

01 February 2017

The General Manager
Northern Beaches (Pittwater)
PO Box 882
MONA VALE NSW 1660

Dear Sir/Madam,

6-14 MACPHERSON STREET, WARRIEWOOD NSW 2102
DEVELOPMENT APPLICATION NO: N0267/13, N0267/13/S96/1, N0267/13/S96/2 &
N0267/13/S96/3
INTERIM OCCUPATION CERTIFICATE NO: 142440/1
DATE DETERMINED: 01/02/17

As required by clause 151(2) of the EP&A Regulations 2000, notice is hereby given of the determination of the following application:

- Interim Occupation Certificate No. IOC 142440/1

Please also find enclosed a cheque for Council's registration fee along with a CD containing the following documentation:

- Application for Occupation Certificate
- Record of critical stage inspections
- Compliance certificates
- Record of inspections
- Other documents relied upon

Should you need to discuss any issues, please do not hesitate to contact the Project Building Surveyor Clayton Votano on 8270-3500.

Yours faithfully

Brendan Bennett
Managing Director

Encl

PRNC \$3600 Rec: 407058

07/02/2017

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PLEASE SEND A RECEIPT FOR TAXATION PURPOSES

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6-14 Macpherson Street, Warriewood NSW 2102
Interim Occupation Certificate No. 142440/1

INTERIM OCCUPATION CERTIFICATE NO. IOC 142440/1

Issued under Part 4A of the Environmental Planning and Assessment Act 1979
Sections 109C(1)(C) and 109H (Occupation/Use of a New Building)

APPLICANT

Name:
Address of applicant:
Contact Details:

Ian Vallentine - Anglican Retirement Villages
PO Box 284, Castle Hill NSW 1765
Phone: (02) 8421 5323

RELEVANT CONSENTS

Consent Authority/Local Government Area:
Development Consent No:

Northern Beaches Council (formerly Pittwater)
N0267/13, N0267/13/S96/1, N0267/13/S96/2 &
N0267/13/S96/3

Date of Development Consent:
Construction Certificate No:

20/02/14, 15/04/15, 09/02/16, & 05/10/16
CC 142440, CC 142440/1, CC 142440/2 &
CC 142440/3

Date of Construction Certificate:

25/06/14, 25/03/15, 21/05/15 & 24/10/16

PROPOSAL

Address of Development:
Lot & DP No:
Building Classification:
Type of Construction:
Scope of building works covered by this Certificate:

6-14 Macpherson Street, Warriewood NSW 2102
Lots 1, 2, 3, 4 & 5 DP 1161389
Class 1a
Type N/A
ILU's 34-39 and associated driveways, paths and
landscaping.

Attachments:
Fire Safety Schedule:
Exclusions:
Date of Application for Interim Occupation Certificate:
Date Application Received:

Schedule 1
N/A
Remainder of works.
13/01/17
13/01/17

PRINCIPAL CERTIFYING AUTHORITY

Brendan Bennett for and on behalf of
City Plan Services Pty Ltd

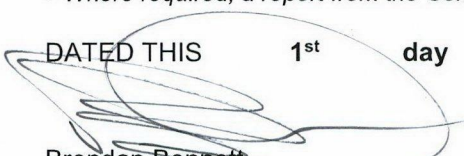
ACCREDITATION BODY

BPB 0027

That I, Brendan Bennett, as the certifying authority, for and on behalf of City Plan Services Pty Ltd certify that:

- *A current Development Consent is in force with respect to the building;*
- *A Construction Certificate has been issued with respect to the plans and specifications for the building;*
- *The health and safety of the occupants of the building has been taken into consideration;*
- *The building is suitable for occupation or use in accordance with its Classification under the Building Code of Australia;*
- *Where required, a final Fire Safety Certificate has been issued for the building or an Interim Final Fire Safety Certificate has been issued for the relevant part of the building;*
- *Where required, a report from the Commissioner of Fire Brigades has been considered.*

DATED THIS **1st** day of **February** **2017**


Brendan Bennett
Managing Director

Right of Appeal: Under s109K where the Certifying Authority is Council an applicant may appeal to the land & Environment Court against the refusal to issue an Occupation Certificate within 12 months from the date of the decision.

SCHEDULE 1

1. Building Component Measures.

No	Installation	Certified by	Reference	Date
	Installation Certificate - Hydraulic works	CQ Solutions Pty Ltd	-	10/01/17
	Installation Certificate - Clothesline	Discount Clotheslines	-	10/01/17
	Installation Certificate - BASIX Commitments & Thermal Comfort	PBS Building (NSW) Pty Ltd	-	12/01/17
	Installation Certificate - Electrical & mechanical works - Smoke alarm	TGB Electrical Pty Ltd	-	23/01/17
	Installation Certificate - Insulation work	Eureka Sustainability Group	-	17/01/17
	Compliance Certificate - Insulated flexible duct	Airfoil	-	-
	Compliance Certificate - Flexible nude core duct	Airfoil	-	-
	Installation Certificate - General earthwork	SRC Contracting Pty Ltd	-	20/01/17
	Certificate of Compliance - Termite protection (ILU 34)	Rentokil Termite Barriers	-	27/05/16
	Certificate of Compliance - Termite protection (ILU 35)	Rentokil Termite Barriers	-	27/05/16
	Certificate of Compliance - Termite protection (ILU 36)	Rentokil Termite Barriers	-	27/05/16
	Certificate of Compliance - Termite protection (ILU 37)	Rentokil Termite Barriers	-	27/05/16
	Certificate of Compliance - Termite protection (ILU 38)	Rentokil Termite Barriers	-	27/05/16
	Certificate of Compliance - Termite protection (ILU 39)	Rentokil Termite Barriers	-	27/05/16
	Installation Certificate - Concrete works	All Concrete SLD Pty Ltd	-	11/01/17
	Installation Certificate - Screw pile work	Helcon Contracting Australia Pty Ltd	-	24/01/16
	Installation Certificate - Masonry works	Global Bricklaying Holdings Pty Ltd	-	12/01/17
	Installation Certificate - Structural steelwork	Renrow Steel	-	16/01/17
	Installation Certificate - Carpentry works	RGM Carpentry	-	11/01/17
	Installation Certificate - Roof trusses (ILU 34)	Trueform Frames & Trusses Pty Ltd	9013	11/09/15
	Installation Certificate - Roof trusses (ILU 35)	Trueform Frames & Trusses Pty Ltd	9013	11/09/15
	Installation Certificate - Roof trusses (ILU 36)	Trueform Frames & Trusses Pty Ltd	9013	11/09/15
	Installation Certificate - Roof trusses (ILU 37)	Trueform Frames & Trusses Pty Ltd	9012	11/09/15
	Installation Certificate - Roof trusses (ILU 38)	Trueform Frames & Trusses Pty Ltd	9013	11/09/15
	Installation Certificate - Roof trusses (ILU 39)	Trueform Frames & Trusses Pty Ltd	9013	11/09/15

Installation Certificate - Metal roofing work	All Aspects Roofing & Gutters	-	24/01/17
Installation Certificate - Windows	RGM Carpentry	-	25/01/17
Compliance Certificate - Glazing (ILU 36)	Blue Mountains Shower Screens	-	19/04/16
Compliance Certificate - Glazing (ILU 35, 37 & 40)	Blue Mountains Shower Screens	-	19/01/15
Compliance Certificate - Glazing (ILU 38 & 39)	Blue Mountains Shower Screens	-	28/10/15
Compliance Certificate - Glazing (ILU 34, 45 & 45)	Blue Mountains Shower Screens	-	02/02/16
Installation Certificate - Skylight	Natural Lighting Products	-	16/01/17
Installation Certificate - Waterproofing works	Elite Tile Projects	-	17/01/16
Bushfire Occupation Certification Comment	Building Code & Bushfire Hazard Solutions Pty Limited	130164	25/01/17
Installation Certificate - Structural	Henry & Hymas	12693-S12/rk	25/01/17
Certificate of Compliance - Screw piles	Helcon Contracting Australia Pty Ltd	-	25/02/16

2. Documentation demonstrating compliance with conditions of development consent required to be satisfied prior to OC.

No	Description	Certified by	Reference	Date
	Condition B9 – Water Management System Certification	Henry & Hymas	12693-C7/af	25/01/17
	Condition B26, C17, C26, D14 & E16 – Design Statement of Compliance	Accessible Building Solutions	-	20/01/17
	Condition C12 – Survey Level Report	Land Surveys	-	20/01/17
	Condition C13 & E9 – Stage 5 Water Management System Certification	Henry & Hymas	12693-C7/af	20/01/17
	Condition E1 – Landscape Warranty & Maintenance Manual Stage 5	Landscape Solutions	9267	-
	Condition E2 – Fee Proposal for Additional Landscaping	John Lock & Associates	-	15/09/14
	Condition E2 – Receipt	John Lock & Associates	-	14/10/15

3. Critical Stage Inspections.

Inspection	Certified by	Reference	Date
Slab Inspection Report (Units 37)	City Plan Services	142440	08/09/15
Slab Inspection Report (Units 34 & 35)	City Plan Services	142440	24/09/15
Slab Inspection Report (Unit 36)	City Plan Services	142440	06/10/15
Slab Inspection Report (Units 38 & 39)	City Plan Services	142440	26/10/15
Frame Inspection Report (Units 34 & 37)	City Plan Services	142440	05/11/15
Frame Inspection Report (Units 35)	City Plan Services	142440	20/11/15
Wet Area Inspection Report (Units 34, 35 & 37)	City Plan Services	142440	12/11/15
Frame Inspection Report (Units 36, 38 & 39)	City Plan Services	142440	17/11/15
Stormwater Inspection Report (Units 34-39)	City Plan Services	142440	22/01/16

Wet Areas Inspection Report (Units 36, 38 & 39)	City Plan Services	142440	13/01/16
Final Inspection Report	City Plan Services	142440/1	01/02/17

4. Additional Documentation.

Title	Prepared by	Reference	Date
Occupation Certificate Application	Anglican Retirement Villages	-	13/01/17
Technical Data Sheet – Silverwrap Breather Insulation	Ametalin	-	-
Technical Data Sheet – Decking	Modwood Technologies Pty Ltd	-	Aug 2013
Technical Data Sheet – Earthwool Wall & Ceiling Batts	Knauf Insulation	-	Nov 2013
Technical Data Sheet – Permastop Building Blanket	Fletcher Insulation	Rev 1	26/06/12
Contractor Licence Photograph	Ryan Grant McEwan	-	-
Slip Test Report - Pietra White Matt Tile	Safe Environments Pty Ltd	R9756	17/11/16
Slip Test Report - Pietra White Matt Tile	Safe Environments Pty Ltd	R9036b	01/09/15
Slip Test Report - Pietra White Textured Tile	Safe Environments Pty Ltd	R9036a	01/09/15

OCCUPATION CERTIFICATE APPLICATION

Made under the *Environmental Planning and Assessment Act 1979* Sections 109C(1)(c) & 109H

TYPE OF APPLICATION

Tick Appropriate Boxes:

- ☒ Interim Certificate
☐ Final Certificate

IDENTIFICATION OF BUILDING

Address 6-14 Macpherson Street
Lot No 1, 2, 3 & 4
DP No 1161389
Suburb or town Warriewood Post Code 2102

DESCRIPTION OF DEVELOPMENT

Detailed Description:

12V # 34, 35, 36, 37, 38 + 39
+ associated driveways, paths
and landscaping.

Building Code of Australia Classification

Existing 1a Proposed _____

RELEVANT CONSENTS

Development Consent:
Construction Certificate /
Complying Development Certificate:

DA No. N0267/13/596/3 Date 5.10.2016
CC/CDC No. 142440/3 Date 16.10.2016

APPLICANT*

Name of person having benefit of the
development consent:

Name Ian Vallentant Company Anglican Retirement Villages
ABN Number 39922848563
Address P.O. Box 284
Suburb or town Castle Hill Post Code 1765

*Applications for occupation certificates must be delivered by hand, by post or transmitted electronically to the principal office of the certifying authority. Applications MAY NOT be sent by fax.

Phone B/H 02 9421 5323 Fax No _____
Mobile 0419 62 520 Email ian.vallentant@arcv.org.au

As the applicant, I/we hereby;

1. Submit this Occupation Certificate Application under the *Environmental Planning & Assessment Act 1979*, for determination by the Principal Certifying Authority.
2. Certify that the works have been completed in accordance with the relevant Development Consent.
3. Attach a Fire Safety Certificate, where relevant, for the subject building work in accordance with the Fire Safety Schedule.

Signature of applicant:

Sign _____ Date 13th January 2017

Sign _____ Date _____

Schedule 1 - Attachments relating to the proposed development.

Schedule 1 must be completed and accompanied in the formation required to be submitted with the application for an Occupation Certificate. A detailed list is also required to be attached detailing all the documentation submitted with this application.

1. Applicants must provide the documents listed below that are relevant to the type of development that is proposed. Please confirm that documents relating to the requirements below have been attached by placing a cross in the appropriate box(s).

☐ Development consent OR Complying Development Certificate (Previously lodged)	☐ Individual fire safety certificates (as applicable)	☐ Each BASIX certificate for the development.
☒ Construction certificate	☐ Compliance certificates (as applicable)	

2. Does the development involve an alternative solution under the Building Code of Australia ("BCA") in respect of a fire safety requirement?

☐ Yes

☒ No

If YES, provide either or both of the following from a "fire safety engineer" (a private accredited certifier holding Category C10 accreditation):

- (a) A compliance certificate (as referred to in s.109C(1)(a)(v) EP&A Act) that certifies that building work relating to an alternative solution that was the subject of a compliance certificate or report under clause or 144A(a) EP&A Regulation – (the first certificate or report) has been completed and complies with that alternative solution.
- (b) A written report that includes a statement that the building work relating to the alternative solution that was the subject of the first certificate or report has been completed and is consistent with that alternative solution.

Note: The above requirement only applies to building work in respect of:

- (a) a class 9a building that is proposed to have a total floor area of 2000m² or more
- (b) any building (other than a class 9a building) that is proposed to have:
- (i) a fire compartment with a total floor area of more than 2000m² or
- (ii) a total floor area of more than 6000m²

that involves an alternative solution under the BCA in respect of the requirements set out in EP1.4, EP2.1, EP2.2, DP4 and DP5 in Volume 1 of the BCA

3. Does the application relate to a residential flat development for which the development application was required under Clause 50(1A) of the EP&A Regulation to be accompanied by a design verification from a qualified designer?

☐ Yes

☒ No

If YES, provide a statement from a qualified designer which verifies that the residential flat development achieves the design quality of the development as shown in the plans and specifications on which the construction certificate was issued, having regard to the design quality principles set out in Part 2 of State Environmental Planning Policy No. 65-Design Quality of Residential Flat Development (SEPP No. 65)

Note: If the development application was also required to be accompanied by a BASIX certificate with respect to any building, the statement need not verify the design quality principles set out in SEPP No. 65 to the extent to which they aim to

- reduce consumption of mains-supplied potable water, or
- reduce emissions of greenhouse gases, in the use of the building or in the use of the land on which the building is situated, or
- improve the thermal performance of the building.

4. Documentation demonstrating compliance with the conditions of development consent required to be satisfied prior to issuing the Occupation Certificate.

☒ Yes

☐ No

If Yes - provide documentation

5. OVERALL FIRE SAFETY CERTIFICATE

☒ Yes

☐ No

If Yes - provide documentation

6. NSW FIRE & RESCUE SIGNOFF
(as per Clause 152 of EP&A Regulations)

☐ Yes

☒ No

If Yes - provide documentation

7. SYDNEY WATER SECTION 73
COMPLIANCE CERTIFICATE

☒ Yes

☐ No

If Yes - provide documentation

Note: The Section 73 Certificate must be submitted to the Principal Certifying Authority before occupation of the development / release of the plan of subdivision

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 - IOC2 - ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

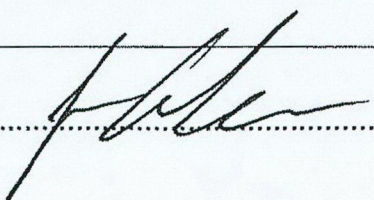
Name:	Jason Caele
Company:	CQ Solutions Pty Ltd
Company Address:	12 Mulgray Ave Baulkham Hills 2153
Phone:	0417 224 122
Fax:	
Email:	jason@cqsolutions.com.au
Qualifications & Experience:	Licensed Plumber for 20+ years

Hereby certify that the following aspect:

HYDRAULIC WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	BCA 2014 Part 3.9.1
(d)	The relevant Australian Standards as follows (including number, part and year):	AS/NZS 3500.3-2003 Amdt 1, 2 & 3 Section 5 of AS/NZS 3500.5-2012
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent	Development Application Number: NO267/13 Modifications up to: S96 No: NO267/13/S96/3
(g)	Is consistent with the approved design for this component	The installation complies with the BCA 2014, NCC Volume 3 and the requirements of the BASIX Certificate Number 499606M_03, have been wholly and completely complied with. All requirements and installations are completed.
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: **10/1/2017**

ANNEXURE 1 – BASIX INSTALLATION DETAILS - BASIX Certificate Number 499606M_03

Dwellings

Water:

~~The relevant contractor or subcontractors have planted indigenous and/or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" BASIX Certificate, as private landscaping for that dwelling.~~

All fixtures or appliances have been installed in dwellings, as specified within the BASIX Certificate. i.e. (to all dwellings):

- ◆ 3 star shower heads
- ◆ 4 star toilet flushing systems
- ◆ 4 star kitchen and bathroom taps
- ◆ For ILU 37 and 38, rain water tank of minimum 1000 L size, collecting run off from at least 50 sqm of roof area and has landscape connection.
- ◆ For ILU 34, 35, 36, and 39, rain water tank of minimum 1000 L size, collecting run off from at least 50 sqm of roof area, has landscape connection and toilet connection.

The relevant contractor or subcontractors have installed, for each dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the BASIX Certificate. Each system has been configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system has been connected as specified.

Energy:

The relevant contractor or subcontractors have installed each hot water system specified for the dwelling in the BASIX Certificate, so that the dwelling's hot water is supplied by that system (gas instantaneous 5 star)

~~The relevant contractor or subcontractors have installed, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the BASIX Certificate. Each such ventilation system has operation controls and manual switch on/off as specified for it in the BASIX Certificate.~~

~~The relevant contractor or subcontractors have installed the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the BASIX Certificate, in living/bedroom areas of the dwelling. If no cooling or heating system is specified in the BASIX Certificate for "Living areas" or "Bedroom areas", then no systems have been installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system has provided for day/night zoning between living areas and bedrooms.~~

~~Where required by the BASIX Certificate, the relevant contractor or subcontractors have ensured that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area are only capable of being used for fluorescent lighting or light emitting diode (LED) lighting.~~

~~This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The relevant contractor or subcontractors have ensured that each such room or area is fitted with a window and/or skylight.~~

The relevant contractor or subcontractors have installed in each dwelling:

- (aa) ~~the kitchen cook top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate;~~



(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate.

Thermal Comfort:

The relevant contractor or subcontractors have constructed the development in accordance with all thermal performance specifications set out in the BASIX Certificate.

General

Buildings have been constructed, installed and implemented all requirements of the BASIX Certificate Number 499606M_03. The Development is considered to comply with the intention of the BASIX Certificate Number 499606M_03.

Signature: 

Date: 10/1/2017

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 - IOC2 - ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

Name:	<i>GEORGE FERGUSON</i>
Company:	<i>DISCOUNT CLOTHESLINES</i>
Company Address:	<i>21 ONTARIO AV. ST. CLAIR</i>
Phone:	<i>0415 926 933</i>
Fax:	
Email:	<i>DISCOUNTCLOTHESLINES@SWIFTDSL.COM.AU</i>
Qualifications & Experience:	<i>30 YRS.</i>

Hereby certify that the following aspect:

CLOTHSLINE (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	N/A
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	N/A
(d)	The relevant Australian Standards as follows (including number, part and year):	N/A
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent	Development Application Number: N0267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	The installation complies with the BCA 2014, NCC Volume 3 and the requirements of the BASIX Certificate Number 499606M_03, have been wholly and completely complied with. All requirements and installations are completed.
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature: *[Signature]* Date: *10/1/17*

ANNEXURE 1 – BASIX INSTALLATION DETAILS - BASIX Certificate Number 499606M_03

Dwellings

Water:

The relevant contractor or subcontractors have planted indigenous and/or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" BASIX Certificate, as private landscaping for that dwelling.

All fixtures or appliances have been installed in dwellings, as specified within the BASIX Certificate, i.e. (to all dwellings):

- ◆ 3 star shower heads
- ◆ 4 star toilet flushing systems
- ◆ 4 star kitchen and bathroom taps
- ◆ Rain water tank of minimum 1000 L size, collecting run off from at least 50 sqm of roof area and has landscape connection.

The relevant contractor or subcontractors have installed, for each dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the BASIX Certificate. Each system has been configured to collect run off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system has been connected as specified.

Energy:

The relevant contractor or subcontractors have installed each hot water system specified for the dwelling in the BASIX Certificate, so that the dwelling's hot water is supplied by that system (gas instantaneous 5 star)

The relevant contractor or subcontractors have installed, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the BASIX Certificate. Each such ventilation system has operation controls and manual switch on/off as specified for it in the BASIX Certificate.

The relevant contractor or subcontractors have installed the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the BASIX Certificate, in living/bedroom areas of the dwelling. If no cooling or heating system is specified in the BASIX Certificate for "Living areas" or "Bedroom areas", then no systems have been installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system has provided for day/night zoning between living areas and bedrooms.

Where required by the BASIX Certificate, the relevant contractor or subcontractors have ensured that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area are only capable of being used for fluorescent lighting or light emitting diode (LED) lighting.

This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The relevant contractor or subcontractors have ensured that each such room or area is fitted with a window and/or skylight.

The relevant contractor or subcontractors have installed in each dwelling:

- (aa) the kitchen cook top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate;
- (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and

(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate.

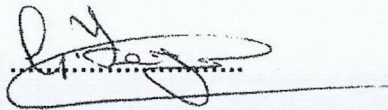
Thermal Comfort:

~~The relevant contractor or subcontractors have constructed the development in accordance with all thermal performance specifications set out in the BASIX Certificate.~~

General

Buildings have been constructed, installed and implemented all requirements of the BASIX Certificate Number 499606M_03. The Development is considered to comply with the intention of the BASIX Certificate Number 499606M_03.

Signature:



Date: 10/1/17

STATEMENT OF COMPLIANCE	
PROJECT	ARV Warriewood – Stage 5 – IOC2 – ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

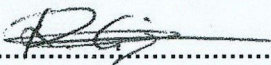
Name:	Roi Raymond Ciftci
Company:	PBS Building (NSW) Pty Ltd
Company Address:	Unit 18, 11-21 Underwood Rd, Homebush NSW 2140
Phone:	0407 333 511
Fax:	Nil
Email:	Roi.ciftci@pbsbuilding.com.au
Qualifications & Experience:	University of Western Sydney – Bachelor of Construction Management Honour 2 Class 2 – License No. #235290C

Hereby certify that the following aspect:

BASIX COMMITMENTS & THERMAL COMFORT
--

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	
(d)	The relevant Australian Standards as follows (including number, part and year):	
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent	Development Application Number: N0267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 12/01/17

ANNEXURE 1 – BASIX INSTALLATION DETAILS - BASIX Certificate Number 499606M_03

Dwellings

Water:

The relevant contractor or subcontractors have planted indigenous and/or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" BASIX Certificate, as private landscaping for that dwelling.

All fixtures or appliances have been installed in dwellings, as specified within the BASIX Certificate. i.e. (to all dwellings):

- ◆ 3 star shower heads
- ◆ 4 star toilet flushing systems
- ◆ 4 star kitchen and bathroom taps
- ◆ Rain water tank of minimum 1000 L size, collecting run off from at least 50 sqm of roof area and has landscape connection.

The relevant contractor or subcontractors have installed, for each dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the BASIX Certificate. Each system has been configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system has been connected as specified.

Energy:

The relevant contractor or subcontractors have installed each hot water system specified for the dwelling in the BASIX Certificate, so that the dwelling's hot water is supplied by that system (gas instantaneous 5 star)

The relevant contractor or subcontractors have installed, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the BASIX Certificate. Each such ventilation system has operation controls and manual switch on/off as specified for it in the BASIX Certificate.

The relevant contractor or subcontractors have installed the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the BASIX Certificate, in living/bedroom areas of the dwelling. If no cooling or heating system is specified in the BASIX Certificate for "Living areas" or "Bedroom areas", then no systems have been installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system has provided for day/night zoning between living areas and bedrooms.

Where required by the BASIX Certificate, the relevant contractor or subcontractors have ensured that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area are only capable of being used for fluorescent lighting or light emitting diode (LED) lighting.

This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The relevant contractor or subcontractors have ensured that each such room or area is fitted with a window and/or skylight.

The relevant contractor or subcontractors have installed in each dwelling:

- (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate;
- (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating;
- and

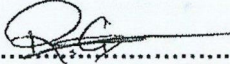
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate.

Thermal Comfort:

The relevant contractor or subcontractors have constructed the development in accordance with all thermal performance specifications set out in the BASIX Certificate.

General

Buildings have been constructed, installed and implemented all requirements of the BASIX Certificate Number 499606M_03. The Development is considered to comply with the intention of the BASIX Certificate Number 499606M_03.

Signature: 

Date.....12/01/17.....

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC2 – ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

Name:	TUMAY BEHA
Company:	TGB ELECTRICAL PTY LTD
Company Address:	UNIT 19, 2 BARRY RD CHIPPING NORTON NSW
Phone:	02 9723 0950
Fax:	02 9724 5328
Email:	INFO@TGBELECTRICAL.COM
Qualifications & Experience:	LICENCED CONTRACTOR (ELECTRICAL – AC) – 181661C

Hereby certify that the following aspect:

ELECTRICAL & MECHANICAL WORK (Class 1a) SMOKE ALARM (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Part 3.7.2 Part 3.8.5.2(c) Part 3.12.3.4 Spec E2.2a.
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 3786-1993 Amdt 1, 2, 3, & 4 AS 3786-1993
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent	Development Application Number: NO267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	The installation complies with the BCA 2014 and the requirements of the BASIX Certificate Number 499606M_03, have been wholly and completely complied with. All requirements and installations are completed.
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date:.....23RD JANUARY 2017....

ANNEXURE 1 – BASIX INSTALLATION DETAILS - BASIX Certificate Number 499606M_03

Dwellings

~~Water:~~

~~The relevant contractor or subcontractors have planted indigenous and/or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" BASIX Certificate, as private landscaping for that dwelling.~~

~~All fixtures or appliances have been installed in dwellings, as specified within the BASIX Certificate. i.e. (to all dwellings):~~

- ~~◆ 3 star shower heads~~
- ~~◆ 4 star toilet flushing systems~~
- ~~◆ 4 star kitchen and bathroom taps~~
- ~~◆ Rain water tank of minimum 1000 L size, collecting run-off from at least 50 sqm of roof area and has landscape connection.~~

~~The relevant contractor or subcontractors have installed, for each dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the BASIX Certificate. Each system has been configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system has been connected as specified.~~

~~Energy:~~

~~The relevant contractor or subcontractors have installed each hot water system specified for the dwelling in the BASIX Certificate, so that the dwelling's hot water is supplied by that system (gas instantaneous 5 star)~~

~~The relevant contractor or subcontractors have installed, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room (individual exhaust fan) in the BASIX Certificate. Each such ventilation system has operation controls and manual switch on/off as specified for it in the BASIX Certificate. Each such ventilation system has been ducted to external façade.~~

~~The relevant contractor or subcontractors have installed the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the BASIX Certificate, in living/bedroom areas of the dwelling. If no cooling or heating system is specified in the BASIX Certificate for "Living areas" or "Bedroom areas", then no systems have been installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system has provided for day/night zoning between living areas and bedrooms.~~

~~Where required by the BASIX Certificate, the relevant contractor or subcontractors have ensured that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area are only capable of being used for fluorescent lighting or light emitting diode (LED) lighting.~~

~~This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The relevant contractor or subcontractors have ensured that each such room or area is fitted with a window and/or skylight.~~

~~The relevant contractor or subcontractors have installed in each dwelling:~~

- ~~(aa) the electric kitchen cook-top and electric oven, supplied by other, specified for that dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate;~~

(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate.

Thermal Comfort:

The relevant contractor or subcontractors have constructed the development in accordance with all thermal performance specifications set out in the BASIX Certificate.

General

Buildings have been constructed, installed and implemented all requirements of the BASIX Certificate Number 499606M_03. The Development is considered to comply with the intention of the BASIX Certificate Number 499606M_03.

Signature:

A handwritten signature in black ink, appearing to be 'J. T.', is written over a dotted line.

Date:....23RD JANUARY 2017.....

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC2 – ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

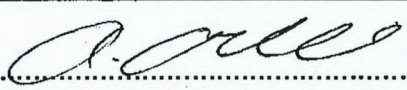
Name:	ASHLEY ARUNDELL
Company:	EUREKA SUSTAINABILITY GROUP
Company Address:	12 ENTERPRISE CIRCUIT, PRESTONS NSW 2170
Phone:	02 9607 5128
Fax:	
Email:	ashleya@eurekainsulation.com.au
Qualifications & Experience:	

Hereby certify that the following aspect:

INSULATION WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Part 3.8.6 Part 3.12.1.1
(d)	The relevant Australian Standards as follows (including number, part and year):	AS/NZS 4859.1. -2002 Amdt 1
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: NO267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / <u>No</u> If Yes.....

Signature:  Date: 17/11/17



GRILLES
DUCT
FITTINGS



Compliance Certificate

R1.0 Insulated Flexible Duct

Air foil flexible duct has been tested and meets
all requirements of Australian Standards 4254 and Building
Codes of Australia for Domestic and Commercial Air
Handling Systems.

PRODUCT: RM1.0 Metalised Sleeve, Polyester Flexible Duct (3-Zero).

CONSTRUCTION: Black Inner Core with Metalised Outer surface
multi-layered construction containing high level grade Flame
Retardant Water based adhesive with high tensile wire helix
encapsulated.

METALISED OUTER SLEEVE: Multi-layered construction
(Metalised Outer Layer) containing high quality grade flame
retardant adhesive.

INSULATION TYPE: Polyester Insulation Blanket
to achieve thermal rating of **RM1.0 (Insulation Thickness 70mm)**

LENGTH: 6 Metre lengths / 3 Metre made to order.

DIAMETERS: 4", 5", 6", 8" 10", 12", 14", 16", 18", 20" INCH.

OPTIONS: Standard Plain or Acoustic.

OPERATING PRESSURE RANGE: 1000 Pa positive, 200 Pa negative

OPERATING TEMPERATURE RANGE: -10C TO +80C

TEST STANDARD	DESCRIPTION	RESULT
AS/NZS 1530.3 - 1999	Ignitability Index	0
AS/NZS 1530.3 - 1999	Spread of Flame Index	0
AS/NZS 1530.3 - 1999	Heat Evolved Index	0
AS/NZS 1530.3 - 1999	Smoke Developed Index	0-1
UL181	Burning	Pass
UL181	Mould Growth & Humidity	Pass
UL181	Temperature	Pass
UL181	Puncture	Pass
UL181	Static Load	Pass
UL181	Impact	Pass
UL181	Pressure	Pass
UL181	Collapse	Pass
UL181	Tension	Pass

The R rating of **RM1.0** is measured ex manufacture. Prolonged compression,
Packaging or stretching of the product will be detrimental to the final R rating
of any duct produced.





Compliance Certificate

3-Zero Flexible Nude Core

Airfoil 3-Zero flexible nude core has been tested and meets all requirements of Australian Standards 4254 and Building Codes of Australia Domestic and Commercial Air Handling Systems.

PRODUCT: Metalised Outer Surface/ Black inner surface
Nude Flex Core (3-Zero).

CONSTRUCTION: Black Inner Core with Metalised Outer surface multi-layered construction containing high level grade Flame Retardant Water based adhesive with high tensile wire helix encapsulated.

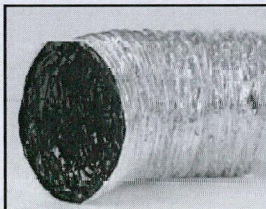
LENGTH: 6 Metre lengths.

DIAMETERS: 4", 5", 6", 8" 10", 12", 14", 16", 18", 20" INCH.

