

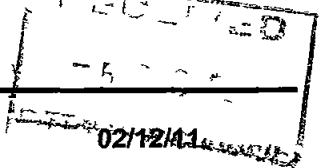


Council
Copy

ABN 63 119 997 590
1 3 Thornleigh St, Thornleigh NSW 2120
ph 9980 2155 fax 9980 2166 E mail admin@fbcc.com.au

COMPLYING DEVELOPMENT CERTIFICATE

Complying Development Certificate Number CDC 2011/1882 Approval Date



Date Application Received 29/11/11 Date of Lapse of Certificate 01/12/16
Council Pittwater

Name of Certifying Authority Fitzgerald Building Certifiers Pty Ltd
Accreditation No ABC 2
Accredited Certifier Paul Fitzgerald Accreditation No BPB 0119
Accreditation Body BUILDING PROFESSIONALS BOARD

Applicant Mrs Marilyn Kramer
Address 1 William St Avalon NSW 2107
Contact Number 9839 1312 (Work)

Owner Mrs Marilyn Kramer
Address 1 William St, Avalon NSW 2107

Subject Land Lot 18 DP 17177 No 1 William St Avalon

Description of Development – Timber frame construction cladding & colourbond roof

Building Code of Australia Classification 1a Value of Work \$ 30,000 00

Owner Builders Details

Name Marilyn Kramer
Permit Number 389891P
Address 1 William St Avalon NSW 2107
Contact Number 9918 4598

Approved Plans

Plans prepared by	Drawings No	Dated
K Kramer	Sheets 1 of 3	1/08/11
Adam Clarke Surveyors	Sheets 1 of 1	1/10/11

RN 314549

This Certificate is approved subject to the prescribed conditions listed under Division 3 of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 under the Environmental Planning & Assessment Act 1979 as attached

CERTIFICATION

I, Paul Fitzgerald, as the certifying authority am satisfied that,

(a) The requirements of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 have been complied with That is ,work completed in accordance with the documentation accompanying the application for this certificate (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

(b) Long Service Levy has been paid where required under s34 of the Building and Construction Industry Long Service Payments Act 1986

Signed _____ DATED 02/12/2011

PRINCIPAL CERTIFYING AUTHORITY

Name of Certifying Authority	Fitzgerald Building Certifiers Pty Limited
Accreditation Number	ABC 2
Accredited Certifier	Paul Fitzgerald BPB 0119
Contact Number	9980 2155
Address	1-3 Thornleigh St, Thornleigh NSW 2125

MANDATORY CRITICAL STAGE INSPECTIONS
After Excavation and Prior to the placement of any Footing or Pier - Class 1 & 10
Prior to Pouring of an In-Situ Reinforced Concrete Element - Class 1 & 10
Prior to the Covering of any Framework - Class 1 & 10
Swimming Pool Fencing Prior to Filling with Water - Swimming Pools Only
Prior to Covering of Waterproofing in Wet Areas - Class 1,2,3,4 & 10
Prior to Covering of any Stormwater Connections - All Buildings
After the Building Work has been completed Prior to Occupation - All Buildings
To Book an Inspection Please Call 9980 2155
SIGNED _____ Dated 02/12/2011

SECTION 1 APPLICATION FORM
APPLICATION FOR CONSTRUCTION/COMPLYING DEVELOPMENT CERTIFICATE
Principle Certifying Authority Agreement
Issued under the Environmental Planning & Assessment Act 1979

Privacy policy – The information you provide in this application will enable your application to be assessed by the certifying authority under the Environmental Planning and Assessment Act 1979. If the information is not provided, your application may not be accepted. The application can potentially be viewed by members of the public. Please contact Fitzgerald Building Certifiers if the information you have provided in your application is incorrect or requires modification.

- ☐ Construction Certificate
- ☒ Complying Development Certificate
- ☐ Application for Occupation Certificate
- ☐ Engagement As PCA

Dev Application No _____

Approval Date _____

APPLICANT (This Must Be The Owner/Authorised Agent)

Name/s *Mrs. Marilyn Kramer*

Postal Address *1 William St Avalon*

Ph *98391312 (WORK)*

Email *MKRAMER@MAKITA.COM.AU*

LAND TO BE DEVELOPED

Address *1 William St Avalon*

Lot *18*

DP *17177*

DETAILS OF DEVELOPMENT

Description of work *timber frame construction & colorbond roof*

Estimated Cost of Works *\$30,000*

DETAILS OF BUILDER

Name *Marilyn Kramer*

License No *U389891P*

Address *1 William St Avalon NSW 2107*

Ph No *9918 4598 (H) 9839 1312 (W)*

SECTION 2 PCA SERVICE AGREEMENT

Engagement

The engagement or the appointment of the PCA will not commence until the proposed PCA has accepted and notified their acceptance of the appointment to the Appointer and the Local Council. The proposed PCA or Fitzgerald Building Certifiers will not accept any responsibility for any damages, losses or delays suffered by the Appointer as a result of omissions or errors contained within this form or failure of the Appointer to comply with all items contained in this form.

Scope

The scope of works covered under this appointment is restricted to those building works as described in the "Details of Development" section of the form. Fitzgerald Certifiers does not undertake quality control inspections. Critical stage inspections do not provide the level of supervision required to ensure that minimum standards and tolerances are achieved. This function is the responsibility of the principle contractor or owner/builder.

Terms and Conditions

- 1 All information provided by the Appointer on this form will be taken to be accurate and correct. The PCA does not accept any responsibility for any intentional or unintentional error or omission made by the Appointer on this form.
- 2 Where building works have commenced prior to the acceptance of appointment of PCA without the knowledge of the intended PCA, the appointment shall be invalid and acceptance of the appointment will be withdrawn.
- 3 The Appointer is obliged to keep the PCA informed of any changes to the details of Principal Contractor (Builder) and any relevant insurances required by the builder. Failure to meet this obligation will result in the Appointer indemnifying the PCA against any losses or suffering as a result of non-compliance with the legislative requirements.
- 4 The Appointer is responsible for ensuring that a copy of Home Warranty Insurance or Owner Builder Permit is submitted to the PCA prior to the commencement of building works. The acceptance of the appointment will not occur until this requirement has been met.
- 5 It is the responsibility of the Appointer to ensure that critical stage inspections are booked in with our office or make arrangements for your builder to do this on your behalf no later than 3pm on the prior business day via fax, post or email.
- 6 The PCA will not accept responsibility for any damages or costs associated for the inability to issue an Occupation Certificate due to, but not limited to, the following - non-compliance with a development consent condition, unsatisfactory final inspection, non-compliance with Basix commitments, missed critical stage inspections, non-compliance with approved building plans or failure to pay the required inspection or Occupation Certificate fees.
- 7 The PCA does not undertake detailed quality control inspections and the role of the PCA is primarily to ensure that the development proceeds in accordance with the consent, Construction Certificate and that the development is fit for occupation in accordance with its classification under the Building Code of Australia. Critical Stage Inspections do not provide the level of supervision to ensure that the minimum standards and tolerances specified by the "Guide to Standards and Tolerances" ISBN 0 7347 6010 8 are achieved. The quality of any development is a function of the quality of the principal contractor's or owner/builder's supervision of individual contractors and trades on a daily basis during the development. The PCA does not undertake this role. Further, The PCA does not adjudicate on building contract disputes between the principal contractor, contractors or owner.

