



01 March 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: 142440/2
DATE DETERMINED: 01/03/17

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 142440/2

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: 409345 10/04/17

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 Warrivood Post Code 2102

DESCRIPTION OF DEVELOPMENT

Detailed Description:

ILU # 40, 41, 42, 43, 44 & 45

Building Code of Australia Classification

Existing 1a Proposed _____

RELEVANT CONSENTS

Development Consent:

DA No. N0267/13/S96/3 Date 5.10.2016

Construction Certificate /

Complying Development Certificate:

CC/CDC No. 142440/3 Date 16.10.2016

APPLICANT*

Name of person having benefit of the development consent:

Name Ian Vallenhine Company ARV

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 0419162520 Email ian.vallenhine@arv.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 17 February 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).

<input type="checkbox"/>	Development consent OR Complying Development Certificate (Previously lodged)	<input type="checkbox"/>	Individual fire safety certificates (as applicable)	<input type="checkbox"/>	Each BASIX certificate for the development.
<input checked="" type="checkbox"/>	Construction certificate	<input type="checkbox"/>	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 – IOC3
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: 19/2/2017

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 supply and 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 supply and 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:

Date:.....

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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 Calear
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 (Class1a)

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: 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:  Date: 10/2/2017

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 40, 41 and 44, 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 42, 43 and 45, 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.

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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:	GEORGE FERGUSON
Company:	DISCOUNT CLOTHESLINES
Company Address:	21 ONTARIO AVENUE ST. CLAIR NSW 2759
Phone:	0415 926 933
Fax:	
Email:	DISCOUNTCLOTHESLINES@SWIFTDSL.COM.AU
Qualifications & Experience:	30 YEARS

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: 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, 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: _____

23/02/17

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.



Compliance Certificate

R1.0 Insulated Flexible Duct

Airfoil 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 Inde: 0	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

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):

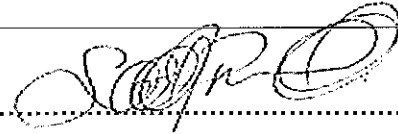
Name:	Scott Russell
Company:	5RC Contracting Pty Ltd
Company Address:	PO Box 255 Newport Beach NSW 2160
Phone:	0424 141 448
Fax:	N/A
Email:	srccontracting@live.com
Qualifications & Experience:	License # 261365C

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: 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.....20/01/17.....

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: 2015-09-000018267SHR Phone Number: 1300 855 822

Building Details

Installation Date: 7 September 2015
Installation Address: 8 McPherson Street - Unit 40
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	<input type="text" value="0"/> m ²	HomeGuard PB Red Installed	<input type="text" value="61"/> l/m		
HomeGuard DPC Red Installed	<input type="text" value="0"/> l/m	HomeGuard GT Installed	<input type="text" value="0"/> kg		
HomeGuard FlexiCollars Installed 100mm	<input type="text" value="18"/> qty	50mm	<input type="text" value="0"/> qty	40mm	<input type="text" value="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. Alan* Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

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: 2015-10-000018268SHR Phone Number: 1300 855 822

Building Details

Installation Date: 6 October 2015
Installation Address: 8 McPherson Street - Unit 41
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	<input type="text" value="0"/> m ²	HomeGuard PB Red Installed	<input type="text" value="56"/> l/m		
HomeGuard DPC Red Installed	<input type="text" value="0"/> l/m	HomeGuard GT Installed	<input type="text" value="0"/> kg		
HomeGuard FlexiCollars Installed 100mm	<input type="text" value="18"/> qty	50mm	<input type="text" value="0"/> qty	40mm	<input type="text" value="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



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

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

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: 2015-10-000018269SHR Phone Number: 1300 855 822

Building Details

Installation Date: 6 October 2015
Installation Address: 8 McPherson Street - Unit 42
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	<input type="text" value="0"/> m ²	HomeGuard PB Red Installed	<input type="text" value="64"/> l/m		
HomeGuard DPC Red Installed	<input type="text" value="0"/> l/m	HomeGuard GT Installed	<input type="text" value="0"/> kg		
HomeGuard FlexiCollars Installed 100mm	<input type="text" value="18"/> qty	50mm	<input type="text" value="0"/> qty	40mm	<input type="text" value="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. Thano* Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

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: 2015-09-000018270SHR Phone Number: 1300 855 822

Building Details

Installation Date: 25 September 2015
Installation Address: 8 McPherson Street - Unit 43
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	<input type="text" value="0"/> m ²	HomeGuard PB Red Installed	<input type="text" value="73"/> l/m		
HomeGuard DPC Red Installed	<input type="text" value="0"/> l/m	HomeGuard GT Installed	<input type="text" value="0"/> kg		
HomeGuard FlexiCollars Installed 100mm	<input type="text" value="18"/> qty	50mm	<input type="text" value="0"/> qty	40mm	<input type="text" value="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: *[Signature]* Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

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: 2015-09-000018271SHR Phone Number: 1300 855 822

Building Details

Installation Date: 25 September 2015
Installation Address: 8 McPherson Street - Unit 44
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	<input type="text" value="0"/> m ²	HomeGuard PB Red Installed	<input type="text" value="64"/> l/m		
HomeGuard DPC Red Installed	<input type="text" value="0"/> l/m	HomeGuard GT Installed	<input type="text" value="0"/> kg		
HomeGuard FlexiCollars Installed 100mm	<input type="text" value="18"/> qty	50mm	<input type="text" value="0"/> qty	40mm	<input type="text" value="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: *[Signature]* Date: 27/5/16

For more information call Rentokil on 1300 855 822

www.rentokilpestcontrol.com.au

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: 2015-10-000018272SHR Phone Number: 1300 855 822

Building Details

Installation Date: 1 October 2015
Installation Address: 8 McPherson Street - Unit 45
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	<input type="text" value="0"/> m ²	HomeGuard PB Red Installed	<input type="text" value="64"/> l/m		
HomeGuard DPC Red Installed	<input type="text" value="0"/> l/m	HomeGuard GT Installed	<input type="text" value="0"/> kg		
HomeGuard FlexiCollars Installed 100mm	<input type="text" value="19"/> qty	50mm	<input type="text" value="0"/> qty	40mm	<input type="text" value="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

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:	Trade-qualified concreter + licenced

Hereby certify that the following aspect:

builder (no. 211901C)

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: 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: 11/01/2017



Screw Pile Installation

Certificate of Compliance

Form
2

1. Project Information	<table style="width: 100%;"> <tr> <td style="width: 50%;">Builder PBS Building (NSW) P/L</td> <td style="width: 50%;">Builder's Supervisor Peter Carter</td> </tr> </table>	Builder PBS Building (NSW) P/L	Builder's Supervisor Peter Carter										
Builder PBS Building (NSW) P/L	Builder's Supervisor 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) - <table style="width: 100%;"> <tr> <td style="width: 30px;"><input checked="" type="checkbox"/></td> <td>Screw piles in accordance with AS 2159</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Designed & Constructed in accordance with plans and specifications issued.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Other (provide details)</td> </tr> </table> Design, Supply & Installation of compression screw piles in accordance with above drawings.	<input checked="" type="checkbox"/>	Screw piles in accordance with AS 2159	<input checked="" type="checkbox"/>	Designed & Constructed in accordance with plans and specifications issued.	<input type="checkbox"/>	Other (provide details)						
<input checked="" type="checkbox"/>	Screw piles in accordance with AS 2159												
<input checked="" type="checkbox"/>	Designed & Constructed in accordance with plans and specifications issued.												
<input type="checkbox"/>	Other (provide details)												
4. Installation Details	When was the request for installation made? Date <input type="text" value="July-15"/> When was the installation started? Date <input type="text" value="Aug-15"/> When was the installation completed? Date <input type="text" value="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. <table style="width: 100%;"> <tr> <td colspan="2">Company Name Helcon Contracting Australia Pty Ltd</td> </tr> <tr> <td>Name Brian Carpenter</td> <td>Licence Number 253147C</td> </tr> <tr> <td>Phone Number 02 9516 5093</td> <td>Fax Number 02 9516 5193</td> </tr> <tr> <td colspan="2">Address Unit 10 / 45-51 Huntley Street, ALEXANDRIA</td> </tr> <tr> <td></td> <td>Postcode 2015</td> </tr> <tr> <td>Signature </td> <td>Date 25-02-16</td> </tr> </table>	Company Name Helcon Contracting Australia Pty Ltd		Name Brian Carpenter	Licence Number 253147C	Phone Number 02 9516 5093	Fax Number 02 9516 5193	Address Unit 10 / 45-51 Huntley Street, ALEXANDRIA			Postcode 2015	Signature 	Date 25-02-16
Company Name Helcon Contracting Australia Pty Ltd													
Name Brian Carpenter	Licence Number 253147C												
Phone Number 02 9516 5093	Fax Number 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

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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):

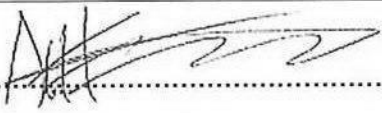
Name:	Francesco Salvatore Difranco
Company:	Global Bricklaying Holdings Pty Ltd
Company Address:	7 Main Street, Lithgow NSW 2790
Phone:	0425 268 064
Fax:	N/A
Email:	gbhcontracting@bigpond.com
Qualifications & Experience:	231903C – Builder – 15 years experience

Hereby certify that the following aspect:

MASONRY WORK (Class 1a)

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: **23.02.2017**

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):

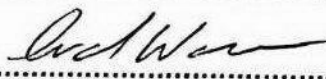
Name:	Grant Worner
Company:	Renrow steel
Company Address:	PO BOX 4129 HAWKER 2614
Phone:	0439 604 943
Fax:	
Email:	Grant Worner
Qualifications & Experience:	Boilermaker / site manager 10 years r

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: 16/1/17



APPRENTICESHIP AND TRADESMANSHIP
ACT, 2001

TCID No. 8382751

Cert No. 2007/292708

Certificate of Proficiency

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

GRANT WORNER

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

Engineering (Fabrication) Certificate III

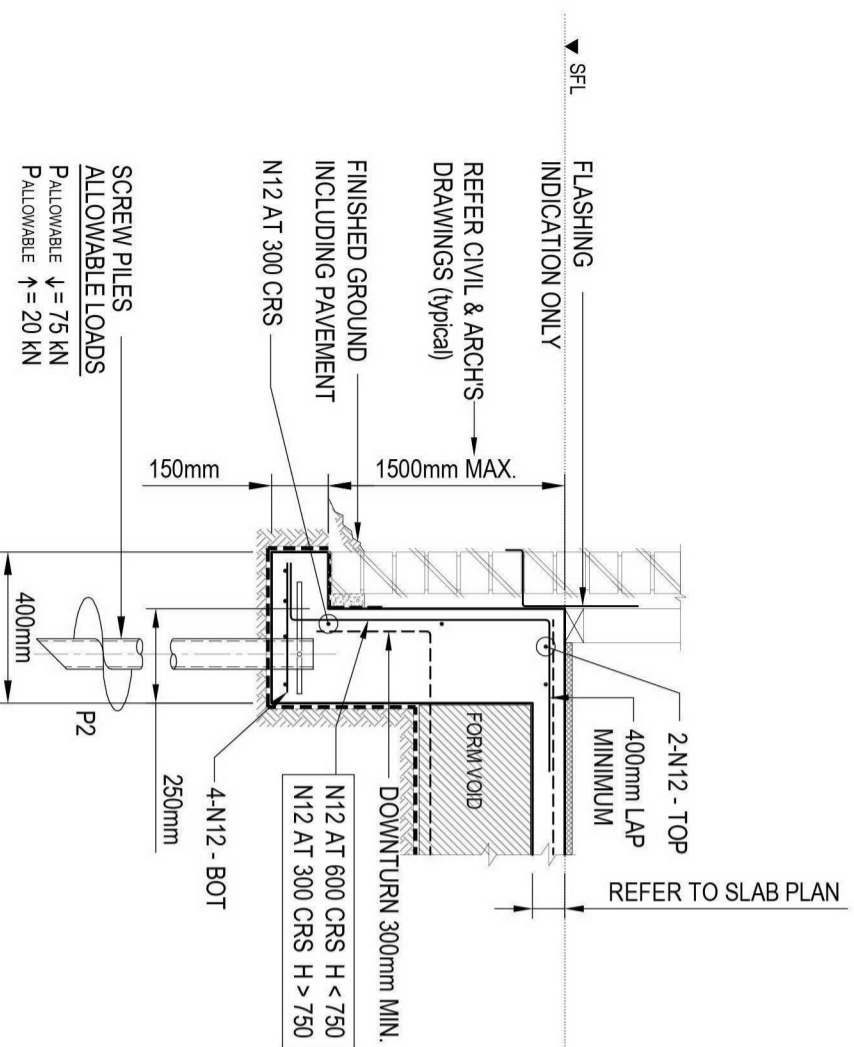
The apprenticeship was completed on 29 November 2006

Commissioner's Signature

Director General (Crafts) 2307

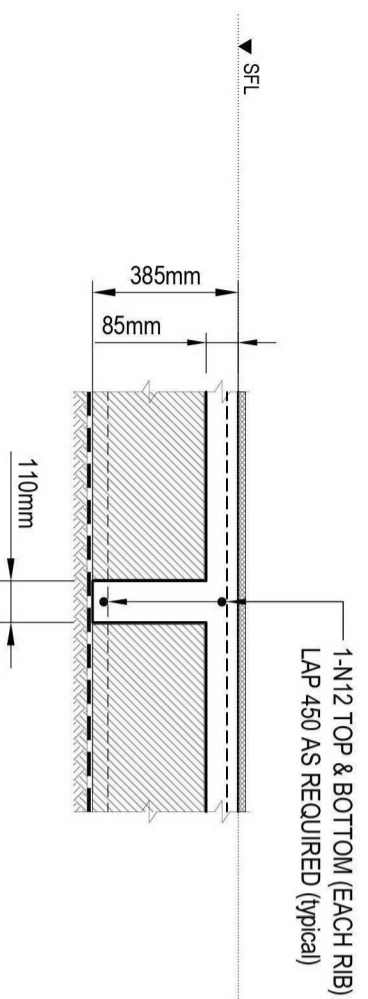


APPRENTICESHIP AND TRADESMANSHIP ACT, 2001



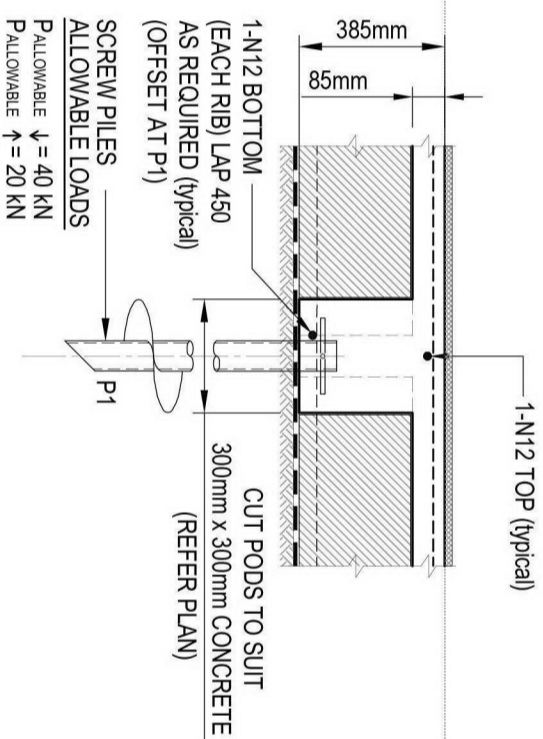
GB1* - DROP GROUND BEAM

REFER ARCHITECTURAL AND CIVIL DRAWINGS FOR LOCATION



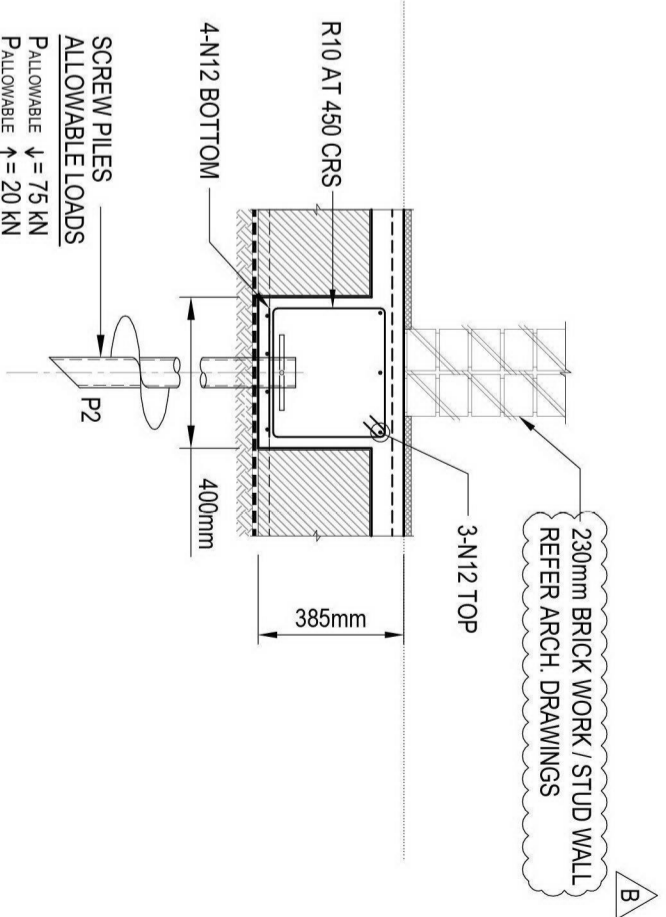
TYPICAL INTERNAL RIB

SCALE 1:20 @ A3



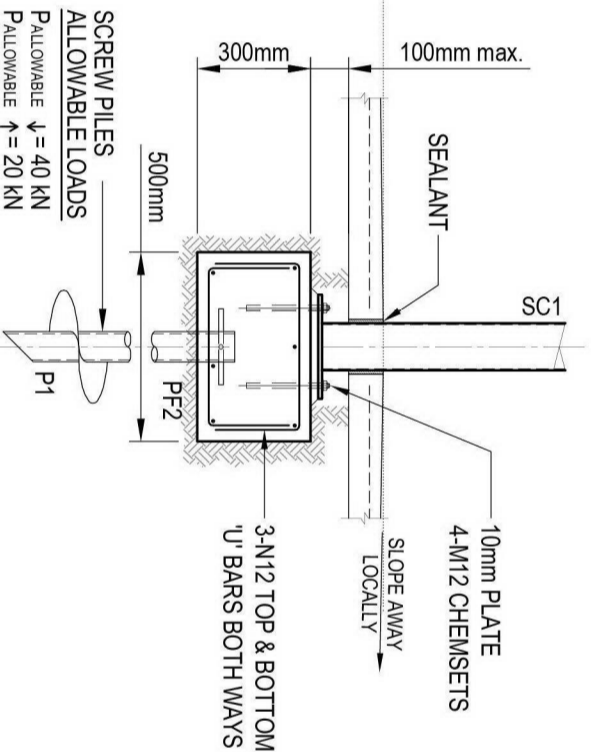
TYPICAL PILES - 'P1' DETAIL

SCALE 1:20 @ A3



TYPICAL INTERNAL BEAM 'IB4*'

SCALE 1:20 @ A3



TYPICAL PAD FOOTING DETAIL - 'PF2'

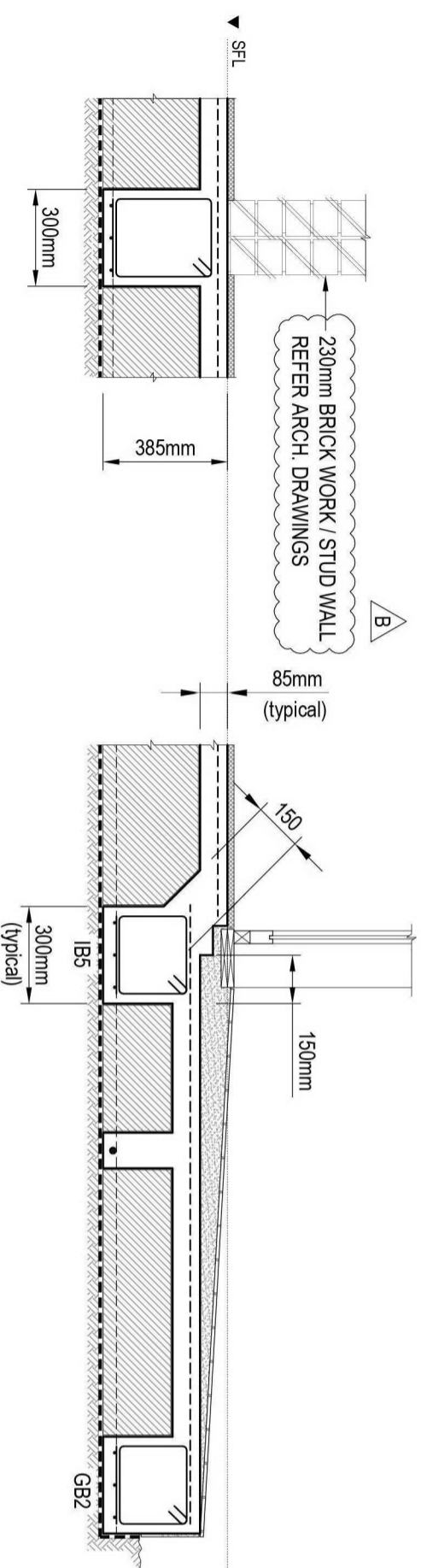
[SC1 - 125 X 125 X 4.0 SHS H.D.GALV OR EQUIV. PAINT]

SCALE 1:20 @ A3

FOR CONSTRUCTION

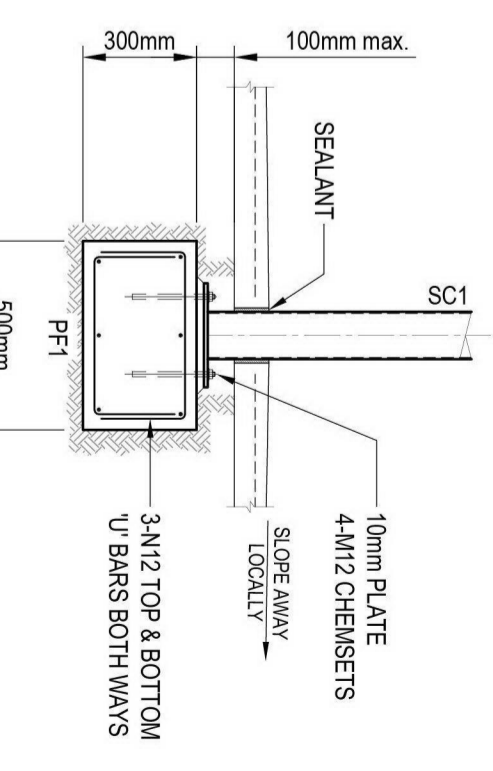
REVISION		AMENDMENT	DATE
01	ISSUED FOR PRELIMINARY		01-08-2014
02	ISSUED FOR TENDER		15-08-2014
A	ISSUED FOR CONSTRUCTION		02-02-2015
B	REVISED AS CLOUDED		18-02-2015

Client	ARV					
Architect	ENVIRONA STUDIO					
Level 5, 79 Victoria Avenue Chatswood NSW 2087	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					
Title	SLAB ON PILE DETAILS SHEET 2					
Drawn	MAG	Designed	DK	Date	JULY 2014	
Checked	DK	Approved	RK	Scale	1:20 @ A3	
Drawing number:				12693 - S7.01	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

Client	ARV	Level 5, 79 Victoria Avenue Chatswood NSW 2087	Telephone +61 2 9417 8400	 henry&hymas	Project	ANGLICAN RETIREMENT VILLAGES 8 MACPHERSON ST. WARRIEWOOD, NSW	Drawn	MAG	Designed	DK	Date	JULY 2014
Architect	ENVIRONA STUDIO	79 Victoria Avenue Chatswood NSW 2087	Facsimile +61 2 9417 8337		 Call to Action	Title	SLAB ON GROUND DETAILS SHEET 2	Checked	DK	Approved	RK	Scale
Revision	AMENDMENT	DATE	Web www.henryandhymas.com.au				Drawing number:					Revision
B	REVISED AS CLOUDED	18-02-2015					126993 - S6.01					B
A	ISSUED FOR CONSTRUCTION	02-02-2015										
02	ISSUED FOR TENDER	15-08-2014										
01	ISSUED FOR PRELIMINARY	01-08-2014										

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.