OPTIONS: Standard Plain or Acoustic.

OPERATING PRESSURE RANGE: 1000 Pa positive, 200 Pa negative

OPERATING TEMPERATURE RANGE: -10C TO +80C



TEST STANDARD	DESCRIPTION	RESULT
AS/NZS 1530.3 - 1989	Ignitability Index	0
AS/NZS 1530.3 - 1989	Spread of Flame Index	0
AS/NZS 1530.3 - 1989	Heat Evolved Index	0
AS/NZS 1530.3 - 1989	Smoke Developed Index	3
UL181	Burning	Pass
UL181	Mould Growth & Humidity	Pass
UL181	Temperature	Pass
UL181	Puncture	Pass
UL181	Static Load	Pass
UL181	Impact	Pass
UL181	Pressure	Pass
UL181	Collapse	Pass
UL181	Tension	Pass



Quality
ISO 9001

SAI GLOBAL

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

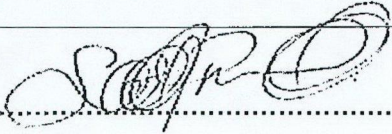
Name:	Scott Russell
Company:	5RC Contracting Pty Ltd
Company Address:	PO Box 255 Newport Beach NSW 2160
Phone:	0424 141 448
Fax:	N/A
Email:	srccontracting@live.com
Qualifications & Experience:	License # 261365C

Hereby certify that the following aspect:

GENERAL EARTHWORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Table 3.1.1.1
(d)	The relevant Australian Standards as follows (including number, part and year):	N/A
(e)	The relevant BASIX/ABSA Certificate	N/A
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: N0267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 20/01/17

HomeGuard Installation Certificate of Compliance

HomeGuard RED

Precision Termite Management

Applicator

Name of Company: Rentokil Termite Barriers ABN: 98 000 034 597

Installer Name: Rentokil Termite Barriers PMT Licence Number: NA

QBSA Number: NA (QLD requirement only)

HomeGuard Accreditation Number:

Your Certificate Number: 2015-09-000018261SHR Phone Number: 1300 855 822

Building Details

Installation Date: 14 September 2015

Installation Address: 8 McPherson Street - Unit 34

Suburb: Warriewood State: NSW Post Code: 2102

Builder: (if applicable) PBS Building (NSW) Pty. Ltd.

Installation Type

☐ Full Under Slab ☒ Collars ☒ Perimeter

Product Details

HomeGuard TMB Red Installed 0 m² HomeGuard PB Red Installed 61 l/m

HomeGuard DPC Red Installed 0 l/m HomeGuard GT Installed 0 kg

HomeGuard FlexiCollars Installed 100mm 18 qty 50mm 0 qty 40mm 0 qty

Comments

Installed protection to the pipe penetrations and perimeter cavity of the residential building on site.

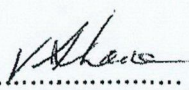
NB:-

Limitations that apply to the above installation are:

NOTE: HomeGuard® is not designed, or approved to be installed as a remedial treatment

Client provided with Warranty Details ☒ Warranty Details explained to client ☒

Rentokil
The Experts in Pest Control

Authorised Signature:  Date: 27/5/16

For more information call Rentokil on 1300 855 822

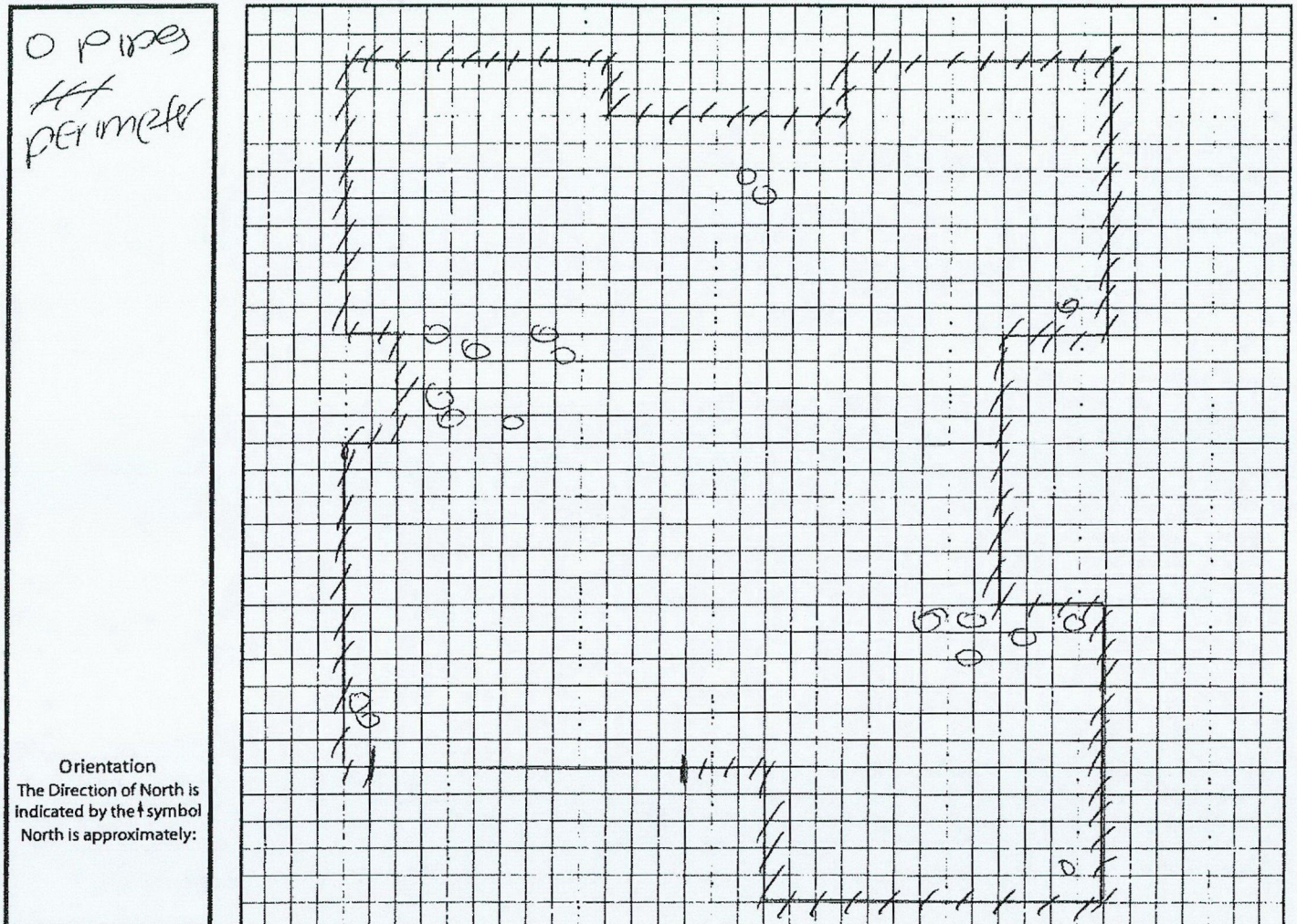
www.rentokilpestcontrol.com.au

HomeGuard Installation Diagram

HomeGuard RED

Precision Termite Management

Installer Name: Rentokil HomeGuard Accreditation Number:
Installation Address: 8 McPherson Street - Unit 34
Builder: PBS Building Suburb: Warriewood State: NSW Post Code: 2102
Installation Date: 14-9-15



NOTE: This form must be submitted if a partial HomeGuard treatment has been applied and be clear and legible to be accepted by FMC

This document is to certify that the HomeGuard system was installed by a HomeGuard Accredited Installer and has been completed in accordance with the manufacturers specifications. HomeGuard complies with AS 3660.1 - 2014, the primary referenced standard of the Building Code of Australia. HomeGuard is only part of a termite management system for a new property, extension or renovation, the slab must be constructed in accordance with the standard: Residential Slabs and Footings Construction, AS 2870-1996. Any construction joint between existing slab and building works must be protected as part of the warranty.

Rentokil
The Experts in Pest Control

Authorised Signature: [Signature] Date: 27/5/16

HomeGuard Installation Certificate of Compliance



Applicator

Name of Company: Rentokil Termite Barriers ABN: 98 000 034 597

Installer Name: Rentokil Termite Barriers PMT Licence Number: NA

QBSA Number: NA (QLD requirement only)

HomeGuard Accreditation Number:

Your Certificate Number: 2015-09-000018262SHR Phone Number: 1300 855 822

Building Details

Installation Date: 14 September 2015

Installation Address: 8 McPherson Street - Unit 35

Suburb: Warriewood State: NSW Post Code: 2102

Builder: (if applicable) PBS Building (NSW) Pty. Ltd.

Installation Type

☐ Full Under Slab ☒ Collars ☒ Perimeter

Product Details

HomeGuard TMB Red Installed 0 m² HomeGuard PB Red Installed 61 l/m

HomeGuard DPC Red Installed 0 l/m HomeGuard GT Installed 0 kg

HomeGuard FlexiCollars Installed 100mm 18 qty 50mm 0 qty 40mm 0 qty

Comments

Installed protection to the pipe penetrations and perimeter cavity of the residential building on site.

NB:-

Limitations that apply to the above installation are:

NOTE: HomeGuard® is not designed, or approved to be installed as a remedial treatment

Client provided with Warranty Details ☒

Warranty Details explained to client ☒

Rentokil
The Experts in Pest Control

Authorised Signature: *V. A. Hare* Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

HomeGuard Installation Diagram

HomeGuard RED

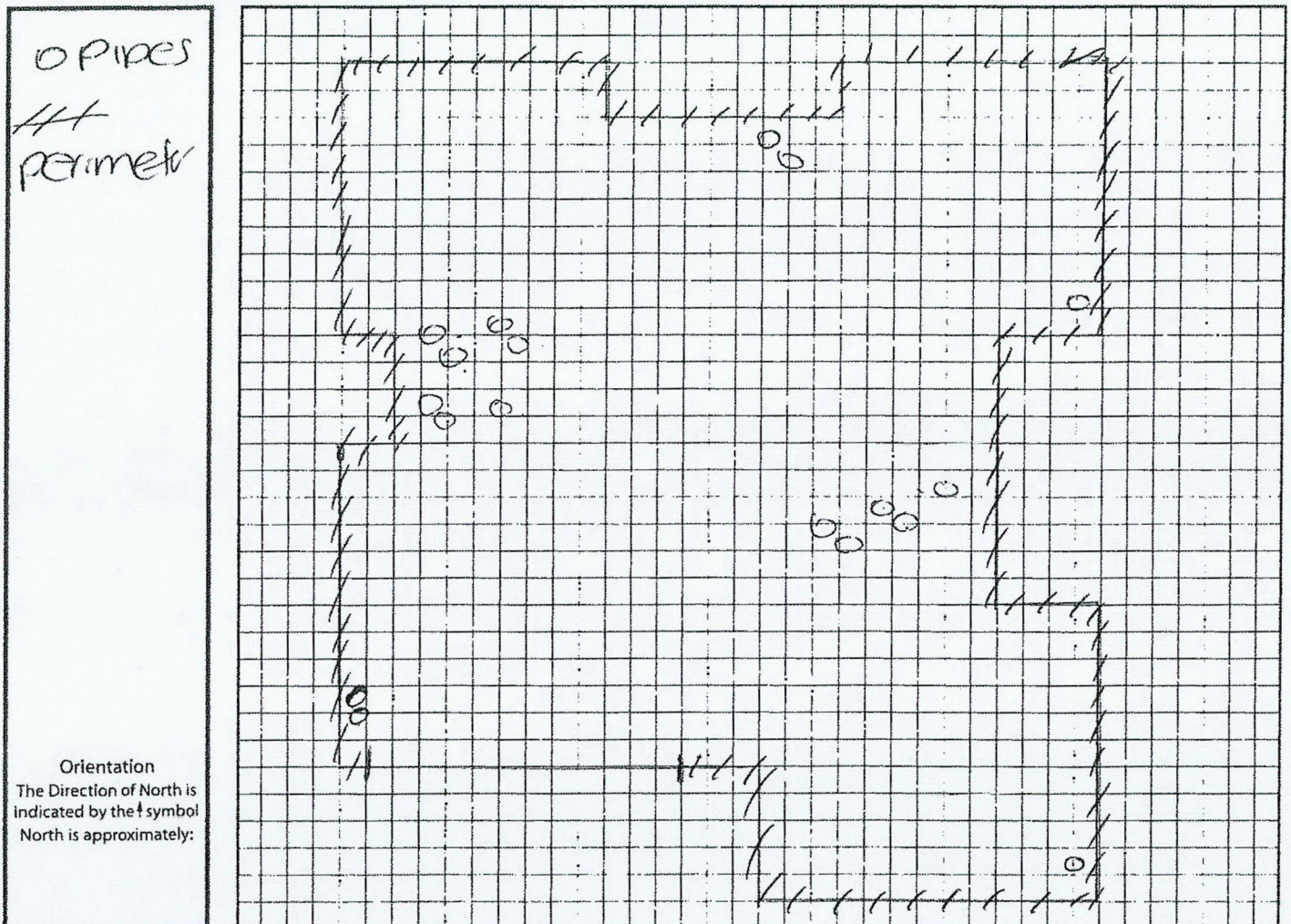
Precision Termite Management

Installer Name: Rentokil HomeGuard Accreditation Number:

Installation Address: 8 Macpherson Street - Unit 35

Builder: PBS Building Suburb: Warriewood State: NSW Post Code: 2102

Installation Date: 14-9-15



NOTE: This form must be submitted if a partial HomeGuard treatment has been applied and be clear and legible to be accepted by FMC

This document is to certify that the HomeGuard system was installed by a HomeGuard Accredited Installer and has been completed in accordance with the manufacturers specifications. HomeGuard complies with AS 3660.1 - 2014, the primary referenced standard of the Building Code of Australia. HomeGuard is only part of a termite management system for a new property, extension or renovation, the slab must be constructed in accordance with the standard: Residential Slabs and Footings Construction. AS 2870-1996. Any construction joint between existing slab and building works must be protected as part of the warranty.

Rentokil
The Experts in Pest Control

Authorised Signature: [Signature] Date: 27/5/16

HomeGuard Installation Certificate of Compliance



Applicator

Name of Company: Rentokil Termite Barriers ABN: 98 000 034 597
Installer Name: Rentokil Termite Barriers PMT Licence Number: NA
QBSA Number: NA (QLD requirement only)
HomeGuard Accreditation Number:
Your Certificate Number: 2015-09-000018263SHR Phone Number: 1300 855 822

Building Details

Installation Date: 14 September 2015
Installation Address: 8 McPherson Street - Unit 36
Suburb: Warriewood State: NSW Post Code: 2102
Builder: (if applicable) PBS Building (NSW) Pty. Ltd.

Installation Type

☐ Full Under Slab ☒ Collars ☒ Perimeter

Product Details

HomeGuard TMB Red Installed	0 m ²	HomeGuard PB Red Installed	60 l/m		
HomeGuard DPC Red Installed	0 l/m	HomeGuard GT Installed	0 kg		
HomeGuard FlexiCollars Installed 100mm	23 qty	50mm	0 qty	40mm	0 qty

Comments

Installed protection to the pipe penetrations and perimeter cavity of the residential building on site.

NB:-

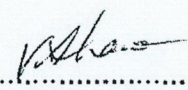
Limitations that apply to the above installation are:

NOTE: HomeGuard® is not designed, or approved to be installed as a remedial treatment

Client provided with Warranty Details ☒

Warranty Details explained to client ☒

Rentokil
The Experts in Pest Control

Authorised Signature:  Date: 27/5/16

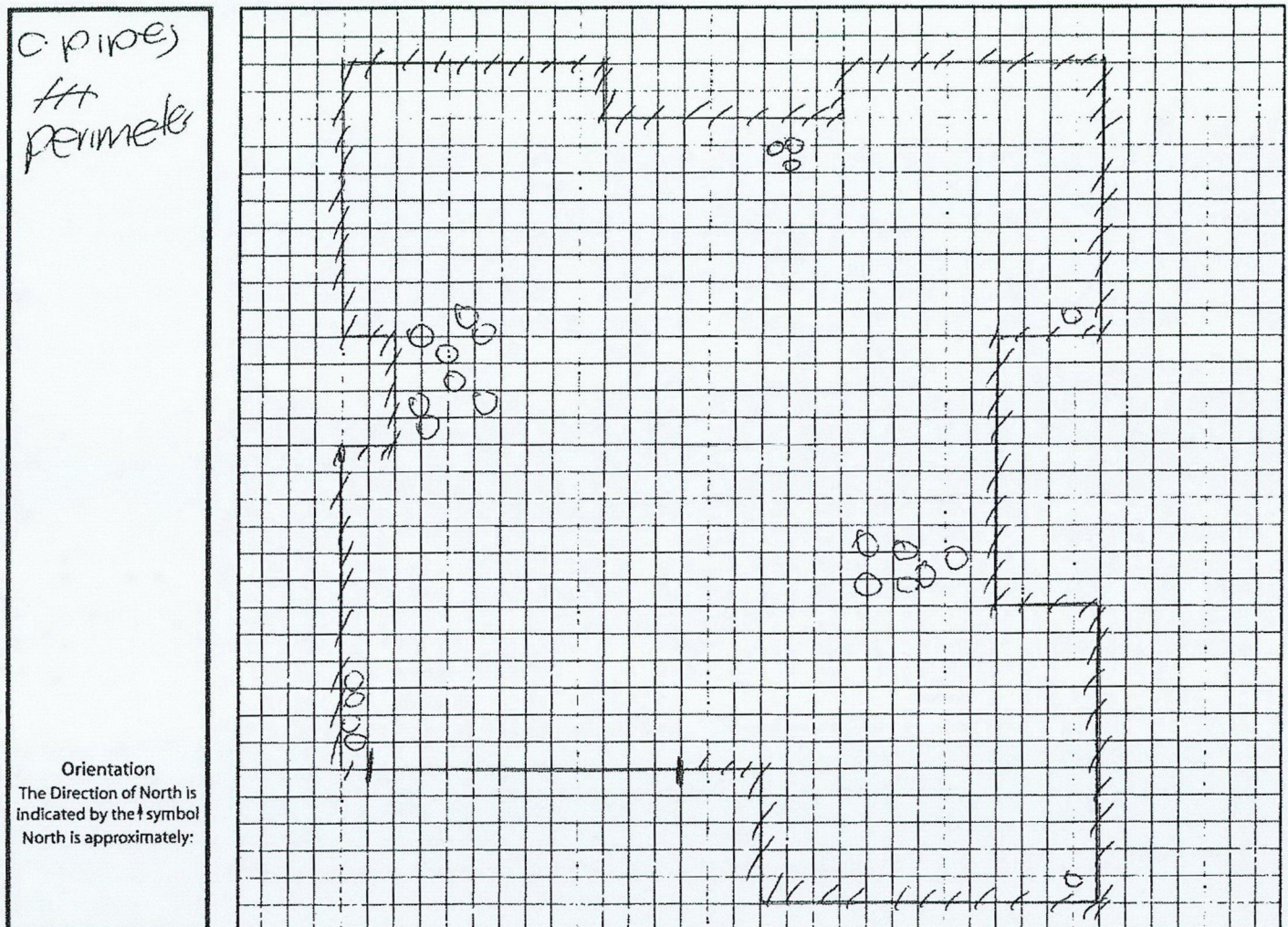
For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

HomeGuard Installation Diagram

HomeGuard RED
Precision Termite Management

Installer Name: Rentokil HomeGuard Accreditation Number:
Installation Address: 8 McPherson Street - Unit 36
Builder: PBS Building Suburb: Warriewood State: NSW Post Code: 2102
Installation Date: 14-9-15



NOTE: This form must be submitted if a partial HomeGuard treatment has been applied and be clear and ledgable to be accepted by FMC

This document is to certify that the HomeGuard system was installed by a HomeGuard Accredited Installer and has been completed in accordance with the manufacturers specifications. HomeGuard complies with AS 3660.1 - 2014, the primary referenced standard of the Building Code of Australia. HomeGuard is only part of a termite management system for a new property, extension or renovation, the slab must be constructed in accordance with the standard: Residential Slabs and Footings Construction, AS 2870-1996. Any construction joint between existing slab and building works must be protected as part of the warranty.

Rentokil
The Experts in Pest Control

Authorised Signature: [Signature] Date: 27/5/16

HomeGuard Installation Certificate of Compliance

Applicator

Name of Company: Rentokil Termite Barriers ABN: 98 000 034 597

Installer Name: Rentokil Termite Barriers PMT Licence Number: NA

QBSA Number: NA (QLD requirement only)

HomeGuard Accreditation Number:

Your Certificate Number: 2015-09-000018264SHR Phone Number: 1300 855 822

Building Details

Installation Date: 10 September 2015

Installation Address: 8 McPherson Street - Unit 37

Suburb: Warriewood State: NSW Post Code: 2102

Builder: (if applicable) PBS Building (NSW) Pty. Ltd.

Installation Type

☐ Full Under Slab ☒ Collars ☒ Perimeter

Product Details

HomeGuard TMB Red Installed 0 m² HomeGuard PB Red Installed 61 l/m

HomeGuard DPC Red Installed 0 l/m HomeGuard GT Installed 0 kg

HomeGuard FlexiCollars Installed 100mm 18 qty 50mm 0 qty 40mm 0 qty

Comments

Installed protection to the pipe penetrations and perimeter cavity of the residential building on site.

NB:-

Limitations that apply to the above installation are:

NOTE: HomeGuard® is not designed, or approved to be installed as a remedial treatment

Client provided with Warranty Details ☒

Warranty Details explained to client ☒

Rentokil
The Experts in Pest Control

Authorised Signature: *V. Shaw* Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

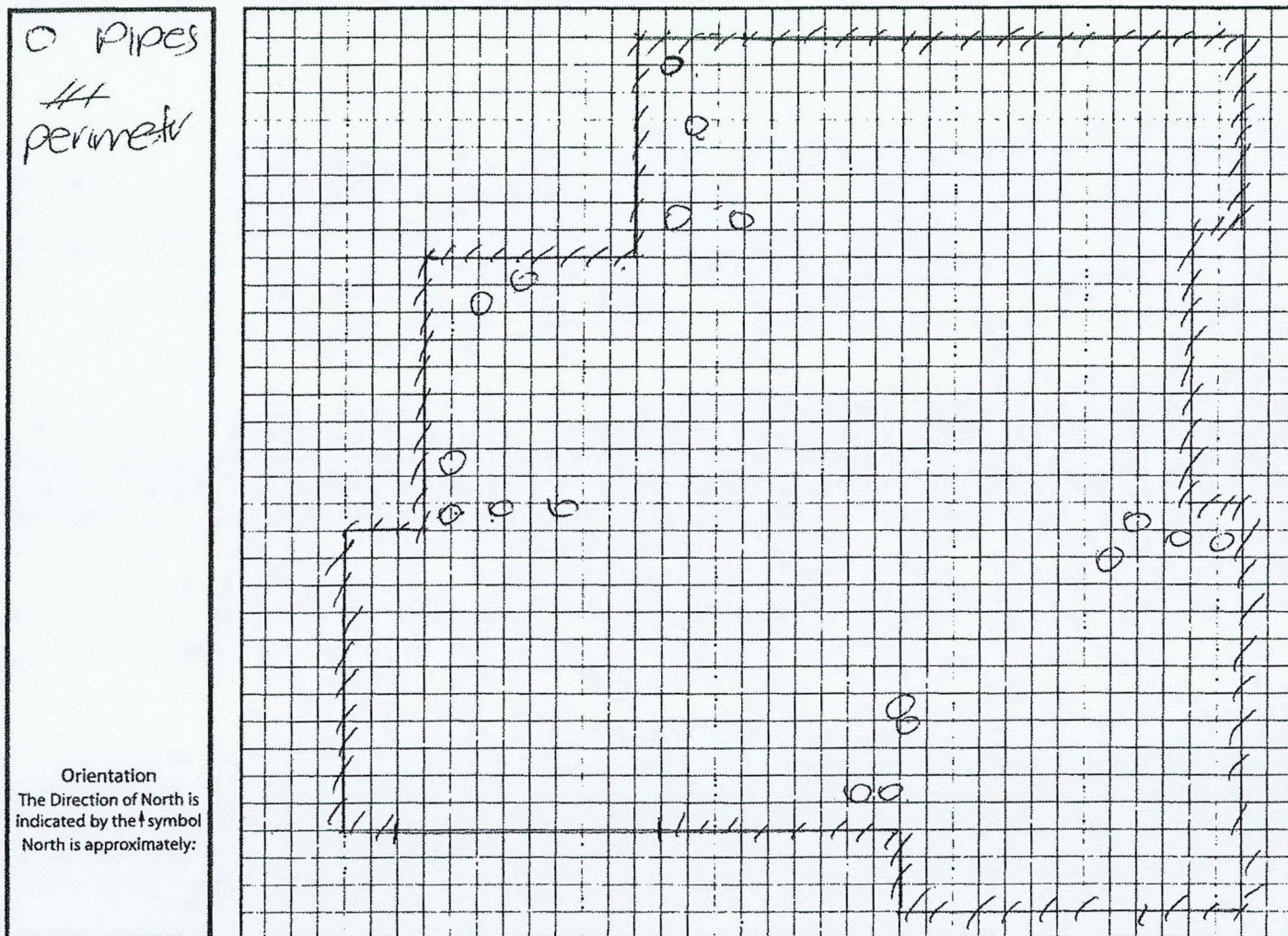
HomeGuard Installation Diagram

Installer Name: Rentokil HomeGuard Accreditation Number:

Installation Address: 8 Macquarrie St - Unit 37

Builder: PBS Building Suburb: Warriewood State: NSW Post Code: 2102

Installation Date: 10-9-15



NOTE: This form must be submitted if a partial HomeGuard treatment has been applied and be clear and ledgable to be accepted by FMC

This document is to certify that the HomeGuard system was installed by a HomeGuard Accredited Installer and has been completed in accordance with the manufacturers specifications. HomeGuard complies with AS 3660.1 - 2014, the primary referenced standard of the Building Code of Australia. HomeGuard is only part of a termite management system for a new property, extension or renovation, the slab must be constructed in accordance with the standard: Residential Slabs and Footings Construction. AS 2870-1996. Any construction joint between existing slab and building works must be protected as part of the warranty.

Rentokil
The Experts in Pest Control

Authorised Signature: [Signature] Date: 27/5/16

HomeGuard Installation Certificate of Compliance



Applicator

Name of Company: Rentokil Termite Barriers ABN: 98 000 034 597
Installer Name: Rentokil Termite Barriers PMT Licence Number: NA
QBSA Number: NA (QLD requirement only)
HomeGuard Accreditation Number:
Your Certificate Number: 2015-10-000018265SHR Phone Number: 1300 855 822

Building Details

Installation Date: 26 October 2015
Installation Address: 8 McPherson Street - Unit 38
Suburb: Warriewood State: NSW Post Code: 2102
Builder: (if applicable) PBS Building (NSW) Pty. Ltd.

Installation Type

☐ Full Under Slab ☒ Collars ☒ Perimeter

Product Details

HomeGuard TMB Red Installed	0 m ²	HomeGuard PB Red Installed	60 l/m		
HomeGuard DPC Red Installed	0 l/m	HomeGuard GT Installed	0 kg		
HomeGuard FlexiCollars Installed 100mm	18 qty	50mm	0 qty	40mm	0 qty

Comments

Installed protection to the pipe penetrations and perimeter cavity of the residential building on site.

NB:-

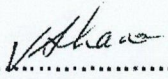
Limitations that apply to the above installation are:

NOTE: HomeGuard® is not designed, or approved to be installed as a remedial treatment

Client provided with Warranty Details ☒

Warranty Details explained to client ☒

Rentokil
The Experts in Pest Control

Authorised Signature:  Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

HomeGuard Installation Diagram

Installer Name: Rentokil HomeGuard Accreditation Number:

Installation Address: 8 Macquieson St - Unit 38

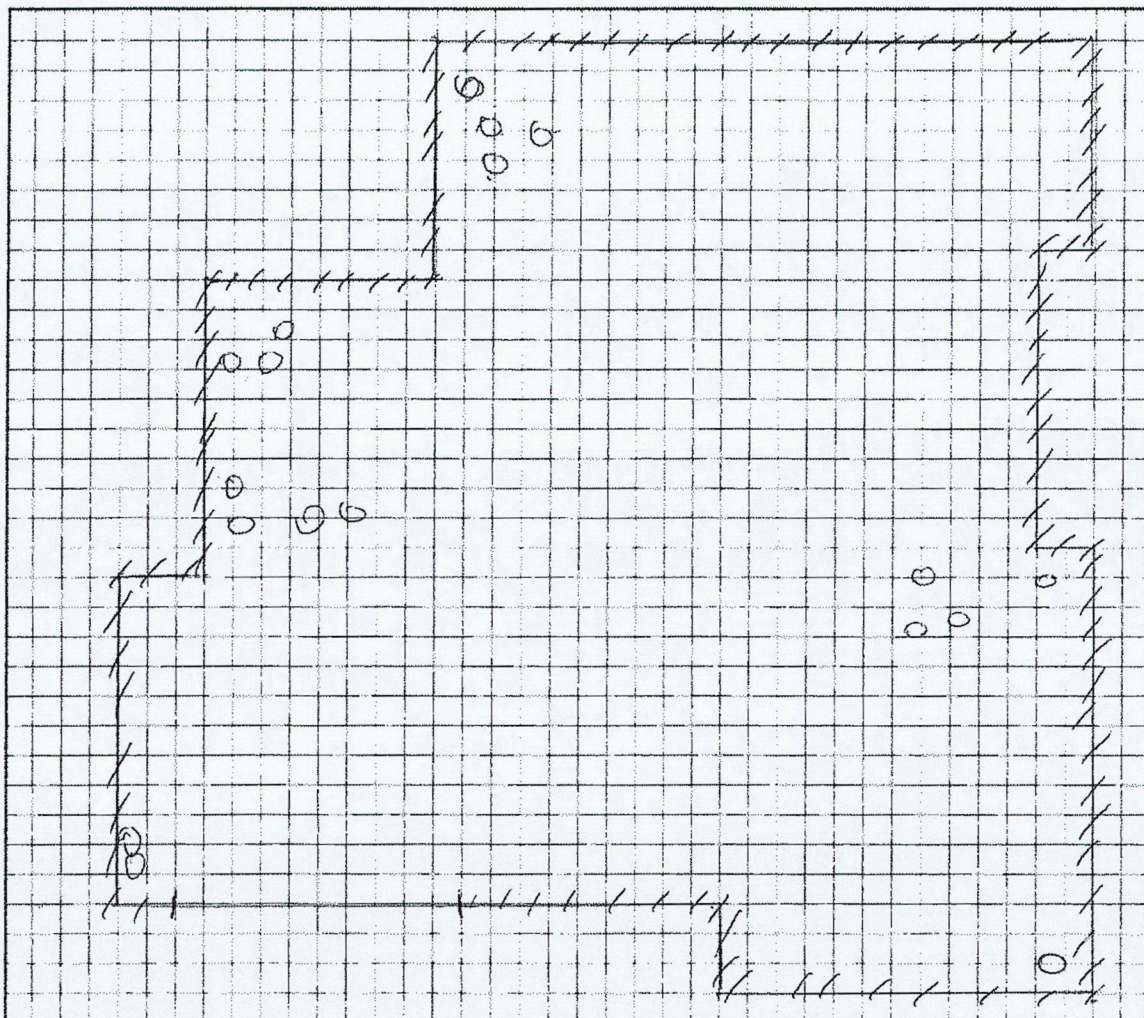
Builder: PBS Building Suburb: Warriewood State: NSW Post Code: 2102

Installation Date: 26 October 2015

0 pipes

perimeter

Orientation
The Direction of North is
indicated by the † symbol
North is approximately:



NOTE: This form must be submitted if a partial HomeGuard treatment has been applied and be clear and ledgable to be accepted by FMC

This document is to certify that the HomeGuard system was installed by a HomeGuard Accredited Installer and has been completed in accordance with the manufacturers specifications. HomeGuard complies with AS 3660.1 - 2014, the primary referenced standard of the Building Code of Australia. HomeGuard is only part of a termite management system for a new property, extension or renovation, the slab must be constructed in accordance with the standard: Residential Slabs and Footings Construction. AS 2870-1996. Any construction joint between existing slab and building works must be protected as part of the warranty.

