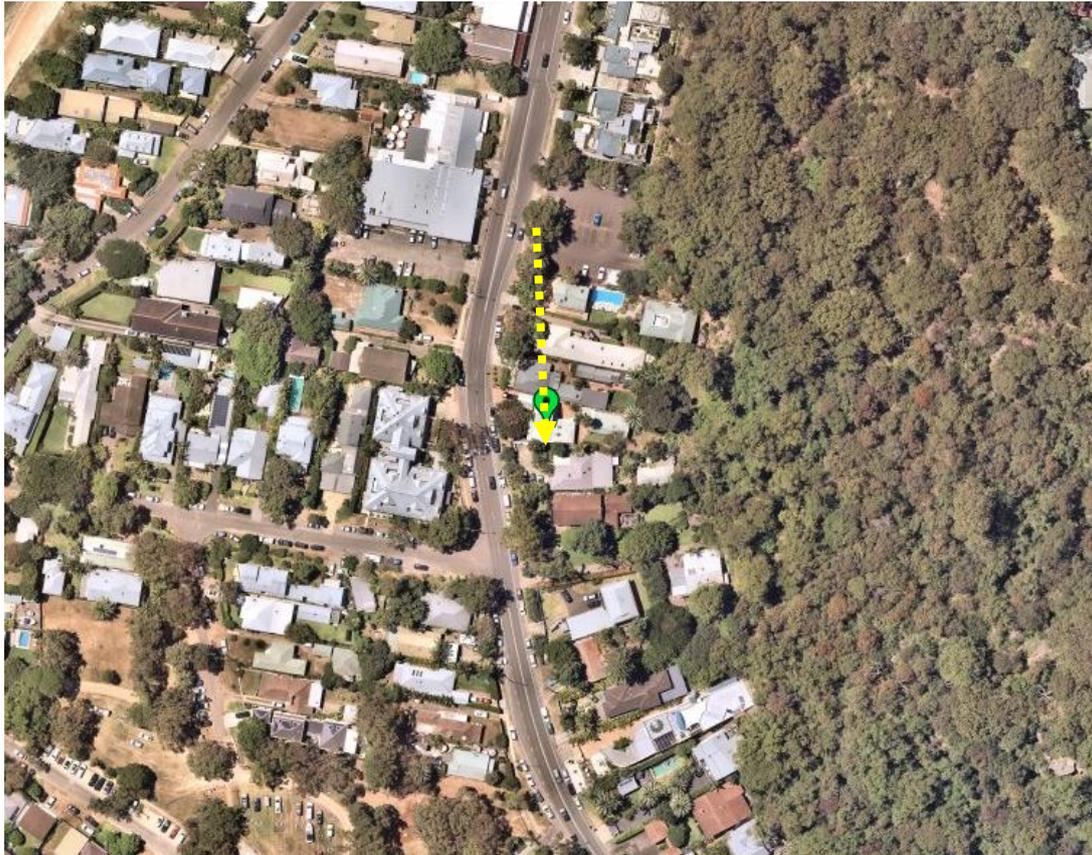
*Like many spotted gum forests along coastal New South Wales burrawang (Macrozamia communis) can assume a prominent component of the ground layer above a scatter of grasses, ferns and small vines.*

*At times the ground layer appears very grassy, with an abundance of blady grass (Imperata cylindrica var. major) notable where there is a history of frequent fire.*

*Pittwater Spotted Gum Forest has recently been subject to review by Bell and Stables (2012). These authors concluded that this forest has a close association with Narrabeen sediments exposed on rises, escarpments and footslopes throughout northern Pittwater LGA and Wagstaff peninsula in the Gosford LGA.*

*The forest spans a number of aspects and topographic positions but is rarely found above 100 metres above sea level. It receives between 1150 and 1300 millimetres of mean annual rainfall.*

*It is estimated that 75 per cent of its pre-European distribution has been cleared in the Pittwater and Gosford urban areas (Bell and Stables 2012) with some remaining stands impacted by the encroachment of urban weeds.*



*Photo 1 - An overview of the vegetation within the general area.*



*Photo 2 is a closer view of the vegetation in the area.*

Table 1 outlines the vegetation orientation and distance from the development area.

Aspect	North	East	South	West
Vegetation type	Managed land	Managed land/forest	Managed land	Managed land
Setback within lot 4C	N/A	15.5m	N/A	N/A
Off-site setback	N/A	0m	N/A	N/A
Total setback	N/A	15.5m	N/A	N/A

*Table 1 - Any aspect marked with "N/A" in the table above indicates that it is considered there is none or only a secondary hazard in that direction.*

## 5 Known constraints on subject block.

I have not been informed or know of any places of cultural or environmental significance within the boundaries of the subject block. Given the nature of the surrounding land it is considered highly unlikely that anything of significance will be affected by this development.

## 6 Slope.

The slope of the land beneath the hazard that is most likely to influence bushfire behaviour has been calculated by topographical map analysis to a distance of 100m from the subject lot.

An extract of the topographical map for the area is shown below and the relevant slope analysis is shown in Table 2.



Table 2 shows the slope beneath the hazard.

Aspect	North	East	South	West
Slope	N/A	All Upslope and Flat Land	N/A	N/A

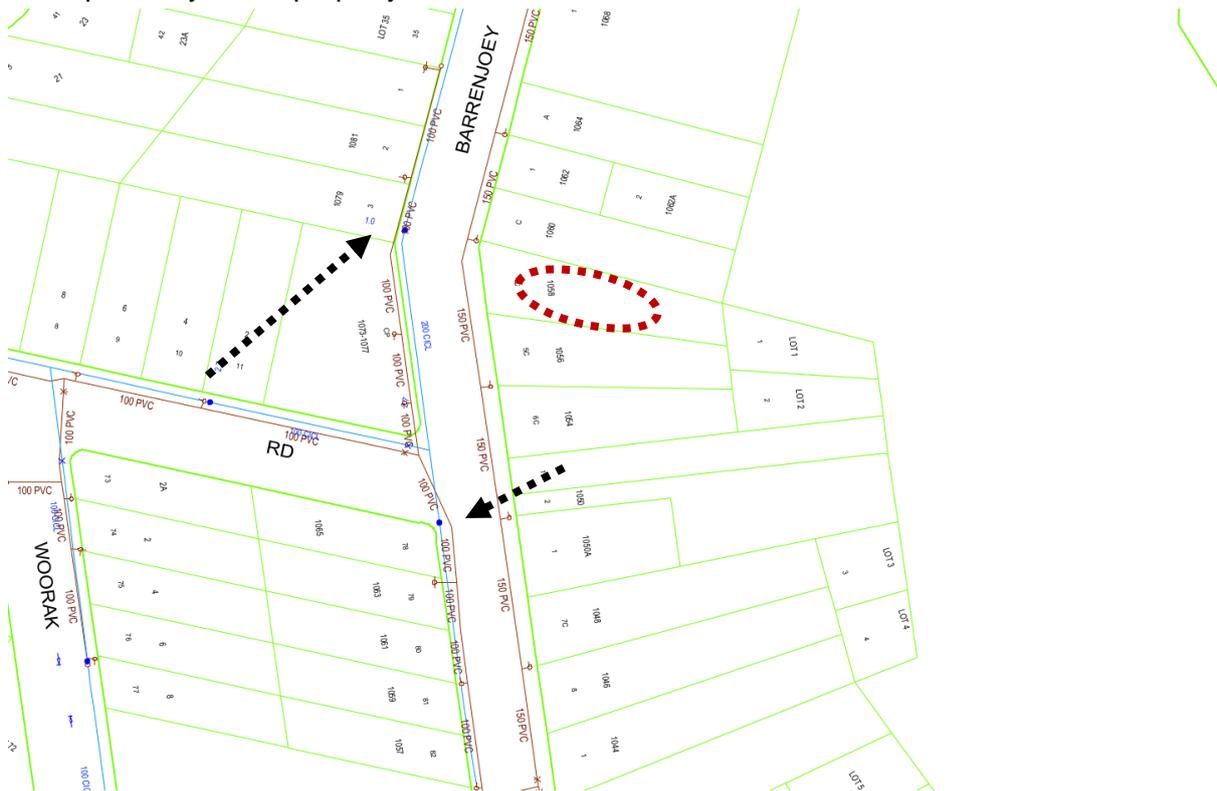
*Table 2 - Any aspect marked with "N/A" in the table above indicates that it is considered there is no hazard in that direction.*

## 7 Utilities.

### 7.1 Water.

The subject block will be serviced by a reticulated water supply.

The following map is an extract from Sydney waters hydrant map. Hydrants are indicated by a blue dot on a blue line. As can be seen there is at least one hydrant point indicated within close proximity of the property.



### 7.2 Electricity

Main's electricity is available to the block.

### 7.3 Gas

It is unknown if either bottled or mains gas is to be altered or installed in this proposal.

## 8 Access/Egress.

Access to the development site will be via a short private driveway from Barrenjoey Road.

All roads in the vicinity are considered to be capable of carrying emergency services vehicles and pedestrian access onto the lot is also considered to be adequate.

### *Analysis of development and recommendation.*

## 9 Compliance with Planning for Bushfire Protection setbacks.

In this instance a performance based assessment in line with the requirements of AS3939 Method 2 has been undertaken to determine the BAL for this proposal. The upslope beneath the vegetation has been capped at 10 degrees for the purposes of assessment.

The following table shows the variables and outcomes of this assessment.

**Assessment Run**

Attack Assessment | Vegetation Characteristics | Short Fire Run Results | Calculation Constants | BAL Threshold Results

**Assessment Details**

Run Description:	East		<input type="button" value="Run Calc"/>	<input type="checkbox"/> Override Slope Kataburn
Filter Vegetation Class:	NSW Comprehensive Fuel Loads			
Vegetation Type:	Southern Lowlands WSF (Grassy)			
Separation Distance (m):	15.5	Slope Unit: Degrees		
Vegetation Slope:	10	Vegetation Slope Type: Upslope		
Site Slope:	13.35	Site Slope Type: Upslope		
Flame Width (m):	100	Flame Temp (K): 1090		
Elevation of Receiver (m):	Default	Note: Leave as Default to copy peak elevation.		
Heat Shield Height (m):	0	Note: Measured directly against the vegetation.		
Heat Shield Width (m):	0	Note: Measured in the centre of the vegetation.		

