

19 October 2010

General Manager Pittwater Council PO Box 882 Mona Vale NSW 1660

Dear Sır,

Re Development Application No N0063/10 45 Florence Terrace, Scotland Island

For Council's information, please find enclosed Construction Certificate No 2010/3984 issued for alterations & additions to an existing dwelling & a separately accessible structure at the above address, accompanied by

- Copy Construction Certificate application form
- Notice of Commencement of Work and Appointment of Principal Certifying Authority
- Copy of Owner Builder Permit
- Cheque for \$30 00 being the prescribed fee to receive the above certificate

NB Please forward receipt for the above fee to Insight Building Certifiers Pty Ltd, PO Box 326, Mona Vale 1660

Yours faithfully

Tom Bowden

**Insight Building Certifiers Pty Ltd** 

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Prve \$ 30-00 R- 230183

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# Construction Certificate Determination

Issued under the Environmental Planning and Assessment Act 1979 Section 109C (1) (b) 81A (2) and 81A (4)

### Certificate No 2010/3984

Council	Pittwater
Determination	Approved
Date of issue	19 October 2010
Subject land	
Address	45 Florence Terrace, Scotland Island
Lot No DP No	Lot 92 DP 12749
Applicant	
Name	Mr Eamon Hamilton
Address	PO Box 218 Church Point NSW 2106
Contact No	9979 3718 / 0419 991 267
Owner	
Name	Mr Eamon & Mrs Karın Hamilton
Address	45 Florence Terrace, Scotland Island NSW 2105
Contact No	9979 3718 / 0419 991 267
Description of Development	
Type of Work	Alterations & Additions to an Existing Dwelling & a
	Separately Accessible Structure
Builder or Owner/Builder	
Name	Eamon Hamilton
Contractor Licence No/Permit	Owner Builder Permit no 379617P
Value of Work	
Building	\$343,000 00

### **Attachments**

- Copy of completed Construction Certificate Application Form
- Pittwater Council receipt no 288049 for payment of Long Service Levy !
- Pittwater Council Building Certificate reference no BC0104/10 dated 6 September 2010
- Fire Rated Construction Specification reference no Ad prepared by Peter Paine dated 16 September 2010
- BASIX Certificate no's A73663 & A73805 dated 15 January 2010

Suite 13/90 Mona Vale Road Mona Vale NSW 2103 PO Box 326 Mona Vale NSW 1660 ph 9999 0003 fax 9979 1555 email info@insightcert.com au web www.insightbuildingcertiffers.com au ABN 54 115 090 456

### Plans & Specifications certified

The development is to be carried out in compliance with the following plans and documentation listed below and endorsed with *Insight Building Certifiers* stamp

- Architectural Plans & Construction Specification, reference nos DA-01, DA-02, DA-03, DA-04, DA-05 DA-06 DA-07 DA-08 DA-09 DA-10 DA-11 DA-12 DA-13 DA-14 DA-15 DA-16 all prepared by Peter Paine dated 4 September 2009 & reference nos DA-21 & DA-22 prepared by Graeme Heine dated 11 February 2010
- Structural Details reference no 10/1680 drawing nos 51 rev B & 52 rev B dated 16 September 2010 drawing no 53 rev A dated 30 August 2010 all prepared & endorsed by F W B Civil Engineering
- Structural Design Compliance Certificate reference no SDC-01 prepared & endorsed by F W B Civil Engineering dated 9 September 2010
- Completed Form 2 Part A (pertaining to proposed dwelling) of Pittwater Council Geotechnical Risk Management Policy dated 8 September 2010
- Completed Form 2 Part B (pertaining to proposed dwelling) of Pittwater Council Geotechnical Risk Management Policy dated 16 September 2010
- Completed Form 2 Part B (pertaining to proposed Studio) of Pittwater Council Geotechnical Risk Management Policy dated 5 October 2010
- Stormwater Management Details reference no 26229-H1 prepared & endorsed by Jack Hodgson Consultants Pty Ltd dated 16 September 2010

### **Certificate**

I hereby certify that the above Plans documents or Certificates satisfy

- The relevant provisions of the Building Code of Australia
- The relevant conditions of this Development Consent

and that work completed in accordance with the documentation accompanying the application for this Certificate (and any modifications as verified by me and shown on that documentation) will comply with the requirements of the Environmental Planning & Assessment Regulation referred to in Section 81A(5) of the Environmental Planning & Assessment Act 1979

Signed

**Date of endorsement** 

**Certificate No** 

19 OCT 2010

2010/3984

Certifying Authority

Name of Accredited Certifier

Accreditation No

Accreditation Authority

Contact No

Address

Tom Bowden BPB0042

**Building Professionals Board** 

(02) 9999 0003

13/90 Mona Vale Road, Mona Vale NSW 2103

**Development Consent** 

Development Application No Date of Determination

N0063/10 17 June 2010

**BCA Classification** 

1a

LONG SERVICE BUILDING CONSTRUCTION	FORM NO	J = }
See reverse of form for instru	CETOUS OFFICE USE ONLY	adel-
	PLEASE PRINT ALL DETAILS USING CAPITA	
Surname (if person) or Company/Organisation name	KRUE6ER	
Given names (if person)	KARINDORECHOOLING	
POSTAL ADDRESS  No and street or PO Box	45 FLORENCE TLE	
	SCOTLANDISLAND	
Town/suburb	PUSSH DISTERNATION OF THE PUSSE	
State	NS Postcode 2 105 Bus hours phone UU1099116	7
		1
Number and street	45 FUORENCE TUE	
Town/suburb	SCOTUANDISLANDI	
State	VSW Postcode P105	
Estimated start date D	28 M 09 Y 2010 Estimated finish date D 28 M 10 Y 201	
Local Council Area	amenter certainses, of	
1 DA/CC/CDC No		
Estimated value of work (see note on back)	\$	C
<sup>1</sup> If you have provided a CC above		
	TOM BONDEN Business hours phone 99990003	
A CONTRACTOR OF THE PARTY OF TH	The state of the s	
Department/Authority		
Contract/DA No (circle which)	Contract amount \$	
Levy payable \$		
Contact person (Print)	Phone number	
Contact person (Signature)	Date D M	
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Any false or misleading information Thereby declare that the informati	n provided on this form may result in prosecution under Section 58A ion provided on this form is true and correct to the best of my knowledge	
Name KARIN KRU	ECEX Signature Date D IL M OF Y 2910	<u> </u>
xemption Approval Certificate No	£ 288049	
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ABN61340837871

02 9970 1111 '- 02 9970 7150

PO Box 882

Mona Vale NSW 1660

### **BUILDING CERTIFICATE NO BC0104/10**

DX 9018 Mona Vale

UNDER SECTION 149A OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979 (AS AMENDED)

THE PITTWATER COUNCIL

CERTIFIES THAT in relation to the building or part identified below the Council -

- By virtue of anything existing or occurring before the date of inspection stated in this certificate or (a)
- Within 7 years after that date by virtue of the deterioration of the building or part solely by fair wear and tear (b) WILL NOT -
- Make an order requiring the building to be repaired demolished altered or rebuilt by reason only of its design (c) appearance form of construction or state of repair or
- Take proceedings for an order or injunction requiring the demolition alteration addition or rebuilding of or to the (d) building or part by reason only of its design appearance form of construction or state of repair or
- Take proceedings in relation to any encroachment by the building or part onto land vested in or under the control of (e) the Council

### **IDENTIFICATION OF BUILDING**

45 FLORENCE TERRACE SCOTLAND ISLAND NSW 2105 **Property Address** 

Side of Street Eastern **Nearest Cross Street** 

10b Whole/Part Whole of Building Classification of Building

Description Timber and steel retaining wall in front of a water tank near the

middle of the northern side of the allotment

Owner EJFHAMILTON & KDKRUEGER Date of Inspection 6/09/2010

Legal Description of Land Lot 92 DP 12749

### **SCHEDULE**

The following written information was used by the Council in deciding to issue this certificate Survey report prepared by Souter & Associates Surveyors, dated 18/08/2010, Ref No 22/87 and report by Jack Hodgson Consultants Pty Ltd dated 18/8/10 ref VU 26229

Dated 6/09/2010

> Mark Ferguson **GENERAL MANAGER**

Applicant's Name EAMON JOHN FRANCIS HAMILTON, KARIN DOREEN KR PO BOX 218, CHURCH POINT NSW 2105

NB

An order made or proceedings taken in contravention of this certificate is of

2 The issue of a Building Certificate does not prevent

the of a Building Certificate does not prevent orders from being made against any person in relation to matters detailed in the table to Section 121 the Environmental Planning and Assessment Act (1979) (as amended) proceedings being taken against any person for failure to obtain development consent or to comply vany conditions of development consent pursuant to Section 125 of the Environmental Planning and (n)Assessment Act 1979

pittwater\_council@pittwaternsw.gov.au pittwaternsw.gov.au

Village Park 1 Park Street Mona Vale

59A Old Barrenioev Road Avalon

Units 11 12 13 + 16/5 Vuko Place Warriewood

1 Boondah Road Warriewood



## **APPLICATION FOR A** CONSTRUCTION CERTIFICATE Construction Certificate 1 6 SEP 23 Moduled Construction Certificate

1. Applicant's details  It is important that we are able to contact you if we need more information. Please give us as much details as possible.	
Mr Mrs Ms Dr Dr Other	
Given: Names (or AGN)  EAMON  HAMILTON  Postal Address (we will post all-mail to this address)	1928
1 PO BOX 218	
CHVRCH POINT  Daytime telephone  Alfermate no.  Mobile no.	
99793718 0407925657 0419 991 267	
Every-owner of the land must sign this form. If the owner is a company the form must be signed by an authorised director, and common sealingst be stamped on this form. If the property is a unit under the strata-title or a latin a community title, then in	addition
For the owner's signature, the commonised of the body corporate must be stamped on this form over the signature of the owner signed by the Chairman or Secretary of the Owner's Corporation or the appointed Managing Agent  Owner(s)	
EAMON HAMILTON AND KARIN KRVEGER	
45 FLORENCE TERRACE SCOTLAND ISLAND NOW 2005	
As owner(s) of the land to which this application relates, E/We consent to this application. E/We also consent for the Principal.  Centifying Authority and/on Accredited Centifier to enter the land to carry out inspections relating to this application.	
Signature(s)	
Without the owner's consent we will not accept the optilication. This is a very struct requirement, for all applications. If you are on the owner's behalf as the owner's legal representative, you must state the nature of your legal authority and a childocument.	signing
evidence (eg. power of ortonney, executor, trustee, company director, etc).  3. Location of property	9
Unit/Streeting Street name 12 12 20 20 20 20 20 20 20 20 20 20 20 20 20	
SUBURD ISLAND  FLORE MET TEXTACK  SCOTTAIND ISLAND  2105	- Carlotti
Legal Property Description (these details are shown on your rate notices, of opens, deeds, etc.	
Legal froger by Description (these details are shown on your fare notices of open seeds, etc.  Let no. 1	74 E

-	22	3.5	****		Manager P		m n	200	1000000		-0.2	0.000000000	200		200	-22
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			-		SC	3 8		44	2.77	4.23 1		4 100				

What type of work do you propose to carry out?

Please describe briefly everything that you want approved.

ALTERATIONS & ADDITIONS TO SEPARATE ACCESSIBLE STEVENEE (STUDIO)

### 5. Estimated cost of work

The estimated cost of the development or contract price may be subject to review

Estimated cost of work : \$ 343,000

### 6. Development Consent

Council Consent no

N0063/10

Date of Determination 17 OVNE 2010

### 7. Building Code of Australia classification

This can be found on the development consent.

BCA Classification:

### 8. Builder's details

Earnen Hamilton

Owner/builder permit no

### 9. Applicant's declaration

Lapply for a Construction Cartificate to carry out building works as described in this application. I declare that the above bevelopment Consent is valid and that no building works associated with this application have commenced. To the best of knowledge, all the information in this application and checklist is true and correct.

. 2010

### SUBMISSION REQUIREMENTS

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Α.	GENER	<u>RAL</u>	r a
Are t	ne plans s	submitted with t	hế Construction Certificate Application in accordance with the Development Consent?
	r	v r	Yes 🛛 No 🗌
Have	all the co	onditions of Dev	relopment Consent relating to the issue of the Construction Certificate been fully complied with?
			yes 🛛 No 🗌
If you	u have a	nswered NO	to either of the above questions, then you will need to speak with the Accredited Certifier PPLICATION
			(has the following required information been submitted?)
Уes	No	Not Applicable	In the case of an application for a Construction Certificate for building work
Ø			Three (3) copies of detailed architectural plans and specifications
_ Ø			The plan for the building must consist of a general plan drawn to a scale not less than 1 100 and a site plan drawn to a scale not less than 1 200. The general plan of the building is to  a) show a plan of each floor section b) show a plan of each elevation of the building c) show the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground d) indicate the height design, and full construction details e) indicate the provision for fire safety and fire resistance (if any)
			Where the proposed building work involves any alteration or addition to or rebuilding of an existing building all copies of the general plan are to be coloured or otherwise marked to the satisfaction of the Council to adequately distinguish the proposed alteration addition or rebuilding with a separate letter listing the proposed changes being submitted
苺	□		copies of a specification     a) to describe the construction and materials of which the building is to be built and the method of drainage sewerage and water supply     b) state whether the materials proposed to be used are new or second hand and give particular
Z		•	Where the proposed building work involves a modification to previously approved plans and specifications the general plans must be coloured or otherwise marked to the satisfaction of the Accredited Certifier to adequately distinguish the modification
		<b>12</b> (	If the proposed building work involves a modification to previously approved plans and specification which were subject of a Development Consent has the original Development Consent been modified by Council?
		ZÝ	Except in the case of an application for or in respect of domestic building work  a) a list of any fire safety measures that are proposed to be implemented in the building or on the land on which the building is situated and  b) if the application relates to a proposal to carry out any alteration or rebuilding of or addition to an existing building a separate list of such of those measures as are currently implemented in the building or on the land on which the building is situated. This list must specify the standard of design of each of those fire safety measures to which they were originally installed.  c) This list must describe the extent capability and basis of design of each of the measures concerned.
<b>[X</b> ]			Copy of BASIX Certificate & Schedule of BASIX Commitments
Ī		团	Copy of signed BASIX Compliance Statement
Ø			All other documentation to satisfy conditions of Development Consent

### HOME BUILDING ACT 1989 (as amended) OWNER/BUILDER REQUIREMENTS

Applicants for work at a residential property with a value of work over \$12 000 require insurance as specified in the Home Building Act 1989

Owner Builders require Property Owner Builders Permit issued by the Department of Fair Trading for all projects over \$5 000. In addition to this permit all projects valued in excess of \$12 000 may also require a contract of insurance under the provisions of the Home Building At 1989 as amended. This requirement will take effect should the property owner offer the property for sale in the ensuing period of 7 years.