Fees

Failure to pay the prescribed Appointment of PCA fee will generally result in a refusal to accept the appointment of PCA. Should an appointment be accepted and payment not honored, the Appointer will be ultimately liable for unpaid fees regardless of whether the fee was paid directly to the Builder and any associated debt recovery costs plus interest incurred from the time of the appointment.

It is noted that the PCA and/or Fitzgerald Building Certifiers may suspend its services provided to the appointer or the builder where fees have not been paid within the provisions of the Building and Construction Industry Security of Payment Act 1999.

Section 3 Declaration By The Appointer/s

I/We the aforementioned persons as described as the Appointer/s in the PARTICULARS section hereby declared the following that

- 1 I/We "have the benefit of the Development Consent or Complying Development Certificate" within the meaning and under EP&A Act 1979 for the proposed works as indicated on this form
- 2 I/We, to the best of my/our knowledge, have completed all details in the PARTICULARS section in a correct and accurate manner and hereby indemnify the appointed PCA and Fitzgerald Building Certifiers against any damage, losses or suffering as a result of incorrect information provided under that section
- 3 I/We hereby consent to the Builder as shown within the "Particulars" section of this form to apply and obtain on my/our behalf a Construction Certificate, Complying Development Certificate, Occupation Certificate/s or any other "Part 4A Certificate" within the meaning of the EP&A Act 1979
- 4 I/We have read understood and hereby accept the terms and conditions outlined within the PCA Service Agreement on this form
- 5 I/We understand that the Appointment of the PCA is not taken to be have been accepted until a copy of the acceptance has been signed by the proposed PCA and released to the Appointer and Council, effective from the date of the acceptance
- 6 I/We understand that the Commencement of Building Work cannot be any earlier than 2 business days after the appointment of PCA has been accepted and therefore declare that no building works will commence until after such date
- 7 I/We authorise the right of entry for any certifying authority arranged by Fitzgerald Accredited Certifiers to carry out inspection required by the PCA under this agreement
- 8 I/We authorise the transfer of PCA to another employee of Fitzgerald Building Certifiers if the original PCA ceases employment with Fitzgerald Building Certifiers for any reason or becomes unable to fulfill their duties as the PCA at no cost to Fitzgerald Building Certifiers
- 9 I/We understand the appointment of PCA will not be accepted by Fitzgerald Building Certifiers until documentation of required insurances or owner builder permit is submitted to Fitzgerald Building Certifiers, in accordance with the Home Building Act 1998
- 10 I/We understand that it is my/our responsibility to ensure that sufficient notice is given to Fitzgerald Building Certifiers in writing, to carry out critical stage inspections or make arrangements with your builder to carry out this function on your behalf as a condition of your Building Contract
- 11 I/We declare that I/we will notify the PCA at the earliest possible instance of any changes of the appointment of the builder and ensure any mandatory insurances required by the incoming builder in accordance with Home Building Act 1989 are in place

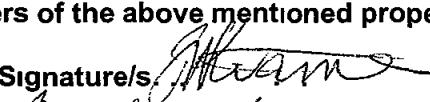
Section 4 Owners Declaration/Signatures

OWNERS DECLARATION

- I the aforementioned person or authorised representative of a legal entity as described as the Applicant In Section 1 of the Application Form hereby declare the following
- 1 I, to the best of my knowledge, have completed all details in the Application Form in a correct and accurate manner and hereby indemnify Fitzgerald Building Certifiers against any damages losses or suffering as a result of incorrect information provided under that section
 - 2 I have obtained consent from the owner/s of the property as indicated in the PARTICULARS section to apply and obtain a Construction Certificate Such written consent will be provided with this application
 - 3 I have read understood and hereby accept the terms and conditions outlined in Section 2 of this form
 - 4 I understand that the Application for a/the Construction Certificate is not complete until all required documentation has been received by Fitzgerald Building Certifiers
 - 5 I understand that the Application for and acquisition of a/the Construction Certificate does not authorise Commencement of Building Work (Refer to appointment of PCA on Fitzgerald Building Certifiers PCA Form)

As owners of the above mentioned property we consent to this application

As owners of the above mentioned property I/we wish to appoint Paul Fitzgerald as PCA

Owners Signature/s		Owners Signature/s	
Name/s	Marilyn Kramer	Name/s	
Date	17/11/2011		



1-3 Thornleigh St,
Thornleigh NSW 2120
P 9980 2155
F 9980 2166
E admin@fbcc.com.au

SECTION 5 APPLICATION FORM
APPLICATION FOR AN OCCUPATION CERTIFICATE
Issued under the Environmental Planning & Assessment Act 1979

Privacy policy – The information you provide in this application will enable your application to be assessed by the certifying authority under the Environmental Planning and Assessment Act 1979. If the information is not provided, your application may not be accepted. The application can potentially be viewed by members of the public. Please contact Fitzgerald Building Certifiers if the information you have provided in your application is incorrect or requires modification.

Construction Certificate No _____
Approval Date _____

APPLICANT

Name/s *Stanlyn Kramer*
Postal Address *1 William St Avalon NSW 2107*
Ph *9839 1312 (W) 9918 4598 (H)*
Email *MKRAMER@MAKITA.COM.AU*