**Short Fire Run Inputs**

Calculate Short Fire Run	<input type="checkbox"/>	Fire Run (m):	0
Forest Flame Model:	McArthur	Vegetation Height (m):	0.9

**Results**

Radiant Heat (kW/m <sup>2</sup> ):	27.2	Rate Of Spread (km/h):	1.2	<input type="checkbox"/> Override ROS
Flame Length (m):	11.76	Transmissivity:	0.856	<input type="checkbox"/> Override Transmissivity
Construction Level:	BAL 29	Peak Elevation of Receiver (m):	8.47	<input type="checkbox"/> Override Flame Angle
Fire Intensity (kW/m):	20400	Flame Angle (degrees):	55	<input type="checkbox"/> Override View Factor
Inner Protection Area (m):	9	Maximum View Factor:	0.418	
Outer Protection Area (m):	6	Shielded View Factor:	0	

For the purpose of this assessment the eastern aspect has been chosen as the most potentially hazardous aspect due to the effective slope, potential run of fire and the prevailing fire weather of the area.

## 10 Siting.

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The current site provides adequate separation between the proposed building and surrounding vegetation for a compliant structure to be built.

**Recommendation;**

Nil.

## 11 Construction and design.

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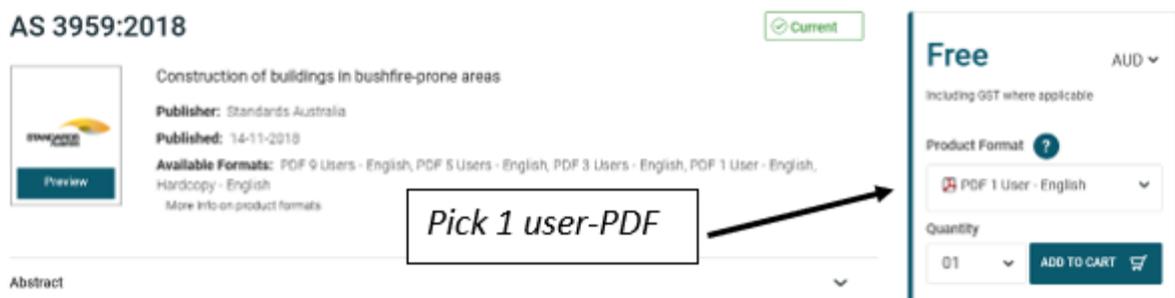
All new work is to be undertaken in accordance with the relevant requirements of the NCC and AS3959 2018. The following recommendations are a minimum level of construction. Constructing the proposal to a higher level than that recommended is allowable under AS3959.

**Recommendation; all new work.**

1. New construction shall comply with the requirements of section 3 of Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" and,
2. New construction shall also comply with the requirements of BAL-29 Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" or NASH Standard "National Standard Steel Framed Construction in Bushfire Areas" and any additional construction requirements contained within section 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019.
3. New roofing valleys and guttering should be fitted with a non-combustible leaf protection to stop the accumulation of debris.

*AS-3959 2018 is now available as PDF for free from;*

[https://infostore.saiglobal.com/en-au/standards/as-3959-2018-122340\\_saig\\_as\\_as\\_2685241/](https://infostore.saiglobal.com/en-au/standards/as-3959-2018-122340_saig_as_as_2685241/)



**AS 3959:2018** Current

Construction of buildings in bushfire-prone areas

**Publisher:** Standards Australia  
**Published:** 14-11-2018  
**Available Formats:** PDF 9 Users - English, PDF 5 Users - English, PDF 3 Users - English, PDF 1 User - English, Hardcopy - English  
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## 12 Utilities.

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### 12.1 Water.

The proposed development will have access to a reticulated water supply. There is at least one hydrant indicated within the required distance from the dwelling.

**Recommendation;**

Nil.

### 12.2 Electricity and Gas.

**Recommendation;**

4. Any new electricity or gas connections are to comply with the requirements of table 7.4a of Planning for Bushfire Protection.

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## 13 Asset Protection Zone (APZ).

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The Asset Protection Zone is *“An area surrounding a development managed to reduce the bushfire hazard to an acceptable level. The width of an APZ will vary with slope, vegetation and construction level”*.

**Recommendation;**

5. At the commencement of building works and in perpetuity the entire property shall be managed as an Asset Protection Zone in accordance with the requirements of Planning for Bushfire Protection, the RFS document Standards for Asset Protection Zones and in a manner that does not create a bushfire hazard to the property.

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## 14 Landscaping.

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**Recommendation;**

6. Any new fencing is to be constructed in accordance with section 7.6 of Planning for Bushfire Protection 2019.
7. Any new landscaping to the site is to comply with the principles of Appendix 4 and section 3.7 of Planning for Bush Fire Protection 2019. In this regard the following landscaping principles are, where applicable, to be incorporated into the development<sup>2</sup>:
  - Suitable impervious areas being provided immediately surrounding the building such as courtyards, paths and driveways;

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<sup>2</sup>Refer to referenced documents for a complete description.

- Grassed areas/mowed lawns/ or ground cover plantings being provided in close proximity to the building;
- Restrict planting in the immediate vicinity of the building which may over time and if not properly maintained come in contact with the building;
- Maximum tree cover should be less than 30%, and maximum shrub cover less than 20%;
- Planting should not provide a continuous canopy to the building (i.e. trees or shrubs should be isolated or located in small clusters);
- When considering landscape species consideration needs to be given to estimated size of the plant at maturity;
- Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies;
- Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown;
- Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter);
- Avoid climbing species to walls and pergolas;
- Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building;
- Locate combustible structures such as garden sheds, pergolas and materials such timber garden furniture way from the building; and
- Use of low flammability vegetation species.

## **15 Constraints on the subject block.**

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None known.

**Recommendation;**

Nil

## **16 Access/Egress.**

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All roads in the area are considered to be capable of handling emergency service vehicles. Access from the roadway onto the property is also considered to be adequate for firefighting purposes.

**Recommendation**

Nil

## **17 Compliance or non compliance with the specifications and requirements for bushfire protection measures.**

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<p><b>APZ</b></p> <p>A defensible space is provided onsite.</p> <p>An APZ is provided and maintained for the life of the development.</p>	<p>Achievable with the implementation of the recommendations in section 13</p>
<p><b>SITING AND DESIGN:</b></p> <p>Buildings are sited and designed to minimise the risk of bush fire attack.</p>	<p>Achievable with the implementation of the recommendations in section 10</p>
<p><b>CONSTRUCTION STANDARDS:</b></p> <p>It is demonstrated that the proposed building can withstand bush fire attack in the form of wind, smoke, embers, radiant heat and flame contact.</p>	<p>Achievable with the implementation of the recommendations in section 11</p>
<p><b>ACCESS</b></p> <p>Safe, operational access is provided (and maintained) for emergency services personnel in suppressing a bush fire while residents are seeking to relocate, in advance of a bush fire, (satisfying the intent and performance criteria for access roads in sections 4.1.3 and 4.2.7).</p>	<p>Achievable with the implementation of the recommendations in section 16</p>
<p><b>WATER AND UTILITY SERVICES:</b></p> <ul style="list-style-type: none"> <li>• adequate water and electricity services are provided for firefighting operations</li> <li>• Gas and electricity services are located so as not to contribute to the risk of fire to a building.</li> </ul>	<p>Achievable with the implementation of the recommendations in section 12</p>
<p><b>LANDSCAPING:</b></p> <ul style="list-style-type: none"> <li>• it is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind driven embers to cause Ignitions.</li> </ul>	<p>Achievable with the implementation of the recommendations in section 14</p>

## 18 Conclusions.

Based on the above report and with the implementation of the recommendation contained within this report the consent authority should determine that this development can comply with the requirements of AS 3959-2018 and 'Planning for Bushfire Protection' guidelines.

The recommendations contained within this report are to be implemented in their entirety. Changing one aspect may have an adverse effect on the rest of the recommendations.

Bushfires are affected by many external influences such as climactic conditions, vegetation type, moisture content of the fuel, slope of the land and human intervention to name a few and are difficult to predict.

This report does not intend to provide a guarantee that the subject property will survive if a bushfire should impact the surrounding area. The purpose of this report is to show the

developments level of compliance or in some cases non-compliance with the New South Wales legislation regarding building in bushfire prone areas.

Where non-compliance is found measures will be suggested that should make the building less susceptible to the various attack mechanisms of a bushfire and comply with the performance requirements of the Building Code of Australia.

The opinions expressed in this report are based on the writers' experience and interpretation of the relevant guidelines and standards. Notwithstanding the above, these guidelines and standards are open to interpretation. All care has been taken to ensure that the opinions expressed in this report are consistent with past successful outcomes.

Some of the information used in the compilation of this assessment has been provided by the proponent or the proponent's representatives. While we believe this information to be true and have accepted the information in good faith however this company or its representatives will not accept any responsibility if the provided information is determined to be incorrect.

This document is to assist the consenting authorities with their assessment of this proposal. The recommendations contained in this assessment reflect the normal conditions that are typically applied by the consent authority for a proposal such as this however the conditions of consent for the proposal will be supplied by the certifying authority on approval of the development and may not necessarily be the same as the recommendations of this assessment.

The recommendations in this assessment are for planning guidance only, construction details and compliance with all building requirements are the responsibility of the Architect/Designer, Builder and Certifier.

To avoid confusion, unless specifically referenced by the consenting authority, it is strongly recommended that once this proposal has been approved that this document is no longer referenced and that only the official conditions of consent as reflected in documentation by the certifying body are used for construction guidance.

If any further clarification is required for this report, please do not hesitate to contact me using the details above.

Yours Sincerely



**Matthew Willis**

*Grad Dip Planning for Bushfire Prone Areas*

*Bushfire Planning Services Pty Limited*

## 19 References.

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- *Australian Building Codes Board (2019). National Construction Code Volume One - Building Code of Australia. ABCB*
- *Australian Building Codes Board (2019). National Construction Code Volume two - Building Code of Australia. ABCB.*
- *Keith, D.A. (2004). Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT. NSW Department of Environment and Conservation.*
- *National Association of Steel Framed Housing (2014). "Steel Framed Construction in Bush Fire Areas. NASH*
- *Ramsay, C and Rudolph, L (2003) "Landscape and Building Design for Bush fire Areas". CSIRO Publishing, Collingwood.*
- *Resources and Energy NSW (2016). ISSC 3 Guide for the Managing Vegetation in the Vicinity of Electrical Assets. NSW Government*
- *Rural Fire Service NSW (2005) "Standards for Asset Protection Zones"*
- *Standards Australia (2018). "AS 3959, Construction of buildings in bush fire prone areas".*
- *Standards Australia (2018). "AS/NZS 1530.8.1 Methods for fire tests on building materials, components and structures - Tests on elements of construction for buildings exposed to simulated bush fire attack - Radiant heat and small flaming sources".*
- *Standards Australia (2018). "AS/NZS 1530.8.2 Methods for fire tests on building materials, components and structures - Tests on elements of construction for buildings exposed to simulated bush fire attack - Large flaming sources".*
- *Standards Australia (2014). "AS/NZS 1596 The storage and handling of LP Gas".*