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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):

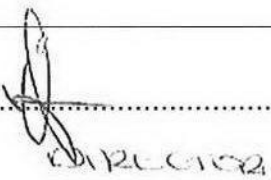
Name:	VINCE JENKINS
Company:	ALL ASPECTS ROOFING & GUTTERS
Company Address:	½ BON MACE CLOSE, BERKELEY VALE NSW 2261
Phone:	0438 278 985
Fax:	4389 3137
Email:	ALLASPECTSROOFINGSUPPLIES@GMAIL.COM
Qualifications & Experience:	LICENSE NO. 272687C

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: 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: 15/2/17

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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:	
Email:	rgmcarpentry@hotmail.com
Qualifications & Experience:	Licensed Carpenter & Joiner #208355C

Hereby certify that the following aspect:

TIMBER FRAMING (Class 1a)
WALL CLADDING (Class 1a)
WINDOWS INSTALLATION (Class 1a)
HINGED DOOR INSTALLATION (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: N0267/13/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
(i)	Exclusions:	Yes / No If Yes.....

Signature:  Date: 11/2/17

Blue Mountains Shower Screens

Unit 7, 118-120 Somers Street Lawson NSW 2783

Abn 30 669 758 510

Licence 214991C

Glazing Compliance Certificate

BMSSGC 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 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

Blue Mountains Shower Screens

Unit 7, 118-120 Somers Street Lawson NSW 2783

Abn 30 669 758 510

Licence 214991C

Glazing Compliance Certificate

BMSSGC 0193

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: 16 December 2016

Reference: Quotes 4861

Invoice Numbers: BMSS2296

Address: Units 41, 43, 44.

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 16 December 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 16 December 2016

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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 NSW 2128
Phone:	02 9737 9555
Fax:	02 9648 5955
Email:	doug@naturallighting.com.au
Qualifications & Experience:	License Number 202066C

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: 16-2-17

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.

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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 Tleige
Company:	Elite Tile Projects
Company Address:	17 Mortimer Close, Celcil 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 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: **22.02.17**

INSTALLATION / COMPLETION CERTIFICATION

PROJECT	ARV Warriewood – Stage 5 – IOC3
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:	

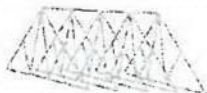
Hereby certify that the following aspect:

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: 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: 12.12.17



ABN: 32 074 794 148

MiTek Australia Ltd - MiTek20/20 v4.82 p15 (Build 2345) BCA 2015

99 Mulgrave Rd.
Mulgrave
NSW 2756
Ph: (02) 4577.2755
Fax: (02) 4587.8215
trueformframes@bigpond.com.au

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

Date - 07 Oct 2015 09:41:37

Client - PBS BUILDING - , ,

Job Reference - 9013

UNIT - 45

Site - SINGLE STORY ROOF - UNIT 45 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



ABN: 32 074 794 148

MiTek Australia Ltd - MiTek20/20 v4.82 p15 (Build 2345) BCA 2015

99 Mulgrave Rd.
Mulgrave
NSW 2756
Ph: (02) 4577.2755
Fax: (02) 4587.8215
trueformframes@bigpond.com.au

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

Date - 29 Sep 2015 14:37:11

Client - PBS BUILDING - , ,

Job Reference - 9013

UNIT. 44

Site - SINGLE STORY ROOF - UNIT 44 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.

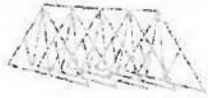
These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

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



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

Date - 29 Sep 2015 08:12:56

Client - PBS BUILDING - , ,

Job Reference - 9013

Site - SINGLE STORY ROOF - ILU 43 TYPE D * 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. 43

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



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

Date - 07 Oct 2015 17:10:05

Client - PBS BUILDING - , ,

Job Reference - 9013

Site - SINGLE STORY ROOF - UNIT 42 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

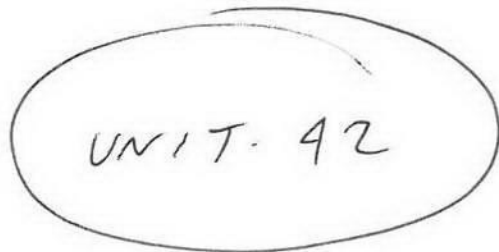
Internal Pressure Coefficient: 0.20

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.

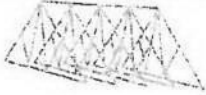
These trusses should be erected, fixed, and braced in accordance with Australian Standard AS4440, specifications published by MiTek Australia Ltd., and any other requirements supplied by the truss manufacturer.

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



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

Date - 08 Oct 2015 15:32:32

Client - PBS BUILDING - , ,

Job Reference - 9013

Site - SINGLE STORY ROOF - UNIT 41 STAGE 5, NO 8 MACPHERSON ST WARRIEWOOD

UNIT-41 - TYPE (F)

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



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

Date - 19 Aug 2015 12:16:01

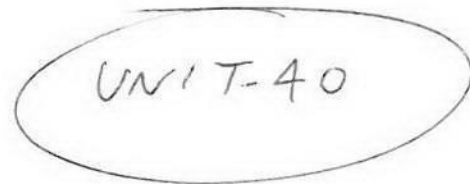
Client - PBS BUILDING - , ,

Job Reference - 9012

Site - SINGLE STORY ROOF - ILU 40 TYPE CR 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

STATEMENT OF COMPLIANCE

PROJECT	ARV Warriewood – Stage 5 – IOC3
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 (Class 1a)
Natural Lighting (Class 1a)
Kitchen Cooktop/oven (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):	
(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: 28/02/17

(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: 28/02/17

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

STATEMENT OF COMPLIANCE

PROJECT	ARV Warriewood – Stage 5 – IOC3
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 (Class 1a) THERMAL COMFORT (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):	
(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: 29/02/17

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: 24/02/17



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



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

28th February 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 40-45 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 40-45 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,
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



DESIGN STATEMENT OF COMPLIANCE No4

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: <ul style="list-style-type: none"> ILUs 40-45 			

Certification:

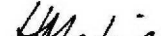
DA Item No.	Tick box for items to be certified (✓)	Detail of Condition of Consent or Design Standard (BCA AS1428.1 etc)	Verification Method
B26 C21	✓	2 visitor parking spaces complying with AS 2890.6 shall be provided – 1 at the community centre and 1 near the main entrance	Inspection
C17	✓	Confirmation 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: 23rd January 2017

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	: roi.ciftci@pbsbuilding.com.au
email:	
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	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

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

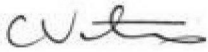
1. Structural engineer certification must be submitted certifying the structural component of the slab, compliance with the certified plans and relevant Australian Standards applicable to the works.
2. Top of all screw piers are to have reo bars inserted as per the engineer's detail.
3. Complete all 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
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, Screw piers & Slab steel
Date Inspected	: 22/09/15
	Time Requested: 5.30pm

RESULT OF INSPECTION

Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

Frame - Unit 1

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 and certified by the engineer.
3. All building fabric thermal insulation to the external walls are to have a continuous barrier with the ceilings and the walls complying with BCA 3.12.1. Sheet overlaps are to be a maximum 150mm or taped.

Wet areas - Units 2 & 3

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.

Stormwater - Unit 15

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.

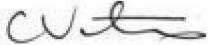
Piers - Units 46, 47, 48, 49, 50 & 52

Structural engineer certification must be submitted certifying the structural component of screw piers, compliance with the certified plans and relevant Australian Standards applicable to the works.

Slab Steel - Unit 43

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. Termite protection required to all plumbing risers. Ensure all termite collars are installed up near the reinforcement and not near the membrane. Provide certification of all termite control measures.
3. Top of all screw piers are to have reo bars inserted as per the engineer's detail.
4. Complete all reinforcement, waffle pods and chair spacing to engineer's details.
5. All instructions by the engineer are to be carried out prior to pouring.
6. 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	:	23 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 and slab steel
Date Inspected	: 30/09/15
	Time Requested: 11.00am

RESULT OF INSPECTION

Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

Frame - Units 10, 11 & 12

SARKING IS TO BE COMPLETELY INSTALLED FOR FUTURE FRAME INSPECTIONS.

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 and certified by the engineer.
3. All building fabric thermal insulation to the external walls are to have a continuous barrier with the ceilings and the walls complying with BCA 3.12.1. Sheet overlaps are to be a maximum 150mm or taped.

Wet areas - Units 22 & 23

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 43

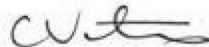
In-situ reinforcement for the slab inspected prior to pouring concrete. The layout is consistent with the CC approved plans.

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. 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

:

30 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

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		
Date Inspected	: 01/10/15	Time Requested:	5.30pm

RESULT OF INSPECTION

Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/>
		No <input type="checkbox"/>

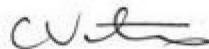
Slab - Units 17 & 45

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. Expansion joint required between unit 17 & 16.
3. Reinforcement and trimmer bars to be completed as per engineers detail for unit 45.
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 : 07 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 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		
Date Inspected	: 01/10/15	Time Requested:	5.30pm


RESULT OF INSPECTION

Satisfactory	<input checked="" type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/>
		No <input type="checkbox"/>

Slab - Unit 44

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

- Satisfactory.

Signature	:	
Inspected by	:	Brendan Bennett
Accreditation No.	:	BPB 0027
Date	:	07 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, 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	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

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

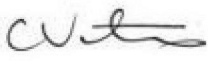
In-situ reinforcement for the slab inspected prior to pouring concrete.

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	: 05/11/15
	Time Requested:

RESULT OF INSPECTION

Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

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

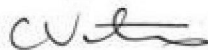
In-situ reinforcement for the slab inspected prior to pouring concrete.

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

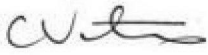
Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

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	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/>
		No <input type="checkbox"/>

Wet areas - Units 34, 35, 37 & 40

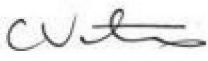
Wet areas inspected prior to covering. Certification of installation in accordance with AS3740 - 2010 must be submitted to City Plan Services prior the issue of an Occupation Certificate. Installation to be in accordance with the product manufacturer specification.

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	
Date Inspected	: 01/02/16	Time Requested: 8.00am

RESULT OF INSPECTION

Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input checked="" type="checkbox"/>	Re-inspection required Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Frame - Units 41, 43 & 44

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.

Unit 41

1. Shear blocks are to be installed to all internal bracing walls. Suitable installation method is attached to the bracing detail.
2. CT 600 cyclone ties are to be installed to truss connecting top plate over kitchen.
3. CT 600 cyclone ties are required at both ends girder truss over the lounge/dining.
4. CT 600 cyclone ties are required at both ends of all 3 trusses over carport/ garage.
5. CT 600 cyclone ties are required to both trusses at external wall over bedroom 1.
6. CT 600 (fixed under type) ties are required to both ends of double girder over bedroom 2/garage.
7. CT 600 (fixed under type) ties are required at both ends of first truss at carport eave.
8. Triple grips are required to top of girder truss over lounge/dining.
9. Triple grips required connecting bottom chord of truss to top plate over lounge/dining.
10. Triple grips required connecting bottom chord of first truss to supporting beam over the carport.
11. Tie down bolts are required to be installed as per the bracing detail along the Southern elevation and internal walls.

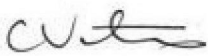
12. Engineer to inspect and certify missing speed brace over carport area.

Unit 43

1. Shear blocks are to be provided to all internal bracing walls and centrally located. Suitable installation method is attached to the bracing detail D*101.
2. CT 14 cyclone ties are to be provided to both double girders on the Northern elevation.
3. Triple grips are to be provided connecting truss to hip rafters over bedroom 2.
4. Cyclone tie (fixed under type) is to be provided to the girder sitting over the top plate of garage/carport.

Unit 44

1. Triple grips are required to top of girder over deck area and to bottom chords of truss connecting to top plate over lounge/dining.
2. Triple grips are required to first truss over carport connecting bottom chord to supporting beam.
3. CT 600 cyclone tie is required to both ends of girder truss over lounge/dining.
4. CT 600 cyclone tie is required to truss connecting to top plate over kitchen/outdoor area.
5. CT 600 ties are required to both ends of all 3 trusses over carport/garage area.
6. CT 600 cyclone ties are required at external wall ends to both girders over bedroom 1.
7. CT 600 cyclone tie (fixed under type) is required at both ends of girder over carport on first truss and double girder over garage/entry.
8. Engineer to inspect and certify missing speed brace over carport and bedroom 1.

Signature	:	
Inspected by	:	Clayton Votano
Accreditation No.	:	BPB 2307
Date	:	01 February 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	
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	
Date Inspected	: 2 March 2016	Time Requested:

RESULT OF INSPECTION

Satisfactory	<input checked="" type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

ILU's 40, 41, 42, 43, 44 & 45

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 AS/NZS 3500.3-2003.

Signature : 

Inspected by* : Brendan Bennett

Accreditation No. : BPB 0027

Date : 4 March 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	: 30/03/16	Time Requested: 9.00am

RESULT OF INSPECTION

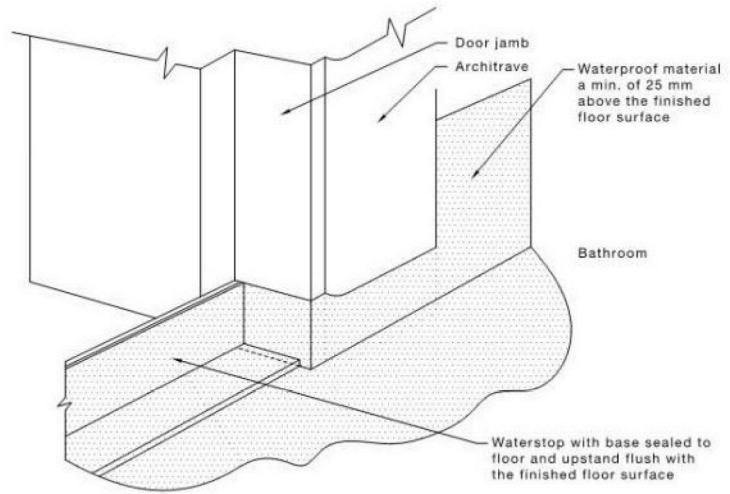
Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>


Wet areas - Units 43, 49 & 52

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. Waterstops are to be provided to all wet area doorways including external laundry doors.
2. Waterstops to units 43 & 52 are to be installed as per AS 3740 – 2010.



Signature : 

Inspected by : Clayton Votano

Accreditation No. : BPB 2307

Date : 30 March 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	
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	: 17/11/16	Time Requested:

RESULT OF INSPECTION

Satisfactory	<input type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input checked="" type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

Units inspected – 41, 42, 44 & 45

Wet areas - Unit 41

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. Provide details of the product manufacturer specification for the waterproofing product (Kodex).
Ensuite
2. Apply another application of waterproofing to shower area wall due to light 2nd coat.
3. Apply membrane over water stop angle at doorway.
Bathroom
4. Gap under tap to shower area to be sealed and waterproofed.



Laundry

5. Apply membrane over water stop angle at doorway

Wet areas - Unit 44

Ensuite

1. Apply another application of waterproofing to shower area wall due to light 2nd coat.

Bathroom

2. Waterproofing touch up in shower area required (nail removal).

Laundry

3. Fill hole under water stop angle at doorway.
4. Termite barrier protruding at bottom of wall is to be cut back and waterproofing re-applied at wall/floor junction.



5. Split in membrane and few pinholes at wall/floor junction. Waterproofing touch ups required.

Signature

:

Inspected by

:

Brendan Bennett

Accreditation No.

:

BPB 0027

Date

:

17 November 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.*

N:\CPCertification\CPC2014\14-2440 Stage 4-6, 6-14 Macpherson Street Warriewood\9. PCA Role\Inspections\Wet areas\IR161111.1 - Wet areas.doc
Revision 2

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	: 28 February 2017
Time Requested:	:

RESULT OF INSPECTION

Satisfactory	<input checked="" type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

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

Signature : 

Inspected by* : Brendan Bennett

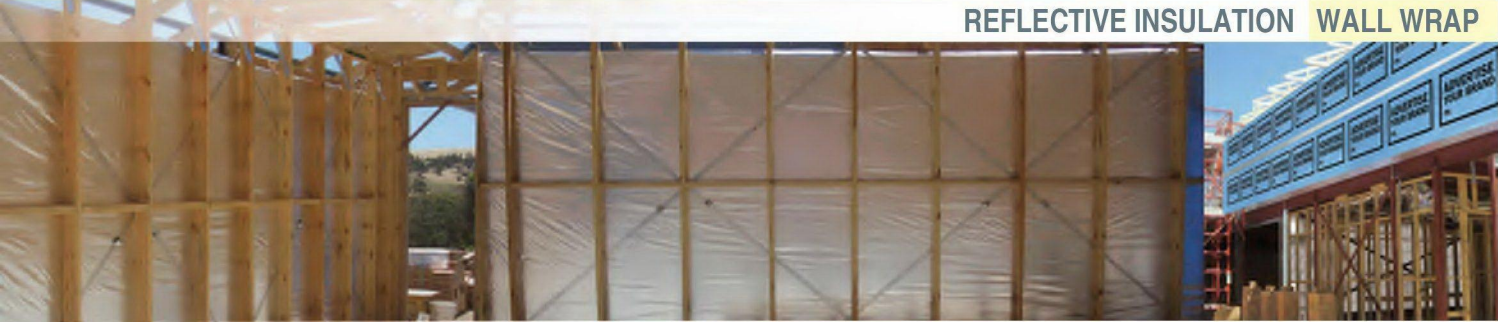
Accreditation No. : BPB0027

Date : 28 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*

SILVERWRAP™ BREATHER

MEDIUM DUTY
REFLECTIVE INSULATION WALL WRAP



LOW VAPOUR BARRIER / VAPOUR RETARDER / SEMI-PERMEABLE MEMBRANE

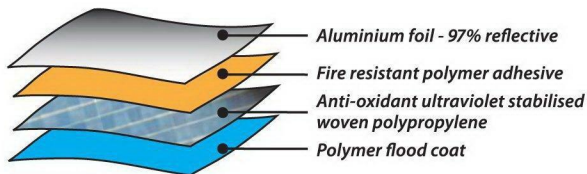
Product Code: MD-B | I/N: 0810105

SILVERWRAP™ 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. SILVERWRAP™ BREATHER is ideal for use in double brick and brick veneer wall systems.

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

Construction

SILVERWRAP™ 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 SILVERWRAP™ 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: SILVERWRAP™ 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

SILVERWRAP™ 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

SILVERWRAP™ BREATHER is an extremely lightweight product with superior tear resistance. SILVERWRAP™ 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

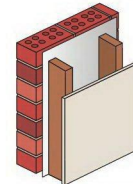
* Minimum value required to qualify as Medium Duty under AS/NZS 4200.1:1994.