LAND DEVELOPED

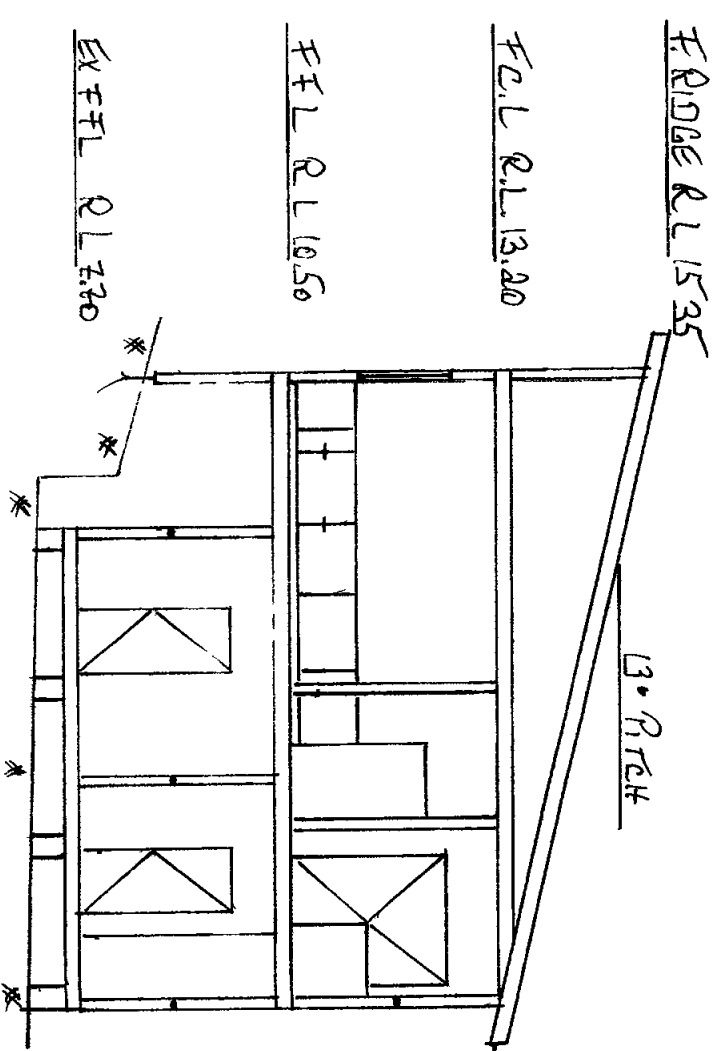
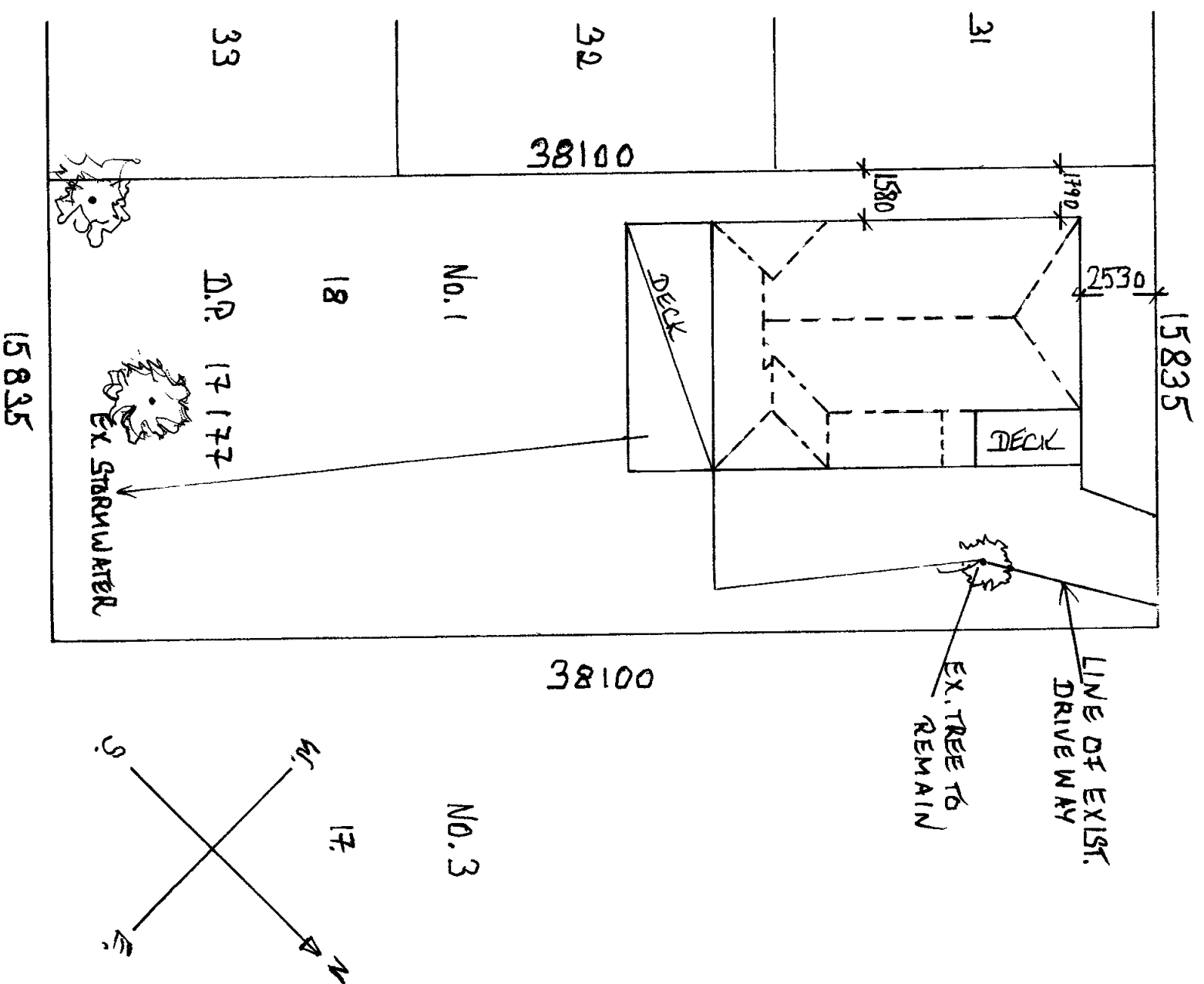
Address *1 William St Avalon NSW 2107*
Lot *18*
DP *17177*

DETAILS OF DEVELOPMENT

Building Type *Timber frame construction + colorbond roof*

Owners Signature/s *[Signature]* Owners Signature/s
Name/s *Stanlyn Kramer* Name/s