Enquines on any matters relevant to this section should be taken up with the Department of Fair Trading at Level 21 Astra House 227 Elizabeth Street Sydney (ph 133220)

### LONG SERVICE LEVY (applies to all classes of buildings)

PARTICULARS OF THE PROPOSAL

A Long Service Levy at 0 35% of the cost of works is payable on projects valued \$25 000 or more. This sum can be paid directly to the Long Service Payments Corporation or to Council acting as an agent to the Corporation. Partial exemption from the levy may be granted to non-profit organizations, churches and to owner/builders. The levy may also be paid in instalments. Application forms for these exemptions are available from Council but all enquiries in this regard should be address to the Long Service Payments Corporation.

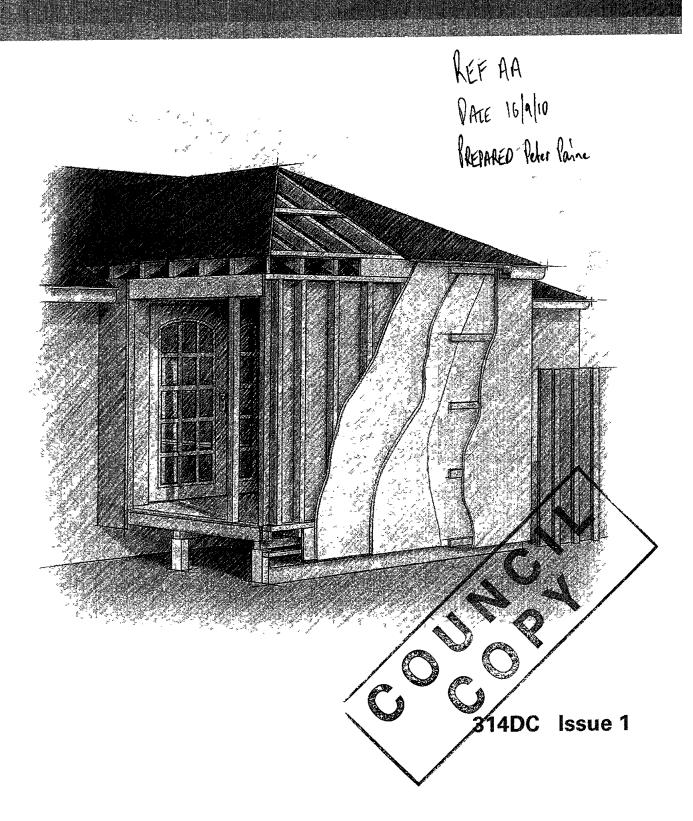
THE CONSTRUCTION CERTIFICATION CANNOT BE ISSUED UNLESS THE LONG SERVBICE LEVY AND HOME BUILDING ACT 1989 INSURANCE (APPLICABLE TO RESIDENTIAL PROPERTIES) HAVE BEEN PAID OR EVIDENCE OF THE EXEMPTION PROVIDED TO COUNCIL

What is the area of	the land (n	n²)>		Gross floor area of building (m²) as proposed					
Unknown	,			Vholory	1				
What are the cur building(s)/land?		of all or par	ts of the	Use Residen	race Terrace	e Seland	I Island		
Does the site contain Wo	n a dual occ	cupancy?		What is the gross building (sq metres)	2	the proposed	addition or ne		
What are the propositions and the lands		all parts of th	e building(s	Number of pre-exis	ting dwellings				
Number of dwellings	to be demo	olished		How many dwellings	proposed?				
Nos	rl	1	,	/					
How many storeys w	ll the build	ing consist of?		Will the new building	be attached t	o the existing b	ouilding?		
3	2_		e de la companya de l	Will the new building	be attached t	o any new buildi	ng?		
MATERIALS TO BE U	SED	***************************************	······································		***************************************		······································		
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~	_	L		s the new work will be	constructed of	~	~		
WALLS. Brick veneer		FLOOR Concrete		ROOF , Aluminium		FRAME Timber			
Full brick		Timber	ı - 🚺	Concrete		Steel			
Single brick		Other		Concrete tile		Other			
Concrete block		Unknown		Fibrous cement		Unknown			
Concrete/masonry				Fibreglass					
Concrete				Masonry/terracotta shi	ngle				
Steel				Tiles					
Fibrous cement	٥		1	Slate					
Hardiplank				Steel					
Timber/weatherboard				Terracotta tile					
Cladding-aluminium				Other					
Curtain glass				Unknown					
Other									
Unknown				ì		1	t		

**BORAL** 

# OUTRVALE.

**Exterior Wall Systems for Residential Construction** 



### 2 Introduction

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<b>Back Cover</b>
<b>Back Cover</b>

### Introduction

Developers are constantly looking for timber framed systems which will satisfy BCA requirements for external wall fire ratings and provide low-cost fast track construction on site Boral Plasterboard recognise this requirement and has developed the Out#WALL™ exterior wall system to meet this need

This manual discusses and illustrates this purpose designed system. Boral Plasterboard's Out RWALL™ exterior wall system is easy to build, using conventional materials, methods and equipment.

With the Boral Plasterboard Out RWALL™ exterior wall system new buildings can be constructed on or near the boundary and still satisfy the fire resistance requirements of the BCA

Providing fire ratings of 1 or 15 hours Boral Plasterboard Out RWALL™ exterior wall system provides effective resistance to the spread of fire from neighbouring buildings

Perfect for extensions to existing buildings Out RWALL™ exterior wall system is a cost effective, labour-saving way to upgrade the fire resistance rating of a boundary wall to comply with the Building Code

### Benefits

- Lightweight Construction,
- Low-cost alternative to brick wall construction,
- Standard load bearing timber stud wall construction
- Fire ratings of 1 or 15 hours to external load bearing timber framed walls, and
- Can extend existing buildings to boundary and meet BCA required fire resistance rating

### Description

This manual describes the Boral Plasterboard Out RWALL™ exterior wall system for use as fire rated exterior walls in residential buildings using timber framing

All details and information contained in this publication are intended as a general guide for use in exterior wall construction. Refer to the graphics on following pages for construction details

### OutRWALL<sup>1M</sup> Applications

The following summary is intended as a guide only Readers should satisfy themselves as to the requirements of the BCA by direct reference and/or through an appropriately qualified person

Building Classification and Type	Relevant OutRWALL™ System				
Class 1	OutRWALL 60				
Class 2 Type A orType B	OutRWALL 90C or OutRWALL 90F				
Class 2 Type A or Type B Sprinklers	OutRWALL 90A or OutRWALL 90D				
Class 2 Type C	OutRWALL 90 OutRWALL 90B or OutRWALL 90E				
Class 3 Type A or Type B	OutRWALL 90C or OutRWALL 90F				
Class 3 Type C	OutRWALL 90 OutRWALL 90B or OutRWALL 90E				
Class 10	OutRWALL 60				

### **Design and Specifications**

### Design Notes

- Frames, stumps and footings are to be designed and installed in accordance with the requirements of AS 1684 - 1999 "Residential Timber Framed Construction and AS 2870 - 1996 "Residential Slabs and Footings - Construction'
- Exterior cladding must be properly weather sealed for the life of the structure, particularly at ends, edges & joints Adequate drainage should be provided for any moisture which may develop inside the cladding due to condensation or leakage
- Boral Plasterboard drywall materials and accessories must be installed in accordance with the detailed specifications supplied in Boral Plasterboard Technical Literature
- Limiting heights will be determined by various design criteria including wind loads deflection limits, stud size, stud spacing and charfactor number where applicable
- With the introduction of "Charfactor numbers' assigned to each system, the designer/builder has greater choice available for selection of framing to meet the requirements of height, axial load and fire ratings. For detailed information on how to use. Charfactor Numbers" for framing selection, refer to Boral Plasterboard "Construction Selector. Technical Manual 1000".
- Movement or control joints should be installed (a) where the plasterboard abuts dissimilar materials and/or where the construction changes within the plane of the wall, (b) in long unbroken partition or wall runs at not more than 12 metre centres, and (c) as required to accomodate shrinkage of timber

### Fire Performance

The Out RWALL™ system has been assessed by Warrington Fire Research in their assessment Nos WFRA C91580 and WFRA C91585 for fireratings of 1 hour and 15 hours The system must be assembled in accordance with the relevant assessment

### Acoustic Performance

Acoustic performance may be improved with variations in plasterboard, stud and/or partition width and choice of insulation. These variations offer a wide choice of attainable R<sub>w</sub> values. For details, contact Boral Plasterboard.

### Cladding

"Lightweight Cladding includes, but is not limited to

- Fibre cement sheets, profiles and weatherboard,
- Timber or hardboard weatherboards
- · Steel or aluminium profiles, and
- Plywood

Note Cladding does not include materials with a self ignition temperature of less than 200°C except where the fire rating is from the outside only

### Pretabricated Walls

Where conventional construction can not be used due to difficult access, the Boral Out RWALL™ exterior wall system may be prefabricated prior to erection

### Plasterboard Standard

Boral Plasterboard is manufactured in accordance with Australian Standard A S 2588 - 1983 "Gypsum Plasterboard" and is to be installed generally in accordance with the requirements of Australian/ New Zealand Standard A S/NZS 2589 1 1997 Part 1 Gypsum Plasterboard '

### **Architectural Specification**

### Scone

Specify to meet project requirements

### Qualifications

All materials, unless otherwise indicated shall be manufactured by Boral Plasterboard and shall be installed in accordance with its current printed instructions

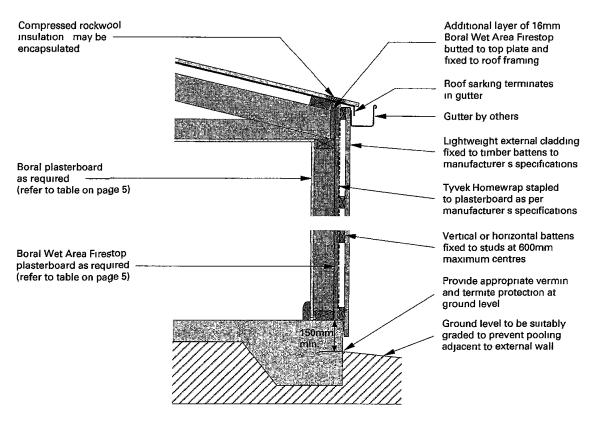
### Delivers and Storage of Materials

All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall be removed from the site.

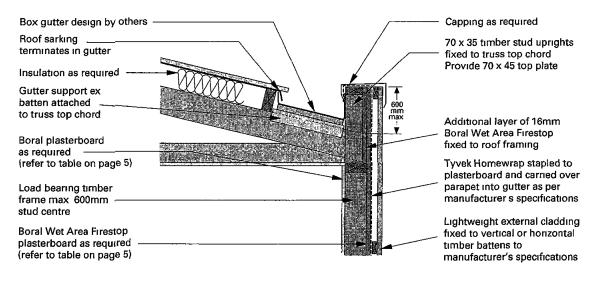
### Framing

Timber framing to receive plasterboard lining shall be structurally sound, free from bow and in general compliance with Building Code requirements. Damaged and excessively bowed studs shall be replaced before installation of plasterboard lining Timber framing shall approximate the moisture content it will reach in service by allowing the enclosed building to stand as long as possible prior to the application of plasterboard Do not install plasterboard over wet framing

### OutRWALL™ 60, 90 and 90A

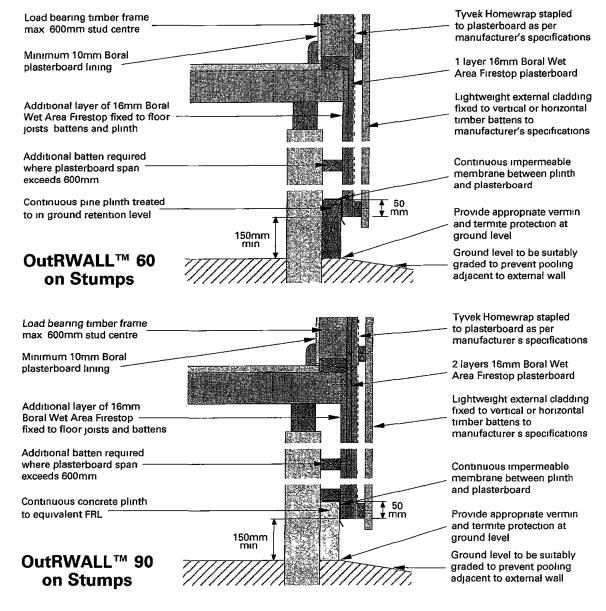


Typical System on Slab



**Box Gutter Option** 

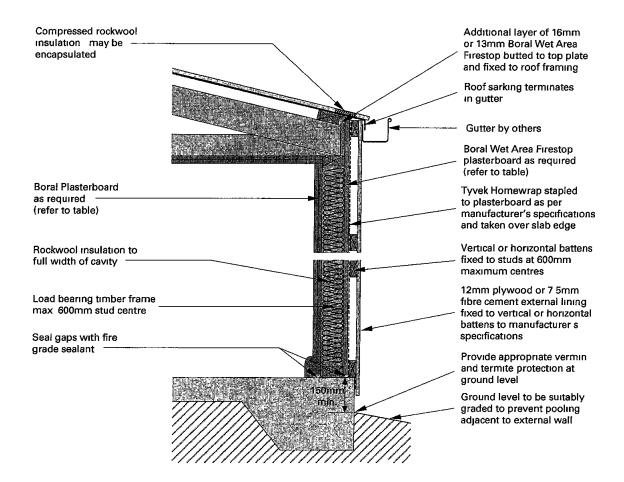
### **Construction Details**



System	Internal Plasterboard	External Plasterboard	Charfactor	FRL*
OutRWALL™60	1 x 10mm Standard Core	1 x 16mm Wet Area Firestop as per system TS3	11	60/60/60 from outside only
OutRWALL™90	1 x 10mm Standard Core	2 x 16mm Wet Area Firestop as per system TS14	N/A	90/90/90 from outside only
OutRWALL™90A	1 x 16mm Wet Area Firestop	2 x 16mm Wet Area Firestop as per system TS14	11	90/90/90 from outside 60/60/60 from inside