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 SILVERWRAP™ BREATHER

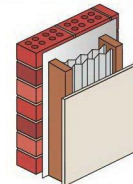


CALCULATION REF: 299r3221

WINTER R_T 1.3 SUMMER R_T 1.2

BRICK VENEER

with one layer of SILVERWRAP™ BREATHER + two layers of PLEATED SILVERBATTS™

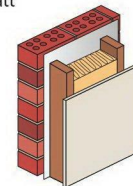


CALCULATION REF: 299w3225b

WINTER R_T 3.4 SUMMER R_T 3.0

BRICK VENEER

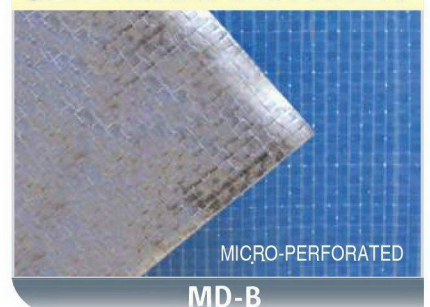
with one layer of SILVERWRAP™ BREATHER + R2.5 Fibrous Batt



CALCULATION REF: 299w50

WINTER R_T 3.2 SUMMER R_T 3.0

SILVERWRAP™ BREATHER



ametalin
raising the standard

SILVERWRAP™ BREATHER

MEDIUM DUTY

REFLECTIVE INSULATION WALL WRAP

Classification

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

PRODUCT	SILVERWRAP™ BREATHER	AS/NZS 4200.1:1994
FLAMMABILITY 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

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

NCC/BCA Compliant

SILVERWRAP™ 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

SILVERWRAP™ 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

SILVERWRAP™ 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

SILVERWRAP™ 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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Manufacturers of building membranes | insulation products | flexible packaging



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raising the standard

SILVERWRAP™ BREATHER

MEDIUM DUTY

REFLECTIVE INSULATION WALL WRAP

Health and Safety Information

Ametalin has assessed SILVERWRAP™ 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/.

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

GENERAL

SILVERWRAP™ 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

SILVERWRAP™ BREATHER should be installed horizontally as a continuous membrane by fixing to all framing members with the blue side facing out. SILVERWRAP™ 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 SILVERWRAP™ 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. SILVERWRAP™ 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.

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Manufacturers of building membranes | insulation products | flexible packaging



ametalin

raising the standard

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
Slope of specimen: Tested on a flat level surface by wet lapping film
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

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

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. 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
Slope of specimen: Tested on a flat level surface by wet lapping film
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 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
Slope of specimen: Tested on a flat level surface by wet lapping film
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



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

Knauf Insulation Pty Ltd

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Customer Service (sales)

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Email: sales@au.knaufinsulation.com

Technical Advisory Centre

Email: tech@au.knaufinsulation.com

www.knaufinsulation.com.au

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 m ²
Permastop® Building Blanket Light Duty Sisalation® Foil Facing	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
	130	R3.2 *	930101	10 x 1200	12
Permastop® Building Blanket Medium Duty Sisalation® Foil Facing	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® Building Blanket Heavy 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® Building Blanket 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**
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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.

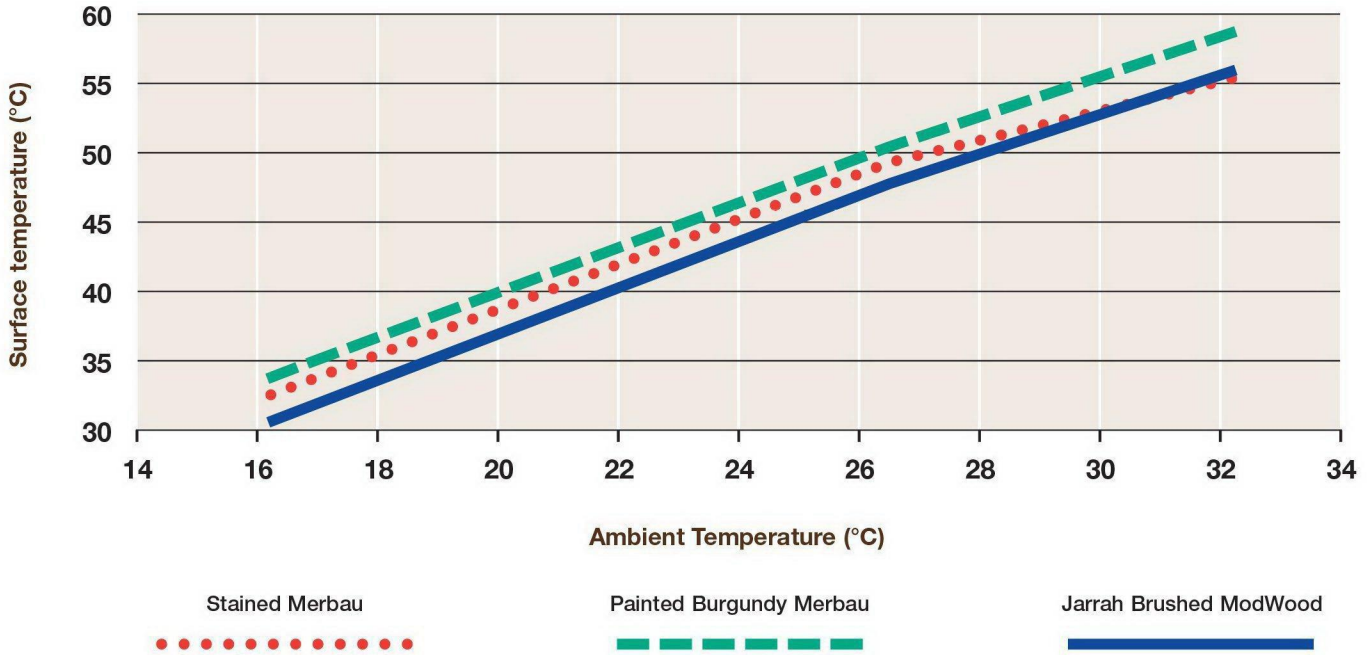
Slip resistance

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.

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



Burning Characteristics and Bushfire Resistance

Burning Characteristics - tested by AWTA 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
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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.

INTERIM OCCUPATION CERTIFICATE NO. IOC 142440/2

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: **Ian Vallentine - Anglican Retirement Villages**
Address of applicant: **PO Box 284, Castle Hill NSW 1765**
Contact Details: **Phone: (02) 8421 5323**

RELEVANT CONSENTS

Consent Authority/Local Government Area: **Northern Beaches Council (formerly Pittwater)**
Development Consent No: **N0267/13, N0267/13/S96/1, N0267/13/S96/2 & N0267/13/S96/3**
Date of Development Consent: **20/02/14, 15/04/15, 09/02/16, & 05/10/16**
Construction Certificate No: **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: **6-14 Macpherson Street, Warriewood NSW 2102**
Lot & DP No: **Lots 1, 2, 3, 4 & 5 DP 1161389**
Building Classification: **Class 1a**
Type of Construction: **Type N/A**
Scope of building works covered by this Certificate: **ILU's 40-45 and associated driveways, paths and landscaping.**
Attachments: **Schedule 1**
Fire Safety Schedule: **N/A**
Exclusions: **Remainder of Works**
Date of Application for Interim Occupation Certificate: **17/02/17**
Date Application Received: **17/02/17**

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 **March** 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 - Smoke Alarm	TGB Electrical Pty Ltd	-	19/02/17
	Installation Certificate - Hydraulic Works	CQ Solutions	-	10/02/17
	Installation Certificate - Clothesline	Discount Clotheslines	-	23/02/17
	Compliance Certificate - R1.0 Insulated Flexible Duct	Airfoil	-	-
	Compliance Certificate - 3-Zero Flexible Nude Core	Airfoil	-	-
	Installation Certificate - General Earthwork	SRC Contracting Pty Ltd	-	20/01/17
	Certificate of Compliance - Rentokil Termite Barriers (Units 40-45)	Rentokil Termite Barriers	-	27/05/16
	Installation Certificate - Concrete Work	All Concrete SLD Pty Ltd	-	11/01/17
	Certificate of Compliance - Screw Pile Installation	Helcon Contracting Australia Pty Ltd	-	25/02/16
	Installation Certificate - Masonry Work	Global Bricklaying Holdings Pty Ltd	-	23/02/17
	Installation Certification - Structural Steel	Renrow Steel	-	16/01/17
	Installation Certificate - Metal Roofing Work	All Aspects Roofing & Gutters	-	16/02/17
	Installation Certificate - Timber Framing - Wall Cladding - Windows - Hinged Door	RGM Carpentry	-	11/02/17
	Compliance Certificate - Glazing	Blue Mountains Shower Screens	BMSSGC 0115	19/01/15
	Installation Certificate - Skylight	Natural Lighting Products	-	16/02/17
	Installation Certificate - Waterproofing Work	Elite Tile Projects	-	22/02/17
	Installation Certificate - Insulation Work	Eureka Sustainability Group	-	12/02/17
	Installation Certificate - Roof trusses (Units 45)	Trueform Frames & Trusses Pty Ltd	9013	07/10/15
	Installation Certificate - Roof trusses (Units 44)	Trueform Frames & Trusses Pty Ltd	9013	29/09/15
	Installation Certificate - Roof trusses (Units 43)	Trueform Frames & Trusses Pty Ltd	9013	29/09/15
	Installation Certificate - Roof trusses (Units 42)	Trueform Frames & Trusses Pty Ltd	9013	07/10/15
	Installation Certificate - Roof trusses (Units 41)	Trueform Frames & Trusses Pty Ltd	9013	08/10/15
	Installation Certificate - Roof trusses (Units 40)	Trueform Frames & Trusses Pty Ltd	9013	19/08/15
	Statement of Compliance - Natural lighting & kitchen cooktop/oven	PBS Building (NSW) Pty Ltd	-	28/02/17

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

No	Description	Certified by	Reference	Date
1	Condition B23 - Installation Certificate for BASIX Commitments & Thermal Comfort	PBS Building (NSW) Pty Ltd	-	24/02/17
2	Condition B25 & E18 – Bushfire Occupation Certificate Comment	Building Code & Hazard Fire Solutions	130164	28/02/17
3	Condition C17 & C26 – Access Design Statement of Compliance (Units 40-45)	Accessible Building Solutions	-	23/01/17

3. Critical Stage Inspections.

Inspection	Certified by	Reference	Date
Slab Inspection Report (Unit 40)	City Plan Services	142440	08/09/15
Slab Inspection Report (Unit 43)	City Plan Services	142440	22/09/15
Slab Inspection Report (Unit 43)	City Plan Services	142440	30/09/15
Slab Inspection Report (Unit 45)	City Plan Services	142440	01/10/15
Slab Inspection Report (Unit 44)	City Plan Services	142440	01/10/15
Slab Inspection Report (Units 41 & 42)	City Plan Services	142440	12/10/15
Frame Inspection Report (Unit 40)	City Plan Services	142440	05/11/15
Frame Inspection Report (Units 42 & 45)	City Plan Services	142440	20/11/15
Wet Area Inspection Report (Unit 40)	City Plan Services	142440	24/11/15
Frame Inspection Report (Units 41, 43 & 44)	City Plan Services	142440	01/02/16
Stormwater Inspection Report (Units 40-45)	City Plan Services	142440	02/03/16
Wet Area Inspection Report (Unit 43)	City Plan Services	142440	30/03/16
Wet Area Inspection Report (Units 41, 42, 44 & 45)	City Plan Services	142440	17/11/16
Final Inspection Report	City Plan Services	142440	28/02/17

4. Additional Documentation.

Title	Prepared by	Reference	Date
Occupation Certificate Application	Anglican Retirement Villages	-	17/02/17
Technical Data Sheet – Silverwrap Breather Insulation	Ametalin	-	-
Test Report – Pietra White Textured	Safe Environments Pty Ltd	R9306a	01/09/15
Test Report – Pietra White Matt	Safe Environments Pty Ltd	R9306b	01/09/15
Test Report – Pietra White Matt 300x600mm	Safe Environments Pty	R9756	17/11/15
Technical Data Sheet – Wall and Ceiling Insulation	Knauf Insulation	-	Nov 13
Technical Data Sheet – Permastop Roof Blanket	Fletcher Insulation	-	-
Technical Data Sheet - Decking	Modwood Technologies Pty Ltd	-	Aug 2013
Interim Occupation Certificate	City Plan Services	IOC 142440	20/01/16
Interim Occupation Certificate	City Plan Services	IOC 142440/1	01/02/17

6-14 Macpherson Street, Warriewood NSW 2102
Construction Certificate No. 142440/2

CONSTRUCTION CERTIFICATE APPLICATION

Made under the *Environmental Planning and Assessment Act 1979* Section 109C(1)(b) & Section 139 of Regulations 2000

Information for the applicant

- This form may be used to apply for a construction certificate to carry out building work or subdivision work.
- To minimise delay in receiving a decision about the application, please fill in all sections and ensure all relevant information and documents are provided.
- A construction certificate has no effect if it is issued after the building work or subdivision work to which it relates is physically commenced on the land to which the relevant development consent applies.

APPLICANT

Name of person having benefit of the development consent.*

Name Anglican Retirement Villages Diocese of Sydney

Company _____

ABN Number (if applicable) _____

Address Level2, 62 Norwest Boulevard

Suburb or town Baulkham Hills Postcode 2153

Telephone 02 9421 5331 Fax _____

Mobile 0412 186 333 Email peter.magnisalis@arv.org.au

**An application for a construction certificate may only be made by a person who has the benefit of the development consent. An application may not be made by the person who will carry out the building work or subdivision work unless that person owns the land on which the work is to be carried out.*

IDENTIFICATION OF BUILDING

Address 6-14 Macpherson Street, Warriewood

Lot No 3, 4 & 5

DP No 1161389

Suburb or town Warriewood Postcode 2102 Addition of _____

DESCRIPTION OF DEVELOPMENT

Building or Subdivision Works:

Addition of car ports to types C, D & D1 ILUs

BUILDING CODE OF AUSTRALIA BUILDING CLASSIFICATION

Class(s) 1

VALUE OF WORK

Estimated Cost of Work:
(Including GST)

\$ Cost included in previous CC

The contract price, or if there is no contract a genuine and accurate estimate, for all labour and material costs associated with all demolition and construction required for the development, including the cost of construction of any building and the preparation of a building for the purpose for which it is to be used (such as the costs of installing plant, fittings, fixtures and equipment).

DEVELOPMENT CONSENT

- Provide electronic copies of:
- a) approved plans endorsed by the consent authority
 - b) conditions of development consent
 - c) other documents referenced by the development consent that are relevant to this application.

Consent Authority Pittwater Council
 Development Consent No N0267/13/S96/1
 Date of Determination 15/4/15
 Name of Applicant on Development Consent Anglican Retirement V

ADDITIONAL REQUIREMENTS

- Schedule 1 must be completed and accompanied by information required to be submitted with the application for a construction certificate for proposed building works. Prepare and attach a list of all documents provided.
- Applications for construction 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.

Schedule 1 – Attachments relating to the proposed development

Applicants must provide electronic copies of the documents listed below that are relevant to the type of development that is proposed. Please place a cross in the appropriate box(s) to indicate the type of development involved.

1. SUBDIVISION WORK

Does the development involve Subdivision Work?

Yes

No

If Yes - provide:

- Appropriate subdivision work plans and specifications, which include copies of:
- a) details of the existing and proposed subdivision pattern (including the number of lots and the location of roads)
 - b) details as to which public authorities have been consulted with as to the provision of utility services to the land concerned
 - c) detailed engineering plans as to the following matters:
 - i. earthworks
 - ii. roadworks
 - iii. road pavement
 - iv. road furnishings
 - v. stormwater drainage
 - vi. water supply works
 - vii. sewerage works
 - viii. landscaping works
 - ix. erosion control works

2. BUILDINGS

2.1 Does the development involve building work (including work in relation to a dwelling house or building or structure ancillary to a dwelling house?)

Yes

No

If Yes - provide:

- 1. A detailed description of the development by completing page 3 of the application form
- 2. Appropriate building work plans and specifications, which include copies of:
 - a) detailed plans drawn to a suitable scale and consisting of a block plan and a general plan, that show:
 - i. a plan of each floor section
 - ii. a plan of each elevation of the building
 - iii. the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground
 - iv. the height, design, construction and provision for fire safety and fire resistance (if any)
 - b) specifications for the development:
 - i. that describe the construction and materials of which the building is to be built and the method of drainage, sewerage and water supply, and
 - ii. that state whether the materials to be used are new or second-hand and (in the case of second-hand materials) give particulars of the materials to be used
 - c) a statement as to how the performance requirements of the *Building Code of Australia* are to be complied with (if an alternative solution, to meet the performance requirements, is to be used)
 - d) a description of any accredited building product or system sought to be relied on for the purposes of section 79C(4) of the *Environmental Planning and Assessment Act 1979* (EP&A Act)*
 - e) copies of any compliance certificate to be relied on
 - f) if the development involves building work to alter, expand or rebuild an existing building, a scaled plan of the existing building
 - g) if a BASIX certificate has been obtained for the development, such other matters as the BASIX certificate requires to be included in the plans and specifications.

*S.79C(4) EP&A Act provides that a consent authority must not refuse to grant consent to development on the ground that any building product or system relating to the development does not comply with a requirement of the *Building Code of Australia* if the building product or system is accredited in respect of the requirement in accordance with the EP7A regulation 2000.

2.2 Does the development involve building work (other than work in relation to a dwelling-house or a building or structure that is ancillary to a dwelling-house or work that relates only to fire link conversion)?

Yes

No

If Yes - provide:

- A list of any existing fire safety measures provided in relation to the land or any existing building on the land.
- A list of the proposed fire safety measures to be provided in relation to the land and any building on the land as a consequence of the building work.

2.3 Is any long service payment levy payable under s.34 of the Building and Construction Industry Long Service Payments Act 1986?

Yes

No

If Yes - Provide:

A copy of a receipt for any long service payment levy that has been made (or, where such a levy is payable by instalments, a receipt for the first instalment of the levy).

2.4 Does the application involve a BASIX affect development or a BASIX optional development in respect of which the applicant has obtained a BASIX certificate?

Yes

No

If Yes - Provide:

The BASIX certificate(s) for the development (being either the BASIX certificate issued when the development consent was granted or some other BASIX certificate(s) that have been issued no earlier than three months before the date of the Application being made), and such other documents as the BASIX certificate(s) for the development requires to accompany the Application.

BASIX (the Building and Sustainability Index) ensures homes are built to be more energy and water efficient. BASIX uses an online program to assess a building's design and compares it against energy and water reduction targets. The design must meet these targets before a BASIX certificate can be printed. Any changes made to a building's design after a BASIX certificate has been issued requires another BASIX assessment and new BASIX certificate. "BASIX affected buildings" contain one or more dwellings (but do not include hotels or motels).

A BASIX certificate **MUST** be obtained for every "BASIX affected development", which are any of the following (other than development that is "BASIX excluded development"):

- development that involves the erection (but not the relocation) of a BASIX affected building
- development that involves a change of building use by which a building becomes a BASIX affected building
- development that involves the alteration, enlargement or extension of a BASIX affected building, where the estimated construction cost of the development is \$50,000 or more
- development for the purpose of a swimming pool or spa, or combination of swimming pools and spas, that services or service only one dwelling and that has a capacity, or combined capacity, of 40,000 litres or more.

"BASIX excluded development" is

- development for the purpose of a garage, storeroom, car port, gazebo, verandah or awning
- alterations, enlargements or extensions to a building listed on the State Heritage Register under the Heritage Act 1977
- alterations, enlargements or extensions that result in a space that cannot be fully enclosed (for example, a veranda that is open or enclosed by screens, mesh or other materials that permit the free and uncontrolled flow of air), other than a space can be fully enclosed but for a vent needed for the safe operation of a gas appliance
- alterations, enlargements or extensions that the Director-General has declared, by order published in the Gazette, to be BASIX excluded development.

A BASIX Certificate **MAY** be obtained for certain developments by an Applicant even though there is no obligation to do so. This is called "BASIX optional development". "BASIX optional development" means any of the following development that is not BASIX excluded development:

- development that involves the alteration, enlargement or extension of a BASIX affected building, where the estimate of the construction cost of the development is less than \$50,000
- development for the purpose of a swimming pool or spa, or combination of swimming pools and spas, that services or service only one dwelling and that has a capacity, or combined capacity, of less than 40,000 litres.

If the proposed development involves the alteration, enlargement or extension of a BASIX affected building that contains more than one dwelling, a separate BASIX certificate is required for each dwelling concerned.

Further information about BASIX and to obtain a BASIX Certificate, go to <http://www.basix.nsw.gov.au>

2.5 Have the plans subject to the application been stamped by a Sydney Water Quick Check Agent or the relevant water utility authority or their authorised agent?

Yes

No

If Yes - Provide:

A copy of the stamped plans.

Note: The approved plans must be submitted to a Sydney Water Quick Check agent or other relevant water utility to determine whether the development will affect any wastewater and water mains, stormwater drains and/or easement, and if any requirements need to be met. Plans will be appropriately stamped.

3. RESTRICTIONS ON THE TITLES

Is the proposed work affected by any restrictions on the titles (including covenants, easements & rights of way)?

Yes

No

If Yes - Provide Details

4. HOME BUILDING ACT REQUIREMENTS

In the case of an application for a construction certificate for residential building work (within the meaning of the *Home Building Act 1989*) attach the following:

Yes No

If Yes - Provide:

a) In the case of work by a licensee under the Act:

- i) a statement detailing the licensee's name and contractor licence number, and
- ii) documentary evidence that the licensee has complied with the applicable requirements of that Act*.

or

b) In the case of work done by any other person:

- i) a statement detailing the person's name and owner builder permit number, or
- ii) a declaration signed by the owner of the land, to the effect that the reasonable market cost of the labour and materials involved in the work is less than the amount prescribed for the purpose of the definition of *owner-builder work* in section 29 of that Act.