## 20 Appendix 1 - Plans .

Sheet Size: A3

Rapid Plans [www.rapidplans.com.au](http://www.rapidplans.com.au)  
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Fax: (02) 9905-8865 Mobile: 0414-945-024  
Email: [gregg@rapidplans.com.au](mailto:gregg@rapidplans.com.au)

**DEVELOPMENT APPLICATION**  
**Alterations & Additions To Existing Residence**  
**For Hilary and Stephen Darke**  
**1058 Barrenjoey Road, Palm Beach**  
**Lot 4C D.P. 13374**  
**Project Number: RP1120DAR**

**bdaa**  
BUILDING DESIGNERS  
ASSOCIATION OF AUSTRALIA

**bdaa**  
ACCREDITED  
BUILDING DESIGNER

DRAWING No.	DESCRIPTION	REV	ISSUED DATE
DA1000	Cover Sheet	-	4/3/21
DA1001	A4 NOTIFICATION PLAN	-	4/3/21
DA1002	SITE SURVEY	-	4/3/21
DA1003	SITE SURVEY 2	-	4/3/21
DA1004	SITE PLAN	-	4/3/21
DA1005	Demolition Ground Floor Plan	-	4/3/21
DA1006	Existing Ground Floor Plan	-	4/3/21
DA1007	Existing First Floor Plan	-	4/3/21
DA1008	Demolition First Floor Plan	-	4/3/21
DA1009	Excavation & Fill Plan	-	4/3/21
DA1010	Landscape Open Space Plan Existing	-	4/3/21
DA1011	Landscape Open Space Plan Proposed	-	4/3/21
DA1012	Landscape Plan	-	4/3/21
DA1013	Sediment & Erosion Plan	-	4/3/21
DA1014	Waste Management Plan	-	4/3/21
DA1015	Stormwater Plan	-	4/3/21
DA2001	GROUND FLOOR	-	4/3/21
DA2002	GROUND FLOOR 2	-	4/3/21
DA2003	FIRST FLOOR	-	4/3/21
DA2004	ROOF	-	4/3/21
DA3000	SECTION 1	-	4/3/21
DA3001	SECTION POOL	-	4/3/21
DA4000	ELEVATIONS 1	-	4/3/21
DA4001	ELEVATIONS 2	-	4/3/21
DA4002	ELEVATIONS 3	-	4/3/21
DA5000	PERSPECTIVE	-	4/3/21
DA5001	MATERIAL & COLOUR SAMPLE BOARD	-	4/3/21
DA5002	SHADOW PLAN 21st June 9am	-	4/3/21
DA5003	SHADOW PLAN 21st June 12pm	-	4/3/21
DA5004	SHADOW PLAN 21st June 3pm	-	4/3/21

**BASIX Certificate**  
Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)  
**Alterations and Additions**  
Certificate number: A408954

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Alterations and Additions Definitions" dated 06/10/2017 published by the Department. This document is available at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

Secretary  
Date of issue: Thursday, 04, March 2021  
To be valid, this certificate must be lodged within 3 months of the date of issue.

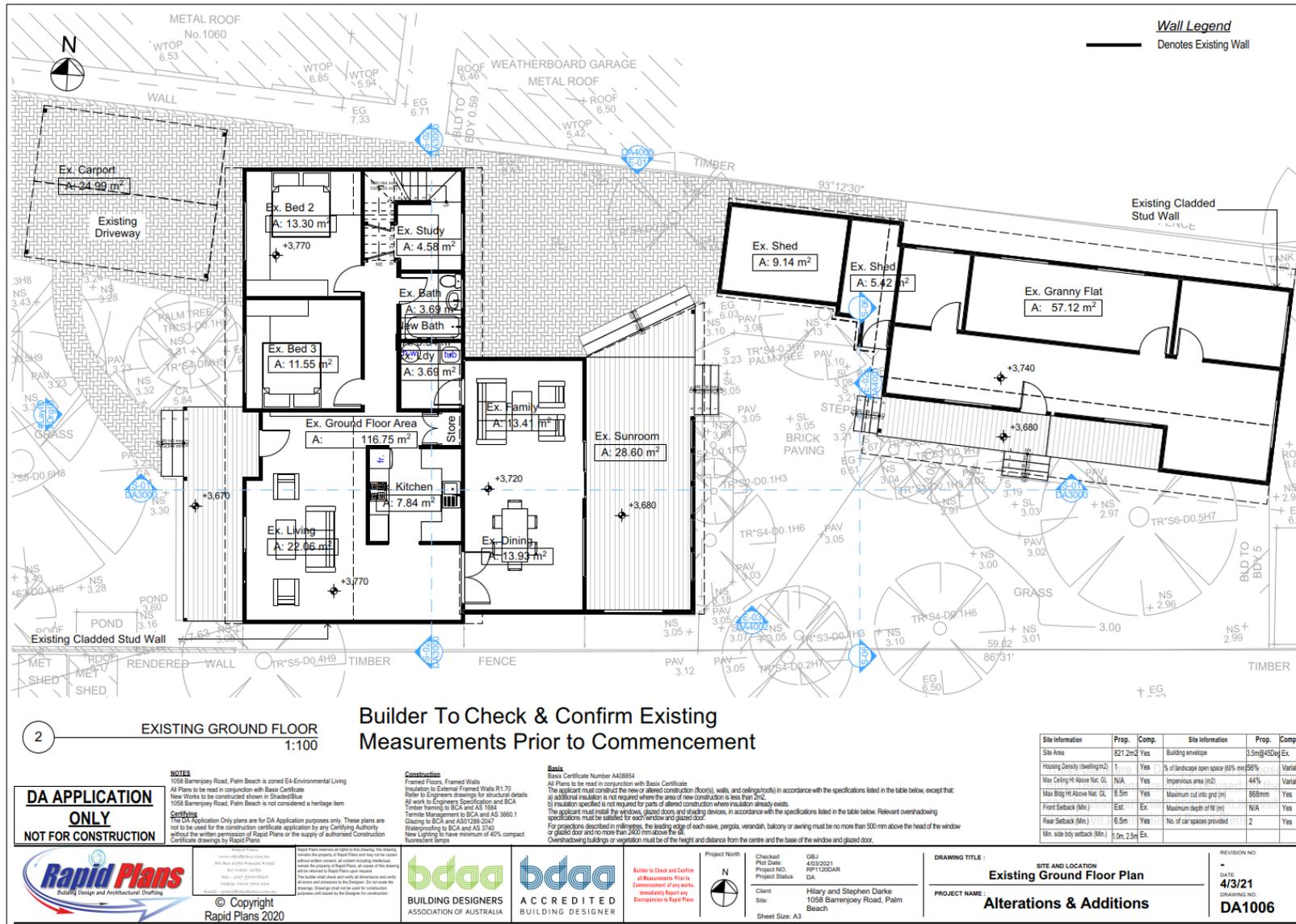
**Description of project**

Project address	
Project name	Darke
Street address	1058 Barrenjoey Road Palm Beach 2108
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan 13374
Lot number	4C
Section number	
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at \$50,000 or more, and includes a pool (and/or spa).

**Certificate Prepared by** (please complete before submitting to Council or PCA)

Name / Company Name:	Rapid Plans
ABN (if applicable):	43150064592





**Builder To Check & Confirm Existing Measurements Prior to Commencement**

2 EXISTING GROUND FLOOR 1:100

**DA APPLICATION ONLY NOT FOR CONSTRUCTION**

**NOTES**  
1058 Barrenjoey Road, Palm Beach is zoned E4-Environmental Living  
All Plans to be read in conjunction with Basic Certificate  
New Works to be constructed shown in Shaded/Blue  
1058 Barrenjoey Road, Palm Beach is not considered a heritage item  
**Conditions**  
This DA Application Only plans are for DA Application purposes only. These plans are not to be used for the construction certificate application by any Certifying Authority without the written permission of Rapid Plans or the supply of authorized Construction Certificate drawings by Rapid Plans

**Construction**  
Framed Floors, Framed Walls  
Insulation to External Framed Walls R1.70  
Refer to Engineers' Specifications and BCA  
Timber Framing to BCA and AS 1564  
Termite Management to BCA and AS 3660.1  
Cladding to BCA and AS 1336-2017  
Waterproofing to BCA and AS 3740  
New Lighting to have minimum of 80% compact fluorescent lamps

**Basic**  
Basic Certificate Number A408854  
All Plans to be read in conjunction with Basic Certificate  
The applicant must construct the new or altered construction (floors, walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that:  
a) additional insulation is not required where the mass of new construction is less than 2m²  
b) insulation specified is not required for parts of altered construction where insulation already exists.  
The applicant must install the windows, glazed doors and sliding devices, in accordance with the specifications listed in the table below. Relevant overhanging specifications must be satisfied for each window and glazed door.  
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500mm above the head of the window or glazed door and no more than 200mm above the sill.  
Overhanging buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Site Information	Prop.	Comp.	Site Information	Prop.	Comp.
Site Area	821.2m <sup>2</sup>	Yes	Building envelope	3.2m@45Deg	Ex.
Housing Density (dwelling/m <sup>2</sup> )	1.19	Yes	% of landscape open space (65% min)	60%	Variable
Max Ceiling Ht Above Nat. G.L.	N/A	Yes	% impervious area (m <sup>2</sup> )	44%	Variable
Max Bldg Ht Above Nat. G.L.	8.5m	Yes	Maximum cut into grd (m)	888mm	Yes
Front Setback (Mm.)	Est.	Ex.	Maximum depth of fill (m)	N/A	Yes
Rear Setback (Mm.)	6.5m	Yes	Nb. of car spaces provided	2	Yes
Min. side bdy setback (Mm.)	1.0m	2.5m			