- Frame and footings to be in accordance with AS 1684 1999 Residential Timber Framed Construction and AS 2870 1996 Residential Slabs and Footings Construction
- Provide movement joint where timber shrinkage is expected
- Brick footing options are also available Contact Boral Plasterboard for details (see back page)
- Ensure that lateral support to top of wall is maintained during a fire event \* Warrington Fire Research Assessment No WFRA C91580

### OutRWALL™ 90B, 90C and 90D (with Rockwool insulation)



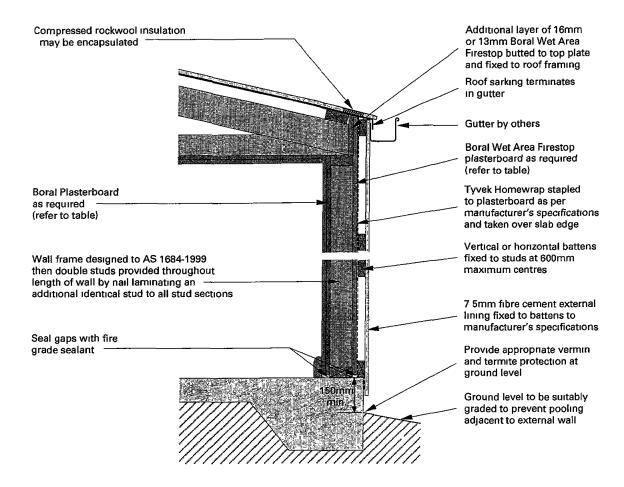
Typical System on Slab

System	Internal Plasterboard	External Plasterboard	Charfactor	FRL*
OutRWALL™ 90B	1 x 10mm Standard Core	2 x 13mm Wet Area Firestop as per system TS15	N/A	90/90/90 from outside only
OutRWALL™90C	2 x 13mm Firestop	1 x 16mm Wet Area Firestop as per system TS3	N/A	90/90/90 from both sides
OutRWALL™90D	1 x 16mm Firestop	1 x 16mm Wet Area Firestop as per system TS3	11	90/90/90 from outside 60/60/60 from inside

- Frame and footings to be in accordance with AS 1684 1999 Residential Timber Framed Construction and AS 2870 1996 Residential Slabs and Footings Construction
- Provide movement joint where timber shrinkage is expected
- Brick and stump footing options are also available Contact Boral Plasterboard for details (see back page)
- Ensure that lateral support to top of wall is maintained during a fire event
  \* Warrington Fire Research Assessment Nos WFRA C91580 and WFRA C91585

### **Construction Details**

### OutRWALL™ 90E and 90F (with double studs)

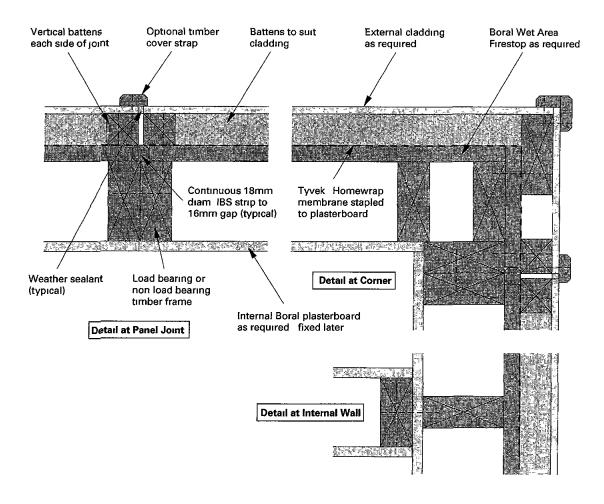


Typical System on Slab

System	Internal Plasterboard	External Plasterboard	Charfactor	FRL*
OutRWALL™90E	1 x 10mm Standard Core	2 x 13mm Wet Area Firestop as per system TS15	N/A	90/90/90 from outside only
OutRWALL™90F	2 x 13mm Firestop	1 x 16mmWet Area Firestop as per systemTS3	N/A	90/90/90 from both sides

- Frame and footings to be in accordance with AS 1684 1999 Residential Timber Framed Construction and AS 2870 1996 Residential Slabs and Footings Construction Provide movement joint where timber shrinkage is expected
- Brick and stump footing options are also available Contact Boral Plasterboard for details (see back page)
- Ensure that lateral support to top of wall is maintained during a fire event \*Warrington Fire Research Assessment No WFRA C91580

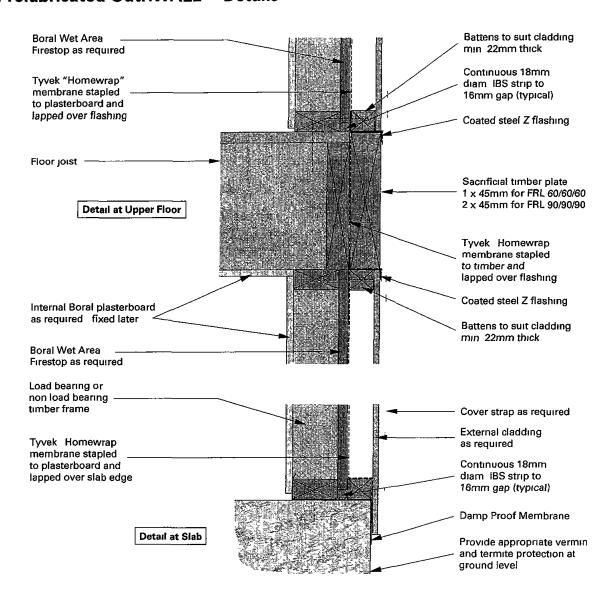
### Prefabricated OutRWALL™ Details



**Horizontal Section Detail** 

### **Construction Details**

### **Prefabricated OutRWALL™ Details**



**Vertical Section Detail for Multi storey Construction** 

### 10 Materials

### Plasterboard

### **Standard Core**

10mm thick 1200mm and 1350mm wide plasterboard length as required

### Wet Area Firestop

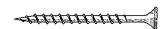
13mm and 16mm thick, 1200mm wide plasterboard, lengths as required

### **Fasteners**

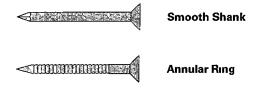
Number of		Nails 🐧		Screws		
Layers of Plasterboard x Thickness	Smooth Shank	Annular Ring Shank	Uninail	Type W		
	40mm¹	30mm¹	30mm <sup>1</sup>	0.7		
1 x 10mm	30mm²	30mm <sup>2</sup>	30mm <sup>2</sup>	25mm		
	- 50mm <sup>1</sup>					
1 x 16mm	50mm²			32mm		
	65mm <sup>1</sup>		. , .			
2 x 16mm	65mm²		^	45mm		
0 40	65mm <sup>1</sup>		-	# PT		
2 x 13mm	65mm²	•	-	45mm		
1 = Softwood 2 = Hardwood						

### Screws

Wood/Timber screws Type W for fastening plasterboard to timber framing



### Naıls

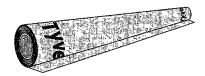




### Water Proofing Vlembrane

### Tyvek® Homewrap™

Used to line the outer face of plasterboard sheeting behind exterior cladding **Tyvek**® is a registered trademark of DuPont



### Caulking and Sealants

Boral FyreFlex or other approved fire rated sealant

Fire resistant sealant used as a flexible sealant at movement joints and wall/floor bases



### Fyre Seal IBS (or equivalent)

A Promat Fyreguard Pty Ltd product used as a flexible and expandable fire sealant in lieu of, or in conjunction with, Boral Plasterboard Fyreflex Sealant For use in construction joints and floor/wall bases



### **Boral Cornice Adhesive**

Used in fire rated systems to caulk gaps between plasterboard wall and structure (eg floor/wall base)



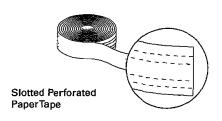
### Materials

### Joint Treatment

Any of the range of Boral Plasterboard Jointing Systems, reinforced with slotted perforated paper tape, may be used for jointing over internal Standard Core, Firestop & Wet Area Firestop plasterboard

**Note** Taping and setting is not required on external plasterboard

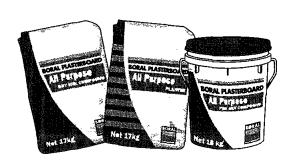
Paper Tape



### Taping and Basecoating Compounds



All Purpose Jointing Compounds



### **Finishing Compounds**



Metal Irims & Accessories

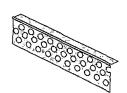
Rondo Plaster Stopping Bead P13



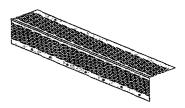
Rondo Plaster Casing Bead P07, P08



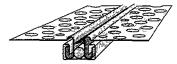
Rondo Plaster Long Leg Stopping Angle P26 P27

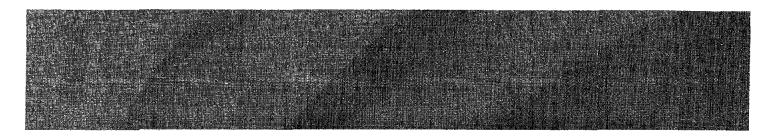


Rondo Plaster Corner Bead P01, P32 and P55



Control Joint Component Part No P35





### Guarantec

Products manufactured and supplied by Boral Australian Gypsum Limited (BAGL) A C N 004 231 976 trading as Boral Plasterboard are guaranteed to be of consistent quality and free from any defects

Boral Plasterboard products must be installed using the components and accessories specified and in accordance with the instructions detailed in Boral Plasterboard's technical literature

Our products are manufactured to suit the requirements of the building industry in Australia

Boral Plasterboard may limit its liability under this guarantee to at its option the replacement or payment of the cost of replacing. OR supplying equivalent or payment of the cost of supplying equivalent OR the repair or payment of the cost of repairing products found to be defective.

### **Important Note**

The technical information contained within this manual was correct at the time of printing. Building Systems and details are however subject to change To ensure the information you are using is current. Boral Plasterboard recommends you review the latest building information.

available electronically on TecSYS (our technical catalogue on CD) or the Boral Plasterboard Website Alternatively contact your nearest Boral Plasterboard Sales Office or TecASSIST (see details below)

Through TecASSIST Boral Plasterboard is demonstrating its commitment to providing excellent technical service and support to design building and construction professionals Australia wide

A free call architectural support line TecASSIST is available to provide sound advice on all matters relating to drywall plasterboard construction

Combining years of professional experience with the latest design information and technology the TecASSIST team has the skills to help you

Boral PlasterboardTecASSIST phone line is open to receive calls from 9 00am to 5 00pm Monday to Friday Melbourne time (Victorian public holidays excepted)



FREE-CALL 1800 811 222

24 hour fax (03) 9645 1812 email techdesk@plasterboard boral com au

### Queensland

733 Nudgee Road Northgate 4013 Telephone (07) 3215 2244 Fax (07) 3215 2299

### **New South Wales**

3Thackeray Street Camellia 2142 Telephone (02) 9638 0571 Fax (02) 9638 5557

### South Australia

113 117 Bedford Street Gillman 5013 Telephone (08) 8240 8888 Fax (08) 8341 1004

### Victoria

676 Lorimer Street Port Melbourne 3207 Telephone (03) 9214 2138 Fax (03) 9646 1912



### Export Department 676 Lorimer Street

Port Melbourne 3207 Telephone (03) 9214 2138 Fax (03) 9646 1109 Western Australia
12 Hoskins Road Landsdale 6065

12 Hoskins Road Landsdale 6065 Telephone (08) 9400 2666 Fax (08) 9302 1133

### ACT

7 Barrier Street Fyshwick 2609 Telephone (02) 6280 4243 Fax (02) 6280 5816

### Tasmanıa

93 Albert Road Moonah 7009 Telephone (03) 6278 9966 Fax (03) 6278 9865

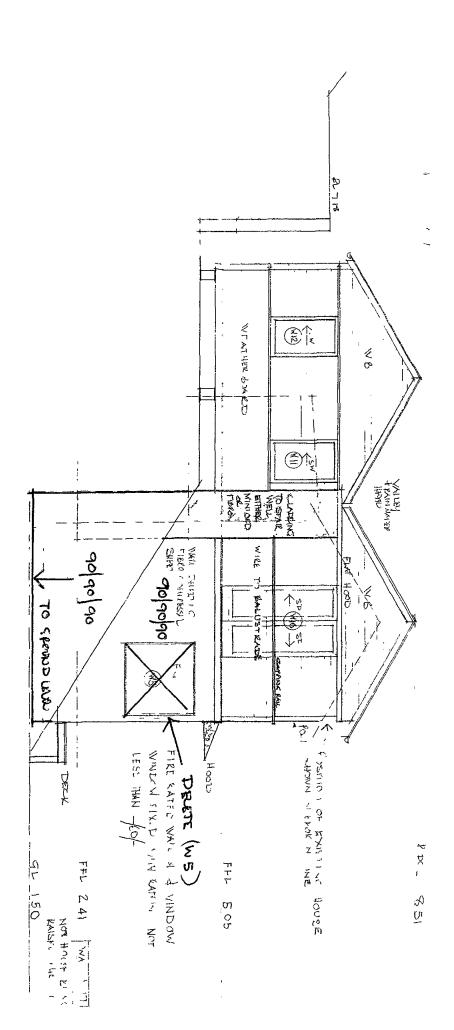
### Northern Territory

Cnr Coonawarra Road & Mataram Street Winnellie 0820 Telephone (08) 8984 4484 Fax (08) 8984 3778