*A certificate purporting to be issued by an approved insurer under Part 6 of the Home Building Act 1989 to the effect that a person is the holder of an insurance contract issued for the purposes of that Part, is sufficient evidence that the person has complied with the requirements of that Part.

5. LIST OF DOCUMENTS

Prepare & attach a list of all documents provided under Development Consent, Additional Requirements & Schedule 1.

Yes No

If Yes - Provide Details

6. OWNERS CONSENT

As the owner(s) of the land on which the work is to be carried out:

1. I/we hereby consent to the applicant(s) named on the application to act on my/our behalf as the person with benefit of the development consent nominated herein.
2. I/we hereby consent to the certifying authority, or an accredited certifier nominated by City Plan Services P/L, to enter the subject property at any reasonable time for the purpose of carrying out an inspection in connection with the assessment of this application. I/we will undertake all necessary steps to make access available to the property to enable the inspection to be carried out.

Signature of all owner(s): *ARV*

Name *Peter Magnish* Sign *[Signature]*
 Name _____ Sign _____
 Date *8/5/2015*

A certifying authority must not issue a construction certificate for the development on a site which affects an existing building unless the certifying authority or an accredited certifier nominated by City Plan Services P/L has carried out an inspection of the site of the development.

7. APPLICANT SIGNATURE

As a person eligible to be an applicant for this work:

1. I/we hereby submit this Construction Certificate Application under the Environmental Planning & Assessment Act 1979, with City Plan Services Pty Ltd.
2. I/we hereby appoint Brendan Bennett/ Chris Michaels/ Adam DeLooze/ Darren Bugg of City Plan Services Pty Ltd as the Principal Certifying Authority for the building work identified in this application.
3. I/we (if not the owner(s) of the land on which the work is to be carried out), hereby state that I/we are not the contractor who will carry out the building work or subdivision.
4. I/we hereby state that, to the best of my knowledge, the information provided within this application is true and accurate.

Signature of applicant(s):

Name *Peter Magnish* Sign *[Signature]*
 Name _____ Sign _____
 Date *8/5/2015*

DETAILED DESCRIPTION

For each proposed new building, indicate:

The number of storeys (including underground storeys) in the building.	1
Gross floor area of existing building (m ²)	N/A
The gross site area of the land on which the building is to be erected (m ²)	N/A

For each proposed new residential building, indicate:

The number of existing dwellings on the land on which the new building is to be erected.	N/A
The number of existing dwellings that are to be demolished in connection with the erection of the new building	None
The number of dwellings to be included in the new building	None
Whether the new building is to be attached to any existing building	N/A
Whether the new building is to be attached to any other new building	N/A
Whether the site contain a dual occupancy	N/A
The materials to be used in the construction of the new building by completing the table below	

MATERIALS TO BE USED

Walls	Code	Roof	Code
Brick (double)	11	Tiles	10
Brick (vener)	12	Concrete/Slate	20
Concrete /Stone	20	Fibrous cement	30
Fibrous cement	20	Steel	60
Timber	40	Aluminium	70
Curtain glass	50	Other	80
Steel	60	Not specified	90
Aluminium cladding	70		
Timber/weatherboard	40		
Other	80		
Not specified	90		

Floor	Code	Frame	Code
Concrete/Slate	20	Yes	40
Timber	40	Steel	60
Other	80	Aluminium	70
Unknown	90	Other	80
		Unknown	90

DESIGN STATEMENT OF COMPLIANCE

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: • The whole works				

Certification:

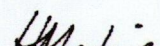
DA Item No.	Tick box for items to be certified (✓)	Detail of Condition of Consent or Design Standard (BCA AS1428.1 etc)	Verification Method
B26 C21	✓	2 visitor parking spaces complying with AS 2890.6 shall be provided – 1 at the community centre and 1 near the main entrance	Review of architectural drawings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

I, the undersigned, certify that the above Conditions of Consent have been satisfactorily incorporated, or are capable of being incorporated, within the design of 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
- Architectural Drawings prepared by Environa Studio -
002(E), A101- A107(E), B101- B107(E), C101(L) C102- C107(E), Ca101-
Ca107(E), D1 101(L) D1 102- D1 107(E), D1a 101- D1a 107(E),
S2 101- S2 107(E), CS101-Cs106 (E), D101(L)

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: 7th May 2015 RevA

BASIX[®] Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 499606M_03

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 18/09/2014 published by Planning & Infrastructure. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number 499606M lodged with the consent authority or certifier on 17 September 2013 with application NO267/13.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environmental Planning and Assessment Regulation 2000

Director-General

Date of issue: Friday, 19 December 2014

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary	
Project name	"ARV Warriewood Brook" (Stages 4-6)_03
Street address	6-10 Macpherson Street WARRIEWOOD 2102
Local Government Area	Pittwater Council
Plan type and plan number	deposited 11611389
Lot no.	3-5
Section no.	-
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	16
No. of single dwelling houses	43

Project score		
Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 42	Target 40




Certificate Prepared by

Name / Company Name: Benchmark Building Certifiers

ABN (if applicable): 47078953215

Description of project

Project address	
Project name	"ARV Warriewood Brook" (Stages 4-6)_03
Street address	6-10 Macpherson Street WARRIEWOOD 2102
Local Government Area	Pittwater Council
Plan type and plan number	deposited 11611389
Lot no.	3-5
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	16
No. of single dwelling houses	43
Site details	
Site area (m ²)	26772
Roof area (m ²)	9925
Non-residential floor area (m ²)	0
Residential car spaces	118
Non-residential car spaces	16

Common area landscape		
Common area lawn (m ²)	4050	
Common area garden (m ²)	5300	
Area of indigenous or low water use species (m ²)	4000	
Assessor details		
Assessor number	20102	
Certificate number	1007229329	
Climate zone	56	
Project score		
Water	 40	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 42	Target 40

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1	3	93.0	10.0	30	0
5	3	91.0	10.0	30	0
9	3	91.0	10.0	30	0
13	3	91.0	10.0	30	0
33	2	75.0	10.0	30	0
37	2	78.0	9.0	30	0
41	2	78.0	9.0	30	0
45	3	93.0	10.0	30	0
49	3	91.0	10.0	30	0
53	2	78.0	9.0	30	0
57	3	93.0	10.0	30	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2	3	93.0	10.0	30	0
6	3	91.0	10.0	30	0
10	2	78.0	9.0	30	0
14	3	91.0	10.0	30	0
34	3	91.0	10.0	30	0
38	2	78.0	9.0	30	0
42	3	91.0	10.0	30	0
46	3	91.0	10.0	30	0
50	2	78.0	9.0	30	0
54	3	91.0	10.0	30	0
58	2	78.0	9.0	30	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
3	3	93.0	10.0	30	0
7	3	91.0	10.0	30	0
11	3	93.0	10.0	30	0
17	2	86.0	7.0	30	0
35	3	91.0	10.0	30	0
39	3	91.0	10.0	30	0
43	3	91.0	10.0	30	0
47	2	78.0	9.0	30	0
51	3	91.0	10.0	30	0
55	2	86.0	7.0	30	0
59	3	93.0	10.0	30	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
4	3	91.0	10.0	30	0
8	3	91.0	10.0	30	0
12	2	78.0	9.0	30	0
30	3	95.0	8.0	30	0
36	3	91.0	10.0	30	0
40	2	78.0	9.0	30	0
44	2	78.0	9.0	30	0
48	3	93.0	10.0	30	0
52	3	91.0	10.0	30	0
56	2	78.0	9.0	30	0

Multi-dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
15	2	86.0	7.0	30	0
20	2	86.0	7.0	30	0
24	3	95.0	8.0	30	0
28	3	95.0	8.0	30	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
16	2	86.0	7.0	30	0
21	2	86.0	7.0	30	0
25	3	95.0	8.0	30	0
29	3	95.0	8.0	30	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
18	2	86.0	7.0	30	0
22	2	86.0	7.0	30	0
26	3	95.0	8.0	30	0
31	3	95.0	8.0	30	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
19	2	86.0	7.0	30	0
23	2	86.0	7.0	30	0
27	3	95.0	8.0	30	0
32	3	95.0	8.0	30	0

Description of project

The tables below describe the dwellings and common areas within the project

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

2. Commitments for single dwelling houses

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

- (i) Water
- (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for multi-dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be 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 must be connected as specified.	✓	✓	✓

Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	4 star	no	-	-	-	-	-	-	-	-	-

Alternative water source								
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	individual water tank (no. 1)	Tank size (min) 1000 litres	To collect run-off from at least: 50 square metres of roof area; 0 square metres of impervious area; 0 square metres of garden and lawn area; and 0 square metres of planter box area.	yes	no	no	no	no
None	-	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install 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 table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure 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 must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) 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 applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (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 table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	gas instantaneous 5 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
15, 16, 18, 19, 20, 21, 22, 23	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	2	2	yes	yes	yes	yes	2	yes
24, 25, 26, 27, 28, 29, 31, 32	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	3	2	yes	yes	yes	yes	1	yes

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	electric cooktop & electric oven	-	no	-	-	-	no	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.			
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.			
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

Thermal loads		
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (In mJ/m ² /yr)
15	45.0	20.7
18, 20, 22	45	20.7
16, 19, 21, 23	36.9	32.4
24, 26, 28, 31	44	26.9
All other dwellings	57.1	21.7

Construction of floors and walls					
Dwelling no.	Concrete slab on ground(m ²)	Suspended floor with open subfloor (m ²)	Suspended floor with enclosed subfloor (m ²)	Suspended floor above garage (m ²)	Primarily rammed earth or mudbrick walls
15,16,18,19,20,21,22,23		-	-	-	No
All other dwellings	103	-	-	-	No

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install: <ul style="list-style-type: none"> <li data-bbox="215 711 1536 767">(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and <li data-bbox="215 783 1503 839">(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling. 		✓ ✓	✓ ✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be 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 must be connected as specified.	✓	✓	✓

Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	4 star	no	-	-	-	-	-	-	-	-	-

Dwelling no.	Alternative water source							
	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
10, 12, 17, 30, 33, 37, 38, 40, 41, 44, 47, 50, 53, 55, 56, 58	individual water tank (no. 1)	Tank size (min) 1000 litres	To collect run-off from at least: 50 square metres of roof area; 0 square metres of impervious area; 0 square metres of garden and lawn area; and 0 square metres of planter box area.	yes	no	no	no	no
All other dwellings	individual water tank (no. 1)	Tank size (min) 1000 litres	To collect run-off from at least: 50 square metres of roof area; 0 square metres of impervious area; 0 square metres of garden and lawn area; and 0 square metres of planter box area.	yes	yes	no	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(d) The applicant must install 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 table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure 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 must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) 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 applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (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 table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

Dwelling no.	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	gas instantaneous 5 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
30	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	3	2	yes	yes	yes	yes	1	yes
33	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	2	2	yes	yes	yes	yes	1	yes
10, 12, 17, 37, 38, 40, 41, 44, 47, 50, 53, 55, 56, 58	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	2	2	yes	yes	yes	yes	2	yes
1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14, 34, 35, 36, 39, 42, 43, 45, 46, 48, 49, 51, 52, 54, 57, 59	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	1-phase airconditioning EER < 2.5	3	2	yes	yes	yes	yes	2	yes

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	electric cooktop & electric oven	-	no	-	-	-	no	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.			
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.			
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must:	✓	✓	✓

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.			
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
2	43.4	31.4
3	43.1	34
7	47.3	38.5
9	56.8	34.5
10	44.5	35.1
11	43.2	31.9
12	62.6	32.3
17	48.2	32.4
30	59	21.7
33	47.9	35.4
37	49.9	33.3
39	51.4	34.7
40	57.8	32.1
41	61.8	31.7
42	51.7	35.5
43	49.5	36.5
48	54.0	29.1
55	43.6	32.1
56	60.6	32.6

Dwelling no.	Thermal loads	
	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
6, 8	53.2	37.7
4, 54	54.5	38.5
47, 53	65.4	33.1
49, 51	55.4	36.4
5, 46, 52	41.5	42.4
1, 45, 57, 59	54.5	28.4
38, 44, 50, 58	61.2	32.3
All other dwellings	50.1	37.4

Dwelling no.	Construction of floors and walls				
	Concrete slab on ground(m ²)	Suspended floor with open subfloor (m ²)	Suspended floor with enclosed subfloor (m ²)	Suspended floor above garage (m ²)	Primarily rammed earth or mudbrick walls
30	103	-	-	-	No
33	85	-	-	-	No
17,55	93	-	-	-	No
10,12,37,38,40,48,44,47,50,53,56,58		-	-	-	No
All other dwellings	101	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

INSPECTION REPORT


This inspection report is a record of inspections in accordance with Clause 143C of the Environmental Planning & Assessment Regulation 2000.

CC No.	: 142440/2
DA No.	: N0267/13 & N0267/13/S96/1
PCA	: Brendan Bennett, BPB0027
Site Address	: 6-14 Macpherson Street, Warriewood, NSW 2102
Requested by	: Martin Moore - Morgan Moore & Associates
Contact No.	: 0417 370 357
Contact email:	
Inspection Type	: Inspection of the existing building as per Clause 143B of the EP&A Regs
Date Inspected	: 20 May 2015
Time Requested:	

RESULT OF INSPECTION

Satisfactory	<input checked="" type="checkbox"/>	No re-inspection required
Satisfactory subject to actions	<input type="checkbox"/>	No re-inspection required
Unsatisfactory/actions required	<input type="checkbox"/>	Re-inspection required Yes <input type="checkbox"/> No <input type="checkbox"/>

- The plans and specifications accompanying the application for the CC adequately and accurately depict the condition of the existing building and/or site conditions.
- At the time of the inspection, building works subject to the CC has not commenced on site.

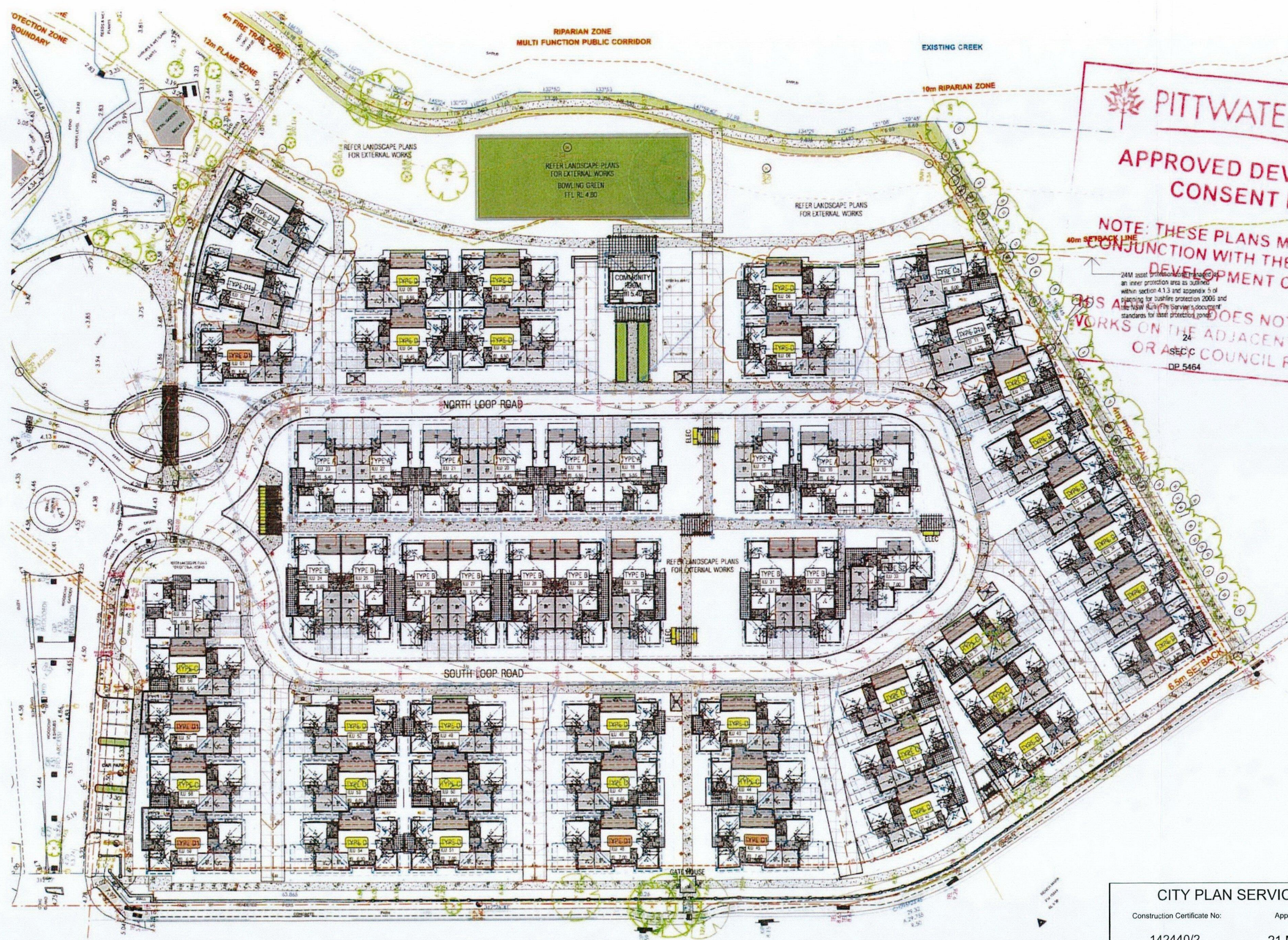
Signature : 

Inspected by* : Brendan Bennett

Accreditation No. : BPB0027

Date : 20 May 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 Professional Regulations 2007*



PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT.

THIS APPROVAL DOES NOT AUTHORISE WORKS ON THE ADJACENT ROAD OR A COUNCIL RESERVE.

notes
 all work to be carried out in accordance with bca, saa 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.

rev	date	amendment
A	04.07.14	DRAFT CC / tender issue
B	01.08.14	DRAFT CC issue
C	20.08.14	TENDER ISSUE
D	23.10.14	ISSUE FOR CERTIFIER
E	29.10.14	AMENDED ISSUE FOR CERTIFIER: NEW Type Ca.D1a amended for access garage requirements. ILLU 8/9/10/11 moved 410mm west.
F	18.12.14	CONTRACT ISSUE

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

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project
ARV AT WARRIEWOOD BROOK

for/client
ARV Villages

location
MACPHERSON STREET

at
WARRIEWOOD BROOK

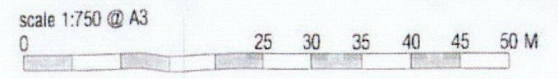
drawing
SITE PLAN STAGE 4.5

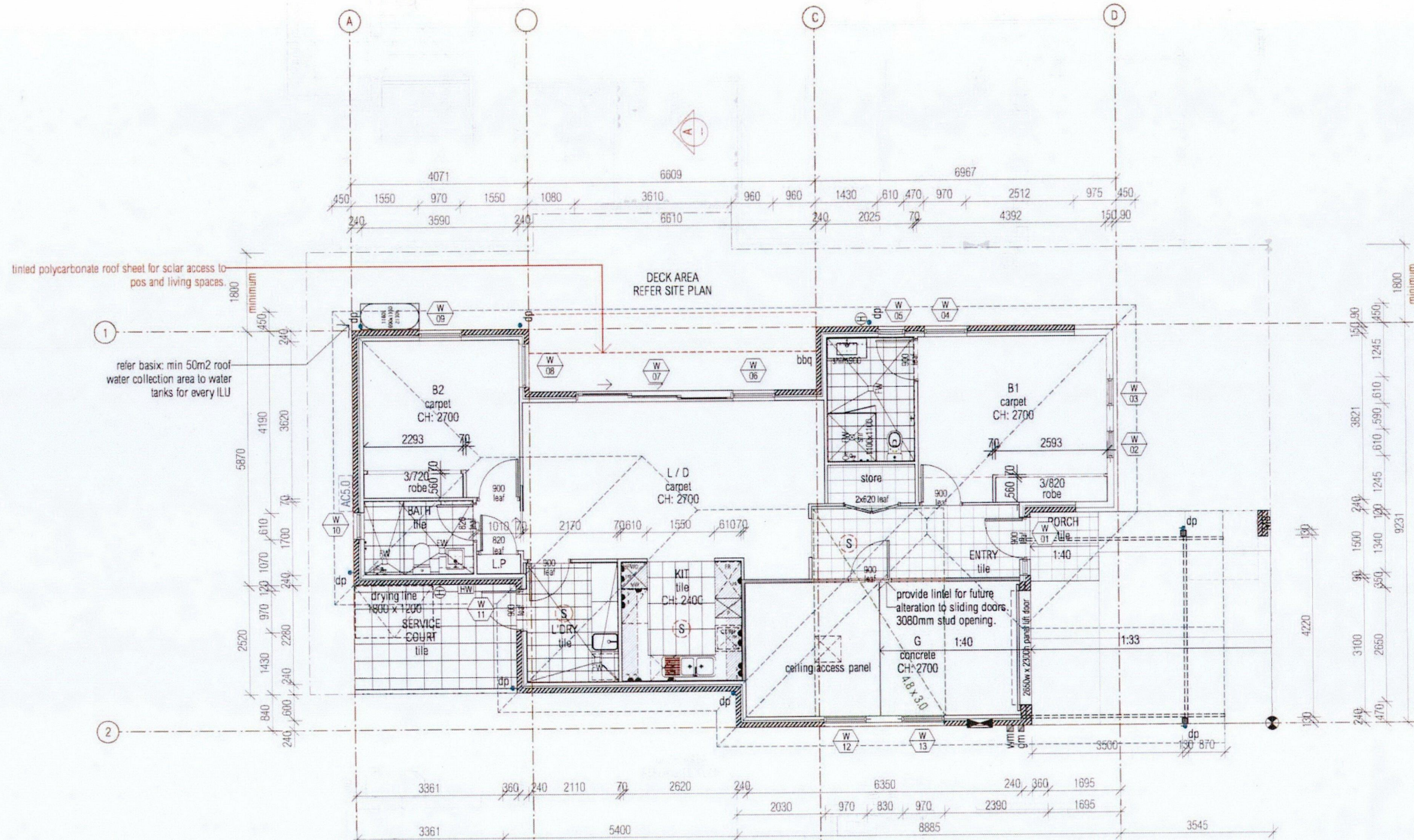
stage	project no.	dwg no.
CC	731	003

chkd	drwn	date	issue
TW	CK	19/12/14	G

• MASTERPLAN
 • 1:750 @ A3

CITY PLAN SERVICES
 Construction Certificate No: 142440/2
 Approved Date: 21 May 2015
 Certifying Authority: Brendan Bennett
 Accreditation No: BPB 0027





tinied polycarbonate roof sheet for solar access to pos and living spaces.