Rentokil
The Experts in Pest Control

Authorised Signature: W. Shaw Date: 27/5/16

HomeGuard Installation Certificate of Compliance



Applicator

Name of Company: Rentokil Termite Barriers ABN: 98 000 034 597

Installer Name: Rentokil Termite Barriers PMT Licence Number: NA

QBSA Number: NA (QLD requirement only)

HomeGuard Accreditation Number:

Your Certificate Number: 2015-10-000018266SHR Phone Number: 1300 855 822

Building Details

Installation Date: 26 October 2015

Installation Address: 8 McPherson Street - Unit 39

Suburb: Warriewood State: NSW Post Code: 2102

Builder: (if applicable) PBS Building (NSW) Pty. Ltd.

Installation Type

☐ Full Under Slab ☒ Collars ☒ Perimeter

Product Details

HomeGuard TMB Red Installed m² HomeGuard PB Red Installed l/m

HomeGuard DPC Red Installed l/m HomeGuard GT Installed kg

HomeGuard FlexiCollars Installed 100mm qty 50mm qty 40mm qty

Comments

Installed protection to the pipe penetrations and perimeter cavity of the residential building on site.

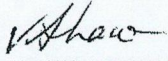
NB:-

Limitations that apply to the above installation are:

NOTE: HomeGuard® is not designed, or approved to be installed as a remedial treatment

Client provided with Warranty Details ☒ Warranty Details explained to client ☒

Rentokil
The Experts in Pest Control

Authorised Signature:  Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

HomeGuard Installation Diagram

HomeGuard RED

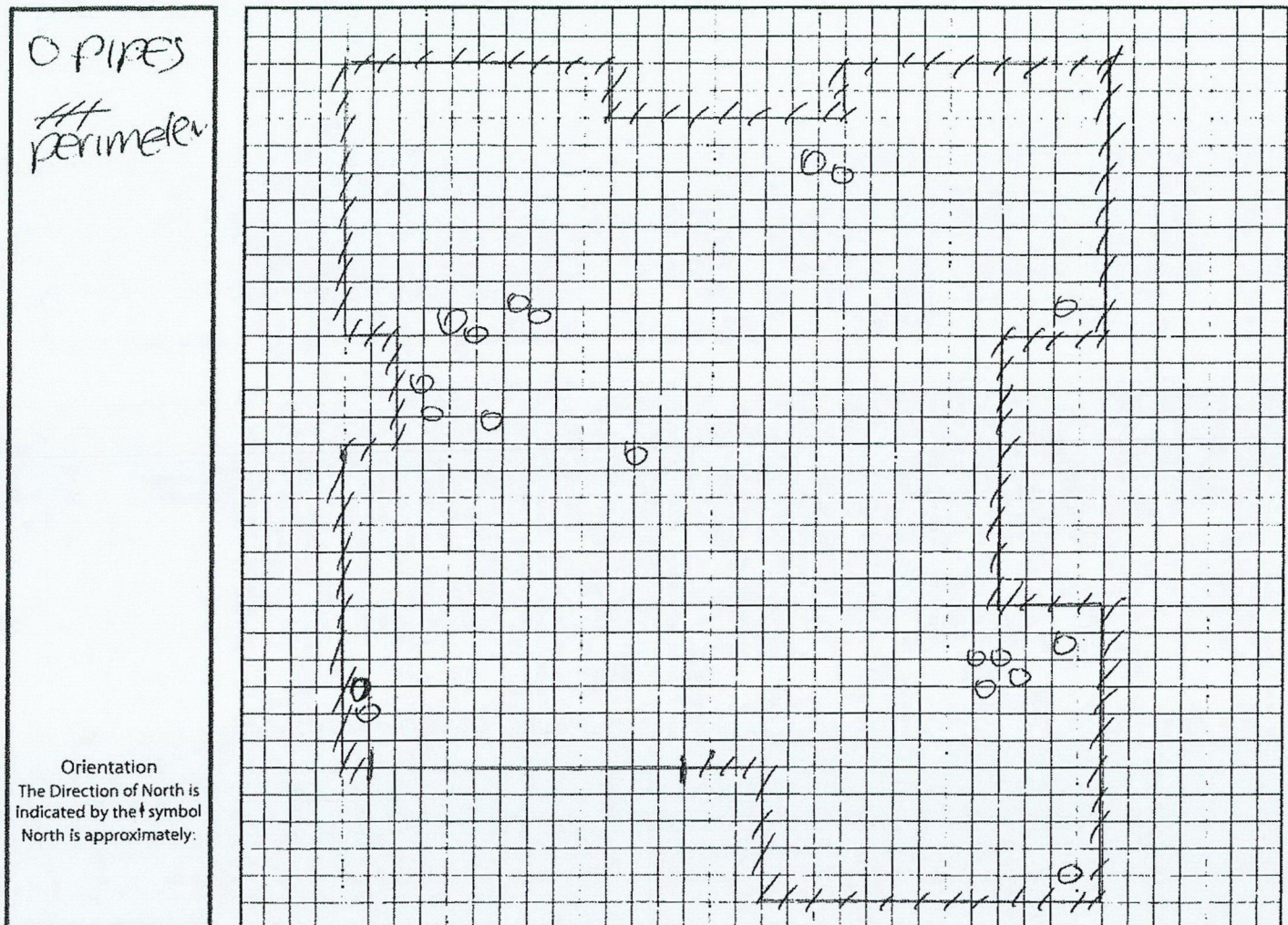
Precision Termite Management

Installer Name: Rentokil HomeGuard Accreditation Number:

Installation Address: 8 Macpherson Street - Unit 39

Builder: PBS Building Suburb: Warriewood State: NSW Post Code: 2102

Installation Date: 26-10-15



NOTE: This form must be submitted if a partial HomeGuard treatment has been applied and be clear and legible to be accepted by FMC

This document is to certify that the HomeGuard system was installed by a HomeGuard Accredited Installer and has been completed in accordance with the manufacturers specifications. HomeGuard complies with AS 3660.1 - 2014, the primary referenced standard of the Building Code of Australia. HomeGuard is only part of a termite management system for a new property, extension or renovation, the slab must be constructed in accordance with the standard: Residential Slabs and Footings Construction. AS 2870-1996. Any construction joint between existing slab and building works must be protected as part of the warranty.

Rentokil
The Experts in Pest Control

Authorised Signature: R. Shaw Date: 27/5/16

INSTALLATION / COMPLETION CERTIFICATION	
PROJECT	ARV Warriewood – Stage 5
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

Name:	Shannon Darcy
Company:	All Concrete SLD Pty Ltd
Company Address:	3124 Wellington St, Riverstone 2765
Phone:	9627 7851
Fax:	9627 3758
Email:	admin@allconcrete.com.au
Qualifications & Experience:	Tafe-qualified concreter + licenced

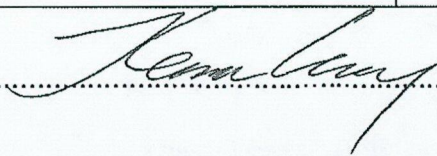
Hereby certify that the following aspect:

builder (no. 2119010)

CONCRETE WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	N/A
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 2870-2011
(e)	The relevant BASIX/ABSA Certificate	N/A
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: N0267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 11/01/2017

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

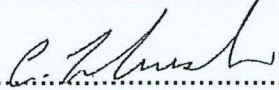
Name:	Chris Thrush
Company:	Helcon Contracting Australia Pty Ltd
Company Address:	Unit 10 / 45-51 Huntley Street, Alexandria
Phone:	02 9516 5093
Fax:	02 9516 5193
Email:	info@helcon.com.au
Qualifications & Experience:	253147C

Hereby certify that the following aspect:

SCREW PILE WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 2159-2009 Amdt 1
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: N0267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: **27-01-16**

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC2 - ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

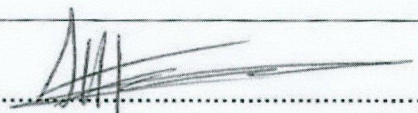
Name:	Francesco Salvatore Difranto
Company:	Global Bricklaying Holdings Pty Ltd
Company Address:	7 Main Street, Lithgow, NSW, 2790
Phone:	0425 268 064
Fax:	N/A
Email:	gbhcontracting@bigpond.com
Qualifications & Experience:	231903C - Builder - 15 years experience

Hereby certify that the following aspect:

MASONRY WORK (Class 1a and 9b Buildings)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Part 3.12.1.1 Part 3.8.5.2
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 3700-2011
(e)	The relevant BASIX/ABSA Certificate	N/A
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 12 January 2017

INSTALLATION / COMPLETION CERTIFICATION	
PROJECT	ARV Warriewood – Stage 5
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

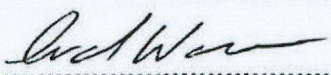
Name:	Grant Worner
Company:	Renrow steel
Company Address:	PO Box 429 Hawker 2614
Phone:	0439 604 943
Fax:	
Email:	Grant Worner
Qualifications & Experience:	Boilermaker / site manager 10 years +

Hereby certify that the following aspect:

STRUCTURAL STEEL WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 4100-1998 Amdt 1 AS/NZS 4600-2005 Amdt 1 NASH Standard Part 1-2005 Amdt A, B & C
(e)	The relevant BASIX/ABSA Certificate	
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: NO267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 16/4/17



APPRENTICESHIP AND TRAINEESHIP
ACT, 2001

TCID No. 838275.1

Cert. No. 2007/292708

Certificate of Proficiency

The Commissioner for Vocational Training
hereby certifies that pursuant to Section 23 of the
Apprenticeship and Traineeship Act, 2001

GRANT WORNER

has successfully completed the term of an apprenticeship and
has been awarded an apprenticeship qualification by a
registered training organisation in

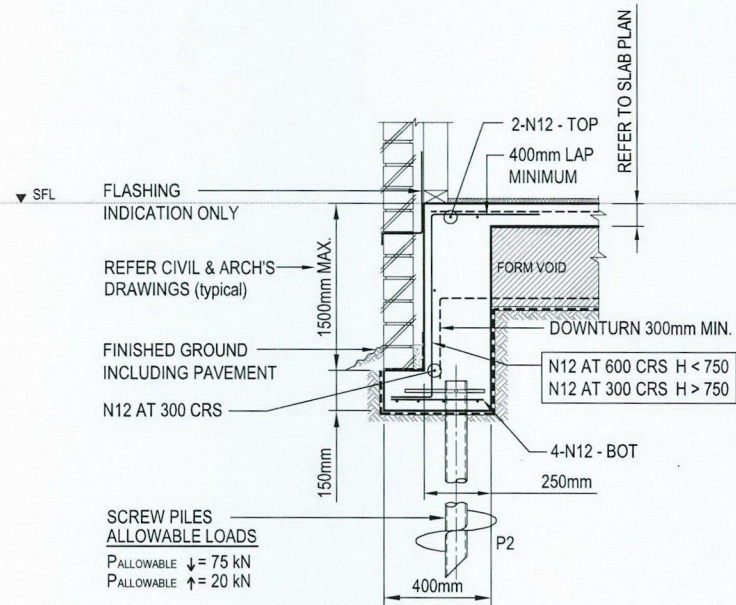
Engineering (Fabrication) Certificate III

The apprenticeship was completed on 29 November 2006

Signature of Commissioner

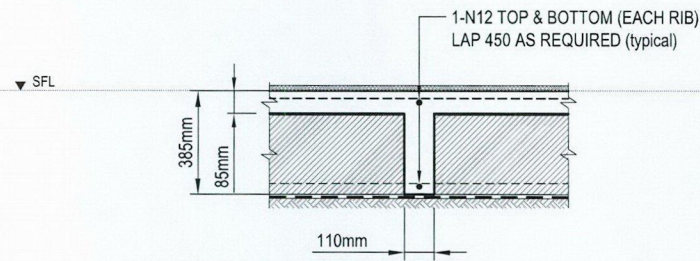
Date of award of certificate





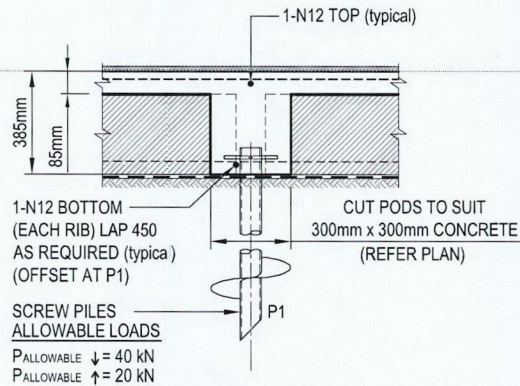
GB1* - DROP GROUND BEAM

REFER ARCHITECTURAL AND CIVIL
DRAWINGS FOR LOCATION



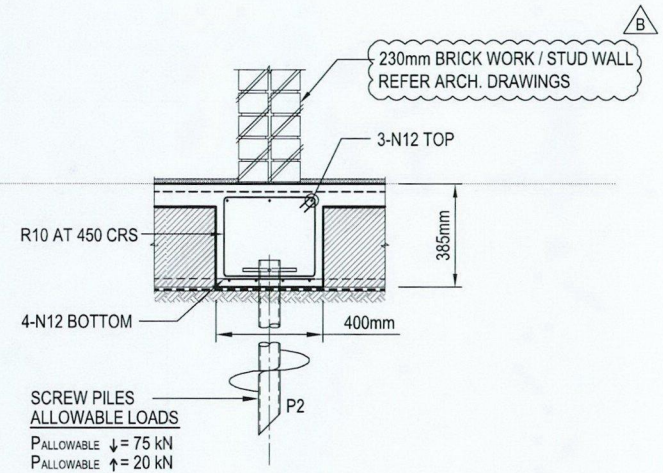
TYPICAL INTERNAL RIB

SCALE 1:20 @ A3



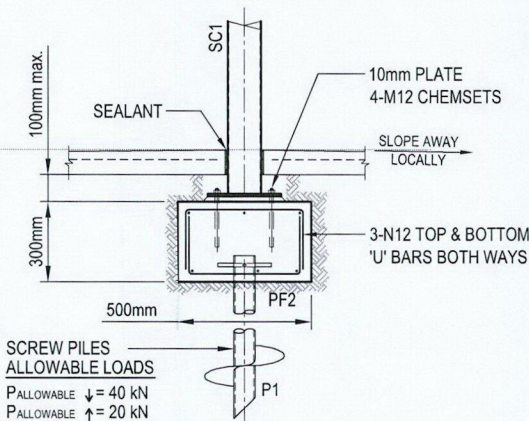
TYPICAL PILES - 'P1' DETAIL

SCALE 1:20 @ A3



TYPICAL INTERNAL BEAM 'IB4*'

SCALE 1:20 @ A3



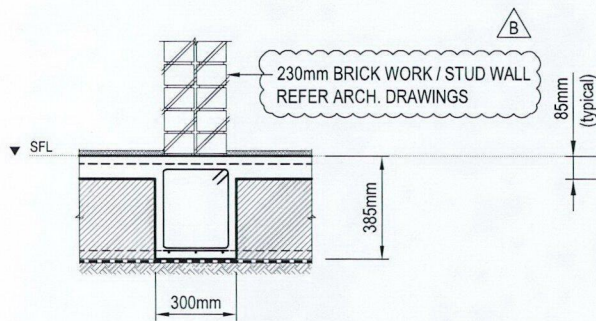
TYPICAL PAD FOOTING DETAIL - 'PF2'

[SC1 - 125 x 125 x 4.0 SHS H.D.GALV OR EQUIV. PAINT]

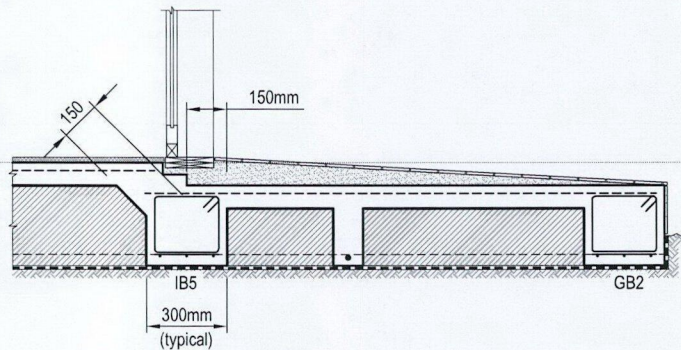
SCALE 1:20 @ A3

FOR CONSTRUCTION

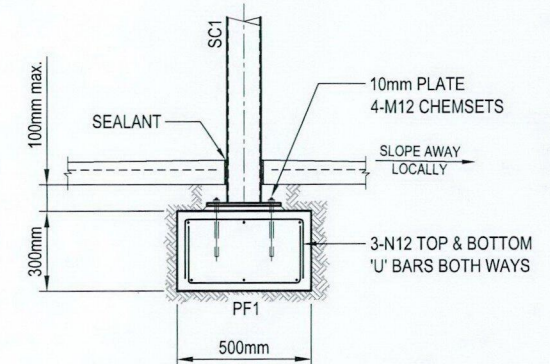
			Client	Level 5, 79 Victoria Avenue Chatswood NSW 2067  Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henryandhymas.com.au 	Project ANGLICAN RETIREMENT VILLAGES 8 MACPHERSON ST. WARRIEWOOD, NSW Title SLAB ON PILE DETAILS SHEET 2	Drawn MAG	Designed DK	Date JULY 2014
B	REVISED AS CLOUDED	18-02-2015	ARV			Checked DK	Approved RK	Scale 1:20 @ A3
A	ISSUED FOR CONSTRUCTION	02-02-2015	Architect ENVIRONA STUDIO			Drawing number.		
02	ISSUED FOR TENDER	15-08-2014				12693 - S7.01		
01	ISSUED FOR PRELIMINARY	01-08-2014						
REVISION		AMENDMENT	DATE	This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.		Revision B		



TYPICAL INTERNAL BEAM "IB4"
SCALE 1:20 @ A3



TYPICAL SLAB DETAIL ON TERRACE
SCALE 1:20 @ A3



TYPICAL PAD FOOTING DETAIL - 'PF1'
[SC1 - 125 x 125 x 4.0 SHS H.D.GALV OR EQUIV. PAINT]
SCALE 1:20 @ A3

FOR CONSTRUCTION

REVISION	B	REVISED AS CLOUDED	18-02-2015	Client ARV	Level 5, 79 Victoria Avenue Chatswood NSW 2067  Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hcnconsult.com.au Web www.henryandhymas.com.au 	Project ANGLICAN RETIREMENT VILLAGES 8 MACPHERSON ST. WARRIEWOOD, NSW	Drawn MAG	Designed DK	Date JULY 2014
	A	ISSUED FOR CONSTRUCTION	02-02-2015	Architect ENVIRONA STUDIO			Checked DK	Approved RK	Scale 1:20 @ A3
	02	ISSUED FOR TENDER	15-08-2014						
	01	ISSUED FOR PRELIMINARY	01-08-2014						
		AMENDMENT	DATE	This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.			Drawing number. 12693 - S6.01		Revision B

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC2- ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

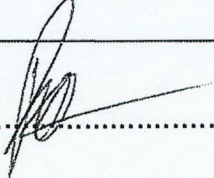
Name:	Ryan McEwan.
Company:	RCM Carpentry
Company Address:	45 Mansfield Way Kellville
Phone:	0421 571119
Fax:	
Email:	RCMCarpentry@hotmail.com
Qualifications & Experience:	CERT III Carpentry 15 yrs.

Hereby certify that the following aspect:

CARPENTRY WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Part 3.12.3
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 1684.2-2010 Amdt 1 AS 1684.4-2010 Amdt 1 AS 1562.1-1992 Amdt 1, 2 & 3 AS 2047-1999 Amdt 1 & 2 AS 1288-2006 Amdt 1 & 2
(e)	The relevant BASIX/ABSA Certificate	
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: NO267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes (Trueform's Frame and Truss details)
(h)	Further Comment, or other practices or standards relied upon for this certification:	Installation in accordance with the frame & truss manufacture's detail drawings as referenced in Appendix A
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 11/1/17

APPENDIX A

1. Trueform's Frame and Truss Detail Drawings Reference

- **Frame – 9013-D34, 9013-D35, 9013-D36, 9012-C37, 9013-F38, 9013-G39**
- **Truss – 13D-34, 13D-35, 13D-36, 12C-37, 13F-38, 13G-39**



***** CERTIFICATION FOR ROOF TRUSSES *****

Date - 11 Sep 2015 10:41:55

Client - PBS BUILDING - , ,

Job Reference - 9013

UNIT. 34

Site - SINGLE STORY ROOF - ILU 34 TYPE D R STAGE 5, NO 8 MACPHERSON ST WARRIEWOOD

GENERAL DEFAULTS

Design Wind Speed = 40.0m/s , N2 Wind Classification

Roof Material : Steel Deck (900 crs)

Ceiling Material : 13mm Plaster/direct to BC

Top Chord Restraints : 900 mm

Bottom Chord Restraints : 600 mm

Truss Spacing : 600 mm

External Pressure Coefficient: -0.90

Internal Pressure Coefficient: 0.20

Timber Description : F5MIX

Pitch: 18.00 degrees

Overhang: 585 mm

Application: Housing

Note: Design data for individual trusses may vary.

The trusses in this project have been designed using MiTek 20/20, a software suite developed by MiTek Australia Ltd. in accordance with the ABCB Protocol For Structural Software incorporating engineering procedures that comply with relevant requirements in BCA 2014 including AS/NZS 1170.0:2002, AS/NZS 1170.1:2002, AS/NZS 1170.2:2011, AS/NZS 1170.3:2003, AS 1720.1:2010 & AS 4055:2012 among its list of documents.

These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

Trueform Frames & Trusses

certifies that these trusses are manufactured under licence to and in accordance with specifications published by MiTek Australia Ltd.

Designed by:

Jason Hellyer

General Defaults

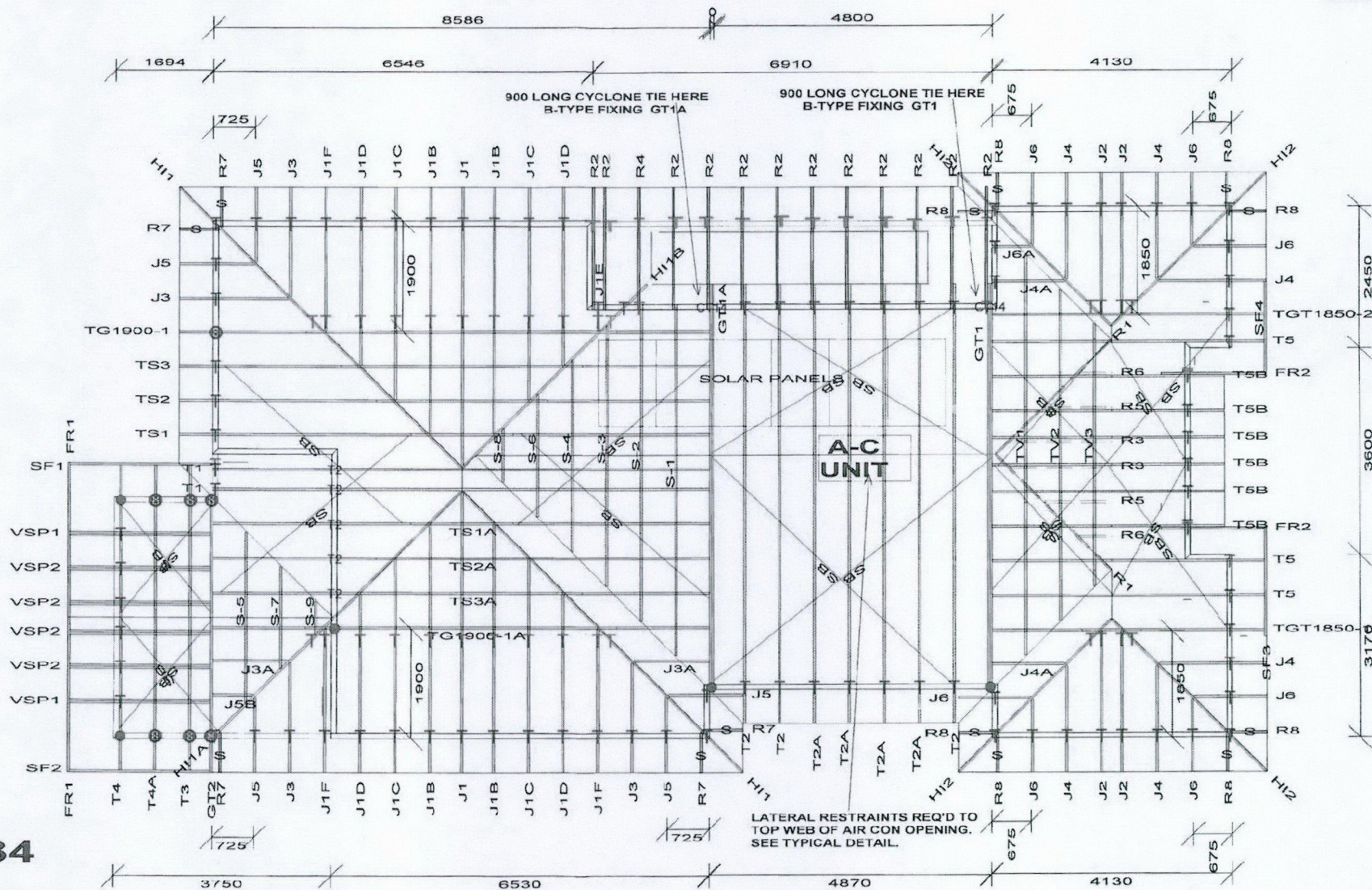
Design Wind Speed = 40 m/s, N2 Wind Classification
Roof Material: Steel Deck (600 crs)
Ceiling Material: 13mm Plaster/direct to BC
Top Chord Restraints: 600 mm
Bottom Chord Restraints: 600 mm
Truss Spacing: 600 mm
External Pressure Coefficient: -0.9
Internal Pressure Coefficient: 0.2
Pitch: 18 degrees
Overhang: 565 mm
note: Design data for individual trusses may vary

SEE DETAIL FOR STRUTTING OVER HANGS
IN INSTALLATION BOOK PAGE 24

SPEEDBRACE SB

Symbols
Hold-Downs:
 @ : CT600 8 Face
 CT14 : CT900 Type B
 * : CT600 Fixed Under
 T : TGU A
 T : TGU A
 T2 : TGU Dbl A

UNIT 34



LATERAL RESTRAINTS REQ'D TO
TOP WEB OF AIR CON OPENING.
SEE TYPICAL DETAIL.

TRUEFORM
FLAME-RETARDANT

9 MULGRA
IULGRAVE
SW 2756

elephone: 4577.2755
ax: 4587.8215

Trueform Frames and Trusses

Client: PBS BUILDING
Site: ILU 34 TYPE D R STAGE 5
: NO 8 MACPHERSON ST
: WARRIEWOOD
: NOT TREATED
Telephone:

Job:

13D-34

Designed by:


Jason Hellyer

Notes:

ALL TRUSSES TO BE INSTALLED TO SUIT MITEK
FIXING & BRACING GUIDELINES FOR TRUSSES.

MAKE SURE ALL BRACING IS PERMANENTLY FIXED
AND ALL BOLTS AND BRACKETS ARE TIGHTENED
PRIOR TO LOADING OF THE ROOF.

ENSURE ANY TRUSS SUPPORTED INTERNALLY IS POSITIONED SO WEBS LAND OVER TRUSS

Top & Bottom Planks 80 mm

Panel Edge 150 mm

Min. Bar Length 1200 mm

Riz rod at each end of the mineral wool wall section (s. 1.3N/m)

Riz cutchdown & washer (s. 1.3N/m)

N-2 WIND SPEED

3 KN-M METAL BRACING DETAIL
AND PLY BRACING FOR
WALLS. SEE AS 1684 TABLE 8.23
FOR FIXING BRACED PANELS TO SLAB
(BOLTING BOTTOM PLATE TO SLAB)

(a) Truss parallel to wall

(b) Truss perpendicular to wall

Bracing Capacity $\approx 1.0kN/m$
Typical Bracing Panel
Pair of 25 x 1.0mm or 30 x 1.0mm
Structural Bracing Straps in
opposing directions.

[illegible]

- Fastener centres
 - 80mm for top and bottom plates
 - 150mm for vertical edges
 - 300mm for intermediate studs
- Minimum section of bracing of 600mm
- 2 mm expansion gap around perimeter of every panel.
- For panel length of 600mm bracing capacity shall be half of that for 900mm
- For panel length between 600mm and 900mm, the bracing capacity can be calculated by multiplying the respective capacities by 0.5 for 600mm long varying linearly to 1.0 for 900mm.

[illegible]

3 bed, 2 bath

site area	
house area gfa (ext)	118.5 sqm
house area rfa (int)	106.7 sqm

All / decl w 26 ories

rev	date	amendment
A	30.03.15	CONSTRUCTION ISSUE: drawings for mirror reverse ILU's added to sat

NOTE:

1. FOR ALL BASIX/SECTION J REQUIREMENTS, REFER TO SCHEDULE - SHEETS 210, 211
2. FOR CERTIFICATION REQUIREMENTS REFER TO SCHEDULE - SHEET 020
3. FOR BAL 12.5 REQUIREMENTS REFER TO SCHEDULE - SHEET 021

project management
MORGAN MOORE
ph: 02 9957 6188

planner
DON FOX PLANNING
ph: 02 9980 6933

landscape architect
JOHN LOCK & ASSOCIATES
ph. 02 9969 9866

engineer (civil / hydraulic)
HENRY & HYMAS
ph. 02 9417 8400

environa studio

137151 DUBAUX S
SAINT-MIL 2010
1 02 9352 1211 1 02 9352 1211
E info@dan-rem-solima.com
20000000 20100000 1920

project
ARV AT WARREWOOD BROOK

br/rlert  Villages

location
MACPHERSON STREET

WARRIEWOOD BROOK

drawing
PLAN: ILLU TYPE D (REVERSE)

stage	project no.
CONST	731

chkr	1
------	---

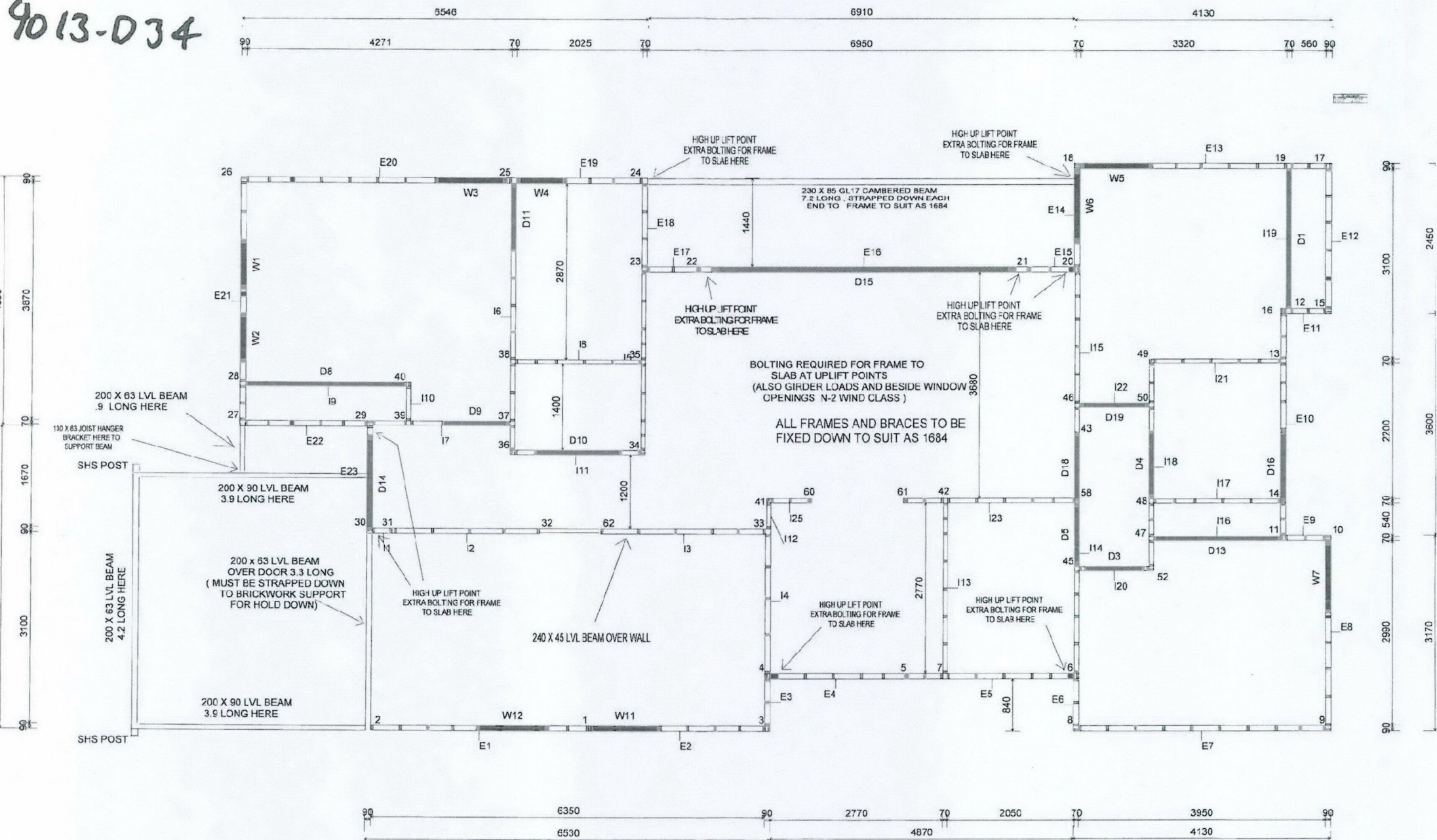
JOB 9013
B-TYPE BRACING
NOT TREATED

UNIT. 34

HOUSE TYPE D

REVERSE

9013-D34



UNIT 34



MiTek Australia Ltd - MiTek20/20 v4.82 p12 (Build 2330) BCA 2014

***** CERTIFICATION FOR ROOF TRUSSES *****

Date - 11 Sep 2015 12:18:33

Client - PBS BUILDING - , ,

Job Reference - 9013

Site - SINGLE STORY ROOF - ILU 35 TYPE D R STAGE 5, NO 8 MACPHERSON ST WARRIEWOOD

GENERAL DEFAULTS

Design Wind Speed = 40.0m/s , N2 Wind Classification

Roof Material : Steel Deck (900 crs)

Ceiling Material : 13mm Plaster/direct to BC

Top Chord Restraints : 900 mm

Bottom Chord Restraints : 600 mm

Truss Spacing : 600 mm

External Pressure Coefficient: -0.90

Internal Pressure Coefficient: 0.20

Timber Description : F5MIX

Pitch: 18.00 degrees

Overhang: 585 mm

Application: Housing

UNIT 35

Note: Design data for individual trusses may vary.