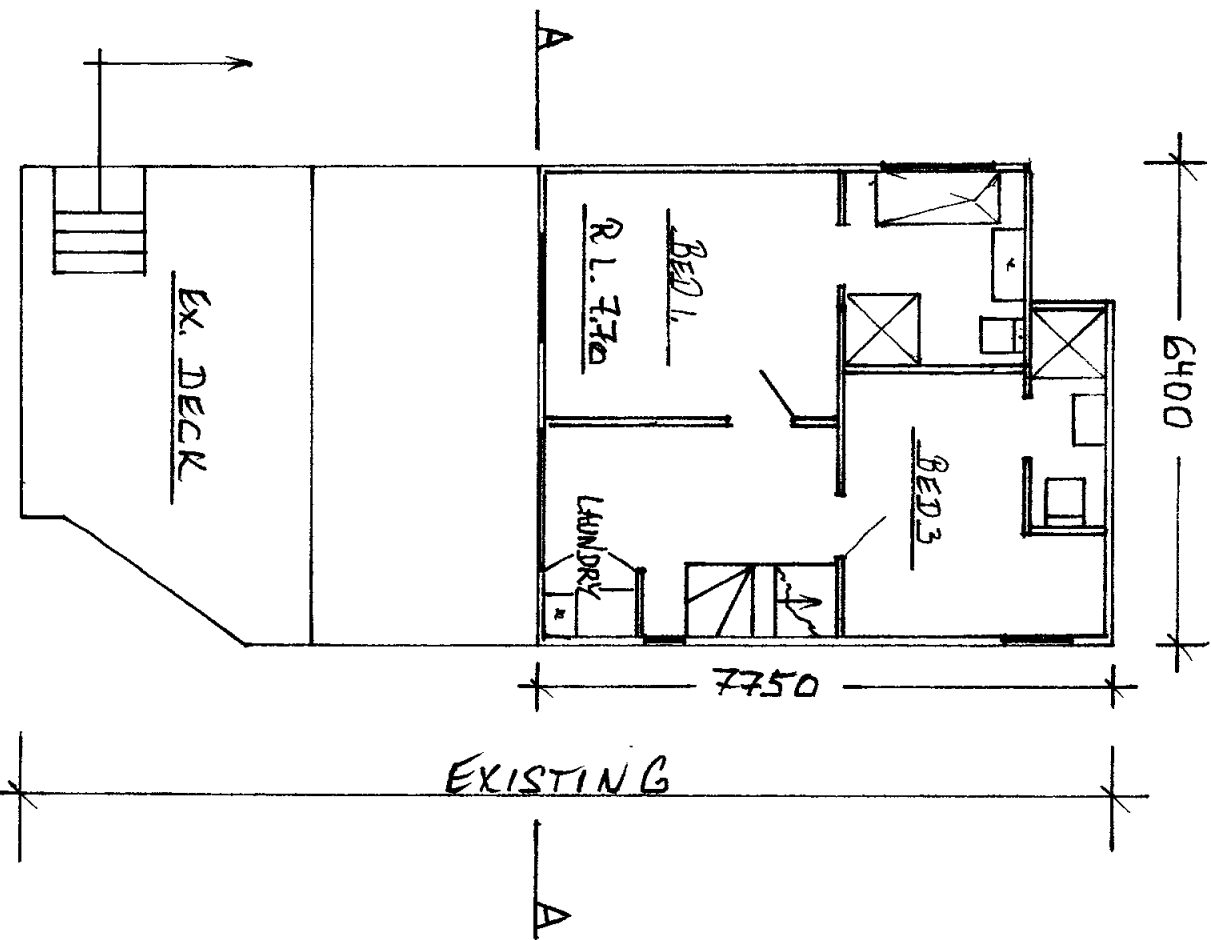
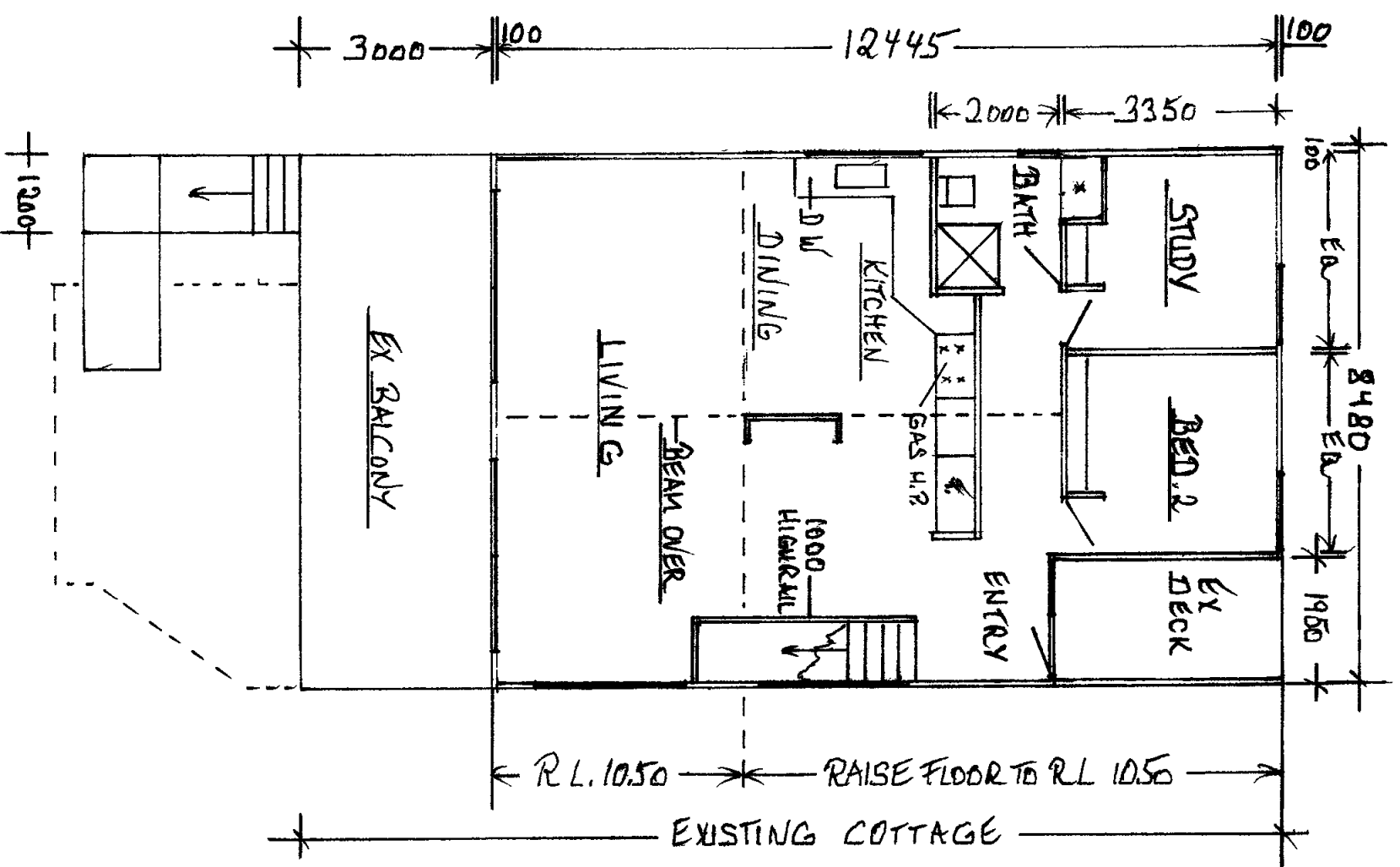
I. WILLIAM STREET



PROPOSED ALTERATIONS AT
I. WILLIAM STREET, AVALON
FOR MRS. M. KRAMER & MR. W. M. KRAMER.
PHONE. 0299184598 MOB: 0424 484112

DRAWN. K. KRAMER - AUG 2011
SCALE: 1:100 1:200

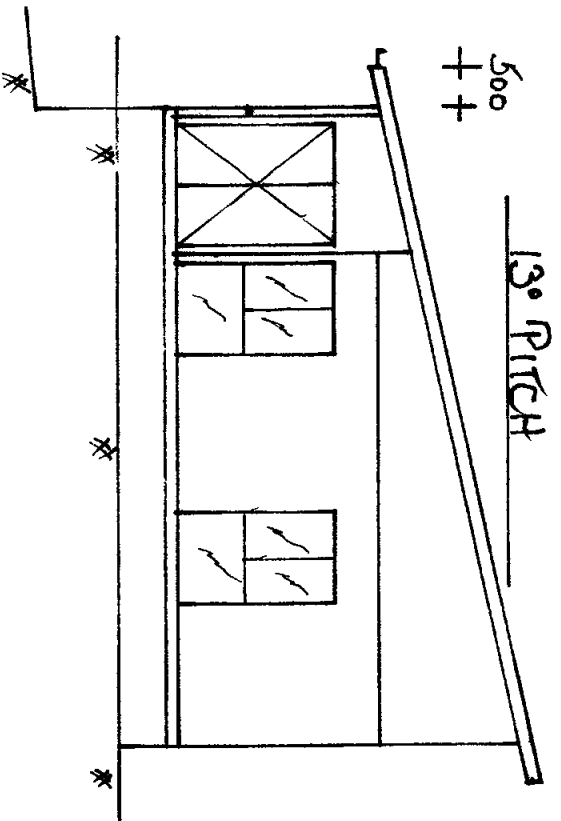
This is the plan as per submitted to in
Fitzgerald Councils Certificate
Call No. 0002011/1882
2-12-11
Fitzgerald
Accreditation No 13PB 0119



EXTENT OF WORK:

- RAISE TIMBER FLOOR TO R.L. 10.50 AS SHOWN ON LEVEL 1. FLOOR PLAN.
- CHANGE EXISTING HIP ROOF TO SKILLION ROOF.
- REMOVE OUTSIDE CLADDING AND REPLACE WITH BLUEBOARD.
- REPLACE ALL EXTERNAL WINDOWS AND DOORS WITH POWDER COATED ALUMINIUM WINDOWS & SLIDERS.