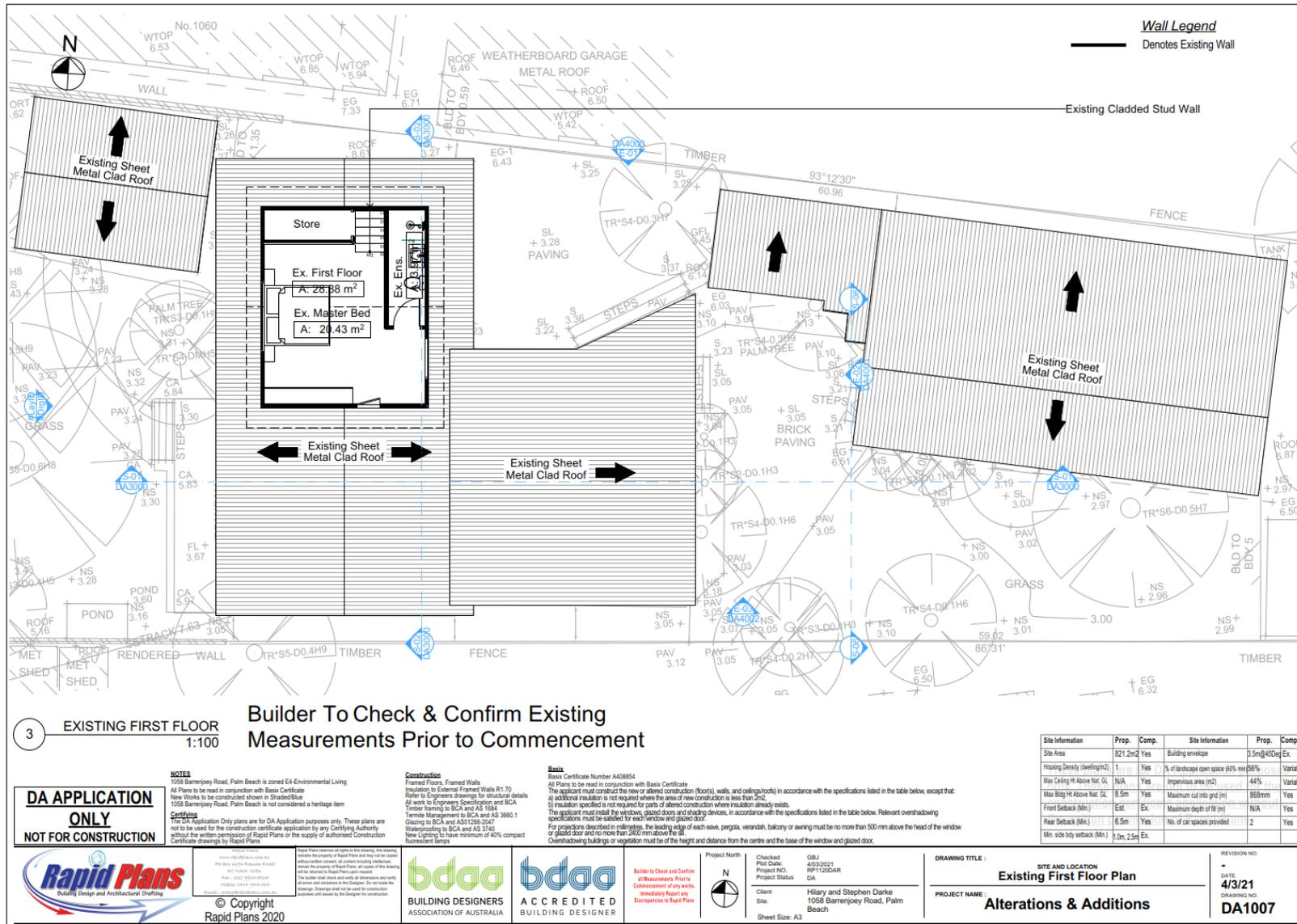


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**Builder to Check and Confirm Measurements Prior to Commencement**  
Project Name: 1058 Barrenjoey Road, Palm Beach  
Checked: GBJ 4/3/2021  
Project Status: RPI120DAR DA  
Client: Hilary and Stephen Darke  
Sheet Size: A3

**DRAWING TITLE:** Existing Ground Floor Plan  
**PROJECT NAME:** Alterations & Additions  
**DA1006**



3 EXISTING FIRST FLOOR  
1:100

**Builder To Check & Confirm Existing Measurements Prior to Commencement**

Site Information	Prop.	Comp.	Site Information	Prop.	Comp.
Site Area	821.2m <sup>2</sup>	Yes	Building envelope	3.2m@45Deg	Ex.
Housing Density (dwelling/m <sup>2</sup> )	1.19	Yes	% of landscape open space (E6% min)	60%	Variable
Max Ceiling Ht Above Nat. G.L.	N/A	Yes	% of impervious area (m <sup>2</sup> )	44%	Variable
Max Bdy Ht Above Nat. G.L.	8.5m	Yes	Maximum cut into gnd (m)	888mm	Yes
Front Setback (Mm.)	Est.	Ex.	Maximum depth of fill (m)	N/A	Yes
Rear Setback (Mm.)	6.5m	Yes	No. of car spaces provided	2	Yes
Min. side bdy setback (Mm.)	1.0m	2.5m			

**DA APPLICATION ONLY NOT FOR CONSTRUCTION**

**NOTES**  
1058 Barrenjoey Road, Palm Beach is zoned E4-Environmental Living  
All Plans to be read in conjunction with Basic Certificate  
New Works to be constructed shown in Shaded/Blue  
1058 Barrenjoey Road, Palm Beach is not considered a heritage item  
**Conditions**  
This DA Application Only plans are for DA Application purposes only. These plans are not to be used for the construction certificate application by any Certifying Authority without the written permission of Rapid Plans or the supply of authorized Construction Certificate drawings by Rapid Plans

**Construction**  
Framed Floors, Framed Walls  
Insulation to External Framed Walls R1.70  
Refer to Engineers Drawings for structural details  
All work to Engineers Specifications and BCA  
Timber framing to BCA and AS 1684  
Termite Management to BCA and AS 3660.1  
Cladding to BCA and AS 1738-2007  
Waterproofing to BCA and AS 3740  
New Lighting to have minimum of 80% compact fluorescent lamps

**Basic**  
Basic Certificate Number A408854  
All Plans to be read in conjunction with Basic Certificate  
The applicant must construct the new or altered construction (floors, walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that:  
a) additional insulation is not required where the area of new construction is less than 5m<sup>2</sup>  
b) insulation specified is not required for parts of altered construction where insulation already exists.  
The applicant must install the windows, glazed doors and sliding doors, in accordance with the specifications listed in the table below. Relevant overawning specifications must be satisfied for each window and glazed door.  
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500mm above the head of the window or glazed door and no more than 200mm above the sill.  
Overhanging buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.



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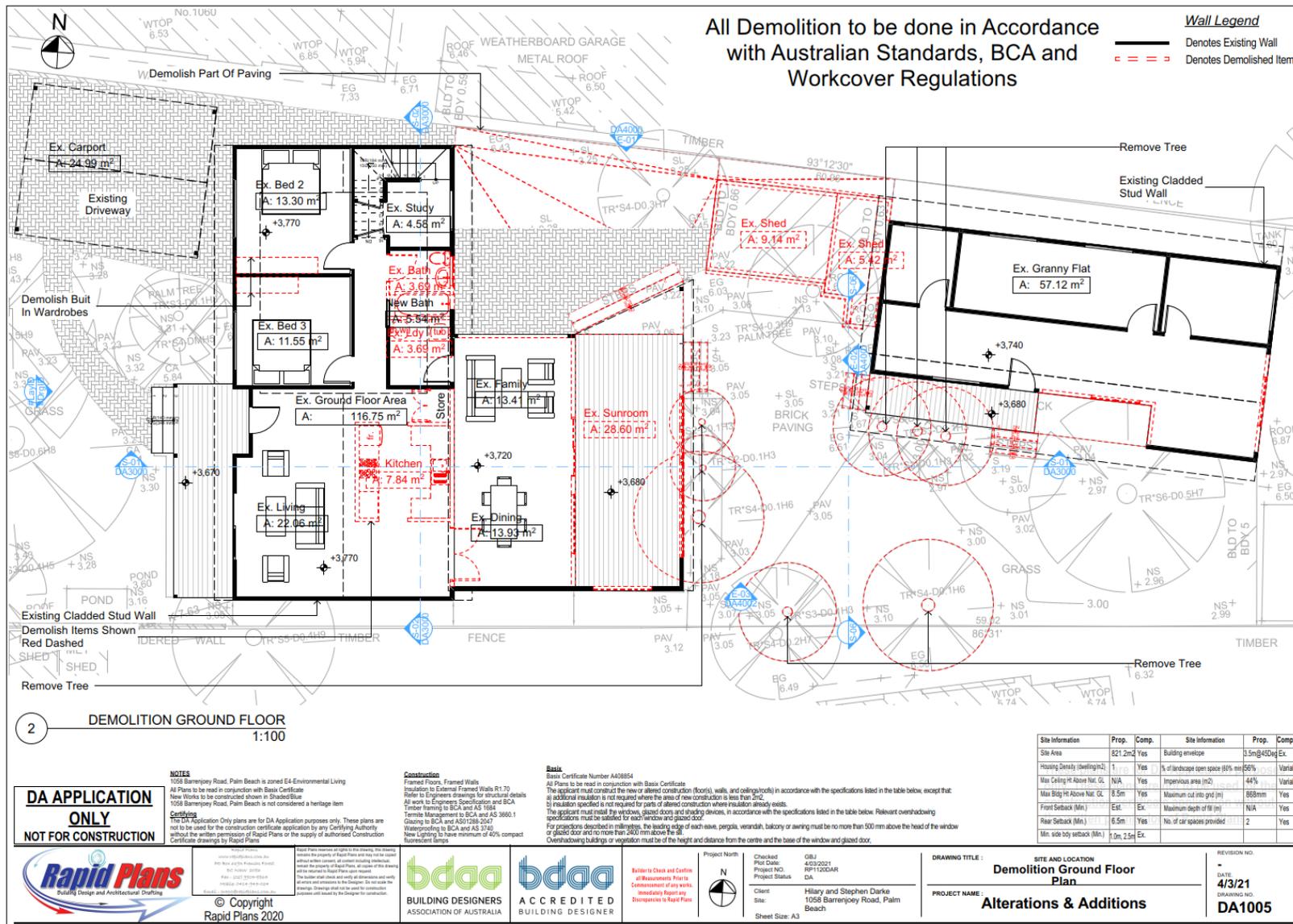