Boral Plasterboard Website: http://www.plasterboard.boral.com.au

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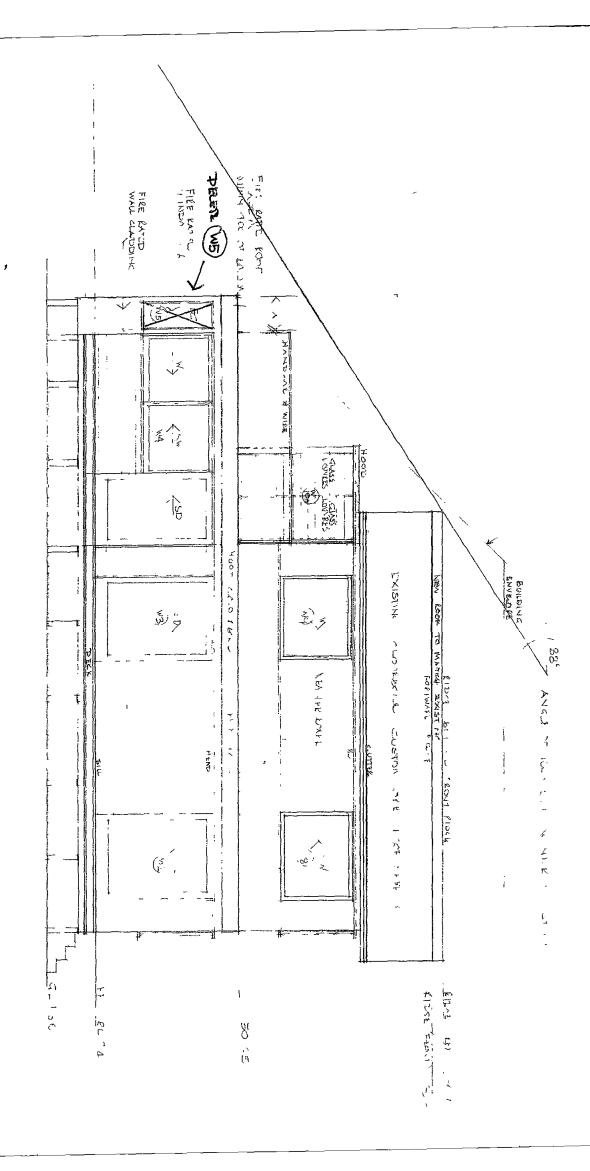


SOUTH ELEVATION

<u>{</u>

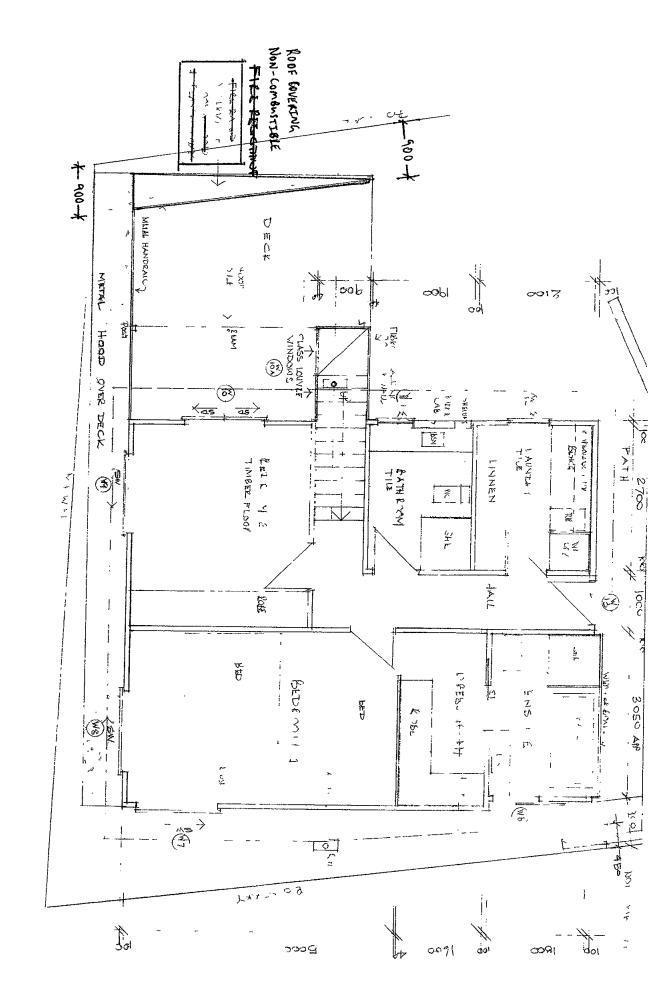
SCALE 1 50 DATE 4 SEPT 2009 DRAWN BY PETER PAINE DWG No DA 07

MOOTIANT IN ANT



ボネの十 世し世くとこう 乙

X KRUEGER 5CAUL 1 50 TAT. m 4 SEPT ZOOY HAMILTON DRAWN BY LOT 92 Nº 45 FLOPENCE TERRACE PETER PAINE DWG N DA O4 DCOTTAND ISLAND



FIRST FLOOR PLAN

K Krueger & E Hamilton

Project address

Project name

# **BASI** Certificate

Building Sustainability Index www basix nsw gov au

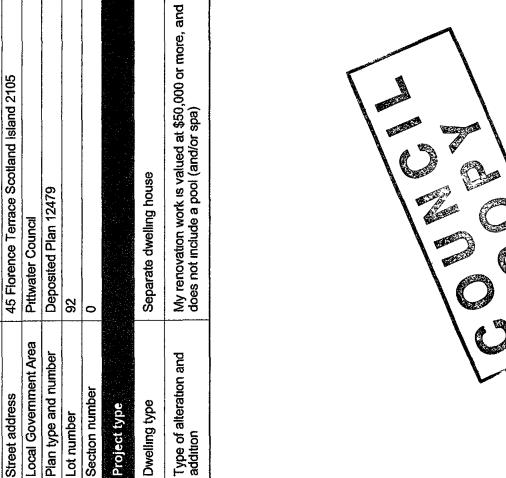
# Alterations and Additions

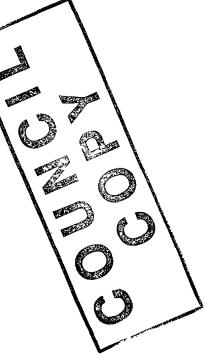
Certificate number A73663

have the meaning given by the document entitled "BASIX Alterations and Additions Definitions" dated 29/9/2006 published by Department of Planning This document commitments set out below Terms used in this certificate or in the commitments, government's requirements for sustainability, if it is built in accordance with the This certificate confirms that the proposed development will meet the NSW is available at www basix nsw gov au

Director General Date of issue Friday 15 January 2010







BASIX Certificate number A73663

Sixtures and systems Dy	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Howaie		and them states which was the	A STATE OF THE STA
The applicant must install the following hot water system in the development solar (electric-boosted) system that is eligible to create Renewable Energy Certificates under the (Commonwealth) Renewable Energy (Electricity) Regulations 2001 (incorporating Amendment Regulations 2005 (No. 2))	>	>	>
THE CHAPTER OF THE PROPERTY OF			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps		>	>
Fixtures			λ.
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating	<del></del>	>	>
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating		>	>
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating		>	

Building Sustainability Index www basix nsw gov au

Construction Construction Insulation requirements	The state of the s		Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
The applicant must construct the new or altered construction (floor(s), walls, an the table below, except that a) additional insulation is not required where the ar is not required for parts of altered construction where insulation already exists	C ==	id ceilings/roofs) in accordance with the specifications listed in ea of new construction is less than 2m2, b) insulation specified	>	>	>
Construction	Additional insulation required (R-value)	Other specifications			·······
suspended floor with enclosed subfloor framed (R0 7)	R0 60 (down) (or R1 30 including construction)				
external wall framed (weatherboard, fibro, metal clad)	R1 30 (or R1 70 including construction)				
flat ceiling, pitched roof	ceiling R3 00 (up), roof foil/sarking	medium (solar absorptance 0 475 - 0 70)			

Building Sustainability Index www basix nsw gov au

Glazing re	Glazing requirements						Show on DA Plans	Show on CC/CDC	Certifier Check
								Plans & specs	
Windows	s and glazed do	oors	43.5 Min 23.	to the second second second	Windows-and glazed doors				when a her a
The appli Relevant	cant must install ti overshadowing sp	he windows secifications	s, glazed ( s must be	doors and sh satisfied for	The applicant must install the windows, glazed doors and shading devices, in accordance with the Relevant overshadowing specifications must be satisfied for each window and glazed door	The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below Relevant overshadowing specifications must be satisfied for each window and glazed door	>	>	>
The follov	wing requirements	must also	be satısfik	ed in relation	The following requirements must also be satisfied in relation to each window and glazed door			>	>
Each winhave a U. must be c	dow or glazed doc -value and a Solar calculated in accor	or with stander Heat Gain Idance with	dard alum Coefficie National	unrum or timl nt (SHGC) n Fenestration	Each window or glazed door with standard aluminium or timber frames and single clear or toned have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions	Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.		>	>
For project above the	ctions described II	n milimetre low or glaze	s, the lea ≥d door ar	ding edge of nd no more th	For projections described in millimetres, the leading edge of each eave, pergola, verandah, balco above the head of the window or glazed door and no more than 2400 mm above the sill	For projections described in milimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill	>	>	>
For project least that	For projections described as a ratic least that shown in the table below	is a ratio, the below	ne ratio of	the projectio	on from the wall to the height above tl	For projections described as a ratio, the ratio of the projection from the wall to the height above the window or glazed door sill must be at least that shown in the table below	>	>	>
Pergolas	with polycarbonat	te roof or sii	milar tran	slucent mate	Pergolas with polycarbonate roof or similar translucent matenal must have a shading coefficient of less than 0 35	of less than 0 35		>	>
External	louvres and blinds	must fully:	shade the	window or g	External louvres and blinds must fully shade the window or glazed door beside which they are sit	which they are situated when fully drawn or closed		>	>
Pergolas shades a	with fixed battens perpendicular wir	must have	battens passed	parallel to the	Pergolas with fixed battens must have battens parallel to the window or glazed door above which shades a perpendicular window. The spacing between battens must not be more than 50 mm.	door above which they are situated, unless the pergola also re than 50 mm	·	>	>
Window	Windows and glazed doors glazing requirements	doors gl	azıng r	equiremer	nts				
Window	Window Orientation	Area of	Overshadowing	dowing	Shading device	Frame and glass type			
/ door no.		glass	Height	Distance			····		
		frame (m2)	Œ)	(m)					
W1	NN	17	0	0	external louvre/blind (fixed)	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W2	W.	25	0	0	projection/height above sill ratio	timber or uPVC, single clear, (or U-value 5.71, SHGC 0.66)			
W3	NE	25	0	0	projection/height above sill ratio	timber or uPVC, single clear, (or U-value 571, SHGC 0 66)			· · · · · · · · · · · · · · · · · · ·
W4	NE	86	0	0	projection/height above sill ratio	timber or uPVC, single clear, (or U-value			

Building Sustainability Index www basix new gov au

BASIX Certificate number A73663

Giazing	Giazing requirements						Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window	Window Orientation	Area of	Overshadowing	lowing	Shading device	Frame and glass type			
/ door no.		glass inc.	ght	Distance		3			
		frame	(m)	(m)					
		(m2)							
					>=0 43	571 SHGC 066)			
W5	SE	15	0	0	none	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W6	WW	<u> </u>	0	0	external louvre/blind (fixed)	timber or uPVC single clear (or U-value 5 71, SHGC 0 66)			
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	W	17	0	0	external louvre/blind (fixed)	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W8	Z	19	0	0	external louvre/blind (fixed)	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W9	Nii Nii	19	0	0	external louvre/blind (fixed)	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W10	SE	21	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W11	SE	07	0	0	none	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W12	SE	07	0	0	none	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W13	WS		0	0	projection/height above sill ratio >=0 23	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			

# **BASI** Certificate

Building Sustainability Index www basix nsw gov au

Alterations and Additions

Certificate number A73663

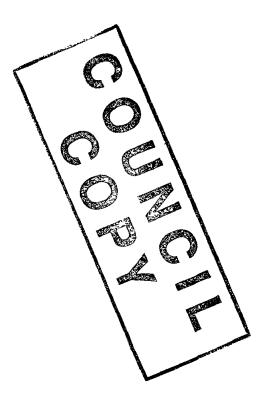
HUX

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 29/9/2006 published by Department of Planning. This document is available at www basix nsw gov au.

Director-General
Date of issue Friday 15 January 2010



Project address	
Project name	K Krueger & E Hamilton
Street address	45 Florence Terrace Scotland Island 2105
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 12479
Lot number	92
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at \$50,000 or more, and does not include a pool (and/or spa)



nts  rect the new or altered construction (floor(s), walls, and ceilings/roofs) in that a) additional insulation is not required where the area of new construction where insulation already exists  Additional insulation required (R-value)  reciproced subfloor  construction)  R0 60 (down) (or R1 30 including construction)  reatherboard, fibro,  R1 30 (or R1 70 including construction)						
the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in accordance with the specifications listed in specified construction where insulation already exists  Additional insulation required (R-value)  Other specifications  Additional insulation required (R-value)  Other specifications  R1 30 (or R1 70 including construction)				modeum (solar obsorators of AZE 0.70)	caling R3 00 (in) roof followking	I flat celing nitched roof
Show on Show on CC/CDC Plans CC/CDC Plans & specs  and additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified in additional insulation already exists  Additional insulation required (R-value)  Additional insulation required (R-value)  Other specifications  R0 60 (down) (or R1 30 including construction)  Other specifications  R1 30 (or R1 70 including construction)						
Show on Show on CC/CDC Plans & specifications insulation is not required where the area of new construction is less than 2m2, b) insulation specified ered construction where insulation required (R-value)  Additional insulation required (R-value)  Other specifications  R0 60 (down) (or R1 30 including construction)  Other specifications		•				metal clad)
Show on Show on CC/CDC Plans & specs  the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in ered construction where insulation already exists  Additional insulation required (R-value)  Other specifications  R0 60 (down) (or R1 30 including construction)					R1 30 (or R1 70 including construction)	extemal wall framed (weatherboard, fibro,
Show on Show on CC/CDC Plans & specs the new or altered construction (floor(s), walls, and cellings/roofs) in accordance with the specifications listed in additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified ered construction where insulation already exists  Additional insulation required (R-value)  Other specifications  Other specifications		•				
Show on Show on DA Plans CC/CDC Plans & specs  the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in ered construction where insulation already exists  Additional insulation required (R-value) Other specifications  R0 60 (down) (or R1 30 including					construction)	Iramed (RU /)
Show on Show on CC/CDC Plans CC/CDC Plans & specs specifications insulation is not required where the area of new construction is less than 2m2, b) insulation specified Additional insulation required (R-value)  Other specifications					R0 60 (down) (or R1 30 including	suspended floor with enclosed subfloor
Show on Show on CC/CDC the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in specified construction where insulation already exists  Additional insulation required (R-value)  Other specifications						
Show on Show on CC/CDC Plans & Specs the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified specified construction where insulation already exists				Other specifications		Consulticatori
Show on Show on CC/CDC Plans CC/CDC Plans & specs  the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified ered construction where insulation already exists						Construction
Show on Show on CC/CDC DA Plans CC/CDC Plans & specs  the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in a leady exists  Show on Show on CC/CDC Plans & specs  specs					The state of the s	
Show on Show on CC/CDC DA Plans CC/CDC Plans & specs  the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in   Additional insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) insulation is not required where the area of new construction is less than 2m2 b) in accordance with the specifications are not required where the area of new construction is less than 2m2 b) in accordance with the specifications are not required where the area of new construction is less than 2m2 b) in accordance with the specifications are not required where the area of new construction is less than 2m2 b).					where insulation already exists	is not required for parts of altered construction
Show on Show on DA Plans CC/CDC Plans & specs	<	<	<		tion is not required where the area of new construc-	the table below, except that a) additional insula
Show on Show on DA Plans CC/CDC Plans & specs	_	_				The applicant must execute the second second
Show on Show on DA Plans CC/CDC Plans & specs				Control of the state of the sta		
Show on Show on DA Plans CC/CDC Plans & specs	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 ,	2 2 2	LONG STATES OF STATES S	である。	1 th 1987 A
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Show on Show on	Check	CC/CDC	DA Plans			
	Certifier	Show on	Show on			
						Construction