The trusses in this project have been designed using MiTek 20/20, a software suite developed by MiTek Australia Ltd. in accordance with the ABCB Protocol For Structural Software incorporating engineering procedures that comply with relevant requirements in BCA 2014 including AS/NZS 1170.0:2002, AS/NZS 1170.1:2002, AS/NZS 1170.2:2011, AS/NZS 1170.3:2003, AS 1720.1:2010 & AS 4055:2012 among its list of documents.

These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

Trueform Frames & Trusses

certifies that these trusses are manufactured under licence to and in accordance with specifications published by MiTek Australia Ltd.

Designed by:

Jason Hellyer

General Defaults

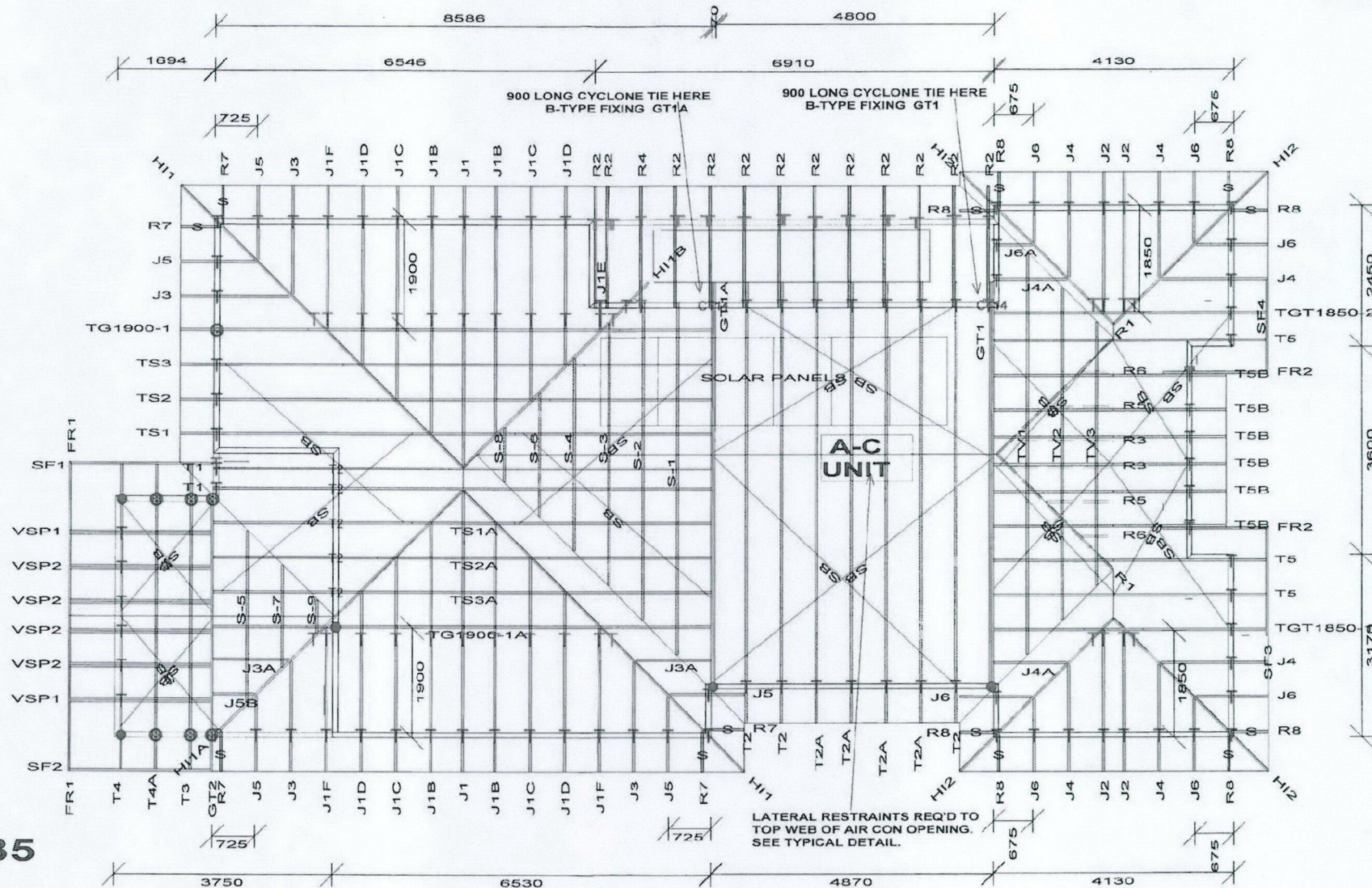
Design Wind Speed = 40 m/s, N2 Wind Classification
 Roof Material: Steel Deck (900 c/s)
 Ceiling Material: 13mm Plaster/dec to BC
 Top Chord Restraints: 900 mm
 Bottom Chord Restraints: 600 mm
 Truss Spacing: 600 mm
 External Pressure Coefficient: -0.9
 Internal Pressure Coefficient: 0.2
 Pitch: 18 degrees
 Overhang: 585 mm
 Note: Design data for individual trusses may vary

SEE DETAIL FOR STRUTTING OVER HANGS
 IN INSTALLATION BOOK PAGE 24

SPEEDBRACE _____ SB _____

Symbols:
 Hold Downs:
 @: CT600 S Face
 CT14: CT1400 Type B
 * : CT600 Fixed Under
 T: TGU A
 T2: TGU Dbl A

UNIT 35



TRUEFORM

Trueform Frames and Trusses

99 MULGRAVE RD
 MULGRAVE
 NSW 2756

Telephone: 4577.2755
 Fax: 4587.8215

Client: PBS BUILDING
 Site: ILU 35 TYPE D R STAGE 5
 : NO 8 MACPHERSON ST
 : WARRIEWOOD
 : NOT TREATED
 Telephone:

Job:

13D-35

Designed by:

Jason Hellyer
 Jason Hellyer

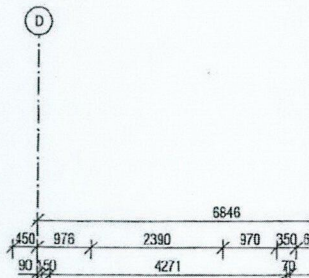
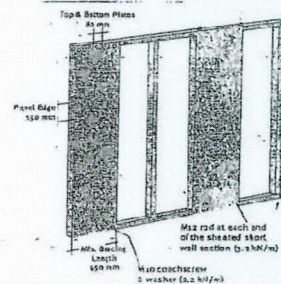
Notes:

ALL TRUSSES TO BE INSTALLED TO SUIT MITEK
 FIXING & BRACING GUIDELINES FOR TRUSSES.

MAKE SURE ALL BRACING IS PERMANENTLY FIXED
 AND ALL BOLTS AND BRACKETS ARE TIGHTENED
 PRIOR TO LOADING OF THE ROOF.

ENSURE ANY TRUSS SUPPORTED INTERNALLY IS
 POSITIONED SO WEBS LAND OVER TRUSS
 SUPPORT WALL

- TYPE #11 SHORT WALL BRACING | SYSTEM 2.3 KN/M
- 80 mm for top and bottom plates
 - 150 mm for vertical edges
 - M10 x 70 mm coach screws with
 - 50 x 50 x 3 mm washers in each corner of each sheathed, short wall section
 - Minimum section of bracing of 450 mm
 - 2 mm expansion gap around perimeter of every panel

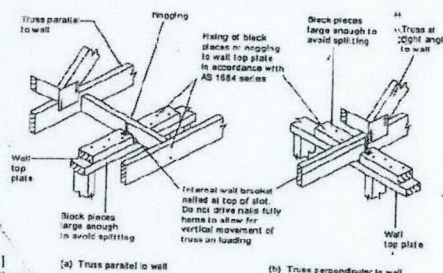


ALL FRAMES AND BRACES TO BE FIXED TO SLAB TO SUIT AS 1684

N-2 WIND SPEED

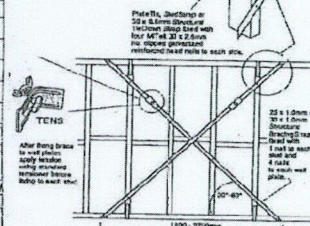
3 KN-M METAL BRACING DETAIL AND PLY BRACING FOR WALLS. SEE AS 1684 TABLE 8.23 FOR FIXING BRACED PANELS TO SLAB (BOLTING BOTTOM PLATE TO SLAB)

FIGURE 2.2 FIXING OF TRUSSES TO FREESTANDING NON-LOADBEARING WALL THAT IS A BRACING WALL



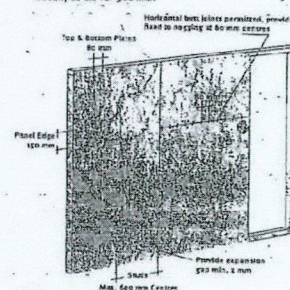
FIXING 2: Bracing Type B

Bracing Capacity = 3.08 kN/m
Typical bracing Panel
Ply of 25 x 1.0 mm or 30 x 1.2 mm
Structure (Bracing) in opposing directions.



TYPE #11 SYSTEM 3.4 KN/M

- Faster centres
- 80 mm for top and bottom plates
- 150 mm for vertical edges
- 900 mm for intermediate studs
- Minimum section of bracing of 450 mm
- 2 mm expansion gap around perimeter of every panel.
- For panel length of 500 mm bracing capacity shall be half of that for 900 mm
- For panel lengths between 600 mm and 900 mm, the bracing capacity can be calculated by multiplying the respective capacities by 0.5 for 600 mm long varying linearly to 1.0 for 900 mm.



ILU - TYPE D (REVERSE)

3 bed, 2 bath

site area
house area gfa (ext) 118.5 scm
house area nfa (int) 106.7 scm

All / incl ix 25 varies

notes
all work to be carried out in accordance with local, state and conditions of council. measurements in mm unless noted. use figured dimensions, do not scale drawings. site measure before starting work. note all discrepancies to the architect.

rev date amendment
A 30/03/15 CONSTRUCTION ISSUE: drawings for mirror reverse ILU's added to bid

NOTE:
1. FOR ALL BASIX/SECTION J REQUIREMENTS, REFER TO SCHEDULE - SHEETS 210, 211
2. FOR CERTIFICATION REQUIREMENTS REFER TO SCHEDULE - SHEET 920
3. FOR BAL 12.5 REQUIREMENTS REFER TO SCHEDULE - SHEET 921

project management
MORGAN MOORE
ph: 02 9557 6188

planner
DON FOX PLANNING
ph: 02 9980 6933

landscape architect
JOHN LOCK & ASSOCIATES
ph: 02 9969 9866

engineer (civil/hydraulic)
HENRY & HYMAS
ph: 02 9417 8400

enviro studio

12/01/15 project S
sunny hills 2010
02/04/15 12/11/15 02/03/16
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6546 4271 70 2025 70 6950 70 3320 70 560 90 4130

90 28 27 200 x 90 LVL BEAM 9 LONG HERE 200 x 63 LVL BEAM OVER DOOR 3.3 LONG ST BE STRAPPED DOWN TO BRICKWORK SUPPORT (FOR HOLD DOWN) 90 LVL BEAM LONG HERE

W1 W2 W3 W4 W5 W6 W7 W12 W11

D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D30 D31 D32 D33 D34 D35 D36 D37 D38 D39 D40 D41 D42 D43 D44 D45 D46 D47 D48 D49 D50 D51 D52 D53 D54 D55 D56 D57 D58 D59 D60 D61 D62 D63 D64 D65 D66 D67 D68 D69 D70 D71 D72 D73 D74 D75 D76 D77 D78 D79 D80 D81 D82 D83 D84 D85 D86 D87 D88 D89 D90 D91 D92 D93 D94 D95 D96 D97 D98 D99 D100

E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E20 E21 E22 E23 E24 E25 E26 E27 E28 E29 E30 E31 E32 E33 E34 E35 E36 E37 E38 E39 E40 E41 E42 E43 E44 E45 E46 E47 E48 E49 E50 E51 E52 E53 E54 E55 E56 E57 E58 E59 E60 E61 E62 E63 E64 E65 E66 E67 E68 E69 E70 E71 E72 E73 E74 E75 E76 E77 E78 E79 E80 E81 E82 E83 E84 E85 E86 E87 E88 E89 E90 E91 E92 E93 E94 E95 E96 E97 E98 E99 E100

25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

2870 1400 1400 1200 2770 840 3950 3680 1440

HIGH UP LIFT POINT EXTRA BOLTING FOR FRAME TO SLAB HERE

233 X 85 GL17 CAMBERED BEAM 7.2 LONG, STRAPPED DOWN EACH END TO FRAME TO SUIT AS 1684

BOLTING REQUIRED FOR FRAME TO SLAB AT UPLIFT POINTS (ALSO GIRDER LOADS AND BESIDE WINDOW OPENINGS N-2 WIND CLASS)

ALL FRAMES AND BRACES TO BE FIXED DOWN TO SUIT AS 1684

240 X 45 LVL BEAM OVER WALL

90 6350 90 2770 70 2050 70 3950 90 6530 4870 4130 2056

UNIT 35



***** CERTIFICATION FOR ROOF TRUSSES *****

Date - 14 Sep 2015 07:26:29

Client - PBS BUILDING - , ,

Job Reference - 9013

UNIT.36

Site - SINGLE STORY ROOF - ILU 36 TYPE D R STAGE 5, NO 8 MACPHERSON ST WARRIEWOOD

GENERAL DEFAULTS

Design Wind Speed = 40.0m/s , N2 Wind Classification

Roof Material : Steel Deck (900 crs)

Ceiling Material : 13mm Plaster/direct to BC

Top Chord Restraints : 900 mm

Bottom Chord Restraints : 600 mm

Truss Spacing : 600 mm

External Pressure Coefficient: -0.90

Internal Pressure Coefficient: 0.20

Timber Description : F5MIX

Pitch: 18.00 degrees

Overhang: 585 mm

Application: Housing

Note: Design data for individual trusses may vary.

The trusses in this project have been designed using MiTek 20/20, a software suite developed by MiTek Australia Ltd. in accordance with the ABCB Protocol For Structural Software incorporating engineering procedures that comply with relevant requirements in BCA 2014 including AS/NZS 1170.0:2002, AS/NZS 1170.1:2002, AS/NZS 1170.2:2011, AS/NZS 1170.3:2003, AS 1720.1:2010 & AS 4055:2012 among its list of documents.

These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

Trueform Frames & Trusses

certifies that these trusses are manufactured under licence to and in accordance with specifications published by MiTek Australia Ltd.

Designed by:

Jason Hellyer



Figure 1 shows a vertical number line from 0 to 90. Major tick marks are at 0, 10, 20, 30, 40, 50, 60, 70, 80, and 90. Minor tick marks are at 2, 4, 6, 8, 12, 14, 16, 18, 22, 24, 26, 28, 32, 34, 36, 38, 42, 44, 46, 48, 52, 54, 56, 58, 62, 64, 66, 68, 72, 74, 76, 78, 82, 84, 86, 88. The numbers 2990, 3170, 3500, 3100, and 2450 are marked on the line. 2990 is between 20 and 30, 3170 is between 30 and 40, 3500 is between 40 and 50, 3100 is between 60 and 70, and 2450 is between 80 and 90.



D Bv SOI LLY

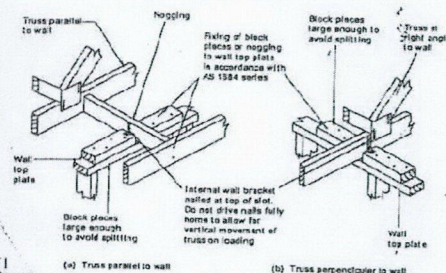
The diagram illustrates a cross-section of a window frame assembly. Key components and labels include:

- Top & Bottom Panels**: Indicated at the top and bottom of the frame.
- 80 mm**: Dimension for the thickness of the top and bottom panels.
- Panor Edge**: Label pointing to the outer edge of the side panel.
- 750 mm**: Dimension for the height of the side panel.
- Mix. Bricks**: Label indicating the construction material for the side panel.
- Min. Depth 600 mm**: Dimension for the minimum depth of the side panel.
- Max rod at each end if the standard short wall section ($\approx 1.9N/m^2$)**: Note regarding reinforcement rods.
- Min concrete D washer ($\geq 1.9N/m^2$)**: Note regarding the minimum concrete dimension for the washer.

N-2 WIND SPEED

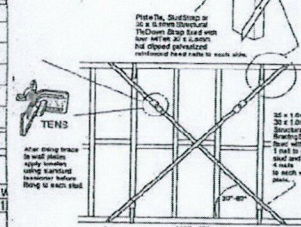
3 KN-M METAL BRACING DETAIL
AND PLY BRACING FOR
WALLS. SEE AS 1684 TABLE 8.23
FOR FIXING BRACED PANELS TO SLAB
(BOLTING BOTTOM PLATE TO SLAB)

FIGURE 2.2 FIXING OF TRUSSES TO FREESTANDING NON-LOADBEARING WALL THAT IS A BRACING WALL



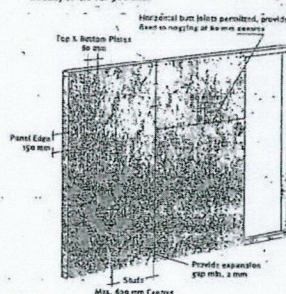
FIXING 2: Bracing Type B

Bracing Capacity = 1.8kN/m
Typical Bracing Panel
Pak of 25 x 1.0mm or 30 x 1.0mm
Structural Bracing Straps in
opposing directions.



TYPE B1 | SYSTEM 3.4 KN/M

- Fastener centres
 - 80 mm for top and bottom plates
 - 150 mm for vertical edges
 - 300 mm for intermediate studs
- Minimum section of bracing of 90 mm
- 2 mm expansion gap around perimeter of every panel
- For panel length of 600 mm bracing capacity shall be half of that for 300 mm
- For panel length between 600 mm and 900 mm, the bracing capacity can be calculated by multiplying the respective capacities by 0.5 for 600 mm long varying linearly to 1.0 for 900 mm.

☐ notes

all work to be carried out in accordance with bca, ssa codes and conditions of council. measurements in mm's unless noted. use figured dimensions. do not scale drawings. site measure before starting work. refer all discrepancies to the architect.

FDY	CAB	amendment
A	30.03.15	CONSTRUCTION ISSUE: drawings for mirror reverse RU's added to set

NOTE:

1. FOR ALL BASIC/SECTION J REQUIREMENTS, REFER TO SCHEDULE - SHEETS 210, 211
2. FOR CERTIFICATION REQUIREMENTS REFER TO SCHEDULE - SHEET 920
3. FOR BAL 12.5 REQUIREMENTS REFER TO SCHEDULE - SHEET 921

project management
MORGAN MOORE
ph: 02 9957 6188

planner
DON FOX PLANNING
ph: 02 9980 6923

landscape architect
JOHN LOCK & ASSOCIATES
ph. 02 9969 9866

engineer (civil / hydraulic)
HENRY & HYMAS
ph. 02 9417 8400

environa studio

1075) *Inverness S*
Surrey Hills 2840
 L 12-9552 (21) L 12-9552 (25)
 B: info@transformational.com.au

project
ARV AT WARRIEWOOD BROOK

lor/lier



Villages

location
MACPHERSON STREET

WARRIEWOOD BROOK

drawing
PLAN: ILU TYPE D (REVERSE)

stage	project no
CONST	731

chkt	drawn	date
TW	CK	30/

JOB 9013
B-TYPE BRACING
NOT TREATED

UNIT-36

HOUSE TYPE D

REVERSE

14. 34.
S OF



***** CERTIFICATION FOR ROOF TRUSSES *****

Date - 20 Aug 2015 09:19:33

Client - PBS BUILDING - , ,

Job Reference - 9012

Site - SINGLE STORY ROOF - ILU 37 TYPE C STAGE 5, NO 8 MACPHERSON ST WARRIEWOOD

GENERAL DEFAULTS

Design Wind Speed = 40.0m/s , N2 Wind Classification

Roof Material : Steel Deck (900 crs)

Ceiling Material : 13mm Plaster/direct to BC

Top Chord Restraints : 900 mm

Bottom Chord Restraints : 600 mm

Truss Spacing : 600 mm

External Pressure Coefficient: -0.90

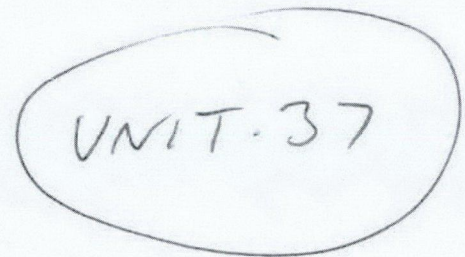
Internal Pressure Coefficient: 0.20

Timber Description : F5MIX

Pitch: 18.00 degrees

Overhang: 585 mm

Application: Housing



Note: Design data for individual trusses may vary.

The trusses in this project have been designed using MiTek 20/20, a software suite developed by MiTek Australia Ltd. in accordance with the ABCB Protocol For Structural Software incorporating engineering procedures that comply with relevant requirements in BCA 2014 including AS/NZS 1170.0:2002, AS/NZS 1170.1:2002, AS/NZS 1170.2:2011, AS/NZS 1170.3:2003, AS 1720.1:2010 & AS 4055:2012 among its list of documents.

These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

Trueform Frames & Trusses

certifies that these trusses are manufactured under licence to and in accordance with specifications published by MiTek Australia Ltd.

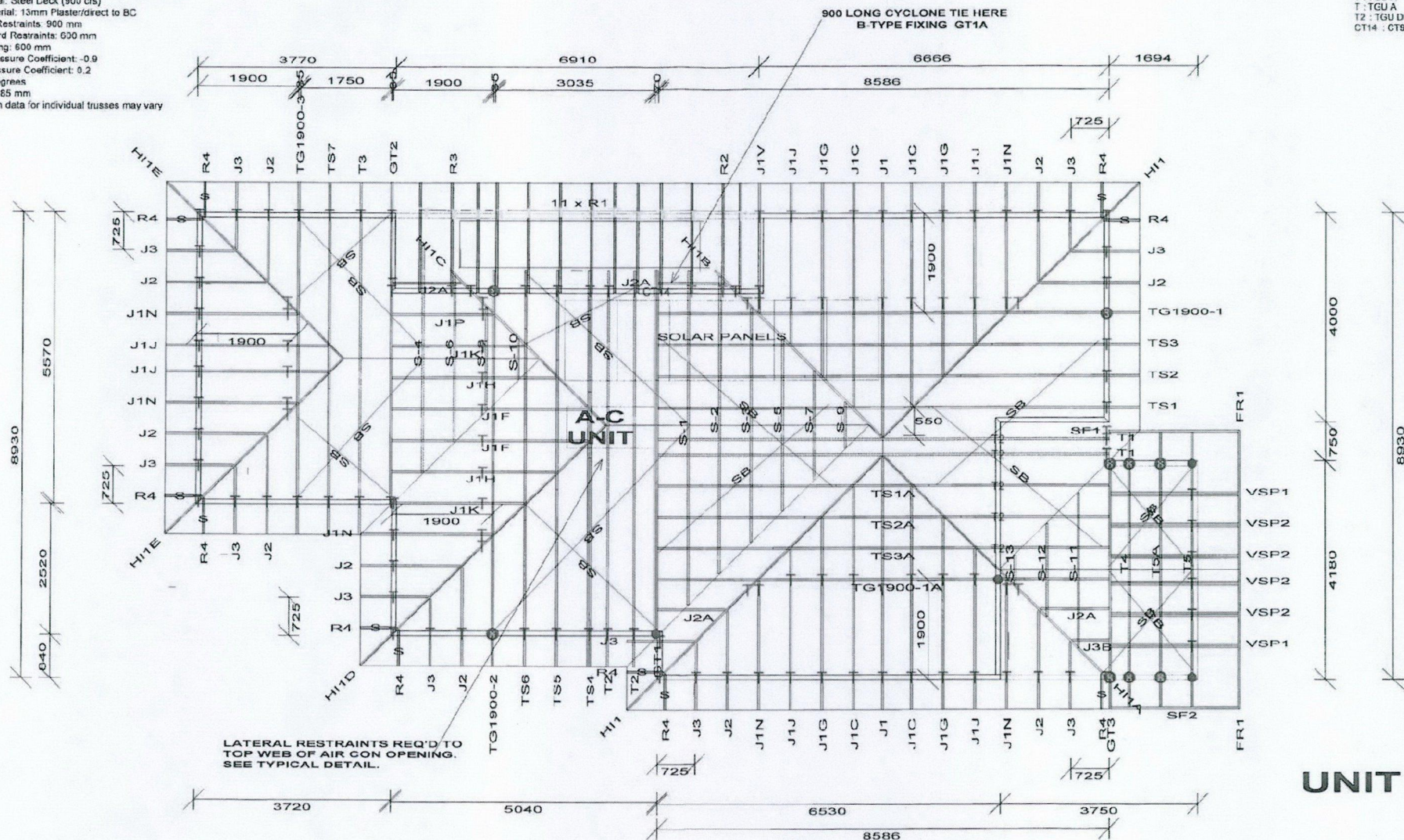
Designed by:

Jason Hellyer

Design Wind Speed = 40 m/s , N2 Wind Classification
Roof Material: Steel Deck (900 c/s)
Cladding Material: 13mm Plaster/direct to BC
Top Chord Restraints: 900 mm
Bottom Chord Restraints: 630 mm
Truss Spacing: 600 mm
External Pressure Coefficient: -0.9
Internal Pressure Coefficient: 0.2
Pitch: 13 degrees
Overhang: 585 mm
Note: Design data for individual trusses may vary

SEE DETAIL FOR STRUTTING OVER HANGS
IN INSTALLATION BOOK PAGE 24

Symbols
Hold-Downs:
 ● : CT600 8 Face
 ● : CT800 Fixed Under
 T : TGU A
 T : TGU A
 T2 : TGU Dbl A
 CT14 : CT900 Type B



UNIT 37

Trueform Frames and Trusses

99 MULGRAVE RD
MULGRAVE
NSW 2756

Telephone: 4577.2755
Fax: 4587.8215

Client: PBS BUILDING
Site: ILU 37 TYPE C STAGE 5
: NO 8 MACPHERSON ST
: WARRIEWOOD
: NOT TREATED
Telephone:

Job:

12C-37

Designed by:

J. Hellyer
Jason Hellyer

Scale: 1 : 80

Date: 20/08/2015

Drawn By: Jason Hellyer

Notes:

ALL TRUSSES TO BE INSTALLED TO SUIT MITEK
FIXING & BRACING GUIDELINES FOR TRUSSES.

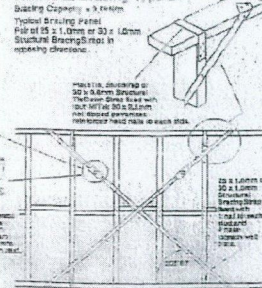
MAKE SURE ALL BRACING IS PERMANENTLY FIXED
AND ALL BOLTS AND BRACKETS ARE TIGHTENED
PRIOR TO LOADING OF THE ROOF.

ENSURE ANY TRUSS SUPPORTED INTERNALLY IS POSITIONED SO WEBS LAND OVER TRUSS SUPPORT WALL.