refer basis: min 50m² roof water collection area to water tanks for every ILU

DECK AREA REFER SITE PLAN

NOTES:
 • TYPE C ILU #: 12. 37. 38. 40. 41. 44. 47. 50. 53. 56. 58
 • REFER MASTERPLAN FOR FFL RL'S OF ILU'S

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

CITY PLAN SERVICES

Construction Certificate No: 142440/2 Approved Date: 21 May 2015

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notes

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A	04.07.14	DRAFT CC / tender issue
B	01.08.14	DRAFT CC issue
C	20.08.14	TENDER ISSUE
D	23.10.14	ISSUE FOR CERTIFIER
E	29.10.14	AMENDED ISSUE FOR CERTIFIER: ILU type CaD1a amended for access. garage requirements. ILU 8/9/10/11 moved 410mm west.
F	18.12.14	S96 issue
G	09.03.15	clarification: 4.8m by 3m clear space in garage for accessibility shown
L	16.03.15	clarification: swing door and 3080mm lintel shown for adaptation

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 9957 6188

planner
DON FOX PLANNING
 ph: 02 9980 6933

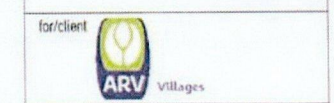
landscape architect
JOHN LOCK & ASSOCIATES
 ph: 02 9969 9866

engineer (civil / hydraulic)
HENRY & HYMAS
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 e: info@environastudio.com.au
 architects registration : 6239

project
ARV AT WARRIEWOOD BROOK

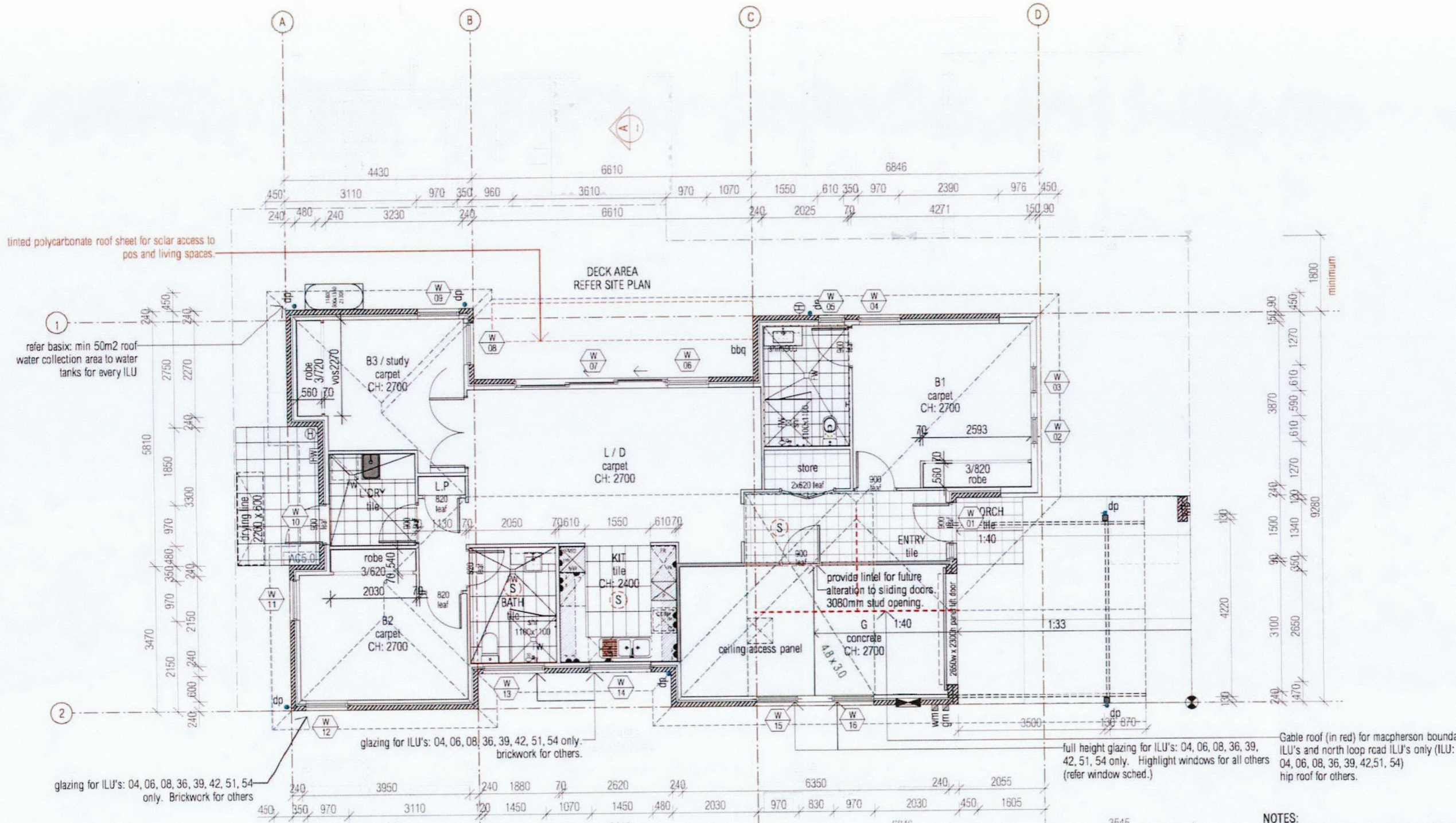


location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
PLAN: ILU TYPE C

stage	project no.	dwg no.	
S96	731	C101	
chkd	drwn	date	issue
TW	CK	16/03/15	L



notes

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- FOR BAL 12.5 REQUIREMENTS REFER TO SCHEDULE - SHEET 921

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landscape architect
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 architects registration : 6239

project
ARV AT WARRIEWOOD BROOK



location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
PLAN: ILU TYPE D

stage	project no.	dwg no.	
S96	731	D101	
chkd	dwn	date	issue
TW	CK	16/03/15	L

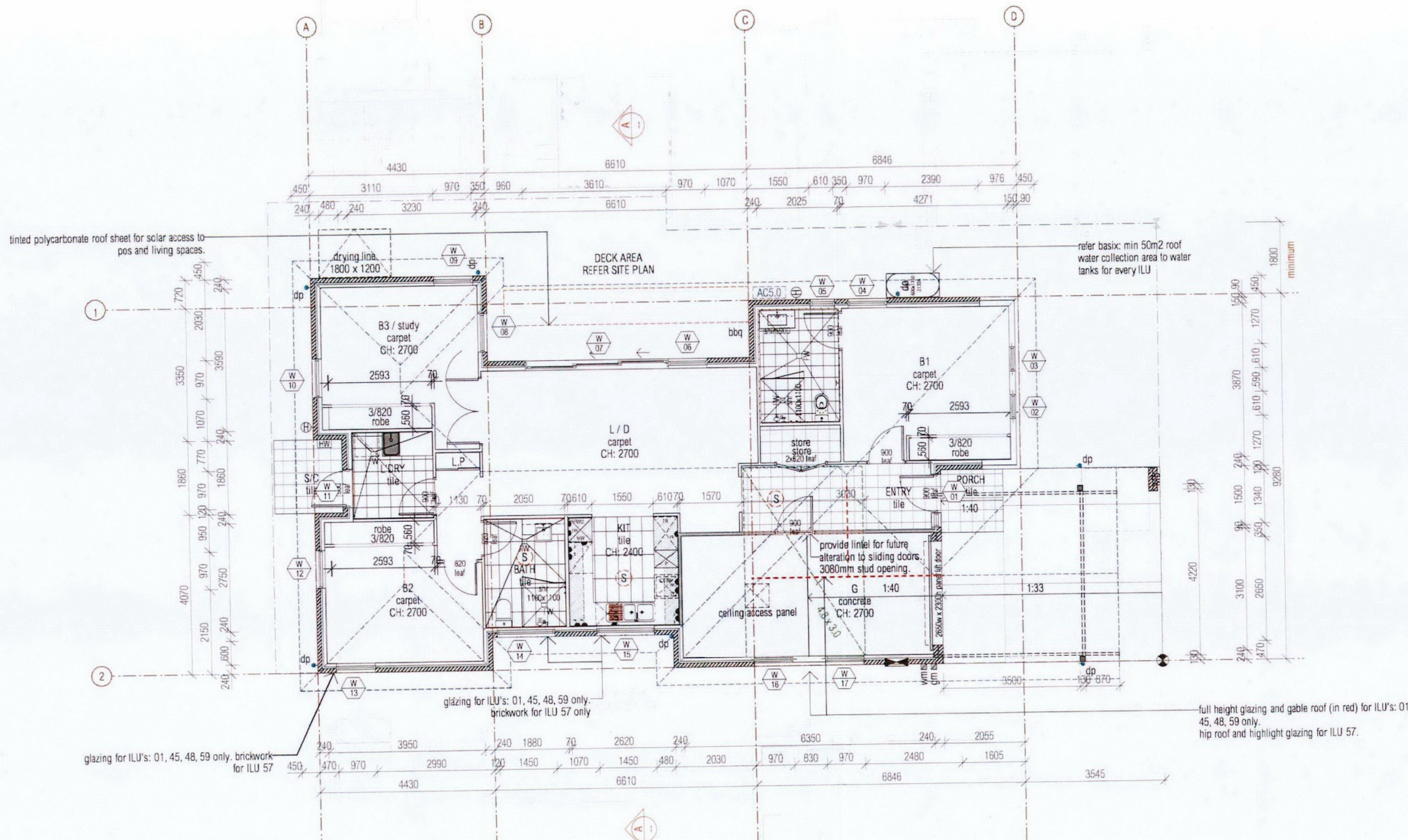
- NOTES:
- TYPE D ILU #: 4, 5, 6, 7, 8, 9, 13, 14, 34, 35, 36, 39, 42, 43, 46, 49, 51, 52, 54.
 - REFER MASTERPLAN FOR FFL RL'S OF ILU'S

ILU - TYPE D	
3 bed, 2 bath	
site area	
house area gfa (ext)	118.5 sqm
house area nfa (int)	106.7 sqm
Alfresco / deck	approx 25 sqm (varies)
garage	22.6sqm
GFA + Alf	166.1 sqm

CITY PLAN SERVICES

Construction Certificate No: 142440/2
 Approved Date: 21 May 2015

Certifying Authority: Brendan Bennett
 Accreditation No: BPB 0027



notes

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NOTE:

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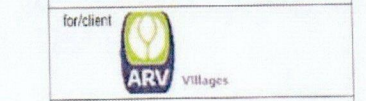
planner
DON FOX PLANNING
 ph: 02 9980 6933

landscape architect
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engineer (civil / hydraulic)
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 architects registration : 6239

project
ARV AT WARRIEWOOD BROOK



location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
PLAN: ILU TYPE D1

stage	project no.	dwg no.	
S96	731	D1 101	
chkd	drwn	date	issue
TW	CK	16/03/15	L

NOTES:

- TYPE D1 ILU #: 1, 45, 48, 57, 59
- REFER MASTERPLAN FOR FFL RL'S OF ILU'S

CITY PLAN SERVICES

Construction Certificate No: **142440/2** Approved Date: **21 May 2015**

Certifying Authority: **Brendan Bennett**

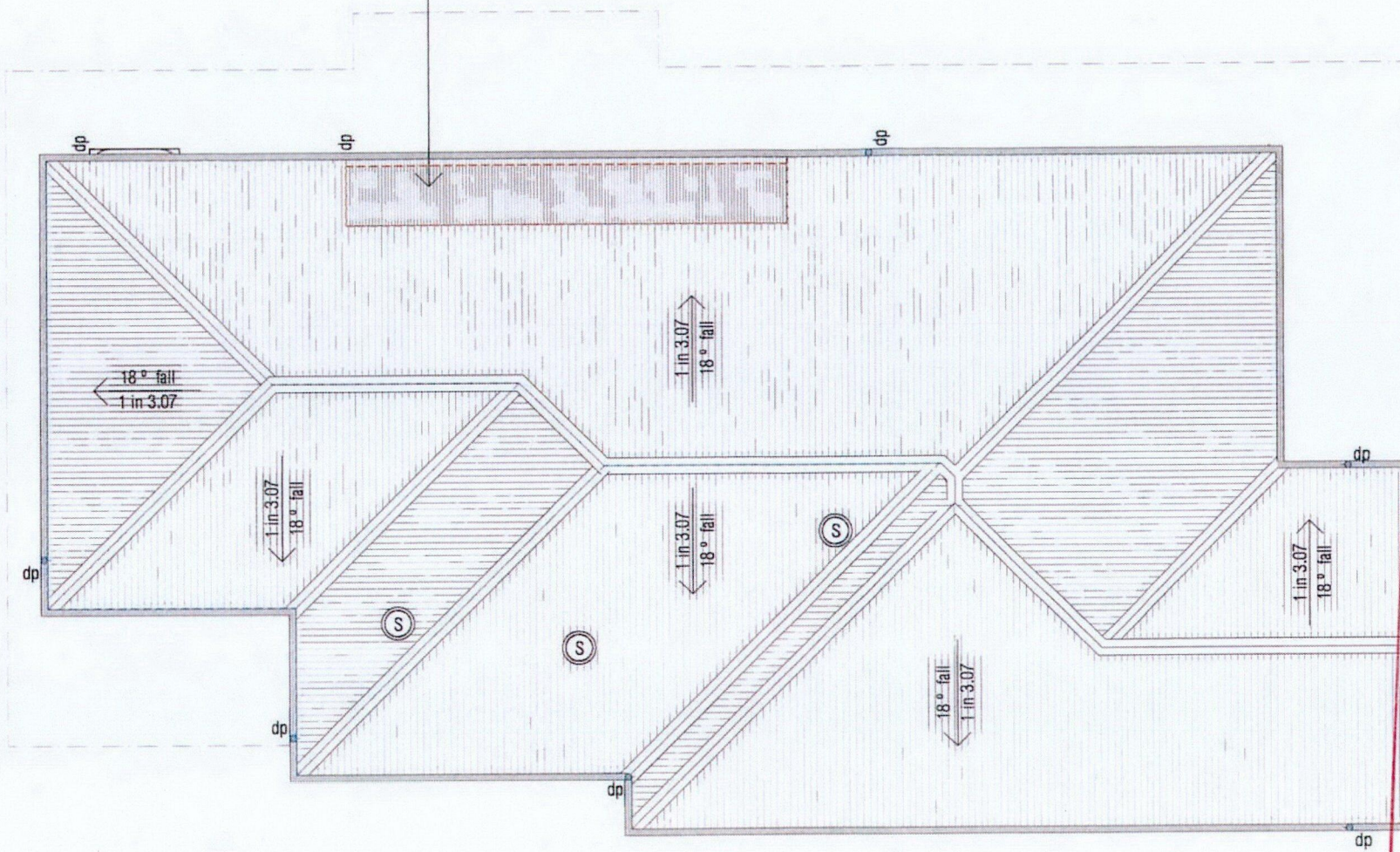
Accreditation No: **BPB 0027**

ILU - TYPE D1	
3 bed, 2 bath	
site area	
house area gfa (ext)	121.7 sqm
house area nfa (int)	109.7 sqm
Alfresco / deck	approx 25 sqm (varies)
garage	22.6sqm
GFA + Alf	169.3 sqm

glazing for ILU's: 01, 45, 48, 59 only. brickwork for ILU 57 only

full height glazing and gable roof (in red) for ILU's: 01, 45, 48, 59 only. hip roof and highlight glazing for ILU 57.

tinged polycarbonate roof sheet for solar access to
pos and living spaces.



01 ROOF PLAN

CITY PLAN SERVICES
 Construction Certificate No: 142440/2
 Approved Date: 21 May 2015
 Certifying Authority: Brendan Bennett
 Accreditation No: BPB 0027

ABSAS Association of Building Sustainability Assessors
Class 1 Buildings Multi-Dwelling Project Certification

Certification Number	1007229329
Certification Date	19/12/2014
Assessor Name	Robert Valades
Assessor Number	20102
Assessor Signature	<i>R Valades</i>

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS
 NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT.
 THIS APPROVAL DOES NOT AUTHORISE WORKS ON THE ADJACENT ROAD RESERVE OR ANY COUNCIL RESERVE.

notes
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project management
MORGAN MOORE
 ph: 02 9957 6188
 planner
DON FOX PLANNING
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 landscape architect
JOHN LOCK & ASSOCIATES
 ph: 02 9969 9866
 engineer (civil / hydraulic)
HENRY & HYMAS
 ph: 02 9417 8400

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 surry hills 2010
 ph: 02 9332 1211 f: 02 9332 1355
 e: info@environastudio.com.au
 architect's registration: 6239

project
ARV AT WARRIEWOOD BROOK

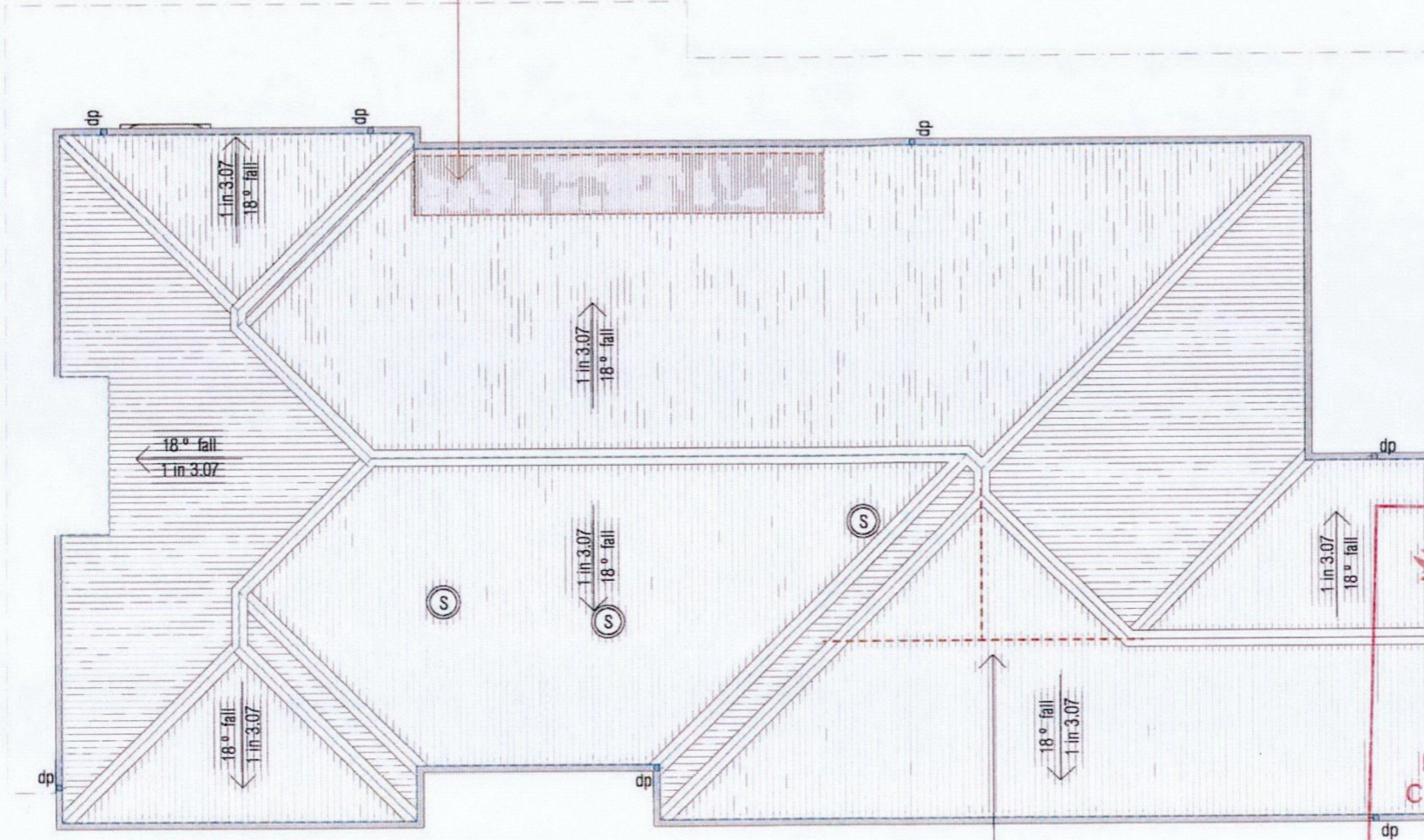
for/client
 ARV Villages

location
MACPHERSON STREET
 at
WARRIEWOOD BROOK

drawing
ROOF PLAN - TYPE C

stage	project no.	dwg no.	
CC	731	C102	
chkd	drwn	date	issue
TW	CK	18/12/14	F

tinted polycarbonate roof sheet for solar access to
pops and living spaces.