	-		Projection meight above sin faillo infiber of ur vc, single clear, (or o-value
			NE 25 0 0 projection/height above sill ratio
			25
			W1 NW 17 0 0 external louvre/blind (fixed) timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)
	<del>,</del>		(m2)
		. — — ,	of Overshac
			Windows and glazed doors glazing requirements
<	<		Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.
<	<		External louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed
<	<		Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0 35
<	<	<	For projections described as a ratio, the ratio of the projection from the wall to the height above the window or glazed door sill must be at least that shown in the table below
<	<	<	For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill
<	<		Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.
<	<		The following requirements must also be satisfied in relation to each window and glazed door
<	<	<	The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below Relevant overshadowing specifications must be satisfied for each window and glazed door
San St. St. St. V.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Windows and glazed doors
n Certifier Check	Show on CC/CDC Plans & specs	Show on DA Plans	

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Glazingi	Giazing requirements							Show on DA Plans	Show on CC/CDC	Certifier Check
									specs	
Window	Window Orientation	Area of	Overshadowing	dowing	Shading device	Frame and glass type				
/ door		glass	Height	Distance						
7.0		inc. frame		(m)			<i>7</i> 3.4			
		(m2)								
					>=0 43	571, SHGC 066)				
W5	SE	15	0	0	none	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			···
W6	WW	1 1	0	0	external louvre/blind (fixed)	timber or uPVC single clear (or U-value 5 71, SHGC 0 66)	-value			
W7	WW	17	0	0	external louvre/blind (fixed)	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			
W8	Ä	19	0	0	external louvre/blind (fixed)	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			
W9	NE	19	0	0	external louvre/blind (fixed)	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			<del> </del>
W10	SE	21	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			
W11	SE	07	0	0	none	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			
W12	SE	07	0	0	none	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			
W13	WS	<u>-</u> \	0	0	projection/height above sill ratio >=0 23	tumber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)	-value			

Department of Planning

## eyenu

In these commitments, "applicant" means the person carrying out the development

development application is to be lodged for the proposed development) Commitments identified with a "/" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a

certificate / complying development certificate for the proposed development Commitments identified with a ".../" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction

development may be issued Commitments identified with a " / " in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the

page 1 / 6

# **BASI** Certificate

Building Sustainability Index www basix nsw gov au

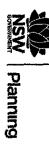
# Alterations and Additions

Certificate number A73805

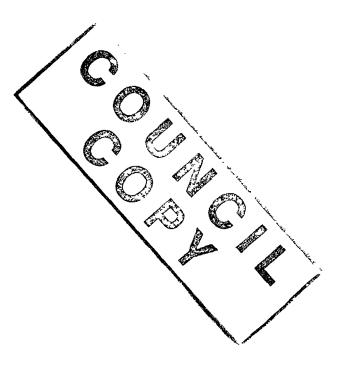
STAPIO

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 29/9/2006 published by Department of Planning. This document is available at www basix nsw gov au.

Director-General
Date of issue Friday 15 January 2010



Project address	
Project name	K Krueger & E Hamilton- Studio
Street address	45 Florence Terrace Scotland Island 2105
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 12479
Lot number	92
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at \$50,000 or more and does not include a pool (and/or spa)



The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating	The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating	The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating	Fixtures	The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent or light-emitting-diode (LED) lamps	Lighting of the second of the	The applicant must install the following hot water system in the development solar (electric-boosted) system that is eligible to create Renewable Energy Certificates under the (Commonwealth) Renewable Energy (Electricity) Regulations 2001 (incorporating Amendment Regulations 2005 (No. 2))	Hotwater		Show on DA Plans
							1. Sec. 1. 1. 2. 1.	sp	
<	<	<		<		<u> </u>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	specs	Show on CC/CDC Plans &
	<	<	~ K	<	s- *-	<u> </u>			Certifier Check

		medium (solar absorptance 0 475 - 0 70)	ceiling R3 00 (up), roof foil/sarking	flat ceiling, pitched roof
			R1 30 (or R1 70 including construction)	external wall framed (weatherboard fibro, metal clad)
			R0 60 (down) (or R1 30 including construction)	suspended floor with enclosed subfloor framed (R0 7)
		Other specifications	Additional insulation required (R-value)	Construction
<	<	the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists	tion is not required where the area of new conwhere insulation already exists	the table below, except that a) additional insulation is not required where the as not required for parts of altered construction where insulation already exists
A Committee of the second of t	, , , , , , , , , , , , , , , , , , ,			Insulation requirements
specs				
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	DA Plans			
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Glazing re	Glazing requirements						Show on	Show on	Certifier
							DA Plans	CC/CDC	Check
								specs	
SwopulM	Windows and glazed doors	Ors Sim	1 " 5 " " " " " " " " " " " " " " " " "		The Constitution of the Co	The second of th		, ten	Websell Control of
The applic	ant must install the overshadowing spe	e window:	s glazed s must be	doors and sha satisfied for	The applicant must install the windows glazed doors and shading devices, in accordance with the Relevant overshadowing specifications must be satisfied for each window and glazed door	The applicant must install the windows glazed doors and shading devices, in accordance with the specifications listed in the table below Relevant overshadowing specifications must be satisfied for each window and glazed door	<	<	<
The follow	ing requirements r	nust also	be satisfi	ed in relation	The following requirements must also be satisfied in relation to each window and glazed door			<	<
Each winchave a U-must be co	tow or glazed door value and a Solar l alculated in accord	with star Heat Gair lance with	ndard alun n Coefficie n National	nınıum or tımt ənt (SHGC) nı Fenestratıon	Each window or glazed door with standard aluminium or timber frames and single clear or toned have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions	Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.		<	<
For project least that	For projections described as a ration east that shown in the table below	a ratio, ti below	he ratio of	f the projectio	n from the wall to the height above t	For projections described as a ratio, the ratio of the projection from the wall to the height above the window or glazed door sill must be at least that shown in the table below	<	<	<
Window	Windows and glazed doors glazing requirements	doors g	lazıng r	equiremen	TS		[		
Window / door no.	Orientation	Area of glass inc.	Area of Overshadowing glass Height Distanting	Distance	Shading device	Frame and glass type			
		trame (m2)							
W1	NE	64	0	0	projection/height above sill ratio >=0 36	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W2	NE	55	0	0	projection/height above sill ratio >=0 36	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W3	SE	N	0	0	projection/height above sill ratio >=0 43	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W4	SE	9.0	0	0	projection/height above sill ratio >=0 23	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W5	WS	71	0	0	projection/height above sill ratio >=0 43	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W6	WN	2	0	0	projection/height above sill ratio >=0 43	tmber or uPVC single clear (or U-value 5 71 SHGC 0 66)			1100
W7	WN	9.0	0	0	projection/height above sill ratio >=0 23	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			

## Legend

in these commitments, "applicant" means the person carrying out the development

Commitments identified with a "</" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development)

Commitments identified with a " \strace{" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development

Commitments identified with a "\/" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued



ABN 58 283 181 016

Structural

Civil

Stormwater

FO 70% 2073 Pm a NS 11 /2 P 02 4871 2250 F 02 4871 2705 A 17 2 1 3 5 6 E 1 ce@urportom

Ry. SOC-01

9 September 2010

Mr E Hamilton & Ms K Krueger C/o Peter Paine 31 Bellevue Avenue Avalon, NSW 2107

Attention Mr E Hamilton & Ms K Krueger

### RE 45 FLORENCE TERRACE, SCOTLAND ISLAND – PRIVATE RESIDENCE Structural Design Statement

I hereby certify that all aspects of the structural design issued by this office (10/1680 S1, S2 & S3) are in accordance with DA Conditions B1 & B2. All structural elements below the Estuarine Planning level were designed to achieve a low risk of damage and instability due to the estuarine hazard.

Requirements the design is in accordance with

BCA - 3 11

AS/NZS1170 0

AS/NZS1170 1

AS/NZS1170 2

BCA – 3 2 3 AS3600 – Concrete Structures BCA – 3 4 4 AS4100 – Steel Structures

BCA – 3 2 5 AS2870 – Residential slabs and footings

BCA - 3 4 3

AS1684 - Residential timber framed construction

I am an appropriately qualified engineer and a Member of the Institution of Engineers (Membership No 843788) and as such can certify that the design and performance of the design complies with the above

Should you have any questions or queries in regard to this report please do not hesitate to contact me on any of the above numbers

Yours faithfully FWB Civil Engineering

-376,1K.

Frederick W Birkl

BE(Civil) CPEng MIEAust NPER 3

Page 1

45 Florence Terrace Scotland Island - Private Residence Structural Design Statement



### GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER FORM NO $\,2-PART\,A-To$ be submitted with detailed design for Construction Certificate

	Development Application for
	Name of Applicant
	Address of site 45 Florence Terrace Scotland Island
	A_Declaration made by Structural or Civil Engineer in relation to the incorporation of the Geotechnical issues into design
Fred	lerick Birkl on behalf of FWB Civil Engineering (inservane) (inservane)
r this i	te 8 September 2010
uthors rofess	(date)  nat I am a Structural or Civil Engineer as defined by the Geotechnical Risk Management Pointy for Pittwater 2009 if an ised by the above organisation/company to issue this document and to certify that the cryanisation/company has a current ional indemnity policy of at least \$2million — If also certify that I have prepared the below listed structural documents in ince with the recommendations given in the Geotechnical Pepon for the above development and that
lease	mark appropriate box
•	the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)/iv) of the Geotechnical Resulting Resul
eotec	hnical Report Details
	Report Trile
	Report Date Author
	Author's Company/Organisation
,	
f	Structural Documents list
ranuurah	S1, Rev B Floor Layouts
ļ.	S2, Rev B Structural Details
artificat dequat	S3, Rev. A. Studio Floor Layout & Details of aware that Pitwater Council relies on the processes covered by the Geolechnical Risk Management Policy including this ion as the basis for ensuring that the geolechnical risk management aspects of the promosed development have been ely artifessed to achieve an Acceptable Risk Management level for the life of the structure taken as at least 100 years under estated and justified.  Sign after
	Full and D. H.
	Chartered Profession al Status BE(Civil) CPEng , MIEAust NPER 3
	Meinhership Vis 843788
	Company FWB Civil Engineering



### GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER FORM NO 2 - PART B - To be submitted with detailed design for Construction Certificate