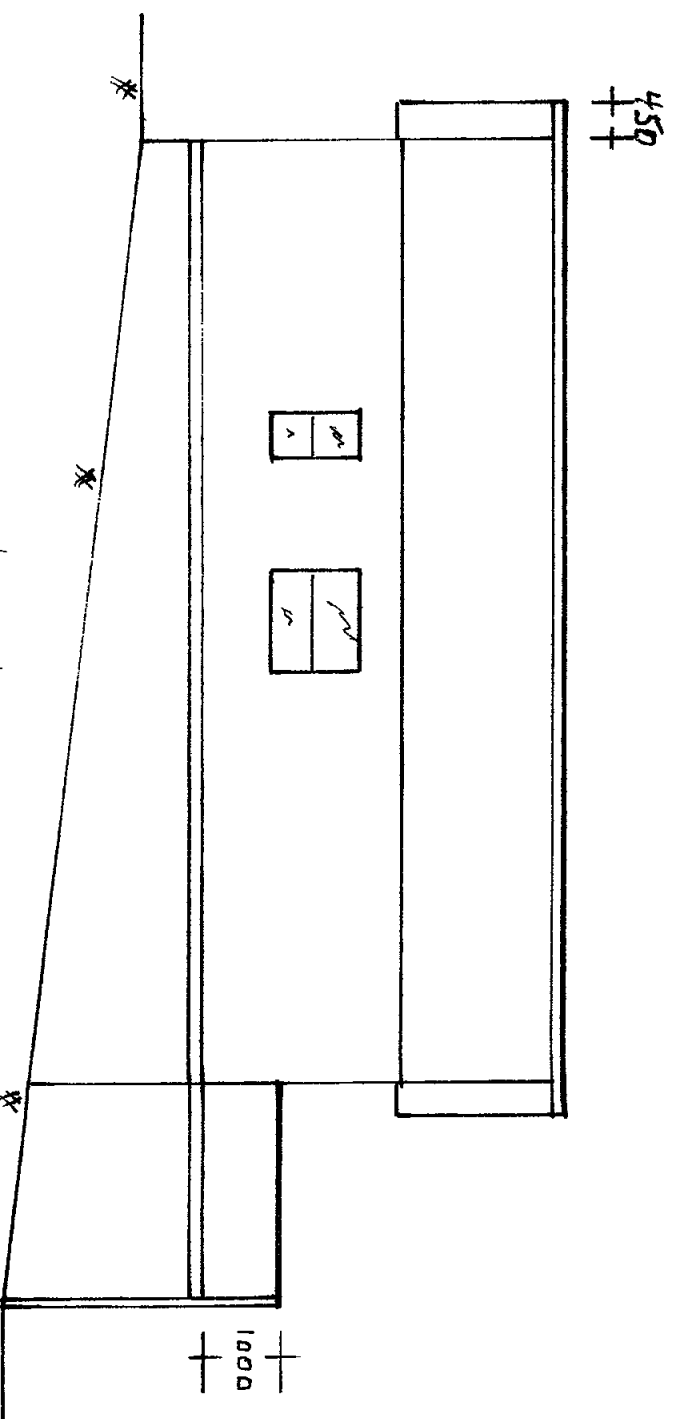
This information due to the unavailability of the original documents is limited.