PITTWATER COUNCIL
**APPROVED DEVELOPMENT
 CONSENT PLANS**
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 WORKS ON THE PUBLIC ROAD RESERVE
 OR ANY COUNCIL RESERVE.

Cable roof (in red) for macpherson boundary
 ILU's and north loop road ILU's only (ILU's
 04, 06, 08, 36, 39, 42, 51, 54)
 hip roof for others.

01 ROOF PLAN

CITY PLAN SERVICES
 Construction Certificate No: 142440/2
 Approved Date: 21 May 2015
 Certifying Authority: Brendan Bennett
 Accreditation No: BPB 0027

ABSA Association of Building Sustainability Assessors
Class 1 Buildings Multi-Dwelling Project Certification

Certification Number	1007229329
Certification Date	19/12/2014
Assessor Name	Robert Valades
Assessor Number	20102
Assessor Signature	<i>R Valades</i>

notes
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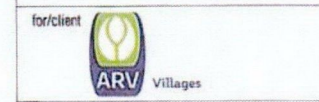
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E	29.10.14	AMENDED ISSUE FOR CERTIFIER: ILU type Ca.D1a amended for access. garage requirements. ILU 8/9/10/11 moved 410mm west.
F	18.12.14	S96 issue

NOTE:
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project management
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 landscape architect
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HENRY & HYMAS
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 e: info@environastudio.com.au
 architects registration: 6239

project
ARV AT WARRIEWOOD BROOK



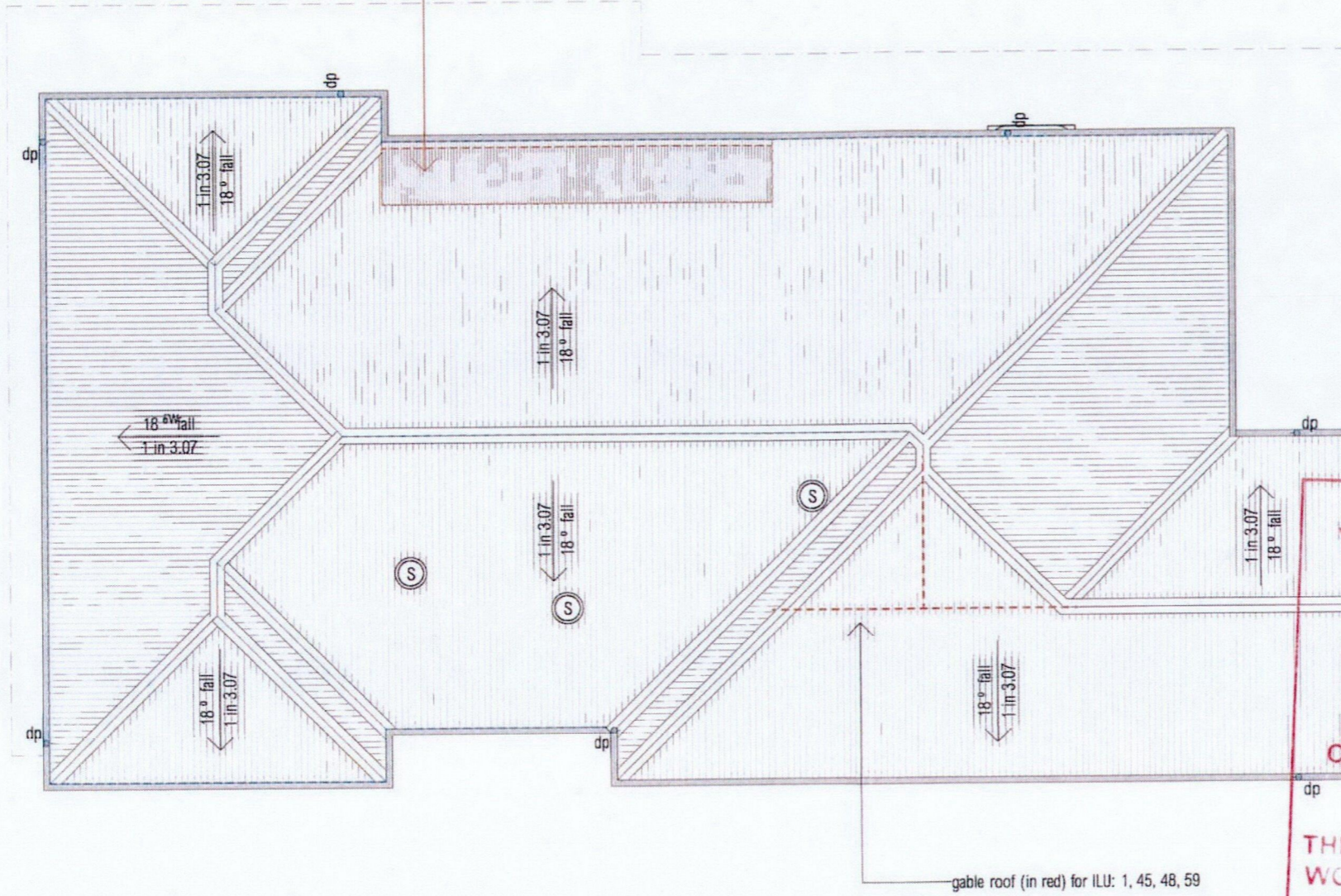
location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
ROOF PLAN - TYPE D

stage	project no.	dwg no.
CC	731	D102
chld	drwn	date
TW	CK	18/12/14
		issue
		F

tinted polycarbonate roof sheet for solar access to pos and living spaces.



PITTWATER COUNCIL
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01 ROOF PLAN

CITY PLAN SERVICES
 Construction Certificate No: 142440/2
 Approved Date: 21 May 2015
 Certifying Authority: Brendan Bennett
 Accreditation No: BPB 0027

ABSA Association of Building Sustainability Assessors
Class 1 Buildings Multi-Dwelling Project Certification

Certification Number	1007229329
Certification Date	19/12/2014
Assessor Name	Robert Valades
Assessor Number	20102
Assessor Signature	<i>R. Valades</i>

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F	18.12.14	S96 issue

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project management
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 planner
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 e: info@environastudio.com.au
 architects registration : 6239

project
ARV AT WARRIEWOOD BROOK

for/client
ARV Villages

location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
ROOF PLAN - TYPE D1

stage	project no.	dwg no.
CC	731	D1 102

chkd	drwn	date	issue
TW	CK	18/12/14	F

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.

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E	29.10.14	AMENDED ISSUE FOR CERTIFIER: ILLU type C.LD1a amended for access. garage requirements. ILLU 8/9/10/11 moved 410mm west.
F	15.01.15	S96: elevations requested by council

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 architects registration: 6239

project
 ARV AT WARRIEWOOD BROOK

for/client

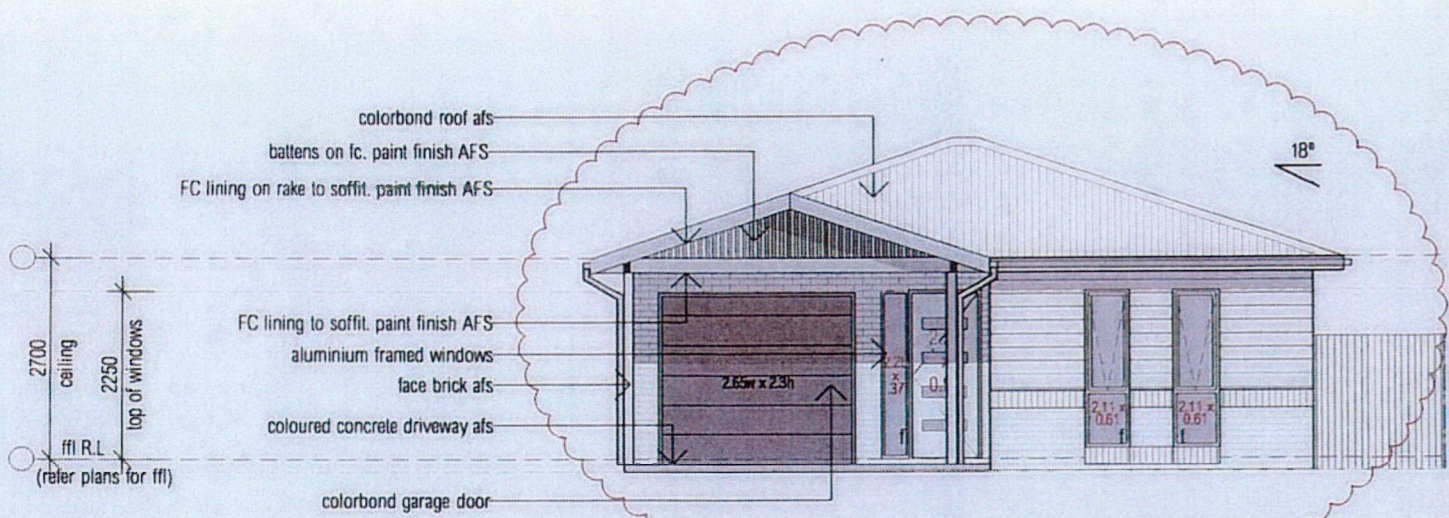

location
 MACPHERSON STREET

at
 WARRIEWOOD BROOK

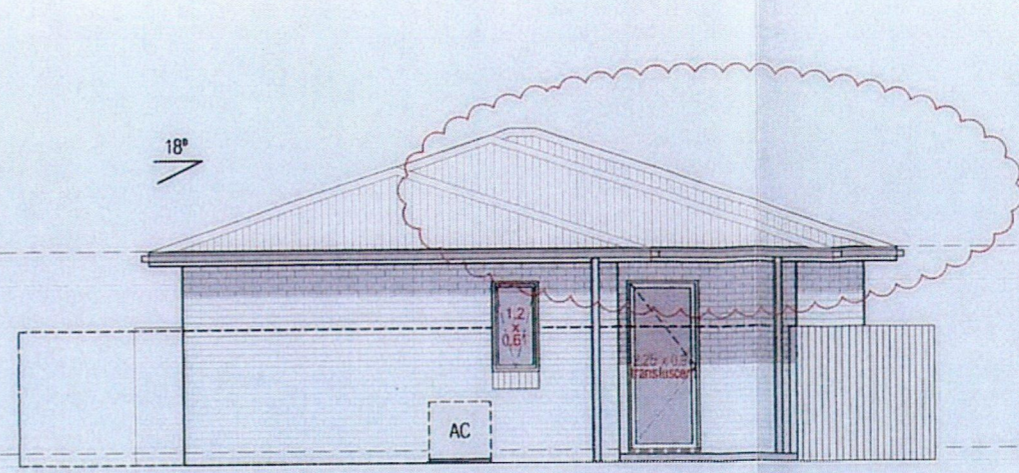
drawing
 ELEVATIONS - TYPE C

stage	project no.	dwg no.
S96	731	C103

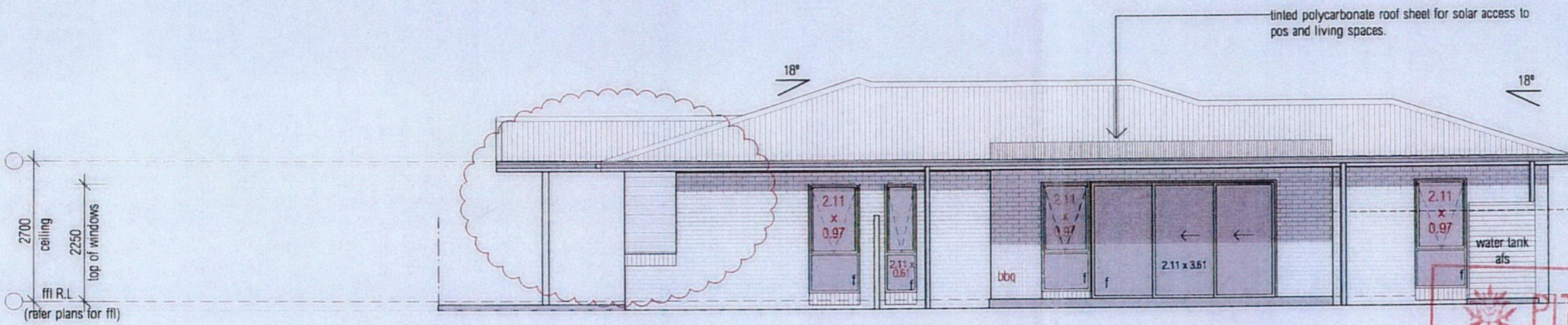
chkd	drwn	date	issue
TW	CK	19/12/14	F



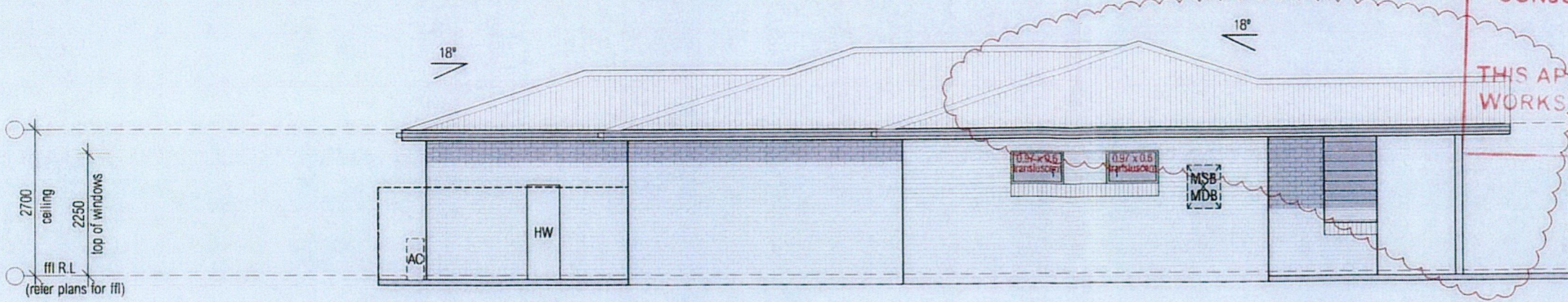
• STREET ELEVATION
 • 1:100 @ A3



• REAR ELEVATION
 • 1:100 @ A3



• COURTYARD ELEVATION
 • 1:100 @ A3



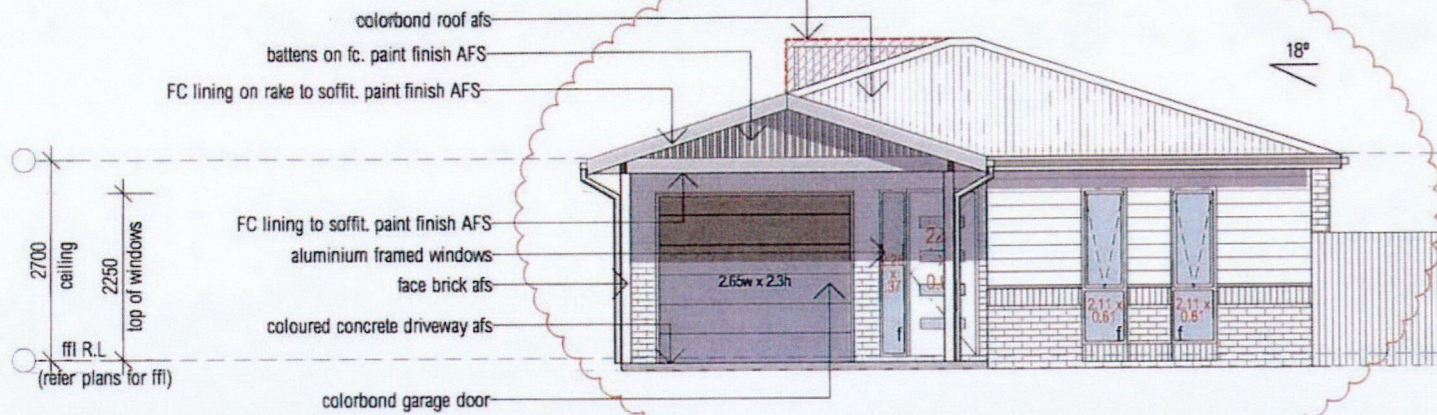
• SIDE ELEVATION
 • 1:100 @ A3

PITTWATER COUNCIL
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dutch gable roof for ILU's: 04, 06, 08, 36, 39, 42, 51, 54 only. hip roof for others.

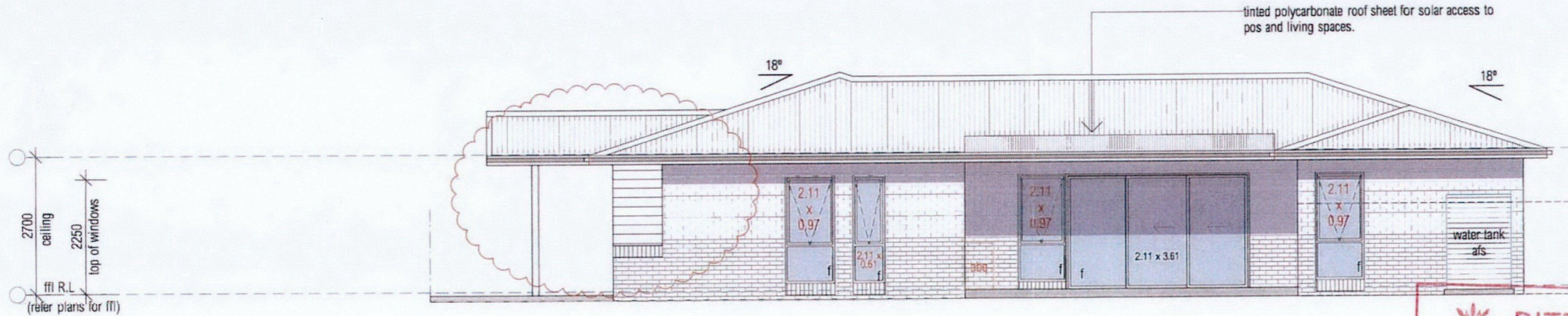
dutch gable roof for ILU's: 04, 06, 08, 36, 39, 42, 51, 54 only. hip roof for others.



STREET ELEVATION
1:100 @ A3



REAR ELEVATION
1:100 @ A3

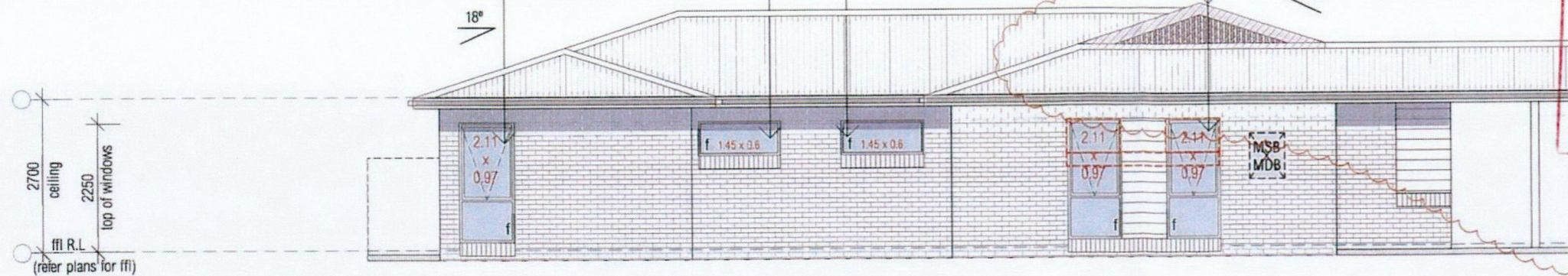


COURTYARD ELEVATION
1:100 @ A3

glazing for ILU's: 04, 06, 08, 36, 39, 42, 51, 54 only. Brickwork for others.

glazing for ILU's: 04, 06, 08, 36, 39, 42, 51, 54 only. brickwork for others.

full height glazing and dutch gable roof for ILU's: 04, 06, 08, 36, 39, 42, 51, 54 only. hip roof and highlight glazing for others. (shown dotted)



SIDE ELEVATION
1:100 @ A3

PITTWATER COUNCIL

APPROVED DEVELOPMENT CONSENT PLANS

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E	29.10.14	AMENDED ISSUE FOR CERTIFIER: ILU type Ca.D1a amended for access garage requirements. ILU 8/9/10/11 moved 410mm west.
F	15.01.15	S96: elevations requested by council