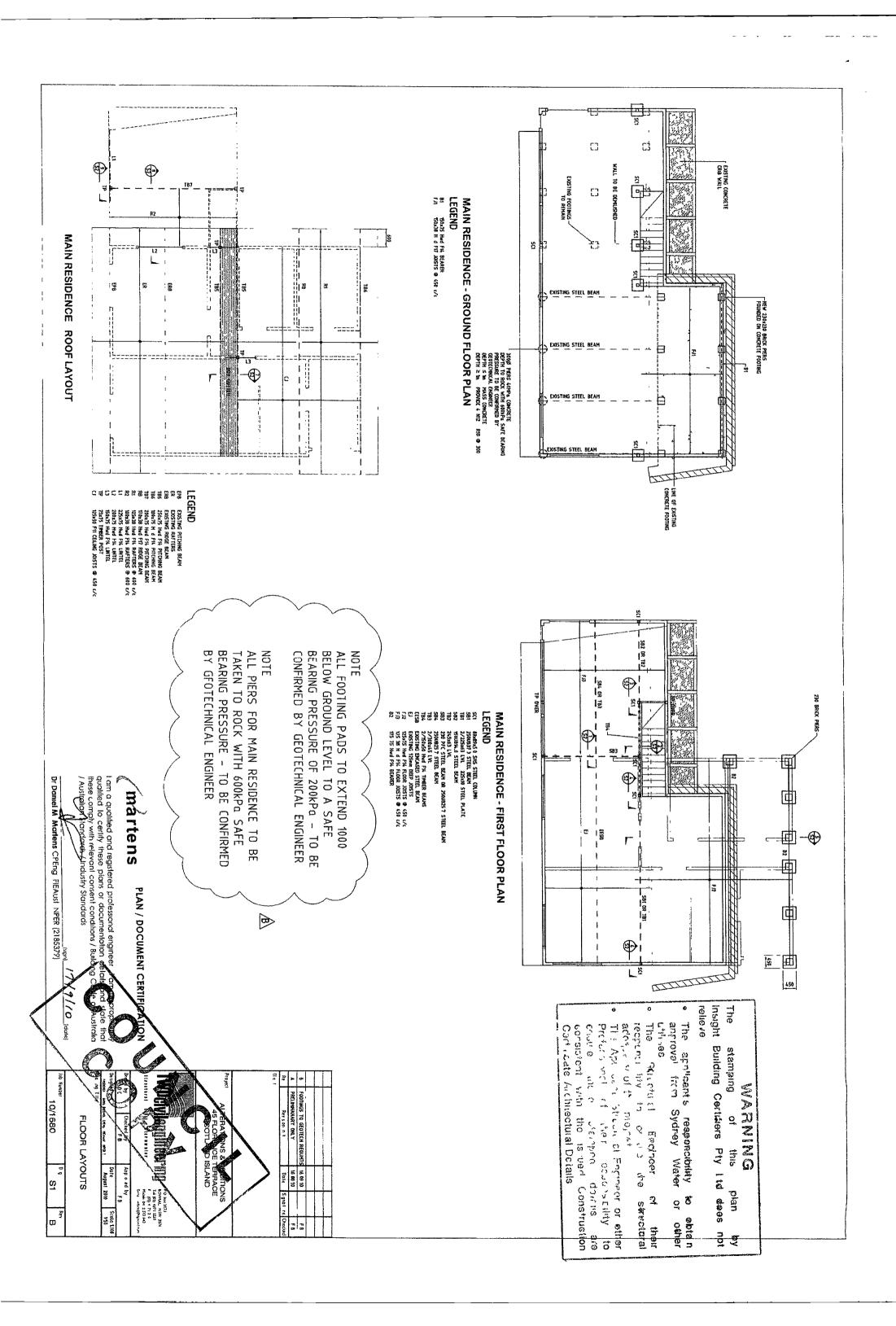
	on made by Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to of the Geotechnical issues into the project design
(msert name)	Martens on behalf of Martens and Associates (trading or company name)
	6/09/10
on una ute t	(date)
Management Police that the organisation	Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk cy for Pittwater 2099 and I am authorised by the above organisation/company to saue this document and to certify on/company has a current professional indemnity policy of at least \$2million. I also certify that I have reviewed the structural design plans for the Construction Certificate Stage and that I am satisfied that
lease mark appi	ropriate box
the struct the exca	ctural design meets the recommendations as set out in the Geotechnical Report or any revision thereto ctural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for avation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk iment Policy
eotec <u>hnical Re</u> p	port Details
Report Tr	Geotechnical, Wastewater and Bushtire Ruk Assessment Report ille (P0802165)R01-v1-January 2010)
Report Da	ate 25/01/2010
Author	Stanley Leung
ocumentation w	which relates to or is relied upon in report preparation
	Pittwater DCP 21 (2007)
lequately address herwise stated an	basis for ensuring that the geotechnical risk management aspects of the proposed development have been sed to achieve an Acceptable Risk Management level for the life of the structure taken as at least 100 years unless adjustified  Signature  Name  Daniel  Martens
	Chartered Professional Status CP Eng FIE Aust NPER
	Membership No 2185 379
	Company Martens and Associates
vicy of Operation	Page 22 PATTWATER COUNCIL

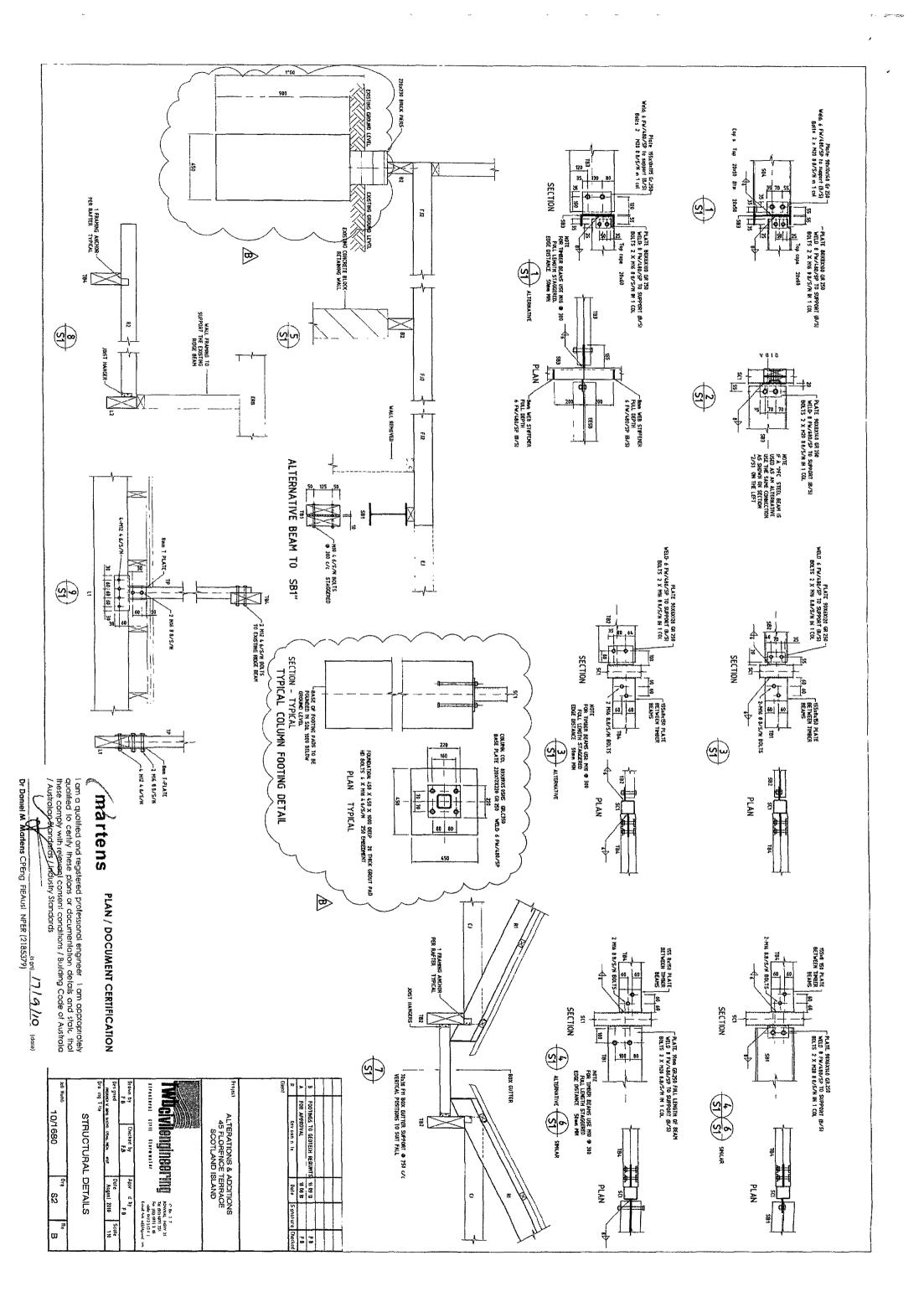


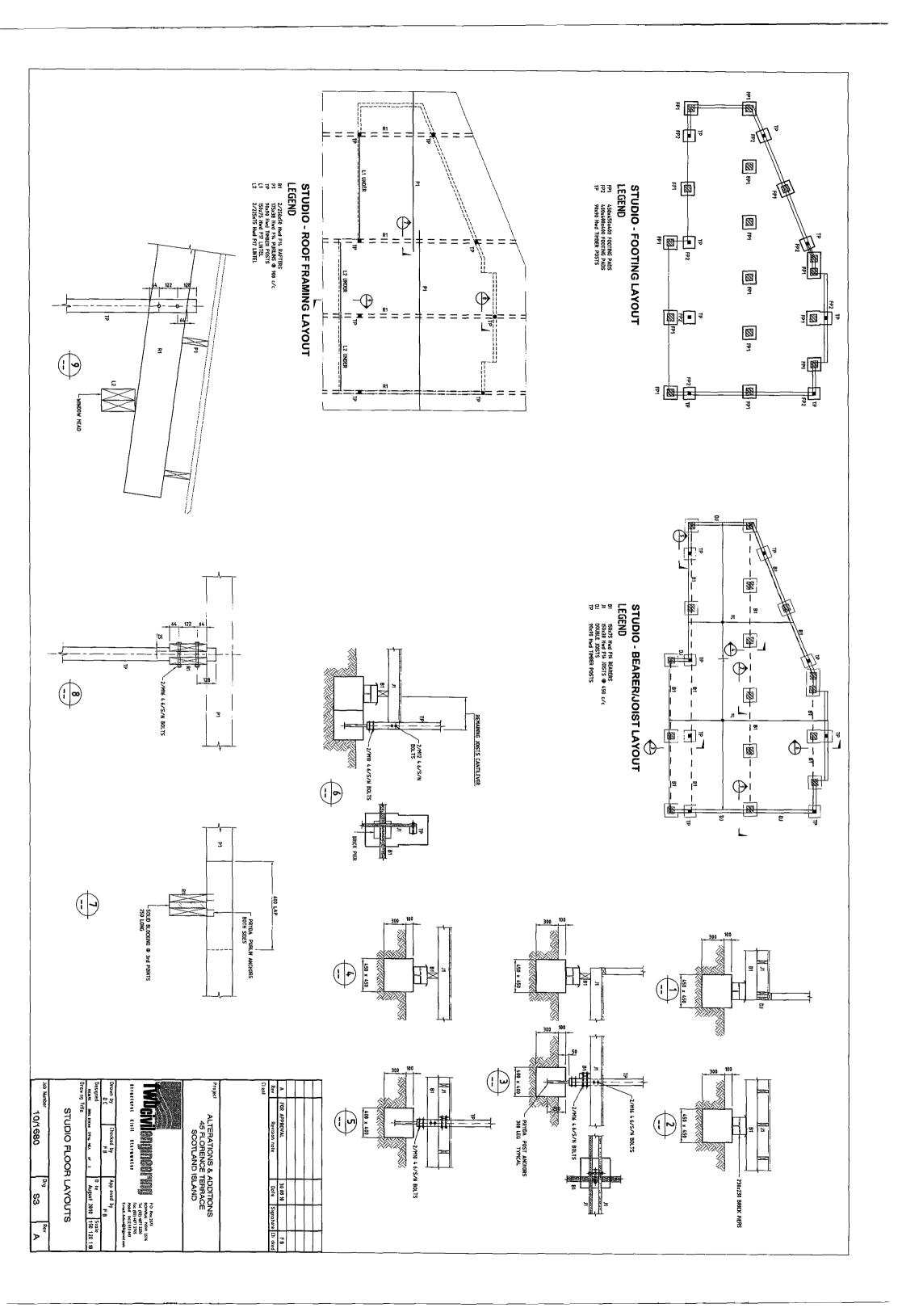
# Jack Hodgson Consultants Pty Limited CONSULTING CIVIL GEOTECHNICAL AND STRUCTUAL ENGINEEPS

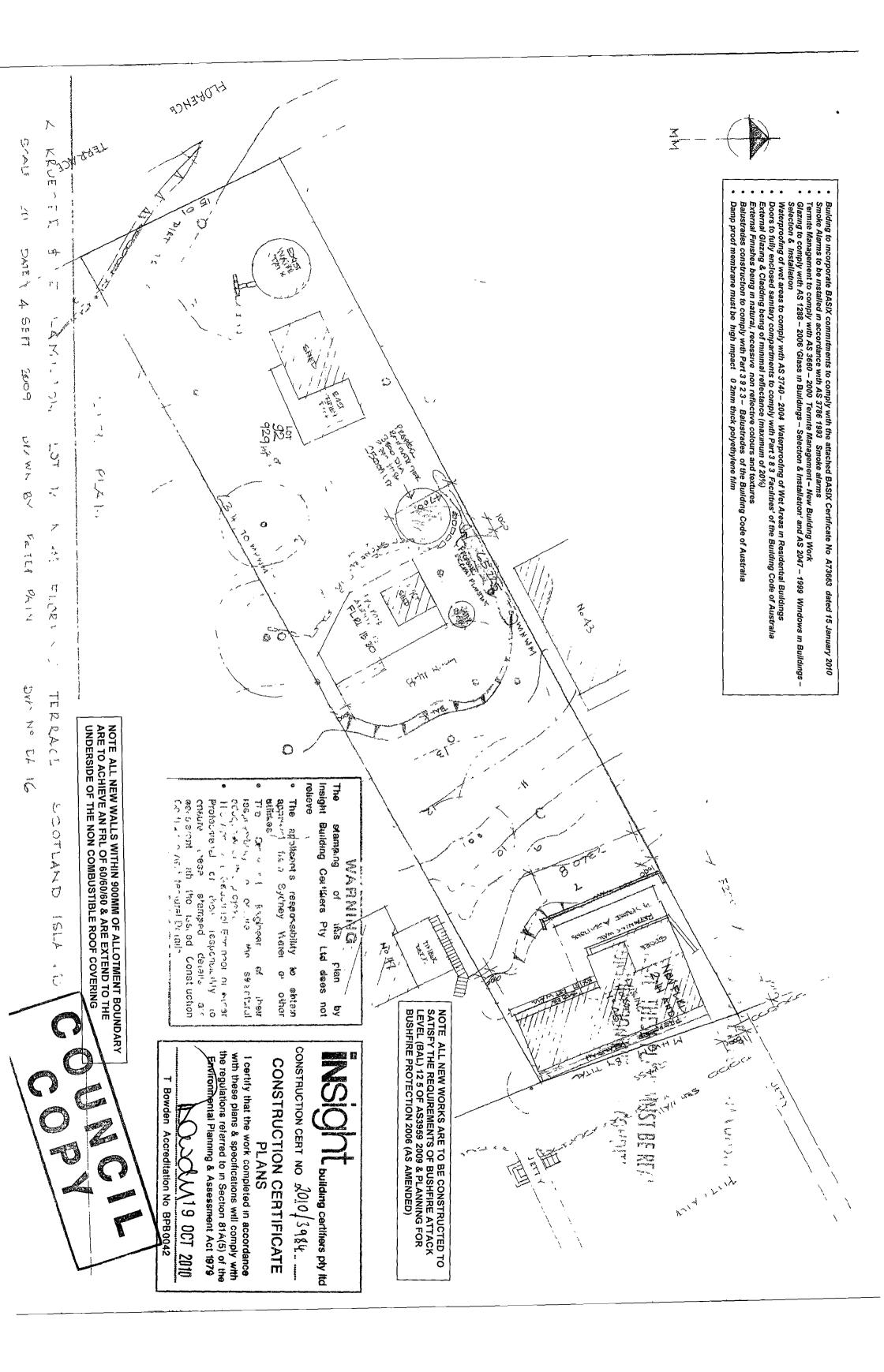
### 6E0TECHNICAL5RISK MANAGEMENT POLICY FOR PITTWATER FORM NO 2 – PART B To be submitted with detailed design for construction certificate