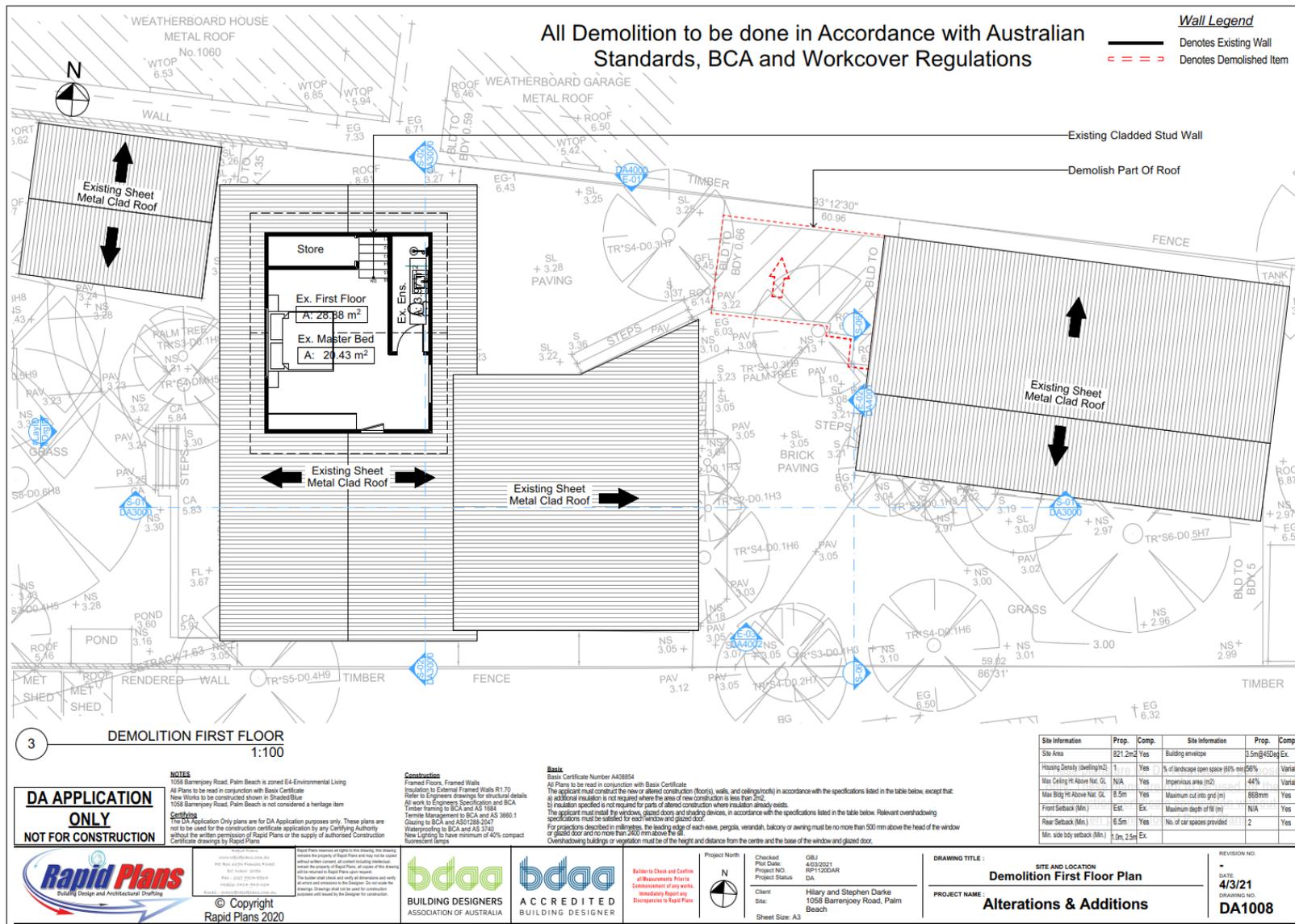
**Builder to Check and Confirm Measurements Prior to Commencement**  
It is the responsibility of the Builder to check and confirm any dimensions to Rapid Plans

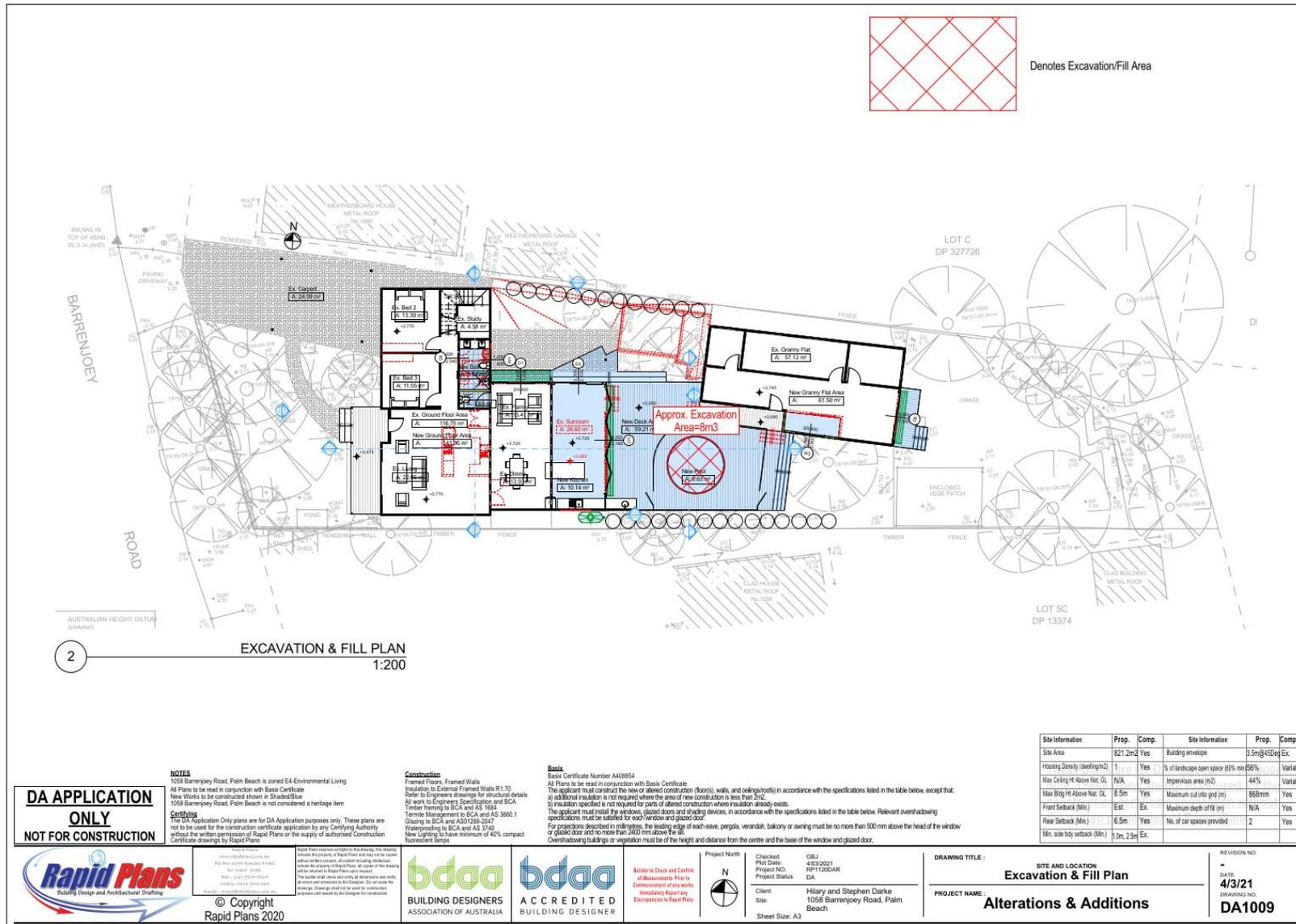
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Checked: GBJ  
P/D Date: 4/3/2021  
Project Status: RPI120DAR  
Client: Hilary and Stephen Darke  
Site: 1058 Barrenjoey Road, Palm Beach  
Sheet Size: A3

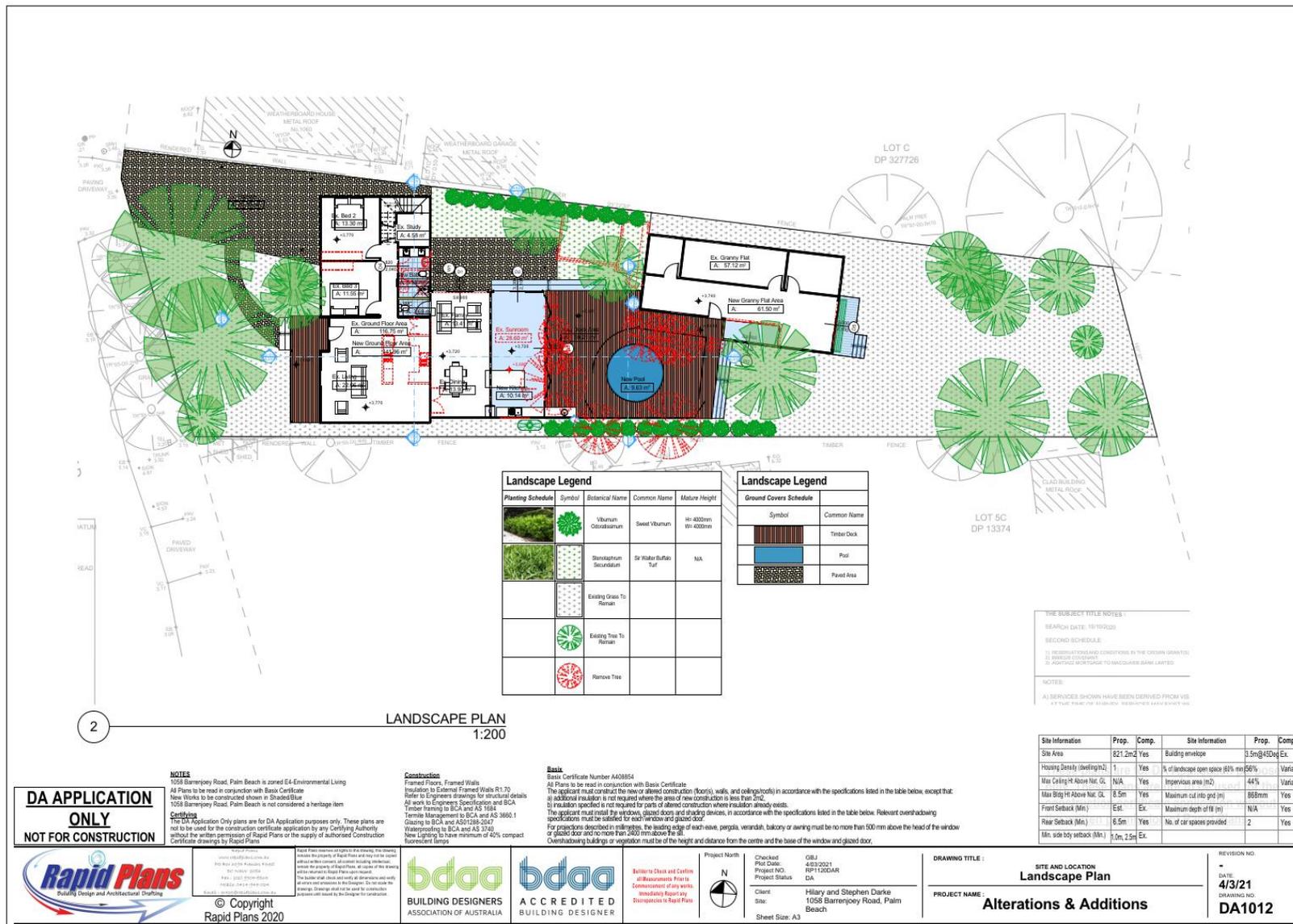
**DRAWING TITLE:**  
SITE AND LOCATION  
**Existing First Floor Plan**  
**PROJECT NAME:**  
**Alterations & Additions**