NOTE:	
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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 19/151 foveaux St surry hills 2010 t: 02 9332 1211 f: 02 9332 1355 e: info@environastudio.com.au architects registration : 6239
project ARV AT WARRIEWOOD BROOK
location MACPHERSON STREET WARRIEWOOD BROOK
client ARV Villages
drawing ELEVATIONS - TYPE D
stage S96
project no. 731
dwg no. D103
chkd TW
drwn CK
date 19/12/14
issue F

rev	date	amendment
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project
 ARV AT WARRIWOOD BROOK

client


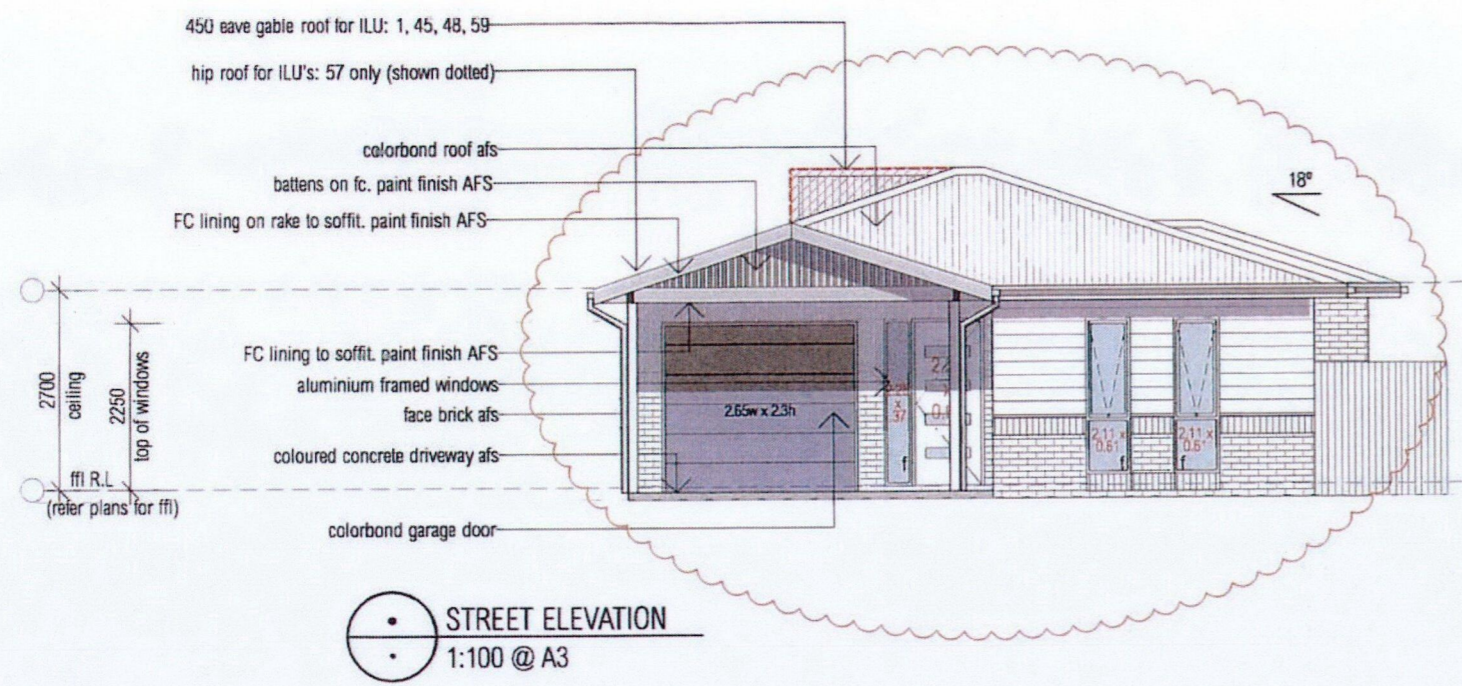
location
 MACPHERSON STREET

at
 WARRIWOOD BROOK

drawing
 ELEVATIONS - TYPE D1

stage	project no.	dwg no.
S96	731	D1 103

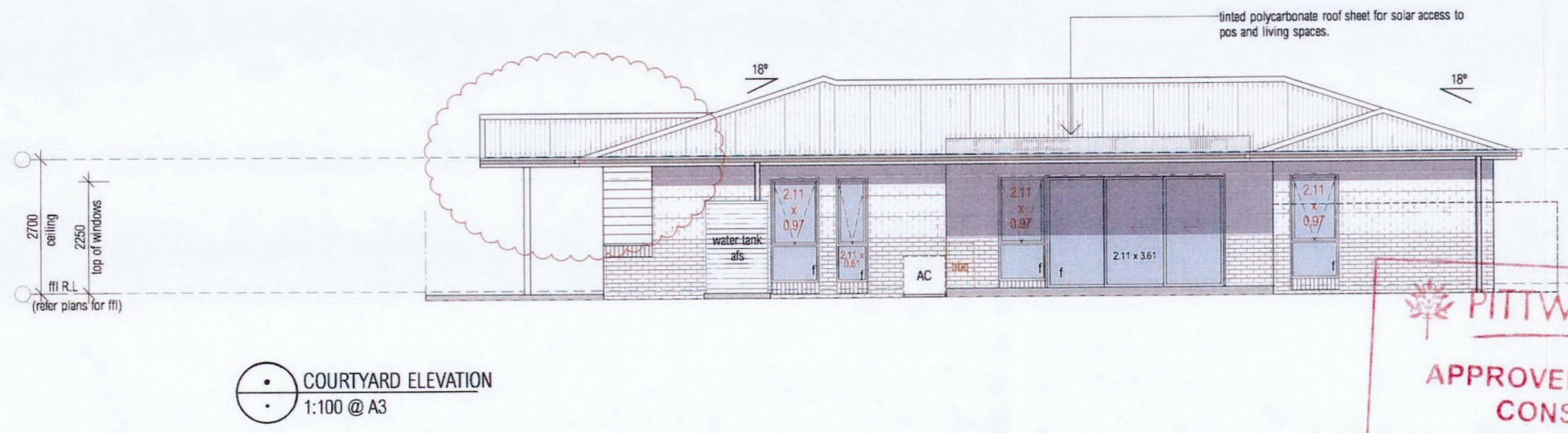
chkd	drwn	date	issue
TW	CK	19/12/14	F



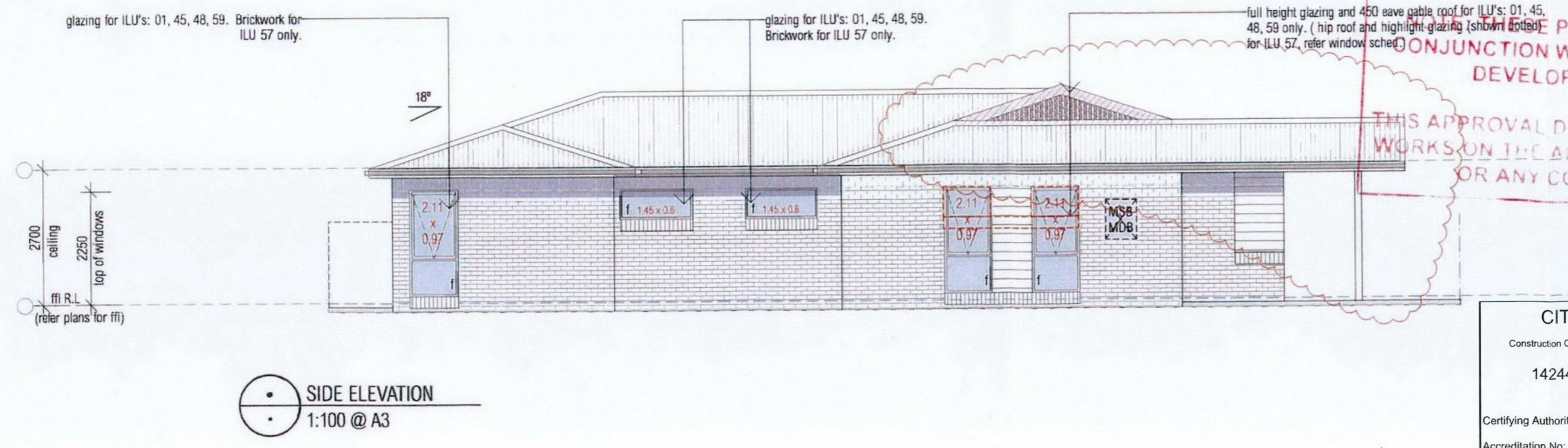
• STREET ELEVATION
 • 1:100 @ A3



• REAR ELEVATION
 • 1:100 @ A3



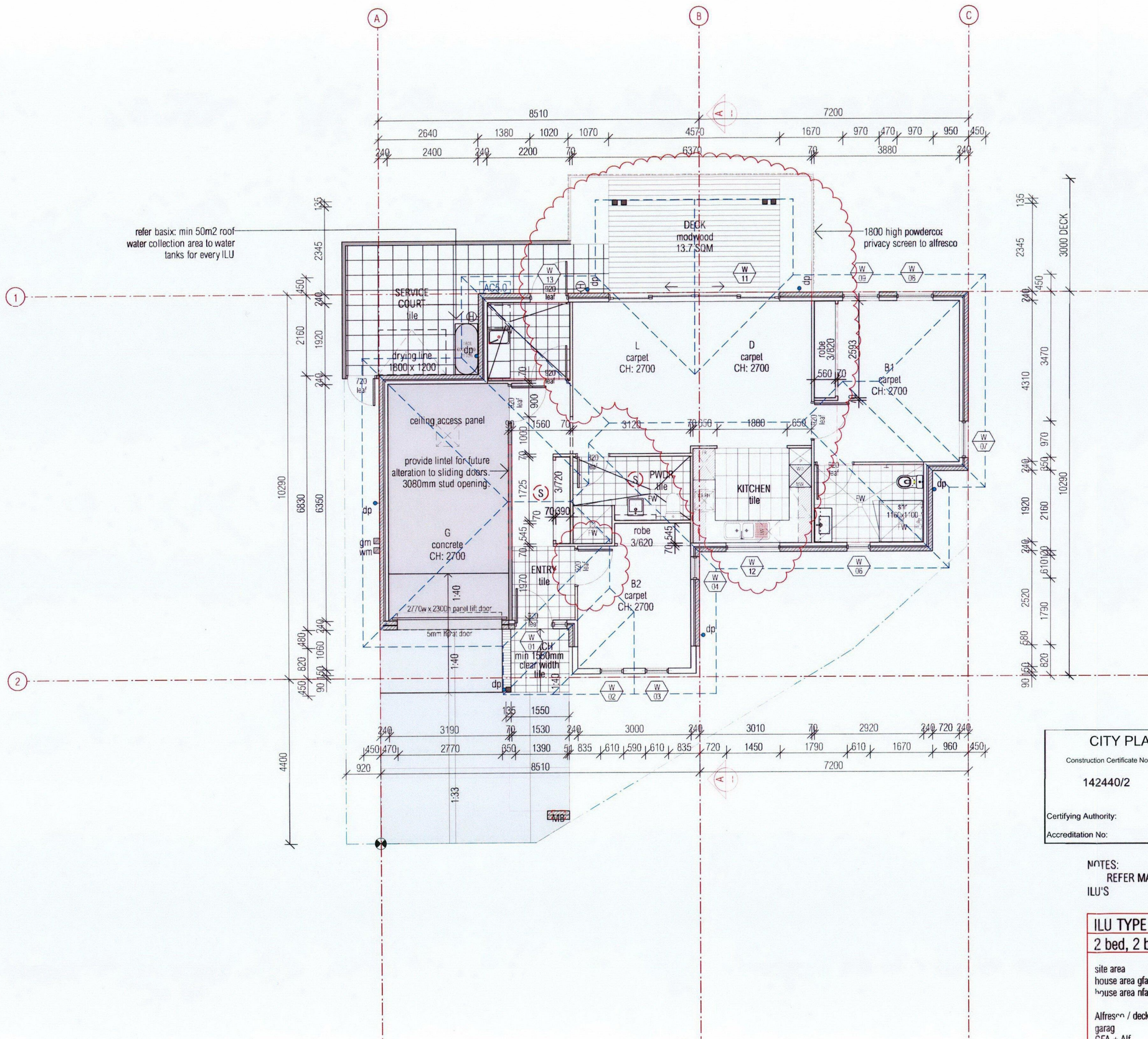
• COURTYARD ELEVATION
 • 1:100 @ A3



• SIDE ELEVATION
 • 1:100 @ A3

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS
 THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT.
 THIS APPROVAL DOES NOT AUTHORISE ANY WORKS ON THE ADJACENT ROAD RESERVE OR ANY COUNCIL RESERVE.

CITY PLAN SERVICES
 Construction Certificate No: 142440/2
 Approved Date: 21 May 2015
 Certifying Authority: Brendan Bennett
 Accreditation No: BPB 0027



notes
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rev	date	amendment
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P	14.05.15	issue to include: changes internally to ILU's change to type S2 plan / windows change to kitchen ILU type A and B increase to alfresco deck type A / S2 Zero eave reinstated to ILU 30 electrical changes: extra tv points and gpo's to bed and 3, extra tv points to living rooms extra gpo to laundry.

NOTE:
1. FOR ALL BASIX/SECTION 1 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
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DON FOX PLANNING
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landscape architect
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architects registration 1239

CITY PLAN SERVICES
Construction Certificate No: 142440/2 Approved Date: 21 May 2015
Certifying Authority: Brendan Bennett
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NOTES:
REFER MASTERPLAN FOR FFL RL'S O ILU'S

ILU TYPE S2	
2 bed, 2 bath	
site area	
house area gfa (ext)	99.7 sqm
house area nfa (int)	90.5sqm
Alfresco / deck	10.7 sqm
garage	23.5sqm
GFA + Alf	133.9 sqm

project
ARV AT WARRIEWOOD BROOK

for/client

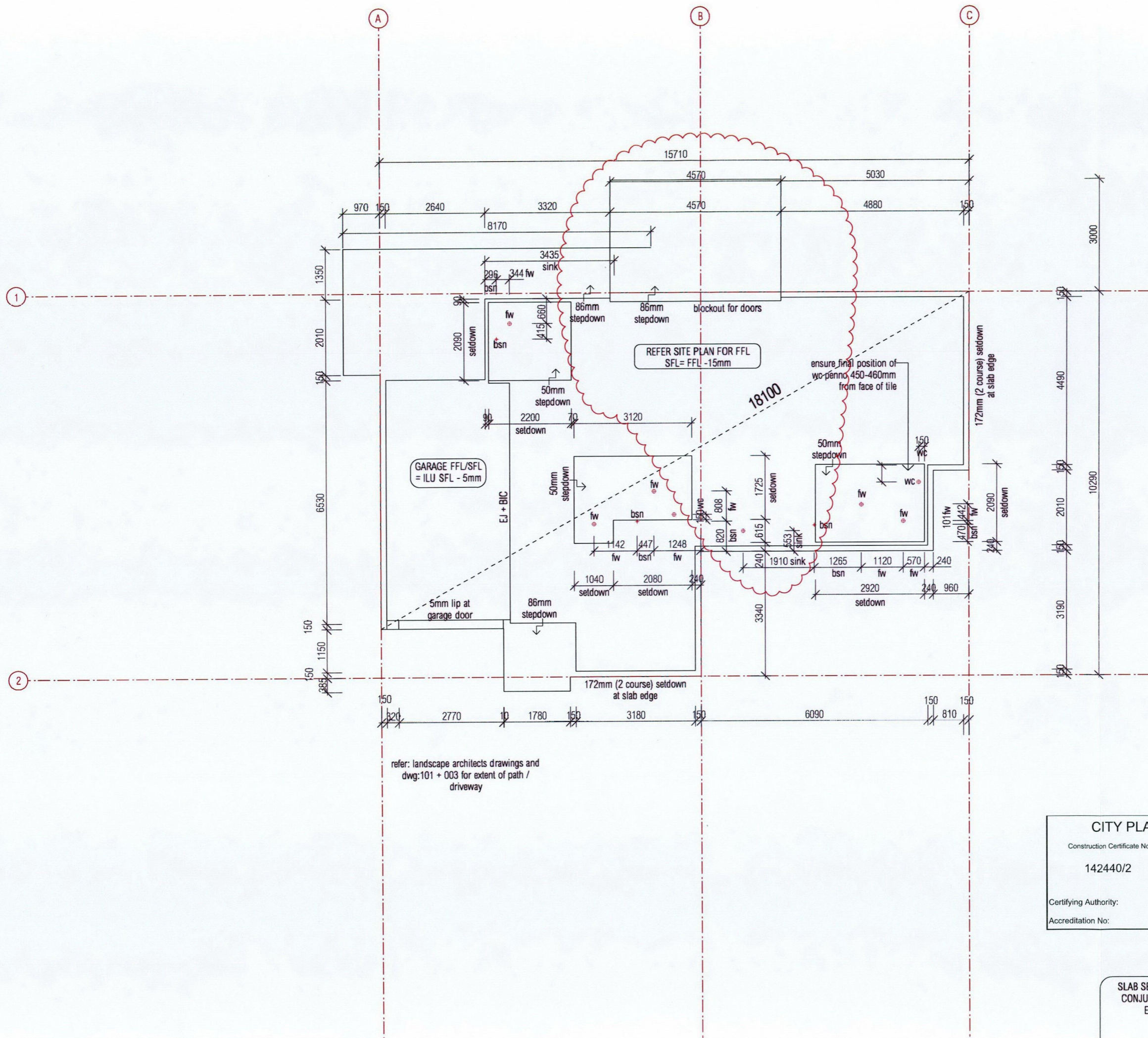
location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
LU TYPE S2

stage	project no.	dwg no.
CC	731	S2 101

chkd	drwn	date	issue
TW	CK	14/05/15	P



refer: landscape architects drawings and
 dwg:101 + 003 for extent of path /
 driveway

CITY PLAN SERVICES

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SLAB SETOUT PLANS TO BE READ IN
 CONJUNCTION WITH STRUCTURAL
 ENGINEERS DRAWINGS

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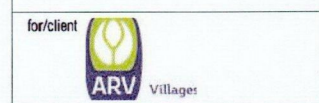
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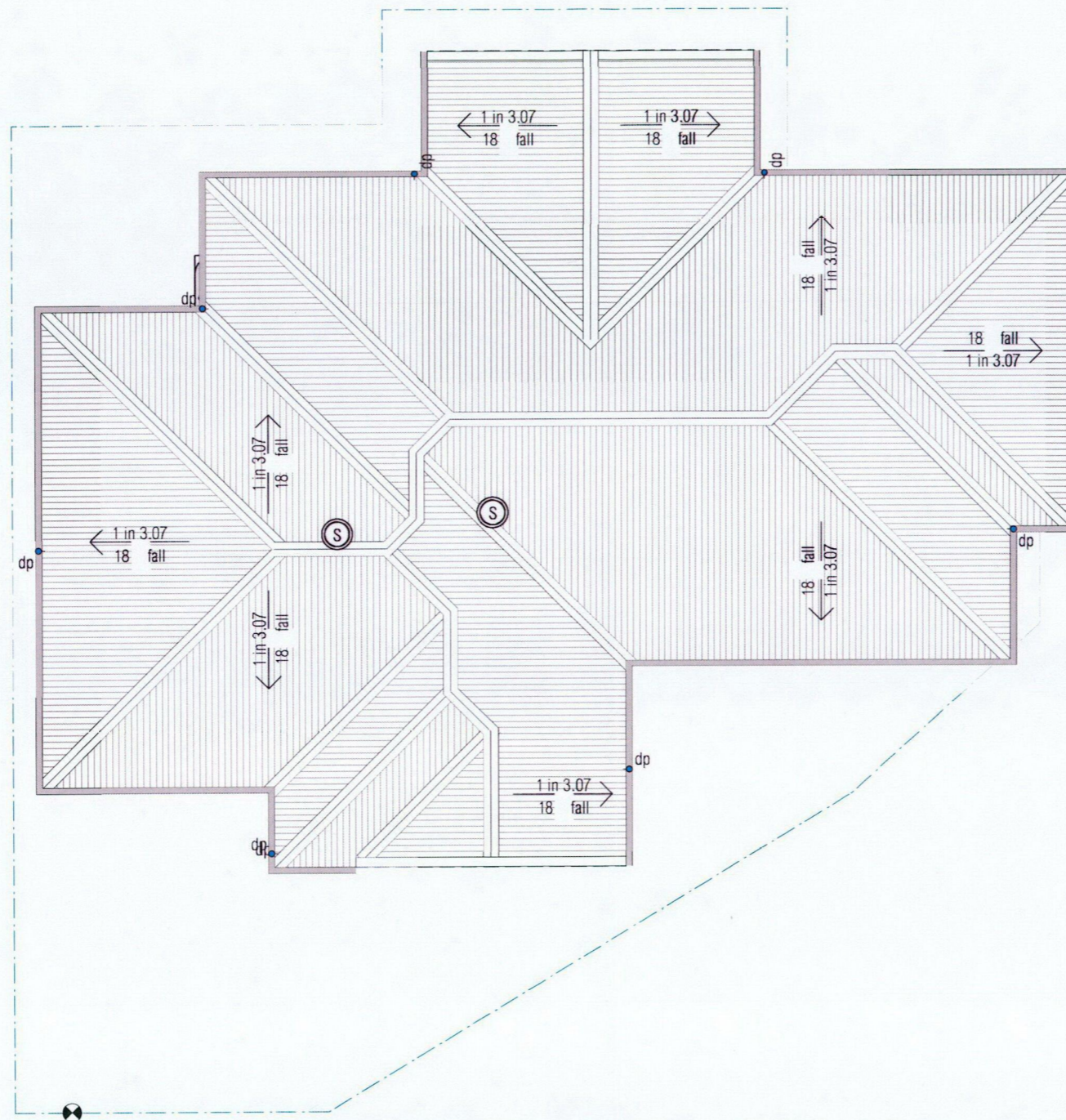


location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
SLAB SETOUT PLAN: ILU TYPE S2

stage	project no.	dwg no.	
CC	731	S2101	
chkd	drwn	date	issue
TW	CK	14/05/15	P



01 ROOF PLAN

notes

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 architects registration 1239

project
ARV AT WARRIEWOOD BROOK



location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
'LAN - TYPE S2

CITY PLAN SERVICES

Construction Certificate No: 142440/2 Approved Date: 21 May 2015

Certifying Authority: Brendan Bennett Accreditation No: BPB 0027

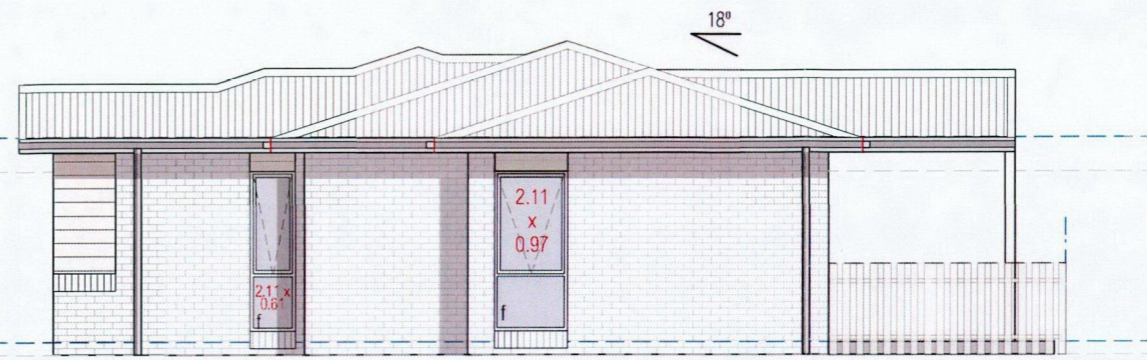
stage	project no.	dwg no.	
CC	731	S2 102	
chkd	drwn	date	issue
TW	CK	14/05/15	P