3 KN-M METAL BRACING DETAIL
AND 3.4 KN-M PLY BRACING FOR
WALLS. SEE AS 1684 TABLE 8.23
FOR FIXING BRACED PANELS TO SLAB
(BOLTING BOTTOM PLATE TO SLAB)

N-2 WIND SPEED

FIXING 2: Bracing Type B



ALL FRAMES AND BRACES TO BE FIXED TO SLAB
TO SUIT AS 1684

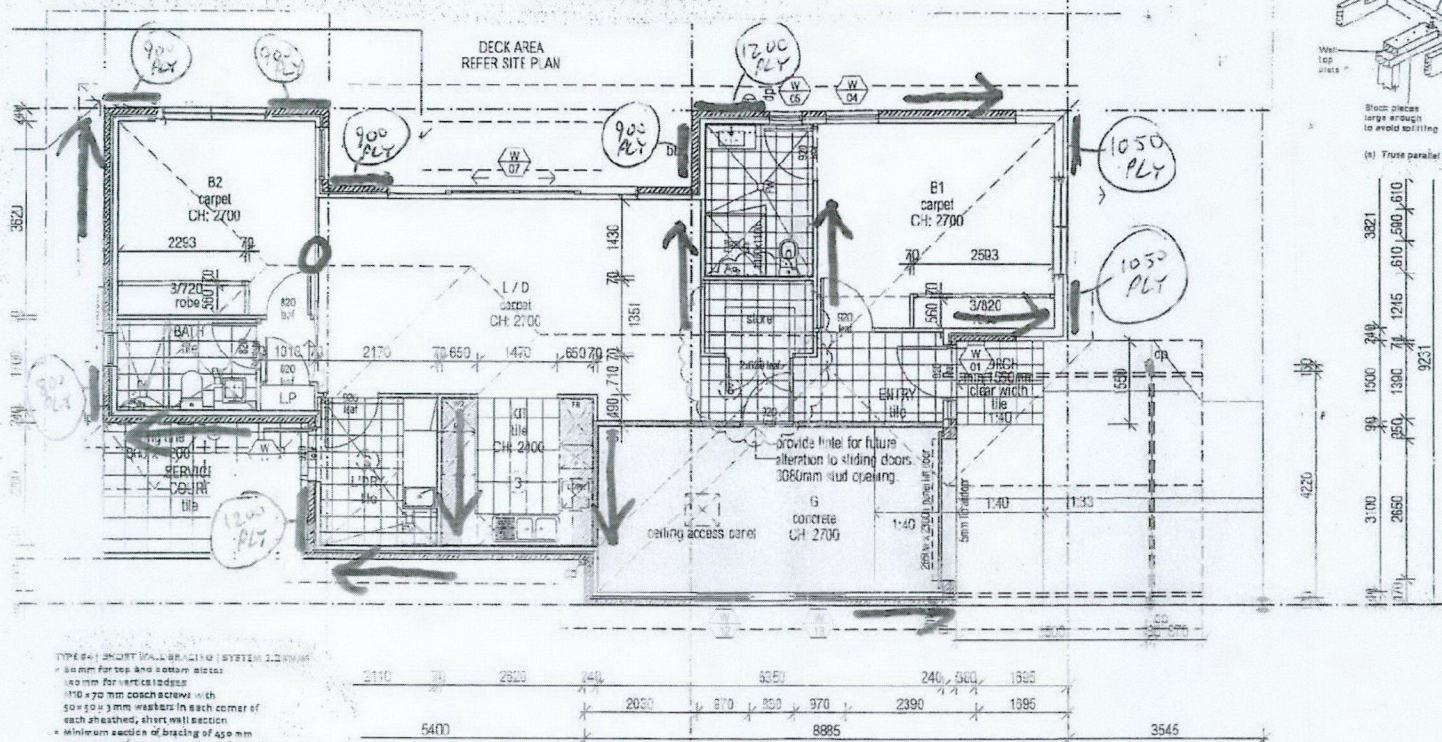
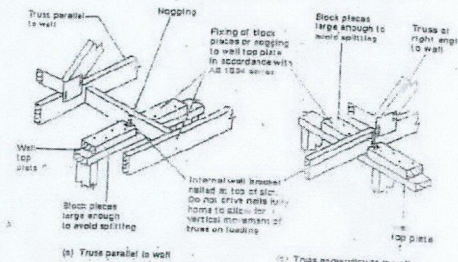


FIGURE 2.2 FIXING OF TRUSSES TO FREE-STANDING NON-LOAD-BEARING WALL THAT IS A BRACING WALL



- NOTE:
1. FOR ALL BASIS/SECTION J REQUIREMENTS, REFER TO SCHEDULE - SHEETS 210, 211
 2. FOR CERTIFICATION REQUIREMENTS REFER TO SCHEDULE - SHEET 920
 3. FOR BAL 12.5 REQUIREMENTS REFER TO SCHEDULE - SHEET 921

project management
MORGAN MOORE
ph: 02 9657 6188

planner
DON FOX PLANNING
ph: 02 9980 6933

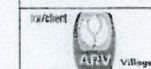
landscape architect
JOHN LOCK & ASSOCIATES
ph: 02 9868 9996

engineer (civil/hydraulic)
HENRY & HYMAS
ph: 02 9417 9400

enviro studio

19/10/2010
sunny hills 2710
11/12/2010 1211
11/12/2010 1211
11/12/2010 1211

project
ARV AT WARRIEWOOD BROOK



location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
PLAN: ILLU TYPE C

- NOTES:
- TYPE C ILLU #: 37, 38, 44, 50, 56, 58
 - REFER MASTERPLAN FOR FFL RL'S OF ILLU'S

ILLU - TYPE C	
2 bed, 2 bath	
site area	
house area gfa (ext)	103.9 scm
house area nfa (int)	93.0 scm
alfresco / deck	approx 25 sqm (varies)
garage	22.6 scm
GFA + Alf	151.5 scm

stage	project no.	dwg no.
CC	731	C101
date	drawn	issue
14/05/15	TW CK	P

9012-C37

UNIT 37

NOT TREATED

B-TYPE
BRACING

TYPE 4: SHORT WALL BRACING SYSTEM 1.2 KN/M

- 50 mm for top and bottom plates
- 100 mm for vertical bracing
- 100 x 70 mm cosh screws with 50 x 50 x 3 mm washers in each corner of each sheathed, short wall section
- Minimum section of bracing of 400 mm
- 10 mm extension gap around perimeter of every panel

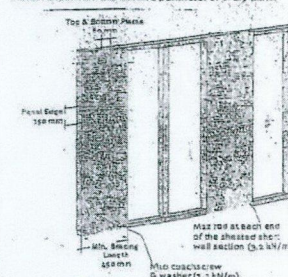
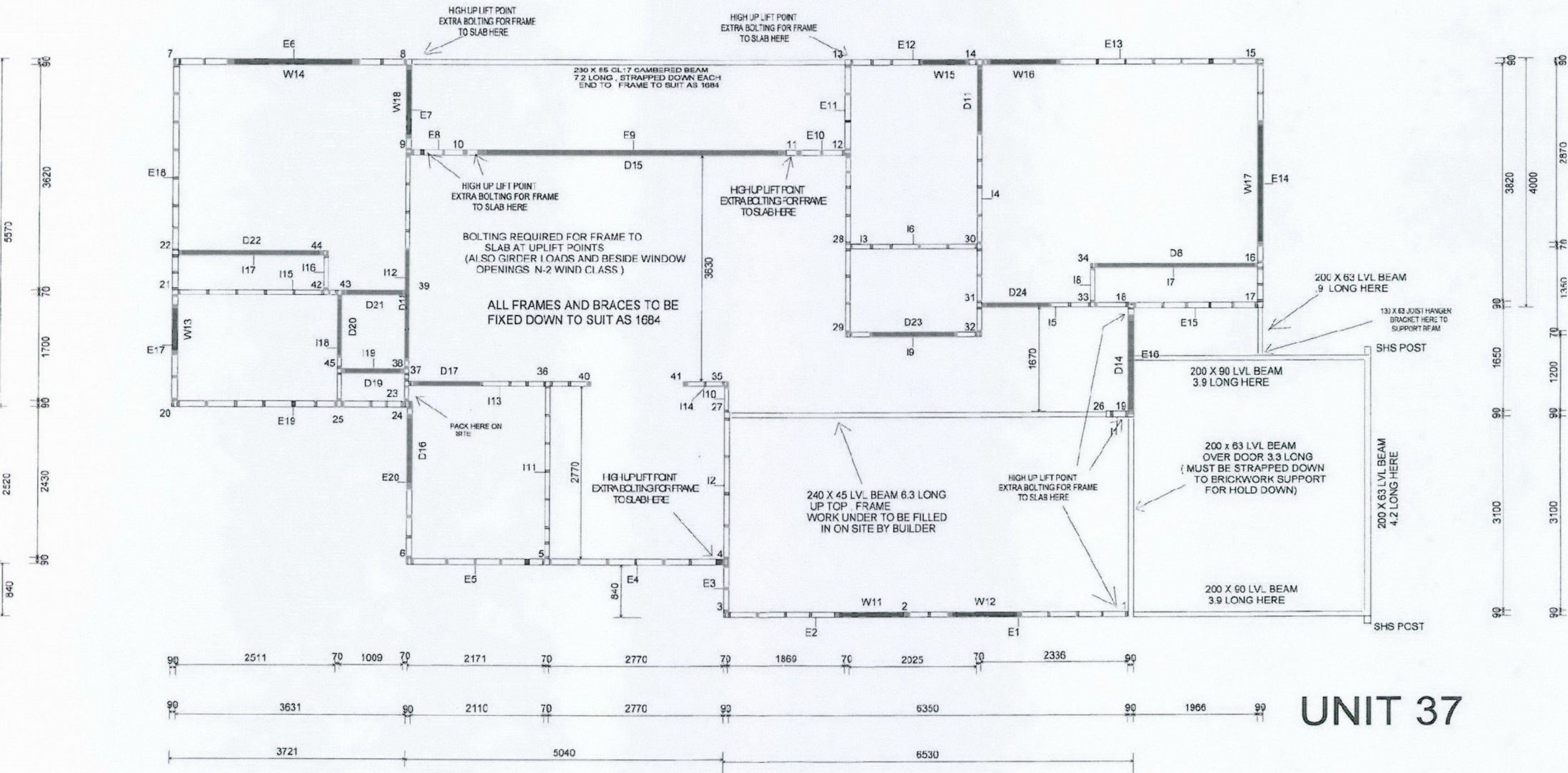


Figure 1

Figure 2



UNIT 37

58. Side office.

***** CERTIFICATION FOR ROOF TRUSSES *****

Date - 10 Oct 2015 10:48:22

Client - PBS BUILDING - , ,

Job Reference - 9013

UNIT 38

Site - SINGLE STORY ROOF - UNIT 38 STAGE 5, NO 8 MACPHERSON ST WARRIEWOOD

GENERAL DEFAULTS

Design Wind Speed = 40.0m/s , N2 Wind Classification

Roof Material : Steel Deck (900 crs)

Ceiling Material : 13mm Plaster/direct to BC

Top Chord Restraints : 900 mm

Bottom Chord Restraints : 600 mm

Truss Spacing : 600 mm

External Pressure Coefficient: -0.90

Internal Pressure Coefficient: 0.20

Timber Description : QMIX

Pitch: 18.00 degrees

Overhang: 585 mm

Application: Housing

Note: Design data for individual trusses may vary.

The trusses in this project have been designed using MiTek 20/20, a software suite developed by MiTek Australia Ltd. in accordance with the ABCB Protocol For Structural Software incorporating engineering procedures that comply with relevant requirements in BCA 2015 including AS/NZS 1170.0:2002, AS/NZS 1170.1:2002, AS/NZS 1170.2:2011, AS/NZS 1170.3:2003, AS 1720.1:2010 & AS 4055:2012 among its list of documents.

These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

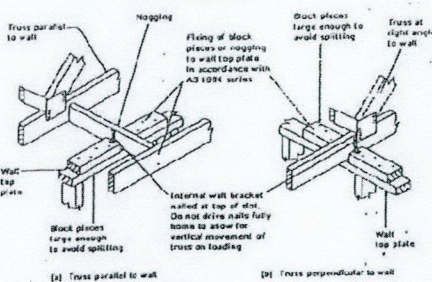
Trueform Frames & Trusses

certifies that these trusses are manufactured under licence to and in accordance with specifications published by MiTek Australia Ltd.

Designed by:

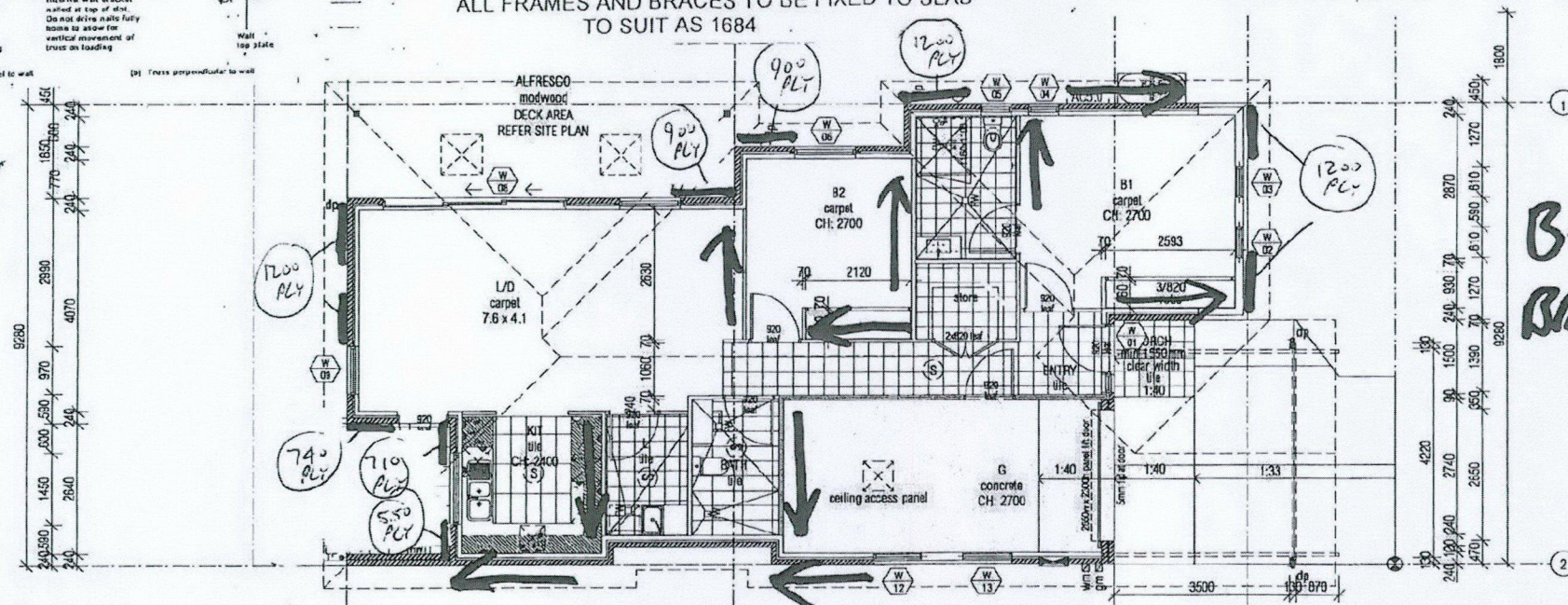
Jason Hellyer

FIGURE 2.2 FIXING OF TRUSSES TO FREESTANDING NON-LOADBEARING WALL THAT IS A BRACING WALL

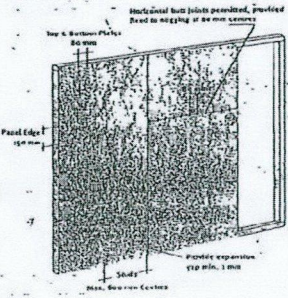


ALL FRAMES AND BRACES TO BE FIXED TO SLAB TO SUIT AS 1684

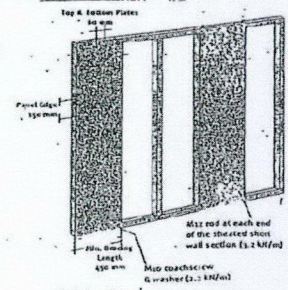
3 KN-M METAL BRACING DETAIL
AND 3.4 KN-M PLY BRACING FOR
WALLS SEE AS 1684 TABLE 8.23
FOR FIXING BRACED PANELS TO SLAB
(BOLTING BOTTOM PLATE TO SLAB)



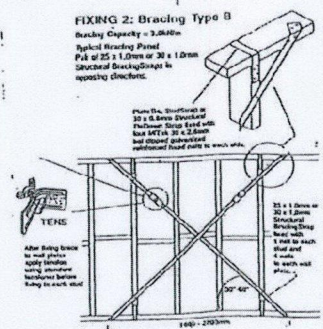
TYPE #1 | SYSTEM 3.4 KN/M
• Fixer centres
80 mm for top and bottom plates
150 mm for vertical edges
100 mm for intermediate studs
• Minimum section of bracing of 900 mm
• 2 mm expansion gap around perimeter of every panel
• For panel length of 600 mm bracing capacity shall be half of that for 900 mm
• For panel length between 600 mm and 900 mm, the bracing capacity can be calculated by multiplying the respective capacities by 0.5 for 600 mm long varying linearly to 1.0 for 900 mm.



TYPE #2 | SHORT WALL BRACING | SYSTEM 3.3 KN/M
• 80 mm for top and bottom plates
150 mm for vertical edges
100 mm for intermediate studs
• Minimum section of bracing of 900 mm
• 2 mm expansion gap around perimeter of every panel



FIXING 2: Bracing Type B
Bracing Capacity = 3.0 kN/m
Typical Bracing Panel
Fix of 25 x 1.0 mm or 30 x 1.0 mm structural bracing to opposing direction.



NOT
TREATED
UNIT 38

UNIT 38
EMULFO

JOB 9013 G38

NOTES:
• REFER MASTERPLAN FOR FFL RL'S OF ILU'S

ILU - TYPE F			
2 bed, 2 bath			
site area	106.8 sqm	project no.	731
house area gfa (ext)	95.5 sqm	dwg. no.	F1
house area nfa (int)	22.5 sqm	stage	CC
Alfresco / deck	23.0 sqm varies	chd	TW
garage	22.5 sqm	dwg	CK
GFA + Alf	152.4 sqm	date	07/09/15
		issue	A

NOTE:
1. FOR ALL BASIS/SECTION J REQUIREMENTS, REFER TO SCHEDULE - SHEETS 210, 211
2. FOR CERTIFICATION REQUIREMENTS, REFER TO SCHEDULE - SHEET 3
3. FOR BAL 12.5 REQUIREMENTS, REFER TO SCHEDULE - SHEET 3

project management
MORGAN MOORE
ph: 02 9357 6188

planner
DON FOX PLANNING
ph: 02 9880 6933

landscape architect
JOHN LOCK & ASSOCIATES
ph: 02 9969 9866

engineer (civil / hydraulic)
HENRY & HYMAS
ph: 02 9417 8400

enviro studio
15/161 O'Brien St
Sydney Hills 2010
t: 02 9337 1211 f: 02 9337 1313
e: info@envirostudio.com.au
www.envirostudio.com.au
drw: 02/15 registration: 6728

project
ARV AT WARRIEWOOD BROOK

location
MACPHERSON STREET
at
WARRIEWOOD BROOK

drawing
PLAN: ILU TYPE F

stage
CC

project no.
731

dwg. no.
F1

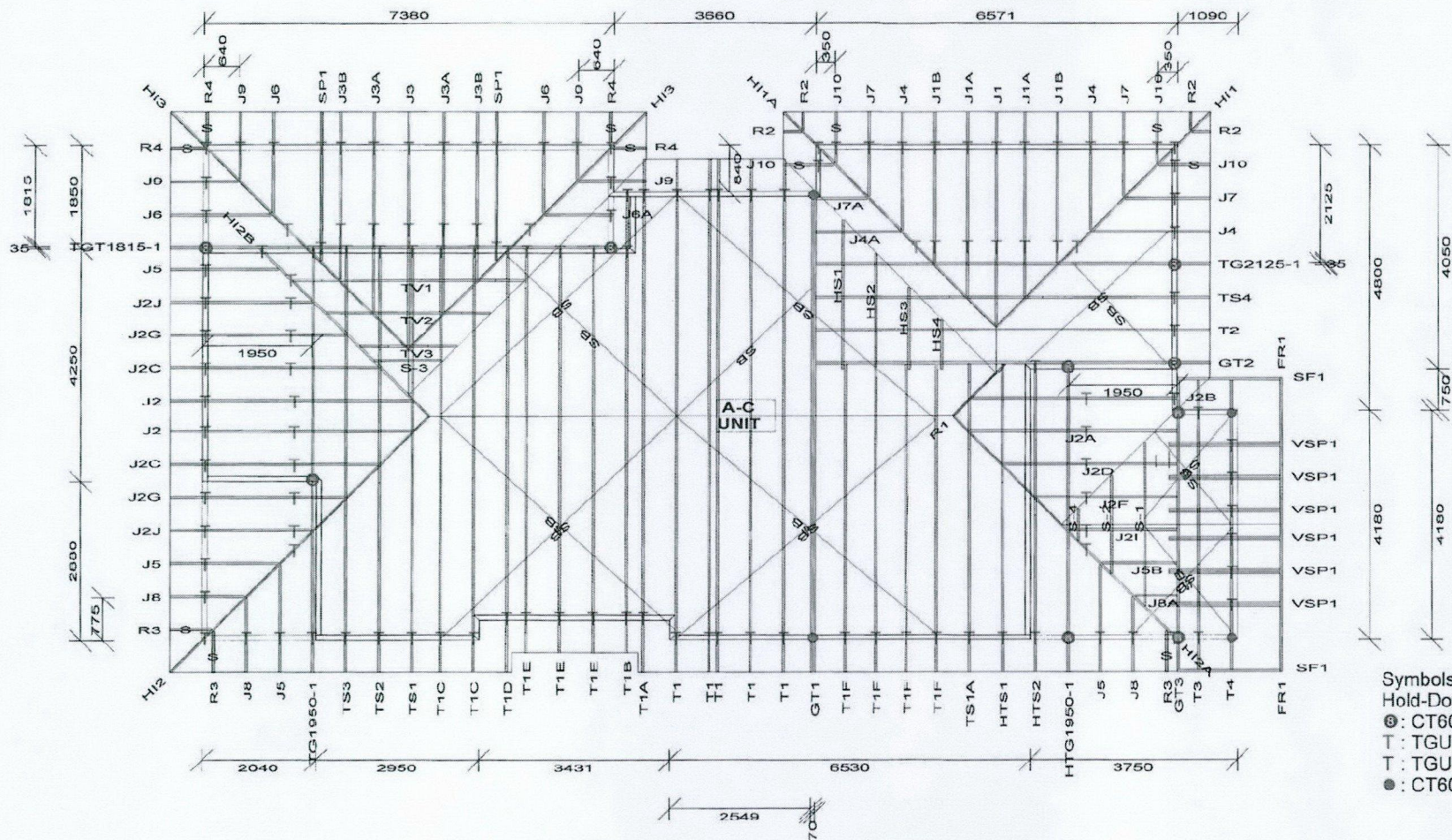
chd
TW

dwg
CK

date
07/09/15

issue
A

SPEEDBRACE SB



Symbols
Hold-Downs:
⑧: CT600 8 Face
T: TGU A
T: TGU A
●: CT600 Fixed Under

SEE DETAIL A FOR SPEED BRACING
ON ENDS OF HALF TRUSSES

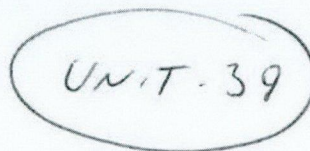
UNIT 38

***** CERTIFICATION FOR ROOF TRUSSES *****

Date - 10 Oct 2015 06:50:15

Client - PBS BUILDING - , ,

Job Reference - 9013



Site - SINGLE STORY ROOF - UNIT 39 STAGE 5, NO 8 MACPHERSON ST WARRIEWOOD

GENERAL DEFAULTS

Design Wind Speed = 40.0m/s , N2 Wind Classification

Roof Material : Steel Deck (900 crs)

Ceiling Material : 13mm Plaster/direct to BC

Top Chord Restraints : 900 mm

Bottom Chord Restraints : 600 mm

Truss Spacing : 600 mm

External Pressure Coefficient: -0.90

Internal Pressure Coefficient: 0.20

Timber Description : QMIX

Pitch: 18.00 degrees

Overhang: 585 mm

Application: Housing

Note: Design data for individual trusses may vary.

The trusses in this project have been designed using MiTek 20/20, a software suite developed by MiTek Australia Ltd. in accordance with the ABCB Protocol For Structural Software incorporating engineering procedures that comply with relevant requirements in BCA 2015 including AS/NZS 1170.0:2002, AS/NZS 1170.1:2002, AS/NZS 1170.2:2011, AS/NZS 1170.3:2003, AS 1720.1:2010 & AS 4055:2012 among its list of documents.

These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

Trueform Frames & Trusses

certifies that these trusses are manufactured under licence to and in accordance with specifications published by MiTek Australia Ltd.

Designed by:

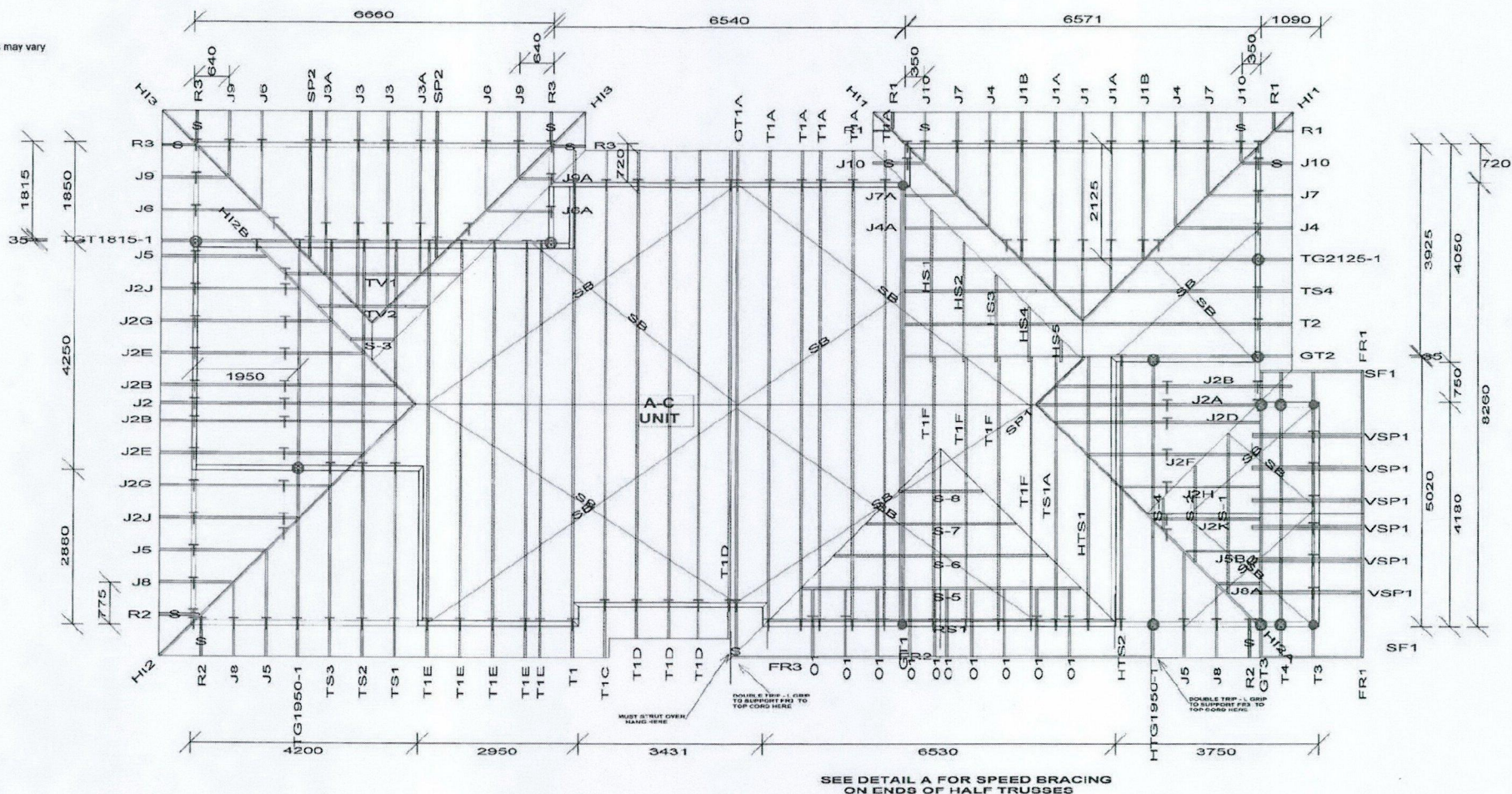
Jason Hellyer

General Defaults

Design Wind Speed = 40m/s , N2 Wind Classification
 Roof Material: Steel Deck (900 crs)
 Ceiling Material: 13mm Plaster/direct to BC
 Top Chord Restraints: 900 mm
 Bottom Chord Restraints: 600 mm
 Truss Spacing: 600 mm
 External Pressure Coefficient: -0.9
 Internal Pressure Coefficient: 0.2
 Pitch: 18 degrees
 Overhang: 585 mm
 Note: Design data for individual trusses may vary

SEE DETAIL FOR STRUTTING OVER HANGS
 IN INSTALLATION BOOK PAGE 24

SPEEDBRACE SB



Symbols
 Hangers Top:
 TBS : TBS

Hangers Bottom:
 : JH3590
 : GB340 Bolt
 : GB340 Bolt Dbl

Hold-Downs:
 : CT600 8 Face
 T : TGU A
 T : TGU A
 : CT600 Fixed Under

SEE DETAIL A FOR SPEED BRACING
 ON ENDS OF HALF TRUSSES

UNIT 39

TRUEFORM

Trueform Frames and Trusses

9 MULGRAVE RD
 MULGRAVE
 SW 2756

Telephone: 4577.2755
 Fax: 4587.8215

Client: PBS BUILDING
 Site: UNIT 39 STAGE 5
 : NO 8 MACPHERSON ST
 : WARRIEWOOD
 : NOT TREATED
 Telephone:

Job:

13G-39

Designed by:

Jason Hellyer

Scale: 1 : 83

Date: 10/10/2015

Drawn By: Jason Hellyer

Notes:

ALL TRUSSES TO BE INSTALLED TO SUIT MITEK
 FIXING & BRACING GUIDELINES FOR TRUSSES.

MAKE SURE ALL BRACING IS PERMANENTLY FIXED
 AND ALL BOLTS AND BRACKETS ARE TIGHTENED
 PRIOR TO LOADING OF THE ROOF.

ENSURE ANY TRUSS SUPPORTED INTERNALLY IS
 POSITIONED SO WEBS LAND OVER TRUSS
 SUPPORT WALL

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC2 – ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

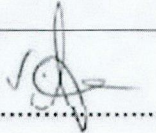
Name:	VINCE JENKINS
Company:	ALL ASPECTS ROOFING & GUTTERS
Company Address:	½ BON MACE CLOSE, BERKELEY VALE NSW 2261
Phone:	0438 278 985
Fax:	4389 3137
Email:	ALLASPECTSROOFINGSUPPLIES@GMAIL.COM
Qualifications & Experience:	LICENSE NO. 272687C

Hereby certify that the following aspect:

METAL ROOFING WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Part 3.8.5.2 Part 3.12.3
(d)	The relevant Australian Standards as follows (including number, part and year):	AS1562.1-1992 Amdt 1, 2 & 3
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: NO267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  VINCE JENKINS Date: 24/01/17

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC2- ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

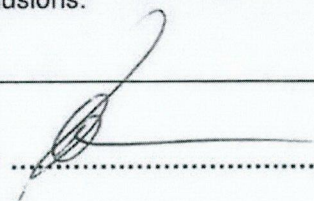
Name:	Ryan McEwan
Company:	RGM Carpentry
Company Address:	45 Mansfield Way Kellyville NSW 2155
Phone:	0421 571 119
Fax:	Nil
Email:	rgmcarpentry@hotmail.com
Qualifications & Experience:	License # 208355C

Hereby certify that the following aspect:

WINDOWS (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 2047-1999 Amdt 1 & 2
(e)	The relevant BASIX/ABSA Certificate	
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 25/1/17

Blue Mountains Shower Screens

Unit 7, 118-120 Somers Street Lawson NSW 2783

Abn 30 669 758 510

Licence 214991C

Glazing Compliance Certificate

BMSSGC 0127

Part A – Manufacturer's certification:

As glazing manufacturer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors,

Supplied to: PBS Building (NSW) Pty Ltd

Delivered on: 19 April 2016

Reference: Quote 4121

Invoice Number: BMSS1745

Address: Units 36

ARV, 6-14 Macpherson Road Warriewood

Have been manufactured to **comply with: AS1288**

(Glass in buildings–selection and installations) including human impact requirements as specified.

We verify that we have 13 Years Experience in Glass Installations.

Signed,

Frank Morales

Glazing Company Manager

Date 19 April 2016

Part B –Installer's certification:

As the principal contractor/installer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors, including all supplied glazing requiring human impact safety, have been installed in accordance with the provisions of Part 3.6 of the Building Code of Australia.

Signed,

Frank Morales

Principal Contractor/Installer

Date 19 April 2016

Blue Mountains Shower Screens

Unit 7, 118-120 Somers Street Lawson NSW 2783

Abn 30 669 758 510

Licence 214991C

Glazing Compliance Certificate

BMSSGC 0115

Part A – Manufacturer's certification:

As glazing manufacturer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors,

Supplied to: PBS Building (NSW) Pty Ltd

Delivered on: 19th January 2016

Reference: Quotes 4061

Invoice Numbers: BMSS1591

Address: Units 35, 37, 40.

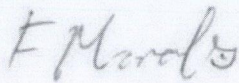
ARV, 6-14 Macpherson Road Warriewood

Have been manufactured to **comply with: AS1288**

(Glass in buildings–selection and installations) including human impact requirements as specified.

We verify that we have 13 Years Experience in Glass Installations.

Signed,



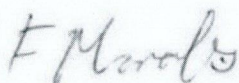
Frank Morales

Date 19th Jan 2015

Part B –Installer's certification:

As the principal contractor/installer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors, including all supplied glazing requiring human impact safety, have been installed in accordance with the provisions of Part 3.6 of the Building Code of Australia.

Signed,



Frank Morales

Date 19th Jan 2015

Blue Mountains Shower Screens

Unit 7, 118-120 Somers Street Lawson NSW 2783

Abn 30 669 758 510

Licence 214991C

Glazing Compliance Certificate

BMSSGC 0179

Part A – Manufacturer's certification:

As glazing manufacturer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors,

Supplied to: PBS Building (NSW) Pty Ltd

Delivered on: 28 October 2016

Reference: Quote 4121

Invoice Number: BMSS2165

Address: Units 38,39.