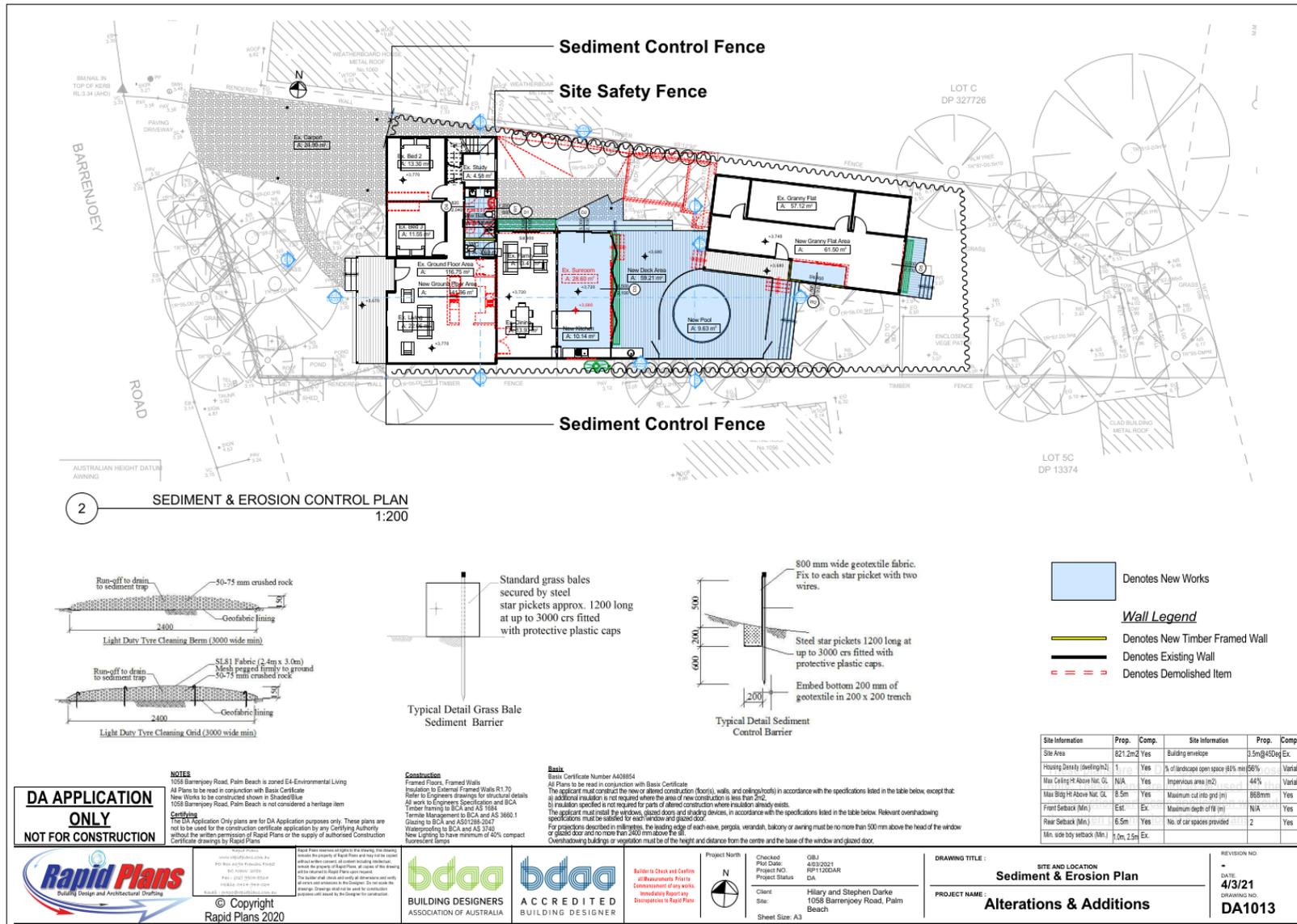
REVISION NO:  
DATE: 4/3/21  
DRAWING NO: DA1007