13° PITCH

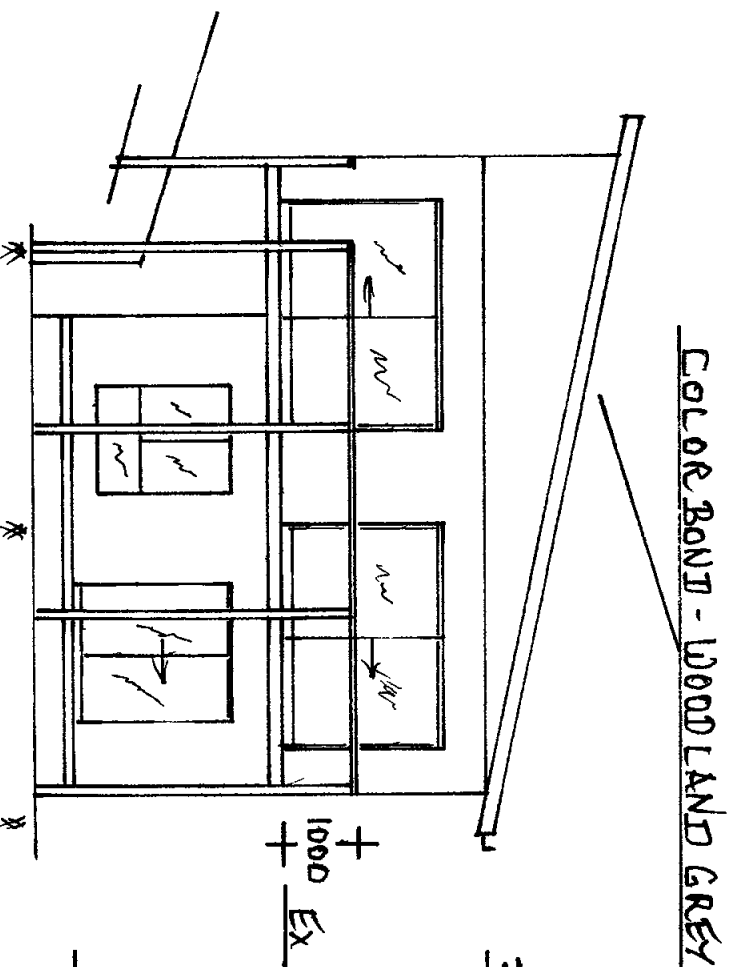
F. RIDGE R.L. 15.35

NORTH WEST ELEVATION



SOUTH WEST ELEVATION

REMOVE EX. CLADDING + REPLACE WITH BLUEBOARD



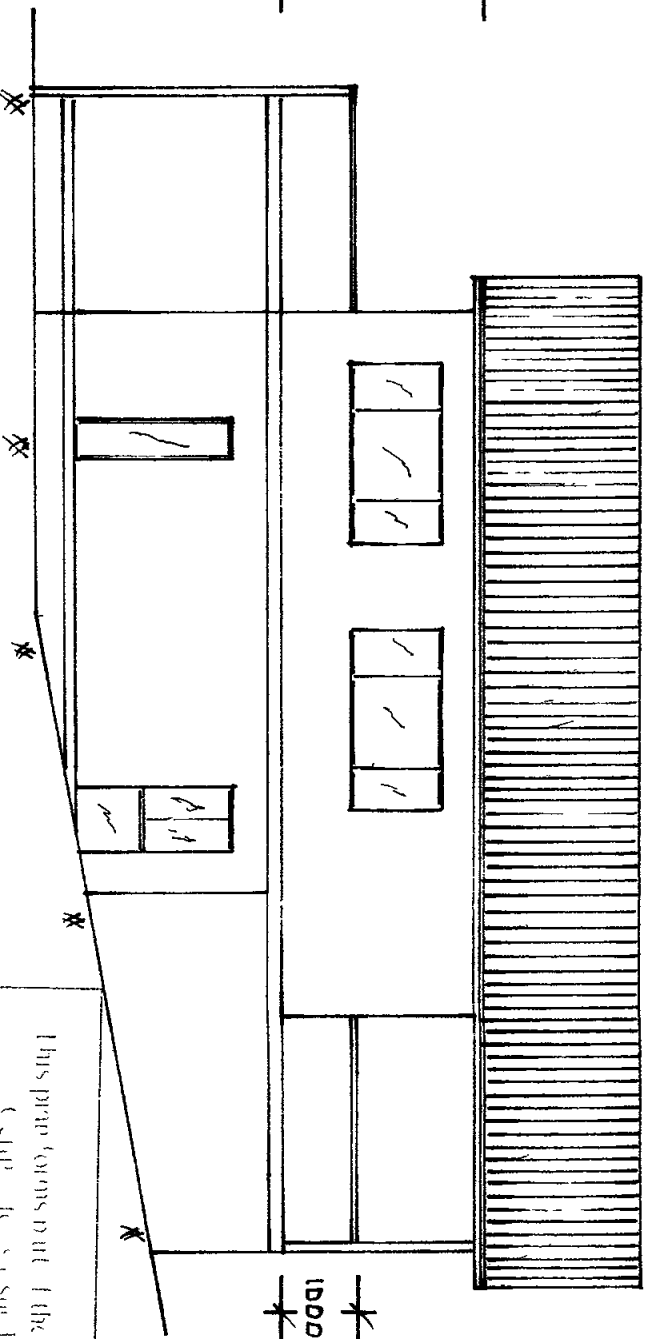
COLOR BOND - WOODLAND GREY

F.C.L. LIVING R.L. 13.20

EX F.F.L. LIVING R.L. 10.50

EX. F.F.L. R.L. 7.70

SOUTH EAST ELEVATION



NORTH EAST ELEVATION

This plan shows out the approach to the site to the south of the river and the building on the site.



**Fair
Trading**

Tel 13 32 20
TTY 02 9338 4943
ABN 81 913 830 179
www.fairtrading.nsw.gov.au

Marilyn Kramer
1 William St
AVALON NSW 2107

HOME BUILDING ACT 1989

OWNER BUILDER PERMIT

Permit 389891P
Receipt 1-1285000631

Issued 15/11/2011
Amount \$154 00

BUILDING SITE

1 William St. AVALON. NSW 2107 AUSTRALIA

AUTHORISED BUILDING WORK

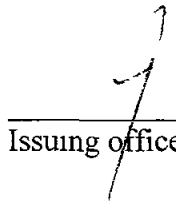
Timber frame construction (walls), blue board lining & color bond iron roof

Authority No DC-2011/1882
Council Area PITTWATER (S) COUNCIL

Should the property be sold within 6 years of completion of the work it will be necessary to obtain home warranty building insurance from approved insurers if the value of the work was greater than \$12,000. A certificate of insurance must be attached to any contract of sale.

You should obtain professional advice from general insurers regarding public liability and property damage cover, etc.

Note: This permit is only valid when an official receipt has been imprinted.
If payment is made by cheque, the permit is conditional on the cheque being met on presentation. *GST amount included in total fee \$0.00



Issuing officer

***** END OF PERMIT *****

A division of the Department of Services, Technology & Administration

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	No 1 William Street Avalon
DESCRIPTION OF PROPOSAL	Refurbishment and alterations to the existing Class 1A dwelling
PLAN REFERENCE (relied upon in report preparation)	Plans Drawn by: M Kramer & W M Kramer Dated August 2011
BAL RATING	BAL 12.5 (If the BAL rating is FZ the application is to be referred to NSW RFS for assessment)
DOES THE PROPOSAL RELY ON ALTERNATE SOLUTIONS	YES NO (Circle the relevant response) (If YES the application is to be referred to NSW RFS for assessment)

I Ronald Coffey

(Print Name)

Planning for Bushfire Protection Pty Ltd

Q

(Trading or Company Name)

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 *Appendix 4 of Planning for Bushfire Protection 2006* together with recommendations as to how the relevant specifications and requirements are to be achieved.

REPORT REFERENCE	558
REPORT DATE	20 th September 2011
CERTIFICATION NO/ACCREDITED SCHEME	Fire Protection Association Australia BPAD A Certified Practitioner No BPD-PA-0938 Certified Business No BPD-BA-0938

I hereby certify in accordance with 79BA of the Environmental Planning and Assessment Act 1979 No 203

- 1 That I am a person recognised by the ~~NSW Rural Fire Service~~ ^{RFS} 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

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 Pittwater Council as the basis for

Note: this certificate must be completed and signed by a person recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment in accordance with 79BA of the EP&A Act 1979 No 203

This form has been prepared by Pittwater Council for attachment to the Bushfire Assessment Report

ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with *Planning for Bushfire Protection 2006*

BPAD A 09328
R E Coffey

SIGNATURE _____

22nd September 2011
DATE _____



This Report has been prepared and submitted by R Coffey, FPA Australia, Certified Practitioner
Practitioner Certification No-PBD PA-09328

Planning For Bushfire Protection Pty Ltd



ABN 52 136 652 296

Ronald Coffey

0408220443

Email roncoffey@optusnet.com.au

Web www.bushfireconsultants.com.au

Reference 558

20th September 2011

Bushfire Risk Assessment

In relation to proposed development at

No 1 William Street, Avalon

<i>This Assessment has been prepared and Certified by Ronald Coffey BPAD – A Certified Practitioner FPAA Cert No BPD-PA 09328</i>	
Can this proposal comply with AS3959, 2009 + addendum to Appendix 3 of PBP?	<u>YES</u>
What is the recommended level of compliance AS3959, 2009?	AS3959, 2009 BAL 12.5
Does this development comply with the requirements of PBP?	<u>YES</u>
Does this development comply with the Aims and objectives of PBP?	<u>YES</u>
Is referral to the NSW RFS required?	<u>NO</u>

Contents

Introduction

- 1) Location
- 2) Development Proposal and Building Classifications
- 3) Description of the Subject Property
- 4) Classification of the Vegetation on and surrounding the Site
- 5) Assessment of Effective Slope
- 6) Access and Egress
- 7) Water Supplies
- 8) Environment considerations
- 9) Bushfire Threat Assessment
- 10) Assessment of the extent to which the development proposal
Conforms or Deviates with Chapter 4 of Planning for Bushfire Protection
- 11) Recommendations
- 12) Summary
- 13) References
- 14) Fences and Gates

Introduction

The purpose of this report is to determine the category of bushfire attack and subsequent construction standard for the proposed development of refurbishment and alterations to an existing class 1A dwelling at No 1 William Street, Avalon

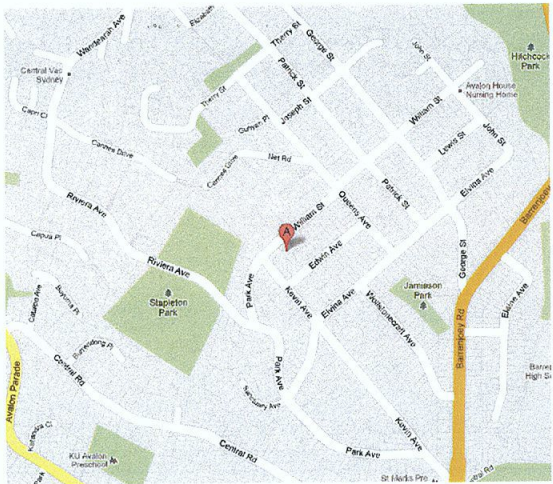
The site is identified as 'bush fire prone land' for the purposes of Section 146 of the *Environmental Planning and Assessment Act 1979* and the legislative requirements for building on bushfire prone lands are applicable