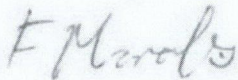
ARV, 6-14 Macpherson Road Warriewood

Have been manufactured to **comply with: AS1288**

(Glass in buildings–selection and installations) including human impact requirements as specified.

We verify that we have 13 Years Experience in Glass Installations.

Signed,



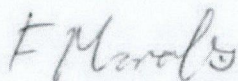
Frank Morales

Date 28 October 2015

Part B –Installer's certification:

As the principal contractor/installer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors, including all supplied glazing requiring human impact safety, have been installed in accordance with the provisions of Part 3.6 of the Building Code of Australia.

Signed,



Frank Morales

Date 28 October 2015

Blue Mountains Shower Screens

Unit 7, 118-120 Somers Street Lawson NSW 2783

Abn 30 669 758 510

Licence 214991C

Glazing Compliance Certificate

BMSSGC 0127

Part A – Manufacturer's certification:

As glazing manufacturer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors,

Supplied to: PBS Building (NSW) Pty Ltd

Delivered on: 19 April 2016

Reference: Quote 4121

Invoice Number: BMSS1745

Address: Units 36

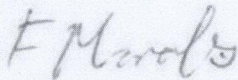
ARV, 6-14 Macpherson Road Warriewood

Have been manufactured to **comply with: AS1288**

(Glass in buildings–selection and installations) including human impact requirements as specified.

We verify that we have 13 Years Experience in Glass Installations.

Signed,



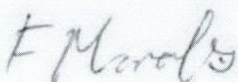
Frank Morales

Date 19 April 2016

Part B –Installer's certification:

As the principal contractor/installer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors, including all supplied glazing requiring human impact safety, have been installed in accordance with the provisions of Part 3.6 of the Building Code of Australia.

Signed,



Frank Morales

Date 19 April 2016

Blue Mountains Shower Screens

Unit 7, 118-120 Somers Street Lawson NSW 2783

Abn 30 669 758 510

Licence 214991C

Glazing Compliance Certificate

BMSSGC 0116

Part A – Manufacturer's certification:

As glazing manufacturer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors,

Supplied to: PBS Building (NSW) Pty Ltd

Delivered on: 2nd February 2016

Reference: Quotes 4075, 4098

Invoice Numbers: BMSS1608, BMSS1609

Address: Units 34, 42, 45

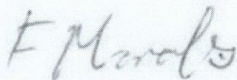
ARV, 6-14 Macpherson Road Warriewood

Have been manufactured to **comply with: AS1288**

(Glass in buildings–selection and installations) including human impact requirements as specified.

We verify that we have 13 Years Experience in Glass Installations.

Signed,



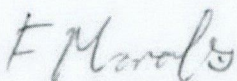
Frank Morales

Date 2 Feb 2016

Part B –Installer's certification:

As the principal contractor/installer, I certify that the glass panels/shower screens/mirrored wardrobes doors/mirrors, including all supplied glazing requiring human impact safety, have been installed in accordance with the provisions of Part 3.6 of the Building Code of Australia.

Signed,



Frank Morales

Date 2 Feb 2016

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 - IOC2 - ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

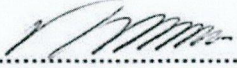
Name:	DOUG MOORE
Company:	NATURAL LIGHTING PRODUCTS
Company Address:	1/28 VORE ST SILVERWATER
Phone:	02 97379555
Fax:	02 96485955
Email:	doug@naturallighting.com.au
Qualifications & Experience:	LICENCE N° 202066 C

Hereby certify that the following aspect:

SKYLIGHT (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Part 3.7.1.10 Part 3.12.3
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 1288-2006 Amdt 1 & 2
(e)	The relevant BASIX/ABSA Certificate	The BASIX Certificate Number 499606M_03
(f)	The requirements of the relevant development consent, including any modified (s96) consent and, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 16-1-17

ANNEXURE 1 – BASIX INSTALLATION DETAILS - BASIX Certificate Number 499606M_03

Dwellings

Water:

The relevant contractor or subcontractors have planted indigenous and/or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" BASIX Certificate, as private landscaping for that dwelling.

All fixtures or appliances have been installed in dwellings, as specified within the BASIX Certificate, i.e. (to all dwellings):

- ◆ 3 star shower heads
- ◆ 4 star toilet flushing systems
- ◆ 4 star kitchen and bathroom taps
- ◆ For ILU 37 and 38, rain water tank of minimum 1000 L size, collecting run off from at least 50 sqm of roof area and has landscape connection.
- ◆ For ILU 34, 35, 36, and 39, rain water tank of minimum 1000 L size, collecting run off from at least 50 sqm of roof area, has landscape connection and toilet connection.

The relevant contractor or subcontractors have installed, for each dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the BASIX Certificate. Each system has been configured to collect run off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system has been connected as specified.

Energy:

The relevant contractor or subcontractors have installed each hot water system specified for the dwelling in the BASIX Certificate, so that the dwelling's hot water is supplied by that system (gas instantaneous 5 star)

The relevant contractor or subcontractors have installed, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the BASIX Certificate. Each such ventilation system has operation controls and manual switch on/off as specified for it in the BASIX Certificate.

The relevant contractor or subcontractors have installed the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the BASIX Certificate, in living/bedroom areas of the dwelling. If no cooling or heating system is specified in the BASIX Certificate for "Living areas" or "Bedroom areas", then no systems have been installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system has provided for day/night zoning between living areas and bedrooms.

Where required by the BASIX Certificate, the relevant contractor or subcontractors have ensured that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area are only capable of being used for fluorescent lighting or light emitting diode (LED) lighting.

This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The relevant contractor or subcontractors have ensured that each such room or area is fitted with a window and/or skylight.

The relevant contractor or subcontractors have installed in each dwelling:

- (aa) the kitchen cook top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate;

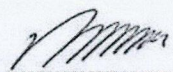
~~(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and~~
~~(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the BASIX Certificate.~~

Thermal Comfort:

~~The relevant contractor or subcontractors have constructed the development in accordance with all thermal performance specifications set out in the BASIX Certificate.~~

General

Buildings have been constructed, installed and implemented all requirements of the BASIX Certificate Number 499606M_03. The Development is considered to comply with the intention of the BASIX Certificate Number 499606M_03.

Signature: 

Date: 16-1-17

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC2 – ILU 34 to 39
ADDRESS	6-14 Macpherson Street Warriewood NSW 2102

Pursuant to the provisions of Clause 1.2.2 of the Building Code of Australia, I (details below):

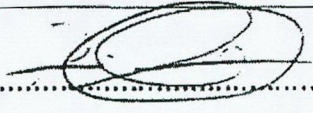
Name:	Robert T. Lerge
Company:	Elite Tile Projects
Company Address:	17 Mortimer Cl, Cecil Hills NSW 2171
Phone:	0421 681 192
Fax:	
Email:	rob@elitetileprojects.com
Qualifications & Experience:	license # 207514C

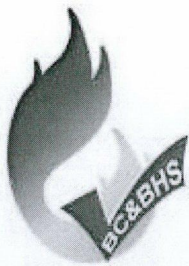
Hereby certify that the following aspect:

WATERPROOFING WORK (Class 1a)

Have been selected and installed in accordance with (complete as relevant):-

(a)	The drawings submitted included in Schedule A	
(b)	The relevant version of the BCA:	2014
(c)	The relevant clauses of the Building Code of Australia (BCA) as follows:	Part 3.8.5.2 Table 3.8.1.1
(d)	The relevant Australian Standards as follows (including number, part and year):	AS 3740-2010 Amdt 1
(e)	The relevant BASIX/ABSA Certificate	
(f)	The requirements of the relevant development consent, including any modified (s96) consent end, including the following condition numbers:	Development Application Number: NO267/13 Modifications up to: S96 No: N0267/13/S96/3
(g)	Is consistent with the approved design for this component	Yes
(h)	Further Comment, or other practices or standards relied upon for this certification:	
(i)	Exclusions:	Yes <u>No</u> If Yes.....

Signature:  Date: 17/1/2016.



Building Code & Bushfire Hazard Solutions

(Pty. Limited) ABN 19 057 337 774
PO Box 124, Berowra NSW 2081
Telephone: (02) 9457 6530 Facsimile: (02) 9457 6532
www.bushfirehazardsolutions.com.au



Certified Business
Bushfire Planning & Design
BPD-BA-02354

PBS Building (NSW) Pty Ltd
Unit 18, 11 – 21 Underwood Road
HOMEBUSH NSW 2140

25th January 2017
Our Ref. 130164

Attn: Mr Roi Cifti
Email: roi.ciftci@pbsbuilding.com.au

**Re: APPROVED SENIORS LIVING / AGED CARE COMPLEX
STAGE 4 ANGLICAN RETIREMENT VILLAGE
MACPHERSON STREET, WARRIEWOOD NSW
BUSHFIRE OCCUPATION CERTIFICATION COMMENT**

Dear Roi,

Thank you for allowing us to undertake this assessment for you.

The purpose of this certification comment is to ascertain compliance or otherwise of the completed works within units 34-39 with condition 25 of the Conditions of Approval issued by Warringah Council dated 20th February 2014, ref N0267/13 for Stage 4 which involved the demolition, earthworks, and construction of a seniors housing development consisting of 33 self-contained seniors dwellings with a community building, landscaping and car parking at 6-14 Macpherson Street, Warriewood (Lots 1, 2, 3, 4 and 5 DP 1161389).

A company representative has inspected the subject site and where necessary we retain any certificates or other information relied upon for this assessment on file.

As a suitable qualified bushfire consultant (FPAA BPAD Scheme No 9399 L3) it is my opinion that the completed works within units 34-39 comply with condition 25 of the Conditions of Approval issued by Warringah Council dated 20th February 2014, ref N0267/13.

Should you have any enquiries regarding this project please contact me at our office.

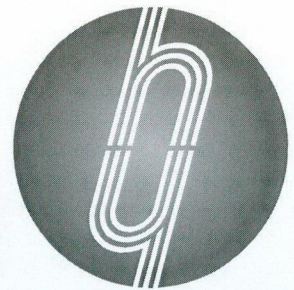
Prepared by,

Prepared b-y
Building Code & Bushfire Hazard Solutions

Wayne Tucker

G. D. Design in Bushfire Prone Areas.
Certificate IV Fire Technology
Ass Dip Applied Science
Manager - Bushfire Section
Building Code and Bushfire Hazard Solution
Fire Protection Association of Australia BPAD – L3 Accredited Practitioner
Certification number – BPD – 9399





henry&hymas

25 January 2017

Our Ref: 12693-S12/rk

PBS Building (NSW) Pty Limited
Unit 18, 11-21 Underwood Rd,
Homebush NSW 2140

Attention: Mr Roi Cifti

Dear Sir,

**RE: STRUCTURAL CONSTRUCTION CERTIFICATION
STAGE 5, LOTS 34-39, ARV RETIREMENT VILLAGE
6-14 MACPHERSON STREET, WARRIEWOOD NSW 2101**

We wish to certify that we have progressively, during construction, inspected the following structural items of the project above.

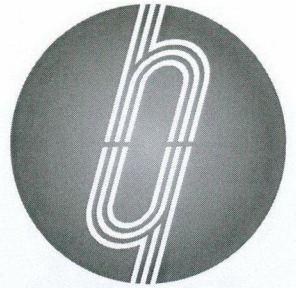
- Reinforcement to pad footings and strip footings
- Reinforcement to waffle pod raft slabs on ground
- Reinforcement to suspended waffle pod raft slabs on ground
- Reinforcement to reinforced block retaining walls
- Structural steel columns, beams and lintels to wall and roof framing

Based on our periodical, visual inspections we verify that all structural elements designed by H & H Consulting Engineers on the project above were constructed to our satisfaction and in general accordance with our design and documentation at the time of inspection

Further we verify, that on the basis of our periodical visual inspections, all building elements have to the best of our knowledge, been constructed to generally achieve the applicable FRLs outlined in Specification C1.1 of the BCA.

I am an appropriately qualified and experienced person in this field and as such have a capacity to certify these works on behalf of Henry & Hymas Consulting Engineers.





henry&hymas

Our involvement, the inspections and this certificate shall be taken as in no way relieving the contractor of any of his legal responsibilities.

Yours faithfully,

R.J. KUSTURIN BE(hons) MIE, CPENG, Mem No 59969

For, and on behalf of,
H & H Consulting Engineers Pty Ltd



Screw Pile Installation

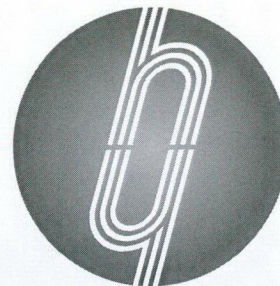
Certificate of Compliance

Form
2

1. Project Information	Builder	Builder's Supervisor
	PBS Building (NSW) P/L	Peter Carter
2. Site address and details All property details	Street Address (Include Lot no., street, suburb/locality & postcode)	
	Anglican Retirement Village. STAGE 5- Units 34 to 59 & Gate house.	
	8 Macpherson St, Warriewood,	Postcode 2102
	Plan details (Drawing number & sheet numbers)	
	Structural drawings 12693 - S5.00-S5.03, S4.00-S4.04 by H&H Geotechnical report 13145/1 by Geotechnique	
3. Scope of Work for Compliance	Scope of work covered and subject of this certification: (tick) -	
	☒	Screw piles in accordance with AS 2159
	☒	Designed & Constructed in accordance with plans and specifications issued.
	Other (provide details)	
	Design, Supply & Installation of compression screw piles in accordance with above drawings.	
4. Installation Details	When was the request for installation made?	
	Date	July-15
	When was the installation started?	
	Date	Aug-15
	When was the installation completed?	
Date	Dec-15	
5. Declaration Full details and signature of the responsible person will need to be provided to verify that the work covered complies with AS 2159 - 2009.	I hereby certify that the stated Scope of Works has been completed in compliance with AS 2159 - 2009 and constructed in accordance with the relevant plans and specifications as supplied to Helcon for the works and that the information provided on this form is a true and accurate record.	
	Company Name	
	Helcon Contracting Australia Pty Ltd	
	Name	Licence Number
	Brian Carpenter	253147C
	Phone Number	Fax Number
	02 9516 5093	02 9516 5193
	Address	
	Unit 10 / 45-51 Huntley Street, ALEXANDRIA	
	Postcode 2015	
	Signature	Date
		25-02-16

OFFICE USE ONLY

Date Received		Receiving Officer's Name/s	B.G. Carpenter	Reference Number/s	Manual Cert
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henry&hymas

25 January 2017

Our Ref: 12693-C7/af

City Plan Services Pty Ltd
364 Kent Street
SYDNEY NSW 2000

Attention: Brendan Bennett

Dear Sir,

**RE: ANGLICARE RETIREMENT VILLAGE
CERTIFICATION OF CONSTRUCTED WORKS – STAGE 5
CIVIL ENGINEERING**

**SUBJECT PREMISES: 6- 14 Macpherson Street, WARRIEWOOD NSW 2101
Lot 1, 2, 3, 4, and 5 DP 1161389.**

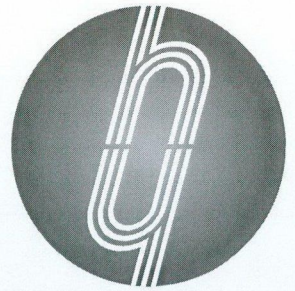
DEVELOPMENT CONSENT: PITTWATER COUNCIL DA NO. NO267/13

In reference to the aforementioned development, I offer the following certification of the constructed stormwater and water quality management works for Stage 5 of the aforementioned development. Based on a review of the completed works, we verify that the constructed stormwater works and water quality management works are generally in accordance with the approved Construction Certificate documentation. The constructed works are also in accordance with or meet the requirements of:

- AS3500 – 'National Plumbing and Drainage Code' – Part 3: Stormwater Drainage;
- Warriewood Valley Urban Land Release – Water Management Specification (WMS);
- Pittwater Council Development Control Plan 21;
- Conditions E4 of the Development Consent dated 20 February 2014 (which verified that C9 and C10 have been implemented);
- Conditions B9 of the Development Consent dated 20 February 2014 (which relates to overflow from the rainwater tanks discharging into the adjacent waterway with erosion minimisation measures installed. Note that overflows from the rainwater tanks are piped to the in-ground pipe network and not to the adjacent waterway);
- Updated Water Management Plan;
- Warriewood Valley Water Management Specification (February 2001).

I am an appropriately qualified and experienced person in this field and as such have a capacity to certify these works on behalf of Henry & Hymas Consulting Engineers.





henry&hymas

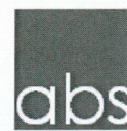
Designer: Andrew Francis
Qualifications: B.E. (Civil)
Employer: H & H Consulting Engineers Pty Ltd
Address: Level 5, 79 Victoria Ave CHATSWOOD
Business Tel. No: 9417 8400 Fax No: 9417 8337

H & H Consulting Engineers possesses indemnity insurance to the satisfaction of the Client. However, this certificate shall not be construed in any way to relieve any other party of their responsibilities.

Yours faithfully,

ANDREW FRANCIS

For, and on behalf of,
H & H Consulting Engineers Pty Ltd



accessible
building
solutions

DESIGN STATEMENT OF COMPLIANCE No3

Site Details:					
Street no. / name:	6-14 Macpherson St				
Suburb:	Warriewood	State:	NSW	Postcode:	
Description of Work:	Dwellings and community facility for aged persons NO 267/13				
Scope of Certificate	This Statement / Certificate relates to: • ILUs 34-39				

Certification:

DA Item No.	Tick box for items to be certified (✓)	Detail of Condition of Consent or Design Standard (BCA AS1428.1 etc)	Verification Method
B26 C21	✓	2 visitor parking spaces complying with AS 2890.6 shall be provided – 1 at the community centre and 1 near the main entrance	Inspection
C17	✓	Confirmation that the recommendations of the access report submitted for DA are implemented.	Inspection
C25	✓	The drawings shall indicate 4 dwellings have a garage width of 4.8m.	Inspection
C26	✓	An access consultant is to confirm that access is maintained from the front door to the street with the inclusion of an additional carport.	Inspection
D14	✓	The requirements for SEPP SL Schedule 3 shall be incorporated into the design	Inspection
E16	✓	An accredited access consultant shall confirm that the CC requirements have been incorporated into the built works	Inspection

I, the undersigned, certify that the above Design Standards have been satisfactorily incorporated within the building work. The following documents have been used in this assessment:

List of Certified
Drawings/documents:

- Report by Accessible Building Solutions
Date of report: 27th August 2013

I also certify that I am an appropriately qualified and competent person practising in the relevant area of work. I have recognised relevant experience in the area of work being certified. I am holding appropriate current professional indemnity insurance to the satisfaction of the building owner or the principal authorising the design work being certified.

Name: Howard Moutrie
Company Name: Accessible Building Solutions
Company Address: 124 Upper Washington Drive Bonnet Bay
Signature: 

Qualification: BArch(Hons).
ACAA Accredited Access
Consultant No 177
ABN No: 58 006 628 812
Tel: 02 9528 0276
Position Title: Director
Date: 20th January 2017

20 January 2017

Mr Roi Ciftci
PBS Building (NSW) Pty Limited,
Unit 18, 11-21 Underwood Rd,
HOMEBUSH NSW 2140

Dear Mr Ciftci,

Re: Building Completion Survey Level Report
ARV at Warriewood Brook, 6-10 MacPherson Street, Warriewood

In accordance with your instructions I have surveyed and for the purpose of a DA compliance level check part (being Stage 5) of the Warriewood Brook development standing upon Lots 3 – 5 in Deposited Plan 1161389.

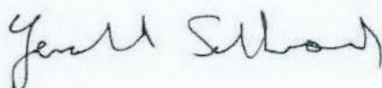
The floor levels of the residences relative to Government Mark PM15549 (RL9.375m AHD) are as follows:

Unit	Floor RL (m)	Unit	Floor RL (m)	Unit	Floor RL (m)
ILU35	7.89	ILU44	7.37	ILU53	6.02
ILU36	8.215	ILU45	7.75	ILU54	6.3
ILU37	7.645	ILU46	6.275	ILU55	5.405
ILU38	7.91	ILU47	6.645	ILU56	5.515
ILU39	8.25	ILU48	6.995	ILU57	5.77
ILU40	7.2	ILU49	6.28	ILU58	6.04
ILU41	7.53	ILU50	6.69	ILU59	6.27
ILU42	7.77	ILU51	7.005		
ILU43	7.095	ILU52	5.81		

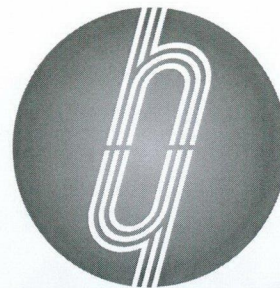
All the levels identified exceed the supplied Probable Maximum Flood level plus 0.2m value of RL5.4m. Please note that the PMF level value has not investigated by me.

Please contact our office on (02) 9439 6925 should there be any queries in relation to the above.

Yours sincerely



Gerald Sellwood
Registered Surveyor – No. 8183



henry&hymas

20 January 2017

Our Ref: 12693-C7/af

City Plan Services Pty Ltd
364 Kent Street
SYDNEY NSW 2000

Attention: Brendan Bennett

Dear Sir,

**RE: ANGLICARE RETIREMENT VILLAGE
CERTIFICATION OF CONSTRUCTED WORKS – STAGE 5
CIVIL ENGINEERING**

**SUBJECT PREMISES: 6- 14 Macpherson Street, WARRIEWOOD NSW 2101
Lot 1, 2, 3, 4, and 5 DP 1161389.**

DEVELOPMENT CONSENT: PITTWATER COUNCIL DA NO. NO267/13

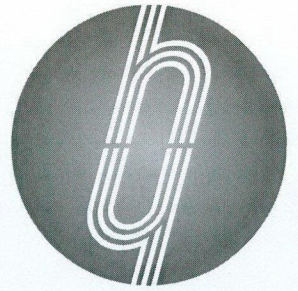
In reference to the aforementioned development, I offer the following certification of the constructed stormwater and water quality management works for Stage 5 of the aforementioned development. Based on a review of the completed works, we verify that the constructed stormwater works and water quality management works are generally in accordance with the approved Construction Certificate documentation. The constructed works are also in accordance with or meet the requirements of:

- AS3500 – 'National Plumbing and Drainage Code' – Part 3: Stormwater Drainage;
- Warriewood Valley Urban Land Release – Water Management Specification (WMS);
- Pittwater Council Development Control Plan 21;
- Conditions E4 of the Development Consent dated 20 February 2014 (which verified that C9 and C10 have been implemented);
- Updated Water Management Plan;
- Warriewood Valley Water Management Specification (February 2001).

I am an appropriately qualified and experienced person in this field and as such have a capacity to certify these works on behalf of Henry & Hymas Consulting Engineers.

Designer: Andrew Francis
Qualifications: B.E. (Civil)
Employer: H & H Consulting Engineers Pty Ltd
Address: Level 5, 79 Victoria Ave CHATSWOOD
Business Tel. No: 9417 8400 Fax No: 9417 8337





henry&hymas

H & H Consulting Engineers possesses indemnity insurance to the satisfaction of the Client. However, this certificate shall not be construed in any way to relieve any other party of their responsibilities.

Yours faithfully,

ANDREW FRANCIS

For, and on behalf of,
H & H Consulting Engineers Pty Ltd



LANDSCAPE WARRANTY & MAINTENANCE MANUAL

ARV WARRIEWOOD
Stage 5
PBS BUILDING

We get the job
DONE™

Contents

SECTION 1 – CONTACT DETAILS

SECTION 2 - OVERVIEW

SECTION 3 – MAINTENANCE/OPERATION MANUALS

SECTION 1 – CONTACT DETAILS

CONTACT DETAILS

Contact: Landscape Solutions Pty Ltd
Dave Freston
Project Manager

Address: 16 Distribution Place
Seven Hills NSW 2147

Mobile: 0457 806 802

Telephone: 02 8805 6222

Fax: 02 8805 6299

Email: dfreston@landscapesolutions.com.au

Website: www.landscapesolutions.com.au

Job Number: 9627

SECTION 2 – OVERVIEW

OVERVIEW

The landscape works have been installed as per the plans, documents, and client and architects instructions.

The works includes:-

- Concrete paths
- Garden & turf areas
- Street Furniture
- Retaining Walls
- Communal Car park & Driveways

PLANTS

This project contains a variety of native plants that compliment the area and with professional landscape management will provide enjoyment in years to come.

Landscape Solutions guarantees the plants installed on this project against any deaths caused by poor landscape management for the period of our maintenance contract.

Any deaths caused through poor plant selection or vandalism, Landscape Solutions will be able to provide a competitive price to reinstate or provide advice as to a more suitable species of plant.

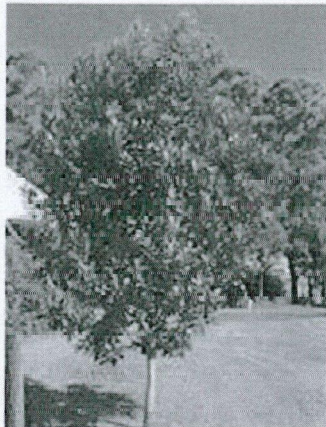
Dianella Caerulea



Description: The evergreen foliage of this species from eastern Australia arises in clumps from a creeping rhizome often with elongated, cane like stems. The grass like leaves, up to 3 ft (1m) long rough margins and open pinnacles, up to 24 in (60cm) tall, support small starry blue flowers in spring and summer. These are followed in the autumn by purple blue berries.

They prefer sun or part shade and a moderately fertile, humus-rich well drained to acidic soil.

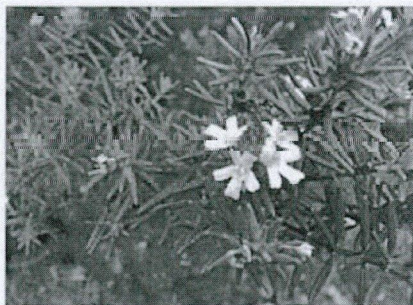
Tristaniopsis Laurina 'Luscious'



Description: Medium sized, evergreen tree with a dense canopy of oblong shaped green leaves. Produces a mass of fragrant yellow flowers in Summer. Leaves can turn red in cooler climates. Use as a street tree, specimen tree, shade tree and wind break.

Prefers moist well drained soil rich in organic matter. Tolerant to compacted, wet soils. Requires consistent moisture levels in soil. Regular supplementary watering in Summer is beneficial. Mulching will help retain soil moisture.

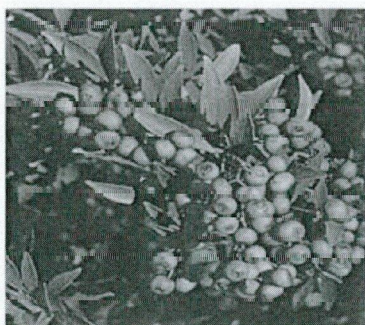
Westringia Fruticosa 'Jervis Gem'



Description: very hardy and adaptable shrub, perfect for Aussie Mediterranean and coastal gardens. Plant with Agonis Burgundy, Acacia Green Mist and Leptospermum Copper Glow. Perfect for Formal gardens. Clip into shapes or as a low hedge

Slow release of native fertiliser in spring is good.. Pests are not usually a problem with "Jervis gem", however Curl grubs could be an issue in some areas. Curl grubs are in the soil and eat the roots. Plants can suffer from a form of foliage die-back which is usually a result of damage to the roots. This is normally the result of bad drainage conditions, or Curl grubs. Generally speaking these plants are easy to care for.

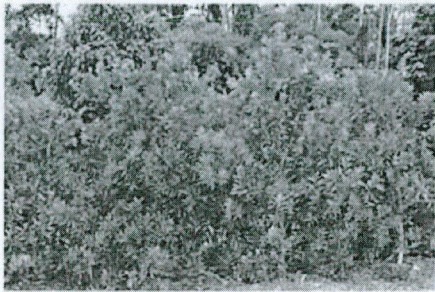
Acmena smithii



Description: *Acmena smithii* is a summer flowering evergreen tree, belonging to the myrtle family Myrtaceae. It is commonly planted as shrubs or hedgerows. It features rough woody bark, cream and green smooth waxy leaves with flushes of pink new growth and white to maroon edible berries. It shares the common name "Lilly Pilly" with several other plants. Unpruned it will grow about 3–5 m tall. Sprays of tiny white flowers with prominent stamens appear in early summer followed by white, pink or mauve fruits in late summer.

It responds to slipping and extra water and fertilizer with flushes of coppery new growth.

Callistemon Citrinus 'Endeavour'



Description: Dense large shrub or small tree with dark green rigid leaves and brilliant scarlet bottlebrush style flowers. Can be used for screen planting or as a windbreak in small gardens. Also a popular choice in coastal plantings or as a street tree. Good bird attractor for nectar feeding.

The plant will grow in most garden soils and is tolerant of quite harsh sites from dry to poor draining soils. Can endure less than perfect drainage but usually performs best in gardens with reasonable drainage and regular availability of water. Excellent for swampy sites but can also tolerate drought conditions.

Trachelospermum Jasminoides



Description: Sweetly scented, pure white flowers carried in terminal racemes from late October until Late December. The flowers are salver form and are enhanced by dark green, shining foliage. The plant is hardy and very little care other than watering and mulching through summer plus annual fertilising with a slow-release complete fertiliser is needed. It may be pruned lightly after flowering to control any wayward growth.

Lomandra Hystrix



Description: Lomandra hystrix naturally grows on the edge of fresh and brackish water creeks, swamps, rivers and in moist gullies. It tolerates dry conditions, but does better in climates with summer rainfall or with top up summer watering. Ideal for moist soils.

Lomandra Longifolia



Description: An improved semi-compact slightly finer leaf form of the popular Lomandra longifolia. It grows to 900mm high with a spread of 900mm. In dry climates it grows slightly smaller, to 600mm high. Water as required to keep the plant healthy for the first 8 to 13 weeks. After this irrigation is optional (not required) Do not excessively irrigate.

Eucalyptus Robusta



Description: Eucalyptus robusta grows as a tree to around 20–30 metres tall, with a trunk up to 1 metre in diameter at breast height. The trunk and branches are covered with thick red-brown bark, which has a spongy feel and is stringy—peeling in longitudinal strips. The long irregular branches spread laterally, and form a dense canopy with the broad green leaves. The white or cream flowers are clustered in inflorescences of from seven to 13 flowers

MAINTENANCE

FREQUENCY OF VISITS

The visits will be on a fortnightly basis during summer and once every 3 weeks during winter. Initial maintenance will be more intensive to ensure successful growth of both turf and plants.

MOWING

Lawns will be mowed as required to maintain a dense swathe of grass. The turf should not be cut to short as it provides additional stress on the turf. The turf will be cut using high quality equipment that is maintained in excellent condition.

WATERING

All areas will be watered as required to maintain healthy growth of turf and plants.

If an irrigation system is installed Landscape Solutions will monitor the quantity of water being delivered and adjust the system as required.

FERTILISING OF TURF AND GARDEN

Landscape Solutions will fertilise on an as required basis. Landscape Solutions has a program of fertilising and generally this will be prior to the growing season using a slow release fertiliser on both garden and lawn areas.

PRUNING

Pruning will be completed as required and generally completed to improve plant shape, create a denser hedging of plants, and train a plant to grow a certain way or increase flower quantity or quality

HERBICIDE AND PESTICIDE USE

Landscape Solutions limits the use of pesticides and herbicides as much as practical. The most commonly used chemical is Glyphosate (Round Up) a non systemic herbicide that kills on contact with the plant leaf, it is a non residual herbicide.

Any pesticides used will be used in a safe and effective manner to minimise any overspray or drift of spray. Landscape Solutions will only use Pesticide spraying when it is necessary to combat a specific pest or disease.

GUYING AND STAKING

Plants are healthier and are generally a better shape if they are not staked. Movement of the trunk at ground level strengthens it and makes it thicken.

Stakes can cause damage in windy conditions through trunk or branch damage. Stakes also force growth upwards at the expense of trunk strength.

Stakes will be used where plants require support only, and will be for the minimum amount of time required.

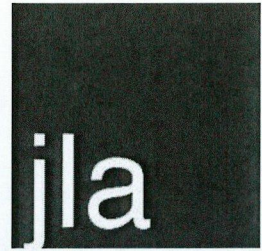
Landscape Solutions also offers a professional ongoing landscape management / maintenance service and would be pleased to discuss the specific maintenance requirements of this project.