PART B Declaration made by G incorporation of the Geotechnic	seotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to the al issues into the project design
Jack Hodgson (insert name)	on behalf of Jack Hodgson Consultants Pty Ltd (trading or company name)
on this the 5 <sup>TH</sup> OCTOBER 2010	Jale)
Policy for Pittwater - 2009 and organization/company has a curre	ngineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management II am authorised by the above organization/company to issue this document and to certify that the entity foliassional indemnity policy of at least \$2million I also certify that I have reviewed the design plans and note for the Construction Certificate Stage and that I am satisfied that
Please mark appropriate box	
the structural design has cor	the recommendations as set out in the Geotechnical Report or any revision thereto insidered the requirements set out in the Geotechnical Report for Excavation and Landfill both on phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk
Geotechnical Report	Details
Report Title RISK A SCOTLAND ISLAND	NALYSIS & MANAGEMENT FOR PROPOSED STUDIO AT 45 FLORENCE TERRACE 0 VU 26229
Report Date 29TH SE	PTEMBER 2010
Author BEN WHITE	
certification as the basis for ensure	ncil relies on the processes covered by the Geotechnical Risk Management Policy including this no that the geotechnical risk management aspects of the proposed development have been adequately ole Risk Management, level for the life of the structure taken as at least 100 years unless otherwise stated
JACK HODGSON	Hodeyson
(name)	(signature)
the basis for ensuring that the geot achieve an Acceptable Risk Mana	noil relies on the processes covered by the Geolechnical Risk Management Policy including this certification as echnical risk management aspects of the proposed development have been adequately addressed to gement, level for the life of the structure taken as at least 100 years unless otherwise stated and justified in practical measures have been identified to remove foreseeable risk
	Signature     Section
	Name Jack Hodgson
	Chartered Professional Status M Eng Sc F I E Aust
	Membership No 149788
	Company Jack Hodgson Consultants Pty Ltd
Policy of Operations and Pro-	cedures Council Policy – No 1/8 Page 22
DIPECTOR	D HODGSON M Eng Sc FIE Aust Nove 3 Struc Civil 149788 67 Barley Street Mona Vale NSW 2103
	PO Box 38º Mona Val <sup>a</sup> NSW 1680 Te <sup>t</sup> ephone 9979 6733 Facsimile 9º79 8º26