The proposed development is an infill development as defined within Chapter 4 3 5 of Planning for Bushfire Protection 2006 and this report has been prepared in accordance with the requirements of section 79BA of the Environment Planning and Assessment Act. This assessment includes an analysis of the hazard, threat and subsequent risk to the development proposal and provides recommendations that satisfy the Objectives and Performance requirements of the Building Code of Australia, Planning for Bushfire Protection 2006 [PBP] and Australian Standard AS3959, 2009

The site was inspected 21st September 2011

1) Location

No 1 William Street, Avalon
Lot 18, DP 17177
LGA - Pittwater

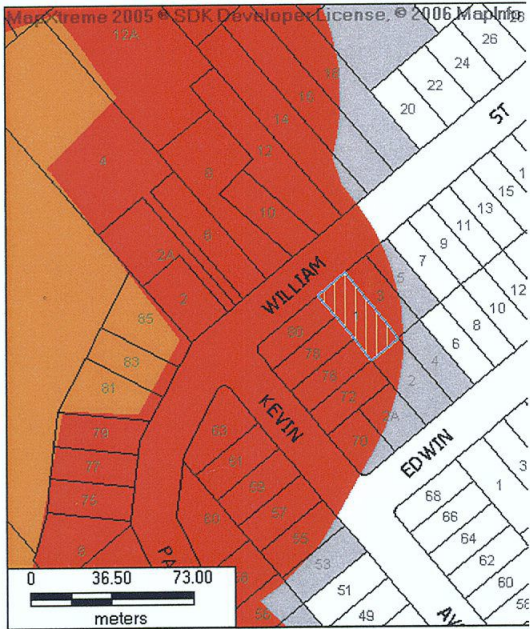


2) Development Proposal and Building Classifications

The proposal is for refurbishment and alterations to an existing class 1A dwelling.

3) Description of the Subject Property

The development site is a residential lot facing north-west onto William Street.
The following sections 4-8 describe in detail the vegetation, slope, access and egress, availability of water supplies and environmental considerations for the site.
The adjacent image is the bushfire prone land map for the area.



BUSH FIRE PRONE LAND MAP - LEGEND	
	Bush Fire Prone Land ~ Vegetation Category 1
	Bush Fire Prone Land ~ Vegetation Category 2
	Bush Fire Prone Land ~ Vegetation Buffer - 100m & 30m
	LGA Boundaries

4) Classification of the Vegetation on and surrounding the Site

The site is developed and maintained and there is no threat from bushfire attack on the site.



North, south & East: Properties north, south and east of the subject site are developed and maintained and there is no threat of bushfire attack from these directions for more than 100m.

West: 61m west of the subject site is an area of bushland that is considered a threat from bushfire attack to the site. With reference to PBP and the bushfire prone land map for the area the classification of vegetation for this hazard is Forest

5) Assessment of Effective Slope

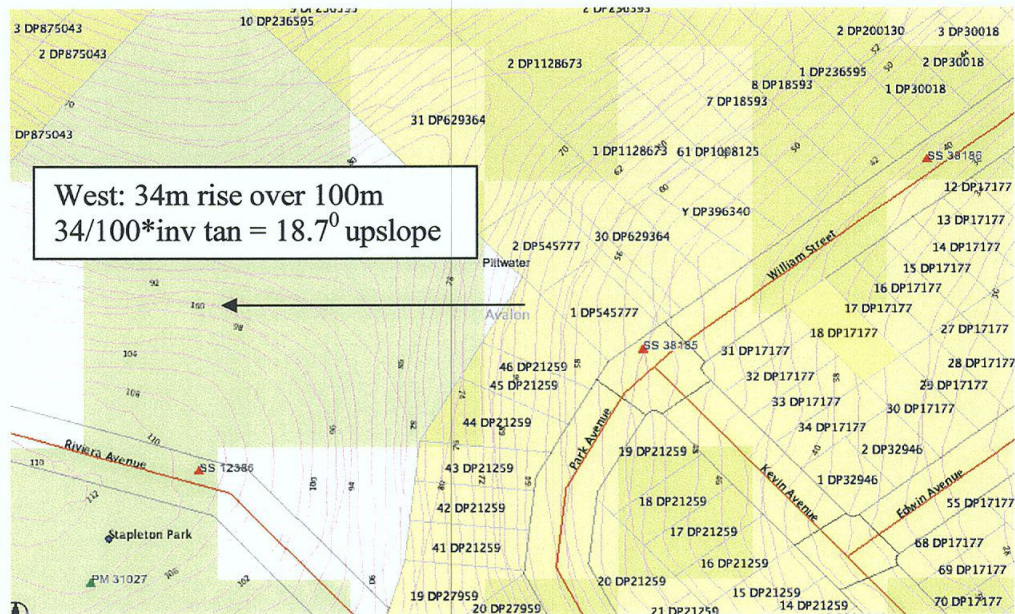
Effective slope away from the development site:

North: No hazard for >100m

South: No hazard for >100m

East: No hazard for >100m

West: 18.7 degrees upslope



6) Access and Egress

The site has direct access to William Street, which is a public road, and access and egress for emergency vehicles and evacuation is in opposite directions and appears adequate.

7) Adequacy of water supply

The area has reticulated water supply and hydrants are spaced at regular distances along William Street.

8) Environmental Considerations

The scope of this assessment has not been to provide an environmental assessment; however, the subject site is a small residential lot that has been developed for many years and it appears that the proposed development will have no adverse environmental effect.

9) Bushfire Risk Assessment

Table 1, Reference AS3959, 2009 Table 2 4 2

Determination of category of bushfire attack for the site and subsequent required building standards

Direction	Distance of APZ	Vegetation Classification	Assessment of Effective Slope	Anticipated Radiant heat	Bushfire Attack Level (BAL)
North	>140m	Developed sites	n/a	-	
South	>140m	Developed sites	n/a	-	
East	>140m	Developed sites	n/a	-	-
West	61m	Forest	18.7 degrees upslope	<12.5kw/m2	BAL 12.5

Summary Based upon the relevant provisions of PBP the anticipated radiant heat attack is for the site is <12.5kw/m2 and the subsequent minimum construction standard is BAL 12.5 AS3959, 2009

Inputs

Site Address

1 William Street Avalon

Assessed By

R Coffey

Local Government Area

Pittwater

Located In Alpine Areas

☐

Fire Weather Area/FFDL

Greater Sydney Region

100

Vegetation Class

Forests (Wet & Dry Sclerophyll)

Effective Slope

All upslopes and flat land (0 degrees)

Separation Distance

61

metres

Commands

Calculate

Print

Reset

Help

Outputs

Bushfire Attack Level (BAL)

BAL 12.5

Radiant Heat Exposure Threshold

<=12.5 kW/sqm

Description of Exposure Level

Attack by burning debris is significant with radiant heat. Radiant heat is unlikely to threaten building elements (eg unscreened glass). Specific construction requirements for ember protection and accumulation of debris are warranted.