Call 8805 6222 and our Maintenance manager will be pleased to look at all your requirement and provide you with a professional landscape management program.

MAINTENANCE SCHEDULE

PROJECT: ARV Warriewood Stage 5

TASK	INTERVALS
INITIAL WATERING	WEEKLY/ AS REQUIRED
INITIAL MOWING	IRRIGATION SYSTEM INSTALLED
INITIAL MOWING	AS REQUIRED
MOW LAWNS	FORTNIGHTLY (SUMMER) 3 WEEKLY - 4 WEEKLY (WINTER)
EDGE LAWNS	FORTNIGHTLY (SUMMER) 3 WEEKLY -4 WEEKLY (WINTER)
GARDEN SPRAY	FORTNIGHTLY (SUMMER) MONTHLY (WINTER)
GARDEN HAND WEED	FORTNIGHTLY (SUMMER) MONTHLY (WINTER)
FERTILISE LAWNS	EVERY 6 MONTHS
FERTILISE GARDENS	EVERY 9 MONTHS
PRUNE PLANTS	EVERY 4 MONTHS/ AS REQUIRED
PEST AND DISEASE CONTROL	FORTNIGHTLY CHECK
IRRIGATION SYSTEM GENERAL CHECK	MONTHLY
YEARLY SERVICE	AT COST
MULCH TOP UP	IF SPECIFIED
STAKING	AS REQUIRED
PAVER REPAIR	AS REQUIRED
TRANSPLANTED TREES	MONITOR FORTNIGHTLY



john lock + associates
landscape architecture
Suite 3, 5 Earl Street
Mosman NSW 2088
p 02 9969 9866
e/landesign@bigpond.com

15th September 2014

Michael Morin

PBS Building (NSW) Pty Limited
Unit 18, 11-21 Underwood Road
Homebush NSW 2140

Dear Michael

Re: Landscape Architectural Services
ARV Warriewood Brook Retirement Village
Stages 4-6
6-14 MacPherson Street Warriewood

Thank you for this opportunity to prepare a submission to provide additional landscape design services for the proposed Stages 4-6 of the Warriewood Brook Retirement Village. Based on our previous experience with the project and the preparation of the plans to date, we are in a position to offer you the following submission for your review.

Our submission set out below includes:

- LANDSCAPE CONSULTANT TASKS
- PROFESSIONAL FEES / PERSONNEL

I look forward to discussing any aspects of this proposal with you further and the prospect of an opportunity to work with the project team to realise its goals for the remaining stages, 4-6 of the Warriewood Brook Retirement Village. If you require any additional information please call John Lock on 9969 9866.

Yours sincerely

A handwritten signature in black ink, appearing to read 'John Lock', with a stylized flourish at the end.

JOHN LOCK

LANDSCAPE CONSULTANT TASKS

Set out below is our understanding of the scope of works for design and documentation of the landscape which are prepared for review and comment:

1 Construction Documentation

DOCUMENTATION SCHEDULE		
Dwg #	title	scale
2001 LP 00-07	Cover Sheet	1:500
2001 LP 1.0-07	Landscape Site Plan	1:500
2001 LP 1.1-07	Tree Plan	1:500
2001 LP 1.2-07	Hardscape Plan -sheet 1	1:200
2001 LP 1.3-07	Hardscape Plan -sheet 2	1:200
2001 LP 1.4-07	Hardscape Plan -sheet 3	1:200
2001 LP 1.5-07	Hardscape Plan -sheet 4	1:200
2001 LP 1.6-07	Planting Plan -sheet 1	1:200
2001 LP 1.7-07	Planting Plan -sheet 2	1:200
2001 LP 1.8-07	Planting Plan -sheet 3	1:200
2001 LP 1.9-07	Planting Plan -sheet 4	1:200
2001 LP 2.0-07	Landscape Sections - SHEET 1	
2001 LP 2.1-07	Landscape Sections - SHEET 2	
2001 LP 3.0-07	Landscape Details - FENCES	
2001 LP 3.1-07	Landscape Details - BOWLING GREEN	
2001 LP 3.2-07	Landscape Details	
2001 LP 3.3-07	Landscape Details - DETENTION	
2001 LP 3.4-07	Landscape Details - PLANTING	
2001 LP 3.5-07	Landscape Details - WALLS	
.	LANDSCAPE SPECIFICATION	

2 Construction Administration Stage

Review + Documentation

- Answer tender queries, reviewing schedules as provided in the Landscape Documentation, reviewing tender clarifications,
- Comments on preferred sub-contractors,
- Assess Tenders, advise and make recommendations to Project Manager.
- Prepare additional documentation if required to answer Contractor queries.
- Comments on any qualifications and / or proposed alternatives associated with the Landscape Design
- Review of shop drawings;
- Answering landscape queries;
 - Documentation clarification and answers to Contractor RFI's
 - Additional Documentation for Contractor RFI's

Inspections

- Inspect pre-ordered plant stock at the appropriate nurseries.
- Periodic site inspections to review quality of installation and compliance with design intent and production of a monthly report on aspects of quality, defects and compliance with design intent;
- Certification of completion and compliance of various stages of the works.
 - Subgrade / Soil works preparation and installation
 - Planting inspections visits
 - Practical completion
 - Maintenance Inspections

PROFESSIONAL FEES

The following proposed fee summary is calculated on an estimate of the time required to complete those tasks outlined. This outline broken into the nominated stages:

1 Construction Documentation & Administration \$5,500

- Prepare additional documentation as required to answer Contractor queries.
 - Documentation clarification and answers to Contractor RFI's
 - Additional Documentation for Contractor RFI's
- Review of shop drawings;
- Construction Site Inspections & reports
- Final Certification
- Defects Liability inspections & reports

2 HOURLY RATES

- | | |
|-----------------------|-----------|
| • Project Principal | \$150 /hr |
| • Landscape Architect | \$100 /hr |
| • Drafting | \$75 /hr |

Note the above fees do not include for **GST**

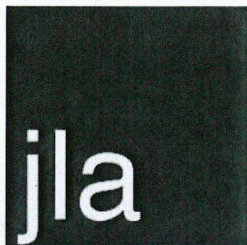
INSURANCE

- | | |
|--|-------------|
| Professional Indemnity: | \$1,000,000 |
| • Thistle Underwriting Services Pty Ltd who act on behalf of Insurer:
QBE Insurance (Australia) Limited | |
| Public Liability: | \$5,000,000 |
| • Thistle Underwriting Services Pty Ltd who act on behalf of Insurer:
QBE Insurance (Australia) Limited | |

ADDITIONAL WORK

Additional plan prints and documentation and costs incurred (authorised by the Project Manager) will be charged as a reimbursement. Should you require any further work outside the agreed scope these will be charged at the agreed hourly rates.

We will invoice monthly based on percentage completion of the above project stages. We hope this submission and fee structure is acceptable to you and understand that further discussions may be necessary to establish a firm scope of works and budgetary requirements for the project. We look forward to your review of this proposal.



john lock + associates
landscape architecture

p 02 9969 9866
e landesign@bigpond.com

ABN 53 978 384 192

TAX INVOICE

DATE 14th October 2015
TO PBS Building (NSW) Pty Limited
Unit 18, 11-21 Underwood Road
Homebush NSW 2140
ATTENTION Roi Ciftci

RE Landscape Architectural Services
ARV Warriewood Brook Retirement Village Stages 4-6
6-14 MacPherson Street Warriewood

CLAIM # 1

INVOICE # 1778

1 AGREED FEE

• Construction Documentation + Administration \$5,500

2 TASKS THIS CLAIM

PENDING

Emma.stafford
15/10/2015 5:01:16 PM

60% Construction Documentation + Administration \$3,300

GST \$330

ENTERED

Emma.stafford
26/10/2015 10:56:23 AM

\$3,630

TOTAL THIS CLAIM

yours faithfully

JOHN LOCK

VENDOR CODE	NJOH002	AMOUNT INVOICED	\$3,630.00	PAYMENT DATE	03/11/15
TAX AMOUNT	\$330.00	PRE-TAX AMOUNT	\$3,300.00	RECEIVED DATE	14/10/15
COMMITMENT NUMBER	JOB / EQUIPMENT / DIVISION	EXTRA	COST CODE / GL ACCOUNT / EQ COST CODE	TAX CODE	PRE-TAX AMOUNT
	315NS076		02.100	GST	\$3,300.00
RETENTION (INC GST)	NIL	TOTAL PRE-TAX AMOUNT	\$3,300.00		
APPROVED BY	Please email remittance to: landesign@bigpond.com				

Bank Details for EFT:

BSB. 062 017 Acc No. 1001 0423

cheques

jla John lock & Associates

Suite 3 • 5 Earl Street Mosman NSW 2088

JLA CLAIM TRACKING SCHEDULE

QUOTE	% CLAIM	CLAIM 1	CLAIM 2	CLAIM 3	COST TO COMPLETE
\$ 5,500.00	60%	\$ 3,300.00			\$ 2,200.00

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett BPB 0027	
Site Address	:	6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to pouring any in-situ reinforced building element - Units 37 & 40 Prior to pouring any in-situ building element and prior to covering wet areas - Units 18, 19, 20 & 21	
Date Inspected	:	08/09/15	Time Requested: 5.30pm

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required
Satisfactory subject to actions	☒	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☐

Slab - Units 37 & 40

In-situ reinforcement for the slab inspected prior to pouring concrete. The layout is consistent with the CC approved plans.

ACTIONS

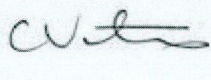
1. Structural engineer certification must be submitted certifying the structural component of the slab, compliance with the certified plans and relevant Australian Standards applicable to the works.
2. Top of all screw piers are to have reo bars inserted as per the engineer's detail.
3. Complete all reinforcement, waffle pods and chair spacing to engineer's details.
4. All instructions by engineer to be carried out for all units.
5. Provide a survey report clearly showing setbacks and levels of subject buildings in accordance with the approved plans.

Wet areas - Units 18, 19, 20 & 21

Wet areas inspected prior to covering. Certification of installation in accordance with AS3740 - 2010 must be submitted to City Plan Services prior the issue of an Occupation Certificate. Installation to be in accordance with the product manufacturer specification.

ACTIONS

1. Windows to bathrooms to be completely sealed and waterproofed.

Signature : 

Inspected by : Clayton Votano

Accreditation No. : BPB 2307

Date : 10 September 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett BPB 0027	
Site Address	:	6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to pouring any in-situ reinforced building element - Units 34 & 35 Prior to pouring any in-situ building element and prior to covering wet areas - Unit 35	
Date Inspected	:	24/09/15	Time Requested: 5.30pm

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required
Satisfactory subject to actions	☒	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☐

Slab - Units 34 & 35

In-situ reinforcement for the slab inspected prior to pouring concrete. The layout is consistent with the CC approved plans.

ACTIONS

1. Structural engineer certification must be submitted certifying the structural component of the slab, compliance with the certified plans and relevant Australian Standards applicable to the works.
2. Top of all screw piers are to have reo bars inserted as per the engineer's detail.
3. Complete all reinforcement, waffle pods and chair spacing to engineer's details.
4. All instructions by engineer to be carried out for all units.
5. Provide a survey report clearly showing setbacks and levels of subject buildings in accordance with the approved plans.

Signature :



Inspected by : Clayton Votano

Accreditation No. : BPB 2307

Date : 24 September 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	: 142440	
DA/ CDC No.	: N0267/13	
PCA	: Brendan Bennett	
Site Address	: 6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	: Roi Ciftci	
Contact No.	: 0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	Prior to covering of the framework for any floor, wall, roof or other building element, Prior to covering of wet areas, slab steel and stormwater	
Date Inspected	: 06/10/15 - Units 13, 14, 21, 22, 23, 36, 41 & 42 12/10/15 - Units 1, 10, 11, 15, 16, 17 & 46	Time Requested: 06/10/15 - 5.30pm 12/10/15 - 10.00am

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required
Satisfactory subject to actions	☒	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☐

Frame - Units 13 & 14

Timber framing inspected prior to covering.

ACTIONS

1. Certification of installation in accordance with AS1684.2 - 2010 and the frame and truss manufacturer's detail must be submitted to City Plan Services prior the issue of an Occupation Certificate.
2. Certification of installation of masonry to be in accordance with AS 4773.1 - 2010 & AS 3700 - 2011 must be submitted to City Plan Services prior the issue of an Occupation Certificate.

Wet areas - Units 1, 10 & 11

Wet areas inspected prior to covering. Certification of installation in accordance with AS3740 - 2010 must be submitted to City Plan Services prior the issue of an Occupation Certificate. Installation to be in accordance with the product manufacturer specification.

ACTIONS

1. Window sill and frame to be completely waterproofed unit 10.

Slabs - Units 36, 41, 42 & 46

In-situ reinforcement for the slab inspected prior to pouring concrete.

ACTIONS

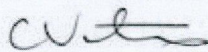
1. Structural engineer certification must be submitted certifying the structural component of the slab, compliance with the certified plans and relevant Australian Standards applicable to the works.
2. Reinforcement to be completed as per engineer detail to the porch unit 46.
3. Ensure all termite collars are pushed down and within the slab. Provide certification of all termite control measures.
4. All instructions by engineer to be carried out for all units.

Stormwater Units 15, 16, 17, 21, 22 & 23

Stormwater connections (connections to detention pit) inspected prior to covering. Certification from a hydraulic engineer must be submitted to City Plan Services certifying the installation complies with the approved plans, condition E.9 of the development consent and AS/NZS 3500.3-2003.

Signature

:



Inspected by

:

Clayton Votano

Accreditation No.

:

BPB 2307

Date

:

12 October 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett	
Site Address	:	6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to covering of the framework for any floor, wall, roof or other building element, Prior to covering of wet areas and slab steel	
Date Inspected	:	26/10/15	Time Requested: 8.30am

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required
Satisfactory subject to actions	☒	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☐

Frame - Units 15, 16 & 17

Timber framing inspected prior to covering.

ACTIONS

1. Certification of installation in accordance with AS1684.2 - 2010 and the frame and truss manufacturer's detail must be submitted to City Plan Services prior the issue of an Occupation Certificate.
2. Certification of installation of masonry to be in accordance with AS 4773.1 - 2010 & AS 3700 - 2011 must be submitted to City Plan Services prior the issue of an Occupation Certificate.
3. Ply brace 1100mm is required to bedroom 2 unit 15.
4. Double CT600 under ties are required for girder truss external wall to living/dining and external wall over bathroom for both units 15 & 16.
5. Bottom chord bracing is required at maximum 4000mm centres complying with AS 4440-2004 for all units.
6. Ensure compliance with all BASIX requirements. Installation certification required upon completion.

Wet areas - Units 12, 13 & 14

Wet areas inspected prior to covering. Certification of installation in accordance with AS3740 - 2010 must be submitted to City Plan Services prior the issue of an Occupation Certificate. Installation to be in accordance with the product manufacturer specification.

Slabs - Unit 38 & 39

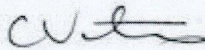
In-situ reinforcement for the slab inspected prior to pouring concrete.

ACTIONS

1. Structural engineer certification must be submitted certifying the structural component of the slab, compliance with the certified plans and relevant Australian Standards applicable to the works.
2. Ensure all termite collars are pushed down and within the slab. Provide certification of all termite control measures.
3. All instructions by engineer to be carried out for all units.
4. Provide a survey report clearly showing setbacks and levels of subject buildings in accordance with the approved plans.

Signature

:



Inspected by

:

Clayton Votano

Accreditation No.

:

BPB 2307

Date

:

26 October 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett	
Site Address	:	6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to covering of the framework for any floor, wall, roof or other building element, Prior to covering of wet areas and slab steel	
Date Inspected	:	05/11/15	Time Requested:

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required
Satisfactory subject to actions	☒	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☐

Frame - Units 34, 37 & 40

Timber framing inspected prior to covering.

ACTIONS

1. Certification of installation in accordance with AS1684.2 - 2010 and the frame and truss manufacturer's detail must be submitted to City Plan Services prior the issue of an Occupation Certificate.
2. Certification of installation of masonry to be in accordance with AS 4773.1 - 2010 & AS 3700 - 2011 must be submitted to City Plan Services prior the issue of an Occupation Certificate.
3. Bottom chord bracing is required at maximum 4000mm centres complying with AS 4440-2004 for all units.
4. Ensure compliance with all BASIX requirements. Installation certification required upon completion.

Wet areas - Units 15, 16 & 17

Wet areas inspected prior to covering. Certification of installation in accordance with AS3740 - 2010 must be submitted to City Plan Services prior the issue of an Occupation Certificate. Installation to be in accordance with the product manufacturer specification.

Slabs - Units 47 & 48

In-situ reinforcement for the slab inspected prior to pouring concrete.

ACTIONS

1. Structural engineer certification must be submitted certifying the structural component of the slab, compliance with the certified plans and relevant Australian Standards applicable to the works.
2. Ensure all termite collars are pushed down and within the slab. Provide certification of all termite control measures.
3. All instructions by engineer to be carried out for all units.
4. Provide a survey report clearly showing setbacks and levels of subject buildings in accordance with the approved plans.

Signature

:



Inspected by

:

Clayton Votano

Accreditation No.

:

BPB 2307

Date

:

11 November 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	: 142440	
DA/ CDC No.	: N0267/13	
PCA	: Brendan Bennett	
Site Address	: 6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	: Roi Ciftci	
Contact No.	: 0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	: Prior to covering of the framework	
Date Inspected	: 20/11/15	Time Requested:

RESULT OF INSPECTION

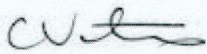
Satisfactory	☐	No re-inspection required
Satisfactory subject to actions	☒	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☐

Frame - Units 35, 42 & 45

Timber framing inspected prior to covering.

ACTIONS

1. Certification of installation in accordance with AS1684.2 - 2010 and the frame and truss manufacturer's detail must be submitted to City Plan Services prior the issue of an Occupation Certificate.
2. Certification of installation of masonry to be in accordance with AS 4773.1 - 2010 & AS 3700 - 2011 must be submitted to City Plan Services prior the issue of an Occupation Certificate.
3. Triple grips required for unit 42 first truss bottom chord over carport.
4. Shear blocks are required for all internal bracing walls for units 42 & 45.
5. B-Type bracing is required for unit 45 in bedroom 1.
6. All items are to be addressed and rectified with evidence of completion.

Signature	:	
Inspected by	:	Clayton Votano
Accreditation No.	:	BPB 2307
Date	:	24 November 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett BPB 0027	
Site Address	:	6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to covering waterproofing of wet areas and prior to covering any stormwater drainage connections	
Date Inspected	:	12/11/15 & 24/11/15	Time Requested:

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required	
Satisfactory subject to actions	☒	No re-inspection required	
Unsatisfactory/actions required	☐	Re-inspection required Yes	☐
		No	☐

Wet areas - Units 34, 35, 37 & 40

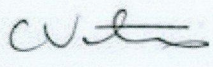
Wet areas inspected prior to covering. Certification of installation in accordance with AS3740 - 2010 must be submitted to City Plan Services prior the issue of an Occupation Certificate. Installation to be in accordance with the product manufacturer specification.

ACTIONS

1. Windows to wet areas to be fully sealed.
2. Waterstops are required to all wet area doorways.

Stormwater - Units 13 & 14

Stormwater connections (connections to detention pit) inspected prior to covering. Certification (hydraulic engineer where required by the development consent or licensed plumber) must be submitted to City Plan Services certifying the installation complies with the approved plans, relevant conditions of the development consent and AS3500.3-2003.

Signature : 

Inspected by : Clayton Votano

Accreditation No. : BPB 2307

Date : 24 November 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett	
Site Address	:	6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to covering of the framework for any floor, wall, roof or other building element, after the excavation of footings and prior to pouring reinforced concrete.	
Date Inspected	:	17/11/15	Time Requested:

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required	
Satisfactory subject to actions	☒	No re-inspection required	
Unsatisfactory/actions required	☐	Re-inspection required	Yes ☐ No ☐

Frame - Units 36, 38 & 39

Timber framing inspected prior to covering.

ACTIONS

1. Certification of installation in accordance with AS1684.2 - 2010 and the frame and truss manufacturer's detail must be submitted to City Plan Services prior the issue of an Occupation Certificate.
2. Certification of installation of masonry to be in accordance with AS 4773.1 - 2010 & AS 3700 - 2011 must be submitted to City Plan Services prior the issue of an Occupation Certificate.
3. Multigrips are required to be installed to the bottom chord of the first truss at the carport for all units.
4. Multigrips required to the top of the girder truss over carport for units 38 & 39.
5. Ensure compliance with all BASIX requirements. Installation certification required upon completion.

Slabs - Units 53 & 54

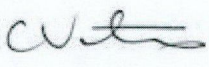
Piers - Units 55, 56, 57, 58 & 59

In-situ reinforcement for the slab inspected prior to pouring concrete.

ACTIONS

1. Structural engineer certification must be submitted certifying the structural component of the slab, compliance with the certified plans and relevant Australian Standards applicable to the works.
2. Structural engineer certification must be submitted certifying the structural component of the piers, compliance with the certified plans and relevant Australian Standards applicable to the works.
3. All new and amended screw pier locations are to be inspected and certified by engineer

4. All instructions by engineer to be carried out for all units.

Signature : 

Inspected by : Clayton Votano

Accreditation No. : BPB 2307

Date : 21 December 2015

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett, BPB0027	
Site Address	:	6-14 Macpherson St, Warriewood	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to covering any stormwater drainage connections ILU 34, 35, 36, 37, 38, 39	
Date Inspected	:	22 January 2016	Time Requested:

RESULT OF INSPECTION

Satisfactory	☒	No re-inspection required	
Satisfactory subject to actions	☐	No re-inspection required	
Unsatisfactory/actions required	☐	Re-inspection required	Yes ☐ No ☐

Stormwater connections (connections to detention pit) inspected prior to covering. Certification (hydraulic engineer where required by the development consent or licensed plumber) must be submitted to City Plan Services certifying the installation complies with the approved plans, relevant conditions of the development consent and AS3500.3-2003.

Signature

:



Inspected by*

: Brendan Bennett

Accreditation No.

: BPB0027

Date

: 11 January 2016

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professional Regulations 2007*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440	
DA/ CDC No.	:	N0267/13	
PCA	:	Brendan Bennett BPB 0027	
Site Address	:	6-14 Macpherson St, Warriewood, NSW 2102	
Requested by	:	Roi Ciftci	
Contact No.	:	0407 333 511	Contact email: roi.ciftci@pbsbuilding.com.au
Inspection Type	:	Prior to covering waterproofing of wet areas	
Date Inspected	:	13.01.16	Time Requested:

RESULT OF INSPECTION

Satisfactory	☐	No re-inspection required
Satisfactory subject to actions	☒	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☒

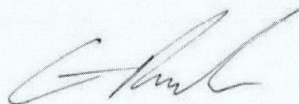
Wet areas - Units 36, 38 & 39

Wet areas inspected prior to covering. Certification of installation in accordance with AS3740 - 2010 must be submitted to City Plan Services prior the issue of an Occupation Certificate. Installation to be in accordance with the product manufacturer specification.

ACTIONS

1. Windows to wet areas to be fully sealed.
2. Waterstops are required to all wet area doorways.

Signature :



Inspected by : Gary Pavlou

Accreditation No. : BPB

Date : 13 January 2016

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professionals Regulations 2007.*

INSPECTION REPORT

This inspection report is a record of a certified stage inspection or any other inspection carried out, because it was required by the Principal Certifying Authority, in accordance with Clause 162B of the Environmental Planning & Assessment Regulation 2000.

CC No.	:	142440/1
DA No.	:	N0267/13, N0267/13/S96/1, N0267/13/S96/2 & N0267/13/S96/3
PCA	:	Brendan Bennett, BPB0027
Site Address	:	6-14 Macpherson Street, Warriewood NSW 2102
Requested by	:	
Contact No.	:	Contact email:
Inspection Type	:	After the building work has been completed & prior to any occupation certificate being issued in relation to the building.
Date Inspected	:	1 February 2017 Time Requested:

RESULT OF INSPECTION

Satisfactory	☒	No re-inspection required
Satisfactory subject to actions	☐	No re-inspection required
Unsatisfactory/actions required	☐	Re-inspection required Yes ☐ No ☐

Works have been completed in accordance with the Construction Certificate and are considered satisfactory.

Signature

:



Inspected by*

:

Brendan Bennett

Accreditation No.

:

BPB0027

Date

:

1 February 2017

**This serves as written notification from the contractor for a change in the nominated inspector for this project as required under the contract agreement made under Clause 73A of the Building Professional Act 2005 and Clause 19A of the Building Professional Regulations 2007*

SILVERWRAPTM BREATHER

MEDIUM DUTY
REFLECTIVE INSULATION WALL WRAP

LOW VAPOUR BARRIER / VAPOUR RETARDER / SEMI-PERMEABLE MEMBRANE

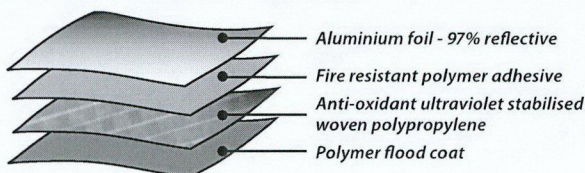
Product Code: MD-B | I/N: 0810105

SILVER WRAPTM BREATHER is a Medium Duty semi-permeable membrane and vapour retarder, designed to reduce the risk of interstitial condensation in building systems. Classified as Low Vapour Barrier, a dense pattern of micro-perforations allows water vapour to escape from the wall structure while restricting the ingress of liquid water. SILVER WRAPTM BREATHER is ideal for use in double brick and brick veneer wall systems.

- ✓ 97% Reflective
- ✓ Low flammability
- ✓ High strength, light weight
- ✓ Low Vapour Barrier

Construction

SILVER WRAPTM BREATHER is a flexible four layer product made with a combination of anti-oxidant ultra-violet stabilised woven polypropylene, 97% reflective aluminium foil, and fire-resistant polymer adhesive. A dense pattern of micro-perforations enables SILVER WRAPTM BREATHER to achieve Low Vapour Barrier classification, while restricting the passage of water under low pressure.



Ametalin utilises Advanced Laminating Technology; the polymer adhesive remains tacky for an indefinite period and provides superior resistance to heat, fire and delamination.

NOTE: SILVER WRAPTM BREATHER is not classified as a High Water Barrier under AS/NZS 4200.1:1994 *Pliable building membranes and underlays, Part 1: Materials*, which requires testing under a 100 mm water column.

Application

SILVER WRAPTM BREATHER is designed for use as a breather wall wrap and vapour retarder in residential, commercial and office buildings in all regions of Australia.

NOTE: Low Vapour Barrier wall wraps are suitable for temperate climate zones. Durability may be affected by environmental factors, including chemical and airborne pollutants, if used in industrial or farm buildings.

Tear Resistance

SILVER WRAPTM BREATHER is an extremely lightweight product with superior tear resistance. SILVER WRAPTM BREATHER is guaranteed to meet or exceed the minimum performance levels for Medium Duty rating required under AS/NZS 4200.1:1994.

	Minimum Value*	Actual Test Value
Machine direction edge tear resistance	65 N	343 N / 25 mm
Lateral direction edge tear resistance	65 N	482 N / 25 mm

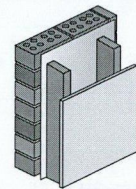
* Minimum value required to qualify as Medium Duty under AS/NZS 4200.1:1994.

DECLARED TOTAL SYSTEM R-VALUES

The contribution of this product to the total R-value depends on installation and environmental conditions. The R-value will be reduced in the event of the accumulation of dust on upward facing surfaces and in those cavities that are ventilated.

BRICK VENEER

with one layer of SILVER WRAPTM BREATHER

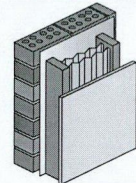


CALCULATION REF: 299r3221

WINTER $R_T 1.3$ SUMMER $R_T 1.2$

BRICK VENEER

with one layer of SILVER WRAPTM BREATHER + two layers of PLEATED SILVERBATTSTM

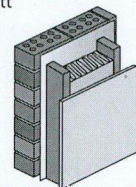


CALCULATION REF: 299w3225b

WINTER $R_T 3.4$ SUMMER $R_T 3.0$

BRICK VENEER

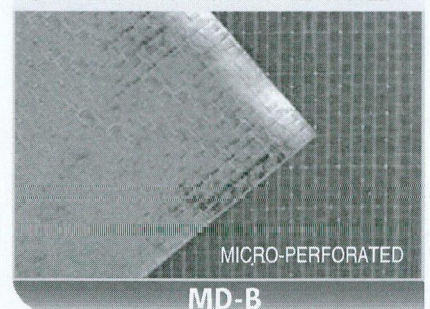
with one layer of SILVER WRAPTM BREATHER + R2.5 Fibrous Batt



CALCULATION REF: 299w50

WINTER $R_T 3.2$ SUMMER $R_T 3.0$

SILVER WRAPTM BREATHER



MD-B



ametalin
raising the standard

SILVERWRAP™ BREATHER

MEDIUM DUTY

REFLECTIVE INSULATION WALL WRAP

Classification

SILVER WRAP™ BREATHER classifications in accordance with AS/NZS 4200.1:1994

PRODUCT		SILVERWRAP™ BREATHER	AS/NZS 4200.1:1994
FI AMMARII ITY INDEX	AS 1530.2-1993	Low	Low ≤ 5
DUTY	AS/NZS 4200.1:1994	Medium	Classification
EMITTANCE	AS/NZS 4201.5:1994	0.03	Value
REFLECTIVITY		97%	Value
RESISTANCE TO WATER PENETRATION	AS/NZS 4201.4:1994	Unclassified	Classified
VAPOUR BARRIER	ASTM E96	Low, PROCEDURE B, WET CUP TEST	Classification
MACHINE DIRECTION TENSILE STRENGTH	AS 1301.448s-91	11.3 kN/m	Min 9.5 kN/m
LATERAL DIRECTION TENSILE STRENGTH	AS 1301.448s-91	8.9 kN/m	Min 6.0 kN/m
MACHINE DIRECTION EDGE TEAR	TAPPI T 470 om-89	343 N	Min 65 N
LATERAL DIRECTION EDGE TEAR	TAPPI T 470 om-89	482 N	Min 65 N
RESISTANCE TO DRY DELAMINATION	AS/NZS 4201.1:1994	Pass	Pass
RESISTANCE TO WET DELAMINATION	AS/NZS 4201.2:1994	Pass	Pass
SHRINKAGE	AS/NZS 4201.3:1994	0.0%	< 0.5%

WATER VAPOUR TRANSMISSION RATE: 41.8 g/m²·24hr (23°C, 50% RH)

AMETALIN CLASSIFICATION: LOW VAPOUR BARRIER
VAPOUR RETARDER / SEMI-PERMEABLE MEMBRANE

Vapour Barrier Properties

SILVER WRAP™ BREATHER has a Water Vapour Transmission (WVT) rate of 41.8 grams per square metre per 24 hours tested at 23°C, 50% Relative Humidity (RH). Vapour Resistance 2.95 MN·s/g.

Ametalin classification is vapour retarder/semi-permeable membrane. Vapour retarders/semi-permeable membranes can be specified for use under linings in buildings in temperate climate zones south of the Tropic of Capricorn (NCC/BCA Climate Zones 2 - 6^a).

A detailed hygrothermal analysis is recommended for moisture control in building design.

NCC/BCA Compliant

SILVER WRAP™ BREATHER complies with AS/NZS 4859.1:2002/ Amdt 1:2006 and AS/NZS 4200.1:1994, and therefore meets all the requirements of the *National Construction Code and Building Code of Australia* for insulation and pliable building membranes.

BUSHFIRE ATTACK LEVELS

SILVER WRAP™ BREATHER complies with AS 3959-2009 *Construction of buildings in bushfire-prone areas* for use in wall systems BAL – LOW to BAL – FZ.

Total System R-values

R-values apply to typical conditions for mainland Australian capital cities and have been calculated by an independent consulting engineer in accordance with AS/NZS 4859.1:2002/Amdt 1:2006. For detailed design of building systems, seek advice based on actual site conditions from a qualified licensed engineer.

Reflectivity

SILVER WRAP™ BREATHER is made with aluminium foil laminates with reflectivity of 97% and emissivity of 0.03 in compliance with ASTM Standard E 408-71 (Re-approved 2002).