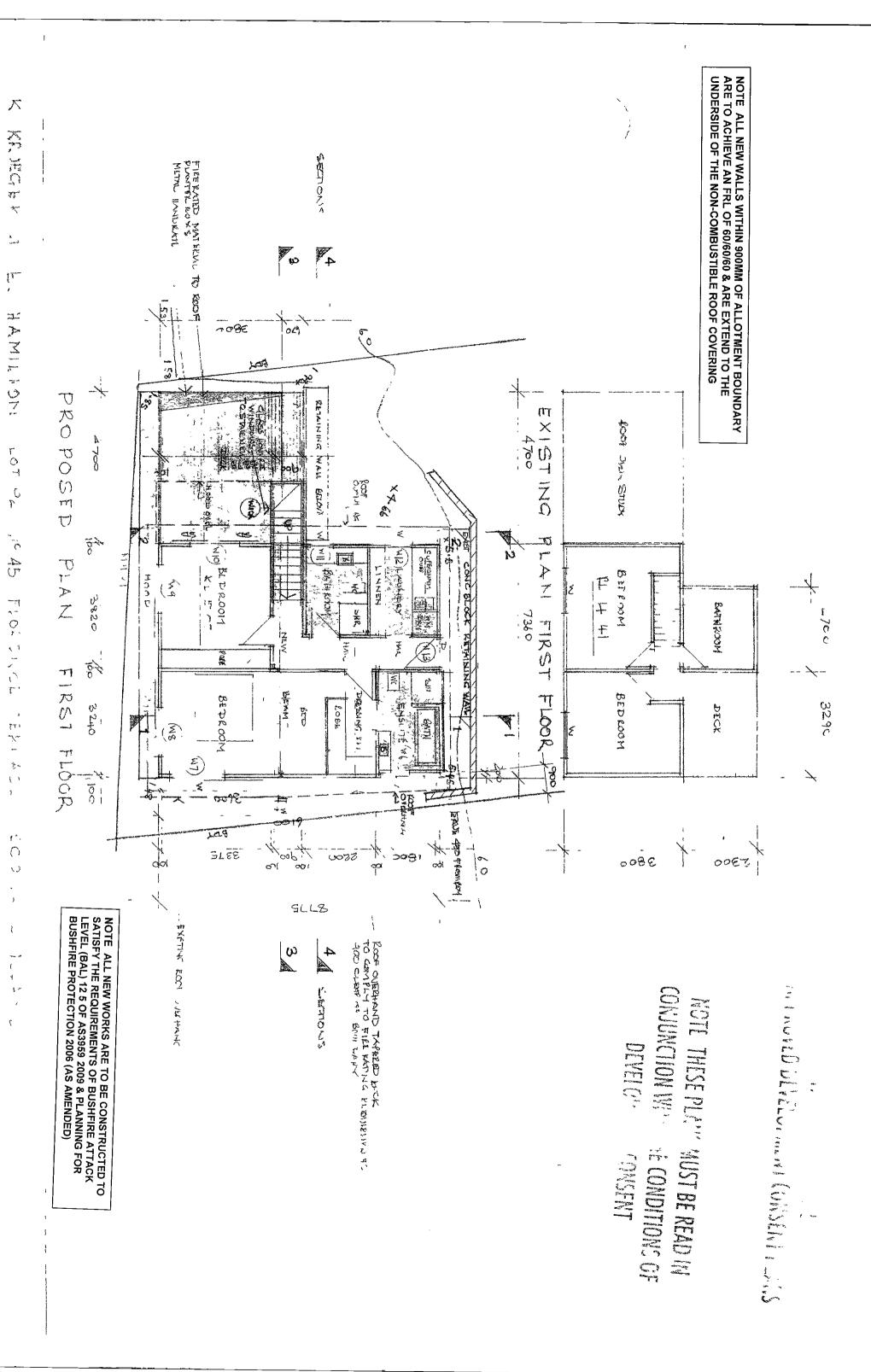






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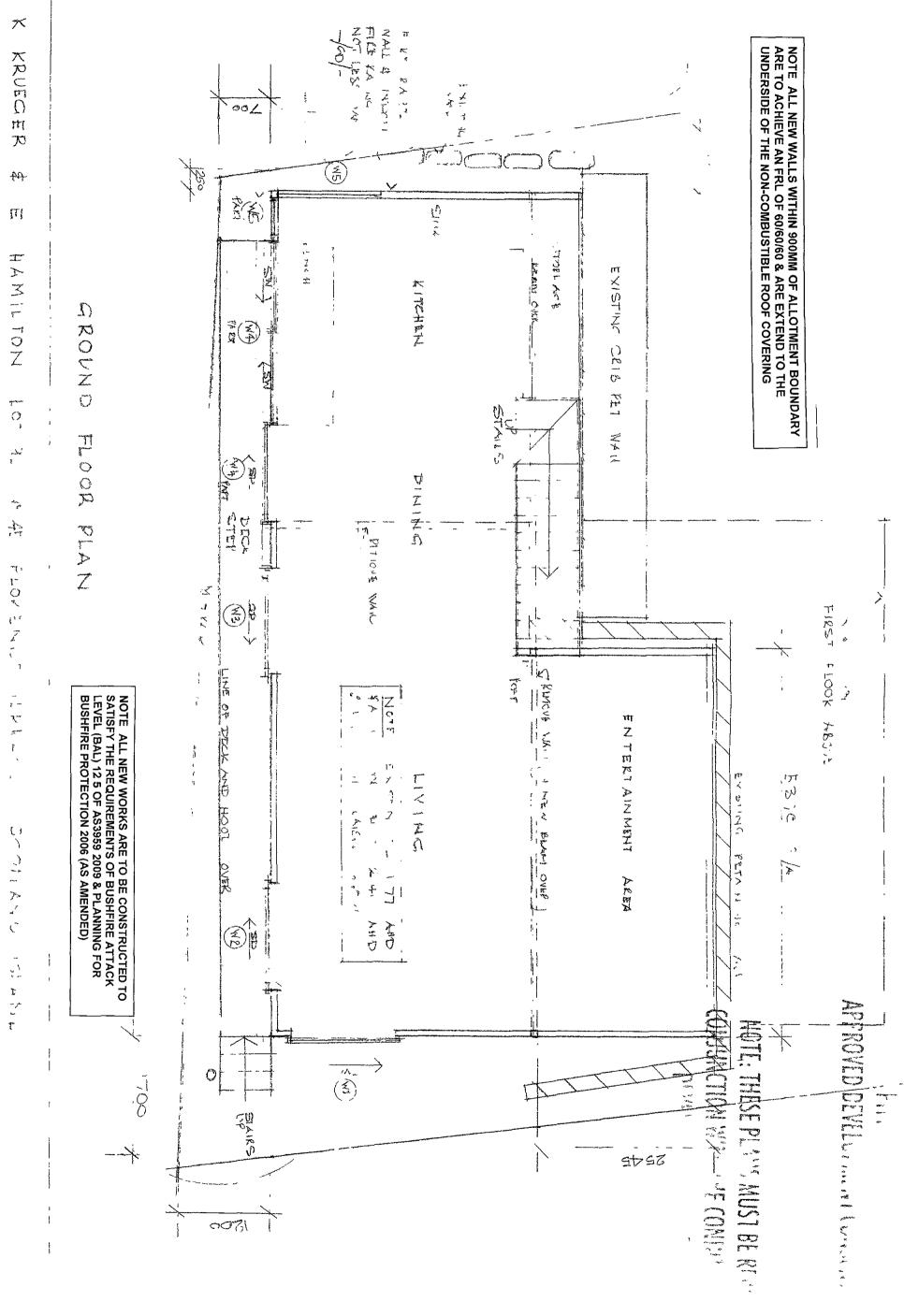
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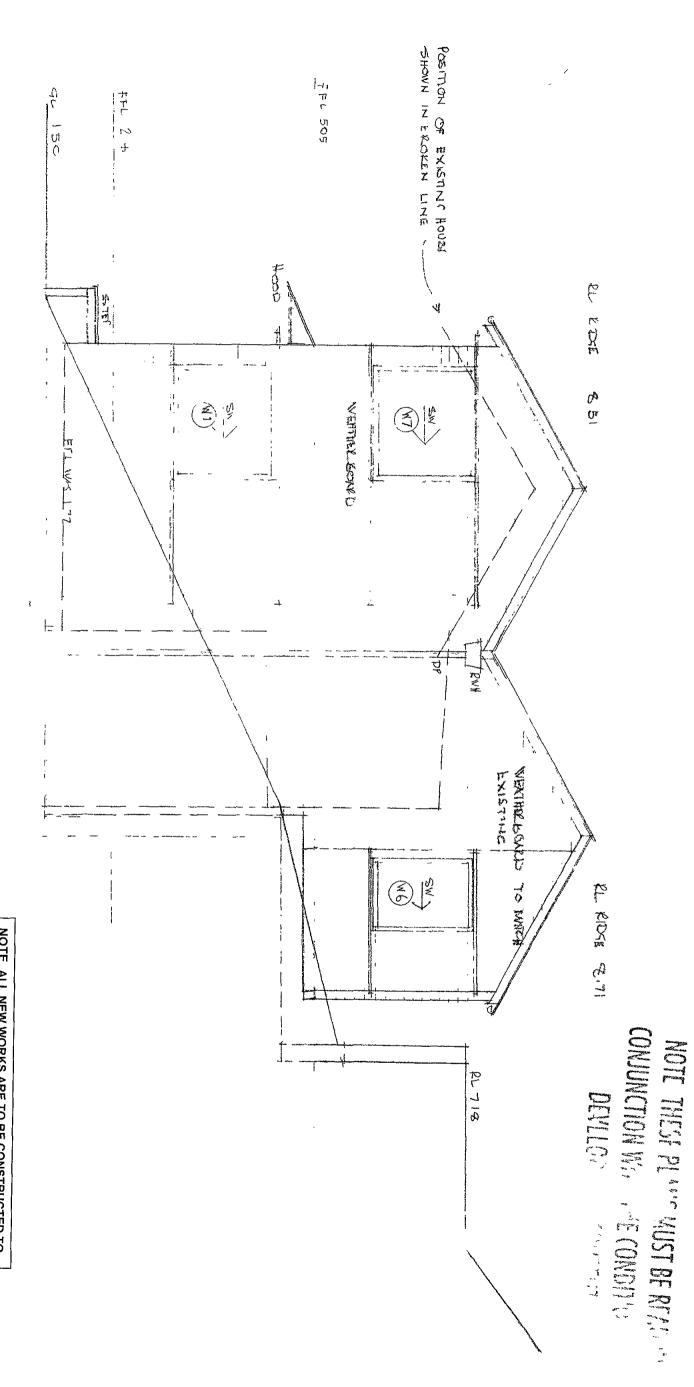
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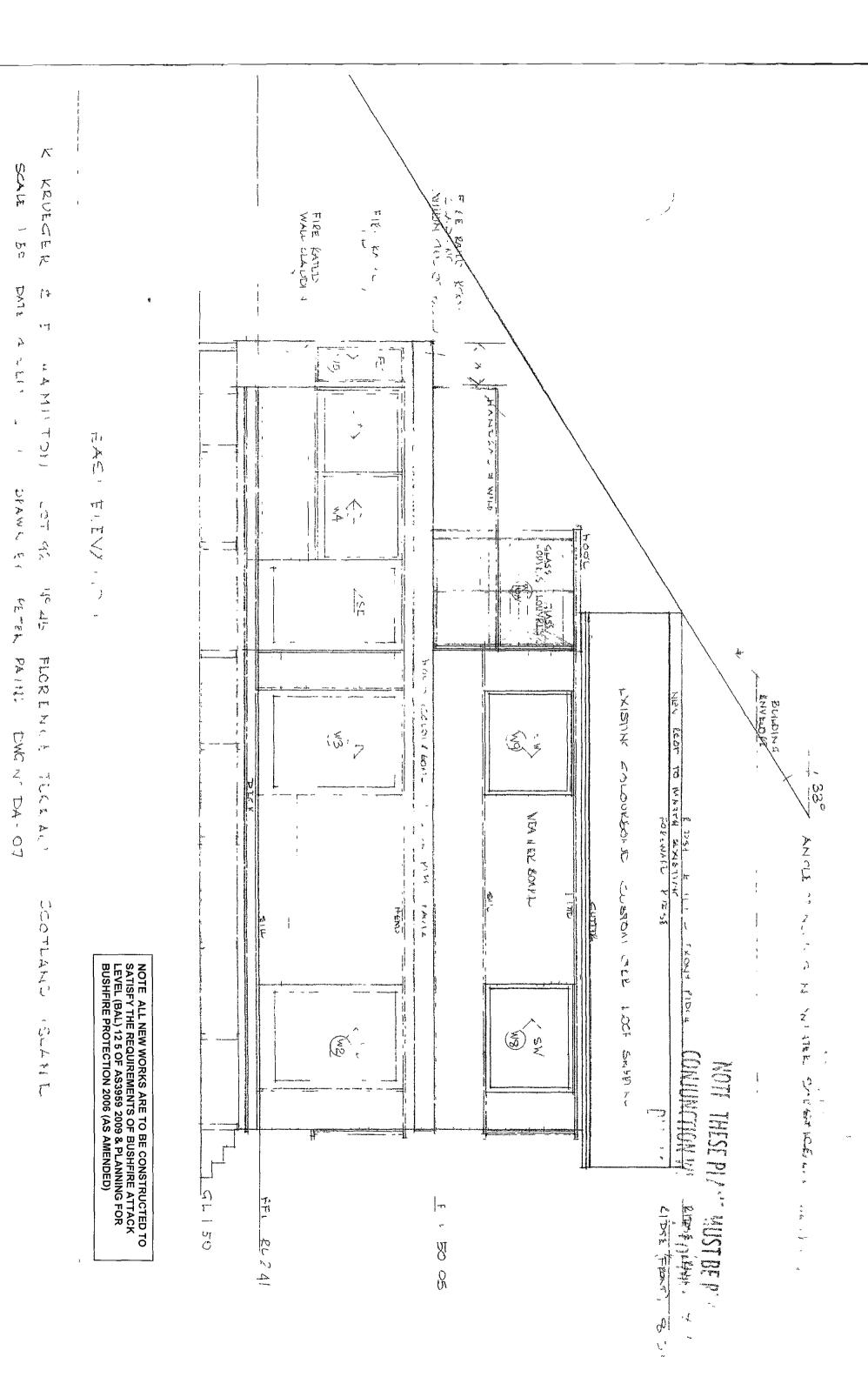
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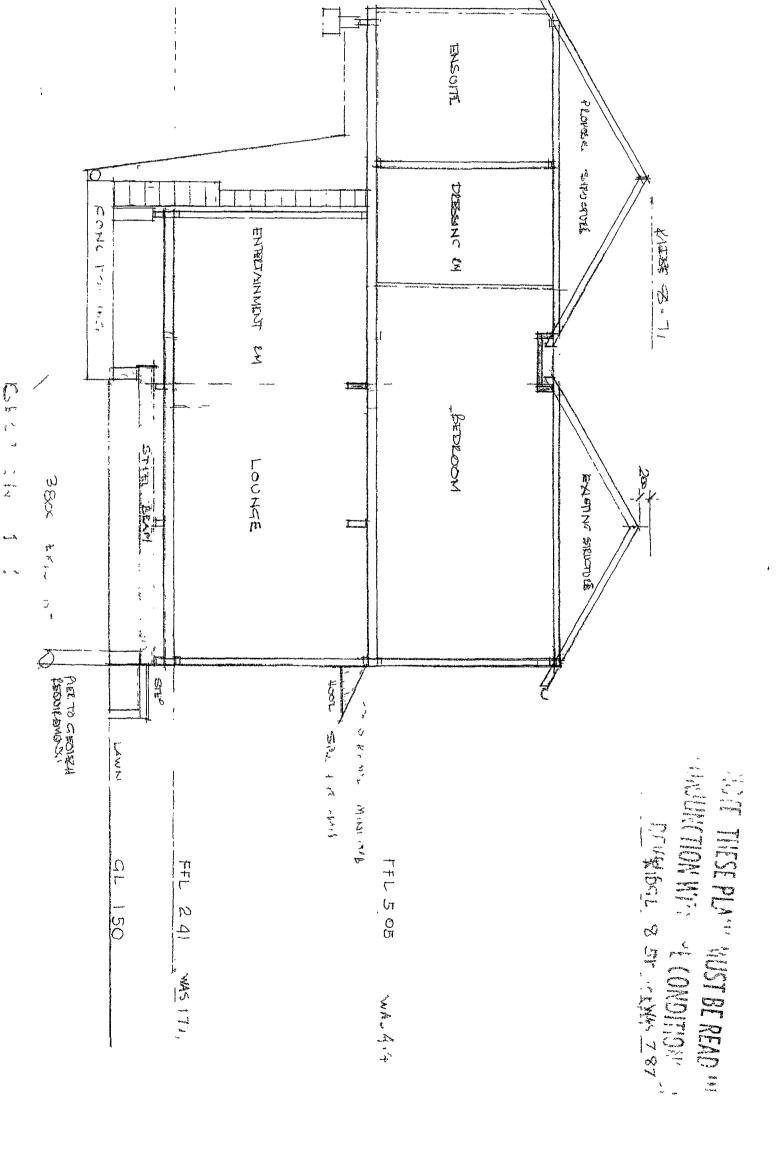
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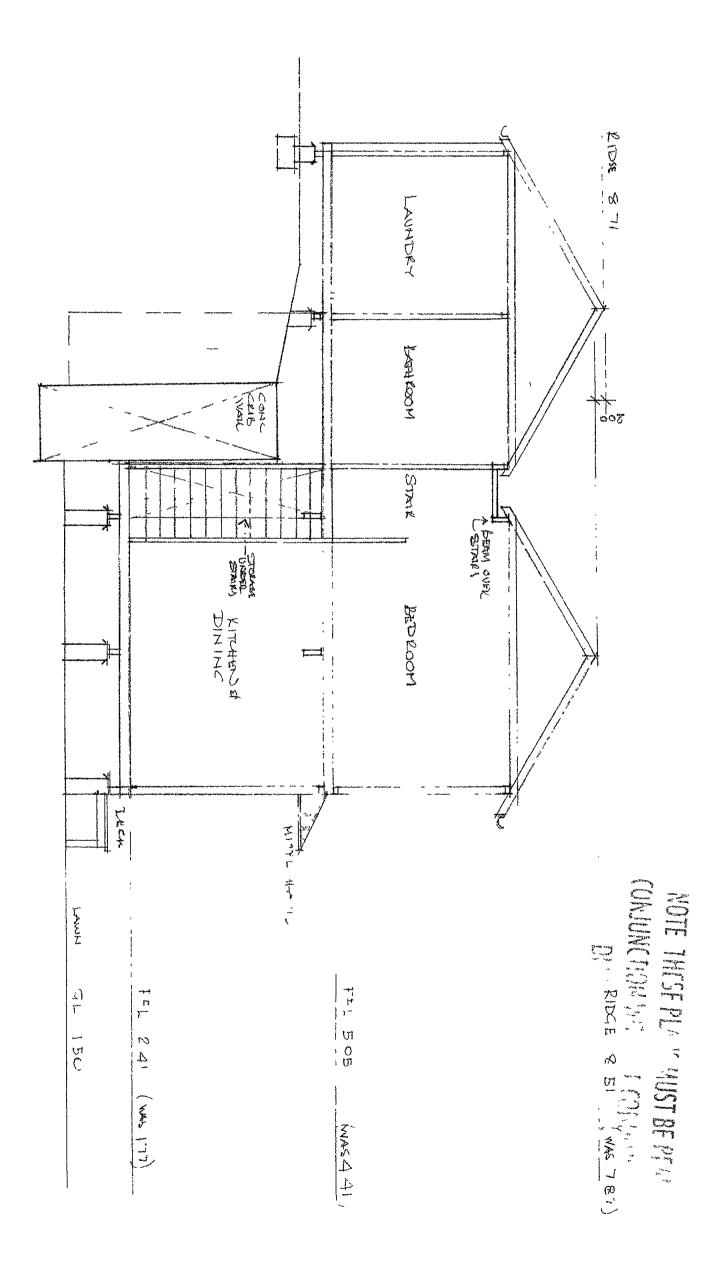
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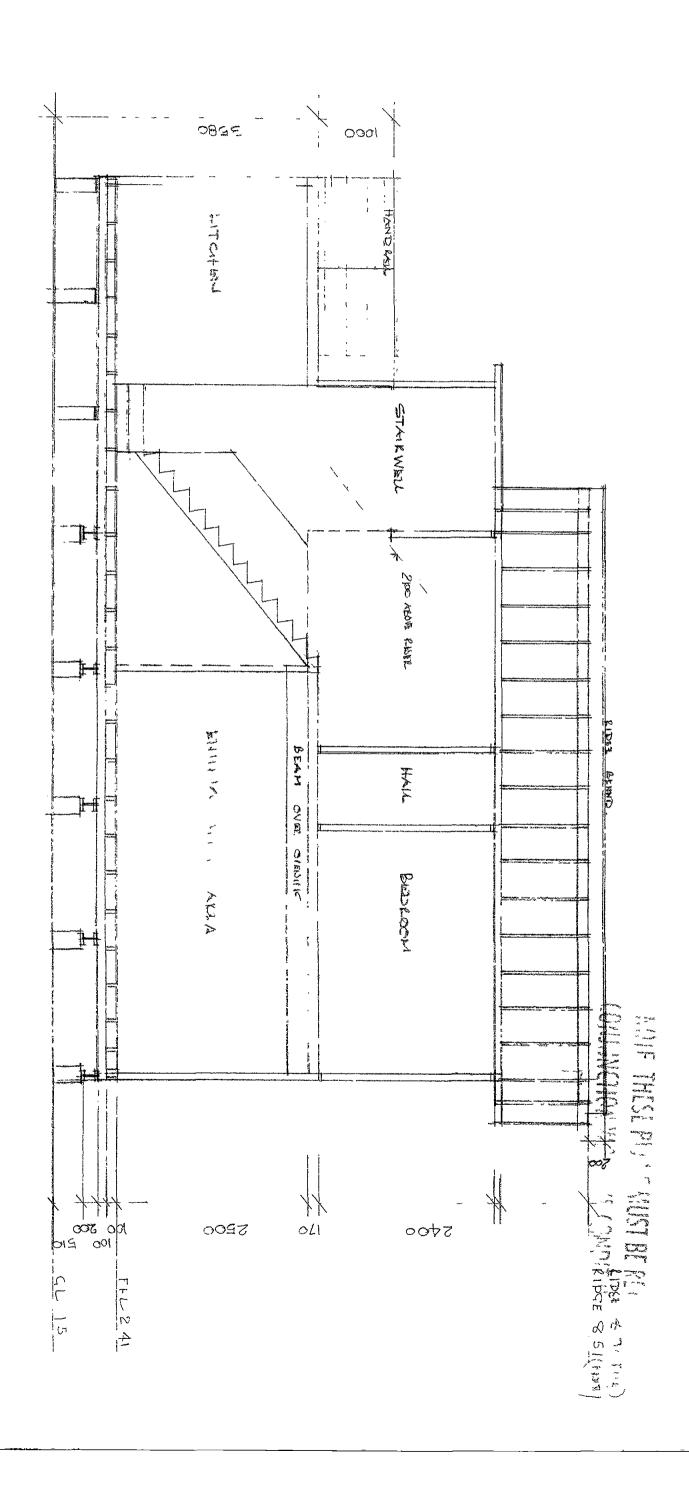


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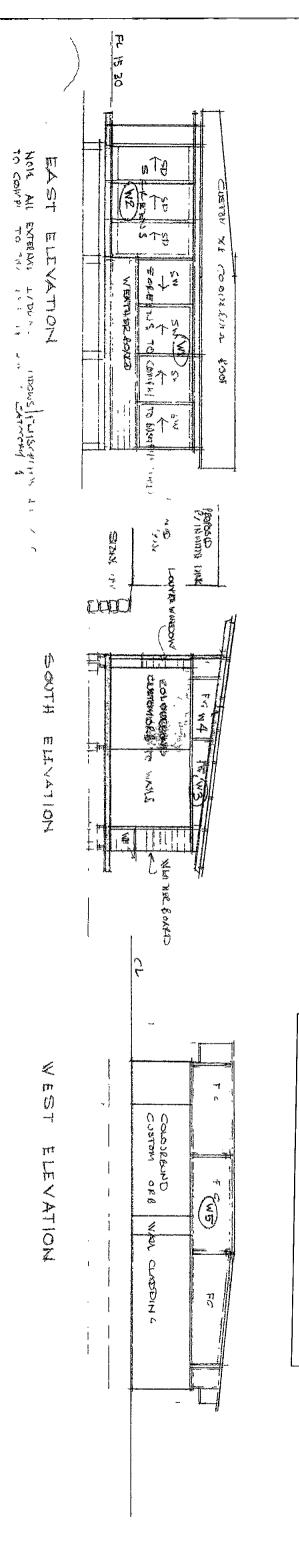
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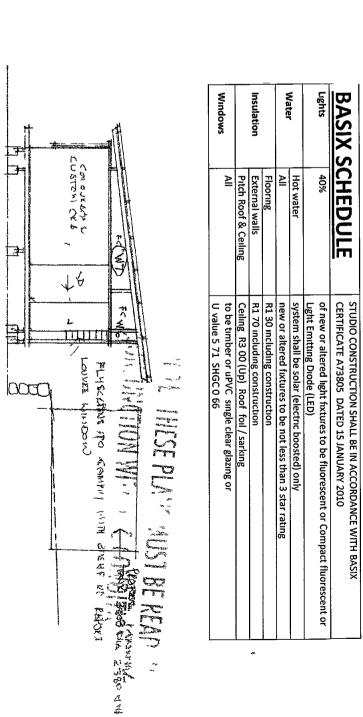
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