Construction Section

Sect 3 & 5 of AS3959 and Sect A3.7 of PBP Addendum App

10) Assessment of the extent to which the construction conforms or deviates from Chapter 4 of 'Planning for Bushfire Protection 2006'

The proposed development conforms to the requirements of PBP for bushfire protection measures for infill development in relation to

<u>Performance Criteria</u>	<u>Meets Performance Criteria?</u>	<u>Comment</u>
Asset Protection Zones	Yes	Asset protection zones are provided partially on site and by adjoining development and public roads
Defendable Space	Yes	Defendable space is provided on all sides of the building
Siting and design	Yes	The siting of the building has been previously determined in accordance with local council requirements and the proposed additions and alterations will not involve a re-siting of the building [no advantage could be gained by recommending a re siting of the building]
Landscaping	Yes	This assessment shall include recommendations that the site is managed in accordance with Inner Protection Area requirements of PBP
Construction Standards	Yes	Construction standards have been recommended in accordance with the requirements of PBP
Access and Egress	Yes	The access and egress requirements have been designed to provide safe and effective evacuation from the subject site and appear to be adequate for fire brigade personnel and fire fighting equipment
Water Supplies	Yes	The area has reticulated water supply and the nearest street hydrant is within the minimum required distance from the most distant point of the subject site in accordance with the requirements of PBP and AS2419 1 2005
Electricity & Gas supplies	Yes	This report shall recommend compliance with PBP 4 1 3 for services including electricity and gas
Emergency and Evacuation Planning	Yes	An emergency evacuation plan is not recommended as a condition of consent

11) Recommendations

The following recommendations are made for the bushfire protection measures for the proposed residential development of refurbishment and alterations to an existing class 1A dwelling at No 1 William Street, Avalon and are based upon the relevant provisions of the NSW Rural Fire Service guideline entitled *Planning for Bushfire Protection 2006*

- 1) Construction Standard The proposed development shall be constructed to a minimum standard of BAL 12 5, AS3959, 2009 with the exception that the construction requirements shall be varied to comply with the requirements of Section A3 7 of the NSW Rural Fire Service Addendum to Appendix 3 of *Planning for Bushfire Protection 2006*
- 2) Construction Standard Class 10b At the planning stage, class 10b buildings in bushfire prone areas should be non-combustible [Class 10b buildings include a retaining or free standing wall, swimming pool or the like]
- 3) Fences and Gates All new fencing and gates shall be constructed in accordance with the NSW Rural Fire Service guideline *Fast Fact – Fences or Gates in Bushfire Prone Areas* [Refer Section 15 of this report]
- 4) Gutter Guards Roofing shall be gutterless or have leafless guttering and valleys to prevent the build up of flammable material Any materials used shall have a flammability index no greater than 5
- 5) Electricity and Gas Supplies As far as practical, new electricity and gas supplies shall be installed in accordance with the requirements of 4 1 3 of PBP Note 4 1 3 of PBP requires that '*where practical, electrical transmission lines should be underground*' and '*the location of gas services will not lead to ignition of surrounding bushland or the fabric of the building*'
- 6) Existing Windows All openable windows, including louvres, shall be screened with aluminium, corrosion-resistant steel or bronze mesh with a maximum aperture size of 2mm in such a way that the entire opening remains screened when the window is open
- 7) Existing External doors Weather strips or draught excluders to be fitted

- 8) Existing Vents and weepholes Vents and weepholes shall be protected with spark guards made from corrosion-resistant-steel or bronze mesh with a maximum aperture size of 2mm
- 9) Asset Protection Zones At the commencement of building works and in perpetuity, the entire property shall be managed as an inner protection area as outlined within PBP and the NSW RFS document 'Standards for asset protection zones' with the exception that gutter guards have been recommended as an alternate solution rather than remove or severely prune overhanging trees
- The following points are a guide to Inner Protection area requirements
- The Inner Protection Area should comprise of the following
- Minimal fine fuel on the ground,
 - Vegetation that does not provide a continuous path to the building for the transfer of fire,
 - Shrubs and trees that do not form a continuous canopy and vegetation is planted in clumps rather than continuous rows,
 - Species that retain dead material or deposit excessive quantities of ground fuel are avoided,
 - Shrubs and trees are pruned so that they do not touch or overhang the building, and
 - Vegetation is located far enough away from the building so that plants will not ignite the building by direct flame contact or radiant heat emission
- 10) Emergency and Evacuation Planning An emergency evacuation plan is not recommended as a condition of consent
- 11) Water Supplies Reticulated water supply is located on the adjoining road at regular intervals and is easily accessible No additional water supplies have been recommended

12) Summary

This report consists of a bushfire risk assessment for the proposed residential development of refurbishment and alterations to an existing class 1A dwelling at No 1 William Street, Avalon

The report concludes that the proposed development is on designated bushfire prone land and the legislative requirements for development in bushfire prone areas are applicable. The proposed development will be constructed to the minimum standards required in accordance with the guidelines of *Planning for Bushfire Protection 2006*

This report has considered all of the elements of bushfire attack and provided the proposed development is constructed in accordance with the recommendations included in section 11 of this report, it is my considered opinion that the development satisfies the Objectives and Performance requirements of the *Building Code of Australia, Planning for Bushfire Protection 2006 and Australian Standard AS3959, 2009*

Notwithstanding the precautions adopted, it should always be remembered that bushfires burn under a wide range of conditions and an element of risk, no matter how small always remains, and although the standard is designed to improve the performance of such buildings, there can be no guarantee, because of the variable nature of bushfires, that any one building will withstand bushfire attack on every occasion

This Report has been prepared and submitted by R Coffey, FPA Australia, Certified Practitioner
Practitioner Certification No PBD-PA-09328

This Report is a Bush Fire Hazard Assessment that provides the required information to assist Local Council and the Rural Fire Service in determining compliance in accordance with Planning for Bushfire Protection and AS 3959, 2009 The Local Council is the Final Consenting Authority and the construction of the building must comply with the recommendations included in the Council's conditions of consent



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13) References

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Planning NSW [2006]
Planning for Bushfire Protection 2006
A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners
This document provides the necessary planning considerations when developing areas for residential use in residential, rural residential, rural and urban areas when development sites are in close proximity to areas likely to be affected by bushfire events and replaces Planning for Bushfire Protection 2001
This document is essential reading. Download a copy from the RFS website or purchase a copy through the NSW Government Online Shop or phone 9228 6333

Ramsay C & Rudolph L [2003]
Landscape and Building Design for Bushfire Prone Areas
CSIRO Publishing

Standards Australia [2009]
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Australian Building Code Board

14) Fences and Gates

BAL 12.5 & BAL 19

- 1 Where a timber fence does not connect to a dwelling and has a minimum of 1 metre separation from the dwelling then a fence may be constructed from hardwood, or non-combustible material
- 2 Where a fence connects directly to or has less than 1 metre separation from a dwelling it should be constructed from non-combustible materials only
- 3 In all cases where timber fences are proposed, care should be taken in the selection, location and maintenance of landscaping adjoining the fence. Unmanaged landscaping could promote fire activity due to ember, radiant heat and direct flame contact and then further impact timber fencing

The above is based on the premise that construction for level 1 & 2 dwellings is sufficiently removed from the main fire front and won't be subjected to direct flame contact or extreme levels of radiant heat that may cause ignition of combustible materials. However, dwellings could still be exposed to significant levels of ember attack and relatively high levels of radiated heat that may cause fences to ignite.

BAL 29, BAL 40 &/or Flame Zone

Dwellings assessed as requiring these construction levels shall have fencing constructed from non-combustible materials e.g. Sheet metal or masonry. This is due to the increased likelihood of direct flame contact causing ignition of combustible materials which may provide a fire path to the dwelling.