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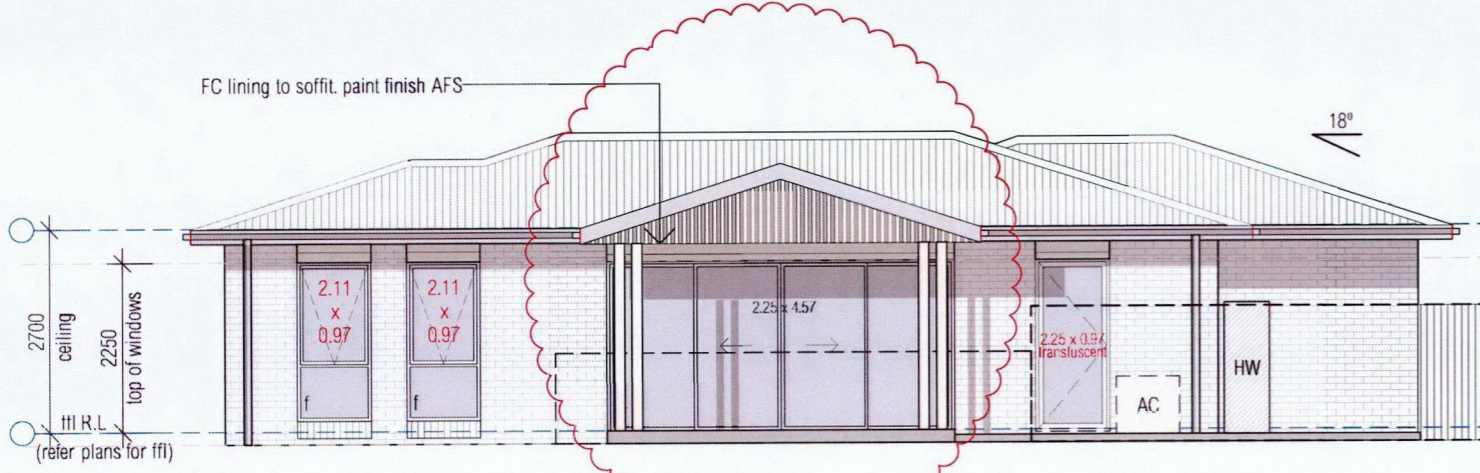
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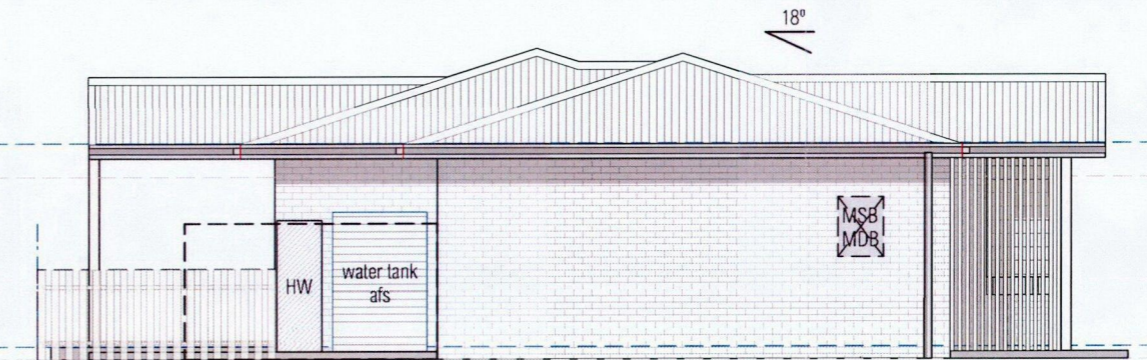
● STREET ELEVATION - SOUTH
● 1:100 @ A3



● STREET ELEVATION - EAST
● 1:100 @ A3



● REAR ELEVATION - NORTH
● 1:100 @ A3



● SIDE ELEVATION - WEST
● 1:100 @ A3

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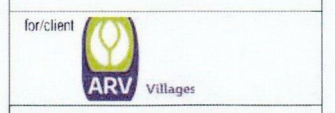
landscape architect
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project
ARV AT WARRIEWOOD BROOK

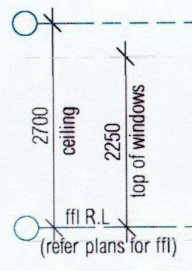


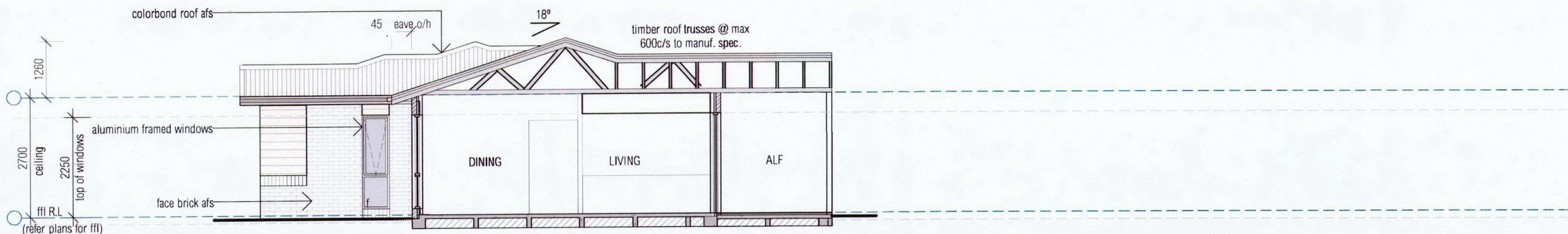
location
MACPHERSON STREET

at
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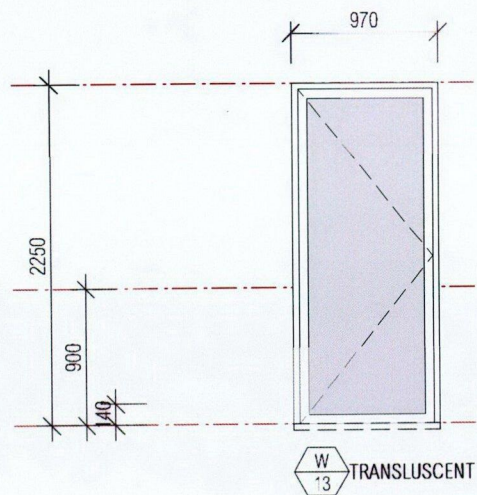
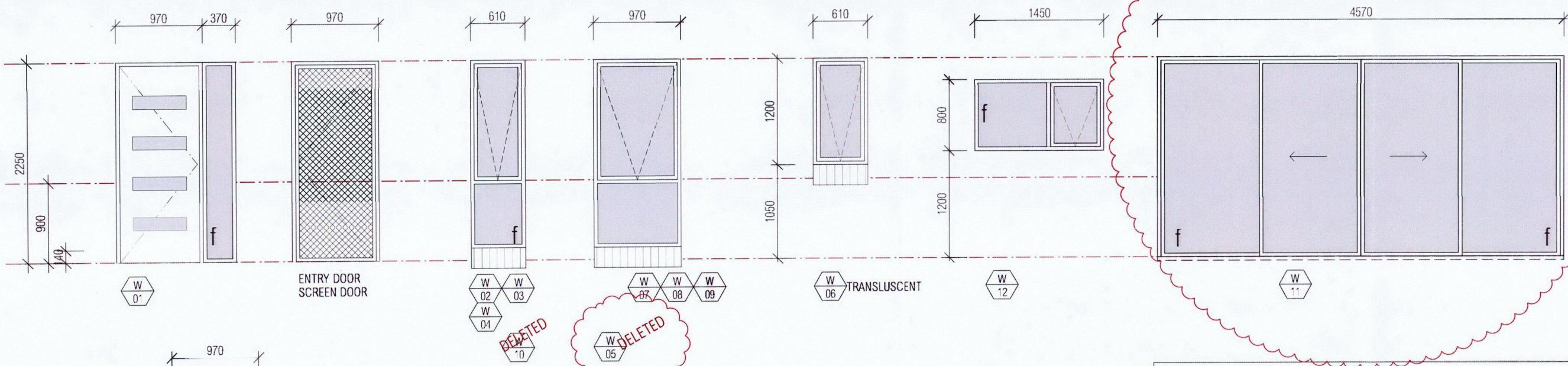
drawing
IONS - TYPE S2

stage	project no.	dwg no.	
CC	731	S2 103	
chk'd	drwn	date	issue
TW	CK	14/05/15	P





● STREET ELEVATION - SOUTH
● 1:100 @ A3



● WINDOW SCHEDULE
● 1:50 @ A3

WINDOW SPECIFICATION:

Windows + Doors: Vantage Magnum profile series
 All aluminium frames to be powdercoat finish, colour as per schedules
 Fit with minimum C1 FAR 6.38 laminated glass Unless Noted Otherwise or as required by Australian Standard
Handles: Colour matched finish. keyed alike to front door: colour as per schedule
Locks: Colour matched finish. keyed alike to front door: colour as per schedules
Windows: Colour matched finish. keyed locks to all: colour as per schedules
Windows: (awning) centre lock: colour as per schedules
 translucent doors as labeled: aluminium frame and sash with translucent glazing
 vantage narrow backset lever handle. keyed alike to front and sliding doors
 Aluminium flywire screens to be installed over all operable windows.
 All glazing to be clear unless otherwise noted.

CONSTRUCTION REQUIREMENTS:
 all ilu's and community room to be constructed to compl with section 5 (BA1 12.5) Australia Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" and section A3. Addendum Appendix 3 to "Planning for Bush Fire Protection 2006".
 (REFER DRAWING SCHEDULE NUMBER 920 AND DA CONDITION B25;)

NOTE
 TRANSLUCENT GLAZING TO ALL WET AREA: - BATH, ENSUITE, LAUNDRY
 WINDOW POSITIONS ARE FROM EXTERIOR OF BUILDING
 BRICK OPENINGS ANNOTATED ON WINDOWS AND DOORS ALL DIMENSIONS AND OPENINGS TO BE CHECKED ON SITE PRIOR TO MANUFACTURE

DIMENSIONS ARE BRICK OPENINGS OF BUILDING

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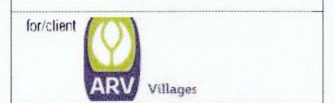
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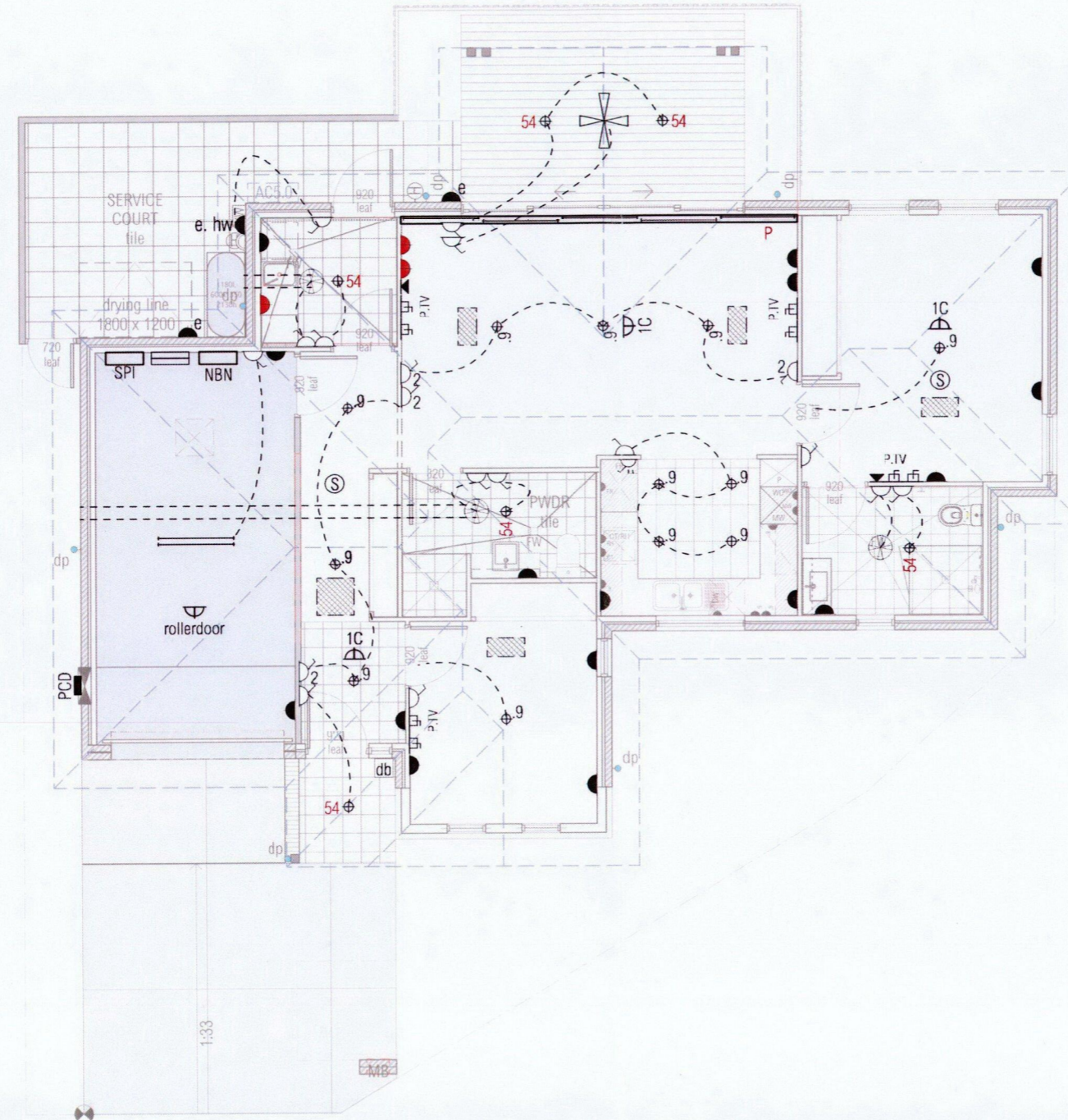


location
MACPHERSON STREET

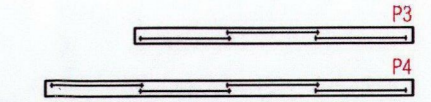
at
WARRIEWOOD BROOK

drawing
NS
WINDOW SCHEDULE - ILU TYPE S2

stage	project no.	dwg no.	
CC	731	S2 104	
chkd	drwn	date	issue
TW	CK	14/05/15	P



NOTE: dimmable LED strip lighting to pelmets



LEGEND

- GPO (single outlet)
- double GPO (600mm AFFL U.N.O.)
- external GPO (600mm AFFL U.N.O.)
- GPO(ceiling void)-future boost lighting
- light switch
- light switch - two way
- light switch with dimmer
- light switch with exhaust fan switch
- surface mount oyster
- (ip54) downlight
- surface mount oyster
- recessed LED (white)
- NBN Co. PCD device
- NBN panel (wall mounted)
- Solar Panel Inverter (wall mounted)
- T5 fluorescent
- wall mount uplight
- ceiling fan - refer spec
- (ip54) wall light
- recessed wall light
- ext. floodlight, swivel mount
- ducted skirting
- phone point
- MATV outlet
- pay TV outlet
- smoke detector / alarm
- exhaust fan, ducted to exterior.
- heat / fan / light
- 12 volt garden light
- wall mounted AC unit TBA
- thermostat floorheat
- gas point
- movement sensor
- exit light
- intercom
- doorbell 900mm - 1100mm affl
- main switch board + circuit breakers
- main switch board
- communication switchboard
- emergency call button

* ALL LIGHT FITTINGS SUBJECT TO CONFIRMATION BY ELECTRICAL ENGINEER O COMPLIANCE WITH SENIORS LIVING REQUIREMENTS DUCTED AIR CONDITIONING TO ALL ILU'S

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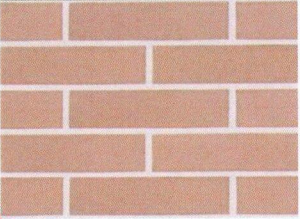
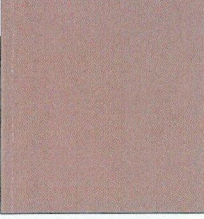
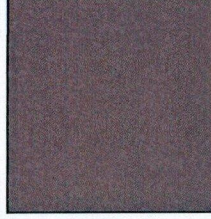
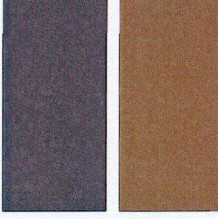
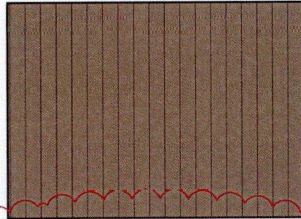
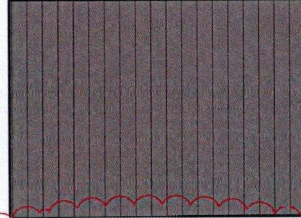
location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
ICAL - ILU TYPE S2

stage	project no.	dwg no.
CC	731	S2 105

chkd	drwn	date	issue
TW	CK	14/05/15	P

	1. ROOF SHEET	2. FACE BRICKWORK	3. WALLS (moroka)	4. CLADDING	5. WINDOWS	6. GUTTERS DOWNPIPES + FASCIA / FLASHING / POSTS	7. GARAGE DOOR	8. FRONT DOOR
ILU SCHEME 1	colorbond custom-orb  colorbond custom-orb roof "gully" [colorbond]	face brickwork  escura smooth face - "pearl grey" [boral bricks]	acrylic moroka finish  "army issue" [dulux] P15.B5	hardies 'linea'  "apparition" [dulux] P16.B2	aluminium. powdercoat  "dune" [AWS windows]	colorbond  "gully" [colorbond]	colorbond  "gully" [colorbond]	timber framed  #1: "drive time" PG1.A6 #2: "army issue" [dulux] P15.B5
ILU SCHEME 2	colorbond custom-orb roof  "jasper" [colorbond]	escura smooth face- "mineral" [boral bricks]	"buff hide" [dulux] p15.C4	"apparition" [dulux] P16.B2	"dune" [AWS windows]	"jasper" [colorbond]	"jasper" [colorbond]	#1: "katmandu" P16.D6 #2: "buff hide" P15.C4 [dulux]
ILU SCHEME 3	colorbond custom-orb roof  "bushland" [colorbond]	escura smooth face- "jute" [boral bricks]	"paving stone" [dulux] P15.A3	"apparition" [dulux] P16.B2	"dune" [AWS windows]	"bushland" [colorbond]	"bushland" [colorbond]	#1: "viridis" P62.D4 [dulux] #2: "paving stone" [dulux] P15.A3
COMMUNITY ROOM + GATEHOUSES / mdb cupboards gatehouse / ILU mailboxes	colorbond custom-orb roof  "gully" [colorbond]	escura smooth face- "jute" [boral bricks]	"army issue" [dulux] P15.B5	"apparition" [dulux] P16.B2	"dune" [AWS windows]	"gully" [colorbond]		

COMMON ILU FINISHES	TILES (internal)	TILES (external)	coloured concrete	keystone retaining walls
				
	"deep taupe" [SKEME] matt	"deep taupe" [SKEME] textured	CCS COLOUR "grasshopper" grey cement	"almond" flush face

MATERIAL BOARD

CITY PLAN SERVICES	
Construction Certificate No:	Approved Date:
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all work to be carried out in accordance with bca, 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.

rev	date	amendment
N	24.04.15	Re-documentation to capture all ILU variations in windows and roof form. reissue drawings as N for clarity. <ul style="list-style-type: none"> • lightweight cladding to replace brickwork above windows and doors • flat soffit to all carports. flat soffit alfresco type A/B. • ILU 30 moved 400mm east • garbage store / mailbox change • intercoms deleted
P	14.05.15	issue to include: changes internally to ILU's change to type S2 plan / windows change to kitchen ILU type A and B increase to alfresco deck type A / S2 Zero eave reinstated to ILU 30 electrical changes: extra tv points and gpo's to bed and 3. extra tv points to living rooms extra gpo to laundry.

NOTE:
 1. FOR ALL BASIS/SECTION 1 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

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project
ARV AT WARRIEWOOD BROOK

for/client


location
MACPHERSON STREET

at
WARRIEWOOD BROOK

drawing
ALS / FINISHES SCHEDULE

stage	project no.	dwg no.
CC	731	006

chkd	drwn	date	issue
TW	CK	14/05/15	P