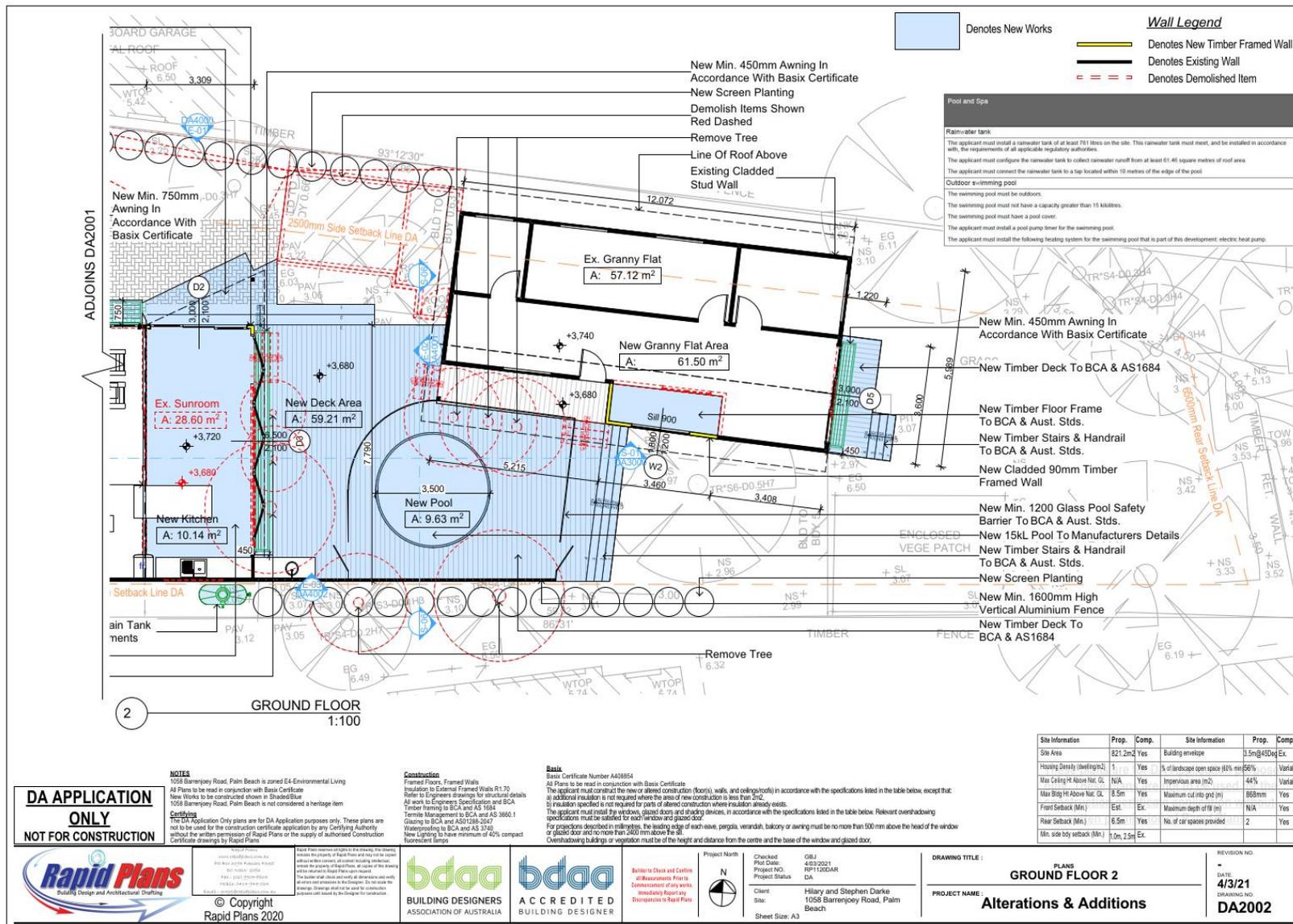


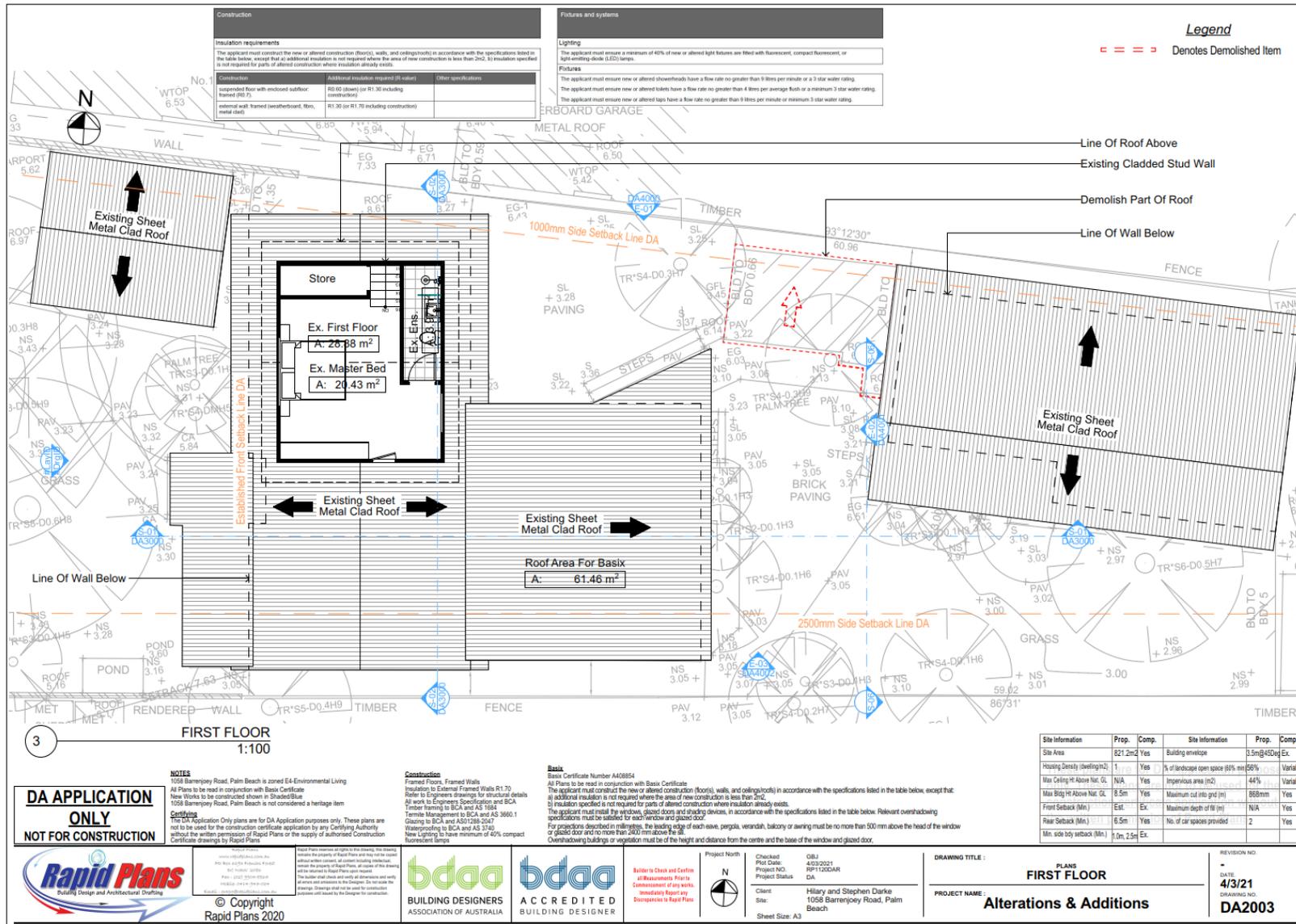


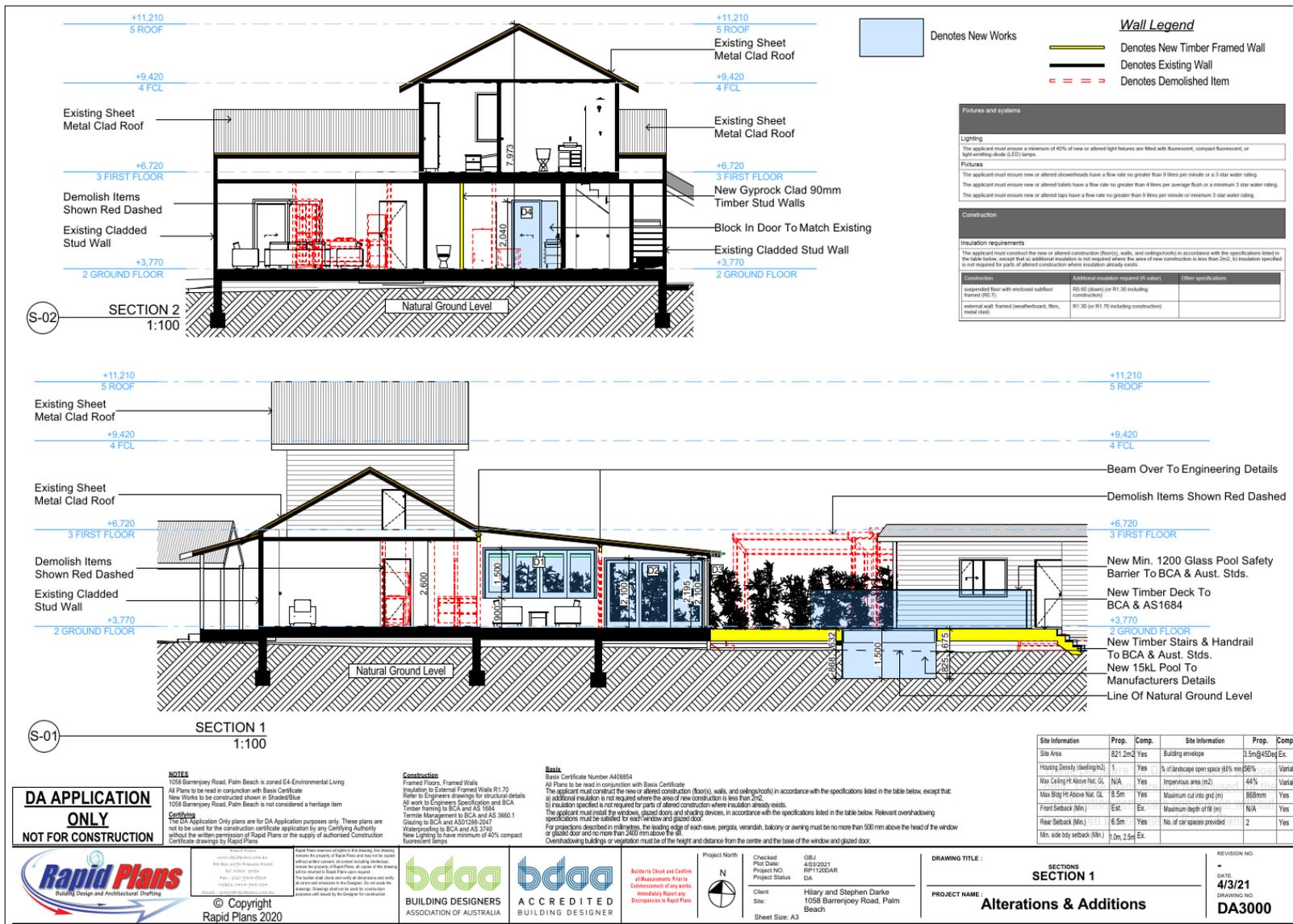


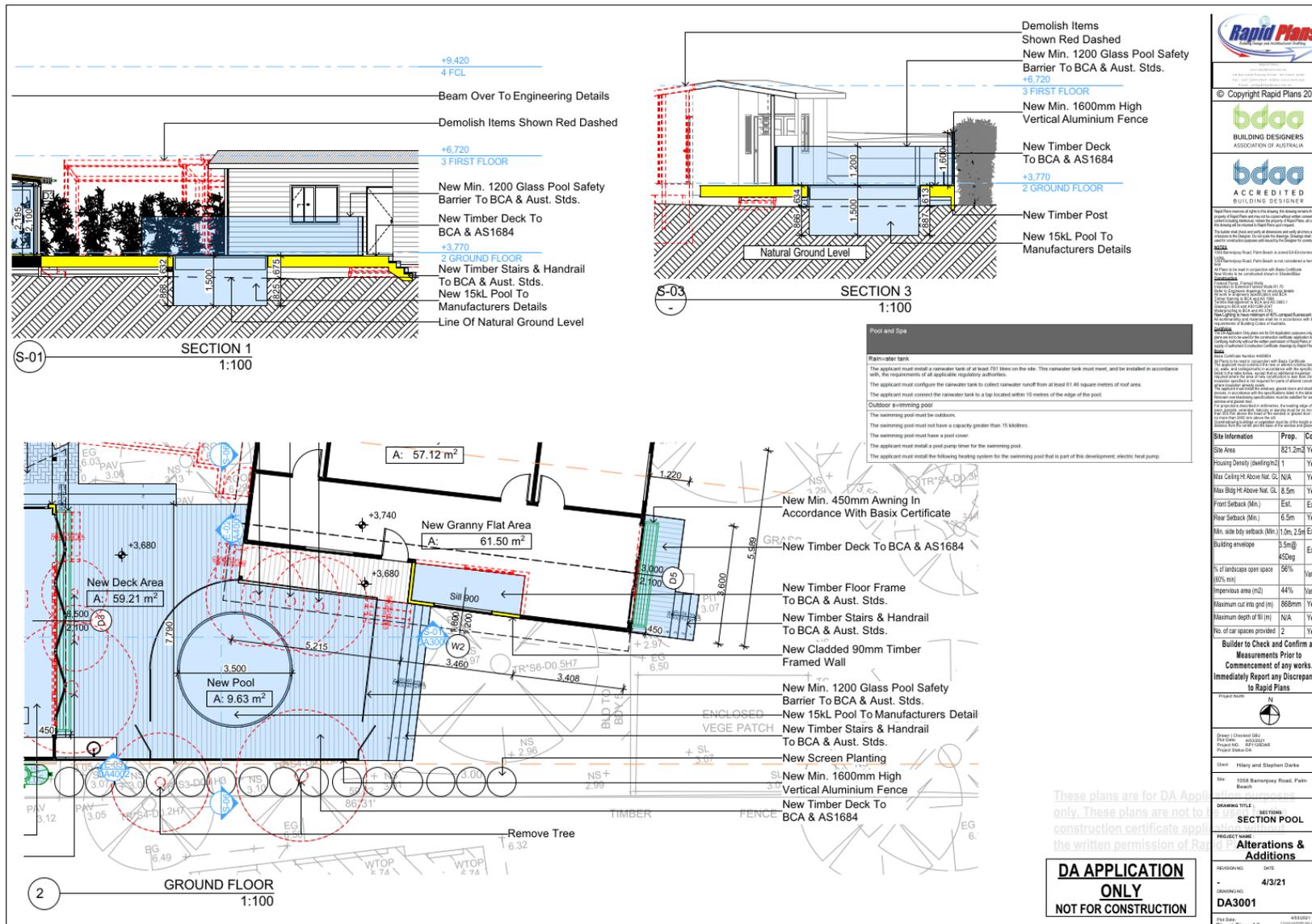


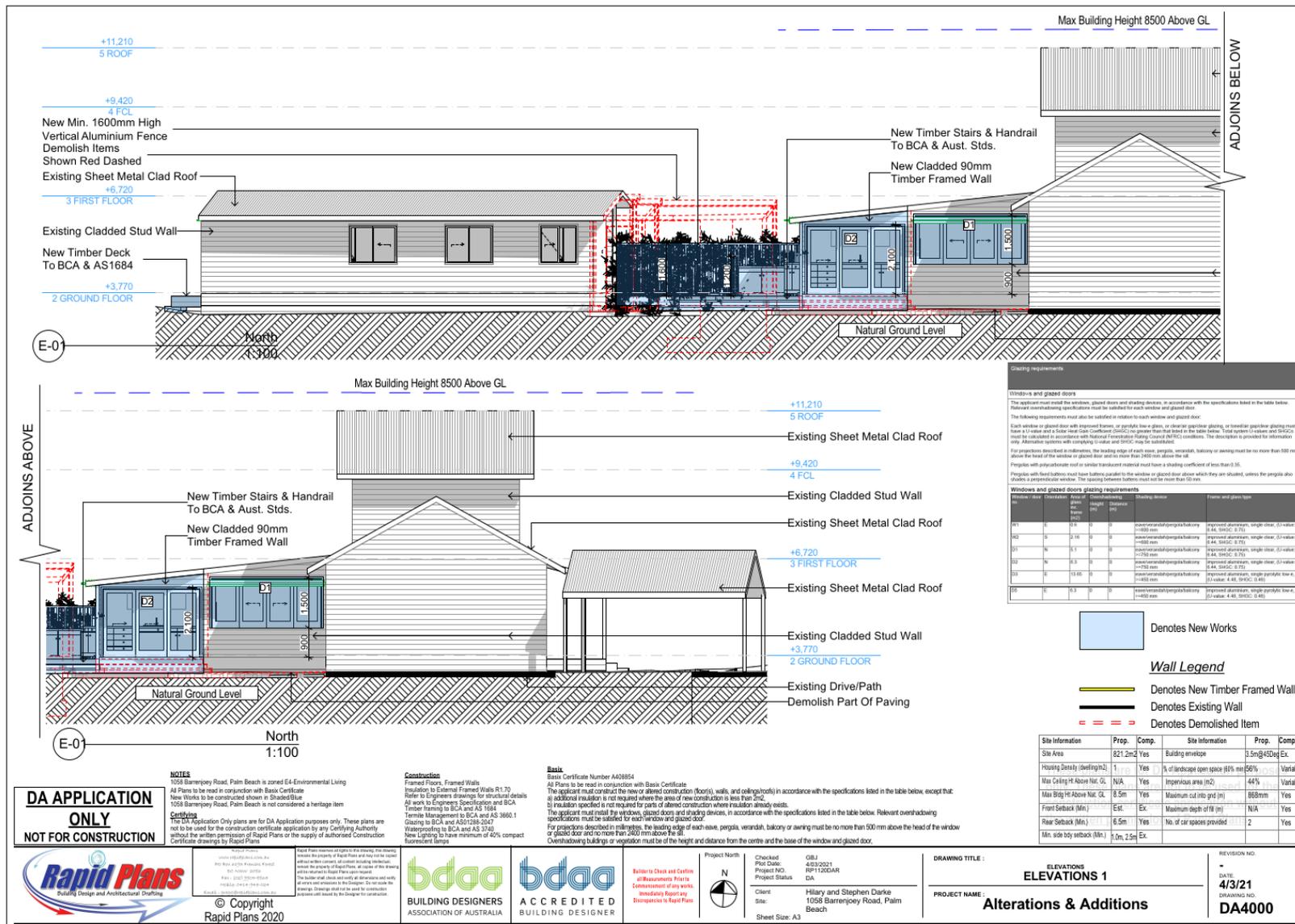


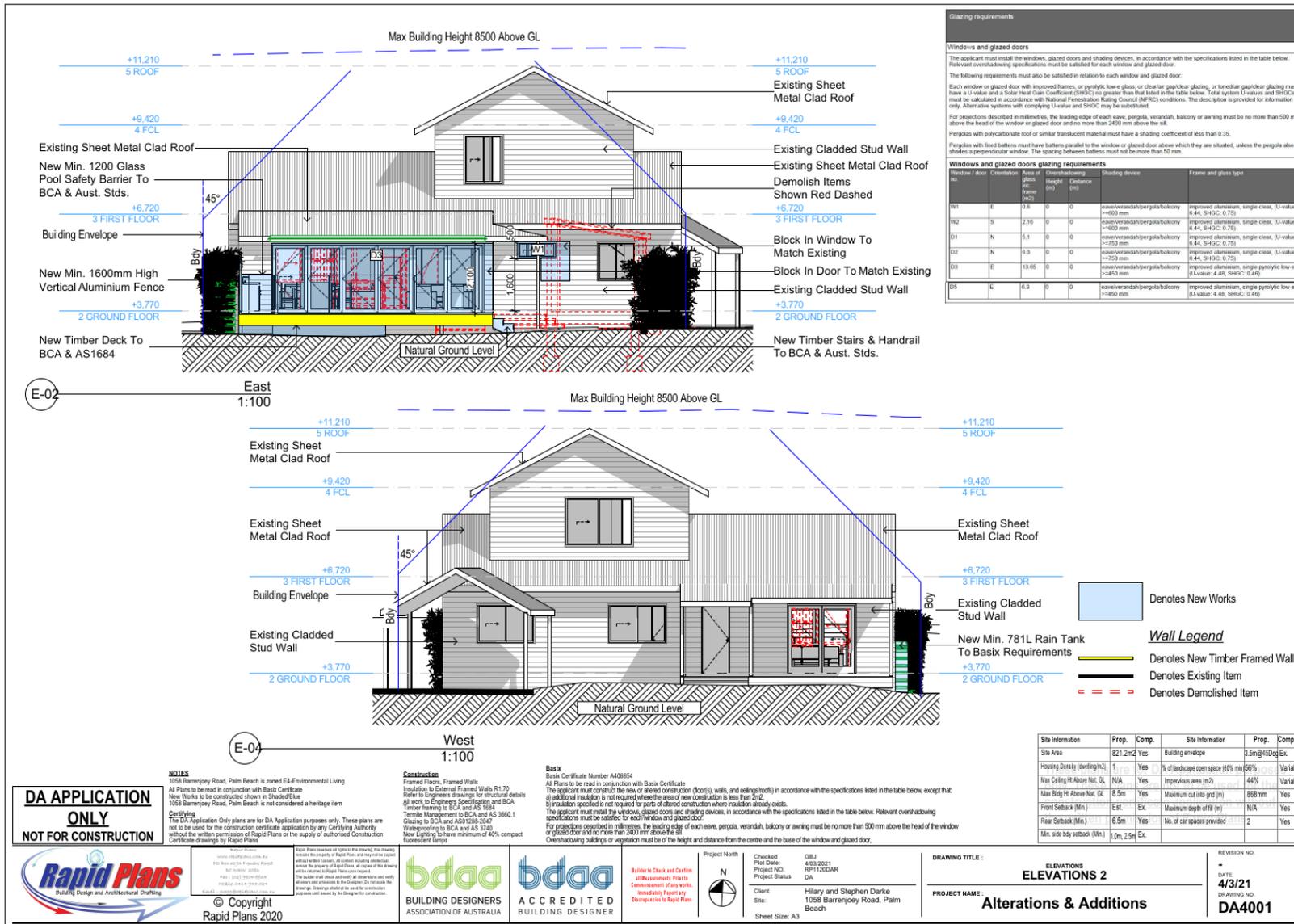


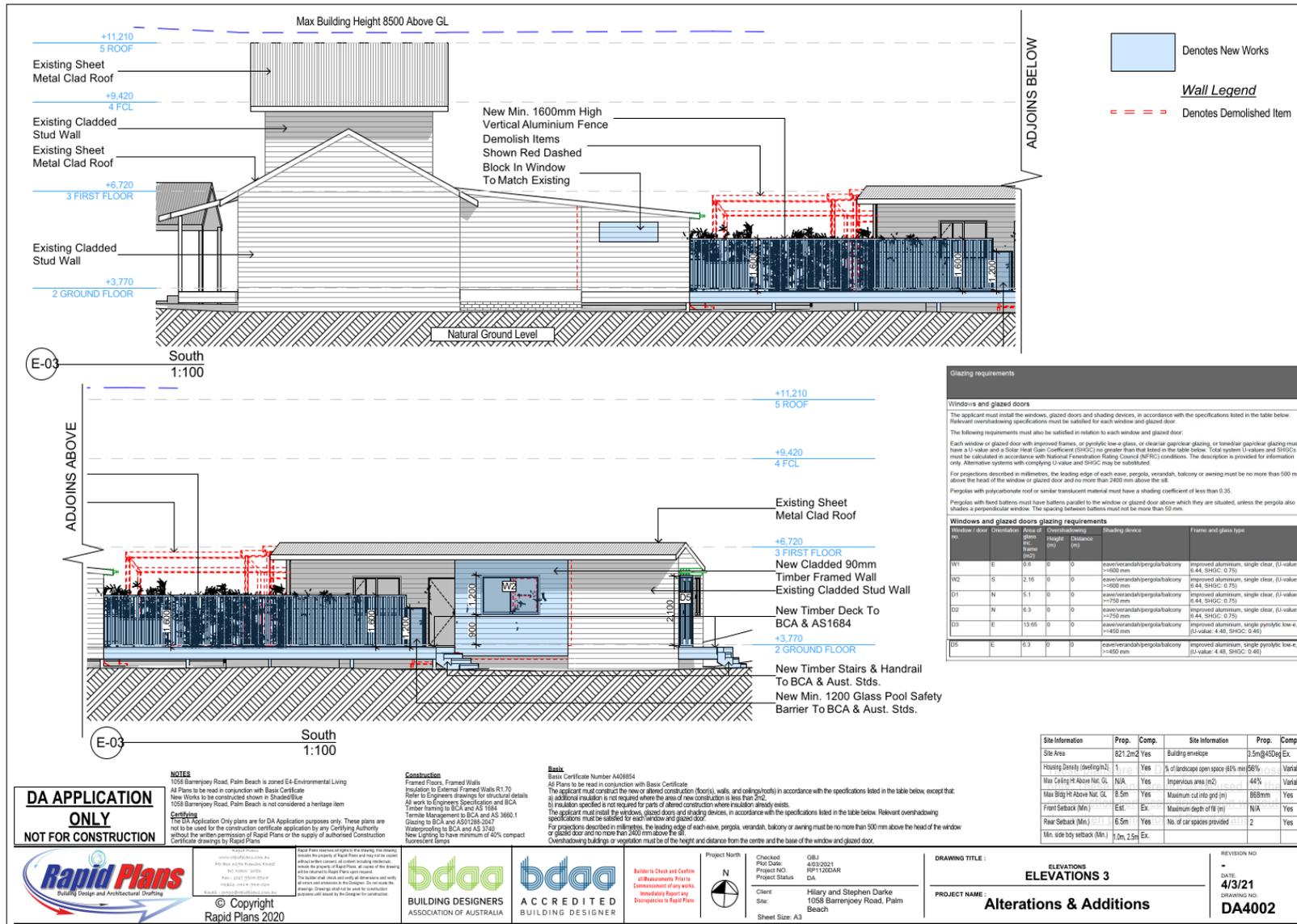












1  
-  
Perspective 1  
1:150

**DA APPLICATION ONLY**  
**NOT FOR CONSTRUCTION**

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**bdaa**  
BUILDING DESIGNERS  
ASSOCIATION OF AUSTRALIA

**bdaa**  
ACCREDITED  
BUILDING DESIGNER

Notes: These plans are for DA Application only. They do not constitute a contract. The client is responsible for ensuring that the plans are used in accordance with the relevant legislation and that all necessary approvals are obtained. The client is also responsible for ensuring that the plans are used in accordance with the relevant legislation and that all necessary approvals are obtained.

**Site Information**

Prop.	Comp.
Site Area	821.2m <sup>2</sup> Yes
Housing Density (dwelling/ha)	1 Yes
Max Ceiling Ht Above Nat. Gl.	N/A Yes
Max Floor Ht Above Nat. Gl.	8.5m Yes
Front Setback (Min.)	Est. Ex.
Rear Setback (Min.)	8.5m Yes
Min. side by setback (Min.)	1.0m, 2.0m Ex.
Building envelope	3.5m@ 45Deg Ex.
% of landscape open space (95% min)	56% Variable
Impervious area (m <sup>2</sup> )	44% Variable
Maximum cut into grd (m)	868mm Yes
Maximum depth of fill (m)	N/A Yes
No. of car spaces provided	2 Yes

**Builder to Check and Confirm all Measurements Prior to Commencement of any works. Immediately Report any Discrepancies to Rapid Plans**

Project Name: **SHADOW PLANS PERSPECTIVE**

PROJECT NAME: **Alterations & Additions**

REVISION NO: DATE: **4/3/21**

DRAWING NO: **DA5000**

Sheet Size: A3