Storage

This product should be stored under cover in a clean, dry place in the pack provided.

Dimensions

SILVER WRAP™ BREATHER is sold in sizes:
1350 mm x 60 m (81 m²) 1350 mm x 30 m (40 m²)

Specification Notes

When specifying, state the following:

Product Name: SILVERWRAP™ BREATHER Medium Duty

The insulation to be installed shall be SILVERWRAP™ BREATHER Medium Duty micro-perforated single-sided reflective laminate, emittance bright side 0.03. Product is manufactured by Ametalin and shall be installed in accordance with AS/NZS 4200.2: 1994 *Pliable Building Membranes and Underlays, Part 2: Installation Requirements*.

Emittance Bright Side: 0.03

Water Vapour Transmission (WVT): 41.8 g/m²·24hr

Vapour Resistance: 2.95 MN·s/g

Vapour Barrier Classification: Low

Water Barrier Classification: Unclassified

Duty: Medium in accordance with AS/NZS 4200.1:1994

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AUSTRALIAN MADE, AUSTRALIAN OWNED.

AMETALIN

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Manufacturers of building membranes | insulation products | flexible packaging



ametalin
raising the standard

SILVERWRAP™ BREATHER

MEDIUM DUTY
REFLECTIVE INSULATION WALL WRAP

Health and Safety Information

Ametalin has assessed SILVER WRAP™ BREATHER according to the criteria outlined in the *National Occupational Health and Safety Commission (NOHSC):1008 (1998)* and *NOHSC: 1005 (1999)*. As a result of the assessment, this product is classified as non-hazardous according to the NOHSC criteria. To reduce risk of UV damage when installing this product, wear protective clothing, safety glasses and sunscreen, and work in the shade wherever practical.

Installation

ELECTRICAL SAFETY PRECAUTIONS - BEFORE YOU START:

Ametalin stresses the importance of safe installation practices for foil-based insulation as critical to installer and consumer safety. Aluminium Foil Insulation Association Inc. (AFIA) has prepared Work Method Statements and Hazard Management forms to assist contractors and installers in safe installation of reflective insulation products. These documents are available under 2009 AFIA WMS & Hazard Management, at www.afia.com.au/news/health-and-safety/.

SILVER WRAP™ BREATHER should be installed in accordance with *AS/NZS 4200.2: 1994 Pliable Building Membranes and Underlays, Part 2: Installation Requirements*.

GENERAL

SILVER WRAP™ BREATHER is not designed to withstand prolonged direct exposure to the elements. Accordingly, the outer construction envelope should be installed without delay. Aluminium foil should not come into contact with wet concrete or mortar, as the aluminium is susceptible to alkali corrosion. If installed within 500 metres of the sea, or in a non-residential building where foil surfaces may be exposed to a corrosive atmosphere (including agricultural sheds), foil surfaces should face an enclosed, un-vented air space. To ensure optimum thermal insulation performance, as well as satisfactory durability, a 25 mm air space adjacent to the foil side of the product is recommended.

TIMBER & STEEL FRAMED CONSTRUCTION:

- ▶ TYPICAL BRICK VENEER
- ▶ REVERSE BRICK VENEER
- ▶ LIGHT WEIGHT CLADDING DIRECT TO STUD
- ▶ LIGHT WEIGHT CLADDING ON BATTENS

SILVER WRAP™ BREATHER should be installed horizontally as a continuous membrane by fixing to all framing members with the blue side facing out. SILVER WRAP™ BREATHER should extend from the top plate to the bottom plate on concrete slabs or bearers in timber construction. Fixings are to be no more than 450 mm apart and should be galvanised clouts or staples for fastening to timber construction and tech screws for fastening to steel constructions. In high wind areas, it is recommended to install using flat punched multi-point fasteners or cap screws. Horizontal, vertical and end overlaps must be 150 mm if not taped or 50 mm taped with Ametalin Insulation/Ducting Tape, with all top layers overlapping the outside of lower layers to prevent water ingress. Stagger any vertical overlaps. Any damage made to SILVER WRAP™ BREATHER during installation including holes and tears must be repaired. Ensure window and door openings are cut neatly and carefully and are properly fitted at flashing points. SILVER WRAP™ BREATHER shall be cut back from any hot flue to avoid being a fire hazard. This can be achieved by a clear space of at least 50 mm, or as recommended by the manufacturer of the flue and approved by the local authority.

© 2014 Ametalin All Rights Reserved. Ametalin is a division of Amalgamated Metal Industries Pty. Ltd. Product information in this publication and otherwise supplied to users is based on our general experience and is given in good faith, but due to factors outside our knowledge and control which may affect the use of products, no warranty is given or implied with respect to this information or the product itself regarding the suitability of the product for any particular purpose. The usage of this and other building membranes will affect moisture migration in the building element. The purchaser should independently determine the suitability of the product for the intended purpose. For large projects with complex air-conditioning and condensation issues, designers may wish to contact our technical department. Amalgamated Metal Industries Pty. Ltd. reserves the right to amend product specifications without prior notice. Information provided is considered to be true and correct at the time of publication. DTE-42067-17

AUSTRALIAN MADE, AUSTRALIAN OWNED.

AMETALIN

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Manufacturers of building membranes | insulation products | flexible packaging



ametalin
raising the standard

Technical Sheet

General Properties of ModWood

Compliance with International Standards

A range of ModWood products has been exhaustively tested to the US Standard ICC-ES™ AC174 and found to be suitable for all US applications without restriction, provided installation guidelines are followed.

Moisture absorption (full submersion)

Duration	Solid boards
24 hours	<1%
7 days	<1%
3 months	5 - 7%

Note: While ModWood may be exposed to weather without concern – it is not suitable for continuous immersion in water or damp soil.

Thermal expansion 0.000015 mm/mm/deg C

A 5400mm board will expand and contract approximately 3mm in a 40 degree temperature variation. Therefore ModWood should not be fixed at or near its maximum temperature (and expansion) for the geographical area where it is installed. On hot days, store ModWood in the shade until fixing - or fix in the cooler morning or evening. Warm ModWood expands to the same degree in length and width, unlike timber which expands more across grain than along grain. The recommended end gaps must be observed when installing ModWood.

Termite resistance ModWood has been tested by CSIRO and found to have a high degree of resistance to attack by two of Australia's most important species of subterranean termites, *Mastotermes darwiniensis* and *Coptotermes acinaciformis*. Compared with untreated hardwoods and softwoods, ModWood is dramatically more resistant against termite attack.

Density 1.15 kg/litre approximately

Board Weights

Product	Dimensions (mm x mm)	Weight per LM (kg/LM)	Standard Length* (m)	Board Weight (kg)
Mini Board (solid)	68 x 17	1.3	4.8	6.4
Deck Board (solid)	88 x 23	2.3	5.4	12.6
Wide Deck Board (solid)	137 x 23	3.6	5.4	19.6
Marina Board (solid)	137 x 32	5.1	4.2	21.2
Super Marina (solid)	137 x 35	5.5	3.6	19.8

*Note: Longer or shorter boards are available to special order. Handling arrangements onsite need to be appropriate to the heavier boards.

Surface hardness 95 (Shore D)

This hardness score is better than softwoods and is typical of Wood Plastic Composites. To avoid scratching ModWood with products such as outdoor furniture, soft feet on furniture should always be used.

Slip resistance

Slip resistance testing by CSIRO Tested to AS/NZS 4586:2004

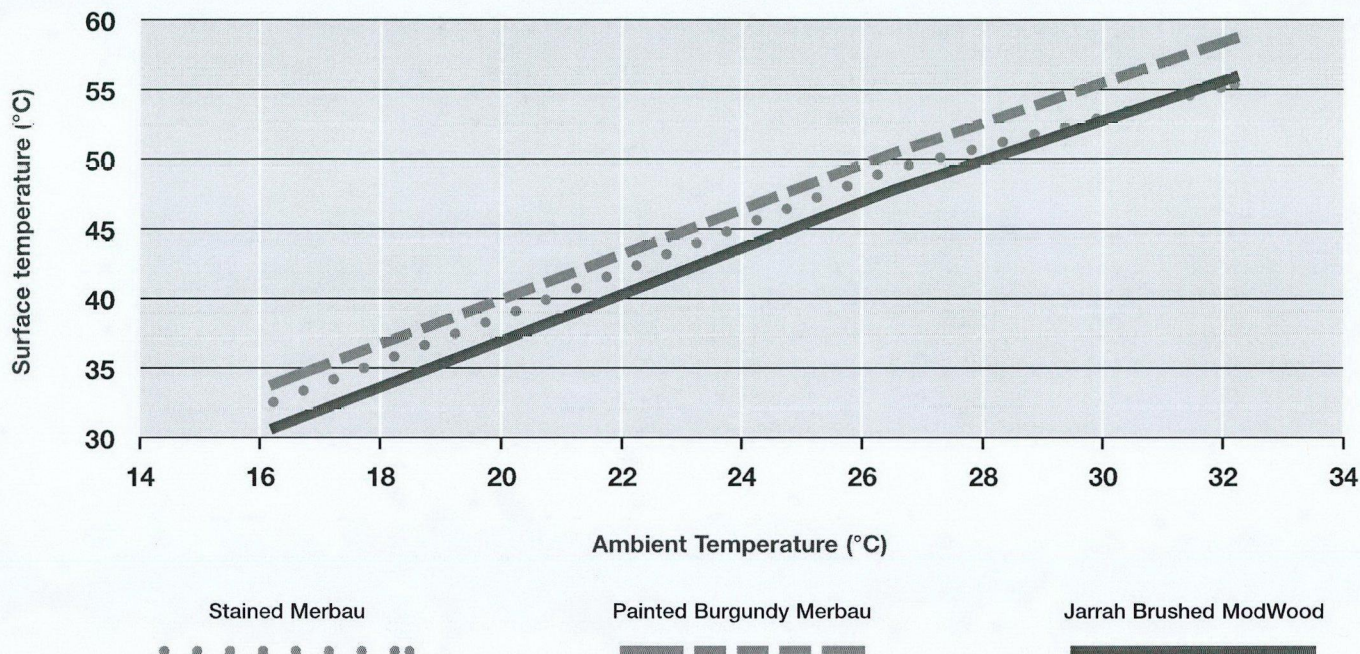
No.	Sample	Wet Pendulum Class	Oil-Wet Ramp Class
1	ModWood Deck	Y	R10
2	ModWood Wide and Marina	Y	R11
3	Oiled Timber	Y	R10
4	Painted Timber	Y	R10

Note: Sample 3 was coated with natural decking oil, merbau tint with a brush.

Sample 4 was coated with decking paint, applied with a mini roller.

PTO

Surface Temperature Comparison - ModWood versus stained and painted Merbau in full sun.



Burning Characteristics and Bushfire Resistance

Burning Characteristics - tested by AWTAS AS/NZS 1530.3 - 1999

Flame Shield®	
Ignitability Index	13
Spread of flame Index	5
Smoke developed Index	4
Heat evolved Index	4

Bushfire Resistance - tested by Exova Warringtonfire AUS to AS 1530.8.1

AS 1530.8.1	BAL-A40 Rating
-------------	----------------

ModWood Flame Shield® is rated to BAL-40 and, when installed as per Installation Instructions, is a system complying to AS1530.8.1 for AS3959-2009 Section 8: Construction for Bushfire Attack Level 40 (BAL-40).

PTO

Properties of ModWood Boards

(Warning: This data is specific to the ModWood range of products and must not be used for designing with competitor WPC or 'plastic lumber' products - these usually show significantly inferior mechanical properties).

The Table shows averages based on Laboratory Test results (at 23°C) from routine manufacturing quality assurance:

Dimensions	Unit	Mini Board	Deck Board	Wide Deck	Wide Deck Flame Shield®	Marina Board	Super Marina Board
Width	mm	68	88.3	137	137	137	137
Thickness	mm	17	23	23	23	32	35
Standard Length	mm	4800	5400	5400	5400	4200	3600
Board Weight	kg	6.4	12.6	19.6	19.6	21.2	19.8

Mechanical Properties

Test Method (Instron Extensometer)		ASTM D790a	ASTM D6109	ASTM D6109	ASTM D6109	ASTM D6109	ASTM D6109)
Sample simply supported		3-Point Bend	4-Point Bend	4-Point Bend	4-Point Bend	4-Point Bend	4-Point Bend
Test Span (l)	mm	280	450	450	450	600	600
MOR	MPa	36.0	36.0	36.0	36.0	36.0	36.0
MOE (Youngs Modulus)	MPa	4500	5430	5150	5150	5500	5500

Designing with ModWood

As a manufactured product, ModWood is much less variable than timber, being free of knots, cracks, grain and other sources of variation. It is also far more durable than untreated timber.

Unlike timber – which in engineering terms is a fibre-reinforced foam – ModWood is a solid product. It therefore requires pre-drilling to take nailing or screwing and is more sensitive to crush damage near edges and ends. Please follow the installation advice when using ModWood. Compared with natural timber, ModWood is strong in shear and shear-failure mechanisms that often limit design in natural timber do not apply to ModWood.

ModWood is highly durable and mechanical properties were found to be 90% retained in severe accelerated weathering tests that destroyed both hardwood and softwood natural timber product samples.

The failure mechanisms of interest to the designer are:

- Overload in bending – the long-term Failure Bending Moment can be estimated to be 90% of that obtained in the Test Results above. A Factor Safety of 4 is recommended.
- Acceptable deflection under load is a question for the designer. As a guide, Deflection should not exceed Span/150.
- Tear out from fixings – decking and screening boards are subject to expansion & contraction - it is critical to follow the fixing instructions.

Overhangs

The cantilevered or 'overhung' section of a ModWood board should never exceed 50% of the width of the board. This avoids the load-to-failure on the overhung section falling below the load-to-failure on the supported span. Some overhang may be useful to achieve other design objectives and to avoid additional supports in stairs and walkways.

Creep Factor 4.0

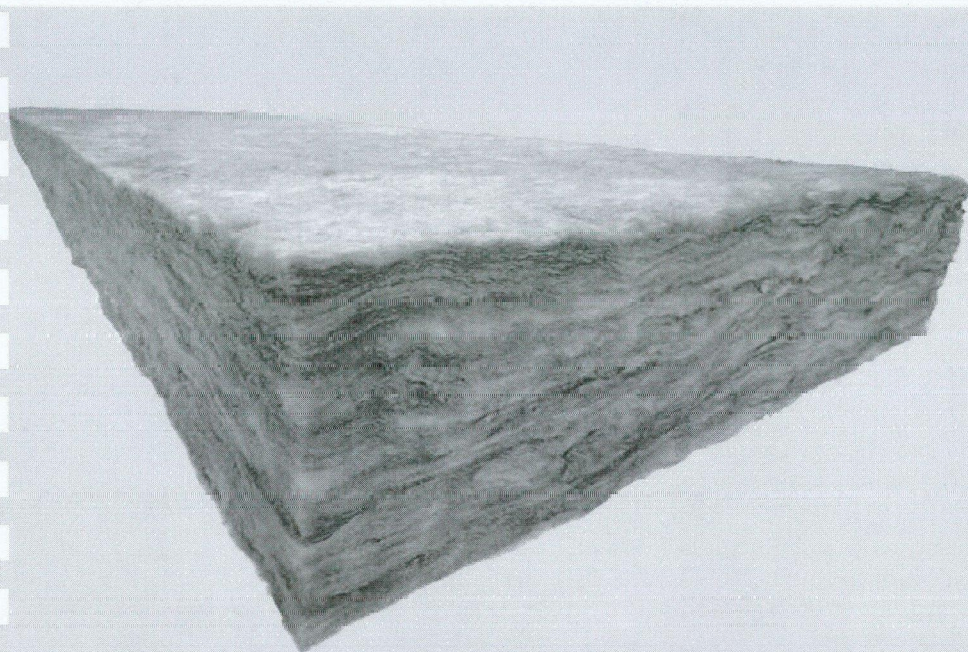
This factor has been measured by long-term loading tests in our Laboratory and is similar to reported data for other WPC products and green timber. A factor of 4.0 means that the long-term deflection from a significant point load (Concentrated Action) can be up to 4 times the short-term deflection. If you would like to have heavy items on your deck – such as planter boxes – then the loads are best located over the joists and sub-structure rather than applied mid-span to the boards.

Durability

ModWood product has been tested for over 7000 hours in an accelerated Weatherometer laboratory machine, with a cycle of intense UV radiation and high humidity, simulating over 15 years of outdoor weathering. Mechanical strength and stiffness properties were 90% retained – a far better performance than treated softwood and hardwood decking samples under the same test – these cracked and broke up to such an extent that mechanical properties could not be tested.

Workability

ModWood is kind to tools being easy-cutting. Keep tools sharp and use light cuts with minimal force to achieve a good finish.



November 2013

Earthwool Wall and Ceiling Batts

Description

Knauf Insulation's Earthwool® Wall and Ceiling Batts are made from highly resilient, inorganic glass fibres bonded by ECOSE® Technology, a revolutionary new binder based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals. ECOSE Technology reduces Knauf Insulation binder embodied energy and contains no phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

Application

Earthwool Wall and Ceiling Batts provide a cost-effective thermal and acoustical barrier for energy-efficient construction. The batts' consistent quality, low dust, and clean-cutting resilient wool makes installation fast. Earthwool Wall and Ceiling Batts can be used in timber frame applications in residential and commercial structures. Knauf Insulation offers Earthwool Wall and Ceiling Batts in a wide range of sizes.

Performance

Thermal Conductivity

ASTM C 518 and AS/NZS 4859.1: 2002

Thermal Resistance

ASTM C 653 and AS/NZS 4859.1: 2002

Technical Data

Water Vapour Absorption (ASTM C 1104)

- Less than 5% by weight.

Corrosion Resistance (ASTM C 665)

- No greater than sterile cotton.

Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

Fire Resistance (ASTM E 136)

- Non-combustible.

Earthwool Wall and Ceiling Batts

Specification Compliance

AS/NZS 4859.1: 2002 Materials used in the Thermal Insulation of Buildings and comply with the Building Code of Australia (BCA) requirements.

Bio-solubility

Glasswool insulation fibres have been tested in laboratory studies according to EC protocols ECB/ TM27 REV. 7, 1998 and shown to be bio-soluble. KNS3 fibres comply with the short term biopersistence test and fulfill the requirements of Australian and international authorities on biosolubility. Earthwool® products are BRANZ appraised.

Features and Benefits

Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission in the home when properly installed.

Durability

- Earthwool Wall and Ceiling Batts are odourless, rot proof, non-hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials feel good, cut easily and install fast.
- Low dust for easier handling and increased productivity.

Convenient Packaging, Easier Handling

- Earthwool Wall and Ceiling Batts are packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- Earthwool Wall and Ceiling Batt packages feature easy to follow installation instructions.
- Master bag insulation units (containing multiple packs) ensure reduced handling costs with improved compression – more square metres per bag, more square metres per truck load, fewer trips to the job site and less warehouse space for storage.

Superior Service and Support

- Knauf Insulation is totally focused on providing first class customer service, producing high quality product and 'on time in full' deliveries.
- Knauf Insulation recognises the need to establish, develop and support a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.

Environmental

Earthwool Wall and Ceiling Batts are free from CFCs, HCFCs and any other material with ozone depletion potential in the manufacture and content and represent no known threat to the environment. Earthwool Wall and Ceiling Batts' manufacture has low impact on the environment and is classified as Zero ODP and Zero GWP.

Knauf Insulation's Earthwool® products with ECOSE® Technology benefit from a formaldehyde-free binder made from rapidly renewable bio-based materials instead of petroleum-based chemicals which is up to 70% less energy intensive. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Earthwool products made with ECOSE Technology contain no dye or artificial colours – the colour is completely natural.



For more information please visit
www.knaufinsulation.com.au

Earthwool® Wall and Ceiling Batts

Wall Batts – Timber Frame	E-Code	Thickness (mm)	R-Value	Dimensions (mm)	Pieces per Pack	m ² Per Pack	kg Per Pack
	E2253	75	1.5	430x1160	42	20.9	11.6
	E2255	75	1.5	580x1160	42	28.3	15.6
	E3591	75	2.0 HD	430x1160	20	10.0	13.0
	E3592	75	2.0 HD	580x1160	20	13.5	17.5
	E2259	90	2.0	430x1160	32	16.0	13.5
	E2261	90	2.0	580x1160	32	21.5	18.3
	E4332	90	2.5 HD	430x1160	14	7.0	11.6
	E4333	90	2.5 HD	580x1160	14	9.4	17.0
	E4473	90	2.7 SHD	430x1160	10	5.0	12.2
	E4335	90	2.7 SHD	580x1160	10	6.7	16.5
	E4340	140	3.1	580x1160	22	14.8	19.4

HD = High Density SHD = Super High Density

Wall Batts – Metal Frame	E-Code	Thickness (mm)	R-Value	Dimensions (mm)	Pieces per Pack	m ² Per Pack	kg Per Pack
	E2254	75	1.5	450x1200	42	22.7	12.5
	E2257	75	1.5	600x1200	42	30.2	16.7
	E3594	75	2.0	450x1200	20	10.8	14.1
	E3595	75	2.0	600x1200	20	14.4	18.8
	E2260	90	2.0	450x1200	32	17.3	14.7
	E2262	90	2.0	600x1200	32	23.0	19.6

Ceiling Batts – Timber Frame	E-Code	Thickness (mm)	R-Value	Dimensions (mm)	Pieces per Pack	m ² Per Pack	kg Per Pack
	E2264	125	2.5	430x1160	30	15.0	13.8
	E2265	125	2.5	580x1160	30	20.2	18.6
	E2270	145	3.0	430x1160	23	11.5	13.2
	E2271	145	3.0	580x1160	23	15.5	17.8
	E2281	175	3.5	580x1160	21	14.1	18.2
	E4342	175	3.5	430x1160	21	10.5	13.4
	E2283	195	4.0	580x1160	18	12.1	18.4
	E4343	195	4.0	430x1160	18	9.0	13.6
	E2285	210	5.0	580x1160	11	7.4	17.7
	E4344	210	5.0	430x1160	11	5.5	13.2
	E2287	275	6.0	580x1160	11	7.4	18.3
	E4345	275	6.0	430x1160	11	5.5	13.6

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Email: tech@au.knaufinsulation.com

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For more information please visit
www.knaufinsulation.com.au

Permastop® Building Blanket

Making metal roofs better

Product description and typical applications

Permastop® Building Blanket is a high quality insulating product that features excellent thermal and acoustic performance. Permastop® Building Blanket is a glasswool insulation blanket faced on one side with Sisalation® reflective foil laminate that is non-permeable to moisture. A 150mm foil lap is provided on one side to allow the moisture barrier to be sealed. Permastop® Building Blanket is available in a wide range of Sisalation® foil facings.

Permastop® Building Blanket provides condensation control under metal deck roofs, behind wall cladding, and under concrete roof structures and reduces heat loads entering a building. It also provides an excellent solution for acoustic treatment of metal clad buildings by reducing internal reverberation and unwanted noise created by rain, hail, and the expansion and contraction of metal roofing and cladding.

In temperate and sub-tropical climates, Permastop® Building Blanket is installed with the foil facing down and the blanket in contact with the underside of the roof. In Darwin, foil-faced blanket is commonly installed with the foil side facing upwards, over an optional separate foil on the underside

AS/NZS 4859.1:
2002 - Including
Amendment 1
Materials for the
Thermal Insulation of
Buildings

Permastop® Building
Blanket comply with
the Energy Efficiency
provisions of the BCA
for all types of thermal
insulation to be certified
by a NATA accredited
organisation.



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ID Number: 100577



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PERMASTOP®
Making metal roofs better

Product Type	Product Thickness	Material R-value	Product Code	Dimensions m x mm	Area per roll m²
Permastop® Building Blanket	55	R1.3	912150	15 x 1200	18
	55	R1.3	912200	15 x 1400	21
	75	R1.8	913150	15 x 1200	18
	75	R1.8	912075	15 x 1400	21
	100	R2.5	914100	10 x 1200	12
	130	R3.0	930100	10 x 1200	18
Permastop® Light Duty Sisalation® Foil Facing	130	R3.2 *	930101	10 x 1200	12
	130	R3.6 *	930360	6.5 x 1200	7.8
	55	R1.3	917150	15 x 1200	18
	75	R1.8	918150	15 x 1200	18
	100	R2.5	919100	10 x 1200	12
	130	R3.0	931100	10 x 1200	12
Permastop® Medium Duty Sisalation® Foil Facing	130	R3.2 *	930201	10 x 1200	12
	130	R3.6 *	930362	6.5 x 1200	7.8
	55	R1.3	927150	15 x 1200	18
	75	R1.8	928150	15 x 1200	18
	100	R2.5	929100	10 x 1200	12
	130	R3.0	932100	10 x 1200	12
Permastop® Heavy Duty Sisalation® Foil Facing	130	R3.2 *	930301	10 x 1200	12
	130	R3.6 *	930364	6.5 x 1200	7.8

White and Black foil facings are available upon request. Contact your nearest sales office for details

*Permastop® Building Blanket 130mm R3.2 and R3.6 are respectively manufactured in increasing density to achieve the higher R-value.

Total R-values

A summary of Total R-values for typical roof systems is illustrated in the Permastop® Building Blanket brochure, or more comprehensive calculations can be viewed in the ICANZ Insulation Handbook which can be found at [www.icanz.org.au>PublicationsandReports>InsulationHandbook](http://www.icanz.org.au/PublicationsandReports/InsulationHandbook), or contact Fletcher Insulation® Technical Services on 1800 000 878

Green Star compliant

Fletcher Insulation® is committed to providing environmentally sustainable products. Fletcher Insulation® products have Zero Ozone Depleting Potential in both manufacture and composition, complying with the GreenStar Insulant ODP Emissions credit requirement. VOC emissions are low.

Fletcher
Insulation

We safely deliver extraordinary
value to our customers

AS1530.3 Early fire hazard properties of materials

Permastop® Building Blanket exhibits the following characteristics when tested in accordance with AS1530 Part 3.

Ignitability Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke Developed Index	1

Moisture absorption

In the event of Permastop® Building Blanket becoming wet, it should be dried prior to installation to obtain maximum performance and prevent damage to other building elements.

Alkalinity

When tested in accordance with British Standard 3958, Fletcher Insulation® glasswool products are slightly alkaline pH9 (neutral is pH7).

Maximum service temperature

Permastop® Building Blanket is manufactured for use at temperatures that are normally experienced in building systems. Permastop® Building Blanket maximum and minimum service temperatures range from sub-zero to a maximum of 340°C. The surface temperature of Permastop® Building Blanket faced with Sisalation® foil should not exceed 70°C.

Specification notes

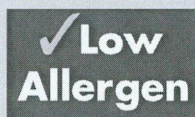
State the following:

- Product name - Permastop® Building Blanket
- Facing required - e.g. Sisalation® Light/Medium/Heavy Duty
- Material R-value required

Note: The Total R-value or thermal performance of building systems with reflective foils depends on the installation method used and the direction of heat flow.



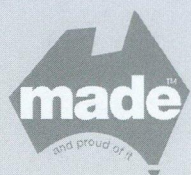
The production of environmentally sustainable FBS-1 Glasswool Bio-Soluble Insulation® utilises approximately 80% recycled waste glass.



Low Allergen content with the ability to moderate temperature changes.



Fletcher Insulation® glasswool products are manufactured from FBS-1 Glasswool Bio-Soluble Insulation®. FBS-1 Glasswool Bio-Soluble Insulation® is not classified as hazardous according to the criteria of the Australian Safety and Compensation Council (formerly NOHSC), Approved Criteria for Classifying Hazardous Substances (NOHSC: 1008) 3rd Edition. Fletcher Insulation® glasswool is classified as safe to use, refer to our MSDS.



Fletcher
Insulation

Freecall SALES **1300 65 44 44** Technical Services **1800 000 878**
Email info@insulation.com.au Web www.insulation.com.au

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CONTRACTOR LICENCE

Carpenter & Joiner



Fair
Trading

RYAN GRANT MCEWAN

45 Mansfield Way
KELLYVILLE NSW 2155

NUMBER
208355C

EXPIRES
08/09/2017

Q

Slip Check to AS 4586:2013
Pietra White Matt 300 x 600mm

NATA Accreditation Number 17139

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

Accredited for compliance with ISO/IEC 17025

NATA is a signatory to the APLAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports

17 November 2015

Test Report No. R9756

Slip Resistance Classification of New Pedestrian Surface Materials

AS 4586:2013 Appendix A (Wet Pendulum Test)

The slip resistance Classification has been determined for unused surfaces using specific conditions. Factors such as usage, cleaning systems, applied coatings and patterns of wear may affect the characteristics of the surface.

Requested by: Royal Tiles Pty Ltd
Client Address: 247 Parramatta Road
Auburn NSW 2144
Product Manufacturer: Supplied by Royal Tiles Pty Ltd
Product Description: Pietra White Matt 300 x 600mm

Test conducted according to: AS 4586:2013 Appendix A
Location: Slip Check Pty Ltd Test Facilities, Blacktown NSW 2148
Conducted by: Clare Spinelli

Date:	16 November 2015	Temperature:	21°C
Sample:	Unfixed	Cleaning:	None
Rubber slider used:	Slider 55	Conditioned:	Grade P 400 paper dry followed by wet lapping film
Slope of specimen:	Tested on a flat level surface		
Direction of Test:	NA		

	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
Mean BPN of last 3 swings:	46	44	43	44	44

Reported SRV of Sample:	44
Temperature Corrected SRV of Sample:	44
Class:	P4



Ryan Voorderhake
Laboratory/Field Technician

Slip Check to AS 4586:2013

Pietra White Matt

NATA Accreditation Number 17139

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

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1 September 2015

Test Report No. R9306b

Slip Resistance Classification of New Pedestrian Surface Materials

AS 4586:2013 Appendix A (Wet Pendulum Test)

The slip resistance Classification has been determined for unused surfaces using specific conditions. Factors such as usage, cleaning systems, applied coatings and patterns of wear may affect the characteristics of the surface.

Requested by: Royal Tiles Pty Ltd
Client Address: 3 Cox Place
Glendenning NSW 2761
Product Manufacturer: Supplied by Royal Tiles
Product Description: Pietra White Matt

Test conducted according to: AS 4586:2013 Appendix A
Location: Slip Check Pty Ltd Test Facilities, Blacktown NSW 2148
Conducted by: Clare Spinelli

Date:	31 August 2015	Temperature:	18°C
Sample:	Unfixed	Cleaning:	None
Rubber slider used:	Slider 55	Conditioned:	Grade P 400 paper dry followed by wet lapping film
Slope of specimen:	Tested on a flat level surface		
Direction of Test:	NA		

	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
Mean BPN of last 3 swings:	35	33	34	38	36

Reported SRV of Sample:	35
Temperature Corrected SRV of Sample:	35
Class:	P3



Ryan Voorderhake
Laboratory/Field Technician

Slip Check to AS 4586:2013

Pietra White Textured

NATA Accreditation Number 17139

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

Accredited for compliance with ISO/IEC 17025

NATA is a signatory to the APLAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports

1 September 2015

Test Report No. R9306a

Slip Resistance Classification of New Pedestrian Surface Materials

AS 4586:2013 Appendix A (Wet Pendulum Test)

The slip resistance Classification has been determined for unused surfaces using specific conditions. Factors such as usage, cleaning systems, applied coatings and patterns of wear may affect the characteristics of the surface.

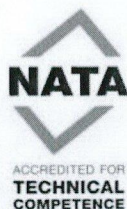
Requested by: Royal Tiles Pty Ltd
Client Address: 247 Parramatta Road
Auburn NSW 2144
Product Manufacturer: Supplied by Royal Tiles
Product Description: Pietra White Textured

Test conducted according to: AS 4586:2013 Appendix A
Location: Slip Check Pty Ltd Test Facilities, Blacktown NSW 2148
Conducted by: Clare Spinelli

Date:	31 August 2015	Temperature:	18°C
Sample:	Unfixed	Cleaning:	None
Rubber slider used:	Slider 55	Conditioned:	Grade P 400 paper dry followed by wet lapping film
Slope of specimen:	Tested on a flat level surface		
Direction of Test:	NA		

	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
Mean BPN of last 3 swings:	51	52	56	56	53

Reported SRV of Sample:	54
Temperature Corrected SRV of Sample:	54
Class:	P5



Ryan Voorderhake
Laboratory/Field Technician